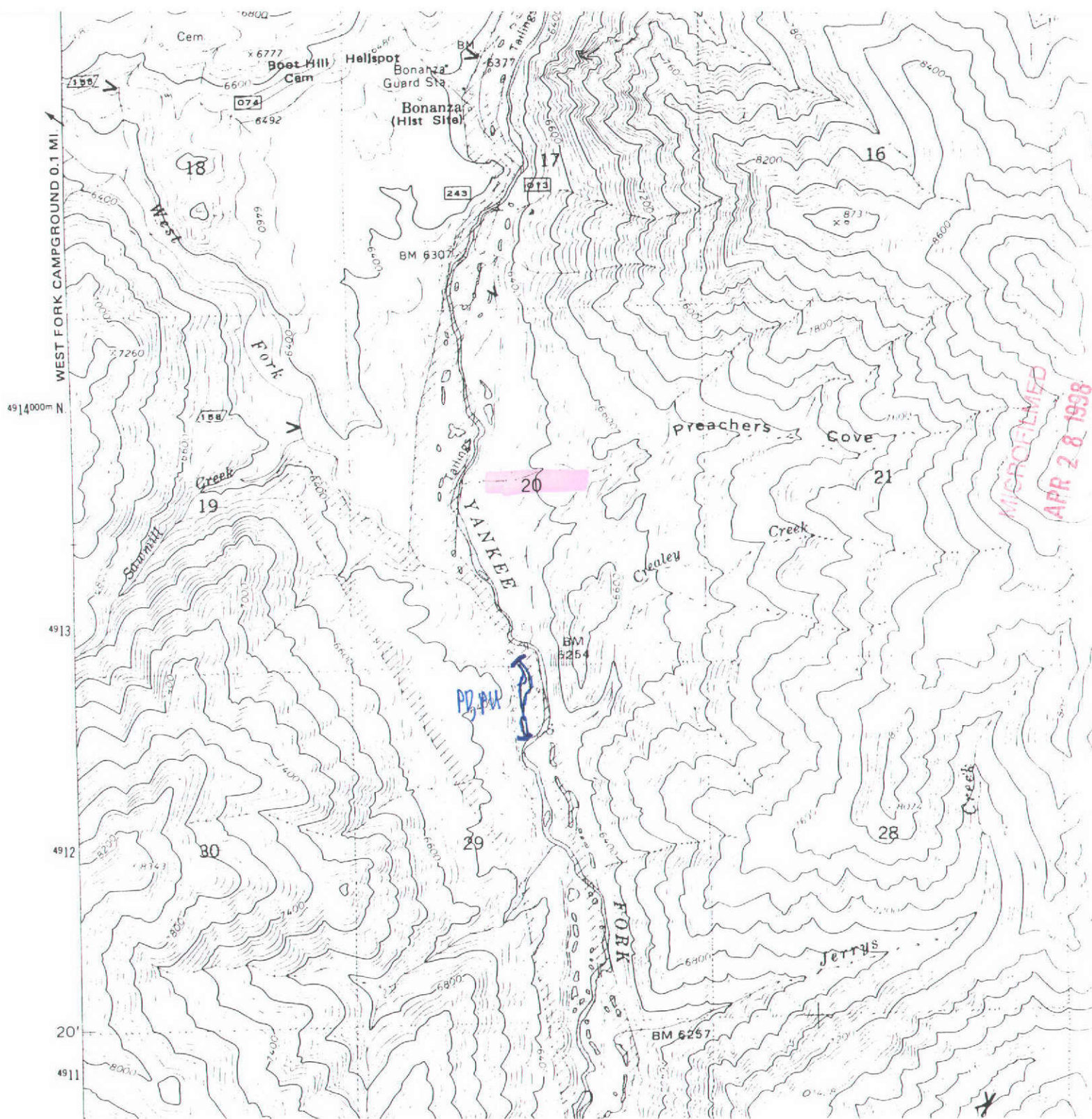


12N-15E-S20



72-9399



P/D & P/U



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APR 28 1998

AFFIDAVIT OF PUBLICATION

State of Idaho, County of Custer, ss:

I, Margaret Parks
Publisher of the Challis Messenger,
a weekly newspaper, published at
Challis, Idaho, do solemnly swear
that the notice hereto attached and
made a part hereof, was published
in the regular and entire issue of
the Challis Messenger for 2

consecutive weeks, commencing with
the issue dated July 16
1987 and ending with the issued
dated July 23 1987.

Margaret Parks
Subscribed and sworn to before
me this 28th day of July
1987.

Edith M. Beck
Notary Public, residing at Challis,
Idaho. My commission expires on

3-21-92

NOTICE OF APPLICATION FOR WATER RIGHT

The following application (s)
have been filed to appropriate the
public waters of the State of Idaho:

72-7399

SIMPLOT COMPANY, J.R.

P.O. BOX 27, BOISE, ID 83707

Source: GROUNDWATER
YANKEE FORK trib. to SALMON
RIVER

Diversion Pt.: SESESW Sec 20 T
12N R 15E; Mouth of Preacher's
Cove Creek

Use: RECREATION (5.0 CFS)

Date Filed: 05/28/1987

In: SESW Sec 20 T 12N R 15E
NWNE NENW Sec 29 T 12N R 15E

The permit (s) will be subject to
all prior water rights. Protests
must be filed with the Director,
Dept. of Water Resources,
Southern Region, 2148 Fourth
Avenue East, Twin Falls, Idaho
83301 on or before August 3, 1987.

KEN DUNN, Director

Published: July 16 & 23, 1987.

OK
MB
8/3/87

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JUL 30 1987

Department of Water Resources
Southern Region Office

MAILED

OCT 05 1988

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Salmon River Habitat Enhancement Project, Yankee Fork Salmon River

Photographs taken August, 1995



Pond Series No. 1 - Check Structure No. 1



Pond Series No. 1 - Check Structure No. 2

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**Salmon River Habitat Enhancement Project, Yankee Fork Salmon
River**

Photographs taken August, 1995



Pond Series No. 1 - Check Structure No. 3



Pond Series No. 3 - Check Structure No. 1

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Salmon River Habitat Enhancement Project, Yankee Fork Salmon River

Photographs taken August, 1995



Pond Series No. 3 - Check Structure No. 2



Pond Series No. 3 - Check Structure No. 3

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**Salmon River Habitat Enhancement Project, Yankee Fork Salmon
River**

Photographs taken August, 1995



Pond Series No. 4 - Inlet Structure



Pond Series No. 4 - Check Structure No. 1

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Chapter 1

PROPOSAL AND BACKGROUND

1.1 DESCRIPTION OF THE PROPOSED ACTION

The Yankee Fork of the Salmon River, located in Custer County, Idaho historically supported large runs of anadromous salmonids, primarily spring chinook salmon (Oncorhynchus tshawytscha) and steelhead trout (Salmo gairdneri). These runs have been reduced in the last 20 years due to localized mining activities and downstream hydroelectric developments. Dredge mining activities have rechannelized lower portions of the Yankee Fork leaving stream-side deposits of unconsolidated dredge spoils (Figure 1). The



Figure 1. View of the Dredged Section of the Yankee Fork showing the dredge piles which border its banks.

Chapter 1

PROPOSAL AND BACKGROUND

1.1 DESCRIPTION OF THE PROPOSED ACTION

The Yankee Fork of the Salmon River, located in Custer County, Idaho historically supported large runs of anadromous salmonids, primarily spring chinook salmon (Oncorhynchus tshawytscha) and steelhead trout (Salmo gairdneri). These runs have been reduced in the last 20 years due to localized mining activities and downstream hydroelectric developments. Dredge mining activities have rechannelized lower portions of the Yankee Fork leaving stream-side deposits of unconsolidated dredge spoils (Figure 1). The



Figure 1. View of the Dredged Section of the Yankee Fork showing the dredge piles which border its banks.

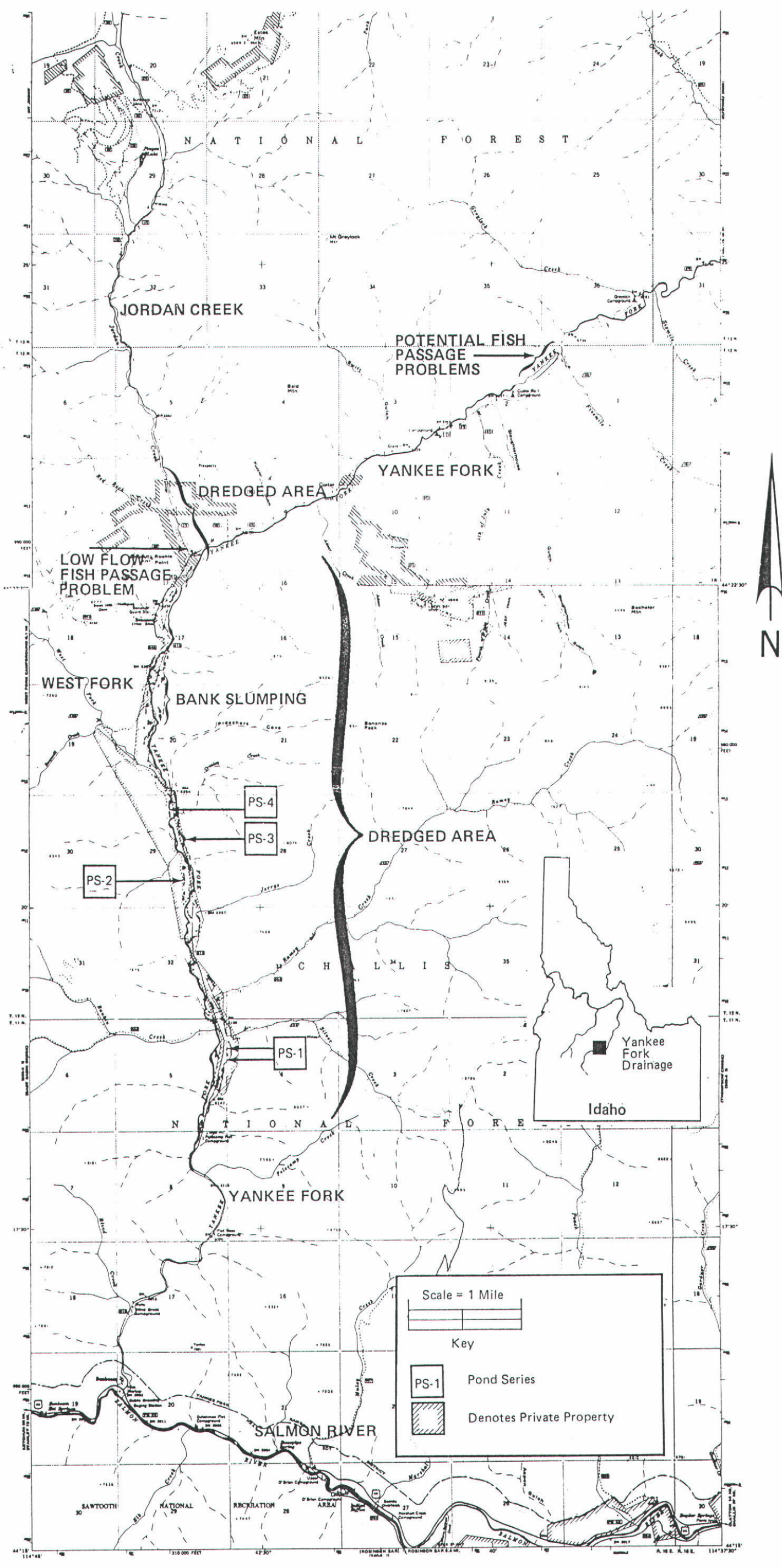


Figure 2 Location Map of the Yankee Fork

State of Idaho
Department of Water Resources
Water Right License
WATER RIGHT NO. 72-07399

Priority: May 28, 1987

Maximum Diversion Rate:

0.80 CFS

Maximum Diversion Volume:

578.0 AF

This is to certify, that J R SIMPLOT CO

PO BOX 27

BOISE ID 83707

has complied with the terms and conditions

of the permit, issued pursuant to Application for Permit dated May 28, 1987; and has submitted Proof of Beneficial Use on July 31, 1991. An examination indicates that the works have a diversion capacity of 0.800 cfs of water from a **GROUNDWATER** source, and a water right has been established as follows:

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>RATE OF DIVERSION</u>	<u>ANNUAL VOLUME</u>
WILDLIFE	01/01 to 12/31	0.80 CFS	578.0 AF

LOCATION OF POINT(S) OF DIVERSION:

SESW , Sec. 20, Township 12N, Range 15E
NENW , Sec. 29, Township 12N, Range 15E
CUSTER County

PLACE OF USE: WILDLIFE

TWN RGE SEC

12N 15E 20

SESW

29

NWNE

NENW

CONDITIONS OF APPROVAL AND REMARKS

1. The maximum diversion volume is defined as the maximum allowable volume of water that may be diverted annually from the source under this right. The use of water confirmed by this right is limited to the amount which can actually be beneficially used. The maximum diversion volume may be adjusted to more accurately describe the beneficial use or to implement accepted standards of diversion and use efficiency.
2. This water right is appurtenant to the described place of use.
3. This right is subject to all prior water rights and may be forfeited by five years of non-use.
4. Modifications to or variance from this license shall be made within the limits of Section 42-222, Idaho Code, or the applicable Idaho law.
5. Use of water under this right shall be non-consumptive.
6. Two points of diversion are located within NENW, S29, T12N, R15E.
7. This right is subject to the agreement dated 3/7/88 between the right holder and protestants to the extent such agreement covers matters within the jurisdiction of the Department.
8. Wildlife use is for developed off-stream fish habitat.

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State of Idaho
Department of Water Resources

Water Right License

WATER RIGHT NO. 72-07399

CONDITIONS OF APPROVAL AND REMARKS

9. Source is shallow underflow hydrologically connected to the Yankee Fork of the Salmon River.

This license is issued pursuant to the provisions of Section 42-219, Idaho Code. Witness the seal and signature of the Director, affixed at Boise, this 17TH day of APRIL, 1998.


Acting for KARL J. DREHER, Director

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APR 26 1998

State of Idaho
Department of Water Resources

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APR 15 1998

APPLICATION FOR AMENDMENT
(For Licensing Purposes)
WATER RIGHT NO. 72-07399

Department of Water Resources

Date of Priority: May 28, 1987 Maximum Diversion Rate: 0.80 CFS
Maximum Diversion Volume: 578.0 AF

Comes now J R SIMPLOT CO
PO BOX 27
BOISE ID 83707

and represents to the Director of the

Idaho Department of Water Resources:

That he is the owner and holder of Permit to Appropriate the Public Waters of the State of Idaho No. 72-07399, and requests that the permit be changed as follows:

Source: GROUNDWATER tributary to SALMON RIVER, YANKEE FORK

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>RATE OF DIVERSION</u>	<u>ANNUAL VOLUME</u>
WILDLIFE	01/01 to 12/31	0.80 CFS	578.0 AF

LOCATION OF POINT(S) OF DIVERSION: SESW , Sec. 20, Township 12N, Range 15E
NENW , Sec. 29, Township 12N, Range 15E
CUSTER County

PLACE OF USE: WILDLIFE

TWN RGE SEC

12N 15E	20	SESW	
	29	NWNE	NENW

Permit holder asserts that no one will be injured by such change and that such change will be made at permit holder's own risk.

Signed at Boise, Idaho, this 15th day of April, 1998.

J R Simplot Company
James L. Simplot

(Signature)
APR 16 1998

State of Idaho
Department of Water Resources

APPLICATION FOR AMENDMENT
(For Licensing Purposes)
WATER RIGHT NO. 72-07399

FOR DEPARTMENT USE ONLY

Preliminary check by SWK Fee = 5000 Receipted by LS # 000005 Date 4/15/98

ACTION OF THE DEPARTMENT OF WATER RESOURCES

I, Karl J. Dreher, of the Department of Water Resources hereby approve the
above Application for Amendment for Permit No. 72-07399 with the following;

CONDITIONS OF APPROVAL AND REMARKS

1. The maximum diversion volume is defined as the maximum allowable volume of water that may be diverted annually from the source under this right. The use of water confirmed by this right is limited to the amount which can actually be beneficially used. The maximum diversion volume may be adjusted to more accurately describe the beneficial use or to implement accepted standards of diversion and use efficiency.
2. This water right is appurtenant to the described place of use.
3. This right is subject to all prior water rights and may be forfeited by five years of non-use.
4. Modifications to or variance from this license must be made within the limits of Section 42-222, Idaho Code, or the applicable Idaho law.
5. Use of water under this right shall be non-consumptive.
6. Two points of diversion are located within NENW, S29, T12N, R15E.
7. This right is subject to the agreement dated 3/7/88 between the right holder and protestants to the extent such agreement covers matters within the jurisdiction of the Department.
8. Wildlife use is for developed off-stream fish habitat.
9. Source is shallow underflow hydrologically connected to the Yankee Fork of the Salmon River.

Witness my hand this 17th day of April, 1998.


Acting for KARL J. DREHER, Director

APR 26 1998

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JUL 31 1991

STATE OF IDAHO

For Office Use Only
Amt. of Fee \$ 200.00
Date 7-31-91
Receipt No. 1021368
Received by AM

DEPARTMENT OF WATER RESOURCES

Department of Water Resources

PROOF OF BENEFICIAL USE

The Idaho Department of Water Resources will consider this form as a statement that the permit holder(s) has/have completed all development that will occur under this permit and that water has been applied according to the provisions of the permit for the beneficial use(s) described below. This form must be accompanied by a license examination fee or a completed field examination report prepared by a certified water right examiner who has been appointed by the department.

1. Permit No. 72-7399 Telephone No. 208-336-21102. Name(s) of Permit Holder(s): J. R. Simplot Company3. Post Office Address: P.O. Box 27, Boise, ID 837074. Source of Water: Groundwater/Yankee Fork Surface watera. If ground water, well driller's name: NA Date drilled: NAb. Pump horsepower: NA Pressure (psi): NA Dynamic pumping level (ft.): NA

5. Extent of Use:

Domestic (No. of households)Irrigation (No. of acres)Stockwater (No. and type of stock)Other Recreation6. Total rate and/or volume for which proof is submitted 5 cfs acre/feet

7. Refer to the approval conditions on your permit and respond accordingly:

Measuring device: Required? Yes X No Installed? Yes No

OR

Flow Measurement Port: Required? Yes X No Installed? Yes No8. Fee Enclosed: \$ 200 (See License Examination Fee Schedule)

9. Person to contact to accompany the Department representative during the field examination:

Mike Rowe
Name208-238-3748
Telephone No.Fisheries Dept., P.O. Box 306, Fort Hall, ID 83203
Address

10. The above information is my true statement of the extent to which the above numbered permit has been developed and I relinquish any undeveloped portion of the permit to the state of Idaho.

July 18, 1991
Date

Ronald N. Graves Ronald N. Graves, Secretary
Signature (and title if on behalf of a company or organization)

AUG 22 1991

Form 202
6/85Ident. No. 72-7399

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
APPLICATION FOR PERMIT

To appropriate the public waters of the State of Idaho

APPROVED

1. Name of applicant J. R. Simplot Company Phone (208) 336-2110
 Post office address P.O. Box 27, Boise, Idaho 83707
2. Source of water supply Groundwater/Yankee Fork surface ^{water} which is a tributary of Salmon River
3. Location of point of diversion is SE $\frac{1}{4}$ of SE $\frac{1}{4}$ of SW $\frac{1}{4}$, Govt. Lot _____
 Sec. 20 Township 12N Range 15E B.M. Custer County; additional
 points of diversion if any: NA
4. Water will be used for the following purposes:
 Amount 5cfs for Recreation purposes from 1-1 to 12-31 (both dates inclusive)
(cfs or acre-feet per annum)
 Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per annum)
 Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per annum)
 Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per annum)
5. Total quantity to be appropriated is (a) 5 and/or (b) _____
cubic feet per second acre feet per annum
6. Proposed diverting works:
 - a. Description of ditches, flumes, pumps, headgates, etc. Surface waters from the Yankee Fork flow through the dredge piles into the ponds. No formal diversion structure is needed; flow control structures will be constructed to maintain pond levels.
 - b. Height of storage dam NA feet; active reservoir capacity NA acre-feet; total reservoir capacity NA acre-feet; period of year when water will be diverted to storage:
1-1 to 12-31 inclusive.
 - c. Proposed well diameter is NA inches; proposed depth of well is NA feet.
 - d. Is ground water with a temperature of greater than 90°F being sought? No
7. Time required for the completion of the works and application for proposed beneficial use is
3 years (minimum 1 year).

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8. Description of proposed uses (if irrigation only, go to item 9):

- Hydropower; show total feet of head and proposed capacity in KW. _____
- Stockwatering; list number and kind of livestock. _____
- Municipal; show name of municipality. _____
- Domestic; show number of households. _____
- Other; describe fully. Recreation; to be used for rearing habitat enhancement for potential increase of anadromous fish runs in the Yankee Fork.

9. Description of place of use:

- If water is for irrigation, indicate acreage in each subdivision in the tabulation below.
- If water is used for other purposes, place a symbol of the use (example: *D* for Domestic) in the corresponding place of use below. See instructions for standard symbols. **error corrected 6-1-87 gl*

TWP	RANGE	SEC.	NE¼				NW¼				SW¼				SE¼				TOTALS
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
12N	15E	20											~~R~~ *	R					
12N	15E	29		R			R												

Total number of acres to be irrigated NA

10. Describe any other water rights used for the same purposes as described above. NA

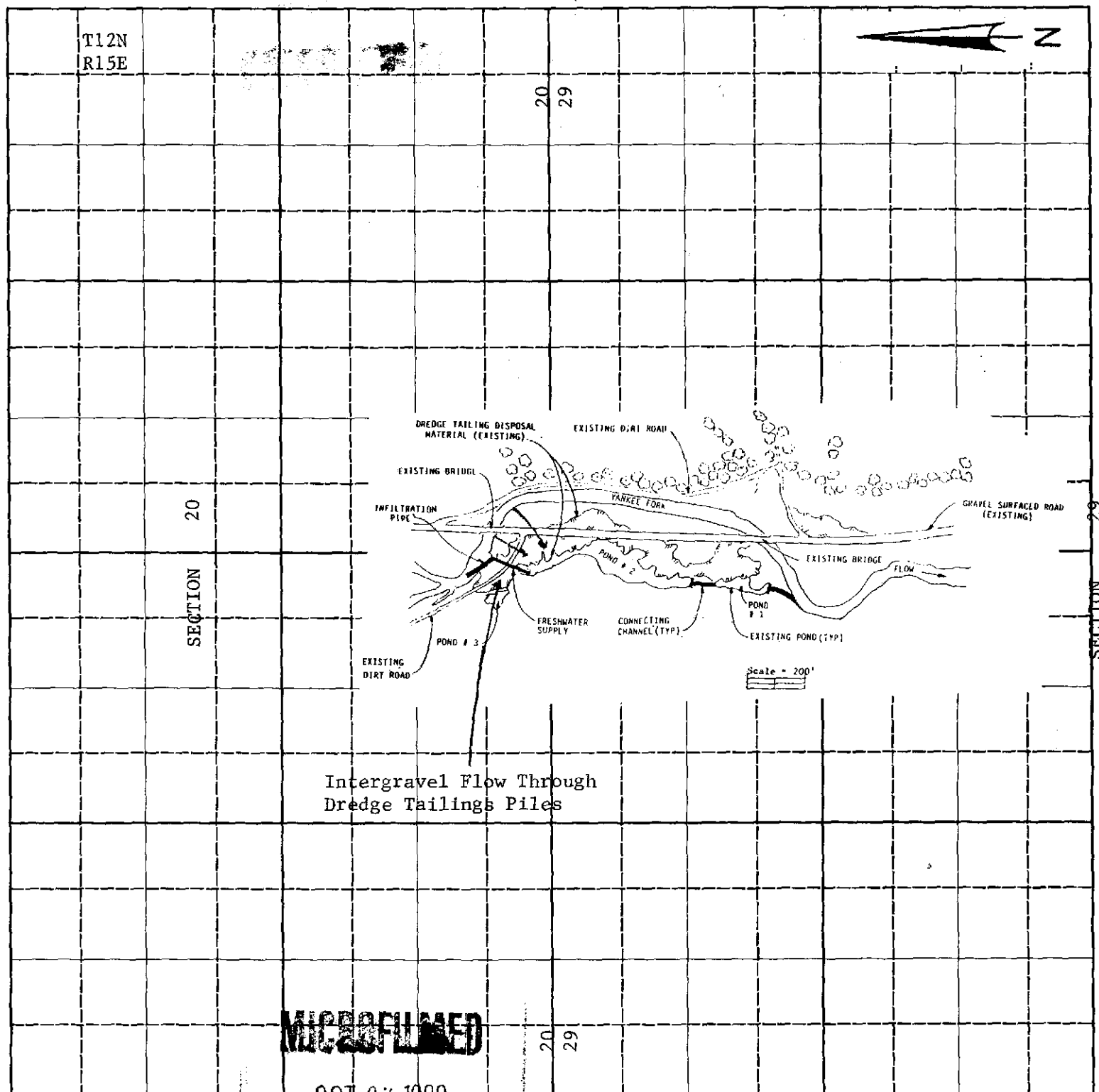
- Who owns the property at the point of diversion? J. R. Simplot
- Who owns the land to be irrigated or place of use? J. R. Simplot
- If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing. _____

12. Remarks: Water is to be non-consumptively used; it will flow through a series of 2 ponds for rearing habitat enhancement and returned to the Yankee Fork downstream. Recreation storage is for the volumes in the ponds to prevent drainage

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13. Map of proposed project: show clearly the proposed point of diversion, place of use, section number, township and range number.



Scale: 2 inches equal 1 mile.

BE IT KNOWN that the undersigned hereby makes application for permit to appropriate the public waters of the State of Idaho as herein set forth.

J. R. SIMPLOT COMPANY

By *Rebecca L. Gower* Secretary
(Applicant)

Proposed Priority 5/28/87
Received by M. Baldwin Date 5/28/87 Time 12:40 pm Preliminary check by JS
Fee \$ 125⁰⁰ Received by M. Baldwin # 45017 Date 6/5/87
Publication prepared by M. Baldwin Date 6/25/87 Published in Challis Messenger
Publication approved M. Baldwin Date 8/3/87 7/10 & 7/23/87

ACTION OF THE DIRECTOR, DEPARTMENT OF WATER RESOURCES

This is to certify that I have examined Application for Permit to appropriate the public waters of the State of Idaho No. 72-7399, and said application is hereby APPROVED.

1. Approval of said application is subject to the following limitations and conditions:

- a. SUBJECT TO ALL PRIOR WATER RIGHTS.
- b. Proof of construction of works and application of water to beneficial use shall be submitted on or before August 1, 19 91.
- c. The rate of diversion, if water is to be used for irrigation under this permit, when combined with all other water rights for the same land shall not exceed 0.02 cubic feet per second for each acre of land.
- d. The water right acquired under this permit if for hydropower purposes shall be junior and subordinate to all rights to the use of water, other than hydropower, within the State of Idaho that are initiated later in time than the priority of this permit and shall not give rise to any right or claim against any future rights to the use of water, other than hydropower, within the State of Idaho initiated later in time than the priority of this permit.
- e. Other:

Permit holder shall commence the excavation or construction of diverting works within one year of the date this permit is issued and shall proceed diligently until the project is complete.

Use of water under this permit shall be non-consumptive.

A separate stream alteration permit from the IDWR is required for any activity in the stream channel other than construction and/or maintenance of the diversion structure. If your proposed construction or operation involves construction of an outfall or any other work in the stream channel other than a water diversion, you must contact the Department and obtain a Stream Channel Alteration permit prior to the start of construction.

This permit is subject to the agreement dated 3/7/88 between permit holder and protestant(s) to the extent such agreement covers matters within the jurisdiction of the Department of Water Resources.

Witness my hand this 20th day of July, 1988.

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OCT 05 1988

Director

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MAY 11 1988

Department of Water Resources
Southern Region Office

Bechtel Environmental, Inc.
Engineers - Constructors

Fifty Beale Street
San Francisco, California
Mail Address: P.O. Box 3965, San Francisco, CA 94119



May 9, 1988

Mr. Loren Holmes
Idaho Department of Water Resources
Southern Region
2148 4th Avenue, E.
Twin Falls, Idaho 83301

Subject: Water Right Applications Nos. 72-7399 to 72-7405

Dear Mr. Holmes:

The Shoshone-Bannock Tribes are developing the Yankee Fork Fisheries Enhancement Project. Preliminary work on channels and related structures outside the mainstem Yankee Fork was initiated in 1987 and the remainder of the work is planned for the summer of 1988. Bechtel is providing permitting, engineering and construction management services to the Tribes. And as a part of developing final design details, some minor modifications have been made to two of the four pond series planned for development. Changes in pond series 2 are designed to improve the stability of the intake structures, reduce the quantity of rip rap needed for bank stabilization, and to substantially increase the amount of rearing habitat available. Changes in pond series 4 will eliminate the need for major dredge and fill work within the mainstem and will also greatly increase the available rearing habitat planned. No changes in water diversion or water rights will result from the proposed design changes. Additional description of the proposed changes and revised drawings are provided in Attachment 1.

On behalf of the Tribes, we request approval of the proposed design modifications described herein and that the subject permit/application be modified as proposed. We would greatly appreciate an expedited review in order that construction may resume in early June.

If you have any questions, please contact me at (415) 768-5192 or our project engineer, Mike Ramey, at (415) 768-7775.

Sincerely,

A handwritten signature in dark ink, appearing to read "David D. Cornman".

David D. Cornman

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OCT 02 1988

cc: Dr. Carl Richards
Shoshone-Bannock Tribes

YANKEE FORK FISHERIES ENHANCEMENT PROJECT
PROPOSED FINAL DESIGN MODIFICATIONS

1.0 POND SERIES 2 72-7401

The original design for the intake facilities for pond series 2 included a 400-foot-long pipeline extending upstream along the Yankee Fork River. During the low flow season, the water level in the most upstream pond of this series (pond #6) is higher than the Yankee Fork immediately adjacent to the pond. The long pipeline along the river was intended to divert water at a point where the river level is above the existing pond level. This concept would require extensive riprap protection of the pipeline which would be laid in the existing gravel bar on the right bank of the river.

The proposed change to the design would entail locating the intake facilities immediately adjacent to pond #6 allowing it to drain to about 18 inches below its existing level during the low flow season. In order to minimize the loss of pond area and riparian zone, the pond bottom would be dredged up to 2 feet below its present level. A total of about 700 cubic yards of material would be dredged from the pond and the riparian zone around the pond would be reduced by less than one tenth of an acre. The revised design is shown in Figures 1 and 2.

In addition to the change in the intake facilities, the revised project includes dredging a small alcove along the east side of the Yankee Fork River to increase the available rearing habitat. This proposed activity is located adjacent to pond #2 as shown in Figure 1. This would entail the removal of about 250 cubic yards of material and would be completed during the July 1 to August 15 minimum fisheries impact period.

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The overall environmental effects of proposed changes to pond series 2 will be positive. Additional dredging in pond #6 will maximize available rearing habitat under low flow conditions and will be done prior to connection with the Yankee Fork with all dredged material to be placed well above the ordinary high water mark. The additional one tenth of an acre of riparian vegetation to be lost will be replaced as part of the overall riparian/wetland revegetation effort originally planned for 3-1/2 acres along connecting channels and pond borders. In addition, the new design for pond series 2 will greatly reduce the amount of riprap required along the bank of the Yankee Fork to protect the originally planned pipeline.

The improvement of an existing backwater/alcove along the east side of the mainstream Yankee Fork across from pond #2 will provide a substantial, year-round addition to fish rearing habitat with minimal alteration to the system. This natural rearing location will require some dredging to provide rearing habitat during low flow conditions. This dredging will be done during the season least impacting to fisheries (July-August 15) and all dredged material will be placed well above the ordinary high water mark. A temporary sediment filtration berm could be placed during dredging along the mouth of the alcove, if required.

2.0 POND SERIES 4 72-7399, 72-7400

The original design for the water supply for pond series 4 included an infiltration pipe buried below the Yankee Fork River. This system has the advantage that it can provide relatively clean water to the pond series and also it would require minimal maintenance. However, this design would not allow juveniles to enter the pond series from its upstream end.

The proposed changes are shown in Figures 3 and 4. They include a surface withdrawal to allow juvenile access to the upstream end and the incorporation of an additional small pond (pond #3) to the upstream end.

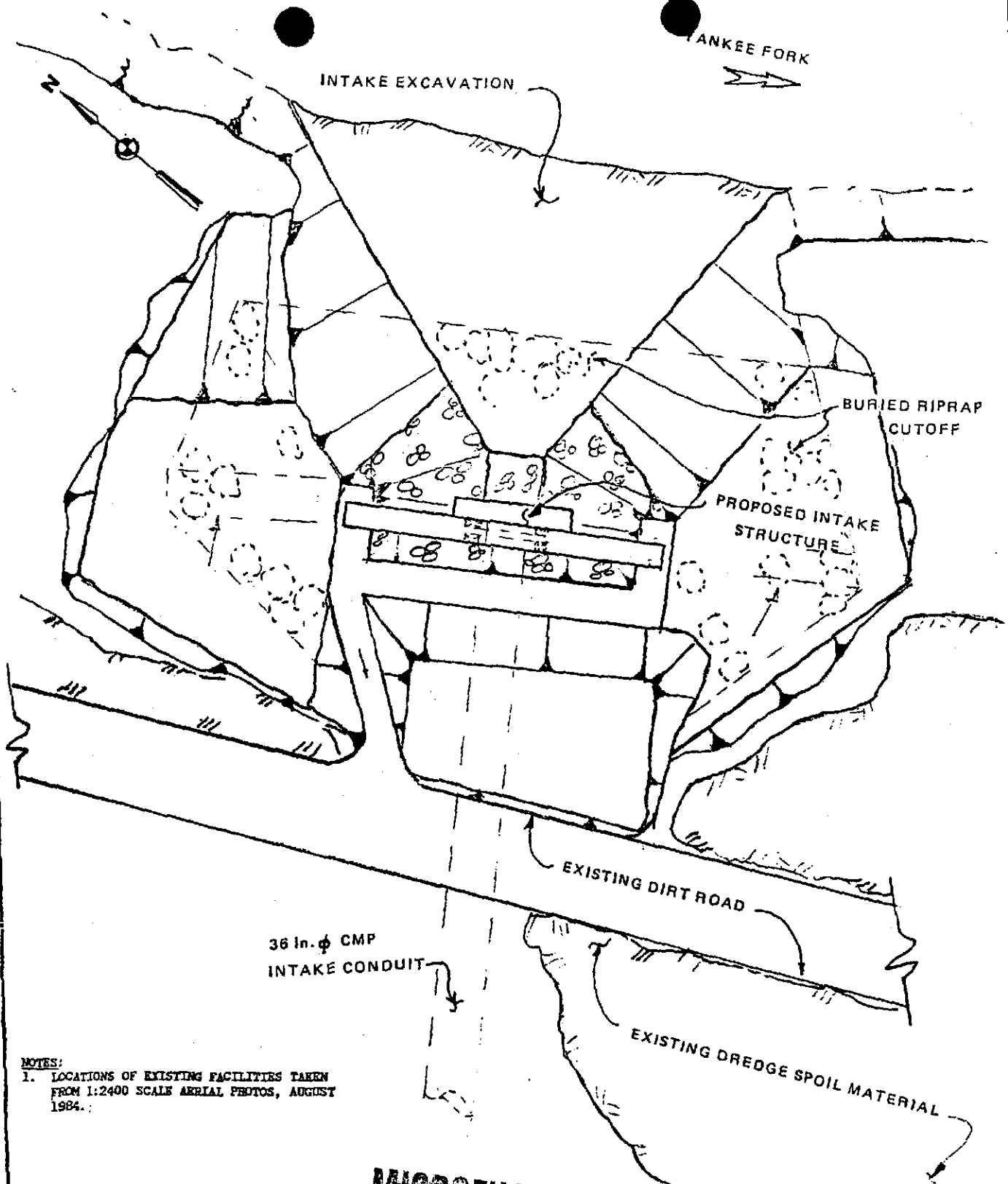
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The overall environmental impact of the proposed changes in pond series 4 will be positive. The placement of 300 cubic yards of temporary fill in the mainstream Yankee Fork and dredging of a 150-foot long trench for placement of the infiltration pipe are both eliminated from the design, thus significantly reducing instream construction effects on water quality and fish. Additionally, the inclusion of pond #3 in the design configuration will greatly increase the amount of rearing habitat available. The new intake structure also will increase juvenile usage of the rearing ponds via the new upstream access point.

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NOTES:

1. LOCATIONS OF EXISTING FACILITIES TAKEN FROM 1:2400 SCALE AERIAL PHOTOS, AUGUST 1984.

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N.T.S.

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BECHTEL
SAN FRANCISCO

SHOSHONE — BANNOCK TRIBES
YANKEE FORK FISHERIES ENHANCEMENT
PROJECT

POND SERIES 4
INTAKE FACILITIES



JOB No.

19242

DRAWING No.

FIGURE 4

REV.

A

29

NKKE

BM
6254

Creeper

MICROFILMED

OCT 03 1988



State of Idaho

DEPARTMENT OF WATER RESOURCES

1301 North Orchard Street, P.O. Box 83720, Boise, Idaho 83720-0098

Phone: (208) 327-7900 FAX: (208) 327-7866

April 20, 1998

PHILIP E. BATT
GOVERNOR

KARL J. DREHER
DIRECTOR

J R SIMPLOT CO
PO BOX 27
BOISE ID 83707

RE: WATER RIGHT NO. 72-07399

Dear Water Right Holder(s):

The Department of Water Resources (the Department) has issued the enclosed license confirming that a water right has been established in accordance with the permit referenced above. The license is a preliminary order issued by the Department pursuant to section 67-5243, Idaho Code. It can and will become a final order without further action of the Department unless a party petitions for reconsideration or files an exception and/or brief as further described below:

PETITION FOR RECONSIDERATION

Any party may file a petition for reconsideration of a preliminary order with the Department within fourteen (14) days of the service date of this order. The Department will act on a petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law. See section 67-5243(3), Idaho Code.

EXCEPTIONS AND BRIEFS

Within twenty-one (21) days after (a) the service date of a preliminary order, (b) the service date of a denial of a petition for reconsideration from this preliminary order, or (c) the failure within twenty-one (21) days to grant or deny a petition for reconsideration from this preliminary order, any party may in writing support or take exceptions to any part of a preliminary order and may file briefs in support of the party's position on any issue in the proceeding. Otherwise, this preliminary order will become a final order of the Department.

If any party appeals or takes exceptions to this preliminary order, opposing parties shall have twenty-one (21) days to respond to any party's appeal. Written briefs in support of or taking exceptions to the preliminary order shall be filed with the Department. The Department retains the right to review the preliminary order on its own motion.

MICROFILMED

APR 28 1998

ORAL ARGUMENT

If the Department grants a petition to review the preliminary order, the Department shall allow all parties an opportunity to file briefs in support of or taking exceptions to the preliminary order and may schedule oral argument in the matter before issuing a final order. If oral arguments are to be heard, the Department will within a reasonable time period notify each party of the place, date and hour for the argument of the case. Unless the Department orders otherwise, all oral arguments will be heard in Boise, Idaho.

CERTIFICATE OF SERVICE

All exceptions, briefs, requests for oral argument and any other matters filed with the Department in connection with the preliminary order shall be served on all other parties to the proceedings in accordance with Rules of Procedure 302 and 303.

FINAL ORDER

The Department will issue a final order within fifty-six (56) days of receipt of the written briefs, oral argument or response to briefs, whichever is later, unless waived by the parties or for good cause shown. The Department may remand the matter for further evidentiary hearings if further factual development of the record is necessary before issuing a final order. The Department will serve a copy of the final order on all parties of record.

Section 67-5246(5), Idaho Code, provides as follows:

Unless a different date is stated in a final order, the order is effective fourteen (14) days after its issuance if a party has not filed a petition for reconsideration. If a party has filed a petition for reconsideration with the agency head, the final order becomes effective when:

- (a) the petition for reconsideration is disposed of; or
- (b) the petition is deemed denied because the agency head did not dispose of the petition within twenty-one (21) days.

APPEAL OF FINAL ORDER TO DISTRICT COURT

Pursuant to sections 67-5270 and 67-5272, Idaho Code, if this preliminary order becomes final, any party aggrieved by the final order or orders previously issued in this case may appeal the final order and all previously issued orders in this case to district court by filing a petition in the district court of the county in which:

- i. A hearing was held,
- ii. The final agency action was taken,
- iii. The party seeking review of the order resides, or
- iv. The real property or personal property that was the subject of the agency action is located.

RECORDED

The appeal must be filed within twenty-eight (28) days of this preliminary order becoming final. See section 67-5273, Idaho Code. The filing of an appeal to district court does not itself stay the effectiveness or enforcement of the order under appeal.

For your records I have also enclosed a copy of your Application for Amendment of Permit, which was approved.

If you have any questions, please call me at 208-327-7946.

Sincerely,



Shelley W. Keen
Water Rights Supervisor

SK:klt

Enclosure

RECEIVED
APR 2 8 1998

CERTIFICATE OF MAILING

I hereby certify that on the 20th day of April, 1998, I mailed a true and correct copy, postage prepaid, of the foregoing PRELIMINARY ORDER (Approved License) to the person(s) listed below:

Water Right No. 72-07399

J R SIMPLOT CO
PO BOX 27
BOISE ID 83707


Kari Lynn Townsend
Secretary

RECORDED
APR 28 1998

RECEIVED

APR 15 1998

Department of Water Resources

CORPORATE HEADQUARTERS

April 15, 1998

HAND DELIVERY

Shelley Walter Keen
Water Rights Supervisor
State of Idaho
Department of Water Resources
1301 North Orchard Street
Boise, Idaho 83705

Re: IDWR Permit No's 72-07399, 72-07402, 72-07405.

Dear Shelley:

Enclosed are the applications to amend the above referenced permits and a \$150.00 check to cover your filing fee. Please provide a receipt of the enclosed filing fee to the person making this delivery.

Sincerely,



Vic Conrad
Simplot Land and Development

Enclsoure

APR 15 1998

APR 15 1998



State of Idaho

DEPARTMENT OF WATER RESOURCES

1301 North Orchard Street, P.O. BOX 83720, Boise, Idaho 83720-0098

Phone: (208) 327-7900 FAX: (208) 327-7866

August 27, 1997

PHILIP E. BATT
GOVERNOR

KARL J. DREHER
DIRECTOR

J R SIMPLOT CO
PO BOX 27
BOISE ID 83707

Attn: Vic Conrad

RE: Water Right Nos. 72-07399, 72-07402, and 72-07405

Dear Vic:

I have enclosed the three licensing amendments for the Yankee Fork rights. You will see that I have made the change that we discussed.

While I understand that you may need some time to complete your review and return the amendments, I would appreciate getting them back as soon as your review is complete.

The fee for each amendment is \$50.00, or \$150.00 for all three.

If you have any questions, please contact me at 208-327-7946.

Respectfully,

A handwritten signature in cursive script that reads "Shelley Walter Keen".

Shelley Walter Keen
Water Rights Supervisor

Enclosure

APR 28 1998

State of Idaho
Department of Water Resources

APPLICATION FOR AMENDMENT
(For Licensing Purposes)
WATER RIGHT NO. 72-07399

Date of Priority: May 28, 1987

Maximum Diversion Rate: 0.80 CFS

Maximum Diversion Volume: 578.0 AF

Comes now J R SIMPLOT CO
PO BOX 27
BOISE ID 83707

and represents to the Director of the

Idaho Department of Water Resources:

That he is the owner and holder of Permit to Appropriate the Public Waters of the State of Idaho No. 72-07399, and requests that the permit be changed as follows:

Source: GROUNDWATER

tributary to **SALMON RIVER, YANKEE FORK**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>RATE OF DIVERSION</u>	<u>ANNUAL VOLUME</u>
WILDLIFE	01/01 to 12/31	0.80 CFS	578.0 AF

LOCATION OF POINT(S) OF DIVERSION:

SESW , Sec. 20, Township 12N, Range 15E
NENW , Sec. 29, Township 12N, Range 15E
CUSTER County

PLACE OF USE: WILDLIFE

TWN RGE SEC

12N 15E 20	SESW	
29	NWNE	NENW

Permit holder asserts that no one will be injured by such change and that such change will be made at permit holder's own risk.

Signed at _____, this _____ day of _____, 19____.

MICR(Signature)

APR 28 1988

State of Idaho
Department of Water Resources

APPLICATION FOR AMENDMENT
(For Licensing Purposes)
WATER RIGHT NO. 72-07399

FOR DEPARTMENT USE ONLY

Preliminary check by _____ Fee = _____ Received by _____ # _____ Date _____

ACTION OF THE DEPARTMENT OF WATER RESOURCES

I, Karl J. Dreher, of the Department of Water Resources hereby approve the
above Application for Amendment for Permit No. 72-07399 with the following;

CONDITIONS OF APPROVAL AND REMARKS

1. The maximum diversion volume is defined as the maximum allowable volume of water that may be diverted annually from the source under this right. The use of water confirmed by this right is limited to the amount which can actually be beneficially used. The maximum diversion volume may be adjusted to more accurately describe the beneficial use or to implement accepted standards of diversion and use efficiency.
2. This water right is appurtenant to the described place of use.
3. This right is subject to all prior water rights and may be forfeited by five years of non-use.
4. Modifications to or variance from this license must be made within the limits of Section 42-222, Idaho Code, or the applicable Idaho law.
5. Use of water under this right shall be non-consumptive.
6. Two points of diversion are located within NENW, S29, T12N, R15E.
7. This right is subject to the agreement dated 3/7/88 between the right holder and protestants to the extent such agreement covers matters within the jurisdiction of the Department.
8. Wildlife use is for developed off-stream fish habitat.
9. Source is shallow underflow hydrologically connected to the Yankee Fork of the Salmon River.

Witness my hand this _____ day of _____, 19____.

KARL J. DREHER, Director

RECORDED
APR 2 8 1988



State of Idaho

DEPARTMENT OF WATER RESOURCES

1301 North Orchard Street, Statehouse Mail, Boise, Idaho 83720-9000
Phone: (208) 327-7900 FAX: (208) 327-7866

PHILIP E. BATT
GOVERNOR

KARL J. DREHER
DIRECTOR

October 18, 1996

J R SIMPLOT CO
PO BOX 27
BOISE ID 83707

RE: Water Rights 72-07399, 72-07402, and 72-07405

Dear Water Right Holder:

Water Rights 72-07399, 72-07402, and 72-07405 are in the process of being licensed. Before they can be licensed, however, the permits must be amended to describe the rights as they were actually developed.

The enclosed Application for Amendment forms contain information that will be included on the licenses when they are issued. The amendments show the correct locations of the points of diversion and the places of use, as reported by the field examiner. The amendments also show the nature of use as Wildlife, rather than Recreation. Also, please note that the diversion rates are based on the flow data submitted to IDWR by Vic Conrad.

The last page of each Application for Amendment form contains a list of conditions and remarks proposed for the license when it is issued. These conditions and remarks may be modified upon further administrative review.

Please review the amendment forms carefully. If you concur with the information presented, sign the forms and return them with the \$150.00 filing fee (\$50.00 each) within fourteen days.

If you have any questions, please contact me at 208-327-7946.

Respectfully,

Shelley Walter Keen
Water Rights Supervisor

Enclosures

NOT RECORDED

APR 28 1998



J.R. SIMPLOT COMPANY ONE CAPITAL CENTER 999 MAIN STREET SUITE 1300
P.O. BOX 27 BOISE, IDAHO 83707-0027 (208) 336-2110 FAX (208) 389-7515

CORPORATE HEADQUARTERS

Certified Mail

Shelley Walter Keen
Water Rights Supervisor
State of Idaho
Department of Water Resources
1301 North Orchard Street
Boise, Idaho 83720-2000

August 31, 1995

RECEIVED

SEP 01 1995

Department of Water Resources

Re: IDWR Permit No.'s 72-07399, 72-07402, 72-07405.

Dear Shelley:

Enclosed is a cover letter and a package of information I received from Mike Rowe, fisheries biologist with the Shoshone-Bannock Tribes, August 22, 1995. Mike's letter and package are self-explanatory and relate directly to our recent communication about the above referenced water rights. We hope the enclosed information will more clearly illustrate the project developed in connection with these rights.

Among other documents, the attached package contains copies of excerpts from larger reports. The excerpts relate to flow measurements that were taken during 1992 and 1993. If you want copies of the full reports, please contact Mike Rowe or me. Mike's phone number is 208-238-3748 - mine is 208-389-7359.

Thank you again for providing us with enough time to collect the additional information. Please contact Mike or myself if you have any questions about the enclosed information.

Sincerely,

Vic Conrad
Simplot Land and Development

Enclosures

c: M. Rowe

RECEIVED

SEP 21 1995

CORPORATE HEADQUARTERS

July 27, 1995

Certified Mail

Jim Johnson
Water Rights Permits Section Manager

Shelley Walter Keen
Water Rights Supervisor

State of Idaho
Department of Water Resources
1301 North Orchard Street
Boise, Idaho 83720-2000

Re: IDWR Water Right No.'s 72-07399, 72-07402, 72-07405.

Dear Jim and Shelley:

Thank you for taking the time last week to allow Mike Rowe, Fisheries Program Manager for the Shoshone-Bannock Tribes, and I explain our concerns about the Department's recommendation to void the above water rights. As explained, we believe these water rights are an essential component of the water supply for this project and we want the opportunity to provide the Department with additional information to show that water rights have been established.

The objective of this project was to develop off-channel ponds to promote rearing areas for anadromous fish species. Basically, constructing the project involved installing permanent check dam structures at strategic locations within various pond series. The function of the check dams is to control the amount of water contained in various ponds by manipulating the height of the outlet feature of each of the check dams.

RECEIVED

APR 28 1995

Bringing Earth's Resources to Life

RECEIVE

JUL 28 1995

Department of Water Resources

The source of water flowing in to these ponds consists of direct diversion into the ponds from the Yankee Fork of the Salmon River and ground water flowing in to the ponds from the surrounding surface gravels.

During our telephone conversation last week, it became apparent that the Department may not have been aware of the check dams that were installed to regulate the amount of water beneficially used within this project. The check dams were installed for the sole purpose of controlling the amount of water contained in the various pond series. We believe these are important elements of this project that should have been considered by your field examiner during his/her August 12, 1992, visit to this site.

Because your field examiner was not aware of the check dams, we request an extension of time until September 1, 1995, to provide you with additional information to show that water rights have been developed. During this time it is our intent to provide the Department with photographs of the various check dams, a schematic drawing detailing the location of each check dam within the project, and water measurements demonstrating the significance of the groundwater component of the total water supply for this project.

When considering the water control features that have been installed for this project we believe you will agree that the requirements for establishing a water right were satisfied prior to the date proof was filed.

Because we are already gathering the additional information we request your prompt response if an extension until September 1, 1995, is unacceptable. Please contact me if you have any questions about the information we are gathering. My phone number is 389-7359.

Sincerely,



Vic Conrad

Simplot Land and Development

c: M. Rowe - Shoshone-Bannock Tribes

6-27-95

APR 24 1995

M E M O R A N D U M

DATE: July 18, 1995

TO: Files 72-07399, 72-07402, 72-07405

FROM: Shelley W. Keen (SWK)

RE: Phone all from Mike Rowe of Shoshone-Bannock Fisheries

=====

Mike Rowe of Shoshone-Bannock Fisheries called this morning to discuss permits 72-07399, 72-07402, and 72-07405. He explained that the tribe is project manager for the J. R. Simplot Company, which is the property owner.

I explained to Mike that these permits probably should not be licensed because there has been no development of a diversion structure and control works. The availability of water flowing through the gravel along the river is a function of the flow in the river and cannot be influenced by the permit holder. The direct diversions from the Yankee Fork itself have been licensed under nos. 72-07400, 72-07401, and 72-07404.

Mike said that he would discuss relinquishing the permits with Vic Conrad of Simplot to save us from having to issue orders to void the permits.

APR 26 1996



State of Idaho

DEPARTMENT OF WATER RESOURCES

1301 North Orchard Street, Statehouse Mail, Boise, Idaho 83720-9000

Phone: (208) 327-7900 FAX: (208) 327-7866

PHILIP E. BATT
GOVERNOR

KARL J. DREHER
DIRECTOR

June 2, 1995

J R SIMPLOT CO
PO BOX 27
BOISE ID 83707

RE: Water Rights Nos. 72-07399, 72-07402, and 72-07405

NOTICE OF INTENT TO VOID PERMITS

Dear Water Right Holder:

On August 12, 1992, a field examiner employed by the department conducted a field examination to verify the beneficial use developed under the three permits listed above. While the field examiner found that a valid water right was developed under each of three companion permits, nos. 72-07400, 72-07401, and 72-07404, his findings for the three listed above indicate that crucial water right elements were not developed.

One requirement of a water right is the ability to divert water away from its natural channel or aquifer. Another requirement is the ability to measure and control the diversion. As authorized in chapter 15, title 42, Idaho Code, only the Idaho Water Resources Board may obtain a right to appropriate water to maintain a minimum flow in a natural channel or watercourse.

Our field examiner reported that the natural flow of water through the gravel along the Yankee Fork apparently contributes to the level of water in the ponds along the river. He also reported, however, that there has been no construction of diverting works and no attempt to direct, control, or measure the flow of water through the gravel and into the ponds. Therefore, it appears that the requirements necessary to establish a water right have not been met.

Unless you are able to provide additional information to show that water rights have been developed, I will commence proceedings to void permits 72-07399, 72-07402, and 72-07405. Please submit any information you may have within 30 days of the date of this letter.

ORIGINAL

APR 26 1995

J. R. Simplot Co.

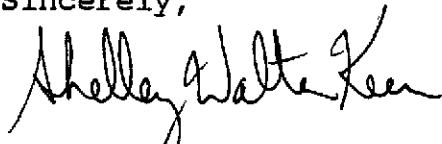
Re: Nos. 72-07399, 72-07402, and 72-07405

June 2, 1995

Page 2

If you have any questions, please contact me at 208-327-7946 in Boise.

Sincerely,

A handwritten signature in cursive script that reads "Shelley Walter Keen". The signature is written in dark ink and is positioned above the printed name.

Shelley Walter Keen
Water Rights Supervisor

SWK

72-07402

APR 28 1995

WR0749NP
No. L72-07399

IDAHO DEPARTMENT OF WATER RESOURCES
WATER RIGHT PROFILE REPORT

DATE: 05/16/95
PAGE: 1

OWNER CODE	NAME & ADDRESS	PRIORITY	WATER USE	USE PERIOD		DIVERSION	DIVERSION
		DATE		FROM	TO	RATE	VOLUME
C	J R SIMPLOT CO PO BOX 27 BOISE ID 83707 (208) 336-2110	05/28/1987	RECREATION	01-01	12-31	5.000 CFS	3620.00 AFA
TOTAL DIVERSION:						5.000 CFS	3620.00 AFA

Water Source: SEEPAGE

Tributary to: SALMON RIVER, YANKEE FORK

Stage: LICENSE

Point(s) of Diversion Capacity: 5.000 CFS

Point(s) of Diversion: T12N R15E S20 SESW CUSTER County
S29 NENW CUSTER County

Place of use Legal Description for: RECREATION

NE				NW				SW				SE											
T	R	S	:	NENE	NWNE	SWNE	SENE	:	NENW	NWNW	SWNW	SENW	:	NESW	NWSW	SWSW	SESW	:	NESE	NWSE	SWSE	SESE	:
			:	Lt	Ac	Lt	Ac	:	Lt	Ac	Lt	Ac	:	Lt	Ac	Lt	Ac	:	Lt	Ac	Lt	Ac	:
12N	15E	20	:					:					:					:					:
12N	15E	29	:		R			:		R			:					:					:

Pou County: CUSTER

Conditions of Approval:

027 - Use of water under this right shall be non-consumptive.

Remarks: Two points of diversion are located within NENW, S29, T12N, R15E.
This right is subject to the agreement dated 3/7/88 between the right holder and protestants to the extent such agreement covers matters within the jurisdiction of the Department.
Recreation use is for rearing habitat enhancement for the anadromous fish runs in the Yankee Fork of the Salmon River.

Dates: App. Received: 05/28/1987 Priority Date: 05/28/1987
Proof Due Date: 08/01/1991 Proof Made Date: 07/31/1991
Exam Made Date: 08/12/1992 Exam Sent to S.O.: 11/16/1994
Licensed Date:

Misc: Water District Number: Field Exam Fee: R (Received)

Comments: Date: 01/14/1993 User-ID: VAULT Subject: Proof of Beneficial Use Rcvd
Proof of Beneficial Use Rcvd

Audit: 05/16/95 BCHAPMAN 05/16/95 BCHAPMAN 05/16/95 BCHAPMAN

LICENSE REVIEW CHECKLIST



PERMIT NO. 72-07399 DATE 5/16/95

NAME Change OK ☒ Or Address Change? ☐

PRIORITY DATE Advance? ☒ Advanced to: Order to reinstate needed? ☐
Incorrect fee for rate recommended? No

SOURCE Changes or just clarification of originally intended source? ☒
Notice of Intent to Void necessary? ☐

POINT OF DIV Amendment needed? ☒ Add 2 points in NENW of 29
Overlaps? ☒

PLACE OF USE Amendment needed? ☒
Overlaps? 72-07400 uses same ponds in segment.

DIV RATE Permit/fee limits: 5 CFS
Meas Q = 5 Theo Q = 5 Recommend: 5.0
Combined rates exceed capacity ☐

ANNUAL VOLUME Volume Limit: Season: 1-1 to 12-31
Calculations: Flow limit: 5 cfs x 365 x 1.9835 = 3620
Combined volumes exceed capacity/allowable ☐

USES Change in Nature of Use or additional uses? ☒
Amendment necessary? ☐

ADDITIONAL INFO Supplemental Groundwater ☐ PPU Scenario ☐
Irr/Dom Combination ☐ Shared G/W System ☐

NEW REMARKS Multiple p/d(s) in 1/4 1/4? ☒
Other EDIT AGREEMENT REMARK

NEW CONDITIONS Watermaster control - District ☐
Measuring/Locking Devices ☐
Irrigation Overlap ☐
Other keep 0.27
Water Quality ☐ Heat/Cool/Fish verified ☐

COMMENTS: Keep source AS deep as per Tim
Amend P/D

RECOMMENDATION	CFS	VOLUME	SRBA Claim Filed	Adjustment Memo Needed
<u>Recreation</u>	<u>5.0</u>	<u>3620</u>	<u>NO</u>	<u>YES</u>
<u>LICENSE</u>				
<u>1ST AMEND LETTER</u>			<u>P39+P38+SOS</u>	
<u>2ND AMEND LETTER</u>			<u>P47+SOS</u>	

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

RECEIVED

NOV 17 1994

Department of Water Resources

A. GENERAL INFORMATION

Permit No. 72-7399

1. Owner: J. R. Simplot Co.

Phone No. 336-2110

Current Address: P.O. Box 27, Boise, ID 83707

2. Accompanied by: Mike Rowe

EXAM. DATE: 8-12-92

Address: Fisheries Dept., P.O. Box 306, Ft. Hall, ID 83203

Phone No. 238-3748

Relationship to Permit Holder: project biologist

3. Source: Seepage tributary to Yentee Fk. Salmon R.

B. OVERLAP REVIEW

1. Other water rights with same place of use: 72-7400

☐ Copies Attached

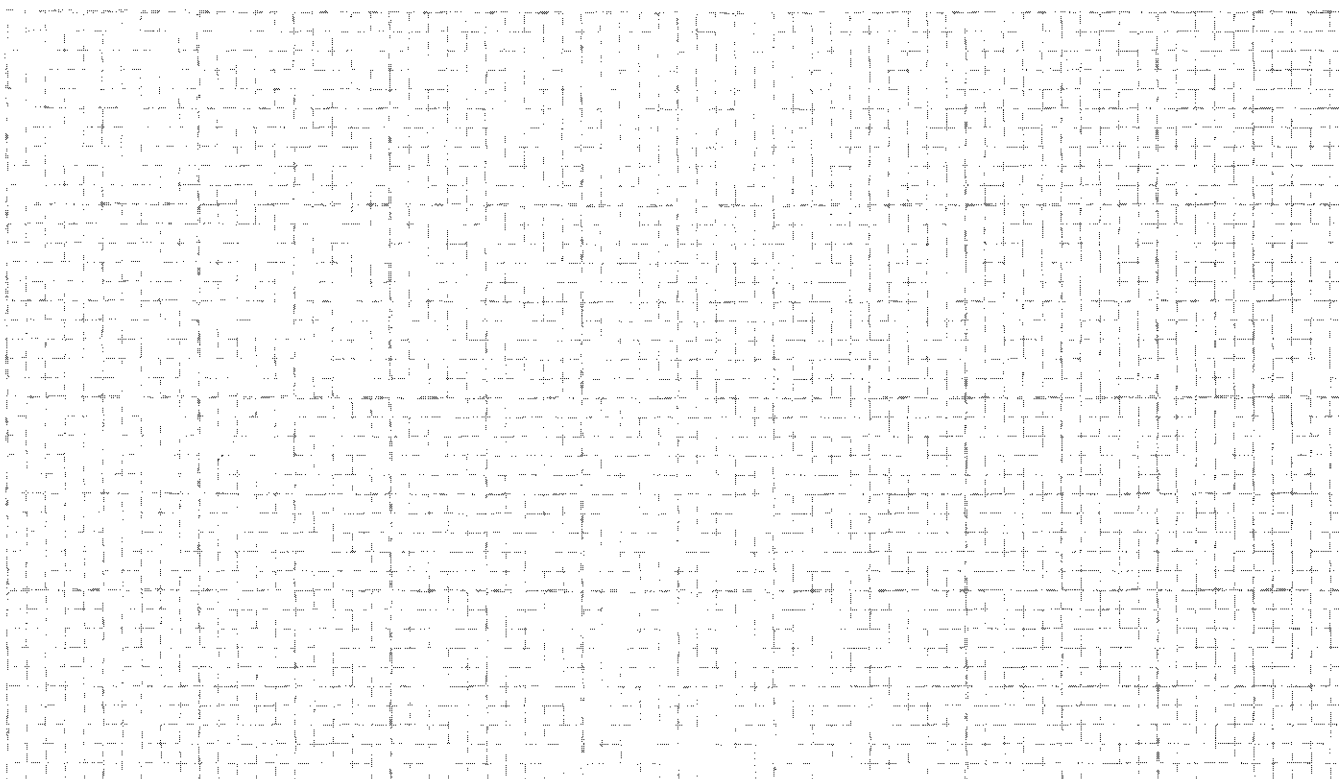
2. Other water rights with same point of diversion: None

☐ Copies Attached

☐ Copies of Field Exam's Attached

C. SYSTEM DESCRIPTION

1. **Diversion System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe i.d. as applicable. ☐ Alternative diagram attached



Scale: 1" = _____

2. ☐ Copy of U.S.G.S. Quadrangle Attached
Showing location(s) of point(s) of diversion and
place(s) of use (required).

☐ Photo of Diversion and System Attached

(required for all but single household domestic groundwater, and stockwater.

☐ Aerial Photo Attached
(required for irrigation of 10 acres or more).

MICROFILMED
1994-10-03

System Description (continued)

3. **Narrative:** Description (As operating at time of measurement. Indicate pressure, number of sprinklers, etc.)

Intergravel Flow between Yankee Fk. & 2 existing ponds. Dug channel connecting the ponds & 4/5th draining back to the Yankee Fk.

☐ See Remarks on page 4 for continuation

- 4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size

*Code to correspond with No. on map and aerial photo

5. **Point(s) of Diversion:**

Ident. No.	Gov't. Lot	1/4	1/4	1/4	Sec.	Twp.	Rge.	County	Method of Determination/Remarks
		SE	SE	SW	20	12N	15E	Custer	USGS Map
		NE	NE	NW	29	"	"	"	
		SE	NE	NW	"	"	"	"	

6. **Place(s) of Use:**

Indicate Method of Determination _____

Twp.	Rge.	Sec.	NE 1/4				NW 1/4				SW 1/4				SE 1/4				Totals
			NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	
12N	15E	20												X					
		29		X			X												

RECEIVED

APR 28 1978

Do not use this space

Do not use this space

D. FLOW MEASUREMENTS

☐ Additional Data Sheets Attached

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date

2. Measurements:

Not measured.

E. FLOW CALCULATIONS

☐ Additional Computation Sheets Attached

1. Measured Method:

2. Alternate Method for Checking Purposes:

Recommend licensing for permitted amount

F. PUMP EFFICIENCY DATA (Optional)

Discharge Pressure: _____ psi x 2.31 = _____ ft (1); Dynamic pumping level: _____ ft (2)

Total Head: (1) + (2) = _____ (3) ; Flow rate: _____ cfs (4)

Water HP: (3) x (4) ÷ 8.8 = _____ (5)

Meter Input KW: 3.6 x _____ KH x _____ CTR or _____ MULT x _____ PTR x _____ N/ _____ T = _____ (6)

Meter Input HP: (6) x 1.34 = _____ (7)

Panel Input KW: _____ Ave PF x _____ Ave Volts x _____ Ave Amps x .001732 = _____ (6)

Panel Input HP: (6) x 1.34 = _____ (7) Efficiency: (5)/(7) x 100 = _____ %

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$ _____

$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 =$ _____

$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$ _____

2. Volume Calculations for Other Uses:

MICROFILMED
APR 22 1983

H. REMARKS AND OVERLAP REVIEW ANALYSIS

Flow is uncontrollable & unmeasurable. Construction of surface channels ~~now~~ allows access to the old dredge ponds by young salmon & steelhead. All this water ends up in the Yankee Fork.

P/U may just barely go into the NW/NE Sec. 29 according to quad map. But this tract is on the permit, so I am including it in recommendations.

I. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
Recreation	1-1	12-31	5.0	
Totals:			5.0	

2. Recommended Amendments

- | | | |
|---|---|--------------------------------|
| ☐ Change P.D. as reflected above | ☒ Add P.D. as reflected above | ☐ None |
| ☐ Change P.U. as reflected above | ☐ Add P.U. as reflected above | ☐ Other |

J. AUTHENTICATION

Field Examiner's Name J. E. Stanton

Signature J. E. Stanton

Certification Date _____

Field Report Preparation Date 11-6-92

CONSULTANT SEAL

- K. Licensing recommendation shall be prepared by an Idaho Department of Water Resources employee on a computer printout attached hereto.

RECEIVED

APR 28 1993

MEMORANDUM

TO: File 72-07399 / J.R. Simplot
FROM: Brenda Chapman
DATE: May 16, 1995
RE: Recommendation Adjustment(s)

=====

The final licensing recommendations for the above referenced water right are based on the information below:

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use	Rate of Div	Annual Vol
Recreation	1-01 to 12-31	5.0	3620.0

According to Rule 5,1,10. of the Beneficial Use Rules and Regulations, the only uses exempt from listing the volume are municipal and fire protection. (see attached copy of the rule)
Based on that information, a volume has been assigned to the recreation use.

APR 20 1995

- 5,1,7. If the water is used for irrigation, the boundaries of the various irrigated areas and the location of the project works providing water to each shall be platted on the proof maps and the full or partial acreage in each legal subdivision of 40 acres or government lot shall be shown.
- 5,1,8. Irrigated acreage shall be shown on the field report to the nearest whole acre in a legal subdivision except the acreage shall be shown to the nearest one-tenth acre for permits covering land of five acres or less.
- 5,1,9. Where a permit has been developed as separate distribution systems from more than one point of diversion, the separate areas irrigated from each point of diversion shall be shown on the proof maps as described hereinbefore and the legal subdivisions embracing the irrigated areas for each such respective point of diversion together with the total irrigated area shall be described.
- 5,1,10. The field examiner does not need to show total volume of water for municipal and fire protection uses on the field report unless the project works provide for storage of water.
- 5,1,11. The total number of holding/rearing ponds and the dimensions and volume of the ponds shall be shown on the field report for fish rearing or fish propagation use. The annual volume shall be calculated based on the changes of water per hour.
- 5,1,12. Information shall be submitted concerning the beneficial use that has been made of the water unless the purpose of use is for irrigation. For example, for stockwater use, the number and type of stock watered shall be provided. Similar indications of the extent of beneficial use shall be provided for all other non-irrigation uses.
- 5,1,13. Information on the period during each year that the water is used shall be described for each use.
- 5,1,14. For permits having more than one use, the diversion rate measured for each use shall be described.
- 5,1,15. The amount (rate and/or volume) of water shall be limited by the smaller of the permitted amount, the amount upon which the license examination fee is paid, the capacity of the diversion works or the amount beneficially used, including any statutory limitation of the duty of water.

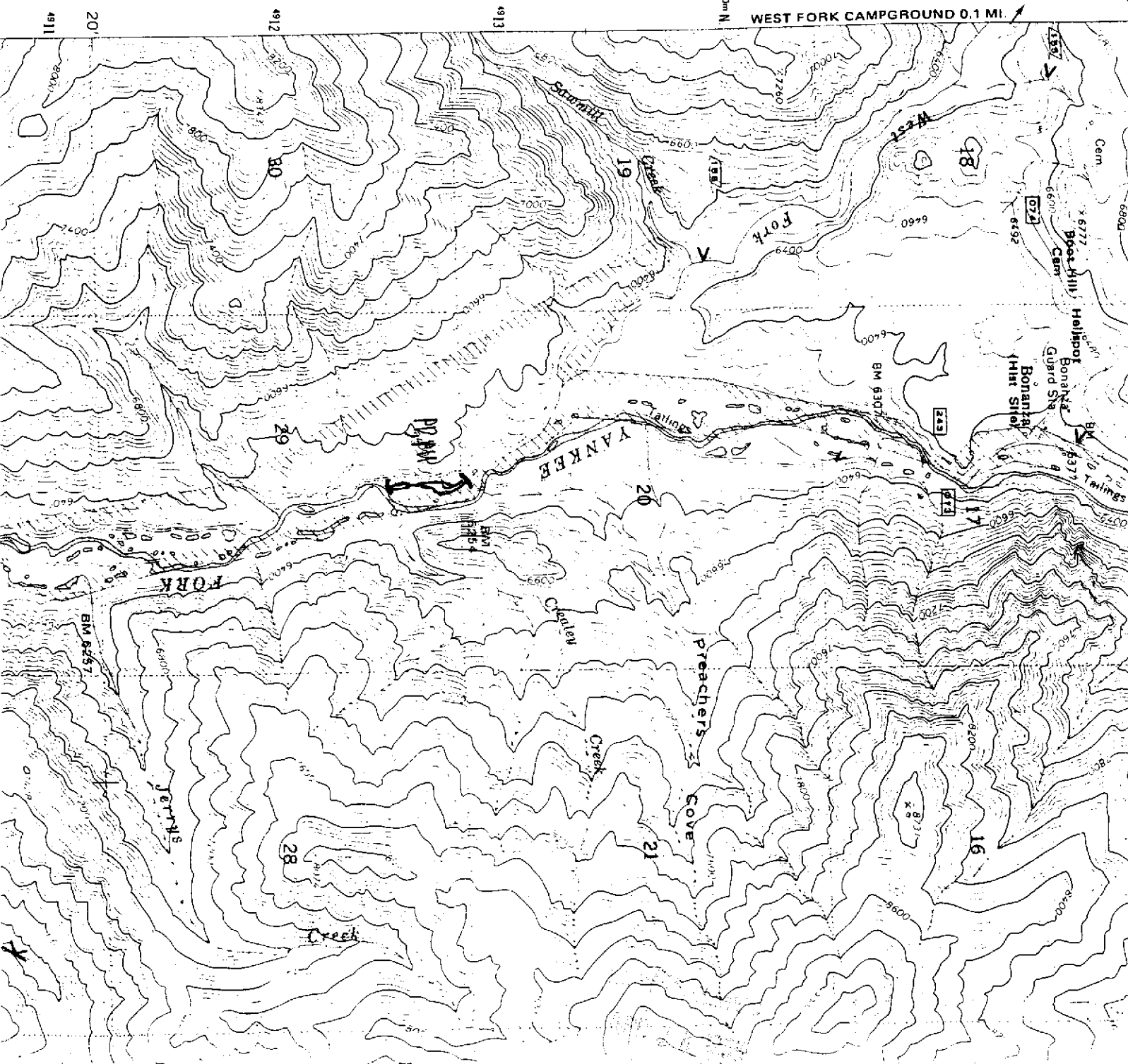
RECEIVED
APR 26 1938

72-~~74~~ 1399

12N-15E-S20

491400m N

WEST FORK CAMPGROUND 0.1 MI

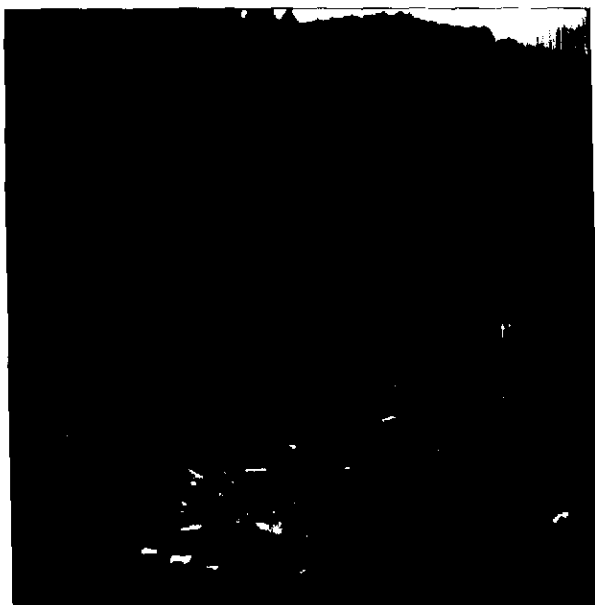


4911 20'

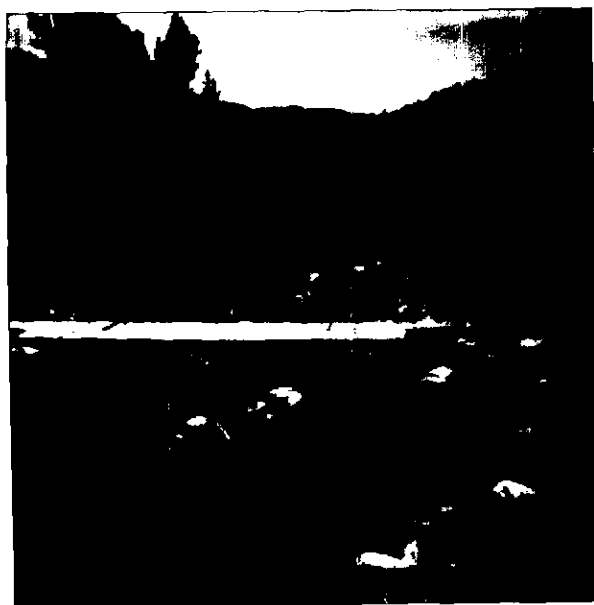
4912

4913

72-9399



P/D & P/U



RECEIVED
APR 28 1963

August 14, 1991

J.R. SIMPLOT CO.
P.O. BOX 27
BOISE, ID 837070000

PROOF ACKNOWLEDGMENT LETTER

RE: PERMIT NO. 72-07399

Dear Permit Holder:

The department acknowledges receipt of the proof of beneficial use form submitted for the above referenced permit. The next step in the process of developing a water right is for the department to conduct a field examination to determine and confirm the use being made of the water.

If you have questions concerning this matter, please feel free to contact the SOUTHERN Regional Office in Twin Falls at (208)736-3033.

Sincerely,

Rita Fleck
Secretary/Records Manager

c: IDWR - Region

AUG 22 1991

CORPORATE HEADQUARTERS

July 30, 1991

RECEIVED
JUL 31 1991

Department of Water Resources

Rita I. Fleck
State of Idaho
Department of Water Resources
1301 North Orchard Street
Statehouse Mail
Boise, Idaho 83720

Re: Permit Nos. 72-7399, 72-7400, 72-7401,
72-7402, 72-7403, 72-7404, and 72-7405

Dear Ms. Fleck:

Please find enclosed six Proof of Beneficial Use forms and one Request for Extension form with reference to the permits identified above.

Also enclosed is our check in the amount of \$1,355.00 in payment of the department's examination fees. Below is an itemization of the respective permits and the fees for each permit:

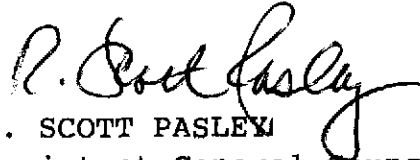
<u>Permit No.</u>	<u>Amount Submitted</u>
72-7399	\$200.00
72-7400	\$200.00
72-7401	\$200.00
72-7402	\$325.00
72-7403	\$ 15.00
72-7404	\$200.00
72-7405	\$200.00

AUG 22 1991

Rita I. Fleck
July 30, 1991
Page 2

Thank you for your assistance in this matter.

Sincerely,



R. SCOTT PASLEY
Assistant General Counsel

RSP:ccr
Enclosures

cc: Vic Conrad
Mike Rowe

3989z

AUG 22 1991

169109
May 31, 1991

J.R. SIMPLOT CO.
P.O. BOX 27
BOISE, ID 837070000

PROOF DUE NOTICE

RE: PERMIT NO. 72-07399

Dear Permit Holder:

One of the conditions of approval of the above referenced water permit was that proof of the extent of your beneficial use must be submitted to this office on or before August 1, 1991. (See last page of your approved permit or your last approved extension request.) Enclosed is a form which when accompanied by the license examination fee or a complete field examination report prepared by a certified water right examiner may be used to submit the required proof.

If you have not fully completed your project, and you or a previous owner of this permit have not received a prior extension of time, you may request an extension of time if the delay is for reasonable cause as provided in Section 42-204, Idaho Code. If you have been prevented from proceeding by a governmental agency or by litigation which might bring title to the water in question, more than one extension of time can be granted. An extension of time request form is enclosed for your convenience.

Either an acceptable proof of beneficial use submittal or an acceptable request for an extension of time must be received by this department on or before the above described proof due date. If neither is received, the department will send you a lapse notice. Within sixty (60) days of the mailing of the lapse notice, the permit will no longer be of any force nor effect.

SINCERELY,

Rita Fleck
Secretary/Records Manager

Enclosures

RECEIVED
AUG 22 1991



State of Idaho
DEPARTMENT OF WATER RESOURCES

1301 North Orchard Street, Statehouse Mail, Boise, Idaho 83720 - (208) 334-7900

CECIL D. ANDRUS
GOVERNOR
R. KEITH HIGGINSON
DIRECTOR

July 20, 1988

RE: Permit Nos. 72-7399/7400/7401/7402/7403/7404/7405

J.R. Simplot Co.
Box 27
Boise, ID 83707

Gentlemen:

Enclosed are copies of your approved Applications for Permit. We direct your attention to the conditions of approval on the fourth pages.

Please note the requirement that as a permit holder you must commence the excavation or construction of diverting works within one year of the date the permits were issued, and you must proceed diligently until the projects are completed. The enclosed blue cards must be completed and returned to this office as soon as you commence construction, no later than one year from the date the permits were approved.

We have enclosed a form entitled "Instructions for Proof of Beneficial Use". Please read the instructions carefully since you must take further action to develop these permits into licenses.

Sincerely,

GARY SPACKMAN
Supervisor, Water Allocation Section

GS:sc

Enclosures

cc: Carl Richards

NOT REPLIED

OCT 05 1988

MEMORANDUM

Date: July 19, 1988
To: Files 72-7399, 72-7402 and 72-7405
From: L. Glen Saxton *lys*
RE: EXPLANATION OF GROUNDWATER SOURCE

The three applications referenced above show "groundwater" as one of the sources on each application. The term groundwater is commonly used to describe wells. Wells, however, are not proposed under the applications. The term "groundwater" perhaps could have been more accurately described as "seepage", but since the applications were advertised showing a source of groundwater, the term has not been changed on the face of the applications.

The use shown as "recreation" perhaps could have been shown as "fish propagation" or "fish rearing" but is adequately described as to intent on the applications themselves. A change on the description of the use probably isn't necessary at this point, since the change can be made at the time of licensing, if the department chooses to do so.

MAILED

OCT 05 1988

FROM

Loren Holmes

DATE

6/27/88

TO

Files 72-7399 thru 72-7405

SUBJECT

Measuring Devices - Applications 72-7399 thru 72-7405

I haven't recommended measuring devices on these permits because:

1) There are no other water rights which will be impacted by these diversions

UNCLASSIFIED

2) The Use is Non-Consumptive

OCT 02 1988

3) The diversions are not in a water District

4) Measuring structures would put an additional impact on the Aesthetics of the area.

SIGNATURE

The SHOSHONE-BANNOCK TRIBES

FORT HALL INDIAN RESERVATION
PHONE (208) 238-3748
(208) 238-3900
(208) 238-3808



FISHERIES DEPARTMENT
P. O. BOX 306
FORT HALL, IDAHO 83203

MEMORANDUM

May 3, 1988

TO: East Fork Interagency Task Force

FROM: Carl Richards, Shoshone-Bannock Tribes, Project Leader *CRichards*

SUBJECT: East Fork of Salmon River Habitat Enhancement Feasibility Study

A meeting will be held at 10:00 a.m. on Thursday, May 12, at the Sawtooth National Recreation Area headquarters in Ketchum concerning the East Fork of the Salmon River habitat enhancement feasibility report recently completed by the Shoshone-Bannock Tribes and their contractor (EA Engineering, Science, and Technology, Inc.). The purpose of this meeting will be to discuss the content of this report and to develop a preferred alternative.

If you have any questions, please feel free to call me at (208) 238-3748.

CR/lgn

cc: files

RECEIVED

MAY 4 1988

Dept. of the Interior Resources
Central Region Office

OCT 03 1988

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APR 11 1988



RECEIVED

APR 06 1988

Department of Water Resources

STATE OF IDAHO

OFFICE OF THE ATTORNEY GENERAL

JIM JONES
ATTORNEY GENERAL
STEPHEN V. GODDARD
SUSAN MATTOS
DEPUTY ATTORNEYS GENERAL
IDAHO DEPARTMENT OF FISH AND GAME

600 S. WALNUT ST.
P.O. Box 25
BOISE, IDAHO 83707
(208) 334-3715

April 1, 1988

Keith Higgenson, Director
Idaho Department of Water Resources
STATEHOUSE MAIL
Boise, ID 83720

Re: Water Right Application No. 72-399 through 72-405 to Appropriate Waters of the Yankee Fork River

Dear Mr. Higgenson:

During the middle part of March 1988 the Idaho Department of Fish, Game, J.R. Simplot Company, and the Shoshone-Bannock Tribes entered into an Agreement which resolves the Department of Fish and Game's protest to the above-referenced water right applications. The parties concurred that this Agreement would be incorporated as a condition on any water rights, permits, or licenses that follow from the above-referenced applications. I am enclosing a copy of the Agreement and the attached Exhibit 1 (a grant of easement for a stream project) to be entered as part of the record in this proceeding and to be incorporated as a condition of the water rights, permits, or licenses. As part of this agreement, the Department of Fish and Game withdraws its protests against the above-referenced applications.

Thank you for your consideration in this matter. If you have any questions or desire any further information, please contact me at 334-3715.

Sincerely,

Stephen V. Goddard

Stephen V. Goddard
Deputy Attorney General

SVG:br

Enclosures

c: Bruce Belzer
Carl Richards
David L. Hanson

MICROFILMED

OCT 05 1988

AGREEMENT

APR 06 1988

Department of Water Resources

This Agreement, made and entered into, by and between the Idaho Department of Fish and Game (Department), the Shoshone-Bannock Tribes (Tribes), and J. R. Simplot Company (Simplot), is made in reference to the following facts:

R E C I T A L S:

A. Simplot has made applications for water rights on the Yankee Fork of the Salmon River (application numbers 72-399 through 72-405) in connection with the Preferred Alternative for habitat enhancement aimed at restoring or enhancing anadromous fishery habitat in the Yankee Fork of the Salmon River as described in the Feasibility Plan for the Enhancement of the Yankee Fork of the Salmon River dated March 1987 ("Enhancement Project"). The Enhancement Project will be initiated, constructed, operated and maintained by the Tribes. The Tribes have also obtained an easement for the Enhancement Project on property owned by Simplot to which the water permits would be appurtenant, as shown in Exhibit 1 attached hereto. The Enhancement Project will be conducted in accordance with the terms and conditions of the easement.

B. The Department has no objection to the Enhancement Project as is currently proposed. Nor does the Department object to Simplot obtaining the water right permits in connection with the Enhancement Project. However, the Department wants to ensure that the water rights are utilized for the purposes set forth in the Enhancement Project and in accordance with this Agreement.

OCT 03 1988

NOW, THEREFORE, in consideration of the recitals stated above, the parties agree as follows:

Simplot agrees that:

1. Simplot will not amend the licenses to change the respective uses, purposes or points of diversion authorized by any licenses issued in conjunction with water rights application numbers 72-399 through 72-405, so long as such respective licensed water rights are used on Simplot property by anadromous fish in conjunction with the Enhancement Project.

2. Simplot agrees that no more than 10 cfs cumulative would be permitted and licensed pursuant to the respective applications.

3. For a period of five (5) years from issuance, Simplot will let any respective permits lapse if not put to beneficial use. Once put to beneficial use, then the agreed upon transfer or change restrictions set forth in number 1. above and number 4. below would apply.

4. If put to beneficial use, Simplot will not amend the respective licenses to change the uses, purposes or points of diversion for a period of at least ten (10) years from the date of issuance of the permit(s), even if the water right was no longer used by anadromous fish as described in number 1. above, unless the validity of the water right would be threatened by the applicable non-use or forfeiture law, in which case Simplot could apply to change the water right in order to preserve the water right from forfeiture or abandonment.

OCT 03 1988

Simplot and the Tribes agree that:

1. If at any time should the Enhancement Project cease or be abandoned or the easement obtained by the Tribes be terminated, that notice of this termination of cessation will be provided to the Department as soon as reasonably possible.

The Department agrees that:

1. It will promptly withdraw its protest filed against Simplot application numbers 72-399 through 72-405.

All parties agree that:

1. This Agreement be incorporated as a condition on all of the water rights, permits or licenses resulting from the applications referenced above.

IN WITNESS WHEREOF, the parties have executed this Agreement upon the date following their respective signatures.

J. R. SIMPLOT COMPANY

Dated: MARCH 21, 1988

By Gordon C. Smith
Its Senior Vice President

STATE OF IDAHO
DEPARTMENT OF FISH AND GAME

Dated: 3-18-88

By J. M. Conly
Its Director
SHOSHONE-BANNOCK TRIBES

Dated: March 7, 1988

By Marvin D. Glone
Its

1130v/02-11-88/3:10

OCT 03 1988

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APR 06 1988

Department of Water Resources

GRANT OF EASEMENT

FOR STREAM PROJECT

KNOW ALL PERSONS BY THESE PRESENTS:

That J.R. Simplot Company of Boise, Idaho, (hereinafter "Grantor"), in consideration of the mutual promises set forth below, does hereby grant to the Shoshone-Bannock Tribes, a federally-recognized Indian tribe located at the Fort Hall Indian Reservation, Fort Hall, Idaho, (hereinafter "Grantee"), a non-exclusive easement on the terms and solely for the purposes set forth below, (hereinafter the "Easement"), and located within land owned by Grantor, as described in Exhibit A and hereinafter referred to as "Easement Premises".

1. For the Easement and rights herein granted, Grantee shall pay to Grantor the sum of \$1.00 payable promptly upon the execution of an agreement between Grantee and the Bonneville Power Administration to fund, in whole or in part, the exercise of Grantee's rights hereunder. Failure by Grantee to execute said agreement or to make payment promptly upon execution thereof shall automatically constitute a forfeiture of any right hereunder unless Grantor shall otherwise agree in writing. The acceptance of delayed payment shall not constitute a waiver of any right of Grantor.

2. During the terms of the Easement, Grantee shall have subject to the terms and conditions set forth in this instrument the following rights:

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OCT 03 1988

GRANT OF EASEMENT FOR STREAM PROJECT
PAGE 2

A. Upon approval by appropriate local, state and federal agencies, to construct and maintain in the Easement Premises, by contract or otherwise, the physical components of the Preferred Alternative for habitat enhancement aimed at restoring anadromous fishery habitat in the Yankee Fork of the Salmon River as described in the Feasibility Plan for the Enhancement of the Yankee Fork of the Salmon River dated March, 1987.

B. Subject to availability of federal funding from Bonneville Power Administration (BPA) or other federal source, to monitor, during and after implementation of the enhancement components in the Preferred Alternative Report and any amendments thereto approved in accordance with paragraph 2.A. above and mutually agreed upon by the Grantor, the progress and effects of such enhancement for so long as salmon continue to spawn and rear in the segment of Yankee Fork and associated dredge ponds lying within the Easement Premises. Grantee shall undertake in good faith all reasonable efforts to obtain federal funding for such monitoring purposes.

C. To access and egress the Easement Premises in conjunction with the reasonable pursuit and enjoyment of the above rights, including maintenance of channels and structures described in 2.A. above. Such channel and structure maintenance by Grantee shall be subject to availability of BPA or other federal funding, and Grantee shall undertake in good faith all reasonable efforts to obtain federal funding for this purpose.

OCT 05 1988

3. The exercise of Grantee's rights hereunder shall be subject to the following conditions:

A. Roadways used by Grantee on the Easement Premises shall be left in as good a condition as before Grantee's usage, except to the extent that such roadways are to be modified in accordance with the Preferred Alternative Report and any amendment thereto approved in accordance with paragraph 2.A. above.

B. Any damage to Grantor's property caused by or resulting from the negligent acts, errors or omissions of Grantee in the exercise of its rights hereunder or in trespass shall, at Grantor's option, be repaired or restored to its prior condition by Grantee or at Grantee's expense.

C. In exercising its rights hereunder, Grantee shall comply with all applicable federal, state and local laws and regulations.

D. Grantee's exercise of its rights hereunder shall be at its sole risk and expense.

E. Grantee agrees that for purposes of determining Grantee's rights under this Easement, Grantor's rights to mine the Premises by any method whatsoever including, without limitations, dredge mining, shall not be deemed to be limited or restricted by this agreement or by any existing or future law or regulation, and at all times such rights to mine shall be paramount to all of Grantee's rights under this Easement, whether express or implied.

4. Grantee hereby agrees to indemnify, defend and hold harmless Grantor, its successors and assigns, from and against any and all liability, damage, claim, loss or expense arising out of or related to the exercise of Grantee's rights hereunder. OCT 05 1988

5. Except as otherwise provided in paragraph 2.B. above, and unless this Easement has been extended by mutual agreement prior thereto, this Easement shall terminate automatically on September 1, 2007, and shall be terminable earlier in whole or in part by Grantor for:

- a. Failure to comply with any term or condition of the grant, which failure remains unremedied by Grantee for a thirty (30) day period after receipt by Grantee of written notice from Grantor specifying any basis of asserted non-compliance.
- b. A non-use of the Easement for a consecutive two-year period; provided, however, that failure of Grantee to implement restoration work as provided herein shall not constitute non-use so long as Grantee continues to work toward such implementation; or
- c. An abandonment of the Easement.

6. This Easement is given without warranty or representation and is subject to any prior valid, existing right or adverse claim and is for the term of years as set forth above.

7. Both parties to this Easement, while recognizing the need to restore salmon runs in Idaho and to work cooperatively to achieve that goal, enter into this Easement with the full understanding that Grantor's and Grantee's existing rights are not and will not be diminished hereby. This Easement is limited to the express purposes set forth herein and shall not be construed, explicitly or implicitly, to grant or confer any hunting, fishing, or other related rights or privileges upon Grantee.

8. The conditions of this Easement shall extend to and be binding upon and inure to the benefit of the respective successors and assigns of Grantee and Grantor.

OCT 03 1988

GRANT OF EASEMENT FOR STREAM PROJECT
PAGE 5

IN WITNESS WHEREOF, Grantor and Grantee have executed this
Grant of Easement in duplicate originals upon the dates set forth
below:

SHOSHONE-BANNOCK TRIBES

Marvin D. Osborne
Marvin D. Osborne, Chairman
Date: Sept. 9, 1987

J.R. SIMPLOT, COMPANY

Gordon C. Smith
Senior Vice Pres.
Date: 9-11-87

RECORDED

OCT 03 1988

RECEIVED

APR 06 1988

STATE OF IDAHO)
COUNTY OF BINGHAM)

) ss.

Department of Water Resources

On this 9th day of September 1987, before me personally appeared Marvin D. Osborne, who having by me first been duly sworn, did say: That he is the Chairman of the Fort Hall Business Council of the Shoshone-Bannock Tribes, a federally recognized Indian tribe and that as such he executed the foregoing instrument for the purposes therein contained, on behalf of said Tribes pursuant to the resolution of the Fort Hall Business Council attached hereto, and acknowledged to me that said Tribes executed same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal on the day and year in this certificate first above written.

M. M. Fabritzer
Notary Public

My commission expires:

5-16-88

STATE OF IDAHO)

COUNTY OF Ada)

) ss.

BEFORE ME, the undersigned authority, on this day personally appeared Gordon C. Smith known to me to be the person and officer whose name is subscribed to the foregoing instrument as Senior Vice President of J.R. Simplot Company, a Corporation, and acknowledged to me that he executed the same as the act and deed of said Corporation, for the purposes and consideration therein expressed, in the capacity therein stated; and that said Corporation executed said instrument for itself and in the capacities therein specified.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this 10th day of September 1987.

My Commission Expires:

May 30, 1993

Laurel Walker
Notary Public

(SEAL)
Corporate

(SEAL)
Notary

OCT 03 1988

RESOLUTION

WHEREAS, the Shoshone-Bannock Tribes have undertaken a project to restore and enhance anadromous fishery habitat in the Yankee Fork of the Salmon River pursuant to federal funding from the Bonneville Power Administration (BPA); and

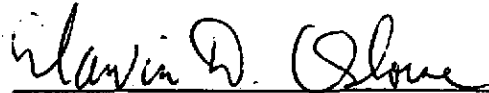
WHEREAS, the project area includes private lands owned in fee simple by the J.R. Simplot Company of Boise, Idaho; and

WHEREAS, at the direction of the Fort Hall Business Council, Tribal staff have negotiated the foregoing "Grant of Easement for Stream Enhancement Project" for the purpose of obtaining the consent of J.R. Simplot Company to implement fish habitat enhancement efforts in the project area pursuant to BPA funding;

NOW, THEREFORE, BE IT RESOLVED BY THE BUSINESS COUNCIL OF THE SHOSHONE-BANNOCK TRIBES, that the foregoing "Grant of Easement for Stream Enhancement Project" is hereby approved, the Tribal Chairman is hereby authorized to sign said document on behalf of the Tribes, and authorization is hereby given to pay \$1.00 from the Tribes to J.R. Simplot Company in consideration for the easement granted thereby.

Authority for the foregoing resolution is found in the Indian Reorganization Act of June 18, 1934 (48 Stat.984), as amended, and under Article VI, Section 1(g) of the Constitution and Bylaws of the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation, Idaho.

Dated this 9th day of September, 1987.


Marvin D. Osborne, Chairman
Fort Hall Business Council

SEAL

CERTIFICATION

I HEREBY CERTIFY, that the foregoing resolution was passed while a quorum of the Business Council was present by a vote of 4 in favor, 2 absent (AF,DF), and 1 not voting on the date this bears.


Velda R. Auck, Secretary
Fort Hall Business Council



OCT 03 1988

GAME-87-11364



APR 06 1988

Yankee Fork Applications
11/12/87

Samplot (32/24) — Samplot has granted easment
at no cost to tribe for construction

Samplot is interested in change in use if
fish no longer use facility

F#6 — Anonymous fish production facility
is reserved to the state — water right should
not be held privately. — state has control
over delivery of fish to production facility.

MICROFILMED

OCT 03 1988

The SHOSHONE-BANNOCK TRIBES



FORT HALL INDIAN RESERVATION
PHONE (208) 238-3808
(208) 238-3867

TRIBAL FISH & GAME
P. O. BOX 306
FORT HALL, IDAHO 83203

November 3, 1987

Department of Water Resources
Southern Region
Attn: Loren Holmes
2148 4th Avenue East
Twin Falls, Id. 83301

Dear Mr. Holmes:

An informal conference has been scheduled on November 12, 1987, to discuss issues related to water right applications, 72-7399 through 72-7405, on the Yankee Fork River by J. R. Simplot Company. The conference will be held in the third floor conference room of the Department of Water Resources, at 450 West State Street, Boise, at 10:00 a.m.

Should you have any questions concerning this conference, please feel free to call me at 238-3748.

Sincerely,

Carl Richards
Tribal Fisheries Biologist

CR/lgn

cc: Bruce Belzer, J.R. Simplot Company, Boise, Idaho
Dave Hanson, Idaho Department of Fish and Game
Dexter Pitman, Idaho Department of Fish and Game
Steve Goddard, Idaho Department of Fish and Game

RECEIVED

OCT 03 1988

RECEIVED

NOV 4 1987

Department of Water Resources
Southern Region Office

**UNITED STATES POSTAL SERVICE
OFFICIAL BUSINESS**

SENDER INSTRUCTIONS

Print your name, address, and ZIP Code in the space below.

- Complete Items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

NOT REPLIED

OCT 05 1988



PENALTY FOR PRIVATE
USE, \$300

**RETURN
TO**



Print Sender's name, address, and ZIP Code in the space below.

DEPARTMENT OF WATER RESOURCES

2148 4th AVENUE EAST

TWIN FALLS, IDAHO 83301

SENDER: Complete items 1 and 2 when additional services are desired, and complete item 4. Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery.

3. Article Addressed to:

Howard Funke
Tribal Attorney
P.O. Box 306
Fort Hall, ID 83203

Department of Water Resources
Southern Region Office

OCT 23 1987

4. Article Number

348

Type of Service:

Registered
Certified
Express Mail

☐ Insured
☐ COD

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee

X *Howard Funke*

6. Signature - Agent

X

7. Date of Delivery

8. Addressee's Address (ONLY if requested and fee paid)

OCT 03 1988

UNITED STATES POSTAL SERVICE
OFFICIAL BUSINESS

SENDER INSTRUCTIONS

Print your name, address, and ZIP Code in the space below.

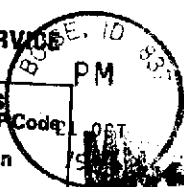
- Complete items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

RETURN
TO



Print Sender's name, address, and ZIP Code in the space below.

DEPARTMENT OF WATER RESOURCES
2148 4th AVENUE EAST
TWIN FALLS, IDAHO 83301



ALWAYS



PENALTY FOR PRIVATE
USE, \$300

e: Simplot, 72-7399/72-7405

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete item 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery.

3. Article Addressed to:
Idaho Dept. of Fish & Game
Jerry Conley, Director
Box 25
Boise, ID 83707

4. Article Number

347

Type of Service:

- ☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Always obtain signature of addressee or agent and **DATE DELIVERED.**

8. Addressee's Address (Only if requested and fee paid)

OCT 03 1988

5. Signature - Addressee

X

6. Signature - Agent

X

7. Date of Delivery

RECEIVED

OCT 22 1987

Department of Resources
Boise Office

**UNITED STATES POSTAL SERVICE
OFFICIAL BUSINESS**

SENDER INSTRUCTIONS

Print your name, address, and ZIP Code in the space below.

- Complete Items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.



OCT 03 1988



PENALTY FOR PRIVATE
USE, \$300

**RETURN
TO**



Print Sender's name, address, and ZIP Code in the space below.

DEPARTMENT OF WATER RESOURCES
2148 4th AVENUE EAST
TWIN FALLS, IDAHO 83301

re: Simplot, 72-7399/72-7405

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete item 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery.

3. Article Addressed to:
Idaho Dept. of Fish & Game
Herb Pollard, Supervisor
1515 Lincoln Road
Idaho Falls, ID 83401

4. Article Number

346

Type of Service:

- ☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Always obtain signature of addressee or agent and **DATE DELIVERED**

8. Addressee's signature (if requested and fee paid)

OCT 03 1988

5. Signature — Addressee

X Denise

6. Signature — Agent

X [Signature]

7. Date of Delivery

10-24-88

**UNITED STATES POSTAL SERVICE
OFFICIAL BUSINESS**

SENDER INSTRUCTIONS

Print your name, address, and ZIP Code in the space below.

- Complete items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

OCT 03 1988



PENALTY FOR PRIVATE
USE, \$300

**RETURN
TO**



Print Sender's name, address, and ZIP Code in the space below.

DEPARTMENT OF WATER RESOURCES
2148 4th AVENUE EAST
TWIN FALLS, IDAHO 83301

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery.

3. Article Addressed to:

Bechtel Environmental, Inc.
Dave Cornman, Project Coordinator
P.O. Box 3965
San Francisco, CA 94116

4. Article Number

345

Type of Service:

- ☐ Registered
☒ Certified
☐ Express Mail

- ☐ Insured
☐ COD

Always obtain signature of addressee or agent and DATE DELIVERED

5. Signature -- Addressee

X

6. Signature -- Agent

X

7. Date of Delivery

OCT 23 1987

8. Addressee's Address (for return if requested and fee paid)

OCT 03 1988

**UNITED STATES POSTAL SERVICE
OFFICIAL BUSINESS**

SENDER INSTRUCTIONS

Print your name, address, and ZIP Code in the space below.

- Complete Items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

**RETURN
TO**



Print Sender's name, address, and ZIP Code in the space below.

DEPARTMENT OF WATER RESOURCES
2148 4th AVENUE EAST
TWIN FALLS, IDAHO 83301



OCT 03 1988



PENALTY FOR PRIVATE
USE, \$300

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery.

3. Article Addressed to:

Carl Richards
Tribal Fish & Game
P.O. Box 306
Fort Hall, ID 83203

Department of Water Resources
Southern Region Office

OCT 23 1987

RECEIVED

4. Article Number

344

Type of Service:

- ☐ Registered
☒ Certified
☐ Express Mail

- ☐ Insured
☐ COD

Always obtain signature of addressee or agent and **DATE DELIVERED**

8. ~~Signature of addressee or agent~~
(requester and fee paid)

OCT 03 1988

5. Signature - Addressee

X *[Signature]*

6. Signature - Agent

X

7. Date of Delivery

ACCEPTANCE OF REGISTERED, INSURED, C.O.D. AND CERTIFIED MAIL

NAME AND ADDRESS OF SENDER

10/19/87
J. R. Simplot Co.
72-7405
Re: 72-7399 thru

Indicate type of mail
☐ Registered
☐ Insured
☐ C.O.D.
☐ Certified

I certify that we have
☐ Commercial Insurance
☐ A deductible clause of \$

Affix stamp here if issued as certificate of mailing or for additional copies of this bill.
POSTMARK AND DATE OF R

No	NUMBER OF ARTICLE	NAME OF ADDRESSEE, STREET, AND POST-OFFICE ADDRESS	POSTAGE	FEE	Handling Charge	Actual Value (if Registered)	DUE SENDER IF C.O.D.	R. R. FEE	S.D. FEE	S.H. FEE
1	343	J. R. Simplot	.22	.70	.75					
2	344	Carl Richards								
3	345	Bechtel Environmental, Inc								
4	346	IDFG, Region 6 (Herb Pollard)								
5	347	IDFG, Jerry Conley								
6	348	Howard Funke								
7										
8										
9										
10										
11										
12										
13										
14										
15										

TOTAL NUMBER OF PIECES LISTED BY SENDER

TOTAL NUMBER OF PIECES RECEIVED AT POST OFFICE

POSTMASTER, PER (Name of receiving employee)

The full declaration of value is required on all domestic and international mail. Commercial Insurance—Payment of the full registry fee is required valued up to \$1,000 or the full amount of the deductible if the deductible is \$1,000. The maximum indemnity payable is \$25,000 for registered mail, \$400 for insured mail. Special handling charges apply only to third-class parcels. Special delivery service also includes special handling service.

BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE
STATE OF IDAHO

IN THE MATTER OF PROTESTS AGAINST APPROVAL)
OF APPLICATIONS FOR PERMIT NOS. 72-7399) NOTICE OF CONFERENCE
THROUGH NOS. 72-7405)
IN THE NAME OF J.R. SIMPLOT COMPANY)

On May 28, 1987 J.R. Simplot Company filed with the Department of Water Resources applications to appropriate the public waters of the State of Idaho. On August 3, 1987 the Department received protests against the approval of said applications from two individuals and/or organizations. On August 19, 1987 the Department received one withdrawal of protest against said applications.

The Department has set the matter of protest for conference on Thursday, November 5, 1987 at 1:30 p.m. in the conference room at the Department's State Office located at 450 West State Street; Boise, ID.

The conference will be held in accordance with Rule 8 of the adopted rules of Practice and Procedure of the Department of Water Resources. Opportunity shall be afforded to all parties to respond and present evidence and argument on all issues involved.

Dated this 19 day of October, 1987.

Loren O. Holmes

Loren O. Holmes
Southern Region Manager

RECEIVED

OCT 05 1988

J.R. Simplot Company -Applicant
P.O. Box 27
Boise, ID 83707

Carl Richards
Tribal Fish & Game
P.O. Box 306
Fort Hall, ID 83203

Bechtel Environmental, Inc.
Dave Cornman, Project Coordinator
P.O. Box 3965
San Francisco, CA 94119

Idaho Dept. of Fish & Game
Herb Pollard, Supervisor
Region 6
1515 Lincoln Road
Idaho Falls, ID 83401

Idaho Dept. of Fish & Game -Protestant
Jerry Conley, Director
Box 25
Boise, ID 83707

Howard Funke
Tribal Attorney
P.O. Box 306
Fort Hall, ID 83203

Jonathan H. Marvel -Protestant *Withdrawn*
P.O. Box 1602
Hailey, ID 83333

MAILED

OCT 03 1988



State of Idaho

DEPARTMENT OF WATER RESOURCES

Southern Region

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

Mailing Address:
Southern Region
2148 4th Ave. East
Twin Falls, Idaho 83301
(208) 734-3578

October 15, 1987

Jonathan H. Marvel
P.O. Box 1602
Hailey, ID 83333

Re: Applications for Permit No. 72-7399 through 72-7405 (J.R. Simplot, Company)

Dear Mr. Marvel:

On August 19, 1987 this office received your letter withdrawing protest against the above referenced applications.

The withdrawal removes you as a party to further action in the matter by the Department.

If we can provide information or be of assistance to you in the future, please let us know.

Very truly yours,

Loren O. Holmes, P.E.
Southern Region Manager

LH:mb

OCT 03 1988



State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

Mailing Address:
Southern Region
2148 4th Ave. East
Twin Falls, Idaho 83301
(208) 734-3578

October 9, 1987

J.R. Simplot Company
P.O. Box 27
Boise, ID 83707

Re: Applications 72-7399 through 72-7405, J.R. Simplot Company

Gentlemen:

The Department is planning to set the matter of the Yankee Fork applications for conference in Boise on November 5, 1987.

The Conference procedure will be according to Rule 8 of the Department's Rules of Practice and Procedure (copy enclosed) and will be preliminary to any hearing which may be held later.

Formal notice setting the time and place for the conference will be mailed on or about October 19.

Very truly yours,

Loren O. Holmes, P.E.
Southern Region Manager

LH:mb

Enclosure

RECEIVED

OCT 03 1988



State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

Mailing Address:
Southern Region
2148 4th Ave. East
Twin Falls, Idaho 83301
(208) 734-3578

October 9, 1987

Bechtel Environmental, Inc.
Dave Cornman, Project Coordinator
P.O. Box 3965
San Francisco, CA 94119

Re: Applications 72-7399 through 72-7405, J.R. Simplot Company

Dear Mr. Cornman:

The Department is planning to set the matter of the Yankee Fork applications for conference in Boise on November 5, 1987.

The Conference procedure will be according to Rule 8 of the Department's Rules of Practice and Procedure (copy enclosed) and will be preliminary to any hearing which may be held later.

Formal notice setting the time and place for the conference will be mailed on or about October 19.

Very truly yours,

Loren O. Holmes, P.E.
Southern Region Manager

LH:mb

Enclosure

MICROFILMED

OCT 03 1988



State of Idaho

DEPARTMENT OF WATER RESOURCES

Southern Region

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

Mailing Address:
Southern Region
2148 4th Ave. East
Twin Falls, Idaho 83301
(208) 734-3578

October 9, 1987

Carl Richards
Tribal Fish & Game
P.O. Box 306
Fort Hall, ID 83203

Re: Applications 72-7399 through 72-7405, J.R. Simplot Company

Dear Mr. Richards:

The Department is planning to set the matter of the Yankee Fork applications for conference in Boise on November 5, 1987.

The Conference procedure will be according to Rule 8 of the Department's Rules of Practice and Procedure (copy enclosed) and will be preliminary to any hearing which may be held later.

Formal notice setting the time and place for the conference will be mailed on or about October 19.

Very truly yours,

Loren O. Holmes, P.E.
Southern Region Manager

LH:mb

Enclosure

RECEIVED

OCT 03 1988



State of Idaho

DEPARTMENT OF WATER RESOURCES

Southern Region

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

Mailing Address:
Southern Region
2148 4th Ave. East
Twin Falls, Idaho 83301
(208) 734-3578

October 9, 1987

Idaho Dept. of Fish & Game
Herb Pollard, Supervisor
Region 6
1515 Lincoln Road
Idaho Falls, ID 83401

Re: Applications 72-7399 through 72-7405, J.R. Simplot Company

Dear Mr. Pollard:

The Department is planning to set the matter of the Yankee Fork applications for conference in Boise on November 5, 1987.

The Conference procedure will be according to Rule 8 of the Department's Rules of Practice and Procedure (copy enclosed) and will be preliminary to any hearing which may be held later.

Formal notice setting the time and place for the conference will be mailed on or about October 19.

Very truly yours,

Loren O. Holmes, P.E.
Southern Region Manager

LH:mb

Enclosure

MAILED

OCT 03 1988



State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

Mailing Address:
Southern Region
2148 4th Ave. East
Twin Falls, Idaho 83301
(208) 734-3578

October 9, 1987

Idaho Dept. of Fish & Game
Jerry Conley, Director
Box 25
Boise, ID 83707

Re: Applications 72-7399 through 72-7405, J.R. Simplot Company

Dear Mr. Conley:

The Department is planning to set the matter of the Yankee Fork applications for conference in Boise on November 5, 1987.

The Conference procedure will be according to Rule 8 of the Department's Rules of Practice and Procedure (copy enclosed) and will be preliminary to any hearing which may be held later.

Formal notice setting the time and place for the conference will be mailed on or about October 19.

Very truly yours,

Loren O. Holmes, P.E.
Southern Region Manager

LH:mb

Enclosure

MICROFILMED

OCT 05 1988



State of Idaho

DEPARTMENT OF WATER RESOURCES

Southern Region

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

Mailing Address:
Southern Region
2148 4th Ave. East
Twin Falls, Idaho 83301
(208) 734-3578

October 9, 1987

Howard Funke
Tribal Attorney
P.O. Box 306
Fort Hall, ID 83203

Re: Applications 72-7399 through 72-7405, J.R. Simplot Company

Dear Mr. Funke:

The Department is planning to set the matter of the Yankee Fork applications for conference in Boise on November 5, 1987.

The Conference procedure will be according to Rule 8 of the Department's Rules of Practice and Procedure (copy enclosed) and will be preliminary to any hearing which may be held later.

Formal notice setting the time and place for the conference will be mailed on or about October 19.

Very truly yours,

Loren O. Holmes, P.E.
Southern Region Manager

LH:mb

Enclosure

RECEIVED

OCT 05 1988

JONATHAN H. MARVEL

A.I.A.

ARCHITECT

RECEIVED

CROY STREET EXCHANGE • SUITE L
P.O. BOX 1602 • HAILEY, IDAHO 83333 • (208) 788-2290

AUG 19 1987

Department of Water Resources
Southern Region Office

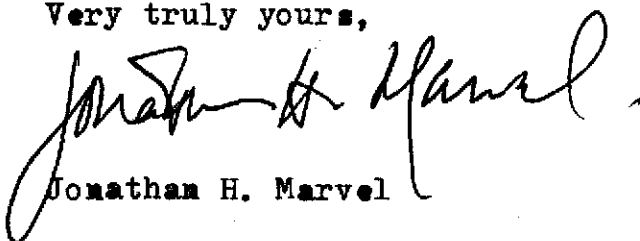
August 14, 1987

Idaho Department of Water Resources
1041 Blue Lakes Boulevard
Twin Falls, Idaho 83301

Dear Sirs:

I hereby request that my protest to the water right applications numbered 72-399 through 72-405 be withdrawn. I am doing so in the belief that the Idaho Department of Fish & Game will pursue their protest of these applications by the J.R. Simplot Co. to help insure future stocks of anadromous fisheries on the Main and Yankee Forks of the Salmon River.

Very truly yours,



Jonathan H. Marvel

cc: Carl Richards, Shoshone-Bannock Tribes
Dexter Pitman, Anadromous Fisheries Manager, Idaho Fish & Game

MICROFILMED

OCT 03 1988



State of Idaho

DEPARTMENT OF WATER RESOURCES

SOUTHERN REGION

CECIL D. ANDRUS
Governor

A. KENNETH DUNN
Director

2148 4th Ave. E.
Twin Falls, Idaho 83301
(208) 734-3578

August 6, 1987

David Cornman
Project Manager
Bechtel Environmental, Inc.
P.O. Box 3965
San Francisco, CA 94119

Re: Applications for Permit Nos. 72-7399, 72-7400, 72-7401,
72-7402, 72-7403, 72-7404, 72-7405

Dear Mr. Cornman:

Enclosed are copies of protests filed against the issuance of a permit pursuant to the above referenced applications in behalf of J.R. Simplot Company. The Department suggests you contact the protestants directly in an effort to determine the nature of the protests and to attempt to resolve the protests.

If you do not advise us within twenty (20) days that the protest has been resolved, the matter will be scheduled for conference and/or hearing. At such a conference and/or hearing, the following are the principle items the Department can consider in either approving or denying an application for permit (Section 42-203, IDAHO CODE):

- 1) Will the proposed use reduce the quantity of water under existing rights?
- 2) Is the proposed water supply insufficient for the purposes intended?
- 3) Is the application made in good faith or for delay or speculative purposes?
- 4) Has the applicant sufficient financial resources with which to complete the project?
- 5) Will the proposed use conflict with the local public interest?

If this office can be of further assistance, please contact us.

Very truly yours,

Loren O. Holmes

LOREN O. HOLMES
Southern Region Supervisor

RECEIVED

OCT 05 1988

Encl:

cc: J.R. Simplot Company ; Howard Funke, Attorney



State of Idaho

DEPARTMENT OF WATER RESOURCES

SOUTHERN REGION

CECIL D. ANDRUS
Governor

A. KENNETH DUNN
Director

August 5, 1987

2148 4th Ave. E.
Twin Falls, Idaho 83301
(208) 734-3578

Jonathan H. Marvel, AIA
P.O. Box 1602
Hailey, ID 83333

Re: Applications for Permit Nos. 72-7399, 72-7400, 72-7401,
72-7401, 72-7402, 72-7403, 72-7404, 72-7405

Dear Mr. Marvel:

Your protest against the approval of the above referenced applications has been received and a copy has been sent to the applicant. The Department suggests you contact the applicant directly in an effort to determine what is proposed by the applications and to attempt to resolve the protest.

If you do not advise us within twenty (20) days that the protest has been resolved, the matter will be scheduled for conference and/or hearing. At such a conference and/or hearing, the following are the principle items the Department can consider in either approving or denying an application for permit (Section 42-203, IDAHO CODE):

- 1) Will the proposed use reduce the quantity of water under existing rights?
- 2) Is the proposed water supply insufficient for the purposes intended?
- 3) Is the application made in good faith or for delay or speculative purposes?
- 4) Has the applicant sufficient financial resources with which to complete the project?
- 5) Will the proposed use conflict with the local public interest?

If this office can be of further assistance, please contact us.

Very truly yours,

Loren O. Holmes
LOREN O. HOLMES
Southern Region Supervisor

FILED

OCT 05 1988

LOH:MB



State of Idaho

DEPARTMENT OF WATER RESOURCES

SOUTHERN REGION

CECIL D. ANDRUS
Governor

August 6, 1987

2148 4th Ave. E.
Twin Falls, Idaho 83301
(208) 734-3578

A. KENNETH DUNN
Director

Jerry M. Conley, Director
Idaho Fish & Game
Box 25
Boise, ID 83707

Re: Applications for Permit Nos. 72-7399, 72-7400, 72-7401,
72-7402, 72-7403, 72-7404, 72-7405

Dear Mr. Conley:

Your protest against the approval of the above referenced application has been received and a copy has been sent to the applicant. The Department suggests you contact the applicant directly in an effort to determine what is proposed by the application and to attempt to resolve the protest.

If you do not advise us within twenty (20) days that the protest has been resolved, the matter will be scheduled for conference and/or hearing. At such a conference and/or hearing, the following are the principle items the Department can consider in either approving or denying an application for permit (Section 42-203, IDAHO CODE):

- 1) Will the proposed use reduce the quantity of water under existing rights?
- 2) Is the proposed water supply insufficient for the purposes intended?
- 3) Is the application made in good faith or for delay or speculative purposes?
- 4) Has the applicant sufficient financial resources with which to complete the project?
- 5) Will the proposed use conflict with the local public interest?

If this office can be of further assistance, please contact us.

Very truly yours,

Loren O. Holmes

LOREN O. HOLMES
Southern Region Supervisor

MICROFILMED

OCT 03 1988

LOH:MB

RECEIVED

AUG 5 1987

Department of Water Resources
Southern Region Office



August 3, 1987

600 South Walnut • Box 25
Boise, Idaho 83707

RECEIVED

AUG 03 1987

hand delivered 2:15
Department of Water Resources

Mr. Loren O. Holmes
Department of Water Resources
1041 Blue Lakes Blvd.
Twin Falls, ID 83301

Re: Yankee Fork Water Rights Applications 72-399, 72-400,
72-401, 72-402, 72-403, 72-404, 72-405.

Dear Mr. Holmes:

The Idaho Department of Fish and Game has reviewed the above-referenced applications. We agree with the intended uses and amounts prescribed in these applications. However, we are unclear as to potential long-term implications of them.

It is possible that operation of the fish rearing ponds may not continue in the long-term. Rebuilding salmon and steelhead runs may preclude the need for the ponds. Catastrophic events could devastate the pond sites. In that event, a change in use and point of diversion of the water right could occur.

Collectively, if the quantity of water in question is diverted at fewer or a single diversion point, substantial or entire reduction of Yankee Fork discharge and impact on fish would result. The impact would negate the advantages to fish sought and gained by the above-referenced water right applications.

With that consideration, our Department protests the applications listed above. Our protest could be withdrawn if certain modifications of the application or if further information relieves our concerns.

Sincerely,

Jerry Mallet
for Jerry M. Conley
Director

MICROFILMED

OCT 03 1988

EQUAL OPPORTUNITY EMPLOYER

JONATHAN H. MARVEL A.I.A. ARCHITECT

CROY STREET EXCHANGE • SUITE L
P.O. BOX 1602 • HAILEY, IDAHO 83333 • (208) 788-2290

RECEIVED

AUG 3 1987

Department of Water Resources
Southern Region Office

July 30, 1987

Idaho Department of Water Resources
2148 4th Avenue East
Twin Falls, Idaho 83301

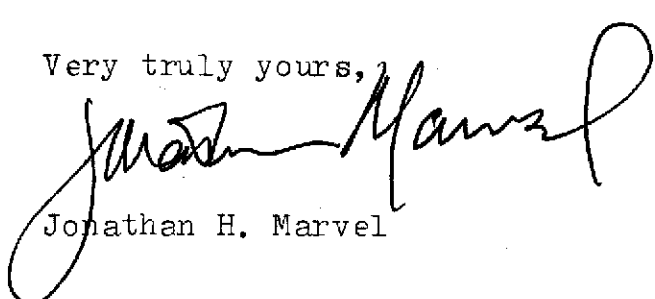
Dear Sirs:

I would like to officially protest 7 applications for non-consumptive water rights on the Yankee Fork of the Salmon River filed by the J.R. Simplot Co. The application numbers are 72-7399; 72-7400; 72-7401; 72-7402; 72-7403; 72-7404; and 72-7405.

My concern for the protest is the possibility that the non-consumptive water right requested could be converted to another non-consumptive right in the future which could seriously jeopardize the goal of the enhancement of anadromous fisheries in the Salmon River drainage.

I will withdraw this protest if this concern were to be shown to be without serious basis.

Very truly yours,


Jonathan H. Marvel

MAILED

OCT 03 1988



State of Idaho
DEPARTMENT OF WATER RESOURCES
SOUTHERN REGION

CECIL D. ANDRUS
Governor

A. KENNETH DUNN
Director

2148 4th Ave. E.
Twin Falls, Idaho 83301
(208) 734-3578

July 8, 1987

Howard Funke, Esquire
Shoshone/Bannock Tribe
P.O. Box 306
Fort Hall, ID 83203

RE: Applications for Water Permit, J.R. Simplot Co.; Nos.
72-7399, 72-7400, 72-7401, 72-7402, 72-7403, 72-7404, 72-7405

Dear Mr. Funke:

Enclosed for your information are copies of applications for
water permit which have been filed with this office.

If you have any questions or need additional information
regarding these applications, please feel free to contact this
office.

Very truly yours,

Loren O. Holmes, P.E.
Southern Region Supervisor

LH:MB

Enclosure

MICROFILMED

OCT 05 1988



State of Idaho
DEPARTMENT OF WATER RESOURCES
SOUTHERN REGION

CECIL D. ANDRUS
Governor

A. KENNETH DUNN
Director

2148 4th Ave. E.
Twin Falls, Idaho 83301
(208) 734-3578

June 30, 1987

Dudley W. Reiser
Bechtel Environmental, Inc.
P.O. Box 3965
San Francisco, CA 94119

Re: Applications for Permit Nos. 72-7399, 72-7400

Dear Mr. Reiser:

The Department of Water Resources acknowledges receipt of two of the water right applications for permit on behalf of your client, J.R. Simplot Company. The applications have been assigned identification Nos. 72-7399 and 72-7400. Please refer to these numbers in all further correspondence.

This office will be advertising the applications in the Challis Messenger on 7/16 & 7/23/87. The advertisement will be published correctly for two weeks, and a period of ten days following the second publication will be allowed for the submittal of protests.

If the application is protested, you will be sent a copy of the protest. The protest must be resolved before the application is approved or denied. If the protest is not resolved voluntarily, this Department will conduct a conference and/or hearing on the matter.

If the application is not protested, it will be forwarded to our state office in about five weeks. State office personnel will conduct a complete review prior to final processing of the application and will notify you of the outcome of this review. When a permit is issued, you will be sent a copy. A typical processing time for an unprotested application is about eight weeks. Copies of the corrected applications are enclosed.

Enclosed please find your receipt no.45017 for the amount of \$250.00 (\$125.00/72-7399, \$125.00/72-7400).

Please feel free to contact this office if you have any questions regarding this procedure.

Very truly yours,

Loren O. Holmes, P. E.
Southern Region Supervisor

MICROFILMED

OCT 03 1988

LOH:mb
Enclosure

AFFIDAVIT OF PUBLICATION

State of Idaho, County of Custer, ss:

I. Margaret Parks
Publisher of the Challis Messenger,
a weekly newspaper, published at
Challis, Idaho, do solemnly swear
that the notice hereto attached and
made a part hereof, was published
in the regular and entire issue of
the Challis Messenger for 2

consecutive weeks, commencing with
the issue dated July 16
1987 and ending with the issued
dated July 23 1987.

Margaret Parks
Subscribed and sworn to before
me this 28th day of July
1987.

Edel M. Beck
Notary Public, residing at Challis,
Idaho. My commission expires on
3-21-92.

OK
MB
8/3/87

RECEIVED

JUL 30 1987

Department of Water Resources
Southern Region Office

RECEIVED

OCT 05 1988



State of Idaho

DEPARTMENT OF WATER RESOURCES

SOUTHERN REGION

CECIL D. ANDRUS
Governor

A. KENNETH DUNN
Director

2148 4th Ave. E.
Twin Falls, Idaho 83301
(208) 734-3578

June 30, 1987

Custer Publishing Company
P.O. Box 405
Challis, ID 83226

Re: 72-7399, 72-7400, 72-7401

Gentlemen:

Enclosed you will find a legal notices which we wish to have published once a week for two consecutive weekly issues of your newspaper. We have inserted the publication dates allowing ample time for you to submit us a galley proof for review before publication.

After sending us a galley proof, proceed with the publication on the dates we have inserted, assuming the notices are correct. If we have any corrections, we will notify you before the first publication. If you cannot publish the notice on the proposed dates, please contact us immediately.

In order to receive payment, an affidavit of publication must be submitted to the Department along with the publication bill.

Very truly yours,

Mary A. Baldwin
Sec/Office Coord.

Encl:

MICROFILMED

OCT 05 1988

NOTICE OF APPLICATION FOR WATER PERMIT

The following application (s) have been filed to appropriate the public waters of the State of Idaho:

72-7399

SIMPLOT COMPANY, J.R.

P.O. BOX 27, BOISE, ID 83707

Source: GROUNDWATER
YANKEE FORK trib. to SALMON RIVER

Diversion Pt: SESESW Sec 20 T 12N R 15E; Mouth of Preacher's Cove Creek

Use: RECREATION (5.0 CFS)

Date Filed: 05/28/1987

In: SESW Sec 20 T 12N R 15E NNNE NENW Sec 29 T 12N R 15E

The permit (s) will be subject to all prior water rights. Protests must be filed with the Director, Dept. of Water Resources, Southern Region, 2148 Fourth Avenue East., Twin Falls, Idaho 83301 on or before August 3, 1987.

KEN DUNN, Dir.

Published 7/16 & 7/23/87

RECEIVED

OCT 03 1988

**NOTICE OF APPLICATION
FOR WATER RIGHT**

The following application (s)
have been filed to appropriate the
public waters of the State of Idaho:
72-7399

OK
MB
7/20/87

SIMPLOT COMPANY, J.R.
P.O. BOX 27, BOISE, ID 83707
Source: GROUNDWATER
YANKEE FORK trib. to SALMON
RIVER

Diversion Pt.: SESESW Sec 20 T
12N R 15E; Mouth of Preacher's
Cove Creek

Use: RECREATION (5.0 CFS)
Date Filed: 05/28/1987

In: SESW Sec 20 T 12N R 15E
NWNE NENW Sec 29 T 12N R 15E

The permit (s) will be subject to
all prior water rights. Protests
must be filed with the Director,
Dept. of Water Resources,
Southern Region, 2148 Fourth
Avenue East, Twin Falls, Idaho
83301 on or before August 3, 1987.

KEN DUNN, Director
Published: July 16 & 23, 1987.

7/20/87
18
1987
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State of Idaho
DEPARTMENT OF WATER RESOURCES
SOUTHERN REGION

CECIL D. ANDRUS
Governor

A. KENNETH DUNN
Director

2148 4th Ave. E.
Twin Falls, Idaho 83301
(208) 734-3578

June 25, 1987

Herb A. Pollard, Supervisor
Idaho Dept. Fish & Game
1515 Lincoln Road
Idaho Falls, ID 83401

RE: Applications for Water Permit No. 72-7399, 72-7400, 72-7401

Dear Mr. Pollard:

Enclosed for your information are copies of applications for water permit which have been filed with this office.

If you have any questions or need additional information regarding these applications, please feel free to contact this office.

Very truly yours,

Loren O. Holmes, P.E.
Southern Region Supervisor

LH:MB

Enclosures

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OCT 03 1988

12.1311

Bechtel Environmental, Inc.

Engineers - Constructors

Fifty Beale Street

San Francisco, California

Mail Address: P.O. Box 3965, San Francisco, CA 94119

June 4, 1987



Mr. James E. Stanton
Sr. Water Resource Agent
State of Idaho Department of Water Resources
2148 4th Ave. E.
Twin Falls, Idaho 83301

Dear Mr. Stanton:

I have received the two returned applications for water appropriation in the Yankee Fork and have noted the discrepancy in the map scales. We have corrected these, and I am therefore returning them to you for further processing. I have also included the 250.00 fee which covers the two applications.

Please do not hesitate to call should you have any further questions on the applications. (415-768-0777).

Sincerely,

A handwritten signature in dark ink, appearing to read "Dudley W. Reiser".

Dudley W. Reiser
Project Manager

enc.

cc C. Richards

RECEIVED

JUN 5 1987

Department of Water Resources
Southern Region Office

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OCT 05 1988



State of Idaho
DEPARTMENT OF WATER RESOURCES
SOUTHERN REGION

CECIL D. ANDRUS
Governor

A. KENNETH DUNN
Director

2148 4th Ave. E.
Twin Falls, Idaho 83301
(208) 734-3578

June 2, 1987

Dudley W. Reiser
Bechtel Environmental, Inc.
P.O. Box 3965
San Francisco, CA 94119

Re: PS4-GW, PS4-SW

Dear Mr. Reiser:

We are returning your two applications for permit for recreation use in Sections 20 & 29, T12N, R15E. Since this is unsurveyed land, each application is checked against itself for correct legal descriptions.

These two applications are for the same project site, so they should also agree with each other; they do not, however. The printed project drawing attached to Item 13 of each application is of a different scale, and each drawing is centered differently on the section maps. It is impossible to tell which is correct, so one application or the other will have to be corrected to show the correct legal descriptions.

We are also returning the \$250.00 filing fee that covers these applications.

The corrected applications and filing fee can be returned to this office for further processing.

Very truly yours,

James E. Stanton

James E. Stanton
Sr. Water Resource Agent

JS:MB

Enclosures

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OCT 05 1988

INFORMATION TO SUPPORT DEVELOPMENT OF WATER RIGHTS

IDWR WATER RIGHT NUMBERS: 72-07399, 72-07402, 72-07405

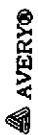
Prepared by: Mike Rowe, Shoshone-Bannock Tribes

**Prepared For: State of Idaho Department of Water Resources
("IDWR")**

Date Submitted: August 31, 1995.

**MICROFILMED
APR 28 1998**

72-07399



Aligner® LEGAL INDEX™ EXHIBIT DIVIDERS

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APR 28 1998

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Tab 5.....	Flow Data Collected July 28, 1995

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The SHOSHONE-BANNOCK TRIBES

FORT HALL INDIAN RESERVATION

PHONE (208) 238-3748

(208) 238-3900

(208) 238-3914

FISHERIES DEPARTMENT

P. O. BOX 306

FORT HALL, IDAHO 83203



August 16, 1995

RECEIVED

AUG 22 1995

J. R. SIMPLOT COMPANY
LAND & DEVELOPMENT

Vic Conrad
J. R. Simplot Company
P. O. Box 27
Boise, ID 83707

Dear Vic:

Enclosed is various information in regards to water rights permits 72-07399, 72-07402, and 72-07405. Permits 72-07399, 72-07402, and 72-07405 are for groundwater rights associated with pond series 4, 1, and 3, respectively. For your general information, we have in place structures on the inlet pipes to pond series 3 and 4 such that flow through the ponds can be adjusted. There is no direct connection (i.e., inlet) from ponds series 1 to the mainstem Yankee Fork.

The information includes:

- Maps 1, 2, 3. Maps of pond series 1, 3, and 4 including location of check structures.
- Prints of each check structure represented in the maps. Also included is a picture of the inlet structure for PS-4. I did not include a shot of the inlet structure for PS-3 but it would look similar.
- Excerpts from our 1992 and 1993 annual reports in which we present summer flow data from the pond series. In both years we measured flows in ponds series 1 at sites near the middle and at the outlet of the ponds series. As pond series 1 has no direct connection to the mainstem Yankee Fork, these values measure the minimum intergravel flow into the pond series.

Please note that in 1992 both pond series 3 and 4 showed at various times higher flows at middle or outlet sites than the inlet sites. This difference would represent minimum intergravel flow into these ponds. Our data from 1993 show little difference from June to September in flows throughout pond series 3 and 4.

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- Table 1. Flow data taken on 28 July 95 at the outlet of the three pond series after shutting off the inlet pipes on 24 July 95.

The pictures indicate that we do have control over the levels of our ponds via manipulation of the check structures. The data show that the minimum intergravel flow through the three pond series is measurable. Should you have any questions, please call me at (208) 238-3757.

Sincerely,



Mike Rowe
Fisheries Biologist

cc: files

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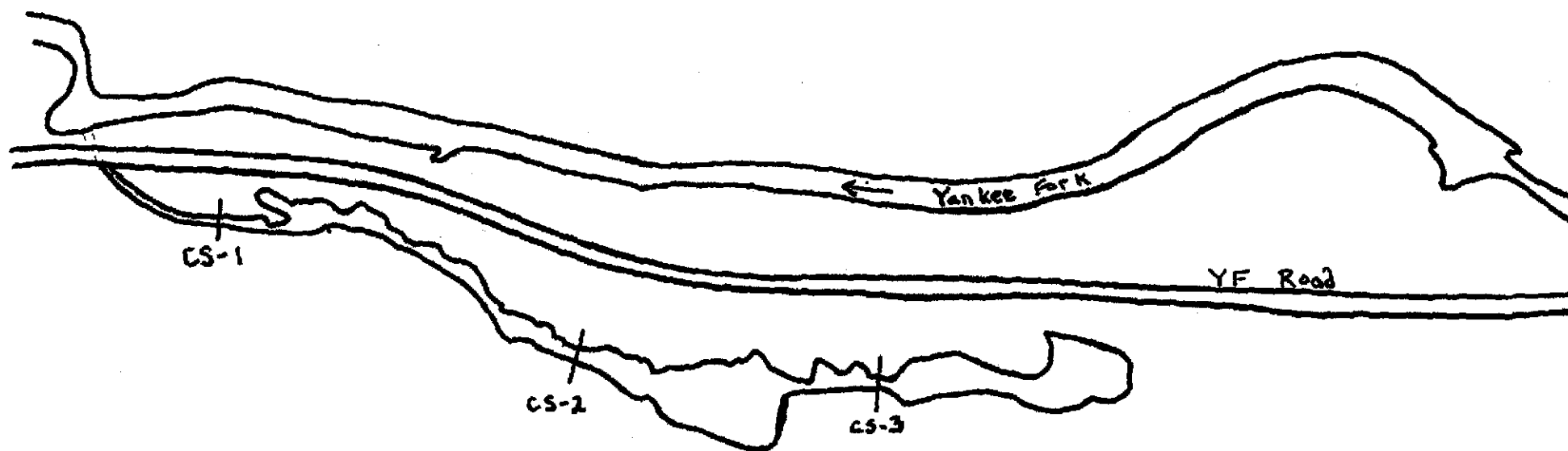
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ENCLOSURE
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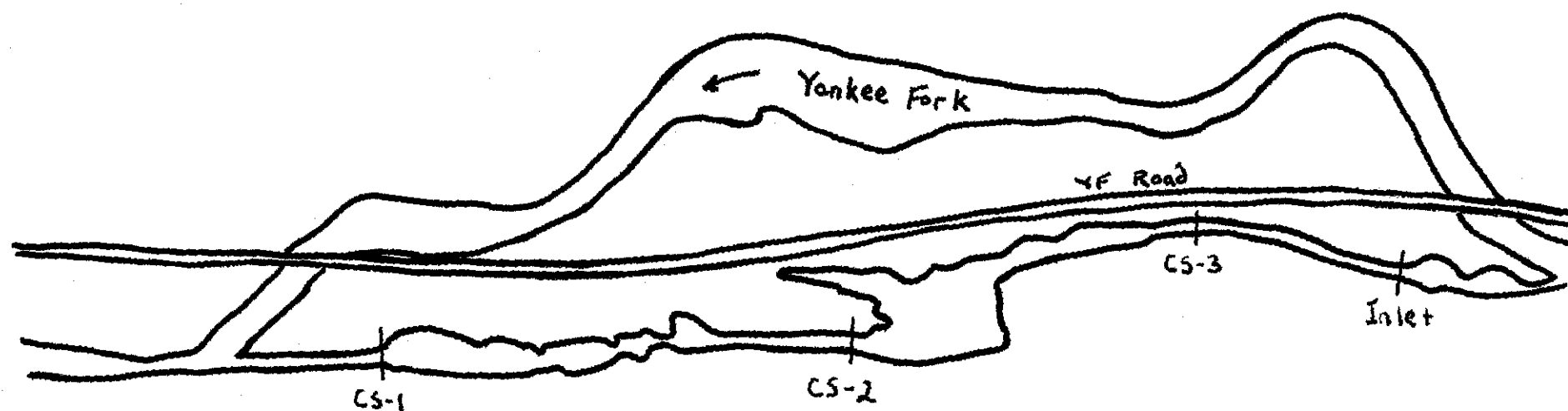
Pond Series 1
(CS = check structure)



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Map 1

Pond Series 3
(CS = check structure)

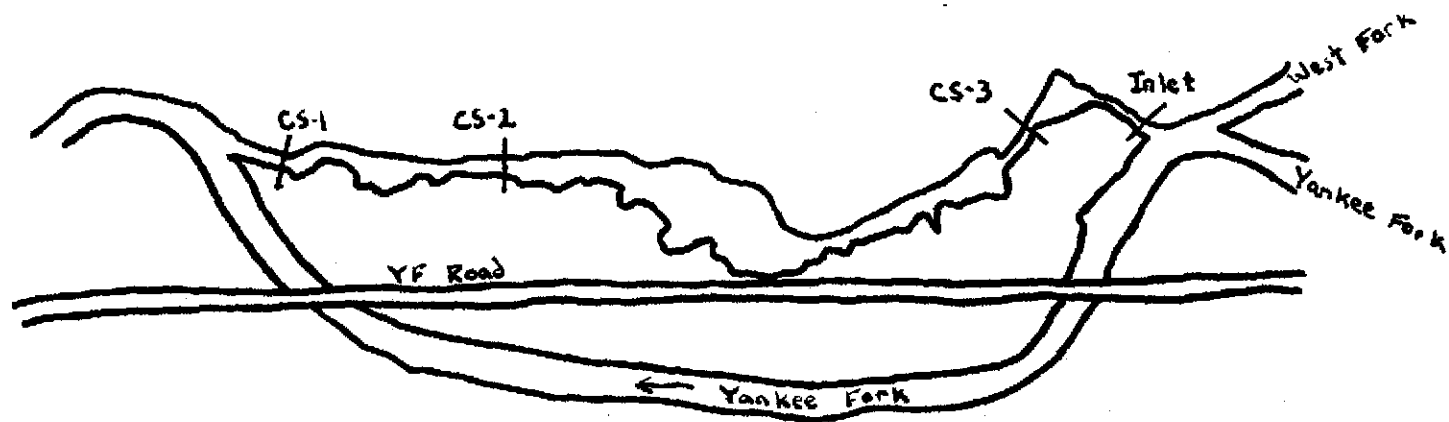


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Map 2

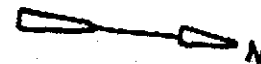


Pond Series 4
(CS = check structure)



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Map 3



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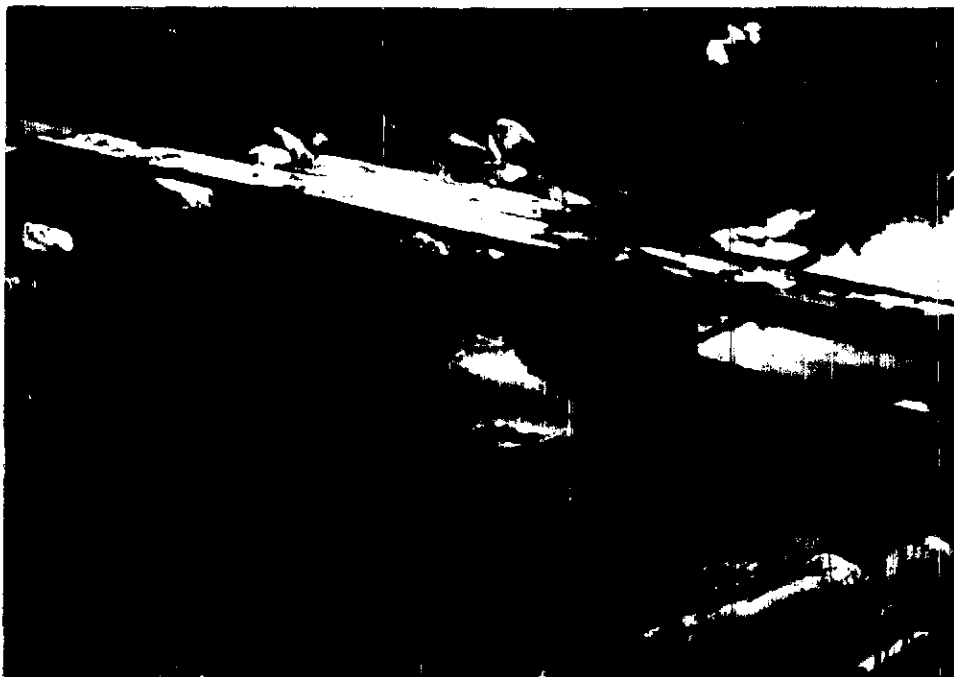
Wilson Jones
1000 E. 10th St.
Tulsa, OK 74106

**Salmon River Habitat Enhancement Project, Yankee Fork Salmon
River**

Photographs taken August, 1995



Pond Series No. 1 - Check Structure No. 1

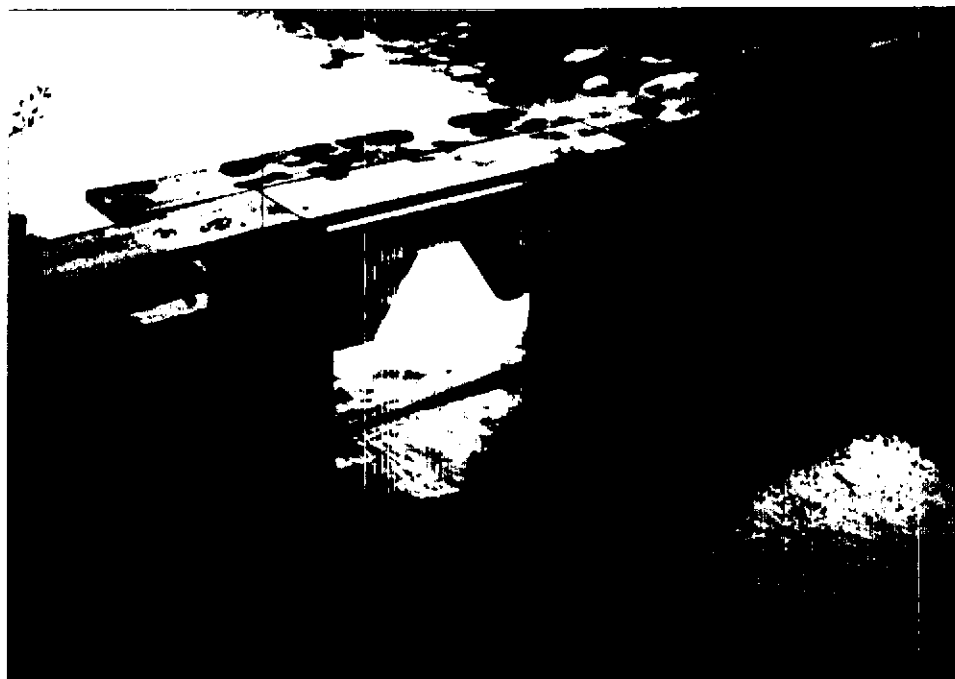


Pond Series No. 1 - Check Structure No. 2

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**Salmon River Habitat Enhancement Project, Yankee Fork Salmon
River**

Photographs taken August, 1995



Pond Series No. 1 - Check Structure No. 3



Pond Series No. 3 - Check Structure No. 1

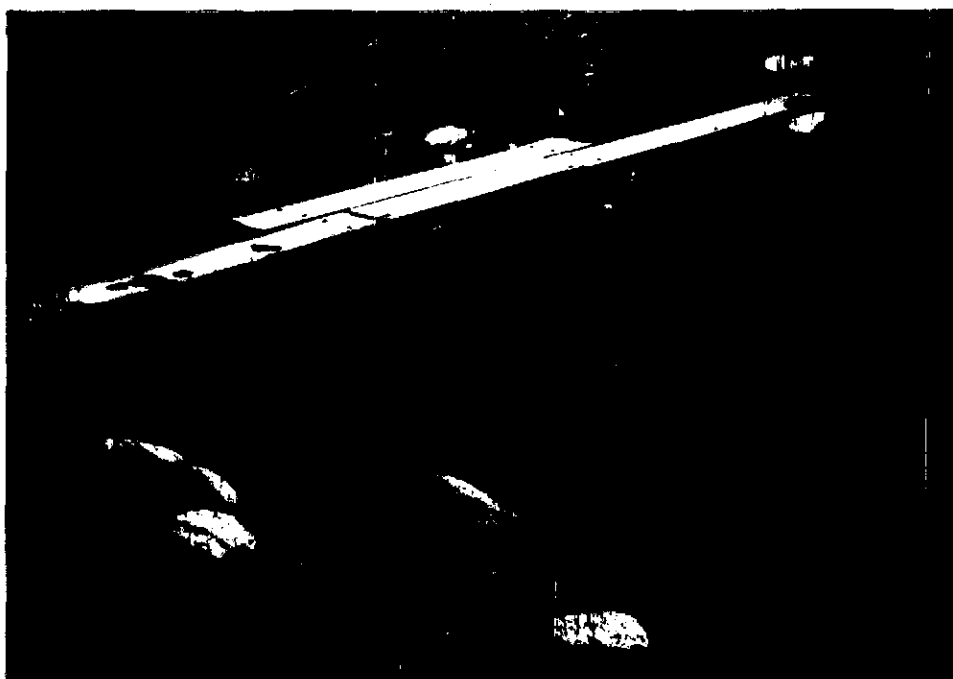
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**Salmon River Habitat Enhancement Project, Yankee Fork Salmon
River**

Photographs taken August, 1995



Pond Series No. 3 - Check Structure No. 2



Pond Series No. 3 - Check Structure No. 3

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**Salmon River Habitat Enhancement Project, Yankee Fork Salmon
River**

Photographs taken August, 1995



Pond Series No. 4 - Inlet Structure



Pond Series No. 4 - Check Structure No. 1

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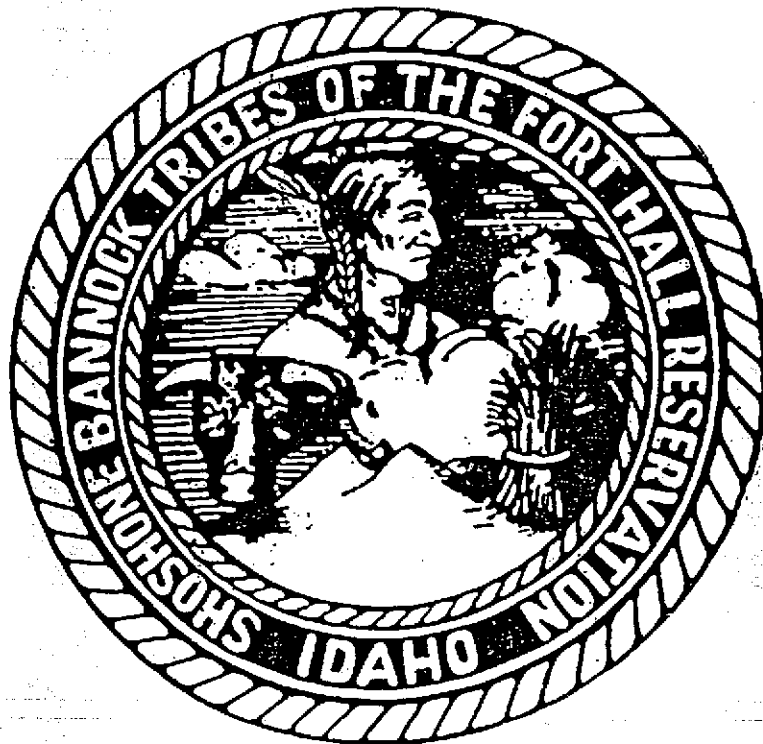
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DRAFT

BPA PROJECT 83-359

FY 1992 ANNUAL REPORT

SALMON RIVER HABITAT ENHANCEMENT



REPORT TO

BONNEVILLE POWER ADMINISTRATION

SHOSHONE-BANNOCK TRIBES FISHERIES DEPARTMENT

FORT HALL, IDAHO

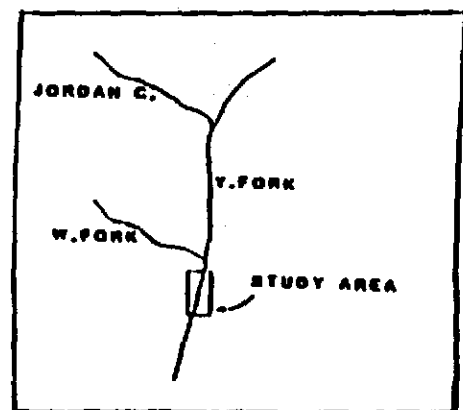
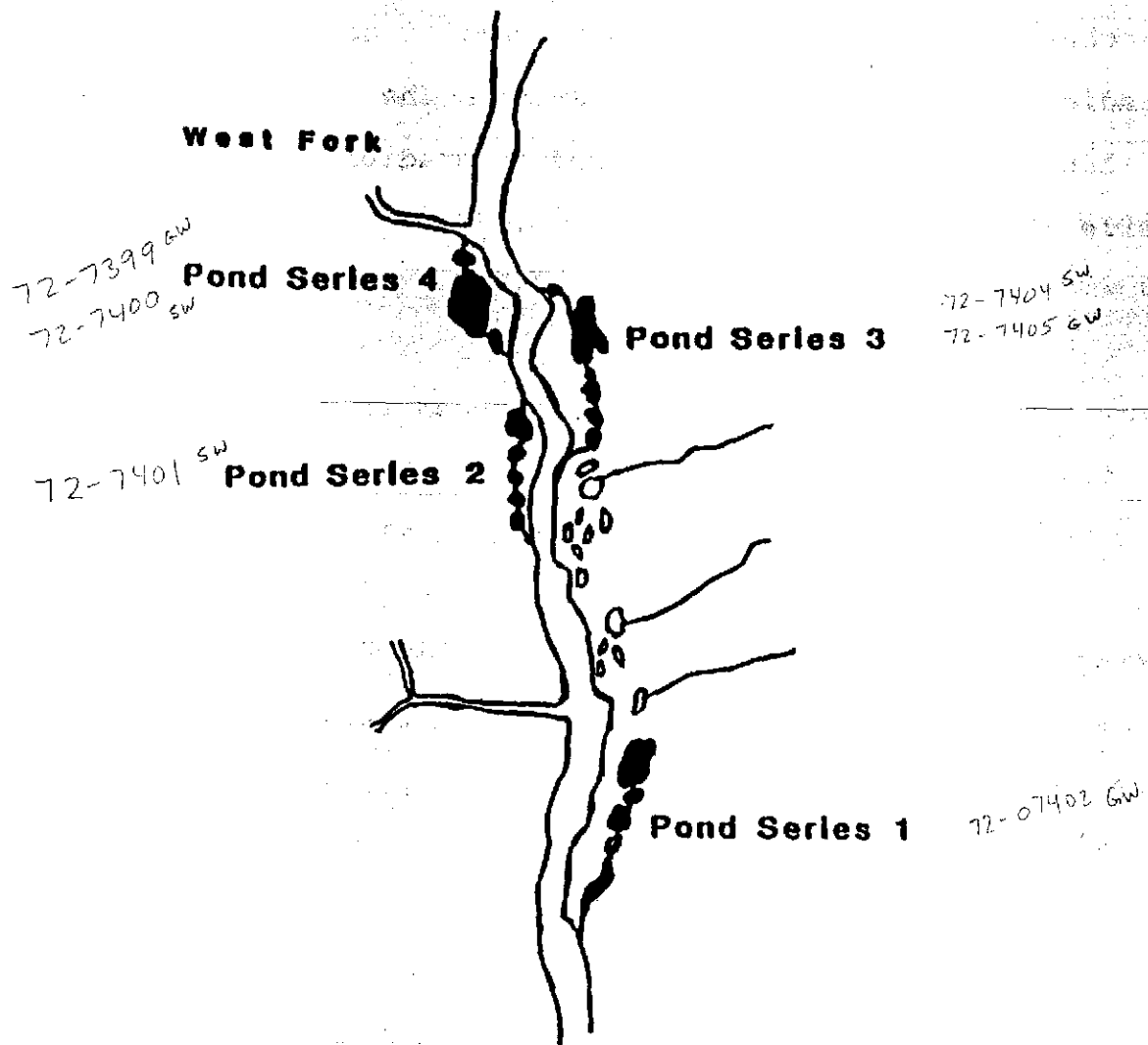


Figure 2. Pond series locations, Yankee Fork Salmon River.

Pre-established strata (Figure 1) were used in 1992 for work on the mainstem Yankee Fork, West Fork, and Jordan Creek. These seven reaches were stratified by common conditions (e.g., stream size, gradient, channel similarities) within the reaches and range in length from 3.8 to 12.7 km and in gradient from 0.62 to 1.50 (Table 1).

METHODS

Water flow through the ponds was measured four times; once in June, twice in July, and once in August. Flow was measured following the procedure outlined in Platts et al. (1983) except we divided the stream channel into 10 to 18 subsections depending on width of the stream.

To determine densities of juvenile chinook salmon and steelhead, numbers of each species were estimated in July in the mainstem Yankee Fork, the West Fork, and Jordan Creek. Mainstem habitats were sampled at pre-established strata and sites as outlined in Rowe et al. (1991). The abundance of salmon and steelhead in our study strata was estimated from mean density and variance values obtained through snorkel surveys following procedures in Scheaffer et al. (1979). Densities were calculated according to number of fish observed and area snorkeled.

Fish density information collected from the mainstem strata was compared among strata by analysis of variance (ANOVA). An alpha level of 0.05 was used for the significance criterion. A one-way ANOVA was used for all data with equal variance

(>230 mm) were considered rainbow trout as steelhead at those lengths would have already migrated. Non-anadromous salmonids were classified as young-of-year or adult.

Benefits to anadromous fish from the creation of the off-channel rearing areas were determined in two ways. In the first method, our September counts of fish (chinook salmon or age 1+ and 2+ steelhead) in the pond series was compared to number of fish observed in strata 2 and 3 (the channelized sections of the Yankee Fork). Based on fish/km in the river strata, we determined the equivalent amount of river habitat required to produce the number of fish observed in the ponds.

The second method estimated the number of returning chinook salmon adults which resulted from fish rearing in the ponds. The number of chinook salmon parr in the ponds series in July was multiplied by a parr-to-smolt survival factor of 0.434 (Kiefer and Forster 1991) to estimate the number of smolts produced. No smolt-to-adult survival estimate existed for natural smolts but Idaho Department of Fish and Game (IDFG 1993) estimated smolt-to-adult survival for hatchery chinook salmon at 0.0007. We arbitrarily used 0.001 as we expected natural fish to survive at a higher rate than hatchery fish (Bowles and Leitzinger 1991).

RESULTS AND DISCUSSION

FLOW

Flow through the pond series generally decreased from June to August as expected (Figures 3, 4, 5, 6). Only in June did

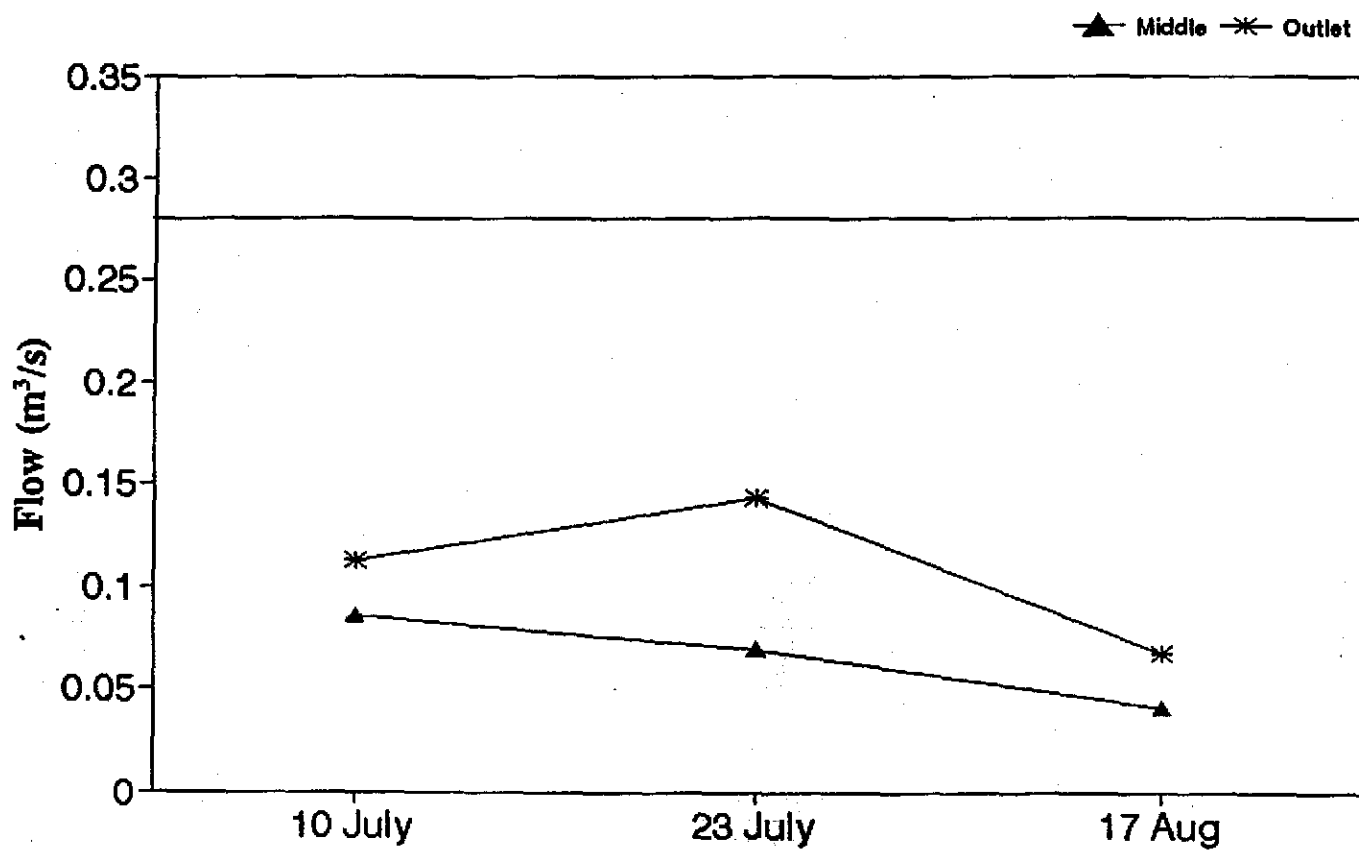


Figure 3. Flows at middle and outlet channels on Pond Series 1, Yankee Fork Salmon River, July and August, 1992. The straight line indicates the water right for the pond series.

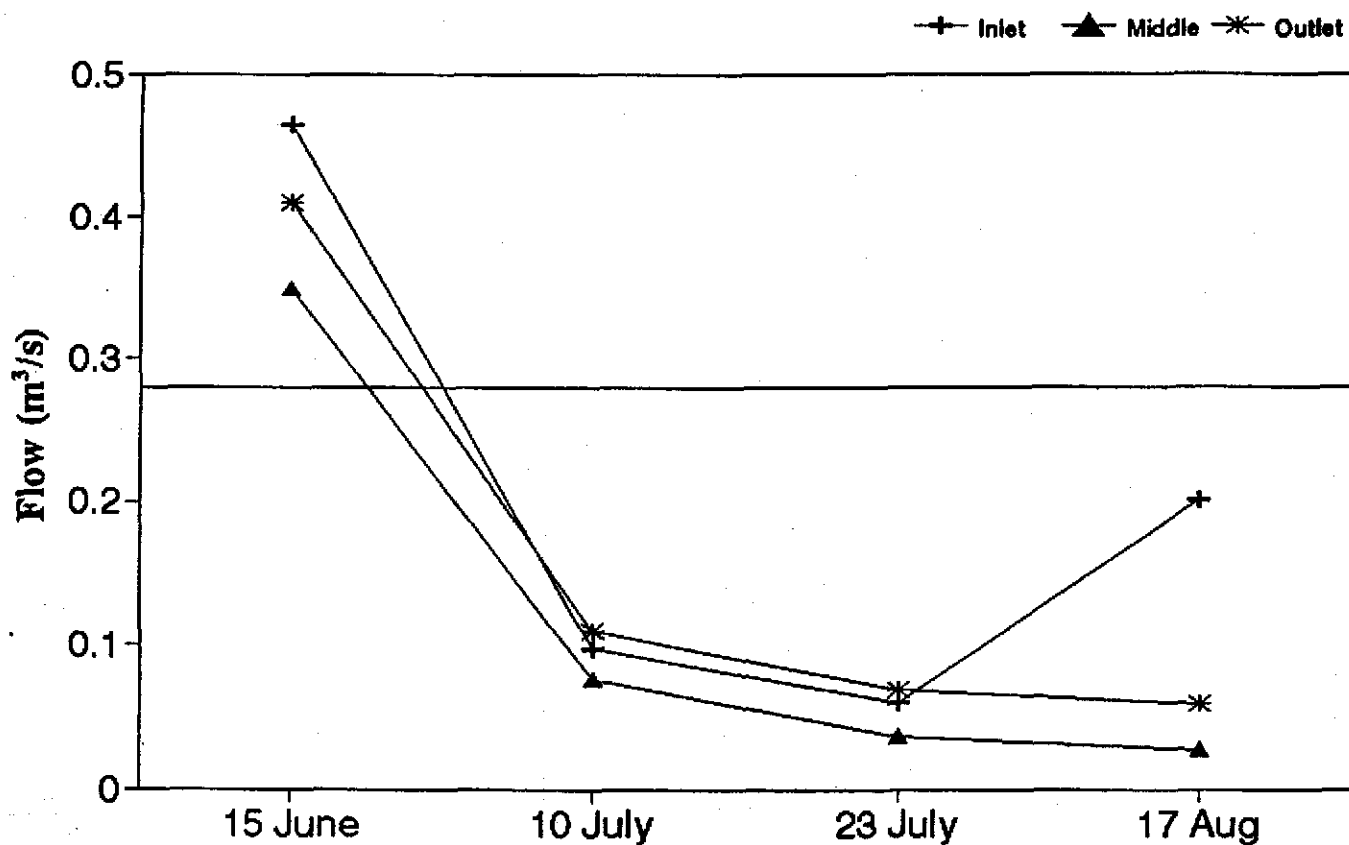


Figure 5. Flows at inlet, middle, and outlet channels Pond Series 3, Yankee Fork Salmon River, June to August, 1992. The straight line indicates the water right for the pond series.

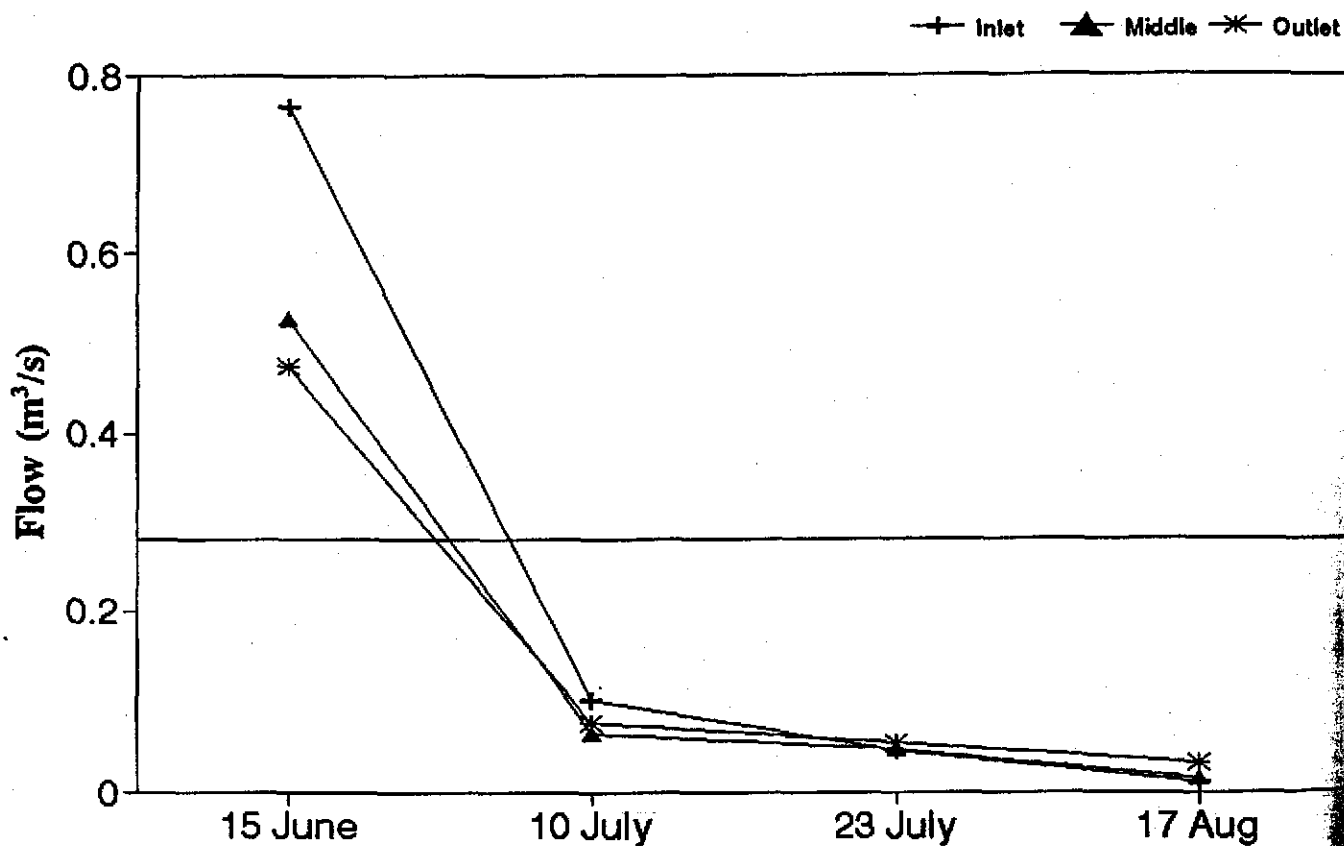


Figure 6. Flows at inlet, middle, and outlet channels Pond Series 4, Yankee Fork Salmon River, June to August, 1992. The straight line indicates the water right for the pond series.

APR 28 1998

flows exceed the water rights associated with the four pond series. Total precipitation for the 1991-1992 water year was below average as the recent drought continued. The increase in late summer flow that might be expected in a more normal water year is unknown. Also unknown is the effect these low flows have on rearing juvenile salmonids. Increasing flow through the ponds with mainstem Yankee Fork water needs to be considered.

FISH COMMUNITY

The most numerous salmonids species seen in Yankee Fork in 1992 were chinook salmon, steelhead and mountain whitefish (Figure 7). Rainbow trout, cutthroat trout, bull trout and brook trout were also present in Yankee Fork.

Similar to other years, the highest density of chinook salmon (9.8 fish/100 m²) was observed in West Fork, stratum 6 (Table 3). Although no chinook salmon were found in strata 3, 5, or 7, there was no significant difference in densities detected among the seven strata. Densities in 1992 were similar to densities seen in both 1990 and 1991 (Figure 8). The Percent Carrying Capacity was estimated at 9.0% in stratum 6 (West Fork) and 2.7% in stratum 2.

Three of the four pond series maintained chinook salmon at similar or higher densities than seen in stratum 6 (Table 4). The highest density was in pond series 4, located adjacent to stratum 6, at 25.6 chinook salmon/100 m². It appears that lack of an

LITERATURE CITED

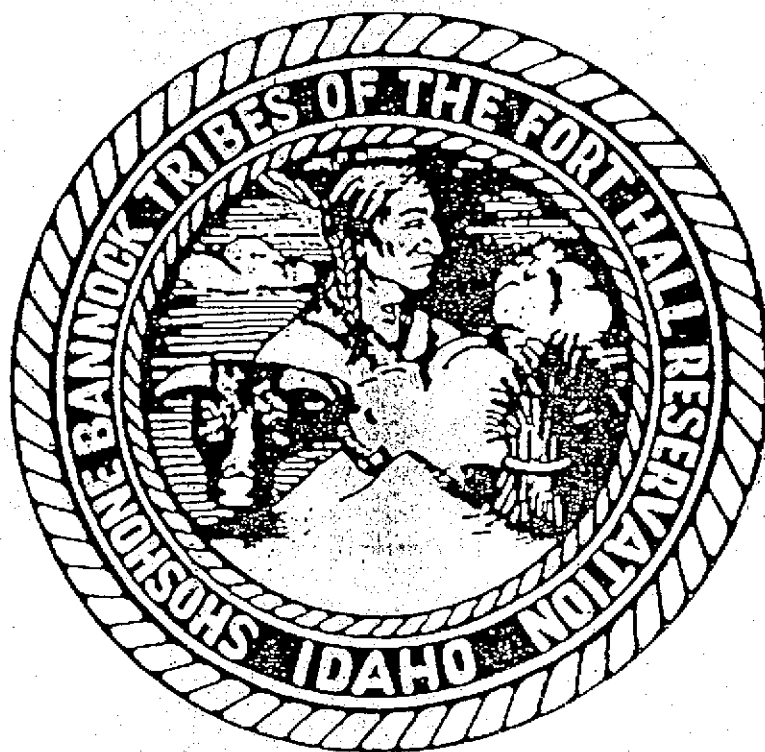
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- Richards, C., P. J. Cernera, and J. M. Gunderman. 1989. Salmon River habitat enhancement. Shoshone-Bannock Tribes 1988 Annual Report, Bonneville Power Administration, Portland, Oregon.

RECORDED
APR 28 1998

BPA PROJECT 83-359

FY 1993 ANNUAL REPORT

SALMON RIVER HABITAT ENHANCEMENT



REPORT TO

BONNEVILLE POWER ADMINISTRATION

SHOSHONE-BANNOCK TRIBES FISHERIES DEPARTMENT

FORT HALL, IDAHO

Pond Series Flows

To determine summer flow (m^3/s) levels in the four pond series, measurements were made three to five times throughout the summer with a Marsh-McBirney flow meter. Flow transects were located at the inlet, middle, and outlet of pond series 2, 3, and 4. Pond series 1 had transects located at the middle and outlet. Transects consisted of 10 to 15 cells (each cell having a width, depth, and velocity measurement) depending on pond or channel width. Measured flows were compared with readings from a staff gauge located at the outlet of each pond series. Staff gauge levels corresponding to allocated flows were determined using simple linear regression.

RESULTS AND DISCUSSION

Fish Evaluation

The most common fish observed in the Yankee Fork drainage during both sessions was mountain whitefish (Figure 2). Age 0 chinook salmon were found in strata 1 through 4 on the mainstem Yankee Fork and in stratum 6 (West Fork Yankee Fork). Chinook salmon were the most common fish in stratum 4 during session 2. Steelhead trout were common in strata 2 and 3. Bull trout were the only species of fish observed in stratum 5, although in low numbers.

Mean chinook salmon and steelhead trout densities were low. Age 0 chinook salmon mean density was highest in stratum 2 (0.61 fish/100 m^2 ; Table 1) during session 1 and in stratum 4 (1.74 fish/100 m^2) during session 2. Greater densities of young chinook salmon higher in the drainage is probably because of later emergence or fish movement. Steelhead trout of all size classes were at low densities during both sessions.

The pond series had no effect on condition of chinook salmon parr from early to late summer (paired t-test; $P = 0.203$). Fish captured during early summer had a mean condition of 0.93 whereas the late summer fish had a mean condition of 0.90. Too few fish were captured to compare fish condition between ponds.

Pond Series Flows

Flows in the pond series were below allocated levels during all or part of the year in each pond series (Figures 4 and 5). Pond series 2 fluctuated the greatest amount with the inlet being nearly dry by 8 September. Pond series 3 was below the allocated level throughout the summer.

Staff measurements corresponding to allocated flow levels were developed by regressing the location (inlet, middle, or outlet) with the lowest recorded flow (e.g., the inlet flow in pond series 1) and the outlet staff reading which was unitless (Table 5). Calculated outlet staff measurements were rounded to the nearest one-fourth. Coefficients of determination ranged from 0.97 to 0.99 for pond series 2, 3, and 4. Since pond series 1 had only two flows taken during the summer, no coefficient of determination was calculated. Pond series flows should be managed to obtain allocated flow levels during all portions of the year. Movement of boulders to direct more flow later in the year and use of check structures to regulate flow levels according to water rights should be considered.

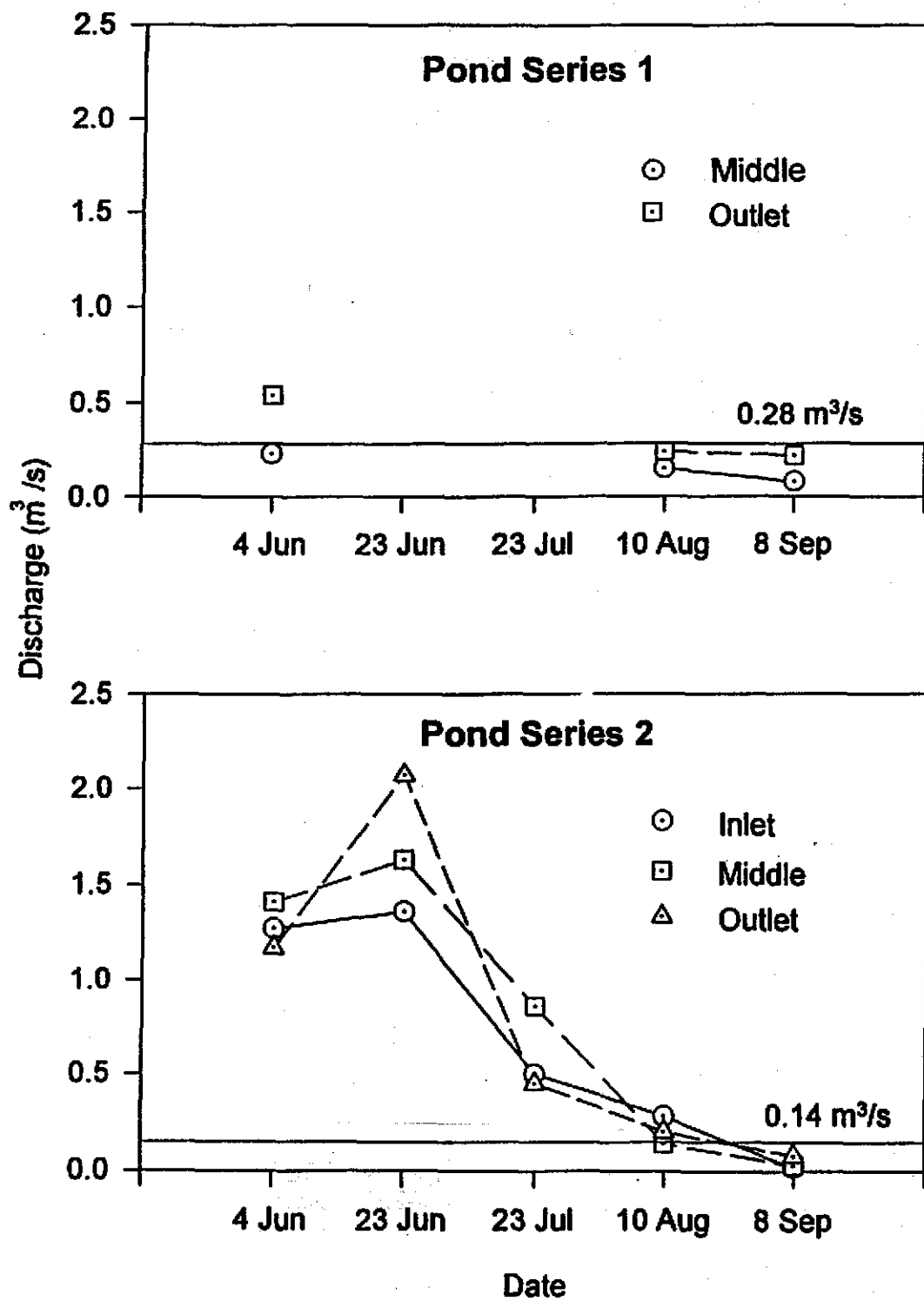


Figure 4. Summer 1993 flows for pond series 1 and 2 in the Yankee Fork. The horizontal lines at 0.28 m^3/s in pond series 1 and 0.14 m^3/s in pond series 2 represent the water rights associated with the pond series.

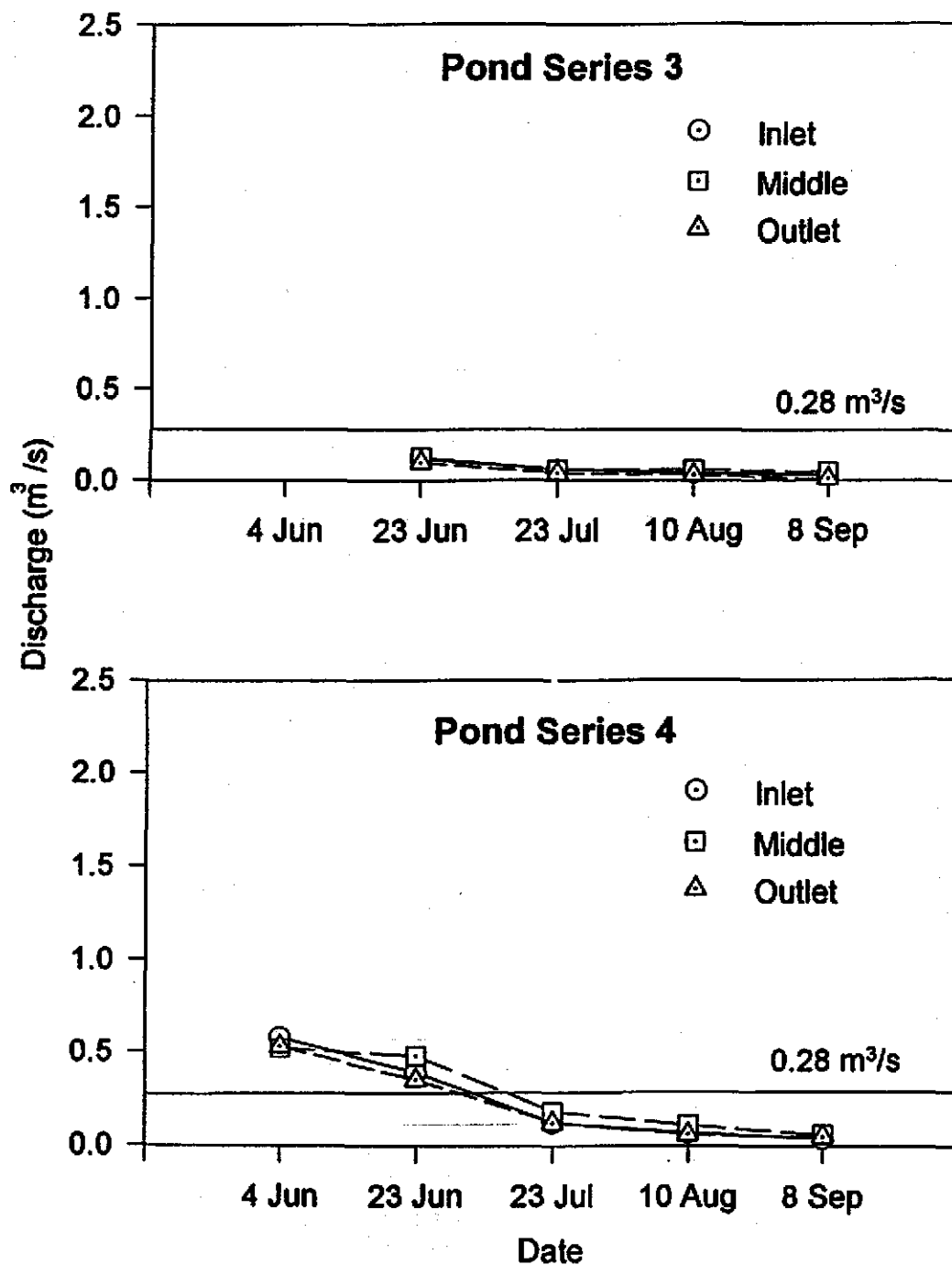


Figure 5. Summer 1993 flows for pond series 3 and 4 in the Yankee Fork. The horizontal line at $0.28 \text{ m}^3/\text{s}$ represents the water rights associated with the two pond series.

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APR 28 1986

Table 1. Flow (cfs) in Yankee Fork off-channel rearing areas, July, 1995.

Pond Series	Inlet	Outlet	Minimum Groundwater Flow
1	*	6.40	6.4
3	2.30	5.60	3.3
4	0.03	0.83	0.8

* Pond series 1 is not directly connected to the mainstem Yankee Fork and is dependent on groundwater for all its flow.

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Department of Energy
Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

RECEIVED

JUL 20 1987

Department of Water Resources
Southern Region Office

JUL 16 1987

In reply refer to: PGC

Dear Interested Parties:

Bonneville Power Administration (BPA) is proposing to fund certain fishery enhancement activities on the Yankee Fork of the Salmon River in Idaho. These activities consist of developing several of the off-channel ponds, created during past mining activities, to provide additional rearing habitat in the Yankee Fork.

An environmental report has been prepared that consists of a baseline environmental analysis of the physical and biological resources within the project area. At this time, BPA would like to provide the agencies involved in this project an opportunity to comment on the baseline information contained within the report (enclosed). Please return your comments on this document by July 31.

Your comments will be incorporated into this environmental report and used in the preparation of our National Environmental Policy Act (NEPA) document. The approved NEPA package will be sent to you for your information.

Please send your comments to me, routing PGC, by close of business on July 31. If you have any questions, please contact Kevin Ward at (503) 230-5373.

Sincerely,

Roy B. Fox
Environmental Coordinator
Office of Power Marketing

Enclosure

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OCT 03 1988



Celebrating the U.S. Constitution Bicentennial - 1787-1987

Environmental Assessment

DRAFT

**Enhancement of
The Yankee Fork of
The Salmon River**

Office of Power Resources Management

BONNEVILLE POWER ADMINISTRATION
P.O. Box 3621
Portland, Oregon 97208

JULY 1987

MICROFILMED

OCT 03 1988

*A note was filed in
place of entire book.*

Environmental Assessment

ENHANCEMENT OF THE YANKEE FORK OF THE SALMON RIVER

Office of Power Resources Management

BONNEVILLE POWER ADMINISTRATION

P.O. Box 3621

Portland, Oregon 97208

July 1987

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Chapter 1

PROPOSAL AND BACKGROUND

1.1 DESCRIPTION OF THE PROPOSED ACTION

The Yankee Fork of the Salmon River, located in Custer County, Idaho historically supported large runs of anadromous salmonids, primarily spring chinook salmon (Oncorhynchus tshawytscha) and steelhead trout (Salmo gairdneri). These runs have been reduced in the last 20 years due to localized mining activities and downstream hydroelectric developments. Dredge mining activities have rechannelized lower portions of the Yankee Fork leaving stream-side deposits of unconsolidated dredge spoils (Figure 1). The



Figure 1. View of the Dredged Section of the Yankee Fork showing the dredge piles which border its banks.

dredging has also created over 30 off-channel ponds, many of which receive sub-surface flow from the main Yankee Fork. The dredge mining has reduced available rearing habitat in the Yankee Fork such that its present production potential is well below historic levels.

The Bonneville Power Administration (BPA) proposes to fund the development of several of the off-channel ponds to provide additional rearing habitat in the Yankee Fork and mitigate for the above losses. Funds for this project were approved and allocated by the Northwest Power Planning Council (NWPPC) as part of the adopted Columbia River Basin Fish and Wildlife Program in 1982 (revised in 1984). Section 704 (d)(1) of the program specified the Yankee Fork for habitat enhancement. The proposed development will be accomplished via connecting the ponds to the mainstem Yankee Fork thereby affording fish access to the habitat.

This concept was developed following three years of investigation by the Shoshone-Bannock Indian Tribes (SBIT). In 1984 and 1985, the SBIT, with funding support provided by the BPA (Project No. 83-359), evaluated the existing physical and biological conditions in the Yankee Fork drainage and recommended enhancement measures. An engineering feasibility study was subsequently completed for the SBIT in 1986 (Reiser & Ramey 1987), which recommended the development of 19 of the existing ponds as the most cost-effective and reliable means for habitat enhancement. Four separate pond series (PS-1 through PS-4) each containing from 2 to 8 ponds were proposed for development (Figure 2).

Collectively, the ponds entail about 3.8 surface acres corresponding to 15.3 acre-ft (668,136 ft³) of water. The maximum depth of the ponds ranges from 2.5 to 13 ft deep; pond areas range from 0.05 to 0.61 acres. Three of the four pond series would have both inlet and outlet connections to the Yankee Fork, although in two of these, the inlets are via intake pipes and not direct channel connections. The channel connections will afford an access portal for juvenile chinook and steelhead to move into and use the new rearing habitat. Full seeding of the ponds should increase chinook smolt production by about 22% over existing levels (from about 90,000 to 115,000) and provide an adult return of over 900 fish to the drainage (assuming a smolt to adult return rate of 0.80%); 200 more than from existing habitat conditions. The Idaho Department of Fish and Game (IDFG) has endorsed and supported the proposed development (Huffaker 1987), and further, has indicated it will assist in the initial stocking of the ponds with fry from the Sawtooth Hatchery. This will accelerate the build-up of runs into the system and will help determine future pond loading potential. The U.S. Forest Service (USFS) is likewise supportive of these habitat enhancement measures and will assist in implementing certain project components (see Section 2.4). The IDFG and USFS will also assist the SBIT in the future monitoring and evaluation of the ponds. The SBIT (with financial support from BPA) have assumed responsibility for the operation and maintenance (O&M) of flow-control structures and check dams.

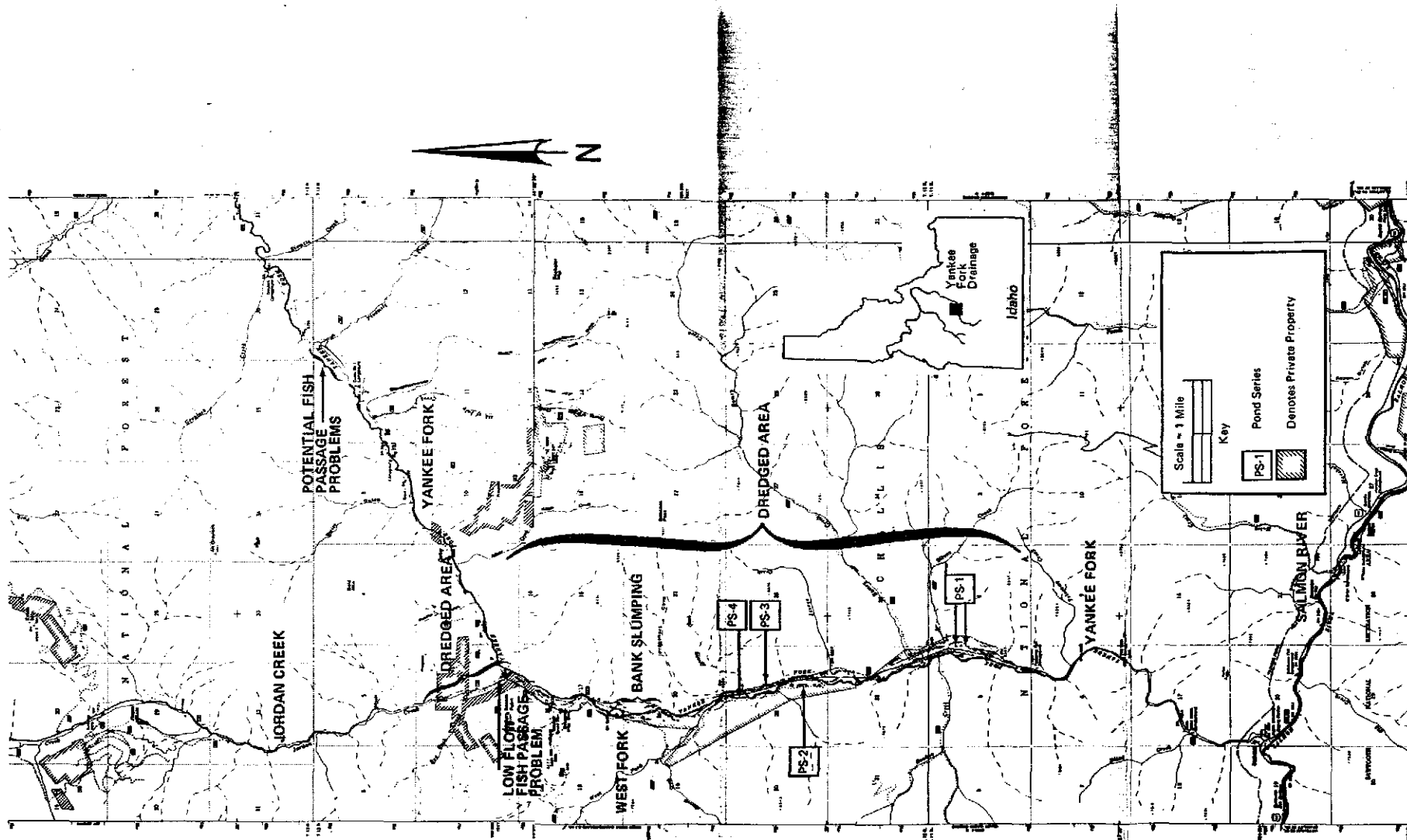


Figure 2 Location Map of the Yankee Fork

Development of the ponds will augment available chinook rearing habitat in the Yankee Fork drainage and increase its production potential back to historic levels. Commensurate with the increased habitat use by juvenile chinook, subsequent increases in adult returns will occur supportive of the SBIT ceremonial and subsistence fisheries, as well as downstream commercial and regional sport fisheries.

1.2 NEED FOR THE PROPOSED ACTION

The runs of native spring chinook salmon in the Yankee Fork drainage have declined dramatically in the last 20 years, the combined result of downstream hydroelectric developments and local mining activities. The number of chinook redds found in the drainage have ranged from over 600 in 1967 to less than 10 in the mid-1980's (Konopacky et al. 1986) (Figure 3). The once large runs of salmon not only afforded a sport fishery in the upper Salmon River but also provided a ceremonial and subsistence fishery for the SBIT. As a result of the declines in chinook, the SBIT have maintained a moratorium on this fishery since 1978. In an effort to maintain chinook runs in the Yankee Fork the IDF&G has made periodic plants of chinook hatchery fry and fingerlings in the drainage over the last 10 years (IDF&G 1987). The IDF&G has also planted adult chinook in the upper drainage on several occasions since 1985. These plants, consisting of Pahsimeroi Hatchery fish, have afforded the SBIT some opportunity to exercise their ceremonial fishing rights. As a result of these hatchery plants it is likely that only a remnant population of the native chinook stock exists in the Yankee Fork.

With the passage of the Pacific Northwest Electric Power Planning and Conservation Act (Pacific Northwest Power Act) (P.L. 96-501) of 1980 and the formation of the NWPPC in 1981, formal recognition was given to anadromous fisheries problems in the Columbia River Basin. In 1982 the NWPPC drafted and adopted the Columbia River Basin Fish and Wildlife Program, designed to "... protect, mitigate and enhance fish and wildlife ... and habitats in the Columbia River and its tributaries." Section 704 (d)(1) of the program allocated funding for Habitat Enhancement and Passage Restoration in the Yankee Fork.

The proposed development will enhance existing and create additional rearing habitat for chinook salmon in the Yankee Fork drainage. This action is preparatory to and in concert with the IDF&G's management plans for increasing chinook runs back to historic levels. The restoration of these runs has been cited by the IDF&G as a "Management Action" item as part of their Anadromous Fish Management Plan 1984-1990 (IDF&G 1986). Further, the proposed development is consistent with the goals and objectives of the Pacific Northwest Power Act and the directives of Section 704 (d)(1) of the NWPPC's Fish and Wildlife Program. Therefore, the BPA proposes to fund the development, and operation and maintenance of the off-channel dredge ponds as a means to enhance fisheries habitat in the Yankee Fork, and off-site mitigate for anadromous fish losses resulting from Snake and Columbia River hydroelectric developments.

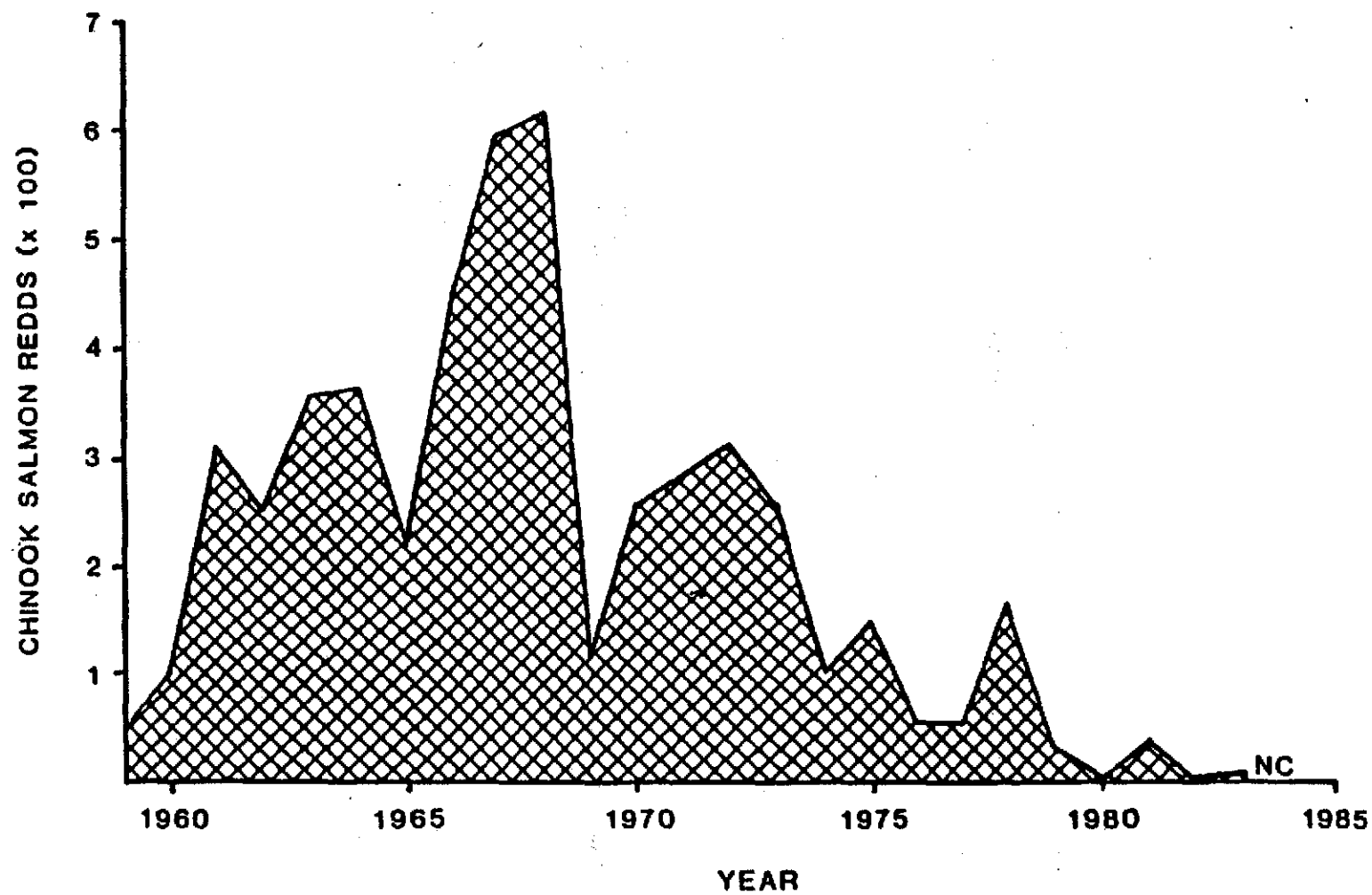


Figure 3 Counts of Spring Chinook Salmon Redds in the Yankee Fork of the Salmon River, Idaho, 1959-1984. From Konopacky et al. (1986)

1.3 LOCATION AND DESCRIPTION OF PROPOSED ACTIVITIES

1.3.1 Location of Pond Series

The Yankee Fork drainage is located in Custer County, Idaho, within the Challis National Forest. The four pond series proposed for development (PS-1 through PS-4) are within about a 3.5 mile section of the Yankee Fork extending upstream just above the Polecamp Flat Campground (Location of PS-1) to just below the confluence of the West Fork (Location of PS-4) (Figure 2). The lower ponds are about 4 miles upstream from the confluence of the Yankee Fork with the Salmon River. The Yankee Fork is accessible via U.S. Forest Route 40-013. The upper three pond series are located in Township 12 North, Range 15 East in Sections 20 and 29. PS-1 is within Township 11 North, Range 15 East in Sections 4 and 5. All of the series, with the exception of the lower 1,500 feet of PS-1 are located on property owned by the J.R. Simplot Company (JRSC); a portion of the lower pond is on U.S. Forest Service land. The JRSC has endorsed the concept of pond development, and is presently negotiating with the SBIT the terms and conditions for a 20-year (minimum) easement to the use of the ponds. Special use permit applications for working on Federal land have been submitted to the USFS.

1.3.2 Description of Pond Series

The general engineering concept and design for each pond series are provided below. More detailed information is contained in the engineering feasibility report prepared for the SBIT (Reiser and Ramey 1987).

1.3.2.1 Pond Series 1. PS-1 is located about 500 feet above the USFS Polecamp Flat Campground on the east side of the Yankee Fork. The series includes eight separate ponds, the uppermost just above Silver Creek (Figure 4). The pond series is bordered by dredge piles on the right (facing downstream) and willows and mature forest on the left. An unimproved USFS campground access road parallels the entire length of the series on the left. A road culvert which extends under U.S. Forest Route 40-013 is located downstream and connects PS-1 to the main Yankee Fork. Several ponds in the series are managed by the IDF&G as a put-and-take rainbow trout fishery with stocking occurring three to five times during the summer.

The engineering design entails connecting seven of the eight existing dredge ponds and joining the outlet of the lower pond (pond 1) to the Yankee Fork via a culvert. The major components of this development will be:

- o Diversion of Silver Creek to augment flows through the ponds;
- o Excavation of connecting channels between ponds;
- o Installation of 12 check structures to control flow rates, velocities and flow depths;
- o Replacement of existing culvert to facilitate access of juvenile salmonids into the ponds.

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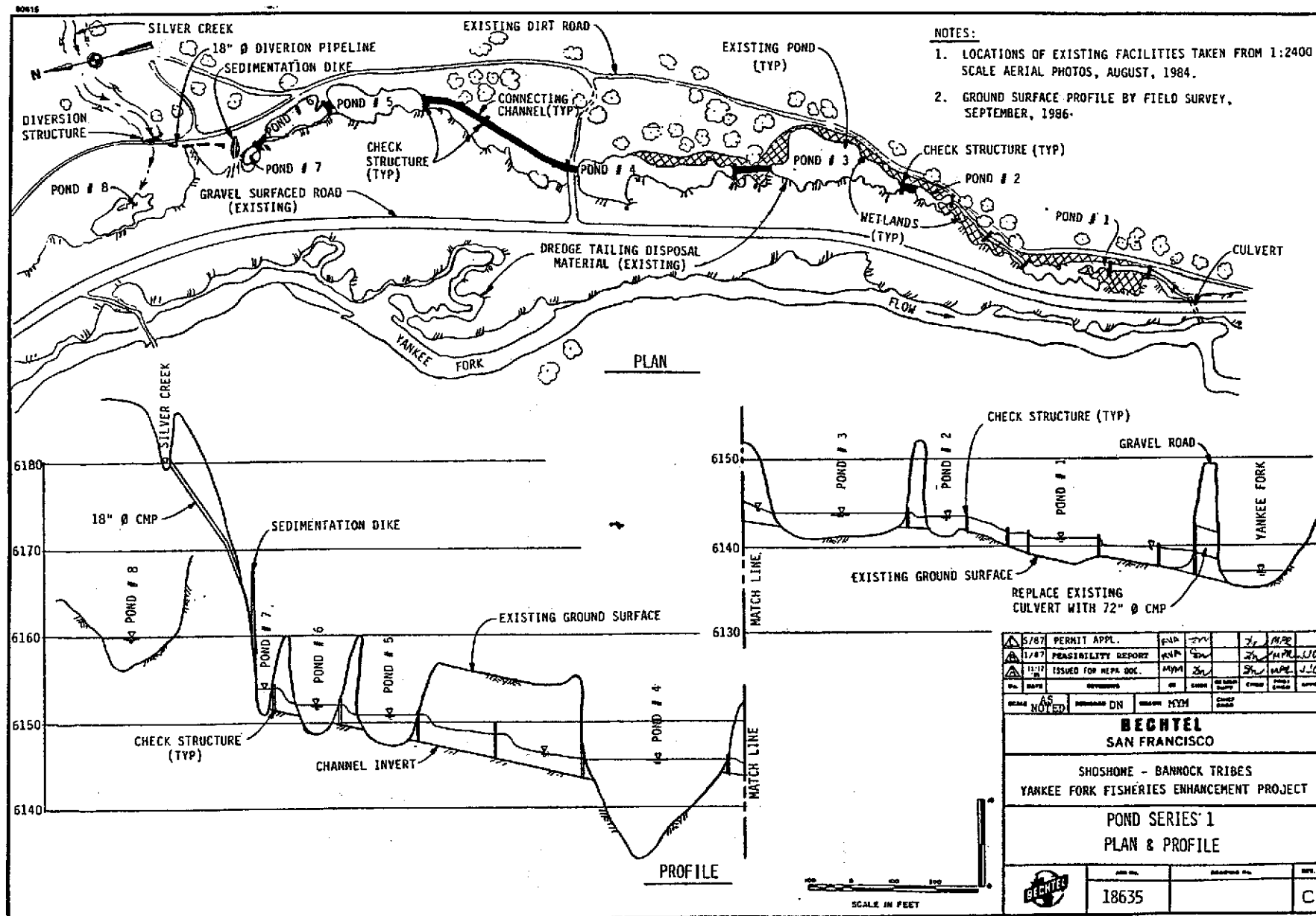


Figure 4 Pond Series 1

The check dams will be low-profile, stop log structures designed to allow upstream access by juvenile fish. Because of the distance from the main channel, there would be no direct inlet of Yankee Fork waters to PS-1. Inflow will be provided by infiltration through the dredge piles with supplemental water diverted from Silver Creek.

1.3.2.2 Pond Series 2. Pond Series 2 (PS-2) is located about 1.5 miles above PS-1 on the west side of Yankee Fork. Consisting of six ponds, PS-2 is the most isolated of the four pond series situated about 200 feet from the road behind the dredge piles (Figure 5). A side access road traverses the upper pond, and an abandoned dirt road parallels the ponds on the west side. Because the ponds are isolated, the IDF&G does not manage or stock them with catchable rainbow.

The ponds will be connected and joined to the Yankee Fork via an outlet channel. A 24-inch pipe connecting the upper pond (Pond 6) to the Yankee Fork will provide necessary flows to the ponds and will control pond levels. The major components in the PS-2 development are:

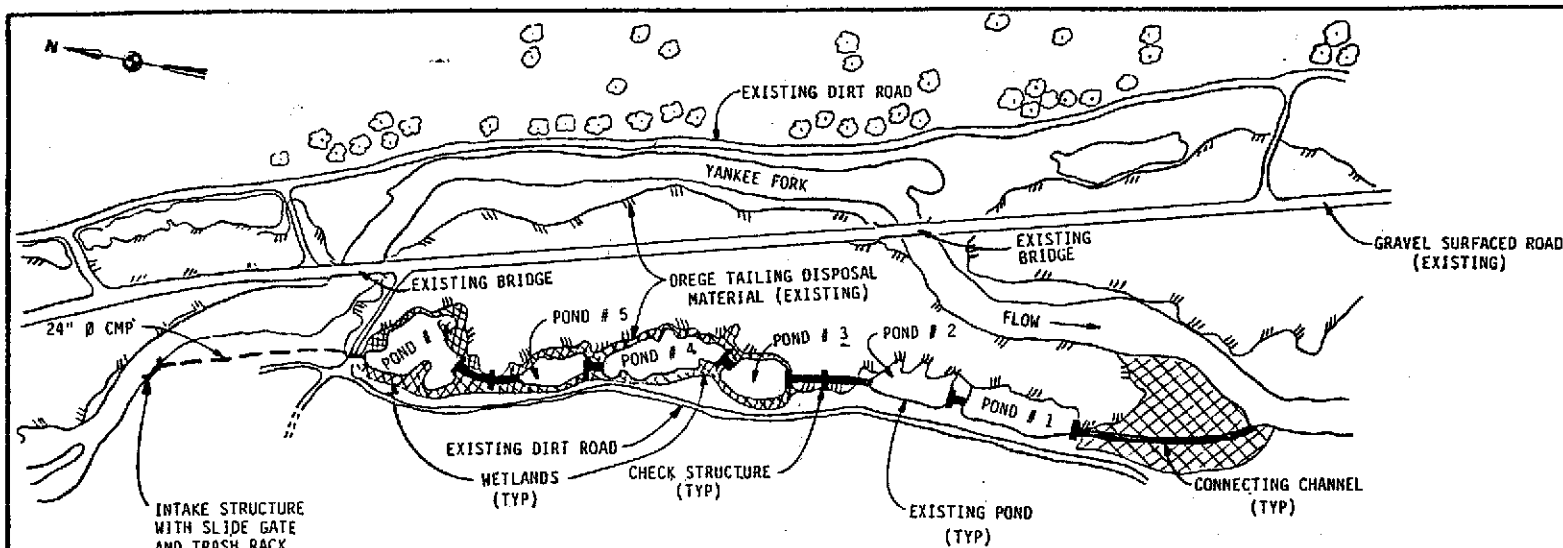
- o Installation of a 24-inch corrugated metal pipe and intake structure to provide inflow into the ponds;
- o Excavation of connecting channels between ponds;
- o Installation of 8 check structures to control flow rates, velocities and flow depths.

1.3.2.3 Pond Series 3. Pond Series 3 (PS-3) begins about 0.25 miles above PS-2. The series is located on the east side of the Yankee Fork and consists of three ponds (Figure 6). U.S. Forest Route 40-013 borders the ponds on the right; on the left, the ponds abut timbered land that is traversed by a secondary dirt access road. Because of its proximity to the road, the IDF&G does stock this series with catchable rainbows.

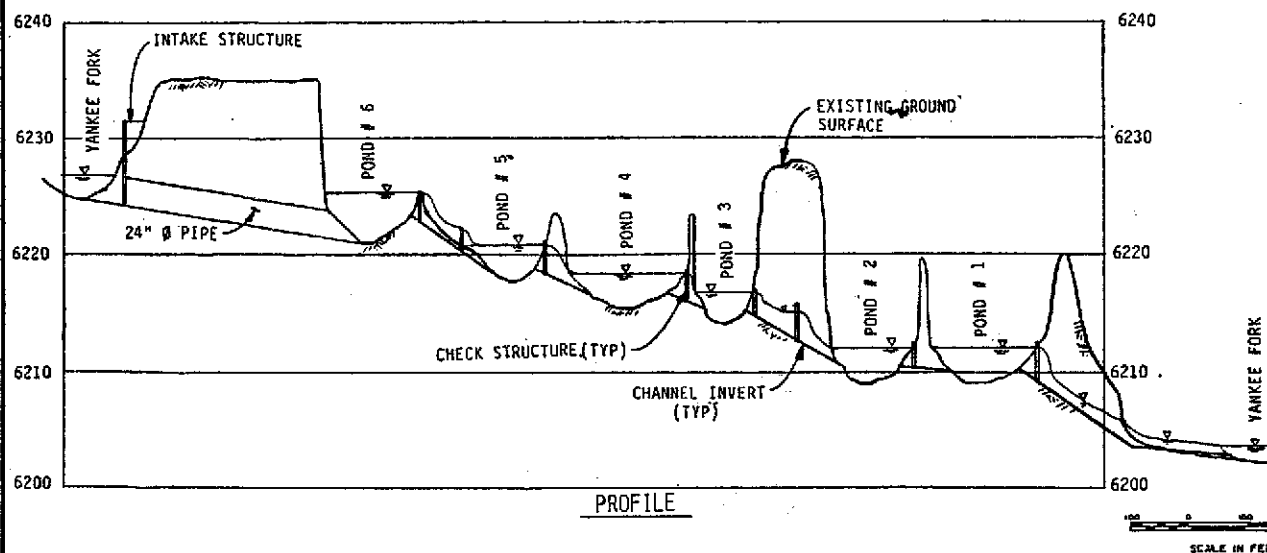
The three ponds will be connected and an inlet and outlet connection to the main Yankee Fork made at the upper and lower ponds. Fish immigration could thus occur through both connections. The intake structure includes a 36-inch culvert installed beneath an existing dirt road. A wooden check structure at the upstream end of the culvert will control inflow to the ponds. The major components of PS-3 include:

- o Installation of a 36-inch corrugated metal pipe and wooden check structure to regulate inflow to the ponds;
- o Construction of a training dike and sedimentation dike to control flood flows and sediment deposition in the ponds;
- o Excavation of connecting channels between ponds;
- o Installation of 5 check structures at pond outlets to control flow rates, velocities and flow depths.

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PLAN



PROFILE

NOTES:

1. LOCATIONS OF EXISTING FACILITIES TAKEN FROM 1:2400 SCALE AERIAL PHOTOS, AUGUST 1984.
2. GROUND SURFACE PROFILE BY FIELD SURVEY, SEPTEMBER, 1986.

5/87	PERMIT APPL.	KVP	JN	JN	MP	
5/87	FEASIBILITY REPORT	KVP	JN	JN	MP	JJC
5/87	ISSUED FOR NEPA DOC.	MYN	JN	JN	MP	JJC
Dr.	DATE	REVISION	BY	CHKD	DESIGN	APPV
SCALE	AS NOTED	REVISION	DN	DESIGN	RVA	APPV
BECHTEL						
SAN FRANCISCO						
SHOSHONE - BANNOCK TRIBES						
YANKEE FORK FISHERIES ENHANCEMENT PROJECT						
POND SERIES 2						
PLAN & PROFILE						
18635		DRAWING No.		REV.		C

11 x 17 "B" SIZE

Figure 5 Pond Series 2

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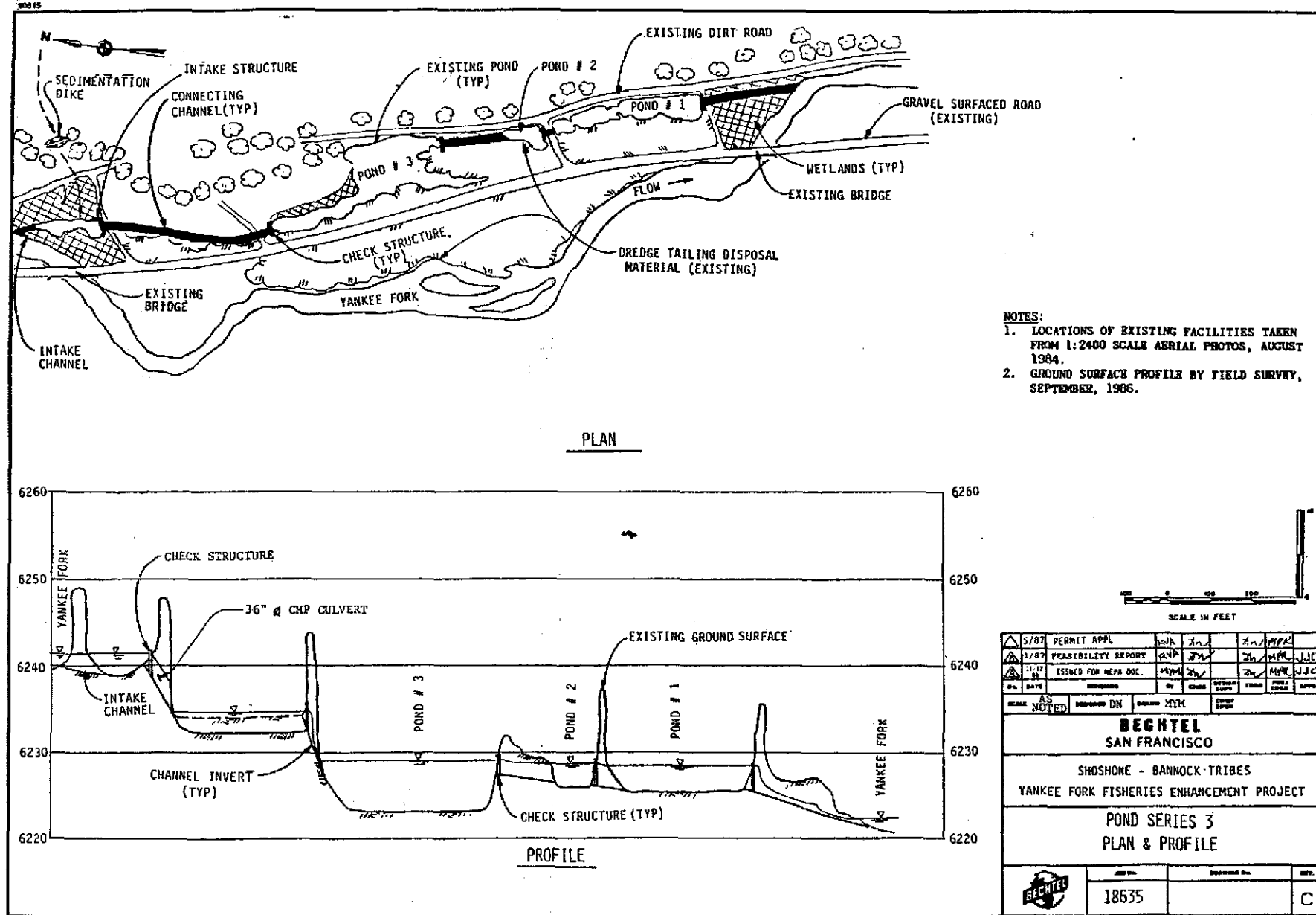


Figure 6 Pond Series 3

1.3.2.4 Pond Series 4. The upper pond series, PS-4, is located about 300 ft upstream from PS-3 on the west side of the stream just below the confluence of the West Fork. This series borders the main Yankee Fork access road and is planted frequently by the IDF&G with catchable-size rainbows resulting in heavy angler use.

There are three ponds in PS-4, but the proposed design concept incorporates only the lower two. The two ponds would be inter-connected, with an outlet channel from the lower pond providing a direct linkage to the Yankee Fork. An inlet pipe consisting of an infiltration system would be buried in the Yankee Fork channel adjacent to the upper pond (Figure 7). This system will supply and control flows to the ponds. Major engineering components of PS-4 include:

- o Installation of a 24-inch perforated corrugated metal pipe and headgate structure to control inflow to the ponds;
- o Excavation of connecting channels;
- o Installation of 2 check structures to control flow rates.

Fish immigration to these ponds would occur through the outlet channel.

1.3.3 Construction Plan

The four pond series would be developed in phases with PS-1 and PS-3 constructed during August-October of 1987, and PS-2 and PS-4 constructed the following year during the same months. This phasing of construction will allow for an initial testing of PS-1 and PS-3 with respect to fish carrying capacity and smolt production, and the operation and performance of flow control structures. The information obtained will be useful for the subsequent construction and operation of PS-2 and PS-4 the following year.

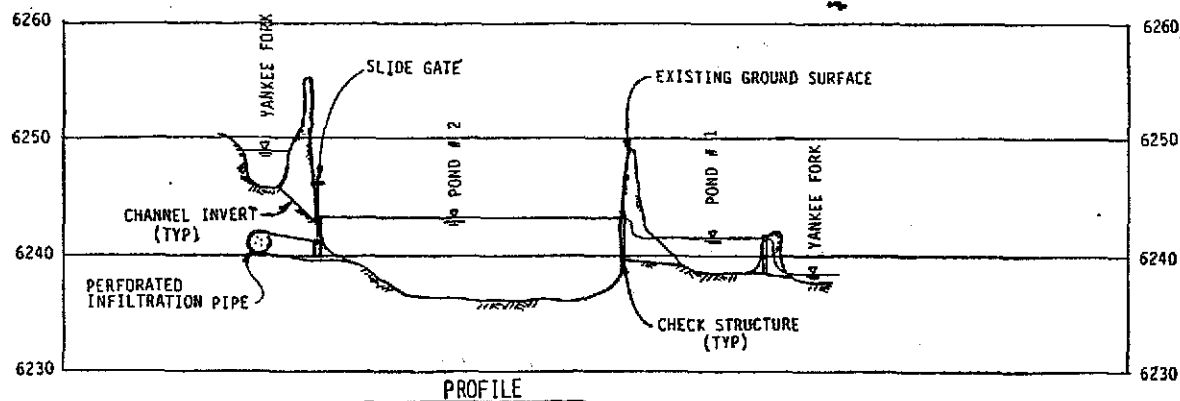
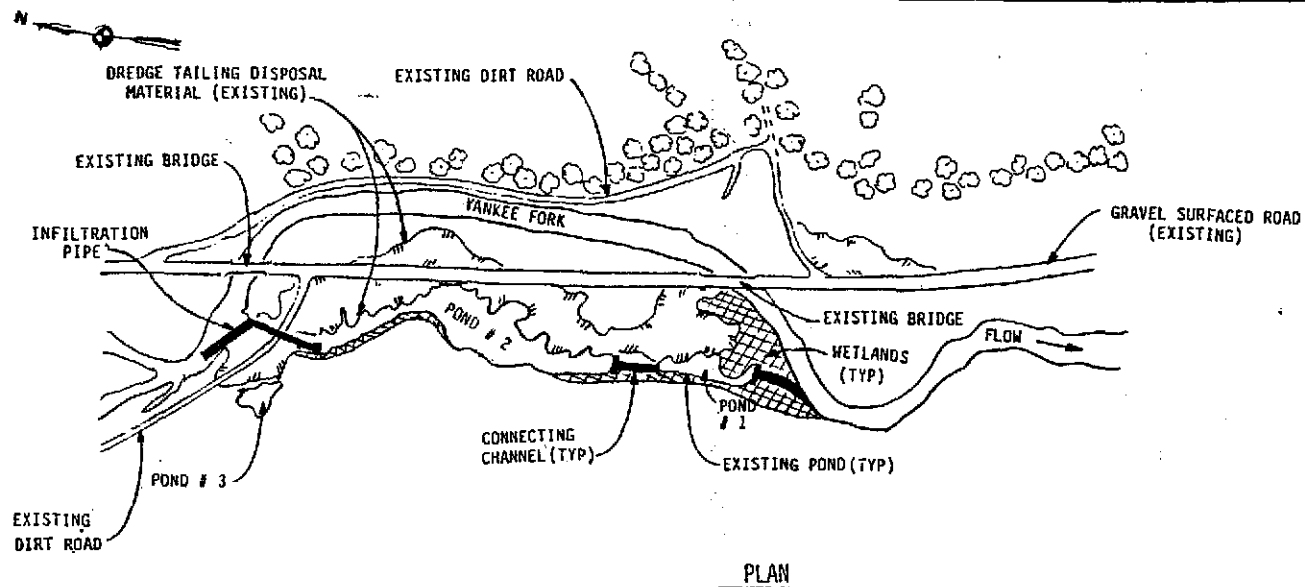
1.3.4 Operation and Maintenance of Pond Series

The pond developments were designed to require a minimum of operation and maintenance. Some periodic debris removal and cleaning will be required at inlet and outlet structures, and check dams of each series. In addition, the flow control structures and check dams will require periodic adjustment to maintain suitable inflow and pond level, and permit fish ingress and egress.

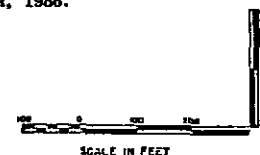
Water rights applications have been filed with the Idaho Department of Water Resources (IDWR) for the diversion and appropriation of water to each pond series. The appropriations will be for both surface and groundwaters and will ensure a continuous source of inflowing water to the ponds.

In the long term, the ponds will be managed on a natural-basis and will be seeded through immigration of juveniles from the main Yankee Fork. However, during the initial years of operation, the IDF&G will stock several of the ponds with chinook fry and fingerlings from the Sawtooth Hatchery. This will provide for a faster return and build-up of the Yankee Fork chinook runs, and will further assist in evaluating fish pond-use and in determining future pond loadings.

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5/87	PERMIT APPL.	RVA	AM	AM	AM	AM
5/87	FEASIBILITY REPORT	RVP	AM	AM	AM	AM
11/87	ISSUED FOR NEPA DOC.	WYM	AM	AM	AM	AM
DATE	REVISIONS	BY	CHKD	DESIGN	DATE	APPROV
SCALE	NOTED	APPROVED ON	CHG	RVA	DATE	APPROV
BECHTEL SAN FRANCISCO						
SHOSHONE - BANNOCK TRIBES VANKEE FORK FISHERIES ENHANCEMENT PROJECT						
POND SERIES 4 PLAN & PROFILE						
		JOB NO.		DRAWING NO.		REV.
		18635				C

Figure 7 Pond Series 4

Chapter 2

ALTERNATIVES CONSIDERED BY BPA

2.1 ALTERNATIVES ELIMINATED FROM DETAILED STUDY

A number of alternatives considered by BPA were eliminated from further study owing to high costs relative to benefits gained, or inability to meet program objectives. Those eliminated included: No-Action; Complete Restoration of the Dredged Section of the Yankee Fork; Hatchery Development; and Management of the Drainage with Hatchery Outplants.

2.1.1 No-Action Alternative

With the "no-action" alternative, the Yankee Fork drainage would continue in its currently depressed state with respect to chinook salmon production. No habitat enhancement measures would be implemented nor would outplants of hatchery fish be made by the IDF&G. Restoration of chinook runs into the drainage would require a minimum of 25 years, and then, only if major improvements were made in downstream smolt passage through hydroelectric projects.

Thus, the "no-action" alternative would not provide for off-site mitigation of hydroelectric projects on anadromous salmonids in the Columbia River Basin. Further, it would not meet the directive for implementation as noted in Section 704(d)(1) (and any proposed amendments/measures) of the NWPPC Fish and Wildlife Program, and it would not meet the overall objective of restoring the chinook runs back to historic levels. Consequently, the "no-action" alternative was eliminated from further consideration and it is given no further discussion in this document.

2.1.2 Complete Restoration of Dredged Reach

The dredged-mined section of the Yankee Fork extends about six miles upstream from just above Polecamp Flat Campground to the confluence of Jordan Creek. This section of the Yankee Fork has been extensively channelized which has reduced or eliminated much of its rearing habitat and instream cover. The stream is bordered by extensive, unconsolidated dredge piles most of which are devoid of any riparian vegetation (Figure 2). The lower 1-2 miles of Jordan Creek are in a similar, degraded condition.

BPA therefore considered the complete restoration of this reach as a means to restore chinook runs back to historic levels. However, this alternative was judged impractical since; 1) the restoration effort would be extremely costly; 2) the majority of land bordering this section of the Yankee Fork is privately owned which would complicate the easement process; 3) many mine claims exist within the dredged section and could be affected by a major reclamation

effort; 4) the restoration effort itself could have major environmental impacts; and 5) the benefits (in terms of numbers of fish) achieved would not warrant so costly a restoration program. This alternative was therefore eliminated from detailed study and further consideration by BPA.

2.1.3 Hatchery Development

As an alternative means of restoring chinook runs back in the Yankee Fork, BPA considered the construction of a hatchery in the drainage. However, this alternative was omitted from further study since it did not address the issue of habitat enhancement/restoration as outlined in the Fish and Wildlife Program, and it was not consistent with the objectives of the IDF&G's Anadromous Fish Management Plan. In addition, the IDF&G's Sawtooth Hatchery, located about 30 miles west of the Yankee Fork, has only recently become operational. This facility will maintain the upper Salmon River spring chinook salmon stocks and will be able to provide outplants to selected drainages, including the Yankee Fork. Further, the IDF&G already evaluated the Yankee Fork as a potential site for the Sawtooth Hatchery and found it unacceptable, lacking suitable groundwater sources.

2.1.4 Manage Drainage With Hatchery Outplants

BPA also considered, as an alternative, the management of the existing drainage with hatchery outplants from the Sawtooth Hatchery. However, this would not restore or enhance any of the degraded habitat. Thus, if naturally reproducing runs were established, they would always be below historic levels. Additionally, this type of management option would likely require a long-term commitment by the IDF&G to annually plant juvenile chinook into the drainage. For these reasons, this alternative was likewise dropped from detailed study.

2.2 INSTREAM ENHANCEMENT

In some circumstances, instream enhancement has proven to be an effective means for increasing rearing habitat for juvenile salmonids. Such measures include the construction of rock and log weirs, wing deflectors, and boulder placement (Hall and Baker 1982; Reeves and Roelofs 1982). As an alternative to the proposed development of off-channel ponds, BPA considered two types of instream enhancement for restoring habitat in the Yankee Fork; rock weirs and wing deflectors.

The rock weirs would extend 2 feet above the channel bed and traverse the entire stream channel. With the channel typically about 40 feet wide in the dredged area, each rock weir would provide about 4,000 ft² of rearing habitat which could accommodate about 380 juveniles. Such weirs would be installed at specified intervals (minimum of 250-300 ft) throughout the dredged section of stream. Assuming a 5-mile reach and a 300 ft spacing, over 80 such structures could be installed.

Wing deflectors could also be installed along selected areas of the Yankee Fork. Such structures would project into the stream and deflect flow away from the bank, thereby forming a pool on the far bank. Each deflector would

produce about 1,200 ft² of habitat providing for about 115 juvenile chinook. The use of deflectors would be limited to areas wide-enough to accommodate sinuosity changes.

The suitability of instream enhancement measures for the Yankee Fork is questionable. The system can produce high flow conditions which may dislodge or remove such structures, necessitating a long-term maintenance program. In addition, the benefit of the structures would be dramatically reduced in the spring owing to high flows and fast water velocities. Problems could also occur in late fall and early winter when streamflows are low and the structures are providing pool and backwater areas. Under these conditions, the rock weirs could inhibit upstream passage of both anadromous and resident juvenile salmonids. Observations by the IDF&G in systems similar to the Yankee Fork (i.e., Crooked River) have indicated a greater use by juvenile chinook of off-channel rearing habitat, than habitat created by instream structures (Holubetz, pers. comm. 1987).

BPA therefore considers the large-scale use of instream structures inappropriate for the Yankee Fork. However, limited application of such measures may prove beneficial for improving specific areas in the Yankee Fork, and BPA will develop them as needed.

2.3 BANK STABILIZATION AND EROSION CONTROL

Curtailment of sediment into the Yankee Fork drainage was evaluated for its potential to increase chinook smolt production. Major sources of sediment were identified, and erosion control measures prescribed. Although a number of unstable stream banks exist, the majority are located upstream from the dredged section in undisturbed terrain. Natural sediment production in the upper drainage thus appears to be the major source of sediment. Consequently, a major program of bank stabilization or erosion control in the Yankee Fork drainage would neither restore habitat nor increase chinook production.

BPA has limited the application of this alternative to areas within the dredged section of the Yankee Fork which may require post-construction bank stabilization and erosion control.

2.4 REMOVAL OF PASSAGE BARRIERS

The feasibility study identified two series of cascade - waterfalls in the upper Yankee Fork which could impair or prevent adult fish passage under certain flow conditions. The study recommended the removal of debris from above the falls and to periodically monitor the section to identify further passage problems as they develop (Reiser and Ramey 1987).

The Challis National Forest has indicated it will assume responsibility for the clearing of debris, and it will likewise monitor the reach (Somes pers. comm. 1987). Therefore, BPA proposes no further action on this alternative.

2.5 OFF-CHANNEL REARING HABITAT: MANAGEMENT ALTERNATIVES

Two management alternatives were evaluated for the proposed action of off-channel pond development. These included: 1) management on a natural basis; and 2) management as a low-technology rearing facility. The location and engineering layout for both alternatives is about the same (see Section 1.3) with the exception that certain ponds would contain additional components needed for a low-tech operation (e.g., automatic feeders).

2.5.1 Manage on a Natural Basis (Preferred Alternative)

This management alternative would develop the off-channel ponds as proposed and would rely on natural immigration and emigration of juvenile chinook into and out of the expanded rearing habitat. The capacity (loading) of the ponds would be dictated by endogenous food production; no supplemental feeding would be provided. During the initial years of operation, the IDF&G would outplant the ponds with chinook fry from the Sawtooth Hatchery. This will accelerate the restoration of adult returns and will aid in evaluating pond use and determining pond capacities.

This management alternative is compatible with the IDF&G's ongoing put-and-take rainbow trout fishery (Huffaker 1987) and would minimize operation and maintenance requirements. The USFS and the IDF&G have endorsed this management alternative during project coordination meetings. As a result, it is considered as BPA's preferred management alternative for the off-channel rearing habitat.

2.5.2 Manage as a Low-Technology Rearing Facility

With this alternative, selected ponds would be managed to maximize production of chinook and increase adult returns to above historic levels. The ponds would be stocked with fry from the Sawtooth Hatchery and artificial feeders installed to accommodate increased pond loadings (0.25 lb/ft³). This alternative also considered the installation of an adult trapping, holding, and spawning facility, and use of gravel matrix egg incubators.

Although higher smolt production and adult returns could be realized, this alternative would require higher operation and maintenance (O&M) costs and a long-term commitment of responsibility by the IDF&G, USFS or SBIT to operate the facility; and BPA to fund O&M costs. In addition, this management alternative would conflict with the existing put-and-take fishery. Further, intensifying fish loadings in the ponds may predispose the juveniles to infestation of eye fluke (Diplostomum spathaceum) which has been identified in the upper Salmon River drainage (Heckmann 1983a, 1983b, 1984). The eye fluke has caused considerable damage in rearing chinook salmon in the IDF&G's old Decker rearing ponds (located about 30 miles west of the Yankee Fork), and was the reason the Sawtooth Hatchery elected concrete raceways rather than earthen ponds for rearing chinook (Rogers pers. comm. 1987).

Chapter 3

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 TOPOGRAPHY, GEOLOGY AND SOILS

The Yankee Fork drainage is a low-to-medium gradient system traversing generally steep topography, particularly in its lower reaches prior to joining the Salmon River. Elevations range from 6140 feet at PS-1 to 6250 feet at PS-4, rising to well above 8000 feet both east and west of the immediate project area. The Yankee Fork flows through narrow canyons, moderately wide valleys of lodgepole pine forests and wide meadowed valleys. Major tributaries include the West Fork and Jordan Creek, both entering upstream of the project area. Substantial portions of the mainstem Yankee Fork and lower Jordan Creek have been dredge-mined for gold, which has resulted in deposition of extensive barren dredge piles adjacent to the stream.

The surface geology of the project area is characterized by a thick layer of rock called Challis Volcanics comprised of volcanic flows and ash deposits formed throughout central Idaho over 40 million years ago. The volcanic rock is moderately to highly erodible, depending on the amount of mineralization in weak areas of the bedrock (USDA 1984). The area is also characterized by local faulting and minor folding throughout, faults generally short and trending northeast. Although there are no active faults in the project area, periodic earthquakes over a range of magnitudes do occur in the region (USDA, 1984).

Soils in the project area are either absent (dredge piles) or generally shallow and poorly developed at the surface, with deeper and more uniform subsoils. The soils and subsoils are primarily derived from the Challis Volcanics which include andesite, rhyolite, latite and tuff parent materials. Surface soils generally have silty loam, clayey loam and sandy loam textures, with depths from 3 to 9 inches. Organic materials are limited to the upper horizon from 0 to 3 inches. Soil productivity is generally low throughout the area (USDA 1984).

Potential impacts to topography and soils would be short-term and minor, related principally to the 2-month construction periods for the proposed action in August and September of 1987 and 1988. Local changes in dredge pile configuration will result from channel construction between ponds and to the mainstem Yankee Fork. Soil erosion potential in the dredge piles is insignificant due to the cobble-rock nature of the material. The dredging of new channels and disturbance of adjoining wetland and riparian zones will increase soil erosion locally during construction. However, revegetation and stabilization of all disturbed wetland and riparian areas, new spoil piles, and banks of new channels will occur immediately following construction. The

total extent of revegetation expected at all four pond series is estimated at less than 5 acres. Other soil erosion measures planned include:

- o Placement of excavated materials above the ordinary high water mark, on top of dredge tailings piles where practicable;
- o Placement of rip rap at intake structures along the Yankee Fork, and along new channels where required;
- o Lining of new channels with 1 inch to 6 inch cobbles to prevent erosion;
- o Water spraying of access routes and other construction areas as required to control wind-generated erosion and fugitive dust.

Implementation of the instream enhancement alternative (rock weirs, wing deflectors) and/or the streambank stabilization alternative would result in negligible, short-term and local effects on soils from temporary access of equipment across stream banks/riparian zones. Overall, the streambank stabilization alternative would have a net positive effect on soil erosion. Instream enhancement using wing deflectors may locally accelerate streambank erosion on the opposite side of the stream, a desirable effect for increasing the sinuosity of the stream and creating more rearing habitat.

3.2 WATER RESOURCES

3.2.1 Floodplains

Executive Order 11988 (Floodplain Management) requires federal agencies to avoid "to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplains" and to avoid support of floodplain development wherever there is a practicable alternative. DOE has issued regulations pursuant to Executive Order 11988.

Floodplains along the Yankee Fork vary in quality and extent based on topography and the amount of local disturbances from past and present mining, logging and grazing activities. Much of the drainage has a limited floodplain due to the narrow nature of the canyon bottom. In the immediate project area, much of the main channel and adjoining floodplain areas have been dredged, leaving extensive tailings piles that have significantly reduced the available floodplain. Riparian zones are generally limited to immediate streambanks or gravel bars covered with sparse vegetation (Hydrometrics 1982a). The precise locations and elevations of the 100-year floodplain throughout each of the four pond series are not available. The Federal Emergency Management Agency does not have Flood Insurance Rate Maps depicting 100-year floodplains for the Yankee Fork drainage (FEMA, pers. comm. 1987).

The proposed enhancement of rearing habitat for salmonids along the Yankee Fork must, by its very nature, occur immediately adjacent to the Yankee Fork mainstem and within its floodplain. BPA has determined that this development of off-channel rearing ponds is the only practicable alternative for returning runs of chinook to the Yankee Fork drainage (see Section 2; also Shoshone-Bannock Tribes 1987).

Portions of the intake and outlet structures connecting the four pond series to the Yankee Fork will be located in the 100-year floodplain, and some of the channels connecting the ponds may also lie therein. All new inlet, outlet and check structures and associated facilities potentially lying within the 100-year floodplain will be designed and constructed to withstand, and to operate following, a 100-year flood. Rip rap will be placed where required to protect structures and channels from flood damage. The planned facilities will not alter floodplain characteristics or channel flow capacity. As a result, the proposed project is not expected to have an adverse impact on human life, property or natural floodplain values.

Implementation of the instream enhancement and streambank stabilization alternatives would similarly produce negligible effects on floodplain values or to human life or property. Placement of rock wiers and wing deflectors as instream enhancement for fisheries could cause minor local changes in flood flow and height, depending on site-specific conditions and designs.

3.2.2 Water Quantity

The surface water hydrology of the Yankee Fork drainage is typical of the mountainous regions of Idaho. High flows are associated with snowmelt in the spring with flows reducing through the summer and falling to base flow conditions in winter. The drainage area of the Yankee Fork is about 195 square miles at its confluence with the main stem of the Salmon River. Major tributaries of the Yankee Fork include the West Fork and Jordan Creek (Figure 1).

The U.S. Geological Survey (USGS) established and operated a stream gaging station near the mouth of the Yankee Fork from 1922 to 1948 (Station Number 13296000). Table 1 summarizes the streamflow data for the period of record. The mean annual flow for the drainage is 197 cfs with peak flows in May and June of about 750 cfs and low flows of about 45 cfs during January and February. Flows measured in September 1985 and 1986 in the vicinity of the pond series have ranged from 75 to 106 cfs (Reiser and Ramey 1987; Konopacky et al. 1985, 1986). Based on regionalized regression equations developed by the U.S. Geological Survey (USGS, Kjelstrom and Moffatt, 1981) the average annual, 10 year and 100 year flood flows for the drainage are estimated at 1,500 cfs, 2,000 cfs and 2,700 cfs respectively (Reiser and Ramey 1987).

The ponds comprising the four pond series vary in size and depth. Surface areas range from about 0.05 to 0.61 acres, and maximum depths range from 2.5 to 13 ft (Table 2).

Collectively, the ponds impound over 15 acre-ft of water. Most of this water originates directly from the Yankee Fork even though no surface connections are present. This occurs because the dredge piles are highly permeable which promotes a free exchange of flow (via groundwater) between the main Yankee Fork and the ponds. With the exception of PS-2 which is perched above the Yankee Fork, all series receive inflows via sub-surface flow from the Yankee Fork. Such flows are visibly noticeable and can be substantial; a flow of about 7 cfs was measured at the lower end of PS-1 (Reiser and Ramey 1987). During low flow periods, the intergravel flow which feeds these ponds can exceed ten percent of the flow in the Yankee Fork.

Table 1

YANKEE FORK OF THE SALMON RIVER AVERAGE MONTHLY STREAM FLOW (cfs)

<u>Month</u>	<u>Minimum</u>	<u>Mean</u>	<u>Maximum</u>
January	27.6	46.3	60.7
February	30.0	44.1	52.0
March	32.9	54.8	125
April	59.0	207.0	498.0
May	369.0	745.0	1,560.0
June	168.0	770.0	1,950.0
July	73.6	217.0	358.0
August	45.2	92.0	190.0
September	30.8	68.3	106.0
October	40.0	65.4	93.6
November	40.9	60.1	93.5
December	34.4	53.3	102.0

Period of record: May 1921 to February 1949

Source: U.S. Geological Survey, 1981

Table 2

SURFACE AREAS, DEPTHS, AND VOLUMES OF THE FOUR OFF-CHANNEL POND SERIES
IN THE YANKEE FORK DRAINAGE ^{a/}

Pond Series	Pond No.	Surface Area (acre)	Ave. Depth (ft)	Max. Depth (ft)	Volume	
					(ft ³)	(Ac-Ft)
PS-1	1	0.2	2	3.5	17,777	0.4
	2	0.05	2.5	4	5,555	0.13
	3	0.31	6	10	79,998	1.84
	4	0.51	8.5	13	188,882	4.34
	5	0.27	2.5	4	30,000	0.69
	6	0.07	2	3.5	6,222	0.14
	7	0.05	1.5	2.5	3,333	0.08
	8	<u>0.12(a)</u>	2	3	<u>10,666</u>	<u>0.24</u>
Total		1.46			331,767	7.62
PS-2	1	0.2	2	3	18,666	0.43
	2	0.11	2	3	9,777	0.22
	3	0.06	2	3	5,333	0.12
	4	0.2	2.5	3.5	22,222	0.51
	5	0.1	2.5	3	11,111	0.25
	6	<u>0.18</u>	3	4.5	<u>24,000</u>	<u>0.55</u>
Total		0.85			91,109	2.08
PS-3	1	0.2	2	3	17,777	0.41
	2	0.1	2	3	8,712	0.20
	3	0.43	4	6	74,923	1.72
	4	<u>0.05</u>	2	3	<u>4,444</u>	<u>0.10</u>
Total		0.78			105,856	2.43
PS-4	1	0.07	2	3	6,069	0.14
	2	<u>0.61</u>	5	8	<u>133,335</u>	<u>3.0</u>
Total		0.68			139,404	3.14
Overall Total		<u>3.77</u>			<u>668,136</u>	<u>15.30</u>

^{a/} From: Reiser and Ramey 1987.

The IDH&W has raised the concern of potential river loss during construction of the connecting channels and culverts. This could occur if highly porous lenses of material were exposed causing the diversion of river flows into more permeable materials. This could result in some loss of flow in stretches of the main Yankee Fork. However, the proposed check structures (these will be the first items constructed during pond development) will minimize the potential for river loss by allowing the regulation of hydraulic gradients between the main Yankee Fork and the off-channel ponds. Thus, the potential for a significant loss of river flow during construction is considered low. As an added safeguard, the project area will be surveyed by a hydrogeologist prior to construction to identify areas of potential river-loss. Staff gages will be installed in these areas and in others considered unaffected by project activities. The gages will be monitored immediately prior to, and during construction, and during initial operation. Should river-loss be noticeable, the applicable construction activity will cease and the COE and IDWR consulted to develop mitigative measures.

Operationally, the proposed development will require flow augmentation through the existing dredge ponds. The construction of channels connecting the ponds will increase the groundwater flow from the Yankee Fork to the ponds. In addition, three of the four series will have intakes which divert surface waters from the Yankee Fork. The project has filed for water rights to divert both groundwater and surface waters to the ponds (see Section 3.11.2). The quantity of surface flow diverted will be no more than 5 cfs per pond series; groundwater diversions will be no more than 10 cfs. Thus, a combined maximum of 15 cfs could be diverted from the Yankee Fork into the pond series. However, none of the diverted water will be consumptively used, with all flows returned at the pond series outlets. Thus, the diversions actually involve a "pass-through" of flow from the upper (PS-4) to lower (PS-1) pond series.

Because the waters diverted will not be consumptively used, no impacts on downstream water users will occur. The instream enhancement and erosion control alternatives do not involve water appropriations and hence will not alter downstream flows.

3.2.4 Water Quality

Detailed data on the water quality of the Yankee Fork are limited, with most information related to mining activities in one of its tributaries, Jordan Creek. Results of monitoring in this stream have indicated that the general surface water quality is excellent, with waters being calcium bicarbonate (USDA 1984). Spot measurements of pH, dissolved oxygen, and conductivity were made at several locations in the main stem Yankee Fork and West Fork during September 1986. The pH values ranged from 7.3 to 8.1; dissolved oxygen levels ranged from 7.9 to 9.5 mg/l and conductivities from 32 to 72 umhos/cm² (Reiser and Ramey 1987).

There are no continuous water quality problems in the Yankee Fork drainage, although existing and proposed mining operations could result in temporary releases of toxic materials, sediments, etc. However, all of the mine operations must comply with discharge requirements of the IDH&W and the Environmental Protection Agency (EPA) and therefore, chances for such releases are low.

Good water quality in the ponds is essential for rearing salmon as proposed. Results of seasonal (December and May) water chemistry analyses of samples collected from each pond series indicated suitable conditions for salmon production (Tables 3 and 4). Most parameters measured were at or below detection limits. Dissolved oxygen as measured in each pond in September ranged from 4.5 to 11.9 mg/l and temperatures ranged from 5 to 13°C (Reiser and Ramey 1987). Concentrations of dissolved oxygen and water temperatures in the ponds will likely resemble those in the main Yankee Fork, once inlet connections have been made. The presence and continued success of the put-and-take fishery in the ponds further attests to the suitable water quality conditions in the ponds.

Because the ponds are within a dredged-mine section and are downstream of other mining activities, the IDH&W is concerned that the dredge materials may contain high metals concentrations. Disturbance of such materials either through construction activities or through flow augmentation from increased diversion of flows during operation could result in their transport into the Yankee Fork. However, laboratory results of sediment samples collected from each pond series have indicated no high concentrations of such metals, and thus no impact to downstream water quality of aquatic biota should result from construction or operation of the ponds (Table 5). It should be noted that the sediment data on Table 3 were based on nitric acid digestion analyses which were performed at a pH of less than 2 (Hibbs, pers. comm.). Thus, detected concentrations may be higher than would be expected using EPA's EP Toxicity method (pH 5), particularly for lead and copper. Moreover, concentrations would be much higher than expected with a pH typical of the Yankee Fork (pH 7).

Activities associated with construction of inlets (3 total) and outlets (4 total), check structures (27 total), connecting channels, and culverts may all impart temporary impacts to water quality and existing fishery resources. Most of these are related to increased sedimentation/siltation to the Yankee Fork which could degrade water quality and fisheries habitat within, or downstream in the Salmon River.

A number of measures will be adhered to during construction to prevent or minimize such impacts. First off, the construction area within the pond series will be maintained in a low- to no-flow condition. This will entail completing all work inside a given pond series (e.g., channel connections, check structure installation) prior to making mainstem connections. During construction of intakes and outlet channels, including the culvert in PS-1, permeable berms consisting of coarse dredge material will be placed at the inlet and outlet areas to aid trapping sediments. Following construction, this material will be removed and placed above the ordinary high water mark. As a rule, construction equipment will not be operated in the main Yankee Fork except as necessary to cross the stream (e.g., to access a pond series) or place or remove temporary berms. To further prevent sediment problems, all disturbed soil and fill slopes will be stabilized (revegetated where appropriate), connecting channels within a pond series will be lined with 1-6 inch cobble, and intake structures will be reinforced with riprap to prevent scouring and bank cutting. During construction, a water quality monitoring program will be ongoing to ensure the effectiveness of such measures.

Table 3

WATER CHEMISTRY OF
SELECTED PONDS IN THE FOUR OFF-CHANNEL POND SERIES,
DECEMBER 11, 1986(a)

<u>Water Quality Parameter</u>	<u>Pond Series 1 (Pond 3)</u>	<u>Pond Series 2 (Pond 1)</u>	<u>Pond Series 3 (Pond 3)</u>	<u>Pond Series 4 (Pond 2)</u>
pH unit	6.79	6.80	7.20	7.17
T.S.S	1.0	3.0	1.0	2.0
TDS	75.0	145.0	83.0	76.0
Sulfate	9.0	8.7	12.3	8.7
Spec. Cond. μ mhos	81	98	110	85
Ammonia N	<0.1	<0.1	<0.1	<0.1
TKN	<0.1	<0.1	<0.1	<0.1
Nitrate N	1.3	1.0	0.10	0.11
Total Phos (P)	0.073	0.067	0.187	0.160
Arsenic	<.005	0.008	<.005	0.006
Cadmium	<.0005	<.0005	<.0005	<.0005
Calcium	1.44	1.90	2.06	1.80
Copper	0.007	0.004	0.005	0.004
Iron	<.05	<.05	<.05	<.05
Cyanide (Total)	0.007	0.001	0.003	<.001
Magnesium	2.2	2.4	2.0	1.8
Manganese	<.05	<.05	<.05	<.05
Sodium	11.0	10.8	4.40	3.40
Potassium	0.61	1.23	0.56	0.52
Zinc	0.054	0.057	0.054	0.055

(a) Results expressed as mg/l except as noted

Source: Hibbs Laboratories, December 1986

Table 4
WATER CHEMISTRY OF
SELECTED PONDS IN THE FOUR OFF-CHANNEL POND SERIES
MAY 1, 1987(a)

<u>Parameter</u>	<u>Pond Series 1 (Pond 3)</u>	<u>Pond Series 2 (Pond 1)</u>	<u>Pond Series 3 (Pond 3)</u>	<u>Pond Series 4 (Pond 2)</u>
pH units	7.1	6.9	7.1	7.0
D.O. mg/l	9.50	9.10	9.10	8.40
Spec Cond. μ mhos	64	92	84	72
Total alkalinity	33.1	53.7	46.8	43.4
Chloride	<0.1	<0.1	<0.1	<0.1
Ammonia N	<0.1	<0.1	<0.1	10.5
Nitrate N	0.41	0.68	0.54	0.16
Hardness (CaCO ₃)	32.0	51.6	49.5	35.4
Total Phos (P)	0.07	<0.01	0.01	<0.01
Turbidity JTU	2.00	0.74	1.2	2.0
TSS	8.0	5.0	1.0	2.0
Cyanide, Total	0.17	0.011	0.010	0.012
Cyanide, WAD	0.009	0.009	0.008	0.008
Arsenic	0.005	0.007	0.007	0.007
Cadmium	<0.0002	<.0002	<.0002	<.0002
Copper	<.005	<.005	<.005	<.005
Lead	<.005	<.005	<.005	<.005
Mercury	<.0005	<.0005	<.0005	<.0005
Silver	<.01	<.01	<.01	<.01
Zinc	<.01	<.01	<.01	<.01

(a) Results expressed as mg/l except as noted.

Source: Hibbs Laboratories, May 11, 1987

Table 5

**METALS CONCENTRATIONS IN SEDIMENTS OF
SELECTED PONDS IN THE FOUR OFF-CHANNEL POND SERIES(a)**

<u>Parameter</u>	<u>Pond Series 1</u>		<u>Pond Series 2</u>	
	(Pond 3)	(Pond 5)	(Pond 2)	(Pond 3)
Arsenic	1.10	1.71	2.15	1.44
Cadmium	0.019	0.076	0.019	0.014
Copper	5.60	7.68	5.68	6.09
Iron	5744	7273	3906	10,130
Lead	8.1	5.1	0.85	6.86
Mercury	0.048	0.009	<.005	0.098
Silver	1.83	0.61	0.34	0.78
Zinc	29.4	56.9	18.8	30.4

<u>Parameters</u>	<u>Pond Series 3</u>			<u>Pond Series 4</u>	
	(Pond 1)	(Pond 2)	(Pond 3)	(Pond 1)	(Pond 2)
Arsenic	1.83	0.99	0.97	1.18	1.39
Cadmium	0.013	0.019	0.019	0.012	0.015
Copper	4.33	4.80	4.58	3.73	4.67
Iron	4129	6033	6191	3449	8194
Lead	3.00	4.98	5.03	3.36	6.10
Mercury	0.090	0.168	0.014	0.061	0.007
Silver	0.70	0.60	0.70	0.34	0.70
Zinc	21.0	27.9	23.1	16.8	32.3

(a) Results expressed as mg/kg

Source: Hibbs Laboratories, May 11, 1987

The operation of the ponds will not require an NPDES permit since no discharge of materials will be made, and no significant water quality changes will occur. Thus, downstream water quality will not be affected by operation of the ponds.

Implementation of instream enhancement and erosion control measures would result in short-term increases in sediment and turbidity. However, the resulting impacts would be minimized through adherence of the above measures.

3.3 FISHERIES

The Yankee Fork drainage supports viable populations of both resident and anadromous fish species (Table 6). Salmonid species present in the Yankee Fork include in order of decreasing abundance; steelhead/rainbow trout, chinook salmon, cutthroat trout (Salmo clarki), bull trout (Salvelinus confluentus), and brook trout (Salvelinus fontinalis) (Konopacky et al. 1985, 1986).

3.3.1 Anadromous Species

Historically, the system supported large runs of both chinook salmon and steelhead trout. Today, these runs have been dramatically reduced owing to the combined effects of local mining and downstream hydroelectric developments. The construction of Lower Monumental (in 1969), Ice Harbor (in 1962), Little Goose (in 1970), and Lower Granite (in 1974) dams on the Snake River, and Bonneville, the Dalles, McNary, and John Day dams on the Columbia River, all served to reduce the number of adults returning to the Yankee Fork and the number of smolts successfully migrating to the ocean.

The historic mining activities in the Yankee Fork have further aggravated the tenuous status of chinook stocks, resulting in further declines. Perhaps the greatest disturbance occurred as a result of a large dredging operation that commenced in 1939. This operation continued until 1942, was restarted in 1949, and continued until 1952. Targeted at the recovery of over \$11 million of gold (1940-based dollar), the dredging operation extended from just above Polecamp Creek to the mouth of Jordan Creek, a distance of about 6 miles. In the wake of this operation, this section of the Yankee Fork was completely channelized, with extensive deposits of unconsolidated dredge materials bordering its banks. As a result, the rearing and spawning habitat of anadromous salmonids within this section was reduced. According to habitat degradation standards, the IDF&G (1986) has classified the Yankee Fork as a Class 3 system, having up to a 20 percent reduction of natural production, owing to the historic mining activities.

Spring chinook destined for the Yankee Fork enter the Columbia River during March-May, with spawning occurring in August and September (Bjornn 1960). The wild runs of upper Salmon spring chinook are comprised of primarily 4-5 year old fish having fork lengths exceeding 32 inches (Bjornn et al. 1964). Egg incubation extends into December, with emergence occurring in February or March. Juveniles typically rear in freshwater until the spring (March-May) of their second year, to a length of 4-5 inches (Bjornn 1960).

Table 6

FISH SPECIES PRESENT IN THE YANKEE FORK DRAINAGE*

<u>Family</u>	<u>Scientific Name</u>	<u>Common Name</u>	<u>Resident or Anadromous Species</u>
Salmonidae	<u>Oncorhynchus tshawytscha</u>	Chinook salmon	Anadromous
	<u>Proposium williamsoni</u>	Mountain whitefish	Resident ¹
	<u>Salmo clarki</u>	Cutthroat Trout	Resident ¹
	<u>Salmo gairdneri</u>	Rainbow trout/steelhead	Resident/Anad.
	<u>Salvelinus confluentus</u>	Bull trout	Resident ¹
	<u>Salvelinus fontinalis</u>	Brook trout	Resident
Cyprinidae	<u>Rhinichthys cataractae</u>	Longnose dace	Resident
	<u>Rhinichthys osculus</u>	Speckled dace	Resident
	<u>Richardsonius balteatus</u>	Redside shiner	Resident
Catastomidae	<u>Catostomus columbianus</u>	Bridgelip sucker	Resident
	<u>Catostomus macrochelys</u>	Largescale sucker	Resident
Cottidae	<u>Cottus spp.</u>	Sculpin	Resident
	<u>Cottus confusus</u>	Shorthead sculpin	Resident

1 These species may also be migrants when water temperatures or flows decrease. Species list compiled by IDF&G.

* From U.S.D.A. (1984); Ralston & Associates (1984)

As a result of the depletion of runs, the IDF&G has, over the past 10 years periodically stocked the Yankee Fork and its main tributary, the West Fork, with hatchery steelhead and chinook (Table 7). The majority of plants in the 80's were primarily from the Pahsimeroi hatchery. Because of these plants and some success in improving downstream passage at dams (the barging of steelhead has proven effective), the steelhead runs in the upper Salmon drainage have improved. The runs of chinook, however, have remained depressed largely due to the continuing problems of smolt passage at the mainstem Snake and Columbia dams. Efforts to increase chinook returns are therefore centered on increasing the number of smolts in the upper Salmon drainage.

IDF&G's recently completed (1984) Sawtooth Hatchery is a key component in the planned "stepped-up" production. This facility, located 6 miles south of Stanley, Idaho was constructed as part of the Lower Snake River Fish and Wildlife Compensation Plan. The facility has a production capacity of 2.3 million smolts and 1.1 million fingerlings. In addition to releasing smolts to return as adults to the hatchery, the hatchery is being used as an outplanting facility to seed natural but underutilized habitats. The Yankee Fork has been targeted as one of the recipients streams with a proposed allotment of 200,000 smolts and 200,000 fingerlings (IDF&G 1984, 1986). Over 100,000 chinook fry from this facility were released in the Yankee Fork in the spring of 1987.

Thus, a source of fish to aid in the restoration of the Yankee Fork exists. However, to bring the system back to historic production levels, both the quantity and quality of habitat must be comparable to historic levels. This is not the case under existing conditions and is the focus of the proposed alternative.

3.3.2 Resident Species

Although best known for its steelhead and chinook, the Yankee Fork drainage also supports resident populations of rainbow, cutthroat, brook and bull trout, and mountain whitefish (Proposium williamsoni). Angling for these species occurs primarily after June when streamflows begin to recede and water clarity improves. Fishing access is provided along the main forest access road, although no road exists up the West Fork.

Because of high spring flows, the IDF&G has instituted a catchable rainbow trout fishery in several of the existing dredge ponds. This provides anglers an early fishing opportunity when streamflow conditions normally preclude such activity. The fishery has been highly successful with an estimated 3,000-4,000 people fishing the ponds each summer. Specific ponds stocked by the IDF&G are listed in Table 8.

Stocking of the ponds occurs about 3 to 5 times each summer between May and early September (Gadwa 1986). An estimated 3,000-5,000 fish from the Hayspur hatchery are stocked annually with some fish successfully overwintering in the larger ponds (e.g., Pond 2 of PS-4).

Table 7

IDAHO DEPARTMENT OF FISH AND GAME HISTORICAL ANADROMOUS FISH
PLANTINGS IN THE YANKEE FORK DRAINAGE
1978-1986

<u>Date</u>	<u>Species</u>	<u>Fish Size</u>	<u>Number Fish</u>	<u>Weight (lb)</u>
05-30-78	Steelhead	Fry	255,142	106.0
05-30-78	Steelhead	Fry	103,501	43.0
07-07-78	Spring Chinook	Fry	51,210	710.0
08-21-78	Spring Chinook	Fry	75,036	156.0
06-19-79	Steelhead	Fry	208,800	58.0
06-12-80	Steelhead	Fry	100,000	50.0
05-05-81	Steelhead	Fry	254,600	67.0
04-11-83	Steelhead "A"	Adult	180	1,080.0
04-14-83	Steelhead "A"	Adult	200	1,200.0
04-21-83	Steelhead "A"	Adult	230	1,150.0
04-02-84	Steelhead "A"	Adult	350	1,400.0
04-02-84	Steelhead "A"	Adult	350	1,400.0
04-05-84	Steelhead "A"	Adult	150	600.0
04-06-84	Steelhead "A"	Adult	350	1,400.0
04-06-84	Steelhead "A"	Adult	350	1,400.0
04-06-84	Steelhead "A"	Adult	150	600.0
05-29-84	Steelhead "A"	Fry	50,000	20.0
07-30-84	Steelhead "A"	Fry	90,450	201.0
04-12-85	Steelhead "A"	Adult	150	600.0
04-15-85	Steelhead "A"	Adult	160	640.0
04-15-85	Steelhead "A"	Adult	156	624.0
04-16-85	Steelhead "A"	Adult	150	600.0
06-13-85	Spring Chinook	Adult	61	732.0
06-26-85	Spring Chinook	Adult	30	300.0
06-26-85	Spring Chinook	Adult	37	74.0
06-27-85	Spring Chinook	Adult	49	98.0
06-27-85	Spring Chinook	Adult	49	490.0
06-27-85	Spring Chinook	Adult	44	440.0
06-27-85	Spring Chinook	Adult	66	132.0
06-29-85	Spring Chinook	Adult	30	60.0
06-29-85	Spring Chinook	Adult	23	230.0
07-01-85	Spring Chinook	Adult	25	250.0
07-01-85	Spring Chinook	Adult	28	56.0
07-02-85	Spring Chinook	Adult	13	130.0
07-02-85	Spring Chinook	Adult	129	258.0
07-05-85	Spring Chinook	Adult	34	340.0
07-05-85	Spring Chinook	Adult	76	152.0
07-08-85	Spring Chinook	Adult	17	170.0
07-08-85	Spring Chinook	Adult	9	18.0
07-16-85	Steelhead "A"	Fry	250,000	105.0
03-27-86	Steelhead "A"	Adult	199	995.0
03-31-86	Steelhead "A"	Adult	214	1,070.0

Table 7 (Cont'd)

IDAHO DEPARTMENT OF FISH AND GAME HISTORICAL ANADROMOUS FISH
PLANTINGS IN THE YANKEE FORK DRAINAGE
1978-1986

<u>Date</u>	<u>Species</u>	<u>Fish Size</u>	<u>Number Fish</u>	<u>Weight (lb)</u>
04-01-86	Steelhead "A"	Adult	86	344.0
04-14-86	Steelhead "A"	Adult	141	846.0
04-21-86	Steelhead "A"	Adult	22	88.0
05-08-86	Steelhead "A"	Fry	370,000	148.0
05-29-86	Spring Chinook	Fry	44,250	250.0
05-30-86	Spring Chinook	Fry	45,000	250.0
05-30-86	Spring Chinook	Fry	42,250	250.0
06-13-86	Spring Chinook	Adult	61	732.0
06-25-86	Spring Chinook	3-6"	65,280	510.0
06-25-86	Spring Chinook	3-6"	25,856	202.0
06-25-86	Spring Chinook	3-6"	65,280	510.0
06-25-86	Spring Chinook	3-6"	52,096	407.0
06-30-86	Spring Chinook	3-6"	46,336	362.0
07-01-86	Spring Chinook	Adult	110	1,100.0
07-01-86	Spring Chinook	Adult	118	1,180.0
07-01-86	Spring Chinook	Adult	110	1,100.0
07-01-86	Spring Chinook	Adult	111	1,100.0
07-01-86	Spring Chinook	Adult	50	500.0
07-01-86	Spring Chinook	Adult	50	500.0
07-02-86	Spring Chinook	Adult	112	1,120.0
07-02-86	Spring Chinook	Adult	110	1,100.0
07-02-86	Spring Chinook	Adult	100	1,000.0
07-02-86	Spring Chinook	Adult	50	500.0
07-02-86	Spring Chinook	Adult	100	1,000.0
07-08-86	Spring Chinook	Adult	40	400.0
07-08-86	Spring Chinook	Adult	85	850.0
07-10-86	Spring Chinook	Adult	40	400.0
07-10-86	Spring Chinook	Adult	85	850.0
07-28-86	Spring Chinook	Adult	50	500.0
07-29-86	Spring Chinook	Adult	110	1,100.0
07-30-86	Spring Chinook	Adult	50	500.0
08-25-86	Spring Chinook	Adult	24	240.0

Source: _____

Table 8

PONDS STOCKED WITH CATCHABLE RAINBOW TROUT

<u>Pond Series</u>	<u>Ponds Within Series</u> ⁽¹⁾
PS-1	Ponds 1-4
PS-2	None
PS-3	Pond 2
PS-4	Pond 2

(1) See Figures 4 to 7 for pond locations.

Development of the proposed alternative is compatible with the continued management of the ponds for a put-and-take fishery. Although some predation of juvenile chinook may occur from the planted fish, the impact of this is considered low given the typical feeding behavior of hatchery catchable fish (Huffaker 1987). In addition, the majority of catchable rainbow will likely be "fished-out" by late August so that the period in which the ponds are shared is relatively small (May-August).

During construction, some temporary increases in sedimentation could occur in the Yankee Fork. Such increases could be especially harmful if they occurred during or shortly after the spawning periods of chinook (August) and steelhead (April-May). For this reason, the IDF&G has noted that no mainstream construction activity should occur after August 15. In addition to direct effects on fish, sediment can affect their food supply via smothering riffle areas, which are good producers of aquatic invertebrates.

Other potential construction related impacts include an increase in fishing pressure by the project workforce during the 2 month construction period, and temporary changes in water quality resulting from accidental spills of oil, gasoline or diesel fuel from heavy equipment. The former impact will be low due to the small size of the workforce (10-15 personnel). The potential for accidental spills will be minimized by storing all petroleum and chemical products above the highwater mark.

The operation of the pond series would result in a small reduction in flow in the main Yankee Fork extending downstream from the channel inlets to points of return flow. However, the magnitude of such diversions will be small (about 15 cfs) when compared with flows of the main Yankee Fork (low flows about 90-100 cfs) and will have no effect on its fishery resources. In addition, the flow diversions are non-consumptive with essentially all water being returned to the main Yankee Fork at the pond outlets.

Once in operation, there is also the potential that some returning adult chinook may migrate into and become trapped within the pond series and thus, fail to spawn (Reingold, pers. comm. 1987). To prevent this, each of the four series outlets will be screened during periods of adult migration (March-July).

Because of extensive hatchery outplanting to the Yankee Fork (Table 7), it is likely that no genetically pure wild chinook stocks exist in the Yankee Fork. Thus, the proposed action will not impact these runs.

Should selected instream enhancement structures be installed, some short term increases in turbidity and sediment entrainment would occur during construction. This will be minimized by limiting construction to periods of low flow. In addition, the construction of such structures will occur prior to spawning of chinook (no later than August 15) and hence it will have no impacts on spawning or egg incubation. The implementation of erosion control measures would likewise create some negligible temporary increases in sediment recruitment to the Yankee Fork.

3.4 VEGETATION AND WILDLIFE

3.4.1 Vegetation

Plant communities in the project area consist primarily of coniferous forest and riparian vegetation. The dominant coniferous forests occur throughout the project area on mountain slopes adjoining the four pond series, and include several subalpine fir and Douglas fir communities, lodgepole pine and whitebark pine. Associated shrub species include common juniper, mountain sagebrush, serviceberry, elderberry and thimbleberry. Understory species include yarrow, wild onion, pussytoes, elk sedge, blue ryegrass, Idaho fescue, grouse whortleberry, pearly everlasting, bluebunch wheatgrass and pinegrass (USDA 1984).

The project sites (four pond series) are all located in riparian zones, some among unvegetated dredge piles, others surround by scattered riparian vegetation. The distribution and density of riparian plant communities varies according to location in the Yankee Fork drainage. Riparian vegetation at the project site is sparse due to a general lack of soils and growing space, the presence of unconsolidated dredge piles and location of the access road. Instream and riparian vegetation is good to abundant throughout most of the upper Yankee Fork, Jordan Creek, and the West Fork. Plant species common to these areas include willow, aspen, thimbleberry, elderberry, bluebell, goldenrod, smooth brome, meadowrue, and various other grasses, sedges and forbs (Hydrometrics 1982a; USDA 1984).

No federal or state listed or proposed threatened or endangered plants are known to occur in the Yankee Fork drainage (Howard, pers. comm. 1986; Caicco et al, pers. comm. 1986; Wolflin 1987).

Construction of the proposed action will require disturbance to about 4 acres of vegetated lands, of which approximately 1.3 acres are wetlands (see following Section 3.4.1.1), with the remainder being meadow, shrub and unclassified vegetation. Up to five medium-sized trees may need to be cleared

in order to provide equipment access for construction of channels. Disturbance to riparian vegetation and the clearing of trees will be kept to the absolute minimum needed for the development. Areas disturbed will be revegetated immediately following construction to inhibit erosion and encourage reestablishment of native communities. In addition, selected areas bordering rearing ponds and newly constructed channels will be planted so as to encourage establishment of riparian flora. This will provide additional habitat enhancement for fish and other wildlife as well as act to partially replace other wetland flora lost to construction. Overall impacts to vegetation from the proposed action are not expected to be significant.

The effects of implementing the instream enhancement alternative on vegetation would be very localized and limited to that required for stream access. Streambank stabilization would produce a net gain in vegetation along the drainage.

3.4.1.1 Wetlands. The U.S. Army Corps of Engineers (COE) has determined that isolated wetlands do occur in the immediate area of the proposed project as shown in Figures 4 through 7. These wetlands are comprised primarily of localized strips of riparian vegetation which have developed adjacent to certain dredge ponds and borrow pits among the tailings piles. Plants typical of riparian zones along the Yankee Fork drainage include willows, aspen, thimbleberry, elderberry, and various grasses and forbs (Hydrometrics 1982a). Approximately 0.9 acres of wetlands may be lost permanently from construction of various channels connecting the ponds in the proposed alternative. This is based on an average channel surface width of 47 feet, which will vary based on local topography. In addition, approximately 0.4 acres of wetlands may be temporarily disturbed to access channel construction in wetland areas. These latter areas will be restored following construction.

Construction and disturbances in wetlands will be limited to those areas integral to the development of the off-channel rearing habitat. Dredged material excavated from channels will be disposed above the local ordinary high water elevation of the Yankee Fork and, where possible, on adjoining dredge piles. To partially offset losses of wetlands, new wetland riparian zones will be developed around presently exposed ponds. This will be accomplished through placement of excavated topsoils and the subsequent planting of willows, grasses and other appropriate plants. Vegetative growth will similarly be developed as needed along new and existing channels.

In addition to the COE, other agencies including the Environmental Protection Agency (EPA), the USFWS and the IDWR also have authority over developments affecting wetlands. Additional mitigation measures to offset wetlands impacts will be implemented as required through review of the project Dredge and Fill (404) Corps permit application.

Implementation of the instream enhancement project alternative (rock wiers, wing deflectors) would cause no significant or permanent effects on wetlands, though some temporary impacts could result from local stream access requirements. The streambank stabilization alternative would have only positive effects on riparian vegetation.

3.4.2 Wildlife

The Yankee Fork drainage provides potential habitat for over 63 species of mammals, 82 bird species and 10 species of amphibians and reptiles (USDA 1982; Hydrometrics 1980, 1981). Much of the forest and riparian vegetation of the drainage has been significantly altered by past and ongoing mining, logging, grazing, and forest fires (Hydrometrics 1981). Ground cover for large mammals is generally lacking from mid-to-high elevations in some areas. Where present in the upper Yankee Fork drainage, riparian habitat is important to wildlife as a source of water, food, and cover.

Larger mammals which may occur in the Yankee Fork drainage include elk, mule deer, mountain goat, bighorn sheep, black bear, wolverine, pine marten, lynx, bobcat, mountain lion, and the endangered gray wolf. Field surveys performed in 1980 and 1981 in the Jordan Creek drainage recorded small numbers of elk, mule deer, black bear and mountain goat (USDA 1984). Prime elk summer range is limited to the far upper reaches of the West Fork and Yankee Fork drainages and winter range is found primarily on south-facing slopes along major drainages. A herd of elk is known to winter along the Salmon River near the Sunbeam Resort and some occasionally move up the Yankee Fork as far as Bonanza (USDA 1984). Mule deer summer throughout the drainage, but move downslope in winter to browse on willows along the lower Yankee Fork. Mountain goats occur at higher elevations on Sunbeam Mountain, Jordan Mountain and others in the drainage, and signs of a single black bear were identified near the Sunbeam Mine (Hydrometrics 1981).

Small mammals observed in the Yankee Fork drainage include yellow-bellied marmot, golden-mantled ground squirrel, least chipmunk, yellow chipmunk, red squirrel, northern pocket gopher, beaver, pika, snowshoe hare, deer mice and mountain vole (USDA 1984). Also, 38 species of breeding birds typical of the region were observed, along with two species of amphibians, the spotted frog and the long-toed salamander.

The IDF&G maintains a list of Species of Special Concern, from which the bobcat, lynx, and fisher have been identified as potentially occurring in the Yankee Fork drainage. Their protection is limited to that provided under state hunting and trapping regulations. Bobcat and lynx are reportedly present and fisher is absent from the project study area (Gadwa, pers. comm. 1986).

The effects of the proposed action on wildlife in the Yankee Fork drainage will be limited to the two-month construction period in the general vicinity of PS-1 and PS-3 in August-September of 1987, and PS-2 and PS-4 in August-September 1988. During these time periods, temporary increases in noise and human activity would occur associated with a small workforce and heavy equipment operations. Some avoidance of the construction zone by local wildlife may occur, but wildlife should return following the construction period. No significant adverse effects to resident wildlife are anticipated due to the limited extent of construction disturbances and limited wildlife

habitat available in the dredge piles (construction zone). Some depletion of local beaver populations may be necessary through controlled trapping to maintain fish rearing habitat and proper operation of the channels.

The permanent loss of up to 1 acre of riparian vegetation from construction of the rearing ponds is not a significant loss of habitat for wintering mule deer or other resident and transient wildlife. Overall, there will be a positive long-term effect of the proposed action on local and regional wildlife populations. Increased salmonid production in the Yankee Fork will provide additional food resources for a number of predatory and carion-feeding mammals and birds, both locally and for miles downstream.

The effects on wildlife of implementing either of the instream enhancement or streambank stabilization alternatives would be negligible due to the absence of any significant vegetation clearing or habitat disturbance. Some localized habitat improvement would result from streambank revegetation for erosion control. Short-term, temporary effects on wildlife may occur from construction noise associated with these alternatives, producing some avoidance by wildlife of adjacent habitat until construction is completed.

3.4.3 Threatened and Endangered Species

The Yankee Fork drainage contains potential habitat for three Federally-listed endangered species: the peregrine falcon, bald eagle, and gray wolf. No Federally-listed or candidate threatened or endangered plants occur in the Yankee Fork drainage (Howard, pers. comm. 1986).

Peregrine falcons may occur in small numbers as spring and fall transients through the study area. The Challis National Forest is considered to contain suitable nesting cliffs for peregrines, but no nesting is known to occur anywhere in the area and no effects on peregrines are expected (Howard, pers. comm. 1986). Bald eagles winter along the Salmon River and one was sighted along the Yankee Fork on December 5, 1980 (USDA 1984). An estimated 20 to 25 eagles winter along the Salmon River between Roads End and Stanley; no bald eagle nests or winter roosts are known to occur along the Yankee Fork (Howard, pers. comm. 1984). The USF&WS agreed that increased fisheries production will likely produce a positive and beneficial impact on overwintering bald eagles in the Salmon River downstream of the study area.

The northern Rocky Mountain gray wolf (Canis lupus irremotus) has been identified by the USF&WS (Wolflin 1987) as an endangered species which may be impacted by the proposed action. Gray wolves may use the Yankee Fork drainage as a travel route between two elk summer ranges located northeast and southwest of the project area. The principal gray wolf population is believed to occur 40 to 60 miles west of the study area. The closest sightings of gray wolves were near the Lucky Boy Mine, about three miles northeast of PS-4 and at Preachers Cove, about one mile northeast of PS-4 (USDA 1984). Other sightings in the vicinity of the proposed action are provided in Table 9. It has been over five years since the last reported sighting of a wolf in the Yankee Fork drainage (Groves, pers. comm. 1987).

Table 9

**RECENT^{1/} WOLF SIGHTINGS IN THE VICINITY OF
THE YANKEE FORK FISHERY ENHANCEMENT PROJECT**

<u>Date</u>	<u>Legal Description</u>	<u>Location</u>	<u>Rating</u> ^{2/}
June 1947	T.11N., R.11E., Sec. 10	Near Trap Creek, 10 mi. N. Grandjean	Tracks observed, highly probable
Mar. 1974	T.12N., R.11E., Sec. 13	Near Cape Horn on Knapp Creek	Probable sighting
Sept. 1977	T.14N., R.11E., Sec. 13	Near confluence of Drop Creek with Rapid River	Probable sighting
May 1980	T.11N., R.12E., Sec. 14	Near Lowman-Stanley highway on Park Creek	Probable sighting
Aug. 1980	T.14N., R.13E., Sec. 6	Near Pinyon Peak Lookout on ridge at dusk	Probable sighting
Oct. 1980	T.11N., R.12E., Sec. 22	Near Dry Creek in Stanley Basin area	Highly probable sighting (2 wolves)
May 1981	T.13N., R.17E., Sec. 2	Near Fanny's Hole and Custer Motorway on Mill Creek	Probable sighting
June 1981	T.12N., R.13E., Sec. 10	Hindman Lake area near West Fork Yankee Fork	Tracks observed, probable
June 1981	T.12N., R.15E., Sec. 15	Several places in vicinity of Luckey Boy Mine	Probable sighting
June 1981	T.12N., R.15E., Sec. 20	Near millsite in Preacher's Cove area	Probable sighting
Aug. 1981	T.13N., R.16E., Sec. 23	On Elevenmile Creek near Yankee Fork	Scat collected, probable

^{1/} Sightings are through September 1986 (Groves, pers. comm. 1987)

^{2/} All sightings are of lone wolves except where noted.

Source: USDA 1984

The proposed project sites do not contain significant habitat for wolves or for their primary prey base, elk and mule deer. The proposed action will take place exclusively within the confines of the sparsely vegetated dredge piles. Elk have been observed only rarely in the project area. In December 1980, 6 animals were spotted near Bonanza, probably from the main herd which winters along the Salmon River (USDA 1984). Mule deer winter along the Yankee Fork and steep south-facing slopes along the Salmon River, but are not expected in significant numbers in the project area during the August-September construction periods.

The proposed Yankee Fork fishery enhancement project is not expected to have direct effects on either wolves or their prey base. The lack of adequate habitat in the project area and the short duration of the proposed action should reduce the chances of any wolf-human encounters or related wolf mortality. Operation of the proposed, unmanned, low maintenance facilities will similarly have no long-term effect on wolves or their prey.

The cumulative effects of the proposed action and the proposed electrical transmission line project and ongoing mining and recreational uses in the Yankee Fork drainage might indirectly affect wolves and their prey base if they were present in the project area. However, existing data indicate only rare occurrences of wolves in the drainage and no cumulative effects are anticipated.

However, to ensure that chance occurrences of wolves are not discouraged or encouraged by the proposed action, the following mitigation measures will be implemented:

- o All employees and contractors will be educated regarding applicable hunting, fishing, trapping and endangered species laws and regulations;
- o All solid waste will be properly handled and disposed of according to IDHW regulations so as not to unnecessarily attract wolves and other wildlife;
- o All employees and contractors will be educated in wolf biology and their conservation/recovery efforts;
- o Efforts to restore all disturbed riparian habitat will occur immediately following construction.

Based on the above, it is felt that the proposed development will not endanger the continued existence of the gray wolf, and that a "no effect" decision is justified.

3.5 RECREATIONAL RESOURCES

The Yankee Fork drainage and surrounding vicinity contain significant recreational resources of various types. The nearby Sawtooth National Recreation Area (SNRA) and the Salmon River are recreational sites of national importance. The Salmon River supports a good trout fishery and a significant river rafting business (Hydrometrics 1982b). Along the Yankee Fork there are

several popular historic mining sites, including the ghost town of Custer, the Custer Museum, the Bonanza Historical Site, and the Yankee Fork Dredge. Between 17,000 to 20,000 annual visitors have been recorded at these historical sites (Hydrometrics 1982b; Gadwa, pers. comm. 1986). The Yankee Fork Road is also used as a recreational access to the Loon Creek area and by hunters in the fall. Other recreational activities in the drainage include sightseeing, camping, wildlife observation, picnicking, hiking, and fishing. With respect to the latter, a popular put-and-take trout fishery has developed in the dredge ponds along the lower Yankee Fork (Cullinane, Davis, pers. comm. 1986) (see Section 3.3). The USFS Jerry's Creek Campground (undeveloped with 2 - 3 tables) and Pole Flat Campground (fee area with 20 units) are about 0.2 miles from the lower ends of PS-2 and PS-1 respectively.

The project area along the Yankee Fork drainage does not include any property acquired or developed with assistance from Land and Water Conservation Funds (Cullinane, pers. comm. 1986). In addition, there are no National Recreation Trails, National Scenic Trails, Wild and Scenic Rivers, Wilderness Areas, parks, or BLM areas of critical environmental concern.

Construction and operation of the proposed project alternative will have an overall positive and beneficial effect on recreational resources, and specifically on recreational fishing in the Yankee Fork and Salmon River. Long-term benefits to wildlife dependent on fish may also be realized, thereby improving recreational wildlife observation within the drainage.

Initial concerns regarding potential conflicts between the existing put-and-take trout fishery and the proposed rearing pond development have been resolved. The IDF&G "will be able to continue to provide a resident trout fishery in some ponds during the time period when demands for that type of fishing are high without impacting anadromous fish production" (Huffaker 1987).

Effects of the proposed action on other recreational resources will not be significant. With an estimated work force of 10 people, and the short-term (two-three months) low-level construction activity planned along the drainage, no significant adverse impacts are expected on the visitation of nearby historic sites and other non-fishery related recreational resources.

Excavation of channels between dredge ponds and placement of riprap will result in some local and temporary increases in noise from heavy equipment and increased traffic. Replacement of the road culvert at the lower end of PS-1 may be done in two phases so as not to disrupt access to recreational sites upstream or alternatively, the existing side road may be used to temporarily reroute traffic around the culvert construction. The USFS has indicated that construction of the proposed project should have no effect on campers at Pole Flat campground (Cullinane, pers. comm. 1987) and the small, undeveloped Jerry's Creek campground may simply be temporarily closed during construction (Savitch, pers. comm. 1987).

The instream enhancement alternative to the proposed action would create similar effects on recreational use in the area depending on the total number of rock weirs and wing deflectors constructed.

3.6 EXISTING AND PLANNED LAND USE

Lands within the Yankee Fork drainage are either administered by the Challis National Forest or owned by private mining interests. Forest Service lands are managed by the Yankee Fork Ranger District and maintained for multiple use, including timber harvest, mining exploration, recreation and livestock grazing. Unimproved roads parallel the entire drainage except for the West Fork of the Yankee Fork. Livestock grazing is limited to the upper mainstem of the Yankee Fork. Approximately 20 to 30 summer residences live in the Yankee Fork drainage. The nearest towns are Stanley and Clayton, Idaho, which are about 25 miles west and 30 miles east, respectively.

Dredge-mining for gold has occurred along the drainage since the late 1800's. Both patented mining lands (private lands) and unpatented mining claims (Forest Service land) occur along the Yankee Fork and its major tributaries. Small scale dredge, placer, deep rock, and open pit mining continue to operate in the upper Yankee Fork and Jordan Creek. No mining presently occurs along the lower Yankee Fork, however, J. R. Simplot owns patented lands which include all of the dredge ponds planned for development. Eight small inactive unpatented claims also occur on Forest Service lands adjacent to the four pond series to be developed. Coordination has begun with adjacent claim and private landowners to assure proper consideration of their concerns (Smith, pers. comm. 1987).

There are no known Federal (Culliname, pers. comm. 1986), State (Mews, pers. comm. 1987) or county (Bloxham, pers. comm. 1987) land use plans in effect for the Yankee Fork drainage and the proposed project sites. The USFS is in the process of preparing the Yankee Fork Composite Plan which is currently incomplete and unavailable to the public. Though no permanent fishery facilities are proposed on public (National Forest) lands, obtaining riprap under a USFS Common Minerals Permit, transporting equipment and materials under a USFS Road Use Permit, and development of a temporary workforce campground under a USFS Industrial Campground Permit are consistent with the multiple use objectives of the Challis National Forest (Johnson, pers. comm. 1987). The proposed project is not located in, nor will it in any way affect a coastal zone or any farmlands.

Preliminary informal discussions are beginning between the Idaho Department of Parks and Recreation (IDPR) and the USFS for IDPR to establish a historic park centered around the Custer and Bonanza historic sites. No plans have been developed as of yet, but the proposed project should not impact this potential development due to its distance from the historic sites.

The effects of future mining and grazing activities in the drainage are not expected to significantly affect or conflict with the proposed action. Grazing of about 250 cattle occurs sufficiently far up in the drainage (Fivemile Creek to the headwaters) and over a sufficiently large area to cause no anticipated water quality effects which could significantly affect the proposed development.

Future mining in the drainage is planned at the Sunbeam Mine and at other locations, but all will be closely regulated by Federal and state agencies so as to minimize potential land and water quality impacts downstream. Assuming water quality standards will be met as a result of these mining activities, no impacts on or conflicts with the proposed action should occur. Accidental spills of sediment ponds, cyanide or other toxic/hazardous substances from upstream mining activities could have temporary adverse effects on the rearing facilities. Both upstream dilution, vegetative/soil filtration and other mitigative actions should, in most cases, result in only short-term, low-level effects on the rearing ponds from accidental spills.

In summary, the proposed action is not expected to significantly impact or conflict with any existing or planned land uses in the Yankee Fork drainage. The instream enhancement alternative and streambank stabilization alternative would, for the same reasons discussed above for the proposed action, not be expected to significantly affect land uses in the drainage.

3.7 ARCHAEOLOGY AND CULTURAL RESOURCES

A number of Federal laws and regulations have been promulgated to protect the nation's historical, cultural, and prehistoric resources. These include the National Historic Preservation Act, the Archeological Resources Protection Act, the American Indian Religious Freedom Act, the National Landmarks Program, and the World Heritage List. The National Historic Preservation Act and the Archeological Resources Protection Act safeguard historical and archeological resources from damage or loss to Federally sponsored or permitted projects and from excavation or removal from Federal and Indian lands. The American Indian Religious Freedom Act assures that Federal activities do not impair access to religious sites and will not affect ceremonial rites of American Indians.

Pursuant to the National Historic Preservation Act, the effects of any Federal or Federally-assisted undertaking on historical, cultural, or archeological resources must be evaluated. For properties on or eligible for the National Register of Historic Places, the responsible Federal agency must consult with the State Historic Preservation Office (SHPO) regarding any potential adverse effects on resources of historic, architectural, archeological, or cultural significance.

The Yankee Fork system is an important and treaty guaranteed anadromous fishing area for members of the Shoshone-Bannock Tribes. As a conservation measure, the Tribes have voluntarily chosen not to exercise this treaty right since 1978 (USDA 1984). The Tribes also have ceremonial rights to the Yankee Fork and utilize the upper portion of Five Mile Creek for ceremonial spear fishing (Somes, pers. comm. 1986). Indian artifacts may be present along the drainage.

Various historic sites have been identified within the Yankee Fork drainage. The most noteworthy are the Bonanza historic site, the ghost town of Custer and an old mining dredge along the Yankee Fork. All of these sites are eligible for listing on the National Register of Historic Places but have not yet been listed. Other historic sites, also not federally listed but possibly

eligible, have been identified in the vicinity of the Sunbeam Mine (USDA 1984). These sites are the Sunbeam mine community settlement, the South Sunbeam mining area and the Jesse James mining company.

Consultation with the Idaho State Historic Preservation Office has determined that the proposed project will not affect cultural resources (Green 1987). The Idaho SHPO recognizes that significant Indian sites formerly present along the river in the project area have been destroyed by prior gold dredging. The closest eligible historic site to the project area is the Bonanza historic site, located more than one mile upstream of PS-4. No effects to historical sites are expected. Since the proposed action will be carried out completely within the dredged areas, no adverse effects to cultural resources are anticipated.

3.8 AIR QUALITY, NOISE, AND TRAFFIC

3.8.1 Air Quality

Air quality in the Yankee Fork drainage is from good to excellent due to its remoteness and lack of any stationary sources of air emissions (USDA 1984). Ambient air quality monitoring data are not available for the Yankee Fork drainage.

The only source of air emissions associated with each project alternative would be emissions from construction equipment, emissions from passenger vehicles and fugitive dust. Construction equipment expected to be used for the proposed action are listed in Table 10. Additionally, a maximum of 10 passenger vehicles traveling to and from the site are expected during construction, based on an estimated workforce of 10 people.

Low levels of carbon monoxide, hydrocarbons, nitrogen oxides and sulfur oxides are expected from gasoline and diesel-powered mobile sources (automobiles and trucks) and equipment. Particulate or fugitive dust emissions resulting from gravel road traffic and wind erosion during construction are expected to be short-term and minimal. Thus, each of the project alternatives is not expected to significantly impact air quality. The proposed action would result in slightly more vehicle and particulate emissions compared to the other alternatives due to greater construction needs and extent of the project.

The project should not be affected by requirements promulgated under National Ambient Air Quality Standards since New Source Performance Standards do not apply and emissions are expected to be short-term and minor (Ayer, pers. comm. 1987). In addition, the short-term and minimal quantities of particulate and vehicle exhaust emissions should not be affected by the State Implementation Plan (SIP) or Prevention of Significant Deterioration (PSD) regulations. The project is also not regulated under New Source Performance Standards (NSPS) and no hazardous air emissions regulated under the National Emissions Standards for Hazardous Pollutants (NESHPS) will be generated by the project. To comply with state requirements, the project will control fugitive particulates, via water sprinkling.

Table 10
CONSTRUCTION EQUIPMENT

<u>Description</u>	<u>Quantity</u>	<u>Duration of Use (Months)</u>	
		<u>1987 Season</u>	<u>1988 Season</u>
Excavator, Cat 235 or equal	1	2	1
Dozer, D8	1	1	1
Dozer, JD550 or equal	1	2	2
Loader, Cat 966	1	2	2
Compressor, 375 CFM	2	2	2
Pump, 2"Ø to 6"Ø Discharge	4	2	2
Motor - Generator, 5 to 15 KW	4	2	2
Trailer, 8' x 24'	1	2	2
Truck, 10 CY Dump	2	2	2
Truck, 4 x 4 Pickup	1	2	2
Truck, 4 x 4 Carry-All	1	2	2
Truck, 3T Flatbed	1	2	2
Fuel Tank, 1000 Gal.	3	2	2
Compactor, 2300# Vibratory	1	1	1
Compactor, Wacker	3	2	2

3.8.2 Noise

Baseline noise levels in the Yankee Fork drainage have been characterized as typical of rural, undeveloped, back-country areas, normally not exceeding 30 to 45 dbA (USDA 1984). The primary noise sources in the drainage result from passenger vehicles and mining activities such as truck hauling, machinery operation, blasting and drilling. The State of Idaho presently does not enforce any quantitative standards which apply to noise levels (USDA 1984).

For each project alternative, project noise sources will be limited to the operation of construction equipment in the project area, trucks supplying construction materials, and other construction-related traffic along Yankee Fork Road (Forest Route 40-013). For the proposed action, construction equipment expected to be used are listed in Table 3-X. As stated above, up to 10 passenger vehicles may commute to and from the site during each day of construction. No blasting is expected for any of the project alternatives. Operational noise impacts are expected to be non-existent or negligible.

For the proposed action, receptors of construction noise impacts include: the Polecamp Flat Campground; Jerry's Creek Campground; and possibly seasonal residences in cabins as well as fisherman and campers/visitors in the vicinity of the ponds. The nearest seasonal residence identified is a cabin on Silver Creek. At its nearest point, construction activities for Pond Series 1 would be about 1/4 mile SW of this cabin. A group of cabins between Pond Series 1 and 2 on the east bank of the Yankee Fork would be about 1/2 mile from the nearest construction activities.

During the 1987 construction phase, minor to moderate noise impacts may be expected at the Polecamp Flat Campground for a few weeks. At its nearest point, construction activities for Pond Series 1 will be approximately 1/4 mile north of the campground. During the 1988 construction phase, moderate noise levels may be expected at the relatively undeveloped campground by Jerry's Creek. At its nearest point, construction activities for Pond Series 2 will be about 200 yards west of this campground.

To help mitigate these short-term effects to visitors of the area, construction will be performed during daylight hours only and usually between the hours of 8 a.m. and 5 p.m., Monday through Friday.

3.8.1 Traffic

Access to the project area is reached via U. S. Route 93, (which runs parallel to the Salmon River), and the Yankee Fork Road (Forest Service Road 40-013). Pond Series 1 is located about 3 1/2 miles up the Yankee Fork Road from its junction with U. S. Route 93, while the last (Pond Series 4) is about 6 1/2 miles up. The Yankee Fork Road has a gravel surface and is presently used for mining, logging and recreational traffic. Approximately 17,000 tourists use the road annually during July through September to visit the town of Custer and a nearby gold dredge (Cullinane, pers. comm. 1986).

The proposed action would involve transporting equipment to and from the project area during each 2-month construction season. Construction traffic would include daily commute vehicles (10 maximum) and occasional deliveries of building materials and supplies (e.g., lumber, concrete, rip-rap and miscellaneous metal).

The amount of construction traffic expected by the proposed action is relatively minor compared to existing traffic. However, during the 1987 construction season, unusually heavy traffic is expected on the Yankee Fork Road, a result of the construction of a transmission line in support of the Sunbeam Mining project. The USFS is concerned about the potential for a temporary road block in conjunction with the culvert replacement in Pond Series 1 (Johnson, pers. comm. 1987).

However, the proposed action will utilize the existing dirt road on the east bank of the Yankee Fork as a traffic detour during the replacement of the culvert. The detour will be approximately 1/2 mile in length and will extend from a point south of Pond 1 to a point north of Pond 4. Some minor road surfacing work would be performed on the detour to make it servicable by conventional automobile traffic. The detour would be in effect for about 1 week while the culvert is being replaced. During normal working hours, the detour will be open to one-way traffic only; thus flagmen with 2-way radios will be positioned at both ends during this time. Traffic delays will be no more than 10 to 15 minutes during this one-week period. To further reduce impacts on traffic, replacement of the culvert will occur after the Labor Day weekend (i.e., September 7) when tourist traffic is low.

3.9 SOLID AND HAZARDOUS WASTE MANAGEMENT

3.9.1 Solid Waste

Solid waste generated from the project will be limited to domestic refuse, sanitary waste from temporary toilet facilities, remnants of construction materials, and dredge material from the banks of the Yankee Fork and connecting channels. Domestic refuse and sanitary wastes will be regularly collected and transported to an approved county landfill and treatment facility, respectively. At the completion of each summer construction period, any remaining lumber, concrete and other construction materials/debris will be hauled off-site and any waste materials will be transported to an approved landfill. All dredge material, if not used for backfill, will be deposited above the ordinary high water mark, away from designated wetlands, and, to the extent practical on top of existing dredge piles.

3.9.2 Hazardous Waste and Materials

During construction, all petroleum products (e.g., fuel, oil), waste oil, and any potentially hazardous chemicals will be kept in bermed areas away from the river and above the ordinary high water mark. This will preclude the potential for an accidental spill to the river. If spills do occur, rapid and complete cleanup will be implemented. At the completion of each summer construction phase, all of these materials will be removed from the site. Any hazardous wastes will be transported to an approved disposal facility.

The existing levels of hazardous wastes or pollutants in the Yankee Fork drainage are unknown. The numbers and quantities of such pollutants present in the dredge piles is believed low, if present at all. The method of hydraulic dredging used to create the tailings piles is believed to have washed out any soluble or precipitated toxic materials from stream gravels prior to being piled as tailings. Nevertheless, the IDH&W has questioned if disturbances to the existing dredge materials during construction could expose sediments containing high concentrations of metals. Such sediments could be entrained in the water column and transported into the main Yankee Fork. A further concern involves the potential flushing of fine sediments from existing channels associated with augmented flows through the ponds. Should such sediments contain high metals concentrations, they could be transported into the Yankee Fork.

An evaluation by the IDH&W of sediment and water collected from each pond series data indicated that the quality of sediment and water should not pose an adverse effect on freshwater life as a result of project construction and operation (Litke, pers. comm. 1987) (see Section 3.2.3). Accordingly, the IDH&W indicates that mandatory monitoring of sediment and water quality during and after construction will not be required.

3.10 AESTHETICS (VISUAL RESOURCES)

A recent study was performed to characterize the visual resources in the vicinity of the Sunbeam Mine which is located within the project study area near Jordan Creek (USDA 1984). The Sunbeam Mine/Jordan Creek area has visual character typical of the study area. A portion of this visual resource description is presented below.

"The existing visual absorption capabilities of the landscape within the study area are considered in terms of physiography, slope, soil color, vegetation, and use patterns. Characteristics of physiography within the study area include sharp ridges forming the skyline, steep drainages with first and second order streams, and the wet meadow area located in Pinyon Basin. Slope components of the study area include extremely steep side slopes, and talus slopes create patterns, texture and color variations characteristic of steep, rocky mountains and ridges. Soil colors are gray-brown to light-brown to yellowish-brown, and rock colors are naturally light to slightly dark. Vegetation characteristics include riparian vegetation visible only in foreground views, coniferous trees which create the predominant color and texture contrasts to exposed rock, and different understory vegetation between the two main habitat types. Use patterns are affected by visible alteration of the landscape due to previous mining activity and roadbuilding, and this type of disturbance is found throughout other viewsheds in the vicinity of the study area.

Visual impacts include both temporary construction impacts and long-term impacts of the new project components. Construction impacts will result primarily from increased road traffic and the various earthwork activities.

Minor long-term visual impacts may result from the intake structures and check structures associated with the proposed action. Such structures are potentially visible to travelers along Yankee Fork Road and to fishermen and hikers who may be in and about the ponds.

Check structures will be low profile, constructed of wood, and often hidden or partially hidden by existing vegetation or topography. These structures should not be incompatible with the existing environment which has been extensively disturbed by previous mining operations.

Intake structures for Pond Series 1, 2, and 3 are potentially more visually prominent than check structures as a result of the concrete headwalls which are usually surrounded by or embedded in rip-rap. However, in all cases, such structures will be largely unnoticeable due to existing topography and vegetation. These structures would be visible to fishermen and hikers in the area, but should not be incompatible with the existing visual environment. Nonetheless, to reduce any minor visual impacts to visitors, the intake structures will be low profile and constructed to blend with the existing form of the landscape to the extent practical.

3.11 PERMIT PROCESS

The Yankee Fork Fisheries enhancement project will require various agency approvals or permits prior to construction. These permits and approvals are presented in Table 11 and described below.

3.11.1 Federal Permits and Approvals

Construction of the proposed development (off-channel rearing habitat) will involve the deposition of fill material (backfill, concrete, rip-rap) into the Yankee Fork. Since the Yankee Fork is a "water of the United States" as defined by the Clean Water Act, a permit under Section 404 of this act is required from the Army Corps of Engineers (ACOE). The project is further subject to the "404" permit because construction of some of the pond connecting channels will occur on wetlands designated by the ACOE. The application for the "404" permit was prepared and submitted using the joint state of Idaho/ACOE application form. Instream enhancement and streambank stabilization alternatives would also involve deposition of fill material into the Yankee Fork and thus would also be subject to Section 404 requirements (under a "general" or "nationwide" 404 permit).

Fill and excavation activities associated with each project alternative would not alter or modify the course, location, condition or capacity of the Yankee Fork. The proposed action, however, would divert some flow from the main river channel over short stretches of the river.

Table 11

PERMITS AND APPROVALS
NEEDED FOR THE YANKEE FORK
ENHANCEMENT PROJECT

<u>Agency</u>	<u>Permit/Approval</u>
FEDERAL	
Army Corps of Engineers (Joint Application with the Idaho Department of Water Resources)	Section 404 Permit
U.S. Forest Service	o Common Minerals Permit o Road Use Permit o Industrial Campground Permit o Memorandum of Understanding
Fish and Wildlife Service	Informal "Section 7" consultation
STATE	
Idaho Department of Water Resources (Joint Application with the U.S. Army Corps of Engineers)	Stream Alteration Agreement
Idaho Department of Water Resources	Water Rights Permit
Idaho Department of Health and Welfare	401 Water Quality Certification
LOCAL/COUNTY -	None required.

The Yankee Fork is not considered a navigable water as defined under the River and Harbors Act of 1899 (Olson 1987). As such, the project alternatives are not subject to a "Section 10" permit under this act.

No federal rights-of-way or rights-of-way permits are required for any of the project alternatives. However, the proposed development will need permits from the Forest Service for the following activities (Johnson, pers. comm. 1987):

- o Mining/extracting rip-rap from Forest Service Lands (Common Minerals Permit)
- o Utilizing Forest Service Roads for hauling of construction equipment and materials (Road Use permit)
- o Camping of construction workforce personnel at non-designated campgrounds (Industrial Campground permit)

Application for the first two permits have been submitted to the USFS. The application for the latter permit is being held pending a determination of where the workforce will be located. In addition, a Memorandum of Understanding (MOU) with the USFS will be required for performing work on Federal land.

Informal consultation under Section 7 of the Endangered Species Act was initiated (Howard, pers. comm. 1987) and the Boise Field Office indicated that no formal consultation will be required for any of the proposed project alternatives due to the unlikely presence of T&E species in the Yankee Fork drainage (see Section 3.4.3).

3.11.2 State Permits and Approvals

The IDWR requires a Stream Channel Alteration Permit for any instream activity, including dredging, filling, placement of structures, bank stabilization, and heavy equipment operation below the mean high water mark. Thus, this permit is applicable to each of the project alternatives. As stated above, a joint IDWR/ACOE application was submitted to both agencies for these permits.

As a condition for receiving a Stream Channel Alteration Permit for any of the project alternatives, the IDH&W must first issue a 401 Water Quality Certification indicating concurrence that no adverse impacts to water quality are expected.

The IDWR also requires a permit to divert and appropriate waters of the state of Idaho. This permit is thus applicable to the proposed action. Individual water rights permit applications were submitted for each of the four pond series associated with the proposed action. The applications were for the diversion of both surface and groundwater and include the following quantities: PS-1 - 5 cfs surface and 10 cfs groundwater; PS-2 - 5 cfs surface; PS-3 - 5 cfs surface, 5 cfs groundwater; PS-4 - 5 cfs surface, 5 cfs groundwater. These amounts are non-consumptive with the flows returned to the Yankee Fork at each respective outlet. The diversion permits are necessary to insure a continuous flow of water into each pond series.

3.11.3 County Permits or Approvals

The county has no general land use plan or zoning ordinances applicable to this project (Bloxham, pers. comm. 1987). Additionally, no county permit or approvals are needed; building permits are not required since the project alternatives do not involve the construction of buildings.

Chapter 4

RECOMMENDATIONS

The proposed action of developing off-channel rearing habitat in the Yankee Fork of the Salmon River will increase its chinook smolt production and adult return potential by about 22% over existing levels and offset the habitat losses resulting from past dredging operations. The action is in concert with the IDF&G's plans for increasing chinook runs back to historic levels and is consistent with the directives of Section 704(d)(1) of the NWPPC's Fish and Wildlife Program. Further, the proposed action will serve as off-site mitigation for anadromous fish losses resulting from Snake and Columbia River hydroelectric developments.

The major construction-related impacts of the project include:

- o Permanent loss of about 0.9 acres of wetlands associated with construction of connecting channels, and temporary disturbances of an additional 0.4 acres resulting from construction access;
- o Potential loss of main Yankee Fork flows during excavation of connecting channels in the ponds;
- o Potential for temporary increases in turbidity and sediment in the Yankee Fork related to construction of inlet and outlet structures;
- o Potential for temporary disturbances of wildlife adjacent to project construction sites;
- o Short-term increase in local traffic and recreational use (fishing, camping, etc.) during the construction period related to construction workforce;
- o Potential for exposure and transport of metal-laden sediments into the main Yankee Fork through excavation of dredge piles and flow augmentation through ponds.

Operationally, the pond developments would result in a small reduction in main Yankee Fork flow (up to 15 cfs) downstream from the channel inlets to points of return flow. However, the diversions are non-consumptive with essentially all water returned at the pond outlets.

Overall, the impacts associated with the construction and development of the proposed action are considered insignificant. Most of the potential impacts will either be mitigated for, or they will have no effect on the environment due to their temporary nature. Thus, BPA's proposal to fund construction, operation and maintenance of the off-channel rearing ponds does not constitute a major Federal action significantly affecting the quality of the human environment.

Chapter 5

CONSULTATION AND COORDINATION

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OTHERS

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R. Kimball
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J. Smith (Landowner)

R. Lothrop (Landowner)

Chapter 6

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APPENDIX A
AGENCY CONSULTATION



STATE OF IDAHO

DEPARTMENT OF HEALTH AND WELFARE 734-9520

DIVISION OF ENVIRONMENT
P. O. Box 1626
Twin Falls, ID 83303-1626

February 11, 1987

Carl Richards
The Shoshone-Bannock Tribes
Fisheries Department
P. O. Box 306
Fort Hall, Idaho 82303

Re: Yankee Fork Fisheries Enhancement Project

Dear Carl:

Thank you for the opportunity to review the draft report for the Yankee Fork Fisheries Enhancement Project.

The Division of Environment's concern with this project centers upon activities during construction, as well as operation of the pond series, which might adversely impact Yankee Fork water quality. Specific comments are as follows:

Page 3-7 - "during low flow periods, the intergravel flows which feed these ponds can exceed 10 percent of the flow in the Yankee Fork". As you create additional channels linking ponds within a series, plus divert Yankee Fork flow through individual pond series (e.g., Pond Series 2, Pond Series 3) what will be the total flow diverted from the Yankee Fork during critical low flow periods? Will the permeability of constructed channels within each pond series be tested? Does Bechtel have any estimate of Yankee Fork flow that might be lost due to permeability of these channels? This permeability should be tested during any preliminary construction this summer. Data collected during construction of the first pond series should be evaluated by all concerned agencies prior to further construction.

Page 7-26 - "Potential for loss of river"

This section does not adequately address the concerns outlined in the above paragraph. How will permeability of the developed pond series be tested to insure that a substantial Yankee Fork flow is not lost underground through the dredge spoils. As the report indicates, such a loss of flow has occurred through dredge spoils in other dredge mining areas. What action will be taken by Bechtel or its contractors if it appears that permeability of constructed channels is causing a problem?

Page 7-27 - "Dewatering problems"

The report indicates that portions of the construction will have to be done "in the wet". All construction activities should be conducted in such a manner as to assure that turbidity and other water quality impacts are kept to a minimum. What best management practices will be used during construction to prevent such impacts, particularly if parts of the construction will be done in wet areas?

Also, the report indicates that rearing ponds will not be dewatered for cleaning. It has been our experience that the greatest impact of rearing ponds on water quality occurs during cleaning events when settled sludge is resuspended. What best management practices will be utilized during cleaning events to insure that no water quality impacts will occur?

There is also no discussion of considerations to insure that enhanced flows through the developed rearing ponds will not transport sediments, or sludge from a food supplemented pond, into the Yankee Fork.

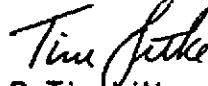
Page 9-7 "Operation and Maintenance"

As the report indicates, regardless of the direction the proposed development takes (e.g., supplemental feeding in certain rearing ponds, trapping and stripping of adult chinook, etc.) some maintenance will be required by individuals responsible for operation and maintenance of the facility. Should a NPDES permit be required or a water quality impact occur, who will be the legally responsible party for the operation? This responsibility should be determined before the pond series are developed. It appears from the report that it is only being assumed that Sawtooth Hatchery personnel will manage the facility.

February 11, 1987

We appreciate the opportunity to comment on this draft plan. If you have any questions regarding our comments, please call our office at 734-9520.

Sincerely,



R. Tim Litke

Sr. Water Quality Specialist

RTL/ta



600 South Walnut • Box 25
Boise, Idaho 83707

February 12, 1987

Dr. Carl Richards
Shoshone-Bannock Tribes
P.O. Box 306
Fort Hall, ID 83203

Dear Carl:

Thank you for the opportunity to provide comments on the Feasibility Plan for the Enhancement of the Yankee Fork of the Salmon River.

The Idaho Department of Fish and Game fully supports efforts to enhance the natural production capacity of the Yankee Fork drainage. Measures to address the bottleneck of rearing habitat such as side channels, off channel rearing sites, and channel modification would be appropriate and effective. The Department fully intends to restore this drainage and provide reasonable levels of seeding through outplanting adults and fry. We feel that subjecting the stocks currently available to natural selection processes will result in the highest quality of returning adults. Should further supplementation be necessary, we feel that outplanting of smolts from existing hatchery facilities would be preferable to construction of hatchery facilities on Yankee Fork.

The use of existing ponds for artificial production would have at least two very serious problems. One is the difficulty of cleaning and maintaining this type of pond and maintaining adequate flows and circulation patterns. The build-up of waste products and wasted feed and the related disease and water quality problems can be very problematic, even within a rearing cycle. Annual cleaning and maintenance would be difficult, and problems increase with the age of the project. There is also a very distinct possibility that eye fluke would be a significant problem in any type of "low-tech" hatchery facility in this watershed.

There is an established put-and-take trout fishery in some of the dredge ponds and some reaches of the drainage. The use of existing dredge ponds for enhanced anadromous fish production should not be undertaken in those ponds where highly popular resident trout fisheries exist.

EQUAL OPPORTUNITY EMPLOYER

Dr. Carl Richards
February 12, 1987
Page 2

I hope that these general comments are useful. My staff will be happy to meet with you to discuss more specific points, but a detailed review of a document of this magnitude is impossible in the time frame available.

Sincerely,

David L. Hanson
David L. Hanson, Chief *DLD*
Bureau of Fisheries

IDAHO STATE HISTORICAL SOCIETY
610 NORTH JULIA DAVIS DRIVE BOISE. 83702



HISTORIC PRESERVATION OFFICE
210 Main St.
(208) 334-3847

March 26, 1987

Mr. Dudley W. Reiser
Project Manager
Bechtel National, Inc.
P.O. Box 3965
San Francisco, California 94119

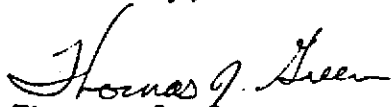
Dear Mr. Reiser:

Thank you for submitting to us the draft report for the Yankee Fork Fisheries Enhancement Project being funded by the Bonneville Power Administration for the Shoshone-Bannock Tribes of Fort Hall, Idaho. We apologize for our tardy response.

Following a review of the report, we agree that the dredge ponds no doubt have destroyed significant Indian sites along the river and, in this case, have determined the project will not affect cultural resources. This is assuming the project will be implemented completely within the dredged area, since additional Indian sites and historic mining sites do occur in the Yankee Fork drainage and could potentially be disturbed by the project.

Thank you again for the opportunity to comment on this project.

Sincerely,


Thomas J. Green
Deputy State Historic
Preservation Officer

TJG/bhd



600 South Walnut • Box 25
Boise, Idaho 83707

April 24, 1987

Dr. Carl Richards
Shoshone-Bannock Tribes
P.O. Box 306
Fort Hall, ID 83203

Dear Carl:

Based on the meeting with Bechtel National held to review the feasibility study for the Yankee Fork, we are encouraged that this project can go forward and have positive benefits for anadromous fish. We are pleased that the alternative to maximize natural production was the one selected.

It appeared at the meeting there was some concern over a potential conflict between enhanced production for anadromous fish and the existing resident trout program. Upon reviewing the resident fish stocking records in the ponds in that area, we are convinced there will be no conflict. We will be able to continue to provide a resident trout fishery in some ponds during the time period when demands for that type of fishing are high without impacting anadromous fish production.

Please let me know if there are any additional questions or concerns that arise over this project.

Sincerely,

Steve Huffaker
Anadromous Fishery Coordinator

cc: Mel Reingold

DUDLEY W. REISER

EQUAL OPPORTUNITY EMPLOYER

MAY 06 1987



STATE OF IDAHO

DEPARTMENT OF HEALTH AND WELFARE 734-9520

DIVISION OF ENVIRONMENT
P. O. Box 1626
Twin Falls, ID 83303-1626

May 11, 1987

Dudley W. Reiser
Bechtel National, Inc.
P. O. Box 3965
San Francisco, CA 94119

Re: Jordan Creek Water Quality Monitoring Data

Dear Mr. Reiser:

Our office was contacted by Mr. Bill Self of Bechtel National, Inc. on May 4, 1987 regarding water quality data for the Yankee Fork or Jordan Creek.

The Division of Environment has limited water quality data on these creeks. As I have indicated in previous meetings on the Yankee Fork project, the only data we have is on Jordan Creek. These data were collected in October 1986 as part of our effort to obtain baseline data to monitor the impact of the Sunbeam project on Jordan Creek water quality. A copy of this information is enclosed for your review. Sunbeam Mining Company has initiated its own monitoring program on Jordan Creek involving quarterly water quality and benthic invertebrate sampling. They might be willing to provide this information to other interested parties.

Other sources of information on Yankee Fork or Jordan Creek water quality might include the Challis National Forest, James M. Montgomery Consulting Engineers, and Ralston and Associates.

If you have any questions then please call.

Sincerely,

A handwritten signature in cursive script, appearing to read "Tim Litke".

R. Tim Litke
Sr. Water Quality Specialist

RTL/ta
Enclosure

DUDLEY W. REISER

MAY 13 1987

Jordan Creek Pre-Survey Data - October 9, 1986
DOE Twin Falls Field Office

Sample Station	Time (hours)	Temp. (°C)	Flow (cfs)	Sp. Conduct. (umhos/cm)	Dissolved Oxygen (mg/l)	pH	T. Ammonia as N (mg/l)	T. Nitrate as N (mg/l)
S-1	1050	2.4	1.18	95	8.2	8.85	0.015	0.048
S-2	1030	2.2	1.5	98	8.2	8.6	0.02	0.069
S-2A	1000	2	3.82	89	8.6	8.55	0.003	0.022
S-3	930	2	5.41	97	8.6	8.78	0.013	0.026
S-4	900	2	4.82	97	8.7	8.58	0.013	0.128
S-5	830	2.5	6.13	99	8.3	8.41	0.008	0.016

Sample Station	Hardness as CaCO3 (mg/l)	T. Alkalinity as CaCO3 (mg/l)	Chloride (mg/l)	Turbidity (NTU)	Total CN (mg/l)	WAD CN (mg/l)	Total Arsenic (ug/l)	Total Cadmium (ug/l)
S-1	36	38	2.5	<1	<0.005	<0.005	<10	<1
S-2	36	36	1.67	<1	<0.005	<0.005	<10	<1
S-2A	36	34	1.67	<1	<0.005	<0.005	<10	<1
S-3	36	35	2.5	<1	<0.005	<0.005	<10	<1
S-4	36	34	2.5	<1	<0.005	<0.005	<10	<1
S-5	36	37	1.67	<0.005	<0.005	<0.005	<10	<1

Sample Station	Total Copper (ug/l)	Total Lead (ug/l)	Total Mercury (ug/l)	Total Silver (ug/l)	Total Zinc (ug/l)	Suspended Sediment (mg/l)
S-1	<10	<50	<0.5	<1	<1	2
S-2	<10	<50	<0.5	<1	<1	4
S-2A	<10	<50	<0.5	<1	<1	2
S-3	<10	<50	<0.5	<1	<1	<2
S-4	<10	<50	<0.5	<1	<1	2
S-5	<10	<50	<0.5	<1	3	<2

Station	Distance above Yankee Fork confluence (mi)
S-1	6.6
S-2	6.35
S-2A	3.9
S-3	3.7
S-4	3.25
S-5	1.7



United States Department of the Interior

FISH AND WILDLIFE SERVICE

BOISE FIELD OFFICE
4696 Overland Road, Room 576
Boise, Idaho 83705

June 2, 1987

Bechtel National, Inc.
Attn: Dudley W. Reiser, Project Manager
P.O. Box 3965
San Francisco, California 94119

Dear Mr. Reiser:

Re: 1-4-87-SP-254

This responds to your letter of May 4, 1987 concerning the Executive Summary of the Final Feasibility Plan for the Enhancement of the Yankee Fork of the Salmon River in Custer County, Idaho. We are providing a list of threatened and endangered species (Attachment A) that may be impacted by this project. This list fulfills the requirements of the Fish and Wildlife Service under Section 7(c) of the Endangered Species Act (ESA) of 1973, as amended.

Attachment B lists the continuing responsibilities of the Forest Service as described in Section 7(a) and (c) of the ESA.

Additional information on Federally listed and candidate species and State species of special concern is available through the Idaho Natural Heritage Program, Attn: Craig Groves, Program Coordinator, 4696 Overland Road, Room 576, Boise, Idaho 83705, phone 334-3402.

If there are any questions regarding your responsibilities under the ESA, please contact Jay Gore at the above address or by phone at 334-1806.

Thank you for the opportunity to provide these comments.

Sincerely yours,

John P. Wolflin
Field Supervisor

Attachments

cc: FWS, AFWE-SE, Portland
IDFG, Hdqtrs., Boise
IDFG, Region 6, Idaho Falls

DUDLEY W. REISER

JUN 5 1987

Attachment A

LISTED AND PROPOSED ENDANGERED AND THREATENED
SPECIES, AND CANDIDATE SPECIES, THAT MAY OCCUR
WITHIN THE YANKEE FORK OF THE SALMON RIVER
IN CUSTER COUNTY, IDAHO
FWS-1-4-87-SP-254

Listed Species

Comments

Gray Wolf (Canis lupus)

Proposed Species

None

Candidate Species

None

FEDERAL AGENCIES' RESPONSIBILITY UNDER SECTIONS 7(a) and (c)
OF THE ENDANGERED SPECIES ACT

SECTION 7(a) - Consultation/Conference

Requires: 1) Federal agencies to utilize their authorities to carry out programs to conserve endangered and threatened species;

2) Consultation with FWS when a Federal action may affect a listed endangered or threatened species to insure that any action authorized, funded or carried out by a Federal agency is not likely to jeopardize the continued existence of listed species; or result in destruction or adverse modification of critical habitat; and

3) Conference with FWS when a Federal action is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat.

SECTION 7(c) - Biological Assessment for Major Construction Activities

Requires Federal agencies or their designees to prepare Biological Assessment (BA) for major construction activities. The BA analyzes the effects of the action on listed and proposed species. The process begins with a Federal agency in requesting from FWS a list of proposed and listed threatened and endangered species (list attached). The BA should be completed within 180 days after its initiation (or within such a time period as is mutually agreeable). If the BA is not initiated within 90 days of receipt of the species list, the accuracy of the list species should be informally verified with FWS. No irreversible commitment of resources is to be made during the BA process which would foreclose reasonable and prudent alternatives to protect endangered species. Planning, design, and administrative actions may be taken; however, no construction may begin.

We recommend the following for inclusion in the BA: an onsite inspection of the area to be affected by the proposal which may include a detailed survey of the area to determine if the species are present; a review literature and scientific data to determine species' distribution, habitat needs, and other biological requirements; interviews with experts, including those within FWS, State conservation departments, universities and others who may have data not yet published in scientific literature; an analysis of the effects of the proposal on the species in terms of individuals and populations, including consideration of cumulative effects of the proposal on the species and its habitat; an analysis of alternative actions considered. The BA should document the results, including a discussion of study methods used, any problems encountered, and other relevant information. The BA should conclude whether or not a listed or proposed species will be affected. Upon completion, the BA should be forwarded to our office.

1/ A major construction activity is a construction project (or other undertaking having similar physical impacts) which is a major action significantly affecting the quality of human environment as referred to in the NEPA (42 U.S.C. 4332 (2)(c)).

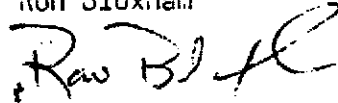
June 13, 1987

To whom it may concern,

I have reviewed the Feasibility Plan for the Enhancement of the Yankee Fork of the Salmon River prepared by Bechtel Environmental, Inc. and have found it to be a very interesting and worthwhile project. This counties building department has no problem with such projects as this. This project will require no building permit from the county because there is no residential type structures involved.

Yours truly,

Ron Bloxham



Custer County Bldg. Inspector

Box 359

Challis, Idaho 83226

DUDLEY W. REISER

JUN 23 1987

APPENDIX B

BIOLOGICAL EVALUATION OF THE GRAY WOLF
(Canis lupus irremotus)

BIOLOGICAL EVALUATION
NORTHERN ROCKY MOUNTAIN GRAY WOLF

Proposed Action: Construction and Operation of Yankee Fork Fishery Enhancement Project

Prepared by: David Cornman
Senior Ecologist
Bechtel Environmental, Inc.
San Francisco, California

Date: June 26, 1987

I. Introduction

The purpose of this Biological Evaluation is to determine whether the proposed Yankee Fork Fishery Enhancement Facility will effect the northern Rock Mountain grey wolf species. This will ensure compliance with provisions of the Endangered Species Act of 1973 (P.L. 93-205[stat. 884]), as amended.

II. Description of Proposed Action

The Bonneville Power Administration (BPA) proposes to fund anadromous fish enhancement activities on the Yankee Fork of the Salmon River in Idaho to be implemented by the Shoshone-Bannock Indian Tribes (SBIT). The proposed activities would develop several off-channel ponds to provide additional rearing habitat in the Yankee Fork and partially mitigate historic salmon population declines throughout the salmon drainage due to hyroelectric and mining developments.

The Yankee Fork of the Salmon River, located in Custer County, Idaho, historically supported large runs of anadromous salmonids, primarily spring chinook salmon (*Oncorhynchus tshawytscha*) and steelhead trout (*Salmo gairdneri*). Dredge mining activities have rechannelized lower portions of the Yankee Fork leaving stream-side deposits of unconsolidated dredge spoils. The dredging has also created over 30 off-channel ponds, many of which receive sub-surface flow from the main Yankee Fork. The dredge mining has reduced available rearing habitat in the Yankee Fork such that its present production potential is well below historic levels.

The proposed development will be accomplished by connecting selected ponds to the mainstem Yankee Fork thereby affording fish access to the habitat. Four separate pond series (PS-1 through PS-4) each continuing from 3 to 7 ponds were proposed for development. Collectively, the ponds entail about 3.8 surface acres corresponding to 15.3 acre-ft (668,136 ft³) of water. The maximum depth of the ponds ranges from 2.5 to 13 ft deep; pond areas range from 0.05 to 0.61 acres. Three of the four pond series would have both inlet and outlet connections to the Yankee Fork, although in two of these, the inlets are via intake pipes and not direct channel connections. The channel connections will afford an access portal for juvenile chinook and steelhead to move into and use the new rearing habitat. Full seeding of the ponds should

increase chinook smolt production by about 22% over existing levels (from about 90,000 to 115,000) and provide an adult return of over 900m fish to the drainage (assuming a smolt to adult return rate of 0.80%); 200 more than from existing habitat conditions. The Idaho Department of Fish and Game (IDFG) has endorsed and supported the proposed development (Hufaker, 1987), and further, has indicated it will assist in the initial stock of the ponds with fingerlings from the Sawtooth Hatchery. This will accelerate the build-up of runs into the system and will help determine future pond loading potential. The IDFG will also assist the SBIT in the future monitoring and evaluation of the ponds and SBIT (with financial support from BPA) will have the responsibility for the operation and maintenance (O&M) of flow-control structures and check dams.

III. Determination of Effects

Management Guidelines for the Northern Rocky Mountain Grey Wolf have not yet been finalized for Idaho, although a draft recovery plan is currently being reviewed.

Significant habitat for gray wolves and their primary prey species (elk, mule deer) does not occur in the proposed project area (Howard, pers. comm. 1986, 1987; USDA 1984). Destruction of riparian habitat by historic gold dredging operations and steep, narrow nature of the Yankee Fork drainage have greatly reduced available big game habitat in the project area. Elk summer ranges do occur approximately 10 miles west and northwest of the project area and have only rarely been observed along the Yankee Fork drainage (USDA 1984). Mule deer winter along the Yankee Fork and steep south-facing slopes along the Salmon River, but are not expected in significant numbers in the project area during the August-September construction periods.

Confirmed sightings of grey wolves have occurred only three times from 1919 to 1981 in Idaho (USDA 1984) and none of these were in the Yankee Fork drainage. Grey wolves could potentially pass through the drainage, and more likely in fall and winter than in spring and summer (Howard, pers. comm. 1987). The principal population center of wolves is believed to be approximately 40-60 miles west of the Yankee Fork (Howard, pers. comm. 1986). A number of recent unconfirmed, probable sightings have been recorded in the drainage (Table 1). The closest of these sightings to the project area were near the Lucky Boy Mine about three miles northwest of the project area and at Preacher's Cove about one mile northeast of the project area. It has been over five years since the last reported sighting of a wolf in the Yankee Fork drainage (Groves, pers. comm. 1987).

The proposed action will not jeopardize the continued existence of the grey wolf nor threaten recovery efforts being planned. The level of habitat disturbance along the Yankee Fork (less than five acres) will not significantly reduce the habitat available to possible transient wolves or their prey species, and hence will not effect either. Because wolves do not use the Yankee Fork drainage for denning and raising pups, no effects on wolf reproduction will occur. The short-term nature of the proposed construction activities (two months) and its late summer schedule significantly reduces the change of any human encounters with possible transient wolves.

Table 1

**RECENT^{1/} WOLF SIGHTINGS IN THE VICINITY OF
THE YANKEE FORK FISHERY ENHANCEMENT PROJECT**

<u>Date</u>	<u>Legal Description</u>	<u>Location</u>	<u>Rating</u> ^{2/}
June 1947	T.11N., R.11E., Sec. 10	Near Trap Creek, 10 mi. N. Grandjean	Tracks observed, highly probable
Mar. 1974	T.12N., R.11E., Sec. 13	Near Cape Horn on Knapp Creek	Probable sighting
Sept. 1977	T.14N., R.11E., Sec. 13	Near confluence of Drop Creek with Rapid River	Probable sighting
May 1980	T.11N., R.12E., Sec. 14	Near Lowman-Stanley highway on Park Creek	Probable sighting
Aug. 1980	T.14N., R.13E., Sec. 6	Near Pinyon Peak Lookout on ridge at dusk	Probable sighting
Oct. 1980	T.11N., R.12E., Sec. 22	Near Dry Creek in Stanley Basin area	Highly probable sighting (2 wolves)
May 1981	T.13N., R.17E., Sec. 2	Near Fanny's Hole and Custer Motorway on Mill Creek	Probable sighting
June 1981	T.12N., R.13E., Sec. 10	Hindman Lake area near West Fork Yankee Fork	Tracks observed, probable
June 1981	T.12N., R.15E., Sec. 15	Several places in vicinity of Luckey Boy Mine	Probable sighting
June 1981	T.12N., R.15E., Sec. 20	Near millsite in Preacher's Cove area	Probable sighting
Aug. 1981	T.13N., R.16E., Sec. 23	On Elevenmile Creek near Yankee Fork	Scat collected, probable

^{1/} Sightings are through September 1986 (Groves, pers. comm. 1987)

^{2/} All sightings are of lone wolves except where noted.

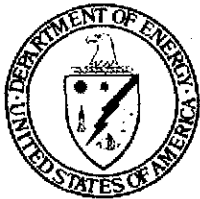
Source: USDA 1984

Based on these findings, BPA believes that the Yankee Fork Fishery Enhancement project will have no effect on grey wolf feeding, denning or movements in the vicinity of the project site.

Chapter 7

REFERENCES

- Groves, C. 1987. Personal communication. Idaho Heritage Program, Boise, Idaho. Telephone conversation of June 19, 1987.
- Howard, R. 1986. Personal communication. Section 7 Coordinator, U.S. Fish and Wildlife Service, Boise, Idaho. Telephone conversation of October 16, 1986.
- Howard, R. 1987. Personal communication. Section 7 Coordinator, U.S. Fish and Wildlife Service, Boise, Idaho. Telephone conversation of May 6 and June 1, 1986.
- Huffaker, S. 1987. Personal communication. Anadromous Fisheries Coordinator, Idaho Department of Fish and Game. Letter of April 24, 1987.
- U.S. Department of Agriculture (USDA). 1984. Final Environmental Impact Statement, Sunbeam Mining Project, Custer County, Idaho. U.S. Forest Service, Challis National Forest, Region Four.



Department of Energy
Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

RECEIVED

SEP 21 1987

In reply refer to: PGC

SEP 25 1987

Department of Water Resources
Southern Region Office

Dear Interested Party:

The Bonneville Power Administration (BPA) has recently completed environmental compliance activities on the proposal to fund the development, operation, and maintenance of habitat enhancement activities in the Yankee Fork drainage, a tributary of the Salmon River.

In compliance with the National Environmental Policy Act, BPA has prepared an individual exclusion concluding that this proposal is clearly not a major Federal action significantly affecting the quality of the human environment and, therefore, preparation of an environmental impact statement or environmental assessment is not required. The individual exclusion highlighted certain areas covered in the appendix. This information is outlined below.

PROPOSAL

Several off-channel ponds will be developed into rearing habitat for spring chinook salmon and steelhead trout on the Yankee Fork of the Salmon River, Idaho. These off-channel ponds were created by past mine dredging activities in the area. The project activities are divided into four separate pond series, each containing two to eight ponds. The various pond series would be connected to the mainstem Yankee Fork either through inlet and/or outlet structures. Connecting these ponds to the main channel will provide juvenile chinook and steelhead access to new rearing habitat. The construction activities will be funded by BPA, coordinated by the Shoshone-Bannock Indian Tribes, and performed by Bechtel National, Inc., consulting firm. The Shoshone-Bannock Indian Tribes will be responsible for operation and maintenance of the ponds, with funding by BPA. The Idaho Department of Fish and Game (IDFG) will assist in the initial stocking of the ponds with fry from the Sawtooth Hatchery.

BACKGROUND

This proposal provides for the implementation of the Columbia River Basin Fish and Wildlife Program Measure 704(d)(1), Table 2, Anadromous Fish Habitat Enhancement and Passage Restoration in the Yankee Fork. The Yankee Fork drainage is located in Custer County, Idaho, within the

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Challis National Forest. The four pond series are about 4 miles upstream from the confluence of the Yankee Fork with the Salmon River. The upper three pond series are located in T12N, R15E, in Sections 20 and 29. Pond series 1 is within T11N, R15E in Sections 4 and 5. The majority of the proposed project is located on private land owned by J. R. Simplot. A small portion of pond series 1 is located on Forest Service land.

The Yankee Fork historically supported large runs of both spring chinook salmon and steelhead trout. These runs have been reduced in the last 20 years due to localized mining activities and downstream hydroelectric development. Development of rearing ponds will augment available salmonid rearing habitat in the Yankee Fork drainage and increase production potential toward historic levels. Full seeding of the ponds would increase chinook smolt production by about 22 percent above existing levels and provide an adult return of over 900 fish to the drainage (or about 200 returning adults over existing numbers).

The once large runs of chinook salmon not only supported a sport fishery in the upper Salmon River but also provided a ceremonial and subsistence fishery for the Shoshone-Bannock Indian Tribes. As a result of the declines in chinook, the Shoshone-Bannock Indian Tribes have maintained a moratorium on this fishery since 1978. In an effort to maintain chinook runs in the Yankee Fork, the IDF&G has made periodic plants of chinook hatchery fry and fingerlings in the drainage over the last 10 years. The IDF&G has also planted adult chinook in the upper drainage on several occasions since 1985.

ENVIRONMENTAL REVIEW

The environmental impacts of the proposal are discussed below.

1. Based on IDF&G studies and the project feasibility study, increased numbers of anadromous salmonids in the Yankee Fork will not significantly affect native fish species or ecological conditions in the area. Anadromous salmonids and resident species have coexisted previously in the Yankee Fork and historically with greater numbers of anadromous salmonids. Additional rearing areas will be provided through the proposed project.
2. There are no continuous water quality problems in the Yankee Fork drainage, although existing and proposed mining operations could result in temporary releases of toxic materials, sediments, etc. Since all of the mine operations must comply with discharge requirements of the Idaho Department of Health and Welfare and the U.S. Environmental Protection Agency, existing and proposed mining operations should have no effects on the proposal.

To reduce a possible temporary increase in sediment released into the Yankee Fork, construction will occur during low flows. Sediment traps will be used to trap sediments. Following construction, m

NOT RECORDED

OCT 03 1988

behind the berms will be removed and placed above the ordinary high-water mark. To reduce effects of sediment during spawning periods, construction activities will occur after August 15.

3. The U.S. Army Corps of Engineers has determined that wetlands occur in localized strips of riparian vegetation adjacent to certain dredge ponds and borrow pits in the project area. Approximately 0.9 acres of wetlands may be lost permanently and approximately 0.4 acres of wetlands will be temporarily disturbed through the construction of various channels connecting the ponds. Construction and disturbance in wetlands will be limited to those areas integral to the development of the project.

New wetland riparian zones will be developed around existing ponds as a measure to offset losses of wetlands. This will be accomplished through placement of excavated topsoils and subsequent planting of willows, grasses, and other appropriate plants. The value and importance of this wetland area are not of national significance. The location of the proposed activities is the only practicable alternative, due to the nature of the project.

4. Although some proposed activities will be located in the main channel of the Yankee Fork, the activities will not negatively affect the 100-year floodplain area. The project is consistent with the intent of Executive Order 11988, Floodplain Management. All new inlets, outlets, check structures, and associated facilities will be designed and constructed to withstand, and to operate, following a 100-year flood. Riprap will be placed where required to protect structures and channels from flood damage. The project will not involve an adverse impact of floods on human safety, health, and welfare because it will not diminish channel discharge capacity or contribute hazardous materials to the floodwaters. The project will enhance the beneficial value of the floodplain by providing long-term improvements to the Yankee Fork which will provide additional salmonid rearing habitat. There is no practicable alternative to performing the project in a floodplain because the inlets and outlets of the ponds will have to be connected to the mainstem Yankee Fork and would, therefore, be located in the 100-year floodplain.

5. According to a June 2, 1987, species list letter from the U.S. Fish and Wildlife Service (USFWS), the Gray Wolf (Canis lupus) is the only known listed, threatened, or endangered species in the project area. A Biological Evaluation was prepared and sent to the USFWS on June 30, 1987, with a finding of no effect to the Gray Wolf or its habitat from the construction or operation of the Yankee Fork project. In a letter of July 9, 1987, the USFWS concurred with BPA's findings. In their opinion, no formal Section 7 consultation will be necessary.

6. BPA evaluated the proposal with respect to current legislation affecting Federal projects and found it to comply with those laws and

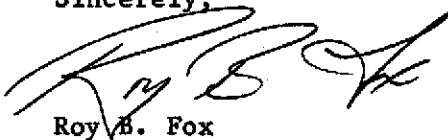
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regulations. (See the enclosed appendix, pages 17-49.) There will be no effect on: (a) special recreation areas such as Wild and Scenic Rivers, National Trails - pages 38-39; (b) existing land use plans - page 40; (c) archaeology and cultural resources - pages 41-42; (d) air quality - page 42; (e) noise levels - page 44; (f) visual quality - pages 46-47; (g) water quality - pages 22-26; (h) hazardous waste management - page 45.

7. Required permits and agency approval prior to construction are: (a) U.S. Army Corps of Engineers' Section 404 permit; (b) Idaho Department of Water Resources Stream Alteration Agreement and Water Rights Permit; and (c) Idaho Department of Health and Welfare 401 Water Quality Certification.

Thank you for your past cooperation in this process. If you have any questions pertaining to environmental review of this project, please contact Kevin Ward of my staff at (503) 230-5373 or FTS 429-5373.

Sincerely,



Roy B. Fox
Environmental Coordinator
Office of Power Marketing

Enclosure

MICROFILMED

OCT 03 1988

Appendix

Enhancement of The Yankee Fork of The Salmon River

Office of Power Marketing

BONNEVILLE POWER ADMINISTRATION

AUGUST 1987

MICROFILMED

OCT 03 1988
*A note was filmed in
place of entire book.*

Appendix

ENHANCEMENT OF THE YANKEE FORK OF THE SALMON RIVER

Office of Power Marketing
BONNEVILLE POWER ADMINISTRATION

August 1987

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<u>Section</u>	<u>Page</u>
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Chapter 1

PROPOSAL AND BACKGROUND

1.1 DESCRIPTION OF THE PROPOSED ACTION

The Yankee Fork of the Salmon River, located in Custer County, Idaho historically supported large runs of anadromous salmonids, primarily spring chinook salmon (Oncorhynchus tshawytscha) and steelhead trout (Salmo gairdneri). These runs have been reduced in the last 20 years due to localized mining activities and downstream hydroelectric developments. Dredge mining activities have rechannelized lower portions of the Yankee Fork leaving stream-side deposits of unconsolidated dredge spoils (Figure 1). The



Figure 1. View of the Dredged Section of the Yankee Fork showing the dredge piles which border its banks.

dredging has also created over 30 off-channel ponds, many of which receive sub-surface flow from the main Yankee Fork. The dredge mining has reduced available rearing habitat in the Yankee Fork such that its present production potential is well below historic levels.

The Bonneville Power Administration (BPA) proposes to fund the development of several of the off-channel ponds to provide additional rearing habitat in the Yankee Fork and mitigate for the above losses. Funds for this project were approved and allocated by the Northwest Power Planning Council (NWPPC) as part of the adopted Columbia River Basin Fish and Wildlife Program in 1982 (revised in 1984). Section 704 (d)(1) of the program specified the Yankee Fork for habitat enhancement. The proposed development will be accomplished via connecting the ponds to the mainstem Yankee Fork thereby affording fish access to the habitat.

This concept was developed following three years of investigation by the Shoshone-Bannock Indian Tribes (SBIT). In 1984 and 1985, the SBIT, with funding support provided by the BPA (Project No. 83-359), evaluated the existing physical and biological conditions in the Yankee Fork drainage and recommended enhancement measures. An engineering feasibility study was subsequently completed for the SBIT in 1986 (Reiser & Ramey 1987), which recommended the development of 19 of the existing ponds as the most cost-effective and reliable means for habitat enhancement. Four separate pond series (PS-1 through PS-4) each containing from 2 to 8 ponds were proposed for development (Figure 2).

Collectively, the ponds entail about 3.8 surface acres corresponding to 15.3 acre-ft (668,136 ft³) of water. The maximum depth of the ponds ranges from 2.5 to 13 ft deep; pond areas range from 0.05 to 0.61 acres. Three of the four pond series would have both inlet and outlet connections to the Yankee Fork, although in two of these, the inlets are via intake pipes and not direct channel connections. The channel connections will afford an access portal for juvenile chinook and steelhead to move into and use the new rearing habitat. Full seeding of the ponds should increase chinook smolt production by about 22% over existing levels (from about 90,000 to 115,000) and provide an adult return of over 900 fish to the drainage (assuming a smolt to adult return rate of 0.80%); 200 more than from existing habitat conditions. The Idaho Department of Fish and Game (IDFG) has endorsed and supported the proposed development (Huffaker 1987), and further, has indicated it will assist in the initial stocking of the ponds with fry from the Sawtooth Hatchery. This will accelerate the build-up of runs into the system and will help determine future pond loading potential. The U.S. Forest Service (USFS) is likewise supportive of these habitat enhancement measures and will assist in implementing certain project components (see Section 2.4). The IDFG and USFS will also assist the SBIT in the future monitoring and evaluation of the ponds. The SBIT (with financial support from BPA) have assumed responsibility for the operation and maintenance (O&M) of flow-control structures and check dams.

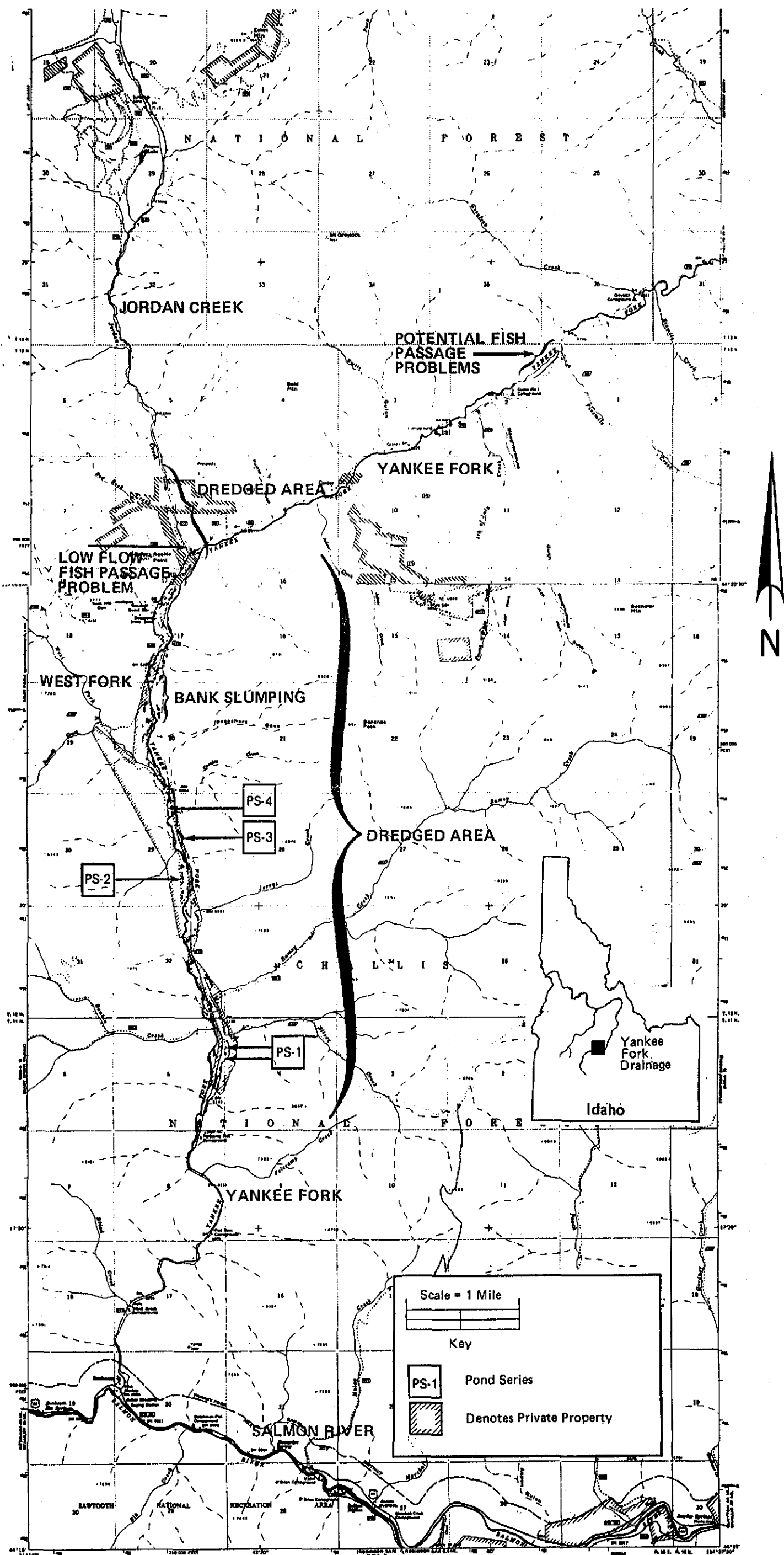


Figure 2 Location Map of the Yankee Fork

Development of the ponds will augment available chinook rearing habitat in the Yankee Fork drainage and increase its production potential toward historic levels. Commensurate with the increased habitat use by juvenile chinook, subsequent increases in adult returns will occur supportive of the SBIT ceremonial and subsistence fisheries, as well as downstream commercial and regional sport fisheries.

1.2 NEED FOR THE PROPOSED ACTION

The runs of native spring chinook salmon in the Yankee Fork drainage have declined dramatically in the last 20 years, the combined result of downstream hydroelectric developments and local mining activities. The number of chinook redds found in the drainage have ranged from over 600 in 1967 to less than 10 in the mid-1980's (Konopacky et al. 1986) (Figure 3). The once large runs of salmon not only afforded a sport fishery in the upper Salmon River but also provided a ceremonial and subsistence fishery for the SBIT. As a result of the declines in chinook, the SBIT have maintained a moratorium on this fishery since 1978. In an effort to maintain chinook runs in the Yankee Fork the IDF&G has made periodic plants of chinook hatchery fry and fingerlings in the drainage over the last 10 years (IDF&G 1987). The IDF&G has also planted adult chinook in the upper drainage on several occasions since 1985. These plants, consisting of Pahsimeroi Hatchery fish, have afforded the SBIT some opportunity to exercise their ceremonial fishing rights. As a result of these hatchery plants it is likely that only a remnant population of the native chinook stock exists in the Yankee Fork.

With the passage of the Pacific Northwest Electric Power Planning and Conservation Act (Pacific Northwest Power Act) (P.L. 96-501) of 1980 and the formation of the NWPPC in 1981, formal recognition was given to anadromous fisheries problems in the Columbia River Basin. In 1982 the NWPPC drafted and adopted the Columbia River Basin Fish and Wildlife Program, designed to "... protect, mitigate and enhance fish and wildlife . . . and habitats in the Columbia River and its tributaries." Section 704 (d)(1) of the program allocated funding for Habitat Enhancement and Passage Restoration in the Yankee Fork.

The proposed development will enhance existing and create additional rearing habitat for chinook salmon in the Yankee Fork drainage. This action is preparatory to and in concert with the IDF&G's management plans for increasing chinook runs back to historic levels. The restoration of these runs has been cited by the IDF&G as a "Management Action" item as part of their Anadromous Fish Management Plan 1984-1990 (IDF&G 1986). Further, the proposed development is consistent with the goals and objectives of the Pacific Northwest Power Act and the directives of Section 704 (d)(1) of the NWPPC's Fish and Wildlife Program. Therefore, the BPA proposes to fund the development, and operation and maintenance of the off-channel dredge ponds as a means to enhance fisheries habitat in the Yankee Fork, and off-site mitigate for anadromous fish losses resulting from Snake and Columbia River hydroelectric developments.

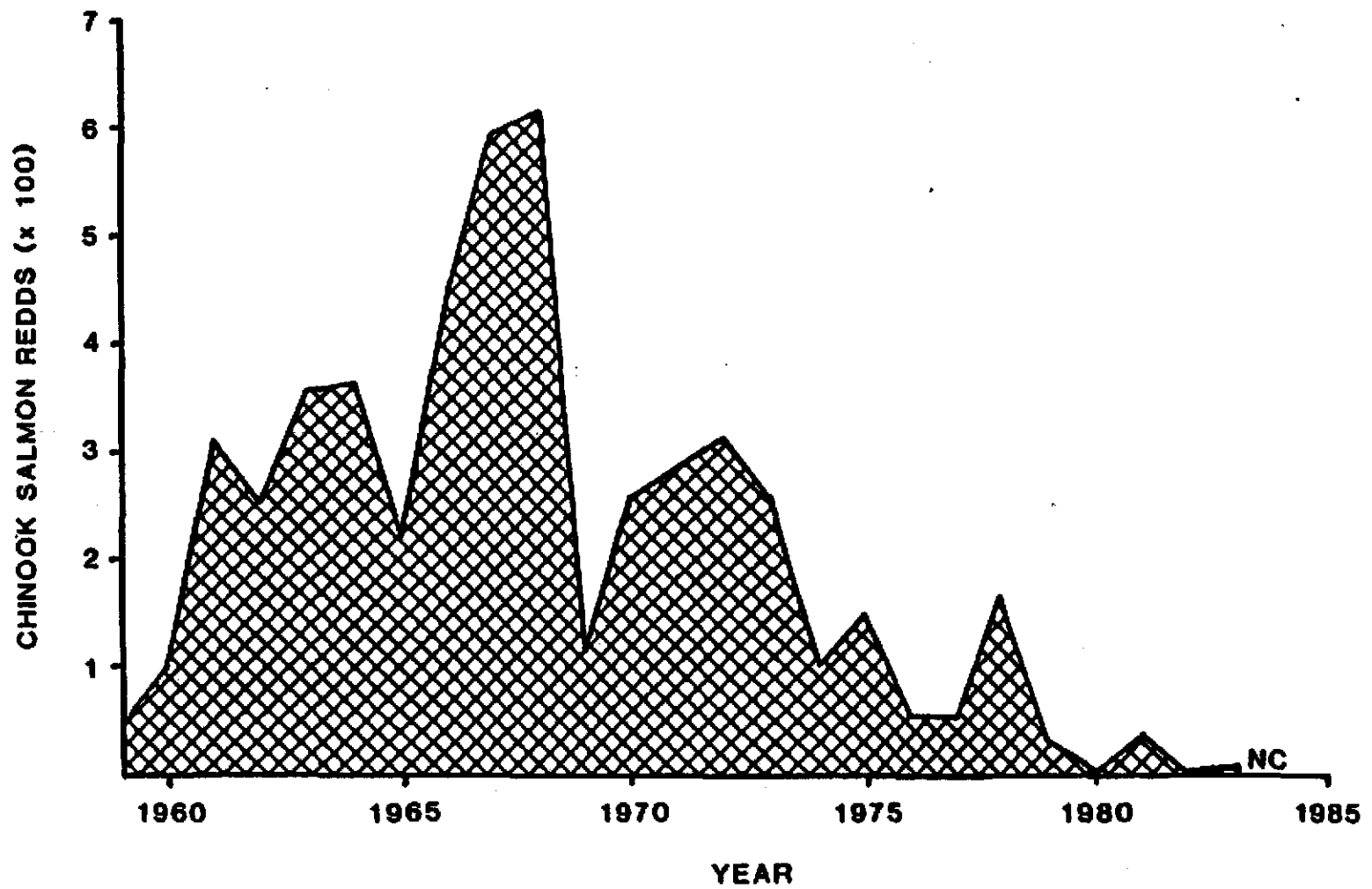


Figure 3 Counts of Spring Chinook Salmon Redds in the Yankee Fork of the Salmon River, Idaho, 1959-1984. From Konopacky et al. (1986)

1.3 LOCATION AND DESCRIPTION OF PROPOSED ACTIVITIES

1.3.1 Location of Pond Series

The Yankee Fork drainage is located in Custer County, Idaho, within the Challis National Forest. The four pond series proposed for development (PS-1 through PS-4) are within about a 3.5 mile section of the Yankee Fork extending upstream just above the Polecamp Flat Campground (Location of PS-1) to just below the confluence of the West Fork (Location of PS-4) (Figure 2). The lower ponds are about 4 miles upstream from the confluence of the Yankee Fork with the Salmon River. The Yankee Fork is accessible via U.S. Forest Route 40-013. The upper three pond series are located in Township 12 North, Range 15 East in Sections 20 and 29. PS-1 is within Township 11 North, Range 15 East in Sections 4 and 5. All of the series, with the exception of the lower 1,500 feet of PS-1 are located on property owned by the J.R. Simplot Company (JRSC); a portion of the lower pond is on U.S. Forest Service land. The JRSC has endorsed the concept of pond development, and is presently negotiating with the SBIT the terms and conditions for a 20-year (minimum) easement to the use of the ponds. Special use permit applications for working on Federal land have been submitted to the USFS.

1.3.2 Description of Pond Series

The general engineering concept and design for each pond series are provided below. More detailed information is contained in the engineering feasibility report prepared for the SBIT (Reiser and Ramey 1987).

1.3.2.1 Pond Series 1. PS-1 is located about 500 feet above the USFS Polecamp Flat Campground on the east side of the Yankee Fork. The series includes eight separate ponds, the uppermost just above Silver Creek (Figure 4). The pond series is bordered by dredge piles on the right (facing downstream) and willows and mature forest on the left. An unimproved USFS campground access road parallels the entire length of the series on the left. A road culvert which extends under U.S. Forest Route 40-013 is located downstream and connects PS-1 to the main Yankee Fork. Several ponds in the series are managed by the IDF&G as a put-and-take rainbow trout fishery with stocking occurring three to five times during the summer.

The engineering design entails connecting seven of the eight existing dredge ponds and joining the outlet of the lower pond (pond 1) to the Yankee Fork via a culvert. The major components of this development will be:

- o Diversion of Silver Creek to augment flows through the ponds;
- o Excavation of connecting channels between ponds;
- o Installation of 12 check structures to control flow rates, velocities and flow depths;
- o Replacement of existing culvert to facilitate access of juvenile salmonids into the ponds.

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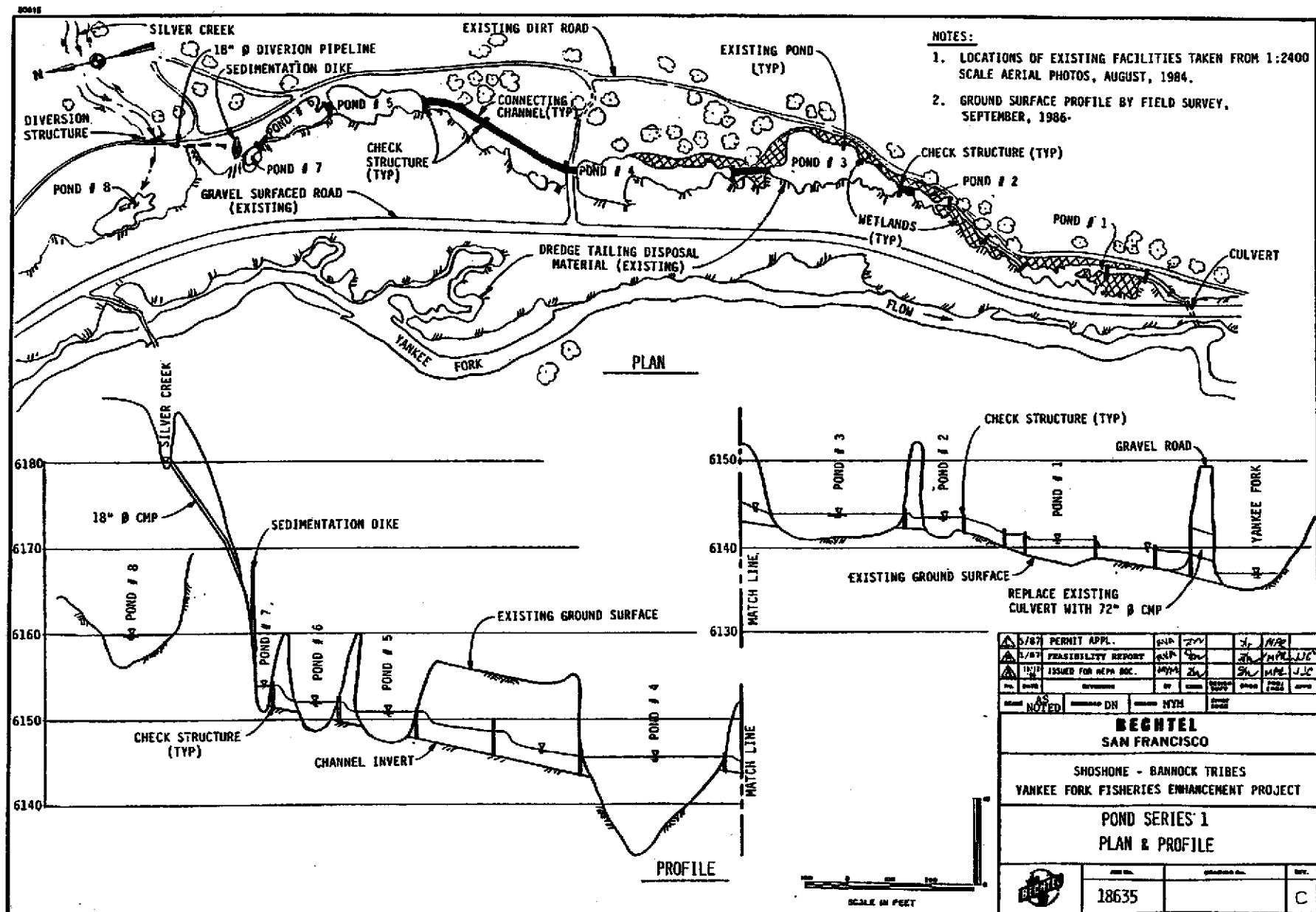


Figure 4 Pond Series 1

The check dams will be low-profile, stop log structures designed to allow upstream access by juvenile fish. Because of the distance from the main channel, there would be no direct inlet of Yankee Fork waters to PS-1. Inflow will be provided by infiltration through the dredge piles with supplemental water diverted from Silver Creek.

1.3.2.2 Pond Series 2. Pond Series 2 (PS-2) is located about 1.5 miles above PS-1 on the west side of Yankee Fork. Consisting of six ponds, PS-2 is the most isolated of the four pond series situated about 200 feet from the road behind the dredge piles (Figure 5). A side access road traverses the upper pond, and an abandoned dirt road parallels the ponds on the west side. Because the ponds are isolated, the IDF&G does not manage or stock them with catchable rainbow.

The ponds will be connected and joined to the Yankee Fork via an outlet channel. A 24-inch pipe connecting the upper pond (Pond 6) to the Yankee Fork will provide necessary flows to the ponds and will control pond levels. The major components in the PS-2 development are:

- o Installation of a 24-inch corrugated metal pipe and intake structure to provide inflow into the ponds;
- o Excavation of connecting channels between ponds;
- o Installation of 8 check structures to control flow rates, velocities and flow depths.

1.3.2.3 Pond Series 3. Pond Series 3 (PS-3) begins about 0.25 miles above PS-2. The series is located on the east side of the Yankee Fork and consists of three ponds (Figure 6). U.S. Forest Route 40-013 borders the ponds on the right; on the left, the ponds abut timbered land that is traversed by a secondary dirt access road. Because of its proximity to the road, the IDF&G does stock this series with catchable rainbows.

The three ponds will be connected and an inlet and outlet connection to the main Yankee Fork made at the upper and lower ponds. Fish immigration could thus occur through both connections. The intake structure includes a 36-inch culvert installed beneath an existing dirt road. A wooden check structure at the upstream end of the culvert will control inflow to the ponds. The major components of PS-3 include:

- o Installation of a 36-inch corrugated metal pipe and wooden check structure to regulate inflow to the ponds;
- o Construction of a training dike and sedimentation dike to control flood flows and sediment deposition in the ponds;
- o Excavation of connecting channels between ponds;
- o Installation of 5 check structures at pond outlets to control flow rates, velocities and flow depths.

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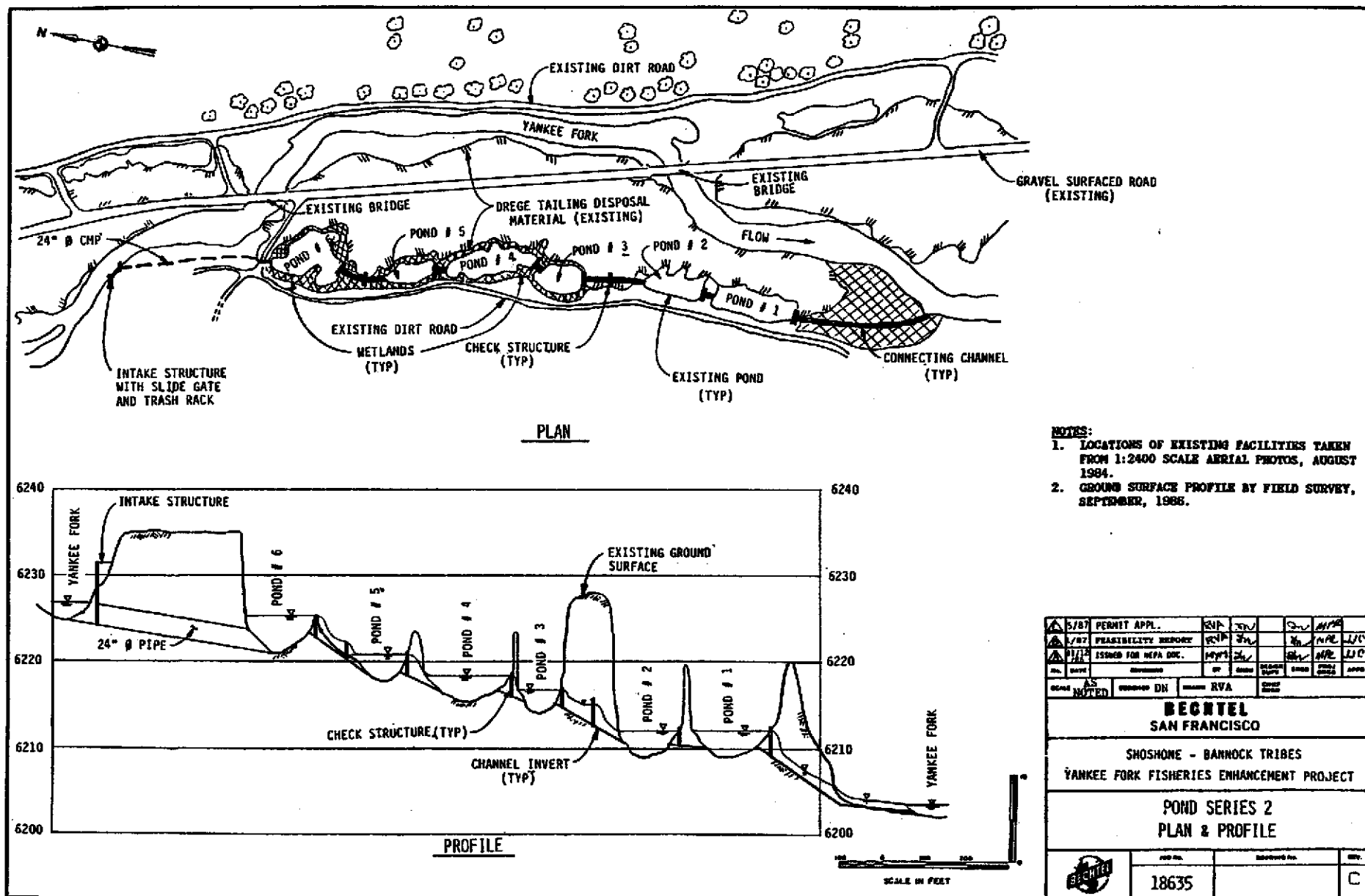


Figure 5 Pond Series 2

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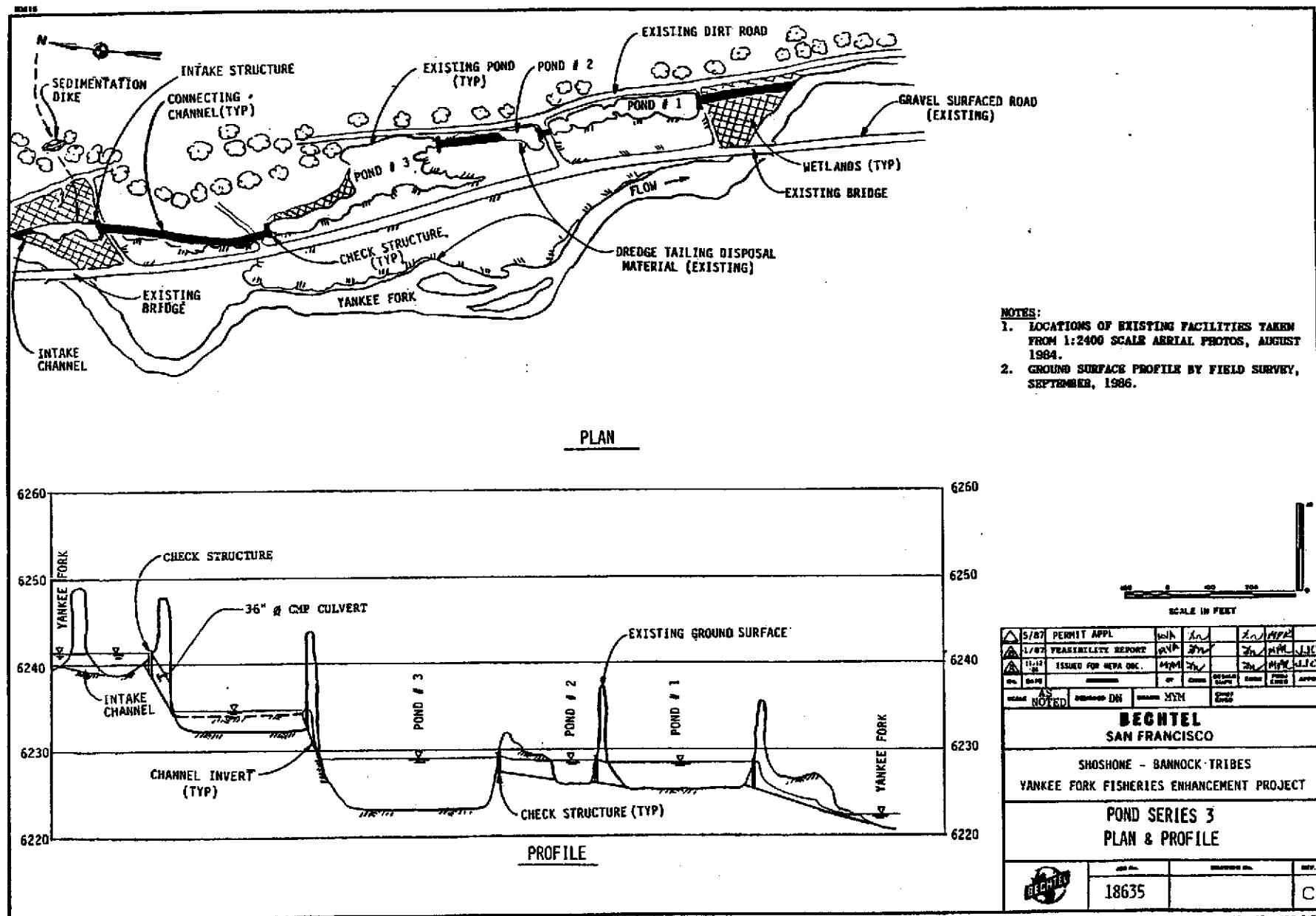


Figure 6 Pond Series 3

1.3.2.4 Pond Series 4. The upper pond series, PS-4, is located about 300 ft upstream from PS-3 on the west side of the stream just below the confluence of the West Fork. This series borders the main Yankee Fork access road and is planted frequently by the IDF&G with catchable-size rainbows resulting in heavy angler use.

There are three ponds in PS-4, but the proposed design concept incorporates only the lower two. The two ponds would be inter-connected, with an outlet channel from the lower pond providing a direct linkage to the Yankee Fork. An inlet pipe consisting of an infiltration system would be buried in the Yankee Fork channel adjacent to the upper pond (Figure 7). This system will supply and control flows to the ponds. Major engineering components of PS-4 include:

- o Installation of a 24-inch perforated corrugated metal pipe and headgate structure to control inflow to the ponds;
- o Excavation of connecting channels;
- o Installation of 2 check structures to control flow rates.

Fish immigration to these ponds would occur through the outlet channel.

1.3.3 Construction Plan

The four pond series would be developed in phases with PS-1 and PS-3 constructed during August-October of 1987, and PS-2 and PS-4 constructed the following year during the same months. This phasing of construction will allow for an initial testing of PS-1 and PS-3 with respect to fish carrying capacity and smolt production, and the operation and performance of flow control structures. The information obtained will be useful for the subsequent construction and operation of PS-2 and PS-4 the following year.

1.3.4 Operation and Maintenance of Pond Series

The pond developments were designed to require a minimum of operation and maintenance. Some periodic debris removal and cleaning will be required at inlet and outlet structures, and check dams of each series. In addition, the flow control structures and check dams will require periodic adjustment to maintain suitable inflow and pond level, and permit fish ingress and egress.

Water rights applications have been filed with the Idaho Department of Water Resources (IDWR) for the diversion and appropriation of water to each pond series. The appropriations will be for both surface and groundwaters and will ensure a continuous source of inflowing water to the ponds.

In the long term, the ponds will be managed on a natural-basis and will be seeded through immigration of juveniles from the main Yankee Fork. However, during the initial years of operation, the IDF&G will stock several of the ponds with chinook fry and fingerlings from the Sawtooth Hatchery. This will provide for a faster return and build-up of the Yankee Fork chinook runs, and will further assist in evaluating fish pond-use and in determining future pond loadings.

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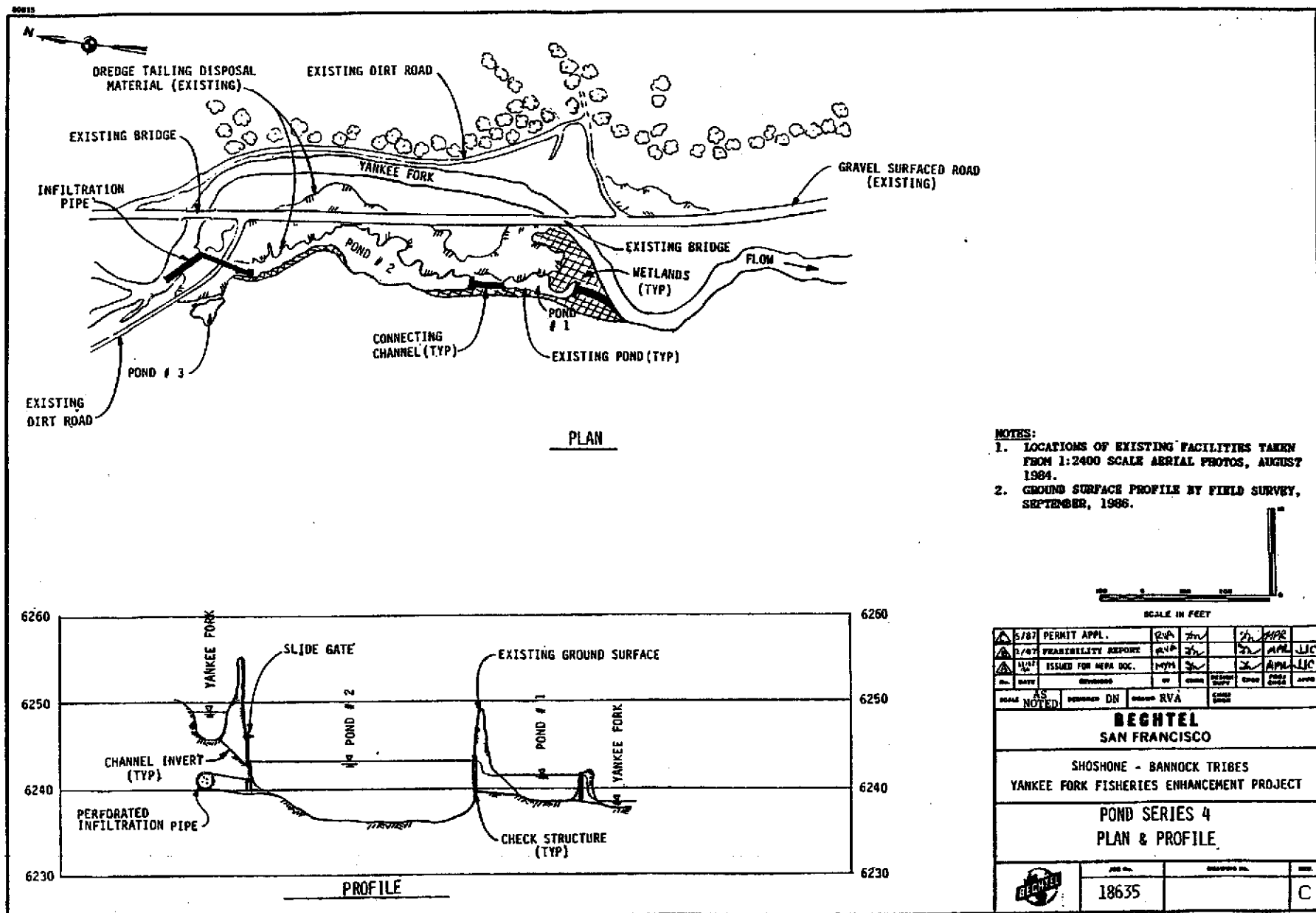


Figure 7 Pond Series 4

Chapter 2

ALTERNATIVES CONSIDERED BY BPA

2.1 ALTERNATIVES ELIMINATED FROM DETAILED STUDY

A number of alternatives considered by BPA were eliminated from further study owing to high costs relative to benefits gained, or inability to meet program objectives. Those eliminated included: No-Action; Complete Restoration of the Dredged Section of the Yankee Fork; Hatchery Development; and Management of the Drainage with Hatchery Outplants.

2.1.1 No-Action Alternative

With the "no-action" alternative, the Yankee Fork drainage would continue in its currently depressed state with respect to chinook salmon production. No habitat enhancement measures would be implemented nor would outplants of hatchery fish be made by the IDF&G. Restoration of chinook runs into the drainage would require a minimum of 25 years, and then, only if major improvements were made in downstream smolt passage through hydroelectric projects.

Thus, the "no-action" alternative would not provide for off-site mitigation of hydroelectric projects on anadromous salmonids in the Columbia River Basin. Further, it would not meet the directive for implementation as noted in Section 704(d)(1) (and any proposed amendments/measures) of the NWPPC Fish and Wildlife Program, and it would not meet the overall objective of restoring the chinook runs back to historic levels. Consequently, the "no-action" alternative was eliminated from further consideration and it is given no further discussion in this document.

2.1.2 Complete Restoration of Dredged Reach

The dredged-mined section of the Yankee Fork extends about six miles upstream from just above Polecamp Flat Campground to the confluence of Jordan Creek. This section of the Yankee Fork has been extensively channelized which has reduced or eliminated much of its rearing habitat and instream cover. The stream is bordered by extensive, unconsolidated dredge piles most of which are devoid of any riparian vegetation (Figure 2). The lower 1-2 miles of Jordan Creek are in a similar, degraded condition.

BPA therefore considered the complete restoration of this reach as a means to restore chinook runs back to historic levels. However, this alternative was judged impractical since; 1) the restoration effort would be extremely costly; 2) the majority of land bordering this section of the Yankee Fork is privately owned which would complicate the easement process; 3) many mine claims exist within the dredged section and could be affected by a major reclamation

effort; 4) the restoration effort itself could have major environmental impacts; and 5) the benefits (in terms of numbers of fish) achieved would not warrant so costly a restoration program. This alternative was therefore eliminated from detailed study and further consideration by BPA.

2.1.3 Hatchery Development

As an alternative means of restoring chinook runs back in the Yankee Fork, BPA considered the construction of a hatchery in the drainage. However, this alternative was omitted from further study since it did not address the issue of habitat enhancement/restoration as outlined in the Fish and Wildlife Program, and it was not consistent with the objectives of the IDF&G's Anadromous Fish Management Plan. In addition, the IDF&G's Sawtooth Hatchery, located about 30 miles west of the Yankee Fork, has only recently become operational. This facility will maintain the upper Salmon River spring chinook salmon stocks and will be able to provide outplants to selected drainages, including the Yankee Fork. Further, the IDF&G already evaluated the Yankee Fork as a potential site for the Sawtooth Hatchery and found it unacceptable, lacking suitable groundwater sources.

2.1.4 Manage Drainage With Hatchery Outplants

BPA also considered, as an alternative, the management of the existing drainage with hatchery outplants from the Sawtooth Hatchery. However, this would not restore or enhance any of the degraded habitat. Thus, if naturally reproducing runs were established, they would always be below historic levels. Additionally, this type of management option would likely require a long-term commitment by the IDF&G to annually plant juvenile chinook into the drainage. For these reasons, this alternative was likewise dropped from detailed study.

2.2 INSTREAM ENHANCEMENT

In some circumstances, instream enhancement has proven to be an effective means for increasing rearing habitat for juvenile salmonids. Such measures include the construction of rock and log weirs, wing deflectors, and boulder placement (Hall and Baker 1982; Reeves and Roelofs 1982). As an alternative to the proposed development of off-channel ponds, BPA considered two types of instream enhancement for restoring habitat in the Yankee Fork; rock weirs and wing deflectors.

The rock weirs would extend 2 feet above the channel bed and traverse the entire stream channel. With the channel typically about 40 feet wide in the dredged area, each rock weir would provide about 4,000 ft² of rearing habitat which could accommodate about 380 juveniles. Such weirs would be installed at specified intervals (minimum of 250-300 ft) throughout the dredged section of stream. Assuming a 5-mile reach and a 300 ft spacing, over 80 such structures could be installed.

Wing deflectors could also be installed along selected areas of the Yankee Fork. Such structures would project into the stream and deflect flow away from the bank, thereby forming a pool on the far bank. Each deflector would

produce about 1,200 ft² of habitat providing for about 115 juvenile chinook. The use of deflectors would be limited to areas wide-enough to accommodate sinuosity changes.

The suitability of instream enhancement measures for the Yankee Fork is questionable. The system can produce high flow conditions which may dislodge or remove such structures, necessitating a long-term maintenance program. In addition, the benefit of the structures would be dramatically reduced in the spring owing to high flows and fast water velocities. Problems could also occur in late fall and early winter when streamflows are low and the structures are providing pool and backwater areas. Under these conditions, the rock weirs could inhibit upstream passage of both anadromous and resident juvenile salmonids. Observations by the IDF&G in systems similar to the Yankee Fork (i.e., Crooked River) have indicated a greater use by juvenile chinook of off-channel rearing habitat, than habitat created by instream structures (Holubetz, pers. comm. 1987).

BPA therefore considers the large-scale use of instream structures inappropriate for the Yankee Fork. However, limited application of such measures may prove beneficial for improving specific areas in the Yankee Fork, and BPA will develop them as needed.

2.3 BANK STABILIZATION AND EROSION CONTROL

Curtailement of sediment into the Yankee Fork drainage was evaluated for its potential to increase chinook smolt production. Major sources of sediment were identified, and erosion control measures prescribed. Although a number of unstable stream banks exist, the majority are located upstream from the dredged section in undisturbed terrain. Natural sediment production in the upper drainage thus appears to be the major source of sediment. Consequently, a major program of bank stabilization or erosion control in the Yankee Fork drainage would neither restore habitat nor increase chinook production.

BPA has limited the application of this alternative to areas within the dredged section of the Yankee Fork which may require post-construction bank stabilization and erosion control.

2.4 REMOVAL OF PASSAGE BARRIERS

The feasibility study identified two series of cascade - waterfalls in the upper Yankee Fork which could impair or prevent adult fish passage under certain flow conditions. The study recommended the removal of debris from above the falls and to periodically monitor the section to identify further passage problems as they develop (Reiser and Ramey 1987).

The Challis National Forest has indicated it will assume responsibility for the clearing of debris, and it will likewise monitor the reach (Somes pers. comm. 1987). Therefore, BPA proposes no further action on this alternative.

2.5 OFF-CHANNEL REARING HABITAT: MANAGEMENT ALTERNATIVES

Two management alternatives were evaluated for the proposed action of off-channel pond development. These included: 1) management on a natural basis; and 2) management as a low-technology rearing facility. The location and engineering layout for both alternatives is about the same (see Section 1.3) with the exception that certain ponds would contain additional components needed for a low-tech operation (e.g., automatic feeders).

2.5.1 Manage on a Natural Basis (Preferred Alternative)

This management alternative would develop the off-channel ponds as proposed and would rely on natural immigration and emigration of juvenile chinook into and out of the expanded rearing habitat. The capacity (loading) of the ponds would be dictated by endogenous food production; no supplemental feeding would be provided. During the initial years of operation, the IDF&G would outplant the ponds with chinook fry from the Sawtooth Hatchery. This will accelerate the restoration of adult returns and will aid in evaluating pond use and determining pond capacities.

This management alternative is compatible with the IDF&G's ongoing put-and-take rainbow trout fishery (Huffaker 1987) and would minimize operation and maintenance requirements. The USFS and the IDF&G have endorsed this management alternative during project coordination meetings. As a result, it is considered as BPA's preferred management alternative for the off-channel rearing habitat.

2.5.2 Manage as a Low-Technology Rearing Facility

With this alternative, selected ponds would be managed to maximize production of chinook and increase adult returns to above historic levels. The ponds would be stocked with fry from the Sawtooth Hatchery and artificial feeders installed to accommodate increased pond loadings (0.25 lb/ft³). This alternative also considered the installation of an adult trapping, holding, and spawning facility, and use of gravel matrix egg incubators.

Although higher smolt production and adult returns could be realized, this alternative would require higher operation and maintenance (O&M) costs and a long-term commitment of responsibility by the IDF&G, USFS or SBIT to operate the facility; and BPA to fund O&M costs. In addition, this management alternative would conflict with the existing put-and-take fishery. Further, intensifying fish loadings in the ponds may predispose the juveniles to infestation of eye fluke (*Diplostomum spathaceum*) which has been identified in the upper Salmon River drainage (Heckmann 1983a, 1983b, 1984). The eye fluke has caused considerable damage in rearing chinook salmon in the IDF&G's old Decker rearing ponds (located about 30 miles west of the Yankee Fork), and was the reason the Sawtooth Hatchery elected concrete raceways rather than earthen ponds for rearing chinook (Rogers pers. comm. 1987).

Chapter 3

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 TOPOGRAPHY, GEOLOGY AND SOILS

The Yankee Fork drainage is a low-to-medium gradient system traversing generally steep topography, particularly in its lower reaches prior to joining the Salmon River. Elevations range from 6140 feet at PS-1 to 6250 feet at PS-4, rising to well above 8000 feet both east and west of the immediate project area. The Yankee Fork flows through narrow canyons, moderately wide valleys of lodgepole pine forests and wide meadowed valleys. Major tributaries include the West Fork and Jordan Creek, both entering upstream of the project area. Substantial portions of the mainstem Yankee Fork and lower Jordan Creek have been dredge-mined for gold, which has resulted in deposition of extensive barren dredge piles adjacent to the stream.

The surface geology of the project area is characterized by a thick layer of rock called Challis Volcanics comprised of volcanic flows and ash deposits formed throughout central Idaho over 40 million years ago. The volcanic rock is moderately to highly erodable, depending on the amount of mineralization in weak areas of the bedrock (USDA 1984). The area is also characterized by local faulting and minor folding throughout, faults generally short and trending northeast. Although there are no active faults in the project area, periodic earthquakes over a range of magnitudes do occur in the region (USDA, 1984).

Soils in the project area are either absent (dredge piles) or generally shallow and poorly developed at the surface, with deeper and more uniform subsoils. The soils and subsoils are primarily derived from the Challis Volcanics which include andesite, rhyolite, latite and tuff parent materials. Surface soils generally have silty loam, clayey loam and sandy loam textures, with depths from 3 to 9 inches. Organic materials are limited to the upper horizon from 0 to 3 inches. Soil productivity is generally low throughout the area (USDA 1984).

Potential impacts to topography and soils would be short-term and minor, related principally to the 2-month construction periods for the proposed action in August and September of 1987 and 1988. Local changes in dredge pile configuration will result from channel construction between ponds and to the mainstem Yankee Fork. Soil erosion potential in the dredge piles is insignificant due to the cobble-rock nature of the material. The dredging of new channels and disturbance of adjoining wetland and riparian zones will increase soil erosion locally during construction. However, revegetation and stabilization of all disturbed wetland and riparian areas, new spoil piles, and banks of new channels will occur immediately following construction. The

total extent of revegetation expected at all four pond series is estimated at less than 5 acres. Other soil erosion measures planned include:

- o Placement of excavated materials above the ordinary high water mark, on top of dredge tailings piles where practicable;
- o Placement of rip rap at intake structures along the Yankee Fork, and along new channels where required;
- o Lining of new channels with 1 inch to 6 inch cobbles to prevent erosion;
- o Water spraying of access routes and other construction areas as required to control wind-generated erosion and fugitive dust.

Implementation of the instream enhancement alternative (rock weirs, wing deflectors) and/or the streambank stabilization alternative would result in negligible, short-term and local effects on soils from temporary access of equipment across stream banks/riparian zones. Overall, the streambank stabilization alternative would have a net positive effect on soil erosion. Instream enhancement using wing deflectors may locally accelerate streambank erosion on the opposite side of the stream, a desirable effect for increasing the sinuosity of the stream and creating more rearing habitat.

3.2 WATER RESOURCES

3.2.1 Floodplains

Executive Order 11988 (Floodplain Management) requires federal agencies to avoid "to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplains" and to avoid support of floodplain development wherever there is a practicable alternative. DOE has issued regulations pursuant to Executive Order 11988.

Floodplains along the Yankee Fork vary in quality and extent based on topography and the amount of local disturbances from past and present mining, logging and grazing activities. Much of the drainage has a limited floodplain due to the narrow nature of the canyon bottom. In the immediate project area, much of the main channel and adjoining floodplain areas have been dredged, leaving extensive tailings piles that have significantly reduced the available floodplain. Riparian zones are generally limited to immediate streambanks or gravel bars covered with sparse vegetation (Hydrometrics 1982a). The precise locations and elevations of the 100-year floodplain throughout each of the four pond series are not available. The Federal Emergency Management Agency does not have Flood Insurance Rate Maps depicting 100-year floodplains for the Yankee Fork drainage (FEMA, pers. comm. 1987).

The proposed enhancement of rearing habitat for salmonids along the Yankee Fork must, by its very nature, occur immediately adjacent to the Yankee Fork mainstem and within its floodplain. BPA has determined that this development of off-channel rearing ponds is the only practicable alternative for returning runs of chinook to the Yankee Fork drainage (see Section 2; also Shoshone-Bannock Tribes 1987).

Portions of the intake and outlet structures connecting the four pond series to the Yankee Fork will be located in the 100-year floodplain, and some of the channels connecting the ponds may also lie therein. All new inlet, outlet and check structures and associated facilities potentially lying within the 100-year floodplain will be designed and constructed to withstand, and to operate following, a 100-year flood. Rip rap will be placed where required to protect structures and channels from flood damage. The planned facilities will not alter floodplain characteristics or channel flow capacity. As a result, the proposed project is not expected to have an adverse impact on human life, property or natural floodplain values.

Implementation of the instream enhancement and streambank stabilization alternatives would similarly produce negligible effects on floodplain values or to human life or property. Placement of rock wiers and wing deflectors as instream enhancement for fisheries could cause minor local changes in flood flow and height, depending on site-specific conditions and designs.

3.2.2 Water Quantity

The surface water hydrology of the Yankee Fork drainage is typical of the mountainous regions of Idaho. High flows are associated with snowmelt in the spring with flows reducing through the summer and falling to base flow conditions in winter. The drainage area of the Yankee Fork is about 195 square miles at its confluence with the main stem of the Salmon River. Major tributaries of the Yankee Fork include the West Fork and Jordan Creek (Figure 1).

The U.S. Geological Survey (USGS) established and operated a stream gaging station near the mouth of the Yankee Fork from 1922 to 1948 (Station Number 13296000). Table 1 summarizes the streamflow data for the period of record. The mean annual flow for the drainage is 197 cfs with peak flows in May and June of about 750 cfs and low flows of about 45 cfs during January and February. Flows measured in September 1985 and 1986 in the vicinity of the pond series have ranged from 75 to 106 cfs (Reiser and Ramey 1987; Konopacky et al. 1985, 1986). Based on regionalized regression equations developed by the U.S. Geological Survey (USGS, Kjelstrom and Moffatt, 1981) the average annual, 10 year and 100 year flood flows for the drainage are estimated at 1,500 cfs, 2,000 cfs and 2,700 cfs respectively (Reiser and Ramey 1987).

The ponds comprising the four pond series vary in size and depth. Surface areas range from about 0.05 to 0.61 acres, and maximum depths range from 2.5 to 13 ft (Table 2).

Collectively, the ponds impound over 15 acre-ft of water. Most of this water originates directly from the Yankee Fork even though no surface connections are present. This occurs because the dredge piles are highly permeable which promotes a free exchange of flow (via groundwater) between the main Yankee Fork and the ponds. With the exception of PS-2 which is perched above the Yankee Fork, all series receive inflows via sub-surface flow from the Yankee Fork. Such flows are visibly noticeable and can be substantial; a flow of about 7 cfs was measured at the lower end of PS-1 (Reiser and Ramey 1987). During low flow periods, the intergravel flow which feeds these ponds can exceed ten percent of the flow in the Yankee Fork.

Table 1

YANKEE FORK OF THE SALMON RIVER AVERAGE MONTHLY STREAM FLOW (cfs)

<u>Month</u>	<u>Minimum</u>	<u>Mean</u>	<u>Maximum</u>
January	27.6	46.3	60.7
February	30.0	44.1	52.0
March	32.9	54.8	125
April	59.0	207.0	498.0
May	369.0	745.0	1,560.0
June	168.0	770.0	1,950.0
July	73.6	217.0	358.0
August	45.2	92.0	190.0
September	30.8	68.3	106.0
October	40.0	65.4	93.6
November	40.9	60.1	93.5
December	34.4	53.3	102.0

Period of record: May 1921 to February 1949

Source: U.S. Geological Survey, 1981

Table 2

**SURFACE AREAS, DEPTHS, AND VOLUMES OF THE FOUR OFF-CHANNEL POND SERIES
IN THE YANKEE FORK DRAINAGE ^{a/}**

<u>Pond Series</u>	<u>Pond No.</u>	<u>Surface Area (acre)</u>	<u>Ave. Depth (ft)</u>	<u>Max. Depth (ft)</u>	<u>Volume (ft³)</u>	<u>Volume (Ac-Ft)</u>
PS-1	1	0.2	2	3.5	17,777	0.4
	2	0.05	2.5	4	5,555	0.13
	3	0.31	6	10	79,998	1.84
	4	0.51	8.5	13	188,882	4.34
	5	0.27	2.5	4	30,000	0.69
	6	0.07	2	3.5	6,222	0.14
	7	0.05	1.5	2.5	3,333	0.08
	8	<u>0.12(a)</u>	2	3	<u>10,666</u>	<u>0.24</u>
Total		1.46			331,767	7.62
PS-2	1	0.2	2	3	18,666	0.43
	2	0.11	2	3	9,777	0.22
	3	0.06	2	3	5,333	0.12
	4	0.2	2.5	3.5	22,222	0.51
	5	0.1	2.5	3	11,111	0.25
	6	<u>0.18</u>	3	4.5	<u>24,000</u>	<u>0.55</u>
Total		0.85			91,109	2.08
PS-3	1	0.2	2	3	17,777	0.41
	2	0.1	2	3	8,712	0.20
	3	0.43	4	6	74,923	1.72
	4	<u>0.05</u>	2	3	<u>4,444</u>	<u>0.10</u>
Total		0.78			105,856	2.43
PS-4	1	0.07	2	3	6,069	0.14
	2	<u>0.61</u>	5	8	<u>133,335</u>	<u>3.0</u>
Total		0.68			139,404	3.14
Overall Total		<u>3.77</u>			<u>668,136</u>	<u>15.30</u>

^{a/} From: Reiser and Ramey 1987.

The IDH&W has raised the concern of potential river loss during construction of the connecting channels and culverts. This could occur if highly porous lenses of material were exposed causing the diversion of river flows into more permeable materials. This could result in some loss of flow in stretches of the main Yankee Fork. However, the proposed check structures (these will be the first items constructed during pond development) will minimize the potential for river loss by allowing the regulation of hydraulic gradients between the main Yankee Fork and the off-channel ponds. Thus, the potential for a significant loss of river flow during construction is considered low. As an added safeguard, the project area will be surveyed by a hydrogeologist prior to construction to identify areas of potential river-loss. Staff gages will be installed in these areas and in others considered unaffected by project activities. The gages will be monitored immediately prior to, and during construction, and during initial operation. Should river-loss be noticeable, the applicable construction activity will cease and the COE and IDWR consulted to develop mitigative measures.

Operationally, the proposed development will require flow augmentation through the existing dredge ponds. The construction of channels connecting the ponds will increase the groundwater flow from the Yankee Fork to the ponds. In addition, three of the four series will have intakes which divert surface waters from the Yankee Fork. The project has filed for water rights to divert both groundwater and surface waters to the ponds (see Section 3.11.2). The quantity of surface flow diverted will be no more than 5 cfs per pond series; groundwater diversions will be no more than 10 cfs. Thus, a combined maximum of 15 cfs could be diverted from the Yankee Fork into the pond series. However, none of the diverted water will be consumptively used, with all flows returned at the pond series outlets. Thus, the diversions actually involve a "pass-through" of flow from the upper (PS-4) to lower (PS-1) pond series.

Because the waters diverted will not be consumptively used, no impacts on downstream water users will occur. The instream enhancement and erosion control alternatives do not involve water appropriations and hence will not alter downstream flows.

3.2.4 Water Quality

Detailed data on the water quality of the Yankee Fork are limited, with most information related to mining activities in one of its tributaries, Jordan Creek. Results of monitoring in this stream have indicated that the general surface water quality is excellent, with waters being calcium bicarbonate (USDA 1984). Spot measurements of pH, dissolved oxygen, and conductivity were made at several locations in the main stem Yankee Fork and West Fork during September 1986. The pH values ranged from 7.3 to 8.1; dissolved oxygen levels ranged from 7.9 to 9.5 mg/l and conductivities from 32 to 72 umhos/cm² (Reiser and Ramey 1987).

There are no continuous water quality problems in the Yankee Fork drainage, although existing and proposed mining operations could result in temporary releases of toxic materials, sediments, etc. However, all of the mine operations must comply with discharge requirements of the IDH&W and the Environmental Protection Agency (EPA) and therefore, chances for such releases are low.

Good water quality in the ponds is essential for rearing salmon as proposed. Results of seasonal (December and May) water chemistry analyses of samples collected from each pond series indicated suitable conditions for salmon production (Tables 3 and 4). Most parameters measured were at or below detection limits. Dissolved oxygen as measured in each pond in September ranged from 4.5 to 11.9 mg/l and temperatures ranged from 5 to 13°C (Reiser and Ramey 1987). Concentrations of dissolved oxygen and water temperatures in the ponds will likely resemble those in the main Yankee Fork, once inlet connections have been made. The presence and continued success of the put-and-take fishery in the ponds further attests to the suitable water quality conditions in the ponds.

Because the ponds are within a dredged-mine section and are downstream of other mining activities, the IDH&W is concerned that the dredge materials may contain high metals concentrations. Disturbance of such materials either through construction activities or through flow augmentation from increased diversion of flows during operation could result in their transport into the Yankee Fork. However, laboratory results of sediment samples collected from each pond series have indicated no high concentrations of such metals, and thus no impact to downstream water quality of aquatic biota should result from construction or operation of the ponds (Table 5). It should be noted that the sediment data on Table 3 were based on nitric acid digestion analyses which were performed at a pH of less than 2 (Hibbs, pers. comm.). Thus, detected concentrations may be higher than would be expected using EPA's EP Toxicity method (pH 5), particularly for lead and copper. Moreover, concentrations would be much higher than expected with a pH typical of the Yankee Fork (pH 7).

Activities associated with construction of inlets (3 total) and outlets (4 total), check structures (27 total), connecting channels, and culverts may all impart temporary impacts to water quality and existing fishery resources. Most of these are related to increased sedimentation/siltation to the Yankee Fork which could degrade water quality and fisheries habitat within, or downstream in the Salmon River.

A number of measures will be adhered to during construction to prevent or minimize such impacts. First off, the construction area within the pond series will be maintained in a low- to no-flow condition. This will entail completing all work inside a given pond series (e.g., channel connections, check structure installation) prior to making mainstem connections. During construction of intakes and outlet channels, including the culvert in PS-1, permeable berms consisting of coarse dredge material will be placed at the inlet and outlet areas to aid trapping sediments. Following construction, this material will be removed and placed above the ordinary high water mark. As a rule, construction equipment will not be operated in the main Yankee Fork except as necessary to cross the stream (e.g., to access a pond series) or place or remove temporary berms. To further prevent sediment problems, all disturbed soil and fill slopes will be stabilized (revegetated where appropriate), connecting channels within a pond series will be lined with 1-6 inch cobble, and intake structures will be reinforced with riprap to prevent scouring and bank cutting. During construction, a water quality monitoring program will be ongoing to ensure the effectiveness of such measures.

Table 3

WATER CHEMISTRY OF
SELECTED PONDS IN THE FOUR OFF-CHANNEL POND SERIES,
DECEMBER 11, 1986 (a)

Water Quality Parameter	Pond Series 1 (Pond 3)	Pond Series 2 (Pond 1)	Pond Series 3 (Pond 3)	Pond Series 4 (Pond 2)
pH unit	6.79	6.80	7.20	7.17
T.S.S	1.0	3.0	1.0	2.0
TDS	75.0	145.0	83.0	76.0
Sulfate	9.0	8.7	12.3	8.7
Spec. Cond. μ mhos	81	98	110	85
Ammonia N	<0.1	<0.1	<0.1	<0.1
TKN	<0.1	<0.1	<0.1	<0.1
Nitrate N	1.3	1.0	0.10	0.11
Total Phos (P)	0.073	0.067	0.187	0.160
Arsenic	<.005	0.008	<.005	0.006
Cadmium	<.0005	<.0005	<.0005	<.0005
Calcium	1.44	1.90	2.06	1.80
Copper	0.007	0.004	0.005	0.004
Iron	<.05	<.05	<.05	<.05
Cyanide (Total)	0.007	0.001	0.003	<.001
Magnesium	2.2	2.4	2.0	1.8
Manganese	<.05	<.05	<.05	<.05
Sodium	11.0	10.8	4.40	3.40
Potassium	0.61	1.23	0.56	0.52
Zinc	0.054	0.057	0.054	0.055

(a) Results expressed as mg/l except as noted

Source: Hibbs Laboratories, December 1986

Table 4
WATER CHEMISTRY OF
SELECTED PONDS IN THE FOUR OFF-CHANNEL POND SERIES
MAY 1, 1987^(a)

Parameter	Pond Series 1 (Pond 3)	Pond Series 2 (Pond 1)	Pond Series 3 (Pond 3)	Pond Series 4 (Pond 2)
pH units	7.1	6.9	7.1	7.0
D.O. mg/l	9.50	9.10	9.10	8.40
Spec Cond. μ mos	64	92	84	72
Total alkalinity	33.1	53.7	46.8	43.4
Chloride	<0.1	<0.1	<0.1	<0.1
Ammonia N	<0.1	<0.1	<0.1	10.5
Nitrate N	0.41	0.68	0.54	0.16
Hardness (CaCO ₃)	32.0	51.6	49.5	35.4
Total Phos (P)	0.07	<0.01	0.01	<0.01
Turbidity JTU	2.00	0.74	1.2	2.0
TSS	8.0	5.0	1.0	2.0
Cyanide, Total	0.17	0.011	0.010	0.012
Cyanide, WAD	0.009	0.009	0.008	0.008
Arsenic	0.005	0.007	0.007	0.007
Cadmium	<0.0002	<.0002	<.0002	<.0002
Copper	<.005	<.005	<.005	<.005
Lead	<.005	<.005	<.005	<.005
Mercury	<.0005	<.0005	<.0005	<.0005
Silver	<.01	<.01	<.01	<.01
Zinc	<.01	<.01	<.01	<.01

(a) Results expressed as mg/l except as noted.

Source: Hibbs Laboratories, May 11, 1987

Table 5

METALS CONCENTRATIONS IN SEDIMENTS OF
SELECTED PONDS IN THE FOUR OFF-CHANNEL POND SERIES(a)

<u>Parameter</u>	<u>Pond Series 1</u>		<u>Pond Series 2</u>	
	(Pond 3)	(Pond 5)	(Pond 2)	(Pond 3)
Arsenic	1.10	1.71	2.15	1.44
Cadmium	0.019	0.076	0.019	0.014
Copper	5.60	7.68	5.68	6.09
Iron	5744	7273	3906	10,130
Lead	8.1	5.1	0.85	6.86
Mercury	0.048	0.009	<.005	0.098
Silver	1.83	0.61	0.34	0.78
Zinc	29.4	56.9	18.8	30.4

<u>Parameters</u>	<u>Pond Series 3</u>			<u>Pond Series 4</u>	
	(Pond 1)	(Pond 2)	(Pond 3)	(Pond 1)	(Pond 2)
Arsenic	1.83	0.99	0.97	1.18	1.39
Cadmium	0.013	0.019	0.019	0.012	0.015
Copper	4.33	4.80	4.58	3.73	4.67
Iron	4129	6033	6191	3449	8194
Lead	3.00	4.98	5.03	3.36	6.10
Mercury	0.090	0.168	0.014	0.061	0.007
Silver	0.70	0.60	0.70	0.34	0.70
Zinc	21.0	27.9	23.1	16.8	32.3

(a) Results expressed as mg/kg

Source: Hibbs Laboratories, May 11, 1987

The operation of the ponds will not require an NPDES permit since no discharge of materials will be made, and no significant water quality changes will occur. Thus, downstream water quality will not be affected by operation of the ponds.

Implementation of instream enhancement and erosion control measures would result in short-term increases in sediment and turbidity. However, the resulting impacts would be minimized through adherence of the above measures.

3.3 FISHERIES

The Yankee Fork drainage supports viable populations of both resident and anadromous fish species (Table 6). Salmonid species present in the Yankee Fork include in order of decreasing abundance; steelhead/rainbow trout, chinook salmon, cutthroat trout (Salmo clarki), bull trout (Salvelinus confluentus), and brook trout (Salvelinus fontinalis) (Konopacky et al. 1985, 1986).

3.3.1 Anadromous Species

Historically, the system supported large runs of both chinook salmon and steelhead trout. Today, these runs have been dramatically reduced owing to the combined effects of local mining and downstream hydroelectric developments. The construction of Lower Monumental (in 1969), Ice Harbor (in 1962), Little Goose (in 1970), and Lower Granite (in 1974) dams on the Snake River, and Bonneville, the Dalles, McNary, and John Day dams on the Columbia River, all served to reduce the number of adults returning to the Yankee Fork and the number of smolts successfully migrating to the ocean.

The historic mining activities in the Yankee Fork have further aggravated the tenuous status of chinook stocks, resulting in further declines. Perhaps the greatest disturbance occurred as a result of a large dredging operation that commenced in 1939. This operation continued until 1942, was restarted in 1949, and continued until 1952. Targeted at the recovery of over \$11 million of gold (1940-based dollar), the dredging operation extended from just above Polecamp Creek to the mouth of Jordan Creek, a distance of about 6 miles. In the wake of this operation, this section of the Yankee Fork was completely channelized, with extensive deposits of unconsolidated dredge materials bordering its banks. As a result, the rearing and spawning habitat of anadromous salmonids within this section was reduced. According to habitat degradation standards, the IDF&G (1986) has classified the Yankee Fork as a Class 3 system, having up to a 20 percent reduction of natural production, owing to the historic mining activities.

Spring chinook destined for the Yankee Fork enter the Columbia River during March-May, with spawning occurring in August and September (Bjornn 1960). The wild runs of upper Salmon spring chinook are comprised of primarily 4-5 year old fish having fork lengths exceeding 32 inches (Bjornn et al. 1964). Egg incubation extends into December, with emergence occurring in February or March. Juveniles typically rear in freshwater until the spring (March-May) of their second year, to a length of 4-5 inches (Bjornn 1960).

Table 6

FISH SPECIES PRESENT IN THE YANKEE FORK DRAINAGE*

<u>Family</u>	<u>Scientific Name</u>	<u>Common Name</u>	<u>Resident or Anadromous Species</u>
Salmonidae	<u>Oncorhynchus tshawytscha</u>	Chinook salmon	Anadromous
	<u>Proposium williamsoni</u>	Mountain whitefish	Resident ¹
	<u>Salmo clarki</u>	Cutthroat Trout	Resident ¹
	<u>Salmo gairdneri</u>	Rainbow trout/steelhead	Resident/Anad.
	<u>Salvelinus confluentus</u>	Bull trout	Resident ¹
	<u>Salvelinus fontinalis</u>	Brook trout	Resident
Cyprinidae	<u>Rhinichthys cataractae</u>	Longnose dace	Resident
	<u>Rhinichthys osculus</u>	Speckled dace	Resident
	<u>Richardsonius balteatus</u>	Redside shiner	Resident
Catastomidae	<u>Catostomus columbianus</u>	Bridgelip sucker	Resident
	<u>Catostomus macrocheli</u>	Largescale sucker	Resident
Cottidae	<u>Cottus spp.</u>	Sculpin	Resident
	<u>Cottus confusus</u>	Shorthead sculpin	Resident

1 These species may also be migrants when water temperatures or flows decrease. Species list compiled by IDF&G.

* From U.S.D.A. (1984); Ralston & Associates (1984)

As a result of the depletion of runs, the IDF&G has, over the past 10 years periodically stocked the Yankee Fork and its main tributary, the West Fork, with hatchery steelhead and chinook (Table 7). The majority of plants in the 80's were primarily from the Pahsimeroi hatchery. Because of these plants and some success in improving downstream passage at dams (the barging of steelhead has proven effective), the steelhead runs in the upper Salmon drainage have improved. The runs of chinook, however, have remained depressed largely due to the continuing problems of smolt passage at the mainstem Snake and Columbia dams. Efforts to increase chinook returns are therefore centered on increasing the number of smolts in the upper Salmon drainage.

IDF&G's recently completed (1984) Sawtooth Hatchery is a key component in the planned "stepped-up" production. This facility, located 6 miles south of Stanley, Idaho was constructed as part of the Lower Snake River Fish and Wildlife Compensation Plan. The facility has a production capacity of 2.3 million smolts and 1.1 million fingerlings. In addition to releasing smolts to return as adults to the hatchery, the hatchery is being used as an outplanting facility to seed natural but underutilized habitats. The Yankee Fork has been targeted as one of the recipients streams with a proposed allotment of 200,000 smolts and 200,000 fingerlings (IDF&G 1984, 1986). Over 100,000 chinook fry from this facility were released in the Yankee Fork in the spring of 1987.

Thus, a source of fish to aid in the restoration of the Yankee Fork exists. However, to bring the system back to historic production levels, both the quantity and quality of habitat must be comparable to historic levels. This is not the case under existing conditions and is the focus of the proposed alternative.

3.3.2 Resident Species

Although best known for its steelhead and chinook, the Yankee Fork drainage also supports resident populations of rainbow, cutthroat, brook and bull trout, and mountain whitefish (Proposium williamsoni). Angling for these species occurs primarily after June when streamflows begin to recede and water clarity improves. Fishing access is provided along the main forest access road, although no road exists up the West Fork.

Because of high spring flows, the IDF&G has instituted a catchable rainbow trout fishery in several of the existing dredge ponds. This provides anglers an early fishing opportunity when streamflow conditions normally preclude such activity. The fishery has been highly successful with an estimated 3,000-4,000 people fishing the ponds each summer. Specific ponds stocked by the IDF&G are listed in Table 8.

Stocking of the ponds occurs about 3 to 5 times each summer between May and early September (Gadwa 1986). An estimated 3,000-5,000 fish from the Hayspur hatchery are stocked annually with some fish successfully overwintering in the larger ponds (e.g., Pond 2 of PS-4).

Table 7

IDAHO DEPARTMENT OF FISH AND GAME HISTORICAL ANADROMOUS FISH
PLANTINGS IN THE YANKEE FORK DRAINAGE
1978-1986

<u>Date</u>	<u>Species</u>	<u>Fish Size</u>	<u>Number Fish</u>	<u>Weight (lb)</u>
05-30-78	Steelhead	Fry	255,142	106.0
05-30-78	Steelhead	Fry	103,501	43.0
07-07-78	Spring Chinook	Fry	51,210	710.0
08-21-78	Spring Chinook	Fry	75,036	156.0
06-19-79	Steelhead	Fry	208,800	58.0
06-12-80	Steelhead	Fry	100,000	50.0
05-05-81	Steelhead	Fry	254,600	67.0
04-11-83	Steelhead "A"	Adult	180	1,080.0
04-14-83	Steelhead "A"	Adult	200	1,200.0
04-21-83	Steelhead "A"	Adult	230	1,150.0
04-02-84	Steelhead "A"	Adult	350	1,400.0
04-02-84	Steelhead "A"	Adult	350	1,400.0
04-05-84	Steelhead "A"	Adult	150	600.0
04-06-84	Steelhead "A"	Adult	350	1,400.0
04-06-84	Steelhead "A"	Adult	350	1,400.0
04-06-84	Steelhead "A"	Adult	150	600.0
05-29-84	Steelhead "A"	Fry	50,000	20.0
07-30-84	Steelhead "A"	Fry	90,450	201.0
04-12-85	Steelhead "A"	Adult	150	600.0
04-15-85	Steelhead "A"	Adult	160	640.0
04-15-85	Steelhead "A"	Adult	156	624.0
04-16-85	Steelhead "A"	Adult	150	600.0
06-13-85	Spring Chinook	Adult	61	732.0
06-26-85	Spring Chinook	Adult	30	300.0
06-26-85	Spring Chinook	Adult	37	74.0
06-27-85	Spring Chinook	Adult	49	98.0
06-27-85	Spring Chinook	Adult	49	490.0
06-27-85	Spring Chinook	Adult	44	440.0
06-27-85	Spring Chinook	Adult	66	132.0
06-29-85	Spring Chinook	Adult	30	60.0
06-29-85	Spring Chinook	Adult	23	230.0
07-01-85	Spring Chinook	Adult	25	250.0
07-01-85	Spring Chinook	Adult	28	56.0
07-02-85	Spring Chinook	Adult	13	130.0
07-02-85	Spring Chinook	Adult	129	258.0
07-05-85	Spring Chinook	Adult	34	340.0
07-05-85	Spring Chinook	Adult	76	152.0
07-08-85	Spring Chinook	Adult	17	170.0
07-08-85	Spring Chinook	Adult	9	18.0
07-16-85	Steelhead "A"	Fry	250,000	105.0
03-27-86	Steelhead "A"	Adult	199	995.0
03-31-86	Steelhead "A"	Adult	214	1,070.0

Table 7 (Cont'd)

IDAHO DEPARTMENT OF FISH AND GAME HISTORICAL ANADROMOUS FISH
PLANTINGS IN THE YANKEE FORK DRAINAGE
1978-1986

<u>Date</u>	<u>Species</u>	<u>Fish Size</u>	<u>Number Fish</u>	<u>Weight (lb)</u>
04-01-86	Steelhead "A"	Adult	86	344.0
04-14-86	Steelhead "A"	Adult	141	846.0
04-21-86	Steelhead "A"	Adult	22	88.0
05-08-86	Steelhead "A"	Fry	370,000	148.0
05-29-86	Spring Chinook	Fry	44,250	250.0
05-30-86	Spring Chinook	Fry	45,000	250.0
05-30-86	Spring Chinook	Fry	42,250	250.0
06-13-86	Spring Chinook	Adult	61	732.0
06-25-86	Spring Chinook	3-6"	65,280	510.0
06-25-86	Spring Chinook	3-6"	25,856	202.0
06-25-86	Spring Chinook	3-6"	65,280	510.0
06-25-86	Spring Chinook	3-6"	52,096	407.0
06-30-86	Spring Chinook	3-6"	46,336	362.0
07-01-86	Spring Chinook	Adult	110	1,100.0
07-01-86	Spring Chinook	Adult	118	1,180.0
07-01-86	Spring Chinook	Adult	110	1,100.0
07-01-86	Spring Chinook	Adult	111	1,100.0
07-01-86	Spring Chinook	Adult	50	500.0
07-01-86	Spring Chinook	Adult	50	500.0
07-02-86	Spring Chinook	Adult	112	1,120.0
07-02-86	Spring Chinook	Adult	110	1,100.0
07-02-86	Spring Chinook	Adult	100	1,000.0
07-02-86	Spring Chinook	Adult	50	500.0
07-02-86	Spring Chinook	Adult	100	1,000.0
07-08-86	Spring Chinook	Adult	40	400.0
07-08-86	Spring Chinook	Adult	85	850.0
07-10-86	Spring Chinook	Adult	40	400.0
07-10-86	Spring Chinook	Adult	85	850.0
07-28-86	Spring Chinook	Adult	50	500.0
07-29-86	Spring Chinook	Adult	110	1,100.0
07-30-86	Spring Chinook	Adult	50	500.0
08-25-86	Spring Chinook	Adult	24	240.0

Source: _____

Table 8

PONDS STOCKED WITH CATCHABLE RAINBOW TROUT

<u>Pond Series</u>	<u>Ponds Within Series</u> ⁽¹⁾
PS-1	Ponds 1-4
PS-2	None
PS-3	Pond 2
PS-4	Pond 2

(1) See Figures 4 to 7 for pond locations.

Development of the proposed alternative is compatible with the continued management of the ponds for a put-and-take fishery. Although some predation of juvenile chinook may occur from the planted fish, the impact of this is considered low given the typical feeding behavior of hatchery catchable fish (Huffaker 1987). In addition, the majority of catchable rainbow will likely be "fished-out" by late August so that the period in which the ponds are shared is relatively small (May-August).

During construction, some temporary increases in sedimentation could occur in the Yankee Fork. Such increases could be especially harmful if they occurred during or shortly after the spawning periods of chinook (August) and steelhead (April-May). For this reason, the IDF&G has noted that no mainstream construction activity should occur after August 15. In addition to direct effects on fish, sediment can affect their food supply via smothering riffle areas, which are good producers of aquatic invertebrates.

Other potential construction related impacts include an increase in fishing pressure by the project workforce during the 2 month construction period, and temporary changes in water quality resulting from accidental spills of oil, gasoline or diesel fuel from heavy equipment. The former impact will be low due to the small size of the workforce (10-15 personnel). The potential for accidental spills will be minimized by storing all petroleum and chemical products above the highwater mark.

The operation of the pond series would result in a small reduction in flow in the main Yankee Fork extending downstream from the channel inlets to points of return flow. However, the magnitude of such diversions will be small (about 15 cfs) when compared with flows of the main Yankee Fork (low flows about 90-100 cfs) and will have no effect on its fishery resources. In addition, the flow diversions are non-consumptive with essentially all water being returned to the main Yankee Fork at the pond outlets.

Once in operation, there is also the potential that some returning adult chinook may migrate into and become trapped within the pond series and thus, fail to spawn (Reingold, pers. comm. 1987). To prevent this, each of the four series outlets will be screened during periods of adult migration (March-July).

Because of extensive hatchery outplanting to the Yankee Fork (Table 7), it is likely that no genetically pure wild chinook stocks exist in the Yankee Fork. Thus, the proposed action will not impact these runs.

Should selected instream enhancement structures be installed, some short term increases in turbidity and sediment entrainment would occur during construction. This will be minimized by limiting construction to periods of low flow. In addition, the construction of such structures will occur prior to spawning of chinook (no later than August 15) and hence it will have no impacts on spawning or egg incubation. The implementation of erosion control measures would likewise create some negligible temporary increases in sediment recruitment to the Yankee Fork.

3.4 VEGETATION AND WILDLIFE

3.4.1 Vegetation

Plant communities in the project area consist primarily of coniferous forest and riparian vegetation. The dominant coniferous forests occur throughout the project area on mountain slopes adjoining the four pond series, and include several subalpine fir and Douglas fir communities, lodgepole pine and whitebark pine. Associated shrub species include common juniper, mountain sagebrush, serviceberry, elderberry and thimbleberry. Understory species include yarrow, wild onion, pussytoes, elk sedge, blue ryegrass, Idaho fescue, grouse whortleberry, pearly everlasting, bluebunch wheatgrass and pinegrass (USDA 1984).

The project sites (four pond series) are all located in riparian zones, some among unvegetated dredge piles, others surround by scattered riparian vegetation. The distribution and density of riparian plant communities varies according to location in the Yankee Fork drainage. Riparian vegetation at the project site is sparse due to a general lack of soils and growing space, the presence of unconsolidated dredge piles and location of the access road. Instream and riparian vegetation is good to abundant throughout most of the upper Yankee Fork, Jordan Creek, and the West Fork. Plant species common to these areas include willow, aspen, thimbleberry, elderberry, bluebell, goldenrod, smooth brome, meadowrue, and various other grasses, sedges and forbs (Hydrometrics 1982a; USDA 1984).

No federal or state listed or proposed threatened or endangered plants are known to occur in the Yankee Fork drainage (Howard, pers. comm. 1986; Caicco et al, pers. comm. 1986; Wolflin 1987).

Construction of the proposed action will require disturbance to about 4 acres of vegetated lands, of which approximately 1.3 acres are wetlands (see following Section 3.4.1.1), with the remainder being meadow, shrub and unclassified vegetation. Up to five medium-sized trees may need to be cleared

in order to provide equipment access for construction of channels. Disturbance to riparian vegetation and the clearing of trees will be kept to the absolute minimum needed for the development. Areas disturbed will be revegetated immediately following construction to inhibit erosion and encourage reestablishment of native communities. In addition, selected areas bordering rearing ponds and newly constructed channels will be planted so as to encourage establishment of riparian flora. This will provide additional habitat enhancement for fish and other wildlife as well as act to partially replace other wetland flora lost to construction. Overall impacts to vegetation from the proposed action are not expected to be significant.

The effects of implementing the instream enhancement alternative on vegetation would be very localized and limited to that required for stream access. Streambank stabilization would produce a net gain in vegetation along the drainage.

3.4.1.1 Wetlands. The U.S. Army Corps of Engineers (COE) has determined that isolated wetlands do occur in the immediate area of the proposed project as shown in Figures 4 through 7. These wetlands are comprised primarily of localized strips of riparian vegetation which have developed adjacent to certain dredge ponds and borrow pits among the tailings piles. Plants typical of riparian zones along the Yankee Fork drainage include willows, aspen, thimbleberry, elderberry, and various grasses and forbs (Hydrometrics 1982a). Approximately 0.9 acres of wetlands may be lost permanently from construction of various channels connecting the ponds in the proposed alternative. This is based on an average channel surface width of 47 feet, which will vary based on local topography. In addition, approximately 0.4 acres of wetlands may be temporarily disturbed to access channel construction in wetland areas. These latter areas will be restored following construction.

Construction and disturbances in wetlands will be limited to those areas integral to the development of the off-channel rearing habitat. Dredged material excavated from channels will be disposed above the local ordinary high water elevation of the Yankee Fork and, where possible, on adjoining dredge piles. To partially offset losses of wetlands, new wetland riparian zones will be developed around presently exposed ponds. This will be accomplished through placement of excavated topsoils and the subsequent planting of willows, grasses and other appropriate plants. Vegetative growth will similarly be developed as needed along new and existing channels.

In addition to the COE, other agencies including the Environmental Protection Agency (EPA), the USFWS and the IDWR also have authority over developments affecting wetlands. Additional mitigation measures to offset wetlands impacts will be implemented as required through review of the project Dredge and Fill (404) Corps permit application.

Implementation of the instream enhancement project alternative (rock wiers, wing deflectors) would cause no significant or permanent effects on wetlands, though some temporary impacts could result from local stream access requirements. The streambank stabilization alternative would have only positive effects on riparian vegetation.

3.4.2 Wildlife

The Yankee Fork drainage provides potential habitat for over 63 species of mammals, 82 bird species and 10 species of amphibians and reptiles (USDA 1982; Hydrometrics 1980, 1981). Much of the forest and riparian vegetation of the drainage has been significantly altered by past and ongoing mining, logging, grazing, and forest fires (Hydrometrics 1981). Ground cover for large mammals is generally lacking from mid-to-high elevations in some areas. Where present in the upper Yankee Fork drainage, riparian habitat is important to wildlife as a source of water, food, and cover.

Larger mammals which may occur in the Yankee Fork drainage include elk, mule deer, mountain goat, bighorn sheep, black bear, wolverine, pine marten, lynx, bobcat, mountain lion, and the endangered gray wolf. Field surveys performed in 1980 and 1981 in the Jordan Creek drainage recorded small numbers of elk, mule deer, black bear and mountain goat (USDA 1984). Prime elk summer range is limited to the far upper reaches of the West Fork and Yankee Fork drainages and winter range is found primarily on south-facing slopes along major drainages. A herd of elk is known to winter along the Salmon River near the Sunbeam Resort and some occasionally move up the Yankee Fork as far as Bonanza (USDA 1984). Mule deer summer throughout the drainage, but move downslope in winter to browse on willows along the lower Yankee Fork. Mountain goats occur at higher elevations on Sunbeam Mountain, Jordan Mountain and others in the drainage, and signs of a single black bear were identified near the Sunbeam Mine (Hydrometrics 1981).

Small mammals observed in the Yankee Fork drainage include yellow-bellied marmot, golden-mantled ground squirrel, least chipmunk, yellow chipmunk, red squirrel, northern pocket gopher, beaver, pika, snowshoe hare, deer mice and mountain vole (USDA 1984). Also, 38 species of breeding birds typical of the region were observed, along with two species of amphibians, the spotted frog and the long-toed salamander.

The IDF&G maintains a list of Species of Special Concern, from which the bobcat, lynx, and fisher have been identified as potentially occurring in the Yankee Fork drainage. Their protection is limited to that provided under state hunting and trapping regulations. Bobcat and lynx are reportedly present and fisher is absent from the project study area (Gadwa, pers. comm. 1986).

The effects of the proposed action on wildlife in the Yankee Fork drainage will be limited to the two-month construction period in the general vicinity of PS-1 and PS-3 in August-September of 1987, and PS-2 and PS-4 in August-September 1988. During these time periods, temporary increases in noise and human activity would occur associated with a small workforce and heavy equipment operations. Some avoidance of the construction zone by local wildlife may occur, but wildlife should return following the construction period. No significant adverse effects to resident wildlife are anticipated due to the limited extent of construction disturbances and limited wildlife

habitat available in the dredge piles (construction zone). Some depletion of local beaver populations may be necessary through controlled trapping to maintain fish rearing habitat and proper operation of the channels.

The permanent loss of up to 1 acre of riparian vegetation from construction of the rearing ponds is not a significant loss of habitat for wintering mule deer or other resident and transient wildlife. Overall, there will be a positive long-term effect of the proposed action on local and regional wildlife populations. Increased salmonid production in the Yankee Fork will provide additional food resources for a number of predatory and carion-feeding mammals and birds, both locally and for miles downstream.

The effects on wildlife of implementing either of the instream enhancement or streambank stabilization alternatives would be negligible due to the absence of any significant vegetation clearing or habitat disturbance. Some localized habitat improvement would result from streambank revegetation for erosion control. Short-term, temporary effects on wildlife may occur from construction noise associated with these alternatives, producing some avoidance by wildlife of adjacent habitat until construction is completed.

3.4.3 Threatened and Endangered Species

The Yankee Fork drainage contains potential habitat for three Federally-listed endangered species: the peregrine falcon, bald eagle, and gray wolf. No Federally-listed or candidate threatened or endangered plants occur in the Yankee Fork drainage (Howard, pers. comm. 1986).

Peregrine falcons may occur in small numbers as spring and fall transients through the study area. The Challis National Forest is considered to contain suitable nesting cliffs for peregrines, but no nesting is known to occur anywhere in the area and no effects on peregrines are expected (Howard, pers. comm. 1986). Bald eagles winter along the Salmon River and one was sighted along the Yankee Fork on December 5, 1980 (USDA 1984). An estimated 20 to 25 eagles winter along the Salmon River between Roads End and Stanley; no bald eagle nests or winter roosts are known to occur along the Yankee Fork (Howard, pers. comm. 1984). The USF&WS agreed that increased fisheries production will likely produce a positive and beneficial impact on overwintering bald eagles in the Salmon River downstream of the study area.

The northern Rocky Mountain gray wolf (Canis lupus irremotus) has been identified by the USF&WS (Wolflin 1987) as an endangered species which may be impacted by the proposed action. Gray wolves may use the Yankee Fork drainage as a travel route between two elk summer ranges located northeast and southwest of the project area. The principal gray wolf population is believed to occur 40 to 60 miles west of the study area. The closest sightings of gray wolves were near the Lucky Boy Mine, about three miles northeast of PS-4 and at Preachers Cove, about one mile northeast of PS-4 (USDA 1984). Other sightings in the vicinity of the proposed action are provided in Table 9. It has been over five years since the last reported sighting of a wolf in the Yankee Fork drainage (Groves, pers. comm. 1987).

Table 9

**RECENT^{1/} WOLF SIGHTINGS IN THE VICINITY OF
THE YANKEE FORK FISHERY ENHANCEMENT PROJECT**

<u>Date</u>	<u>Legal Description</u>	<u>Location</u>	<u>Rating</u> ^{2/}
June 1947	T.11N., R.11E., Sec. 10	Near Trap Creek, 10 mi. N. Grandjean	Tracks observed, highly probable
Mar. 1974	T.12N., R.11E., Sec. 13	Near Cape Horn on Knapp Creek	Probable sighting
Sept. 1977	T.14N., R.11E., Sec. 13	Near confluence of Drop Creek with Rapid River	Probable sighting
May 1980	T.11N., R.12E., Sec. 14	Near Lowman-Stanley highway on Park Creek	Probable sighting
Aug. 1980	T.14N., R.13E., Sec. 6	Near Pinyon Peak Lookout on ridge at dusk	Probable sighting
Oct. 1980	T.11N., R.12E., Sec. 22	Near Dry Creek in Stanley Basin area	Highly probable sighting (2 wolves)
May 1981	T.13N., R.17E., Sec. 2	Near Fanny's Hole and Custer Motorway on Mill Creek	Probable sighting
June 1981	T.12N., R.13E., Sec. 10	Hindman Lake area near West Fork Yankee Fork	Tracks observed, probable
June 1981	T.12N., R.15E., Sec. 15	Several places in vicinity of Luckey Boy Mine	Probable sighting
June 1981	T.12N., R.15E., Sec. 20	Near millsite in Preacher's Cove area	Probable sighting
Aug. 1981	T.13N., R.16E., Sec. 23	On Elevenmile Creek near Yankee Fork	Scat collected, probable

^{1/} Sightings are through September 1986 (Groves, pers. comm. 1987)

^{2/} All sightings are of lone wolves except where noted.

Source: USDA 1984

The proposed project sites do not contain significant habitat for wolves or for their primary prey base, elk and mule deer. The proposed action will take place exclusively within the confines of the sparsely vegetated dredge piles. Elk have been observed only rarely in the project area. In December 1980, 6 animals were spotted near Bonanza, probably from the main herd which winters along the Salmon River (USDA 1984). Mule deer winter along the Yankee Fork and steep south-facing slopes along the Salmon River, but are not expected in significant numbers in the project area during the August-September construction periods.

The proposed Yankee Fork fishery enhancement project will not have direct effects on either wolves or their prey base. The lack of adequate habitat in the project area and the short duration of the proposed action should reduce the chances of any wolf-human encounters or related wolf mortality. Operation of the proposed, unmanned, low maintenance facilities will similarly have no long-term effect on wolves or their prey.

The cumulative effects of the proposed action and the proposed electrical transmission line project and ongoing mining and recreational uses in the Yankee Fork drainage might indirectly affect wolves and their prey base if they were present in the project area. However, existing data indicate only rare occurrences of wolves in the drainage and no cumulative effects are anticipated.

However, to ensure that chance occurrences of wolves are not discouraged or encouraged by the proposed action, the following mitigation measures will be implemented:

- o All employees and contractors will be educated regarding applicable hunting, fishing, trapping and endangered species laws and regulations;
- o All solid waste will be properly handled and disposed of according to IDHW regulations so as not to unnecessarily attract wolves and other wildlife;
- o All employees and contractors will be educated in wolf biology and their conservation/recovery efforts;
- o Efforts to restore all disturbed riparian habitat will occur immediately following construction.

A final Biological Evaluation for the gray wolf (see Appendix B) was prepared by BPA for U.S. Fish and Wildlife Service review. The Service concurred in their July 9, 1987 letter with BPA's findings that the proposed project will not affect the gray wolf and no formal Section 7 Consultation will be necessary.

3.5 RECREATIONAL RESOURCES

The Yankee Fork drainage and surrounding vicinity contain significant recreational resources of various types. The nearby Sawtooth National Recreation Area (SNRA) and the Salmon River are recreational sites of national importance. The Salmon River supports a good trout fishery and a significant river rafting business (Hydrometrics 1982b). Along the Yankee Fork there are

several popular historic mining sites, including the ghost town of Custer, the Custer Museum, the Bonanza Historical Site, and the Yankee Fork Dredge. Between 17,000 to 20,000 annual visitors have been recorded at these historical sites (Hydrometrics 1982b; Gadwa, pers. comm. 1986). The Yankee Fork Road is also used as a recreational access to the Loon Creek area and by hunters in the fall. Other recreational activities in the drainage include sightseeing, camping, wildlife observation, picnicking, hiking, and fishing. With respect to the latter, a popular put-and-take trout fishery has developed in the dredge ponds along the lower Yankee Fork (Cullinane, Davis, pers. comm. 1986) (see Section 3.3). The USFS Jerry's Creek Campground (undeveloped with 2 - 3 tables) and Pole Flat Campground (fee area with 20 units) are about 0.2 miles from the lower ends of PS-2 and PS-1 respectively.

The project area along the Yankee Fork drainage does not include any property acquired or developed with assistance from Land and Water Conservation Funds (Cullinane, pers. comm. 1986). In addition, there are no National Recreation Trails, National Scenic Trails, Wild and Scenic Rivers, Wilderness Areas, parks, or BLM areas of critical environmental concern.

Construction and operation of the proposed project alternative will have an overall positive and beneficial effect on recreational resources, and specifically on recreational fishing in the Yankee Fork and Salmon River. Long-term benefits to wildlife dependent on fish may also be realized, thereby improving recreational wildlife observation within the drainage.

Initial concerns regarding potential conflicts between the existing put-and-take trout fishery and the proposed rearing pond development have been resolved. The IDF&G "will be able to continue to provide a resident trout fishery in some ponds during the time period when demands for that type of fishing are high without impacting anadromous fish production" (Huffaker 1987).

Effects of the proposed action on other recreational resources will not be significant. With an estimated work force of 10 people, and the short-term (two-three months) low-level construction activity planned along the drainage, no significant adverse impacts are expected on the visitation of nearby historic sites and other non-fishery related recreational resources. Excavation of channels between dredge ponds and placement of riprap will result in some local and temporary increases in noise from heavy equipment and increased traffic. Replacement of the road culvert at the lower end of PS-1 may be done in two phases so as not to disrupt access to recreational sites upstream or alternatively, the existing side road may be used to temporarily reroute traffic around the culvert construction. The USFS has indicated that construction of the proposed project should have no effect on campers at Pole Flat campground (Cullinane, pers. comm. 1987) and the small, undeveloped Jerry's Creek campground may simply be temporarily closed during construction (Savitch, pers. comm. 1987).

The instream enhancement alternative to the proposed action would create similar effects on recreational use in the area depending on the total number of rock weirs and wing deflectors constructed.

3.6 EXISTING AND PLANNED LAND USE

Lands within the Yankee Fork drainage are either administered by the Challis National Forest or owned by private mining interests. Forest Service lands are managed by the Yankee Fork Ranger District and maintained for multiple use, including timber harvest, mining exploration, recreation and livestock grazing. Unimproved roads parallel the entire drainage except for the West Fork of the Yankee Fork. Livestock grazing is limited to the upper mainstem of the Yankee Fork. Approximately 20 to 30 summer residences live in the Yankee Fork drainage. The nearest towns are Stanley and Clayton, Idaho, which are about 25 miles west and 30 miles east, respectively.

Dredge-mining for gold has occurred along the drainage since the late 1800's. Both patented mining lands (private lands) and unpatented mining claims (Forest Service land) occur along the Yankee Fork and its major tributaries. Small scale dredge, placer, deep rock, and open pit mining continue to operate in the upper Yankee Fork and Jordan Creek. No mining presently occurs along the lower Yankee Fork, however, J. R. Simplot owns patented lands which include all of the dredge ponds planned for development. Eight small inactive unpatented claims also occur on Forest Service lands adjacent to the four pond series to be developed. Coordination has begun with adjacent claim and private landowners to assure proper consideration of their concerns (Smith, pers. comm. 1987).

There are no known Federal (Culliname, pers. comm. 1986), State (Mews, pers. comm. 1987) or county (Bloxham, pers. comm. 1987) land use plans in effect for the Yankee Fork drainage and the proposed project sites. The USFS is in the process of preparing the Yankee Fork Composite Plan which is currently incomplete and unavailable to the public. Though no permanent fishery facilities are proposed on public (National Forest) lands, obtaining riprap under a USFS Common Minerals Permit, transporting equipment and materials under a USFS Road Use Permit, and development of a temporary workforce campground under a USFS Industrial Campground Permit are consistent with the multiple use objectives of the Challis National Forest (Johnson, pers. comm. 1987). The proposed project is not located in, nor will it in any way affect a coastal zone or any farmlands.

Preliminary informal discussions are beginning between the Idaho Department of Parks and Recreation (IDPR) and the USFS for IDPR to establish a historic park centered around the Custer and Bonanza historic sites. No plans have been developed as of yet, but the proposed project should not impact this potential development due to its distance from the historic sites.

The effects of future mining and grazing activities in the drainage are not expected to significantly affect or conflict with the proposed action. Grazing of about 250 cattle occurs sufficiently far up in the drainage (Fivemile Creek to the headwaters) and over a sufficiently large area to cause no anticipated water quality effects which could significantly affect the proposed development.

Future mining in the drainage is planned at the Sunbeam Mine and at other locations, but all will be closely regulated by Federal and state agencies so as to minimize potential land and water quality impacts downstream. Assuming water quality standards will be met as a result of these mining activities, no impacts on or conflicts with the proposed action should occur. Accidental spills of sediment ponds, cyanide or other toxic/hazardous substances from upstream mining activities could have temporary adverse effects on the rearing facilities. Both upstream dilution, vegetative/soil filtration and other mitigative actions should, in most cases, result in only short-term, low-level effects on the rearing ponds from accidental spills.

In summary, the proposed action is not expected to significantly impact or conflict with any existing or planned land uses in the Yankee Fork drainage. The instream enhancement alternative and streambank stabilization alternative would, for the same reasons discussed above for the proposed action, not be expected to significantly affect land uses in the drainage.

3.7 ARCHAEOLOGY AND CULTURAL RESOURCES

A number of Federal laws and regulations have been promulgated to protect the nation's historical, cultural, and prehistoric resources. These include the National Historic Preservation Act, the Archeological Resources Protection Act, the American Indian Religious Freedom Act, the National Landmarks Program, and the World Heritage List. The National Historic Preservation Act and the Archeological Resources Protection Act safeguard historical and archeological resources from damage or loss to Federally sponsored or permitted projects and from excavation or removal from Federal and Indian lands. The American Indian Religious Freedom Act assures that Federal activities do not impair access to religious sites and will not affect ceremonial rites of American Indians.

Pursuant to the National Historic Preservation Act, the effects of any Federal or Federally-assisted undertaking on historical, cultural, or archeological resources must be evaluated. For properties on or eligible for the National Register of Historic Places, the responsible Federal agency must consult with the State Historic Preservation Office (SHPO) regarding any potential adverse effects on resources of historic, architectural, archeological, or cultural significance.

The Yankee Fork system is an important and treaty guaranteed anadromous fishing area for members of the Shoshone-Bannock Tribes. As a conservation measure, the Tribes have voluntarily chosen not to exercise this treaty right since 1978 (USDA 1984). The Tribes also have ceremonial rights to the Yankee Fork and utilize the upper portion of Five Mile Creek for ceremonial spear fishing (Somes, pers. comm. 1986). Indian artifacts may be present along the drainage.

Various historic sites have been identified within the Yankee Fork drainage. The most noteworthy are the Bonanza historic site, the ghost town of Custer and an old mining dredge along the Yankee Fork. All of these sites are eligible for listing on the National Register of Historic Places but have not yet been listed. Other historic sites, also not federally listed but possibly

eligible, have been identified in the vicinity of the Sunbeam Mine (USDA 1984). These sites are the Sunbeam mine community settlement, the South Sunbeam mining area and the Jesse James mining company.

Consultation with the Idaho State Historic Preservation Office has determined that the proposed project will not affect cultural resources (Green 1987). The Idaho SHPO recognizes that significant Indian sites formerly present along the river in the project area have been destroyed by prior gold dredging. The closest eligible historic site to the project area is the Bonanza historic site, located more than one mile upstream of PS-4. No effects to historical sites are expected. Since the proposed action will be carried out completely within the dredged areas, no adverse effects to cultural resources are anticipated.

3.8 AIR QUALITY, NOISE, AND TRAFFIC

3.8.1 Air Quality

Air quality in the Yankee Fork drainage is from good to excellent due to its remoteness and lack of any stationary sources of air emissions (USDA 1984). Ambient air quality monitoring data are not available for the Yankee Fork drainage.

The only source of air emissions associated with each project alternative would be emissions from construction equipment, emissions from passenger vehicles and fugitive dust. Construction equipment expected to be used for the proposed action are listed in Table 10. Additionally, a maximum of 10 passenger vehicles traveling to and from the site are expected during construction, based on an estimated workforce of 10 people.

Low levels of carbon monoxide, hydrocarbons, nitrogen oxides and sulfur oxides are expected from gasoline and diesel-powered mobile sources (automobiles and trucks) and equipment. Particulate or fugitive dust emissions resulting from gravel road traffic and wind erosion during construction are expected to be short-term and minimal. Thus, each of the project alternatives is not expected to significantly impact air quality. The proposed action would result in slightly more vehicle and particulate emissions compared to the other alternatives due to greater construction needs and extent of the project.

The project should not be affected by requirements promulgated under National Ambient Air Quality Standards since New Source Performance Standards do not apply and emissions are expected to be short-term and minor (Ayer, pers. comm. 1987). In addition, the short-term and minimal quantities of particulate and vehicle exhaust emissions should not be affected by the State Implementation Plan (SIP) or Prevention of Significant Deterioration (PSD) regulations. The project is also not regulated under New Source Performance Standards (NSPS) and no hazardous air emissions regulated under the National Emissions Standards for Hazardous Pollutants (NESHPS) will be generated by the project. To comply with state requirements, the project will control fugitive particulates, via water sprinkling.

Table 10

CONSTRUCTION EQUIPMENT

<u>Description</u>	<u>Quantity</u>	<u>Duration of Use (Months)</u>	
		<u>1987 Season</u>	<u>1988 Season</u>
Excavator, Cat 235 or equal	1	2	1
Dozer, D8	1	1	1
Dozer, JD550 or equal	1	2	2
Loader, Cat 966	1	2	2
Compressor, 375 CFM	2	2	2
Pump, 2"Ø to 6"Ø Discharge	4	2	2
Motor - Generator, 5 to 15 KW	4	2	2
Trailer, 8' x 24'	1	2	2
Truck, 10 CY Dump	2	2	2
Truck, 4 x 4 Pickup	1	2	2
Truck, 4 x 4 Carry-All	1	2	2
Truck, 3T Flatbed	1	2	2
Fuel Tank, 1000 Gal.	3	2	2
Compactor, 2300# Vibratory	1	1	1
Compactor, Wacker	3	2	2

3.8.2 Noise

Baseline noise levels in the Yankee Fork drainage have been characterized as typical of rural, undeveloped, back-country areas, normally not exceeding 30 to 45 dBA (USDA 1984). The primary noise sources in the drainage result from passenger vehicles and mining activities such as truck hauling, machinery operation, blasting and drilling. The State of Idaho presently does not enforce any quantitative standards which apply to noise levels (USDA 1984).

For each project alternative, project noise sources will be limited to the operation of construction equipment in the project area, trucks supplying construction materials, and other construction-related traffic along Yankee Fork Road (Forest Route 40-013). For the proposed action, construction equipment expected to be used are listed in Table 3-X. As stated above, up to 10 passenger vehicles may commute to and from the site during each day of construction. No blasting is expected for any of the project alternatives. Operational noise impacts are expected to be non-existent or negligible.

For the proposed action, receptors of construction noise impacts include: the Polecamp Flat Campground; Jerry's Creek Campground; and possibly seasonal residences in cabins as well as fisherman and campers/visitors in the vicinity of the ponds. The nearest seasonal residence identified is a cabin on Silver Creek. At its nearest point, construction activities for Pond Series 1 would be about 1/4 mile SW of this cabin. A group of cabins between Pond Series 1 and 2 on the east bank of the Yankee Fork would be about 1/2 mile from the nearest construction activities.

During the 1987 construction phase, minor to moderate noise impacts may be expected at the Polecamp Flat Campground for a few weeks. At its nearest point, construction activities for Pond Series 1 will be approximately 1/4 mile north of the campground. During the 1988 construction phase, moderate noise levels may be expected at the relatively undeveloped campground by Jerry's Creek. At its nearest point, construction activities for Pond Series 2 will be about 200 yards west of this campground.

To help mitigate these short-term effects to visitors of the area, construction will be performed during daylight hours only and usually between the hours of 8 a.m. and 5 p.m., Monday through Friday.

3.8.1 Traffic

Access to the project area is reached via U. S. Route 93, (which runs parallel to the Salmon River), and the Yankee Fork Road (Forest Service Road 40-013). Pond Series 1 is located about 3 1/2 miles up the Yankee Fork Road from its junction with U. S. Route 93, while the last (Pond Series 4) is about 6 1/2 miles up. The Yankee Fork Road has a gravel surface and is presently used for mining, logging and recreational traffic. Approximately 17,000 tourists use the road annually during July through September to visit the town of Custer and a nearby gold dredge (Cullinane, pers. comm. 1986).

The proposed action would involve transporting equipment to and from the project area during each 2-month construction season. Construction traffic would include daily commute vehicles (10 maximum) and occasional deliveries of building materials and supplies (e.g., lumber, concrete, rip-rap and miscellaneous metal.

The amount of construction traffic expected by the proposed action is relatively minor compared to existing traffic. However, during the 1987 construction season, unusually heavy traffic is expected on the Yankee Fork Road, a result of the construction of a transmission line in support of the Sunbeam Mining project. The USFS is concerned about the potential for a temporary road block in conjunction with the culvert replacement in Pond Series 1 (Johnson, pers. comm. 1987).

However, the proposed action will utilize the existing dirt road on the east bank of the Yankee Fork as a traffic detour during the replacement of the culvert. The detour will be approximately 1/2 mile in length and will extend from a point south of Pond 1 to a point north of Pond 4. Some minor road surfacing work would be performed on the detour to make it servicable by conventional automobile traffic. The detour would be in effect for about 1 week while the culvert is being replaced. During normal working hours, the detour will be open to one-way traffic only; thus flagmen with 2-way radios will be positioned at both ends during this time. Traffic delays will be no more than 10 to 15 minutes during this one-week period. To further reduce impacts on traffic, replacement of the culvert will occur after the Labor Day weekend (i.e., September 7) when tourist traffic is low.

3.9 SOLID AND HAZARDOUS WASTE MANAGEMENT

3.9.1 Solid Waste

Solid waste generated from the project will be limited to domestic refuse, sanitary waste from temporary toilet facilities, remnants of construction materials, and dredge material from the banks of the Yankee Fork and connecting channels. Domestic refuse and sanitary wastes will be regularly collected and transported to an approved county landfill and treatment facility, respectively. At the completion of each summer construction period, any remaining lumber, concrete and other construction materials/debris will be hauled off-site and any waste materials will be transported to an approved landfill. All dredge material, if not used for backfill, will be deposited above the ordinary high water mark, away from designated wetlands, and, to the extent practical on top of existing dredge piles.

3.9.2 Hazardous Waste and Materials

During construction, all petroleum products (e.g., fuel, oil), waste oil, and any potentially hazardous chemicals will be kept in bermed areas away from the river and above the ordinary high water mark. This will preclude the potential for an accidental spill to the river. If spills do occur, rapid and complete cleanup will be implemented. At the completion of each summer construction phase, all of the these materials will be removed from the site. Any hazardous wastes will be transported to an approved disposal facility.

The existing levels of hazardous wastes or pollutants in the Yankee Fork drainage are unknown. The numbers and quantities of such pollutants present in the dredge piles is believed low, if present at all. The method of hydraulic dredging used to create the tailings piles is believed to have washed out any soluble or precipitated toxic materials from stream gravels prior to being piled as tailings. Nevertheless, the IDH&W has questioned if disturbances to the existing dredge materials during construction could expose sediments containing high concentrations of metals. Such sediments could be entrained in the water column and transported into the main Yankee Fork. A further concern involves the potential flushing of fine sediments from existing channels associated with augmented flows through the ponds. Should such sediments contain high metals concentrations, they could be transported into the Yankee Fork.

An evaluation by the IDH&W of sediment and water collected from each pond series data indicated that the quality of sediment and water should not pose an adverse effect on freshwater life as a result of project construction and operation (Litke, pers. comm. 1987) (see Section 3.2.3). Accordingly, the IDH&W indicates that mandatory monitoring of sediment and water quality during and after construction will not be required.

3.10 AESTHETICS (VISUAL RESOURCES)

A recent study was performed to characterize the visual resources in the vicinity of the Sunbeam Mine which is located within the project study area near Jordan Creek (USDA 1984). The Sunbeam Mine/Jordan Creek area has visual character typical of the study area. A portion of this visual resource description is presented below.

"The existing visual absorption capabilities of the landscape within the study area are considered in terms of physiography, slope, soil color, vegetation, and use patterns. Characteristics of physiography within the study area include sharp ridges forming the skyline, steep drainages with first and second order streams, and the wet meadow area located in Pinyon Basin. Slope components of the study area include extremely steep side slopes, and talus slopes create patterns, texture and color variations characteristic of steep, rocky mountains and ridges. Soil colors are gray-brown to light-brown to yellowish-brown, and rock colors are naturally light to slightly dark. Vegetation characteristics include riparian vegetation visible only in foreground views, coniferous trees which create the predominant color and texture contrasts to exposed rock, and different understory vegetation between the two main habitat types. Use patterns are affected by visible alteration of the landscape due to previous mining activity and roadbuilding, and this type of disturbance is found throughout other viewsheds in the vicinity of the study area.

Visual impacts include both temporary construction impacts and long-term impacts of the new project components. Construction impacts will result primarily from increased road traffic and the various earthwork activities.

Minor long-term visual impacts may result from the intake structures and check structures associated with the proposed action. Such structures are potentially visible to travelers along Yankee Fork Road and to fishermen and hikers who may be in and about the ponds.

Check structures will be low profile, constructed of wood, and often hidden or partially hidden by existing vegetation or topography. These structures should not be incompatible with the existing environment which has been extensively disturbed by previous mining operations.

Intake structures for Pond Series 1, 2, and 3 are potentially more visually prominent than check structures as a result of the concrete headwalls which are usually surrounded by or embedded in rip-rap. However, in all cases, such structures will be largely unnoticeable due to existing topography and vegetation. These structures would be visible to fishermen and hikers in the area, but should not be incompatible with the existing visual environment. Nonetheless, to reduce any minor visual impacts to visitors, the intake structures will be low profile and constructed to blend with the existing form of the landscape to the extent practical.

3.11 PERMIT PROCESS

The Yankee Fork Fisheries enhancement project will require various agency approvals or permits prior to construction. These permits and approvals are presented in Table 11 and described below.

3.11.1 Federal Permits and Approvals

Construction of the proposed development (off-channel rearing habitat) will involve the deposition of fill material (backfill, concrete, rip-rap) into the Yankee Fork, a "Waters of the U.S." as defined by the Clean Water Act. A permit under Section 404 of this act is required from the Army Corps of Engineers (ACOE). The project is further subject to the "404" permit because construction of some of the pond connecting channels will occur on wetlands designated by the ACOE. The application for the "404" permit was prepared and submitted using the joint state of Idaho/ACOE application form. Instream enhancement and streambank stabilization alternatives would also involve deposition of fill material into the Yankee Fork and thus would also be subject to Section 404 requirements (under a "general" or "nationwide" 404 permit). The Corps 404 permit was issued in early August, 1987.

Fill and excavation activities associated with each project alternative would not alter or modify the course, location, condition or capacity of the Yankee Fork. The proposed action, however, would divert some flow from the main river channel over short stretches of the river.

Table 11

PERMITS AND APPROVALS
NEEDED FOR THE YANKEE FORK
ENHANCEMENT PROJECT

<u>Agency</u>	<u>Permit/Approval</u>
FEDERAL	
Army Corps of Engineers (Joint Application with the Idaho Department of Water Resources)	Section 404 Permit
U.S. Forest Service	- o Common Minerals Permit - o Road Use Permit - o Industrial Campground Permit - o Memorandum of Understanding
Fish and Wildlife Service	Informal "Section 7" consultation
STATE	
Idaho Department of Water Resources (Joint Application with the U.S. Army Corps of Engineers)	Stream Alteration Agreement
Idaho Department of Water Resources	Water Rights Permit
Idaho Department of Health and Welfare	401 Water Quality Certification
LOCAL/COUNTY -	None required.

The Yankee Fork is not considered a navigable water as defined under the River and Harbors Act of 1899 (Olson 1987). As such, the project alternatives are not subject to a "Section 10" permit under this act.

No federal rights-of-way or rights-of-way permits are required for any of the project alternatives. However, the proposed development will need permits from the Forest Service for the following activities (Johnson, pers. comm. 1987):

- o Mining/extracting rip-rap from Forest Service Lands (Common Minerals Permit)
- o Utilizing Forest Service Roads for hauling of construction equipment and materials (Road Use permit)
- o Camping of construction workforce personnel at non-designated campgrounds (Industrial Campground permit)

Application for the first two permits have been submitted to the USFS. The application for the latter permit is being held pending a determination of where the workforce will be located. In addition, a Memorandum of Understanding (MOU) with the USFS will be required for performing work on Federal land.

Informal consultation under Section 7 of the Endangered Species Act was initiated (Howard, pers. comm. 1987) and the Boise Field Office indicated that no formal consultation will be required for any of the proposed project alternatives due to the unlikely presence of T&E species in the Yankee Fork drainage (see Section 3.4.3).

3.11.2 State Permits and Approvals

The IDWR requires a Stream Channel Alteration Permit for any instream activity, including dredging, filling, placement of structures, bank stabilization, and heavy equipment operation below the mean high water mark. Thus, this permit is applicable to each of the project alternatives. As stated above, a joint IDWR/ACOE application was submitted to both agencies for these permits. The IDWR Stream Channel Alteration Permit was issued July 13, 1987.

As a condition for receiving a Stream Channel Alteration Permit for any of the project alternatives, the IDH&W must first issue a 401 Water Quality Certification indicating concurrence that no adverse impacts to water quality are expected.

The IDWR also requires a permit to divert and appropriate waters of the state of Idaho. This permit is thus applicable to the proposed action. Individual water rights permit applications were submitted for each of the four pond series associated with the proposed action. The applications were for the diversion of both surface and groundwater and include the following quantities: PS-1 - 5 cfs surface and 10 cfs groundwater; PS-2 - 5 cfs surface; PS-3 - 5 cfs surface, 5 cfs groundwater; PS-4 - 5 cfs surface, 5 cfs groundwater. These amounts are non-consumptive with the flows returned to the Yankee Fork at each respective outlet. The diversion permits are necessary to insure a continuous flow of water into each pond series.

3.11.3 County Permits or Approvals

The county has no general land use plan or zoning ordinances applicable to this project (Bloxham, pers. comm. 1987). Additionally, no county permit or approvals are needed; building permits are not required since the project alternatives do not involve the construction of buildings.

Chapter 4

RECOMMENDATIONS

The proposed action of developing off-channel rearing habitat in the Yankee Fork of the Salmon River will increase its chinook smolt production and adult return potential by about 22% over existing levels. The action is in concert with the IDF&G's plans for increasing chinook runs back to historic levels and is consistent with the directives of Section 704(d)(1) of the NWPPC's Fish and Wildlife Program. Further, the proposed action will serve as off-site mitigation for anadromous fish losses resulting from Snake and Columbia River hydroelectric developments.

The major construction-related impacts of the project include:

- o Permanent loss of about 0.9 acres of wetlands associated with construction of connecting channels, and temporary disturbances of an additional 0.4 acres resulting from construction access;
- o Potential for temporary increases in turbidity and sediment in the Yankee Fork related to construction of inlet and outlet structures;
- o Potential for temporary disturbances of wildlife adjacent to project construction sites;
- o Short-term increase in local traffic and recreational use (fishing, camping, etc.) during the construction period related to construction workforce;
- o Potential for exposure and transport of metal-laden sediments into the main Yankee Fork through excavation of dredge piles and flow augmentation through ponds.

Operationally, the pond developments would result in a small reduction in main Yankee Fork flow (up to 15 cfs) downstream from the channel inlets to points of return flow. However, the diversions are non-consumptive with essentially all water returned at the pond outlets.

Overall, the impacts associated with the construction and development of the proposed action are considered insignificant. Most of the potential impacts will either be mitigated for, or they will have no effect on the environment due to their temporary nature. Thus, BPA's proposal to fund construction, operation and maintenance of the off-channel rearing ponds does not constitute a major Federal action significantly affecting the quality of the human environment.

Chapter 5

CONSULTATION AND COORDINATION

FEDERAL AGENCIES

U.S. Forest Service, Clayton, Idaho
R. Cullinane
G. Johnson
P. Green

U.S. Forest Service, Challis, Idaho
W. Somes
W. Savitch

U.S. Army Corps of Engineers, Walla Walla, WA
B. Daley

U.S. Army Corps of Engineers, Boise, Idaho
J. Olson

U.S. Environmental Protection Agency
W. Scarborough
D. Martin

U.S. Fish and Wildlife Service, Boise, Idaho
R. Howard
R. Heberger
J. Wolflin

U.S. Bureau of Land Management, Boise, Idaho
T. Maylee

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J. Davis
M. Reingold

Idaho Department of Fish and Game, Stanley, Idaho
G. Gadwa

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S. Huffaker
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M. McMasters
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J. Yoder
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G. Saxton
E. Ballou
D. Tuthill

Idaho Department of Water Resources, Twin Falls, Idaho

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Idaho Department of Parks and Recreation

Merl Mews

LOCAL AGENCIES

Custer County Building Department

R. Bloxham

OTHERS

Simplot Minerals and Chemical Division

R. Kimball
R. Graves
J. R. Simplot

J. Smith (Landowner)

R. Lothrop (Landowner)

Chapter 6

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APPENDIX A
AGENCY CONSULTATION



STATE OF IDAHO

DEPARTMENT OF HEALTH AND WELFARE 734-9520

DIVISION OF ENVIRONMENT
P. O. Box 1626
Twin Falls, ID 83303-1626

February 11, 1987

Carl Richards
The Shoshone-Bannock Tribes
Fisheries Department
P. O. Box 306
Fort Hall, Idaho 82303

Re: Yankee Fork Fisheries Enhancement Project

Dear Carl:

Thank you for the opportunity to review the draft report for the Yankee Fork Fisheries Enhancement Project.

The Division of Environment's concern with this project centers upon activities during construction, as well as operation of the pond series, which might adversely impact Yankee Fork water quality. Specific comments are as follows:

Page 3-7 - "during low flow periods, the intergravel flows which feed these ponds can exceed 10 percent of the flow in the Yankee Fork". As you create additional channels linking ponds within a series, plus divert Yankee Fork flow through individual pond series (e.g., Pond Series 2, Pond Series 3) what will be the total flow diverted from the Yankee Fork during critical low flow periods? Will the permeability of constructed channels within each pond series be tested? Does Bechtel have any estimate of Yankee Fork flow that might be lost due to permeability of these channels? This permeability should be tested during any preliminary construction this summer. Data collected during construction of the first pond series should be evaluated by all concerned agencies prior to further construction.

EQUAL OPPORTUNITY EMPLOYER

Page 7-26 - "Potential for loss of river"

This section does not adequately address the concerns outlined in the above paragraph. How will permeability of the developed pond series be tested to insure that a substantial Yankee Fork flow is not lost underground through the dredge spoils. As the report indicates, such a loss of flow has occurred through dredge spoils in other dredge mining areas. What action will be taken by Bechtel or its contractors if it appears that permeability of constructed channels is causing a problem?

Page 7-27 - "Dewatering problems"

The report indicates that portions of the construction will have to be done "in the wet". All construction activities should be conducted in such a manner as to assure that turbidity and other water quality impacts are kept to a minimum. What best management practices will be used during construction to prevent such impacts, particularly if parts of the construction will be done in wet areas?

Also, the report indicates that rearing ponds will not be dewatered for cleaning. It has been our experience that the greatest impact of rearing ponds on water quality occurs during cleaning events when settled sludge is resuspended. What best management practices will be utilized during cleaning events to insure that no water quality impacts will occur?

There is also no discussion of considerations to insure that enhanced flows through the developed rearing ponds will not transport sediments, or sludge from a food supplemented pond, into the Yankee Fork.

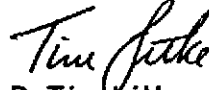
Page 9-7 "Operation and Maintenance"

As the report indicates, regardless of the direction the proposed development takes (e.g., supplemental feeding in certain rearing ponds, trapping and stripping of adult chinook, etc.) some maintenance will be required by individuals responsible for operation and maintenance of the facility. Should a NPDES permit be required or a water quality impact occur, who will be the legally responsible party for the operation? This responsibility should be determined before the pond series are developed. It appears from the report that it is only being assumed that Sawtooth Hatchery personnel will manage the facility.

February 11, 1987

We appreciate the opportunity to comment on this draft plan. If you have any questions regarding our comments, please call our office at 734-9520.

Sincerely,

A handwritten signature in cursive script, appearing to read "Tim Litke".

R. Tim Litke

Sr. Water Quality Specialist

RTL/ta



600 South Walnut • Box 25
Boise, Idaho 83707

February 12, 1987

Dr. Carl Richards
Shoshone-Bannock Tribes
P.O. Box 306
Fort Hall, ID 83203

Dear Carl:

Thank you for the opportunity to provide comments on the Feasibility Plan for the Enhancement of the Yankee Fork of the Salmon River.

The Idaho Department of Fish and Game fully supports efforts to enhance the natural production capacity of the Yankee Fork drainage. Measures to address the bottleneck of rearing habitat such as side channels, off channel rearing sites, and channel modification would be appropriate and effective. The Department fully intends to restore this drainage and provide reasonable levels of seeding through outplanting adults and fry. We feel that subjecting the stocks currently available to natural selection processes will result in the highest quality of returning adults. Should further supplementation be necessary, we feel that outplanting of smolts from existing hatchery facilities would be preferable to construction of hatchery facilities on Yankee Fork.

The use of existing ponds for artificial production would have at least two very serious problems. One is the difficulty of cleaning and maintaining this type of pond and maintaining adequate flows and circulation patterns. The build-up of waste products and wasted feed and the related disease and water quality problems can be very problematic, even within a rearing cycle. Annual cleaning and maintenance would be difficult, and problems increase with the age of the project. There is also a very distinct possibility that eye fluke would be a significant problem in any type of "low-tech" hatchery facility in this watershed.

There is an established put-and-take trout fishery in some of the dredge ponds and some reaches of the drainage. The use of existing dredge ponds for enhanced anadromous fish production should not be undertaken in those ponds where highly popular resident trout fisheries exist.

EQUAL OPPORTUNITY EMPLOYER

Dr. Carl Richards
February 12, 1987
Page 2

I hope that these general comments are useful. My staff will be happy to meet with you to discuss more specific points, but a detailed review of a document of this magnitude is impossible in the time frame available.

Sincerely,


David L. Hanson, Chief
Bureau of Fisheries

IDAHO STATE HISTORICAL SOCIETY
610 NORTH JULIA DAVIS DRIVE BOISE, 83702



HISTORIC PRESERVATION OFFICE
210 Main St.
(208) 334-3847

March 26, 1987

Mr. Dudley W. Reiser
Project Manager
Bechtel National, Inc.
P.O. Box 3965
San Francisco, California 94119

Dear Mr. Reiser:

Thank you for submitting to us the draft report for the Yankee Fork Fisheries Enhancement Project being funded by the Bonneville Power Administration for the Shoshone-Bannock Tribes of Fort Hall, Idaho. We apologize for our tardy response.

Following a review of the report, we agree that the dredge ponds no doubt have destroyed significant Indian sites along the river and, in this case, have determined the project will not affect cultural resources. This is assuming the project will be implemented completely within the dredged area, since additional Indian sites and historic mining sites do occur in the Yankee Fork drainage and could potentially be disturbed by the project.

Thank you again for the opportunity to comment on this project.

Sincerely,

Thomas J. Green
Deputy State Historic
Preservation Officer

TJG/bhd



600 South Walnut • Box 25
Boise, Idaho 83707

April 24, 1987

Dr. Carl Richards
Shoshone-Bannock Tribes
P.O. Box 306
Fort Hall, ID 83203

Dear Carl:

Based on the meeting with Bechtel National held to review the feasibility study for the Yankee Fork, we are encouraged that this project can go forward and have positive benefits for anadromous fish. We are pleased that the alternative to maximize natural production was the one selected.

It appeared at the meeting there was some concern over a potential conflict between enhanced production for anadromous fish and the existing resident trout program. Upon reviewing the resident fish stocking records in the ponds in that area, we are convinced there will be no conflict. We will be able to continue to provide a resident trout fishery in some ponds during the time period when demands for that type of fishing are high without impacting anadromous fish production.

Please let me know if there are any additional questions or concerns that arise over this project.

Sincerely,

Steve Huffaker
Anadromous Fishery Coordinator

cc: Mel Reingold

DUDLEY W. REISER

EQUAL OPPORTUNITY EMPLOYER

MAY 06 1987



STATE OF IDAHO

DEPARTMENT OF HEALTH AND WELFARE 734-9520

DIVISION OF ENVIRONMENT
P. O. Box 1626
Twin Falls, ID 83303-1626

May 11, 1987

Dudley W. Reiser
Bechtel National, Inc.
P. O. Box 3965
San Francisco, CA 94119

Re: Jordan Creek Water Quality Monitoring Data

Dear Mr. Reiser:

Our office was contacted by Mr. Bill Self of Bechtel National, Inc. on May 4, 1987 regarding water quality data for the Yankee Fork or Jordan Creek.

The Division of Environment has limited water quality data on these creeks. As I have indicated in previous meetings on the Yankee Fork project, the only data we have is on Jordan Creek. These data were collected in October 1986 as part of our effort to obtain baseline data to monitor the impact of the Sunbeam project on Jordan Creek water quality. A copy of this information is enclosed for your review. Sunbeam Mining Company has initiated its own monitoring program on Jordan Creek involving quarterly water quality and benthic invertebrate sampling. They might be willing to provide this information to other interested parties.

Other sources of information on Yankee Fork or Jordan Creek water quality might include the Challis National Forest, James M. Montgomery Consulting Engineers, and Ralston and Associates.

If you have any questions then please call.

Sincerely,

A handwritten signature in cursive script, appearing to read "Tim Litke".

R. Tim Litke
Sr. Water Quality Specialist

RTL/ta
Enclosure

DUDLEY W. REISER

MAY 13 1987

Jordan Creek Pre-Survey Data - October 9, 1986
DOE Twin Falls Field Office

Sample Station	Time (hours)	Temp. (°C)	Flow (cfs)	Sp. Conduct. (umhos/cm)	Dissolved Oxygen (mg/l)	pH	T. Ammonia as N (mg/l)	T. Nitrate as N (mg/l)
S-1	1050	2.4	1.18	95	8.2	8.85	0.015	0.048
S-2	1030	2.2	1.5	98	8.2	8.6	0.02	0.069
S-2A	1000	2	3.82	89	8.6	8.55	0.003	0.022
S-3	930	2	5.41	97	8.6	8.78	0.013	0.026
S-4	900	2	4.82	97	8.7	8.58	0.013	0.128
S-5	830	2.5	6.13	99	8.3	8.41	0.008	0.016

Sample Station	Hardness as CaCO ₃ (mg/l)	T. Alkalinity as CaCO ₃ (mg/l)	Chloride (mg/l)	Turbidity (NTU)	Total CN (mg/l)	WAD CN (mg/l)	Total Arsenic (ug/l)	Total Cadmium (ug/l)
S-1	36	38	2.5	<1	<0.005	<0.005	<10	<1
S-2	36	36	1.67	<1	<0.005	<0.005	<10	<1
S-2A	36	34	1.67	<1	<0.005	<0.005	<10	<1
S-3	36	35	2.5	<1	<0.005	<0.005	<10	<1
S-4	36	34	2.5	<1	<0.005	<0.005	<10	<1
S-5	36	37	1.67	<0.005	<0.005	<0.005	<10	<1

Sample Station	Total Copper (ug/l)	Total Lead (ug/l)	Total Mercury (ug/l)	Total Silver (ug/l)	Total Zinc (ug/l)	Suspended Sediment (mg/l)
S-1	<10	<50	<0.5	<1	<1	2
S-2	<10	<50	<0.5	<1	<1	4
S-2A	<10	<50	<0.5	<1	<1	2
S-3	<10	<50	<0.5	<1	<1	<2
S-4	<10	<50	<0.5	<1	<1	2
S-5	<10	<50	<0.5	<1	3	<2

Station	Distance above Yankee Fork confluence (mi)
S-1	6.6
S-2	6.35
S-2A	3.9
S-3	3.7
S-4	3.25
S-5	1.7



United States Department of the Interior

FISH AND WILDLIFE SERVICE

BOISE FIELD OFFICE
4696 Overland Road, Room 576
Boise, Idaho 83705

June 2, 1987

Bechtel National, Inc.
Attn: Dudley W. Reiser, Project Manager
P.O. Box 3965
San Francisco, California 94119

Dear Mr. Reiser:

Re: 1-4-87-SP-254

This responds to your letter of May 4, 1987 concerning the Executive Summary of the Final Feasibility Plan for the Enhancement of the Yankee Fork of the Salmon River in Custer County, Idaho. We are providing a list of threatened and endangered species (Attachment A) that may be impacted by this project. This list fulfills the requirements of the Fish and Wildlife Service under Section 7(c) of the Endangered Species Act (ESA) of 1973, as amended.

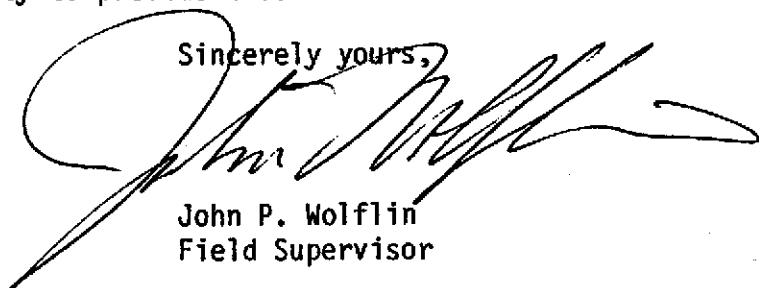
Attachment B lists the continuing responsibilities of the Forest Service as described in Section 7(a) and (c) of the ESA.

Additional information on Federally listed and candidate species and State species of special concern is available through the Idaho Natural Heritage Program, Attn: Craig Groves, Program Coordinator, 4696 Overland Road, Room 576, Boise, Idaho 83705, phone 334-3402.

If there are any questions regarding your responsibilities under the ESA, please contact Jay Gore at the above address or by phone at 334-1806.

Thank you for the opportunity to provide these comments.

Sincerely yours,



John P. Wolflin
Field Supervisor

Attachments

cc: FWS, AFWE-SE, Portland
IDFG, Hdqtrs., Boise
IDFG, Region 6, Idaho Falls

DUDLEY W. REISER

JUN 5 1987

Attachment A

LISTED AND PROPOSED ENDANGERED AND THREATENED
SPECIES, AND CANDIDATE SPECIES, THAT MAY OCCUR
WITHIN THE YANKEE FORK OF THE SALMON RIVER
IN CUSTER COUNTY, IDAHO
FWS-1-4-87-SP-254

Listed Species

Comments

Gray Wolf (Canis lupus)

Proposed Species

None

Candidate Species

None

FEDERAL AGENCIES' RESPONSIBILITY UNDER SECTIONS 7(a) and (c)
OF THE ENDANGERED SPECIES ACT

SECTION 7(a) - Consultation/Conference

Requires: 1) Federal agencies to utilize their authorities to carry out programs to conserve endangered and threatened species;

2) Consultation with FWS when a Federal action may affect a listed endangered or threatened species to insure that any action authorized, funded or carried out by a Federal agency is not likely to jeopardize the continued existence of listed species; or result in destruction or adverse modification of critical habitat; and

3) Conference with FWS when a Federal action is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat.

SECTION 7(c) - Biological Assessment for Major Construction Activities^{1/}

Requires Federal agencies or their designees to prepare Biological Assessment (BA) for major construction activities. The BA analyzes the effects of the action on listed and proposed species. The process begins with a Federal agency in requesting from FWS a list of proposed and listed threatened and endangered species (list attached). The BA should be completed within 180 days after its initiation (or within such a time period as is mutually agreeable). If the BA is not initiated within 90 days of receipt of the species list, the accuracy of the list species should be informally verified with Service. No irreversible commitment of resources is to be made during the BA process which would foreclose reasonable and prudent alternatives to protect endangered species. Planning, design, and administrative actions may be taken; however, no construction may begin.

We recommend the following for inclusion in the BA: an onsite inspection of the area to be affected by the proposal which may include a detailed survey of the area to determine if the species are present; a review literature and scientific data to determine species' distribution, habitat needs, and other biological requirements; interviews with experts, including those within FWS, State conservation departments, universities and others who may have data not yet published in scientific literature; an analysis of the effects of the proposal on the species in terms of individuals and populations, including consideration of cumulative effects of the proposal on the species and its habitat; an analysis of alternative actions considered. The BA should document the results, including a discussion of study methods used, any problems encountered, and other relevant information. The BA should conclude whether or not a listed or proposed species will be affected. Upon completion, the BA should be forwarded to our office.

1/ A major construction activity is a construction project (or other undertaking having similar physical impacts) which is a major action significantly affecting the quality of human environment as referred to in the NEPA (42 U.S.C. 4332 (2)(c)).

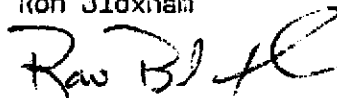
June 13, 1987

To whom it may concern,

I have reviewed the Feasibility Plan for the Enhancement of the Yankee Fork of the Salmon River prepared by Bechtel Environmental, Inc. and have found it to be a very interesting and worthwhile project. This counties building department has no problem with such projects as this. This project will require no building permit from the county because there is no residential type structures involved.

Yours truly,

Ron Bloxham

A handwritten signature in dark ink, appearing to read "Ron Bloxham", with a stylized flourish at the end.

Custer County Bldg. Inspector

Box 359

Challis, Idaho 83226

DUDLEY W. REISER

JUN 23 1987



United States Department of the Interior

FISH AND WILDLIFE SERVICE

BOISE FIELD OFFICE
4696 Overland Road, Room 576
Boise, Idaho 83705

July 9, 1987

Roy B. Fox
Office of Power Marketing
Bonneville Power Administration
P.O. Box 3620
Portland, Oregon 91208-3621

Re: 1-4-87-I-322

Dear Mr. Fox:

We have reviewed your biological evaluation (which was transmitted to us by your June 30, 1987 letter) for the Yankee Fork Fishery Enhancement Project as it relates to the endangered gray wolf. We concur that the fisheries project will not affect the wolf.

Thank you for the copy of the biological evaluation.

Sincerely yours,

John P. Wolflin
Field Supervisor

cc: FWS, AFWE-SE, Portland
IDFG, Hdqtrs., Boise
IDFG, R-6, Salmon

The SHOSHONE-BANNOCK TRIBES

FORT HALL INDIAN RESERVATION
PHONE (208) 238-3748
(208) 238-3900
(208) 238-3808



FISHERIES DEPARTMENT
P. O. BOX 306
FORT HALL, IDAHO 83203

5 August 1937

Challis National Forest
ATTN: Mr. Jack Griswold, Forest Supervisor
P.O. Box 404
Challis, Idaho 83226

Dear Mr. Griswold:

Enclosed is a signed copy of a Memorandum of Understanding between the Shoshone-Bannock Tribes and the Challis National Forest. The Tribes look forward to working with the CNF to rebuilding anadromous fish stocks and thank you for your attention to this matter.

If I can be of any help, please feel free to call me at (208) 238-3748.

Sincerely,

Carl Richards
Project Leader

CR/les

cc: files

COOPERATIVE AGREEMENT
FOR TRIBAL/FOREST SERVICE ANADROMOUS FISH HABITAT MANAGEMENT

Challis National Forest
Shoshone-Bannock Indian Tribe

This Memorandum of Understanding by the Shoshone-Bannock Tribe, hereinafter called the Tribe, and the Challis National Forest, Forest Service, U.S. Department of Agriculture, hereinafter called the Forest Service, for the purpose of:

Developing Habitat for anadromous fish on the Yankee Fork of the Salmon River.

WHEREAS, the Forest Service and Tribe recognize each other's interest in the protection, perpetuation, and management of anadromous fish habitat in the Tribe's ceded area within the National Forest, and

WHEREAS, both parties recognize that the Federal, state, and Tribal governments have a role in the management of anadromous fish resources, and

WHEREAS, it is the desire of the parties to cooperate in developing, maintaining, and managing anadromous fish habitat in the interest of the Tribe, and other citizens of the State of Idaho and of the United States.

NOW THEREFORE:

A. The Forest Service agrees:

1. To allow the Tribe to install habitat structures and do habitat work adjacent to Simplot property on National Forest System lands. The project is described in Bechtel National, Inc. "Feasibility Plan for the Enhancement of the Yankee Fork of the Salmon River."

B. The Tribe agrees:

1. To complete the project according to applicable laws and regulations. Which includes NEPA process.

C. The Tribe and Forest Service mutually agree:

1. That nothing in this agreement shall be construed as obligating the Tribe or the Forest Service in the expenditure of funds or for future payment in excess of appropriations authorized by law.

2. That nothing herein contained shall be construed as limiting or affecting in any way the authority of the Tribe, Forest Service, or any other agency.

3. That nothing in this agreement is intended to preclude communications by the Tribe with other administrative levels of the Forest Service.

7/6/87
Date

BY

[Signature]
Forest Supervisor, Challis National Forest

8/4/87
Date

BY

[Signature]
Tribal Chairman, Shoshone-Bannock Tribe

APPENDIX B

BIOLOGICAL EVALUATION OF THE GRAY WOLF
(Canis lupus irremotus)

**BIOLOGICAL EVALUATION
NORTHERN ROCKY MOUNTAIN GRAY WOLF**

Proposed Action: Construction and Operation of Yankee Fork Fishery Enhancement Project

Prepared by: David Cornman
Senior Ecologist
Bechtel Environmental, Inc.
San Francisco, California

Date: June 26, 1987

I. Introduction

The purpose of this Biological Evaluation is to determine whether the proposed Yankee Fork Fishery Enhancement Facility will effect the northern Rocky Mountain gray wolf species. This will ensure compliance with provisions of the Endangered Species Act of 1973 (P.L. 93-205[stat. 884]), as amended.

II. Description of Proposed Action

The Bonneville Power Administration (BPA) proposes to fund anadromous fish enhancement activities on the Yankee Fork of the Salmon River in Idaho to be implemented by the Shoshone-Bannock Indian Tribes (SBIT). The proposed activities would develop several off-channel ponds to provide additional rearing habitat in the Yankee Fork and partially mitigate historic salmon population declines throughout the salmon drainage due to hyroelectric and mining developments.

The Yankee Fork of the Salmon River, located in Custer County, Idaho, historically supported large runs of anadromous salmonids, primarily spring chinook salmon (Oncorhynchus tshawytscha) and steelhead trout (Salmo gairdneri). Dredge mining activities have rechannelized lower portions of the Yankee Fork leaving stream-side deposits of unconsolidated dredge spoils. The dredging has also created over 30 off-channel ponds, many of which receive sub-surface flow from the main Yankee Fork. The dredge mining has reduced available rearing habitat in the Yankee Fork such that its present production potential is well below historic levels.

The proposed development will be accomplished by connecting selected ponds to the mainstem Yankee Fork thereby affording fish access to the habitat. Four separate pond series (PS-1 through PS-4) each continuing from 3 to 7 ponds were proposed for development. Collectively, the ponds entail about 3.8 surface acres corresponding to 15.3 acre-ft (668,136 ft³) of water. The maximum depth of the ponds ranges from 2.5 to 13 ft deep; pond areas range from 0.05 to 0.61 acres. Three of the four pond series would have both inlet and outlet connections to the Yankee Fork, although in two of these, the inlets are via intake pipes and not direct channel connections. The channel connections will afford an access portal for juvenile chinook and steelhead to move into and use the new rearing habitat. Full seeding of the ponds should

increase chinook smolt production by about 22% over existing levels (from about 90,000 to 115,000) and provide an adult return of over 900m fish to the drainage (assuming a smolt to adult return rate of 0.80%); 200 more than from existing habitat conditions. The Idaho Department of Fish and Game (IDFG) has endorsed and supported the proposed development (Hufaker, 1987), and further, has indicated it will assist in the initial stock of the ponds with fingerlings from the Sawtooth Hatchery. This will accelerate the build-up of runs into the system and will help determine future pond loading potential. The IDFG will also assist the SBIT in the future monitoring and evaluation of the ponds and SBIT (with financial support from BPA) will have the responsibility for the operation and maintenance (O&M) of flow-control structures and check dams.

III. Determination of Effects

Management Guidelines for the Northern Rocky Mountain Gray Wolf have not yet been finalized for Idaho, although a draft recovery plan is currently being reviewed.

Significant habitat for gray wolves and their primary prey species (elk, mule deer) does not occur in the proposed project area (Howard, pers. comm. 1986, 1987; USDA 1984). Destruction of riparian habitat by historic gold dredging operations and steep, narrow nature of the Yankee Fork drainage have greatly reduced available big game habitat in the project area. Elk summer ranges do occur approximately 10 miles west and northwest of the project area and have only rarely been observed along the Yankee Fork drainage (USDA 1984). Mule deer winter along the Yankee Fork and steep south-facing slopes along the Salmon River, but are not expected in significant numbers in the project area during the August-September construction periods.

Confirmed sightings of gray wolves have occurred only three times from 1919 to 1981 in Idaho (USDA 1984) and none of these were in the Yankee Fork drainage. Gray wolves could potentially pass through the drainage, and more likely in fall and winter than in spring and summer (Howard, pers. comm. 1987). The principal population center of wolves is believed to be approximately 40-60 miles west of the Yankee Fork (Howard, pers. comm. 1986). A number of recent unconfirmed, probable sightings have been recorded in the drainage (Table 1). The closest of these sightings to the project area were near the Lucky Boy Mine about three miles northwest of the project area and at Preacher's Cove about one mile northeast of the project area. It has been over five years since the last reported sighting of a wolf in the Yankee Fork drainage (Groves, pers. comm. 1987).

The proposed action will not jeopardize the continued existence of the gray wolf nor threaten recovery efforts being planned. The level of habitat disturbance along the Yankee Fork (less than five acres) will not significantly reduce the habitat available to possible transient wolves or their prey species, and hence will not effect either. Because wolves do not use the Yankee Fork drainage for denning and raising pups, no effects on wolf reproduction will occur. The short-term nature of the proposed construction activities (two months) and its late summer schedule significantly reduces the change of any human encounters with possible transient wolves.

Table 1

**RECENT^{1/} WOLF SIGHTINGS IN THE VICINITY OF
THE YANKEE FORK FISHERY ENHANCEMENT PROJECT**

<u>Date</u>	<u>Legal Description</u>	<u>Location</u>	<u>Rating</u> ^{2/}
June 1947	T.11N., R.11E., Sec. 10	Near Trap Creek, 10 mi. N. Grandjean	Tracks observed, highly probable
Mar. 1974	T.12N., R.11E., Sec. 13	Near Cape Horn on Knapp Creek	Probable sighting
Sept. 1977	T.14N., R.11E., Sec. 13	Near confluence of Drop Creek with Rapid River	Probable sighting
May 1980	T.11N., R.12E., Sec. 14	Near Lowman-Stanley highway on Park Creek	Probable sighting
Aug. 1980	T.14N., R.13E., Sec. 6	Near Pinyon Peak Lookout on ridge at dusk	Probable sighting
Oct. 1980	T.11N., R.12E., Sec. 22	Near Dry Creek in Stanley Basin area	Highly probable sighting (2 wolves)
May 1981	T.13N., R.17E., Sec. 2	Near Fanny's Hole and Custer Motorway on Mill Creek	Probable sighting
June 1981	T.12N., R.13E., Sec. 10	Hindman Lake area near West Fork Yankee Fork	Tracks observed, probable
June 1981	T.12N., R.15E., Sec. 15	Several places in vicinity of Luckey Boy Mine	Probable sighting
June 1981	T.12N., R.15E., Sec. 20	Near millsite in Preacher's Cove area	Probable sighting
Aug. 1981	T.13N., R.16E., Sec. 23	On Elevenmile Creek near Yankee Fork	Scat collected, probable

^{1/} Sightings are through September 1986 (Groves, pers. comm. 1987)

^{2/} All sightings are of lone wolves except where noted.

Source: USDA 1984

Based on these findings, BPA believes that the Yankee Fork Fishery Enhancement project will have no effect on gray wolf feeding, denning or movements in the vicinity of the project site.

Chapter 7

REFERENCES

Groves, C. 1987. Personal communication. Idaho Heritage Program, Boise, Idaho. Telephone conversation of June 19, 1987.

Howard, R. 1986. Personal communication. Section 7 Coordinator, U.S. Fish and Wildlife Service, Boise, Idaho. Telephone conversation of October 16, 1986.

Howard, R. 1987. Personal communication. Section 7 Coordinator, U.S. Fish and Wildlife Service, Boise, Idaho. Telephone conversation of May 6 and June 1, 1986.

Huffaker, S. 1987. Personal communication. Anadromous Fisheries Coordinator, Idaho Department of Fish and Game. Letter of April 24, 1987.

U.S. Department of Agriculture (USDA). 1984. Final Environmental Impact Statement, Sunbeam Mining Project, Custer County, Idaho. U.S. Forest Service, Challis National Forest, Region Four.