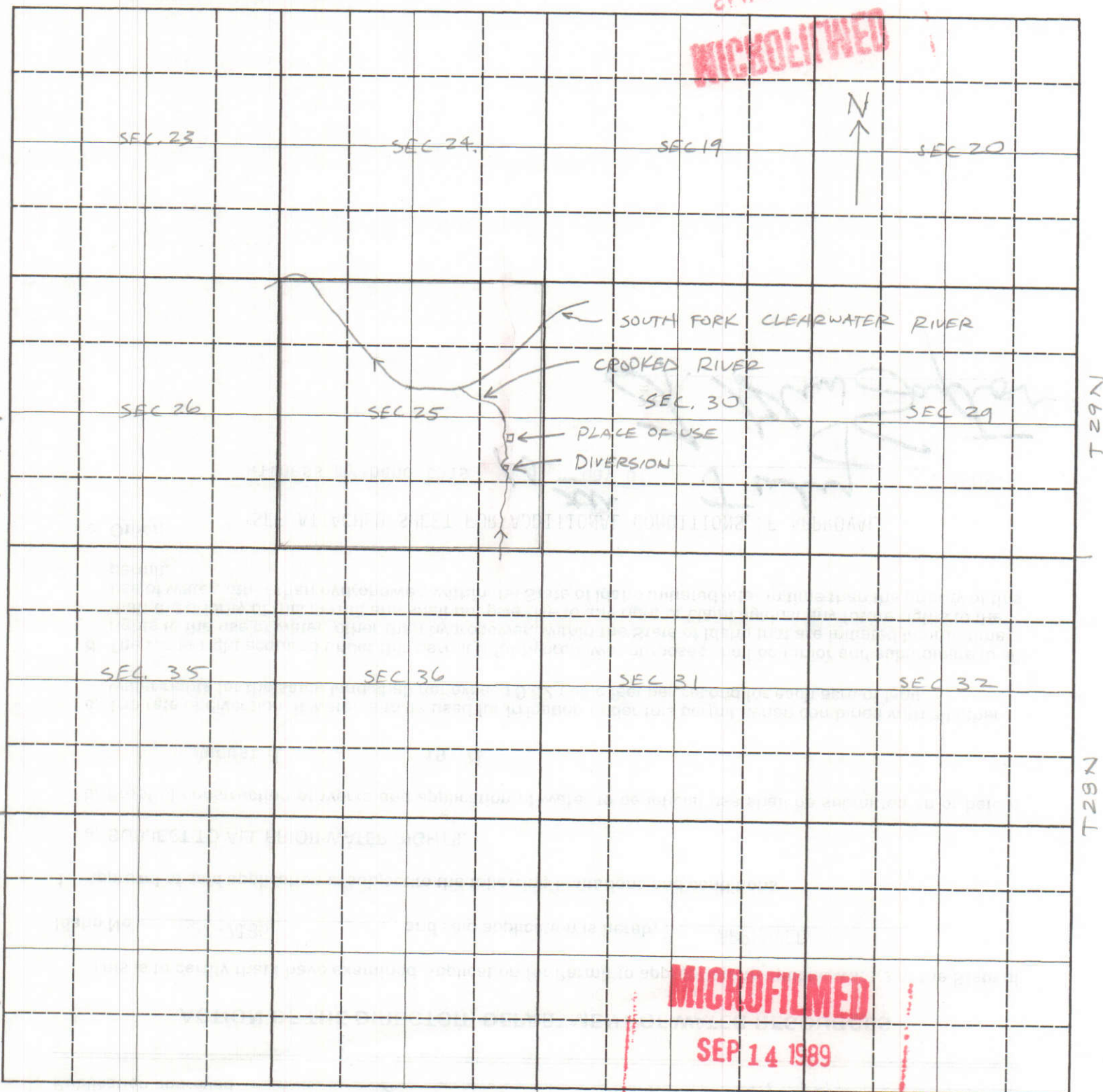


13. Map of proposed project: show clearly the proposed point of diversion, place of use, section number, township and range number.

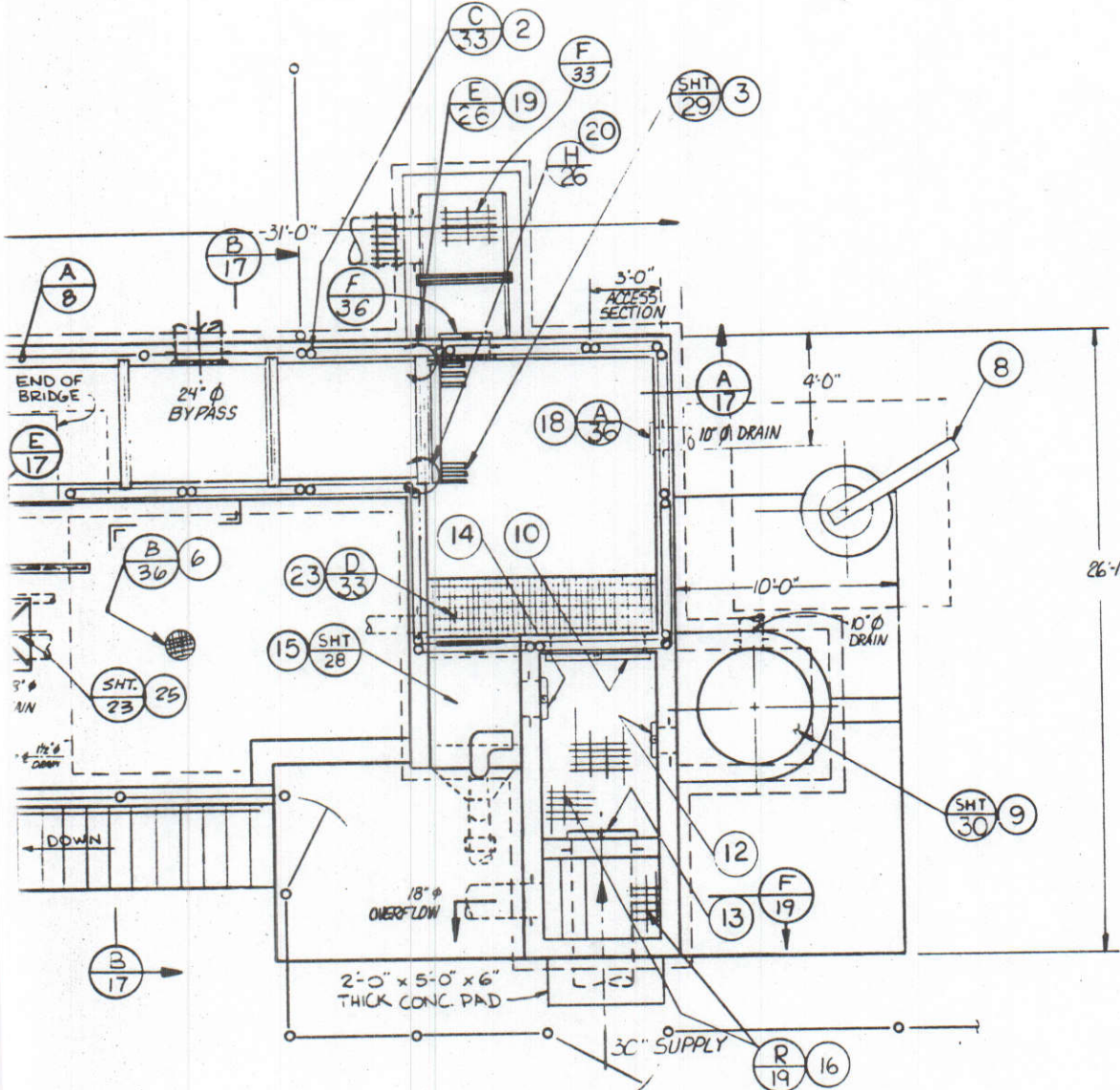


Scale: 2 inches equal 1 mile.

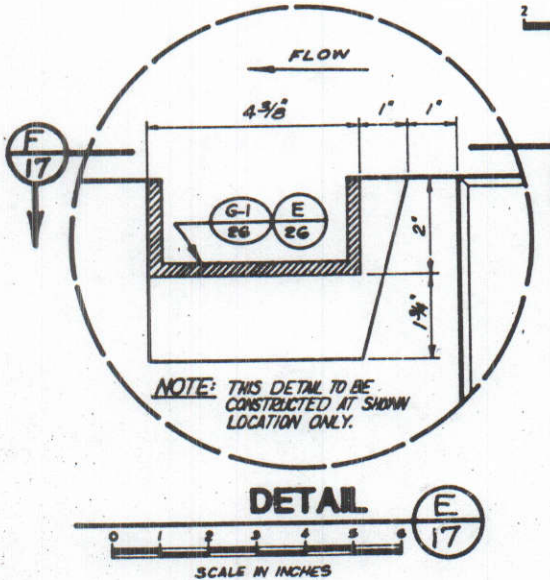
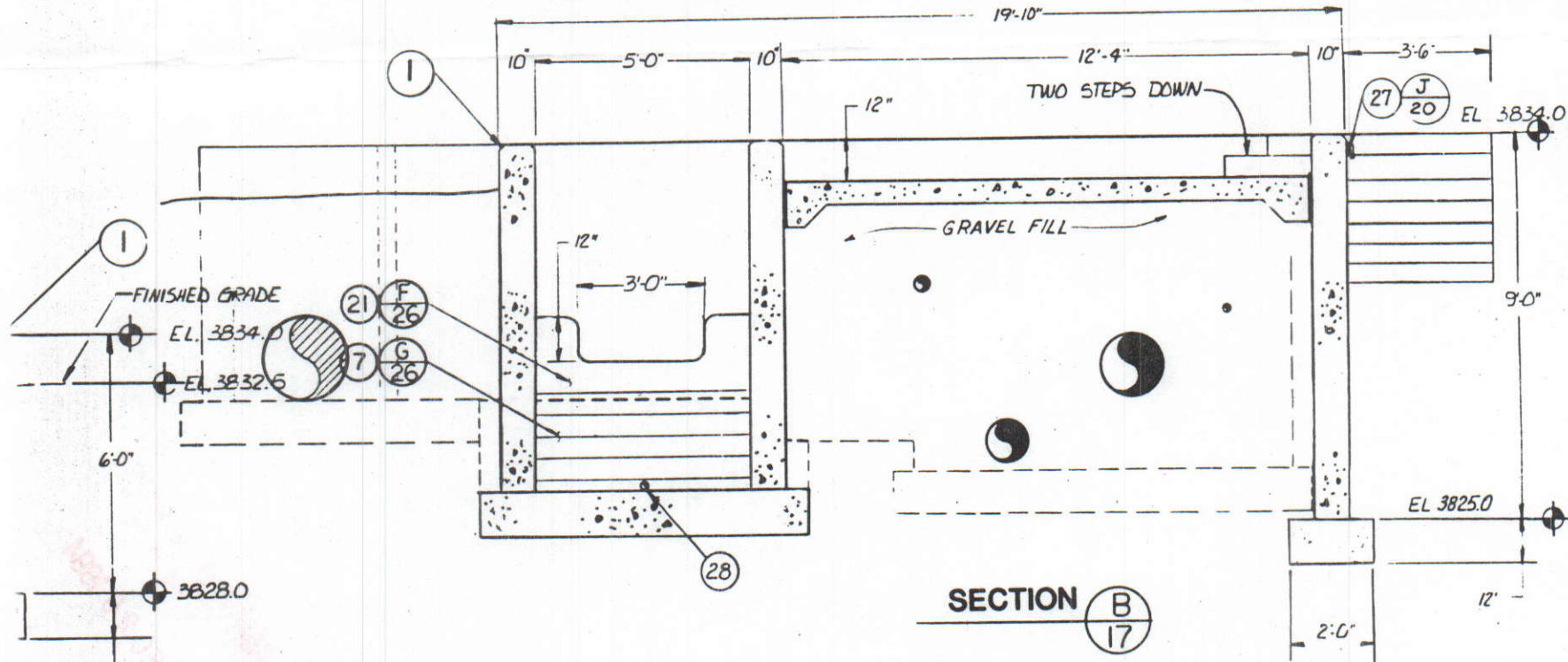
BE IT KNOWN that the undersigned hereby makes application for permit to appropriate the public waters of the State of Idaho as herein set forth.

Pho Jones for Id. F#6.
(Applicant)
Engineering Supervisor

NOTES



- 3/4" x 45° CHAMFER TYPICAL AT ALL EXPOSED CONCRETE EDGES.
- JUMP FENCE SOCKETS, SEE DET. "C" ON SHT. 33.
- FINGER WEIR, SEE SHT. 29.
- BRIDGE, SEE SHT. 22.
- BARRIER SUPPORT, SILL-LOCK, SEE DET. "E" ON SHT. 33.
- FLOOR DRAIN, SEE DET. "B" ON SHT. 36.
- STOP LOG, SEE DET. "G" ON SHT. 26.
- JIB CRANE, AND ELECTRIC TROLLEY HOIST (NOT SHOWN)
12' SPAN, 18'-0" HT, 2-TON CAPACITY. SEE SPECS.
- FISH TRANSFER TANK, SEE SHTS. 30 AND 31.
- "WATERMAN" 48" X 18" "SENTINEL" GATE WITH 2" NUT, FLUSH BOTTOM SEAL AND NON-RISING STEM OR APPROVED EQUAL. SEE DET. "C" ON SHT. 36.
- "WATERMAN" 18" X 18" "SENTINEL" GATE WITH 2" NUT AND NON-RISING STEM OR APPROVED EQUAL. SEE DET. "F" ON SHT. 36.
- "WATERMAN" 12" X 12" "SENTINEL" GATE WITH 2" NUT, FLUSH BOTTOM SEAL AND NON-RISING STEM OR APPROVED EQUAL. SEE DET. "D" ON SHT. 36.
- "WATERMAN" 30" X 30" "SENTINEL" GATE WITH 2" NUT, FLUSH BOTTOM SEAL AND NON-RISING STEM OR APPROVED EQUAL. SEE DET. "E" ON SHT. 36.
- "WATERMAN" 18" X 18" "SENTINEL" GATE WITH 2" NUT, FLUSH BOTTOM SEAL AND NON-RISING STEM OR APPROVED EQUAL. SEE DET. "G" ON SHT. 36.
- FALSE WEIR, SEE SHT. 28.
- FIBERGLASS GRATINGS, SEE DET. "R" ON SHEET 82.
- OUTLET SCREEN, SEE DET. "A" ON SHT. 26.
- OUTLET GRATE, SEE DET. "A" ON SHT. 36.
- STOP LOG GUIDE, SEE DET. "E" ON SHT. 26.
- STOP LOG GUIDE, SEE DET. "H" ON SHT. 26.
- ALUMINUM WEIR, SEE DET. "F" ON SHT. 26.
- REMOVABLE JUMP FENCE, SEE DET. "A" ON SHT. 33.
- TRAP 'UPWELL' GRATE. SEE DET. "D" ON SHT. 33.
- MP-101 SHT. PILING X 10'-0" L (GOVT FURNISHED).
- OVERHEAD HOIST BEAM & SUPPORTS, SEE SHT. 23.
- CONVEYOR BELTING 36" WIDTH, SEE DETAIL "A" ON SHT. 33.
- PIPE HAND RAIL, SEE SECTION "J" ON SHEET 20.
- 2" DIA. HOLE DRAIN HOLE TO BE LOCATED IN BOTTOM OF THE THREE LOWEST STEPS.
- CORNER SECTIONS OF SHEET PILING TO BE SUPPLIED BY CONTRACTOR.
- "WATERMAN" 12" X 12" "SENTINEL" GATE 1/2" NUT AND NON-RISING STEM, OR APPROVED EQUAL. SEE DETAIL "F" ON SHEET 36.



SECTION B-B

SCALE IN FEET

1/2" CHAINLINK SECURITY FENCE
REMOVABLE JUMP FENCE

NOV 18 1988	
B C O REVIEW	
DESIGNED: ED/RC	U.S. ARMY ENGINEER DISTRICT
DRAWN: K. BULLAW	PORT ORCHARD, WA.
CHECKED: ED/RC	WALLA WALLA, WASHINGTON
SUBMITTED:	
REVIEWED:	
APPROVED:	
DATE:	
LOWER SNAKE RIVER FISH AND WILDLIFE COMPENSATION PLAN	
CLEARWATER HATCHERY	
CROOKED RIVER SATELLITE FACILITIES	
ADULT TRAPPING FACILITY AND JUVENILE REARING FACILITY	
ADULT TRAP, SILL & ABUTMENT-GENERAL ARRANGEMENT	
SCALE AS SHOWN	INV. NO.
FILE NO.	
17	LSH-1-0-58/5

File 82-07185



US Army Corps
of Engineers
Walla Walla District

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41

Department of Water Resources

Lower Snake River Fish and Wildlife Compensation

Red River and Crooked River Satellite Facilities

Design Memorandum No. 18

Revised December 1987

**This report NOT FOR PUBLIC RELEASE.
Its contents are not to be used for AD-
VERTISING, PUBLICATION, OR PRO-
MOTIONAL PURPOSES.**

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DEC 20 1994

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No. 82-07185

1. Owner: Idaho Dept. Fish & Game

Phone No. 334-3730

Current Address: P.O. Box 25, Boise, ID 83707

2. Accompanied by: Jerry McGehee

EXAM. DATE: 8/7/91

Address: Rt 2 Box 121A Kamiah ID 83536

Phone No. 9352112

Relationship to Permit Holder: Dept. Rep

3. Source: Crooked River tributary to South Fork Clearwater River

B. OVERLAP REVIEW

1. Other water rights with same place of use: None

☐ Copies Attached

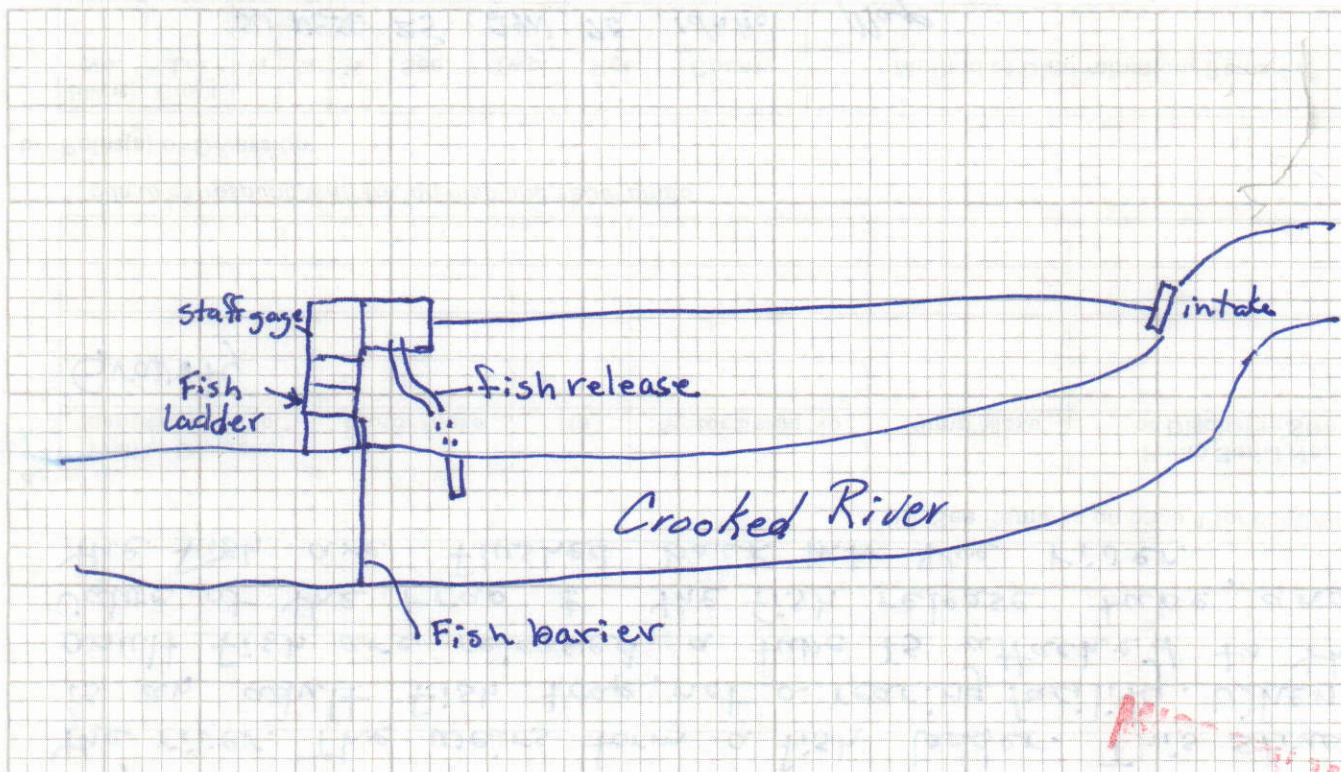
2. Other water rights with same point of diversion: None

☐ 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" = NTS

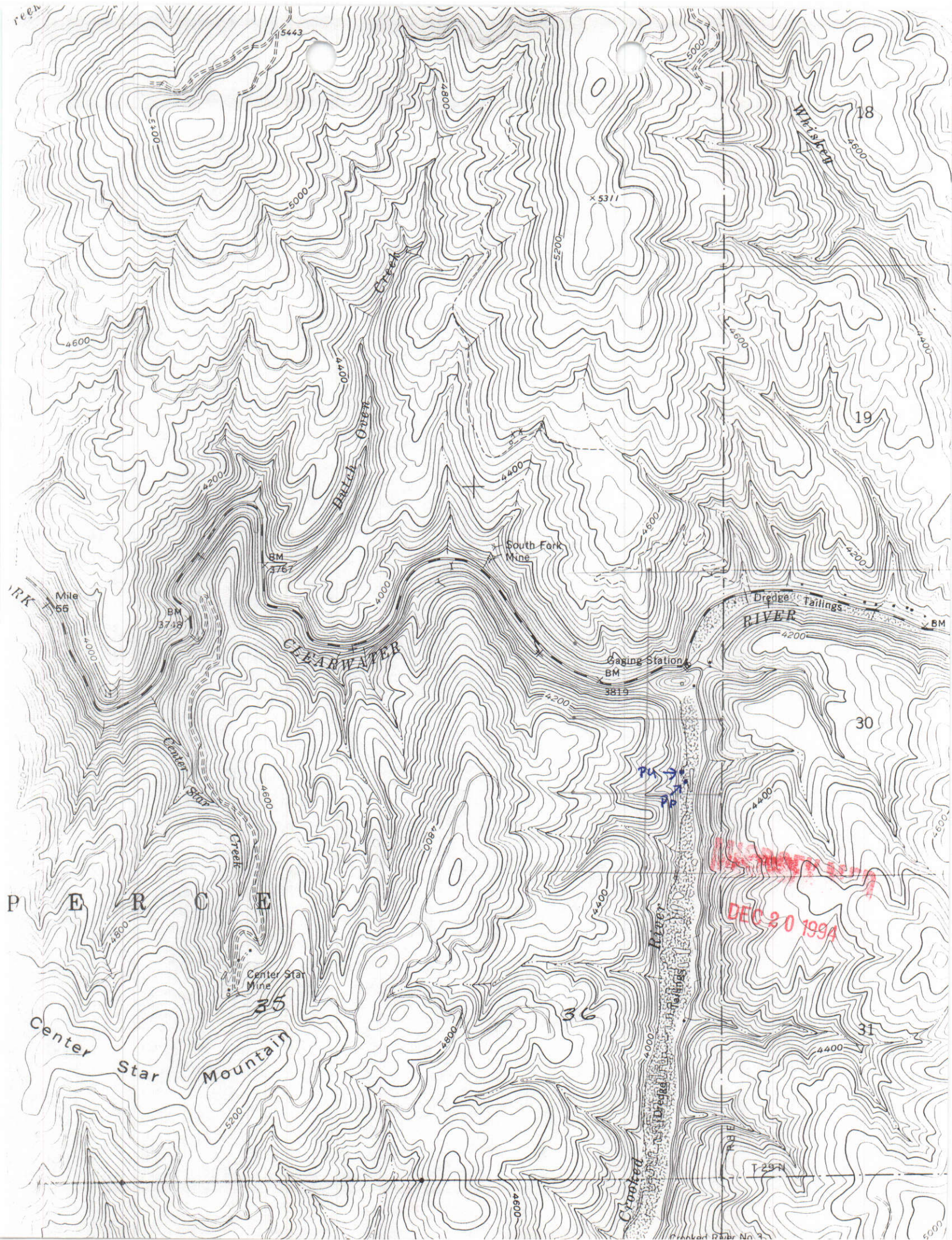
2. ☒ Copy of U.S.G.S. Quadrangle Attached
Showing location(s) of point(s) of diversion and
place(s) of use (required).

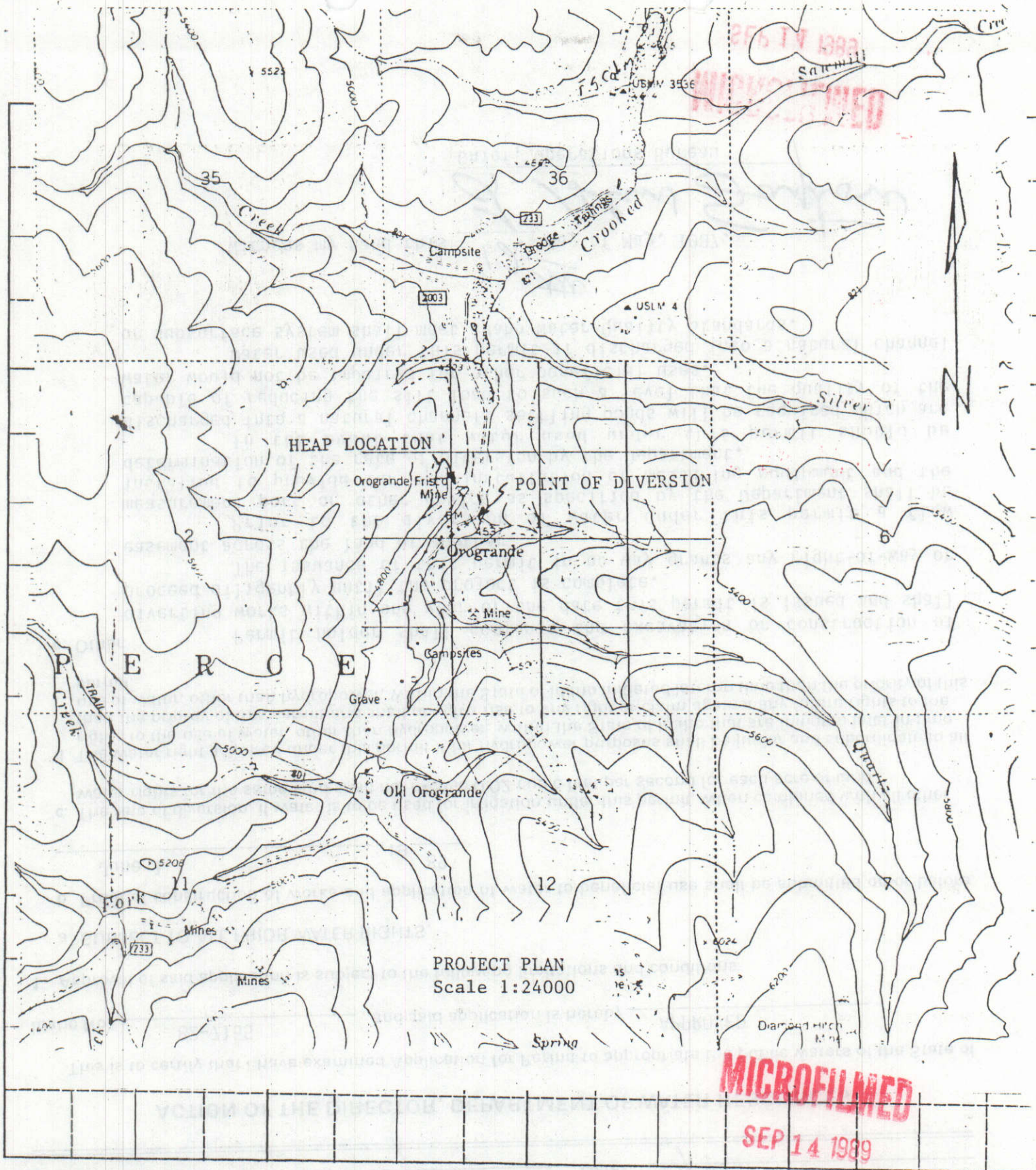
☒ Photo of Diversion and System Attached

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

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

DEC 20 1994





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.

FTUBAL V.P. Glamis Inc.
(Applicant)

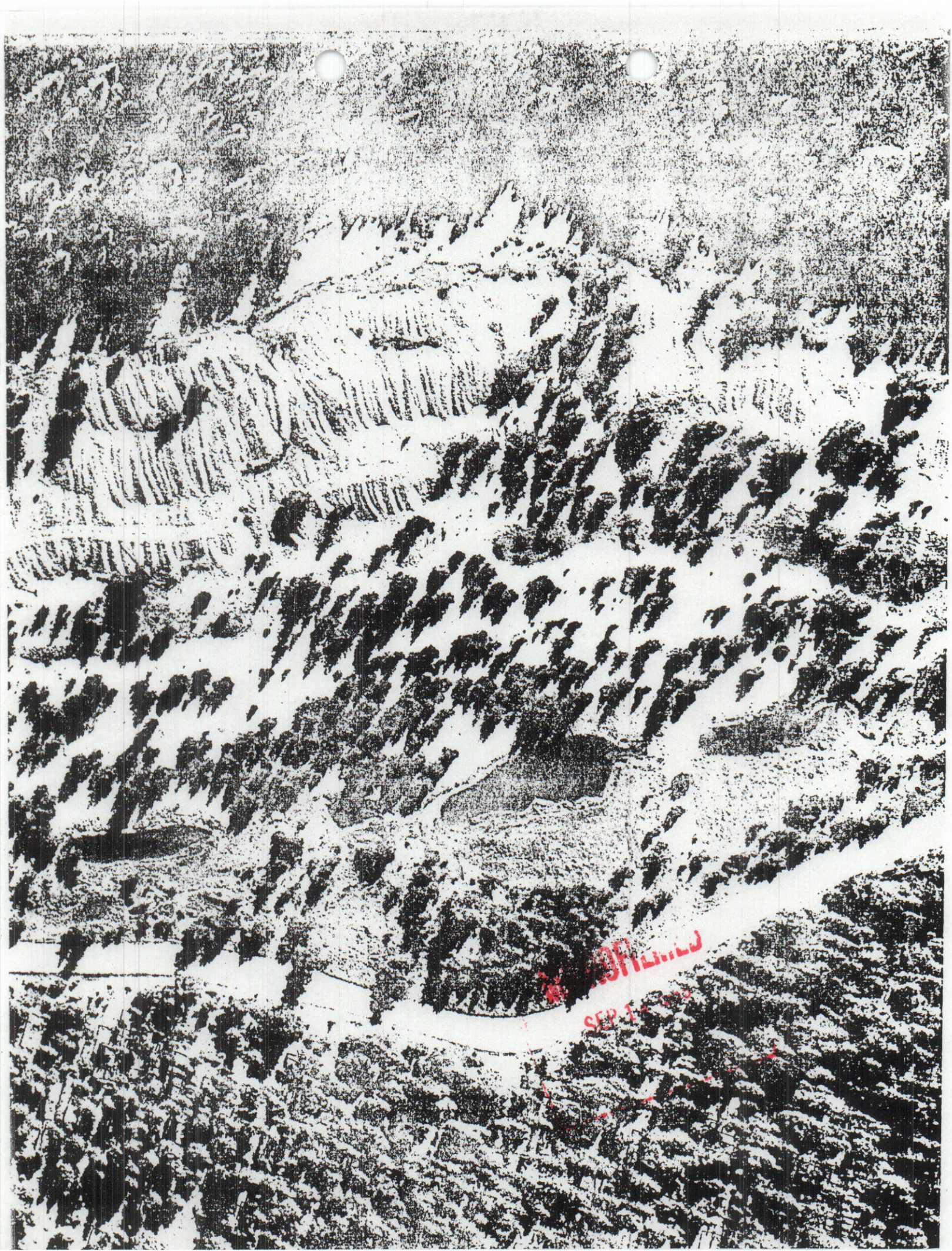


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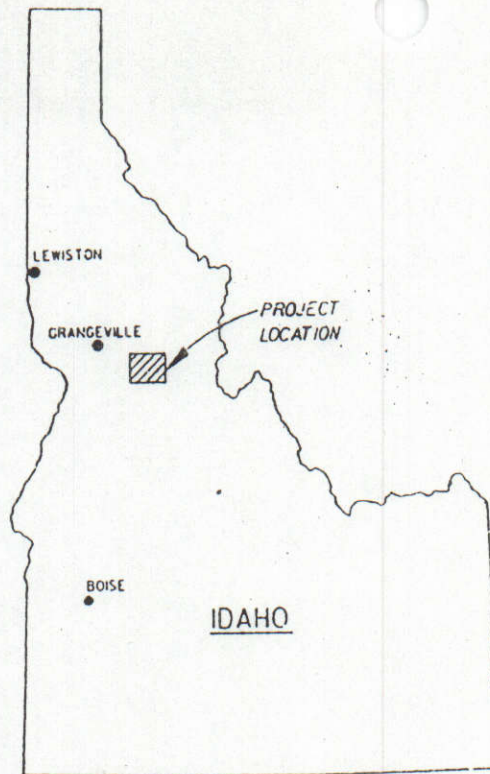


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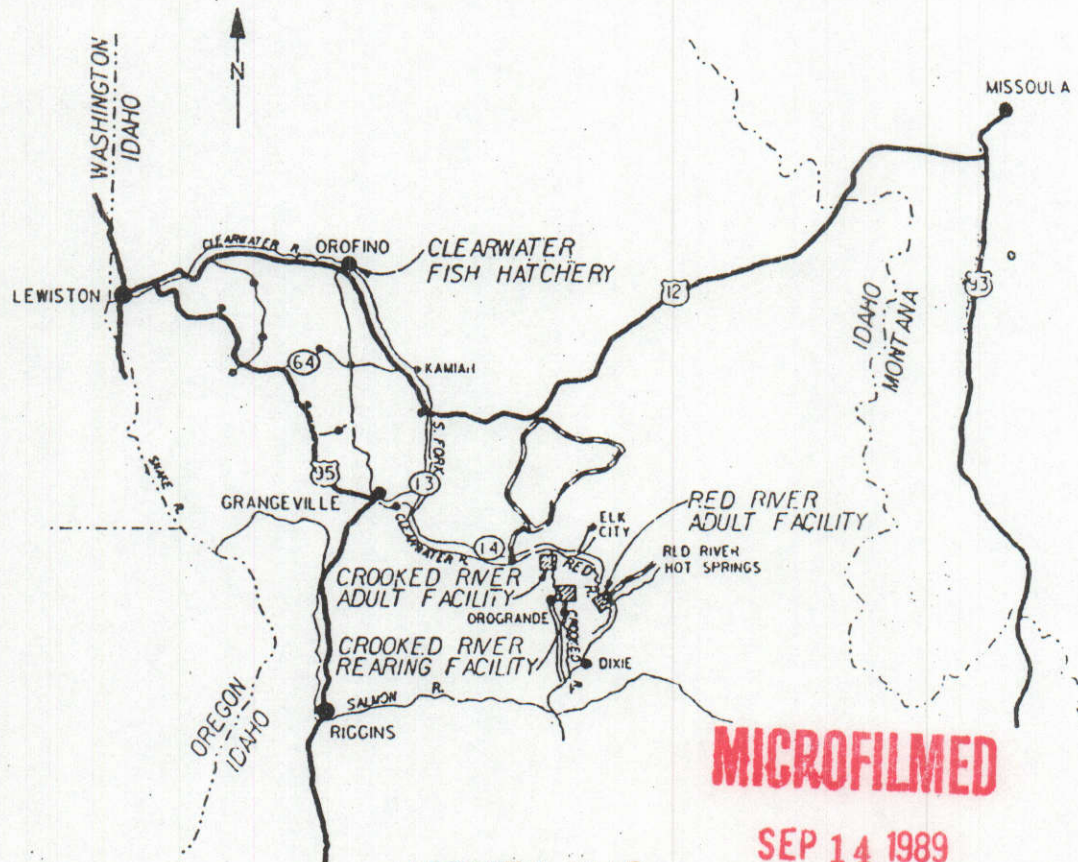
SEP 14 1989



SEP 1 1950



LOCATION MAP



VICINITY MAP



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SEP 14 1989

AFFIDAVIT OF PUBLICATION

NOTICE OF CORRECTIONS
NOTICE IS HEREBY GIVEN THAT APPLICATION FOR PERMIT NO. 82-7185 in the name of the Idaho Dept. of Fish & Game was advertised incorrectly on February 1 & 8, 1989.

The place of use was incorrectly advertised as T29N R07E S25; whereas, correctly it should be T29N R07E S25 NESE.

Protests to the above-referenced correction must be filed with the Director, Dept. of Water Resources, 1910 Northwest Blvd., Suite 210, Coeur d'Alene, Id. 83814 on or before March 20, 1989.

R. KEITH HIGGINSON, Dir.
Published in the Idaho County Free Press on 3/1 & 8/89.

M1-8

AK
3/20/89

STATE OF IDAHO

County of Idaho - ss.

.....Charlotte Sotin....., being first duly sworn, says she is the...Bookkeeper..... of the IDAHO COUNTY FREE PRESS, a weekly newspaper published and issued weekly at Grangeville, Idaho county, State of Idaho, and is of general circulation in said county and state, that the said notice, of which the one hereto attached is a true copy, was published in said paper for two..... weeks, being published two..... times, the first publication being on the 1st..... day of March....., 1989, and the last publication on the 8th..... day of March....., 1989; that the said notice was published in the newspaper proper and not a supplement; that said newspaper has been continuously and uninterruptedly published in said county during a period of seventy-eight consecutive weeks prior to the publication of said notice or advertisement.

Charlotte Sotin

STATE OF IDAHO }

}

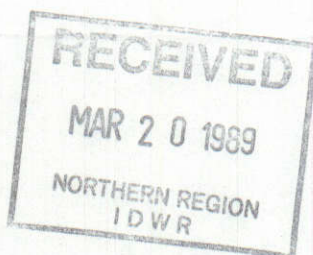
COUNTY OF }

On this.....8th..... day of..... March..... in the year of..... 1989....., before me, a Notary Public, personally appeared...Charlotte Sotin....., known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that he executed the same.

[Signature]
Notary Public for Idaho

Residing at Grangeville Idaho

My commission expires: 9/10/92



MICROFILMED

SEP 14 1989

AFFIDAVIT OF PUBLICATION

NOTICE OF APPLICATION FOR WATER RIGHT

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

82-07185

STATE OF IDAHO, DEPT. OF FISH &
GAME, P.O. BOX 25, BOISE, ID 83707
Source: CROOKED RIVER
Tributary: CLEARWATER RIVER,
SOUTH FO

Diversion Pt: SWNESE Sec 25 T 29N R
07E

Use: FISH PROPAGATION (10.000
CFS)

Date Filed: 1/23/1989

In: T29N R07E S25 NESE

82-07186

STATE OF IDAHO, DEPT. OF FISH &
GAME, P.O. BOX 25, BOISE, ID 83707
Source: CROOKED RIVER
Tributary: CLEARWATER RIVER,
SOUTH FO

Diversion Pt: SWNWSW Sec 30 T 28N
R 08E

Use: FISH PROPAGATION (12.000
CFS)

Date Filed: 1/23/1989

In: T28N R08E S30 NWSW

The permit(s) will be subject to all prior
water rights. Protests must be filed with
the Director, Dept. of Water Resources,
Northern Region, 1910 Northwest Blvd.,
Suite 210, Coeur d'Alene, Idaho 83814
on or before FEBRUARY 21, 1989.

R. KEITH HIGGINSON, Director
Published 2/01/1989 & 2/08/1989

F1-8

STATE OF IDAHO

County of Idaho - ss.

Charlotte Sotin

....., being
first duly sworn, says she is the Bookkeeper of the
IDAHO COUNTY FREE PRESS, a weekly newspaper published
and issued weekly at Grangeville, Idaho county, State of Idaho,
and is of general circulation in said county and state, that the
said notice, of which the one hereto attached is a true copy, was
published in said paper for two..... weeks, being published
.....two.....times, the first publication being on the
.....1st.....day of February....., 19⁸⁹.....
and the last publication on the.....8th.....day of
.....February....., 19⁸⁹.....; that the said notice was
published in the newspaper proper and not a supplement; that
said newspaper has been continuously and uninterruptedly
published in said county during a period of seventy-eight
consecutive weeks prior to the publication of said notice or
advertisement.

Charlotte Sotin

STATE OF IDAHO }

}

COUNTY OF }

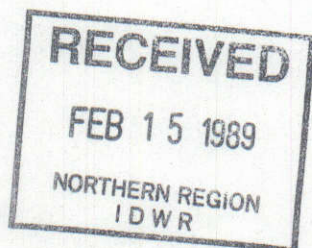
On this.....8th.....day of February.....in the year
of.....1989....., before me, a Notary Public, personally
appeared Charlotte Sotin....., known or
identified to me to be the person whose name subscribed to the
within instrument, and being by me first duly sworn, declared
that the statements therein are true, and acknowledged to me
that he executed the same.

[Signature]

Notary Public for Idaho

Residing at Grangeville Idaho

My commission expires: 9/10/92



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SEP 14 1989

State of Idaho
Department of Water Resources

AMENDED **WATER RIGHT LICENSE** AMENDED

WATER RIGHT NO. 82-07185

Priority: January 23, 1989

Maximum Diversion Rate:

10.00 CFS

This is to certify, that STATE OF IDAHO
DEPT OF FISH & GAME
PO BOX 25

BOISE ID 83707

has complied with the terms and conditions
of the permit, issued pursuant to Application for Permit dated January 23, 1989; and
has submitted Proof of Beneficial Use on August 1, 1991. An examination indicates
that the works have a diversion capacity of 10.000 cfs of water from:

CROOKED RIVER

tributary to **CLEARWATER RIVER, SOUTH FORK**

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>
FISH PROPAGATION	04/01 to 06/30	10.00 CFS	
FISH PROPAGATION	07/01 to 10/01	6.00 CFS	
	Totals	10.00 CFS	

LOCATION OF POINT(S) OF DIVERSION:

SWNESE Sec. 25, Township 29N, Range 07E
IDAHO County

PLACE OF USE: FISH PROPAGATION

TWN RGE SEC

29N 07E 25

NESE

PLACE OF USE: FISH PROPAGATION

TWN RGE SEC

29N 07E 25

NESE

CONDITIONS/REMARKS:

1. This water right is appurtenant to the described place of use.
2. This right is subject to all prior water rights and may be forfeited by five years of non-use.
3. Modifications to or variance from this license must be made within the limits of Section 42-222, Idaho Code, or the applicable Idaho law.
4. The issuance of this right in no way grants any right-of-way or easement across the land of another.
5. Use of water under this right shall be non-consumptive.
6. Measuring devices of a type approved by the Department shall be permanently installed and maintained at the point of diversion and the point of effluent discharge.

DEC 20 1994

State of Idaho
Department of Water Resources

AMENDED

WATER RIGHT LICENSE

AMENDED

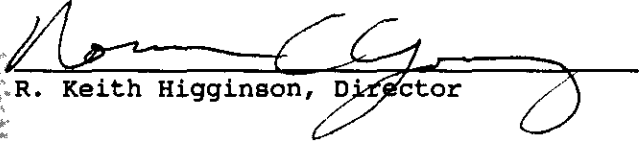
WATER RIGHT NO. 82-07185

CONDITIONS/REMARKS:

7. Minimum streamflows shall be maintained in Crooked River to allow year round migration of fish from the point of discharge upstream to the point of diversion.
8. Fish propagation use is for a fish ladder and temporary holding facility with a bypass pipe to flush the fish back into Crooked 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 9TH day of DECEMBER, 1994.

Acting for


R. Keith Higginson, Director

DEC 20 1994

State of Idaho
Department of Water Resources

WATER RIGHT LICENSE

WATER RIGHT NO. 82-07185

Priority: January 23, 1989

Maximum Diversion Rate:

3.21 CFS

This is to certify, that STATE OF IDAHO

DEPT OF FISH & GAME

PO BOX 25

BOISE ID 83707

has complied with the terms and conditions of the permit, issued pursuant to Application for Permit dated January 23, 1989; and has submitted Proof of Beneficial Use on August 1, 1991. An examination indicates that the works have a diversion capacity of 3.210 cfs of water from:

CROOKED RIVER

tributary to CLEARWATER RIVER, SOUTH FORK

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>
-----------------------	----------------------	--------------------------	----------------------

FISH PROPAGATION	04/01 to 10/01	3.21 CFS	
------------------	----------------	----------	--

LOCATION OF POINT(S) OF DIVERSION SWNESE, Sec. 25, Township 29N, Range 07E
IDAHO County

PLACE OF USE: FISH PROPAGATION

TWN RGE SEC

29N 07E 25

NESE

CONDITIONS/REMARKS:

1. This water right is appurtenant to the described place of use.
2. This right is subject to all provisions of law and may be forfeited by five years non-use.
3. Modifications to or enlargement of this right must be made within the limits of the 22-foot right-of-way, for the applicable Idaho law.
4. The issuance of this right in no way creates a right-of-way or easement across the land of another.
5. Use of water under this right shall be non-consumptive.
6. Measuring devices of a type approved by the Department shall be permanently installed and maintained at the point of diversion and the point of effluent discharge.
7. Minimum streamflows shall be maintained in Crooked River to allow year round migration of fish from the point of discharge upstream to the point of diversion.
8. Fish propagation use is for a fish ladder and temporary holding facility with a bypass pipe to flush the fish back into Crooked River.

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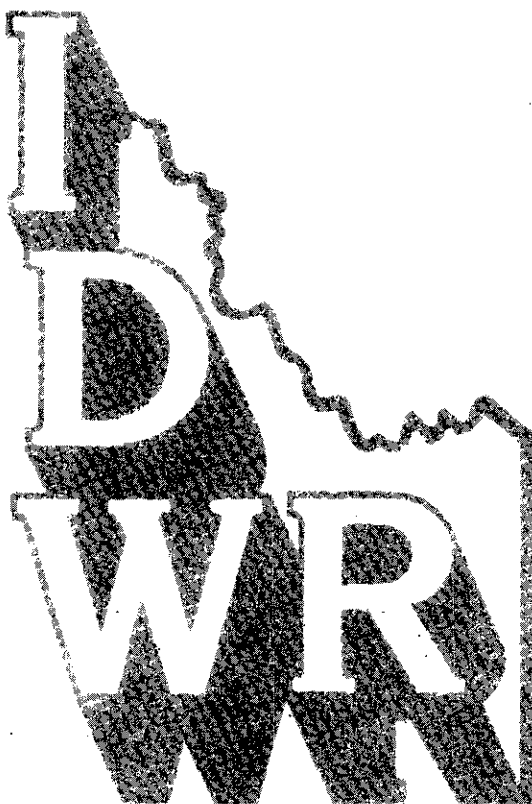
State of Idaho
Department of Water Resources

WATER RIGHT LICENSE

WATER RIGHT NO. 82-07185

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 9TH
day of SEPTEMBER, 1994.


Acting for R. Keith Higginson, Director



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DEC 20 1994

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AUG 01 1991

STATE OF IDAHO

DEPARTMENT OF WATER RESOURCES

For Office Use Only
Amt. of Fee \$ 350.00
Date 8-1-91
Receipt No. COZ1371
Received by [Signature]

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. 82-07185 Telephone No. 334-3730
2. Name(s) of Permit Holder(s): State of Idaho, Department of Fish and Game
3. Post Office Address: P. O. Box 25, Boise, ID 83707
4. Source of Water: Crooked River
 - a. If ground water, well driller's name: _____ Date drilled: _____
 - b. Pump horsepower: _____ Pressure (psi): _____ Dynamic pumping level (ft.): _____
5. Extent of Use:

Domestic _____ (No. of households)	Irrigation _____ (No. of acres)
Stockwater _____ (No. and type of stock)	Other <u>Fish Propagation</u>
6. Total rate and/or volume for which proof is submitted 10 cfs _____ acre/feet
7. Refer to the approval conditions on your permit and respond accordingly:

Measuring device:	Required? ☒ Yes ☐ No	Installed? ☐ Yes ☐ No
	OR	
Flow Measurement Port:	Required? ☐ Yes ☐ No	Installed? ☐ Yes ☐ No
8. Fee Enclosed: \$ 350.00 (See License Examination Fee Schedule)
9. Person to contact to accompany the Department representative during the field examination:

<u>Jerry McGeehee</u>	<u>935-2112</u>
Name	Telephone No.
<u>Route 2, Box 121-A, Kamiah, ID 83536</u>	
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 15, 1991
Date

[Signature]
Signature

, Engineering Supervisor

(and title if on behalf of a company or organization)

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NOV 21 1991

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
APPLICATION FOR PERMIT

Ident. No. 82-7185

APPROVED

To appropriate the public waters of the State of Idaho

1. Name of applicant Idaho Department of Fish and Game Phone 334-3730
Post office address P. O. Box 25, Boise, ID 83707
2. Source of water supply Crooked River which is a tributary of So. Fork Clearwater Riv.
3. Location of point of diversion is SW $\frac{1}{4}$ of NE $\frac{1}{4}$ of SE $\frac{1}{4}$, Govt. Lot _____
Sec. 25 Township 29 N. Range 7 E. B.M. Idaho County; additional
points of diversion if any: _____
4. Water will be used for the following purposes:
Amount 10 cfs for fish cultural purposes from April 1 to Oct. 1 (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) 10 and/or (b) _____
cubic feet per second acre feet per annum
6. Proposed diverting works:
 - a. Description of ditches, flumes, pumps, headgates, etc. Screened concrete intake and gravity
30-inch diameter concrete transmission line to the facility. Intake will consist
of sloping stainless steel wedge wire screen and will have sluice gate control.
 - b. Height of storage dam N/A feet; active reservoir capacity _____ acre-feet; total
reservoir capacity _____ acre-feet; period of year when water will be diverted to storage:
_____ to _____ inclusive.
 - c. Proposed well diameter is N/A inches; proposed depth of well is _____ feet.
 - d. Is ground water with a temperature of greater than 90°F being sought? N/A
7. Time required for the completion of the works and application of the water to the proposed beneficial use is
2 years (minimum 1 year).

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10. Describe any other water rights used for the same purposes as described above. A Water Right Applicant is also being forwarded for a Chinook Salmon rearing facility located upstream from this facility. -see 82-7186

11. a. Who owns the property at the point of diversion? U. S. Forest Service

b. Who owns the land to be irrigated or place of use? U. S. Forest Service

c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing. A copy of a Special Use Permit is attached.

[illegible]

9. Description of place of use:

a. If water is for irrigation, indicate acreage in each subdivision in the tabulation below.

b. 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.

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

a. Hydropower; show total feet of head and proposed capacity in KW. _____

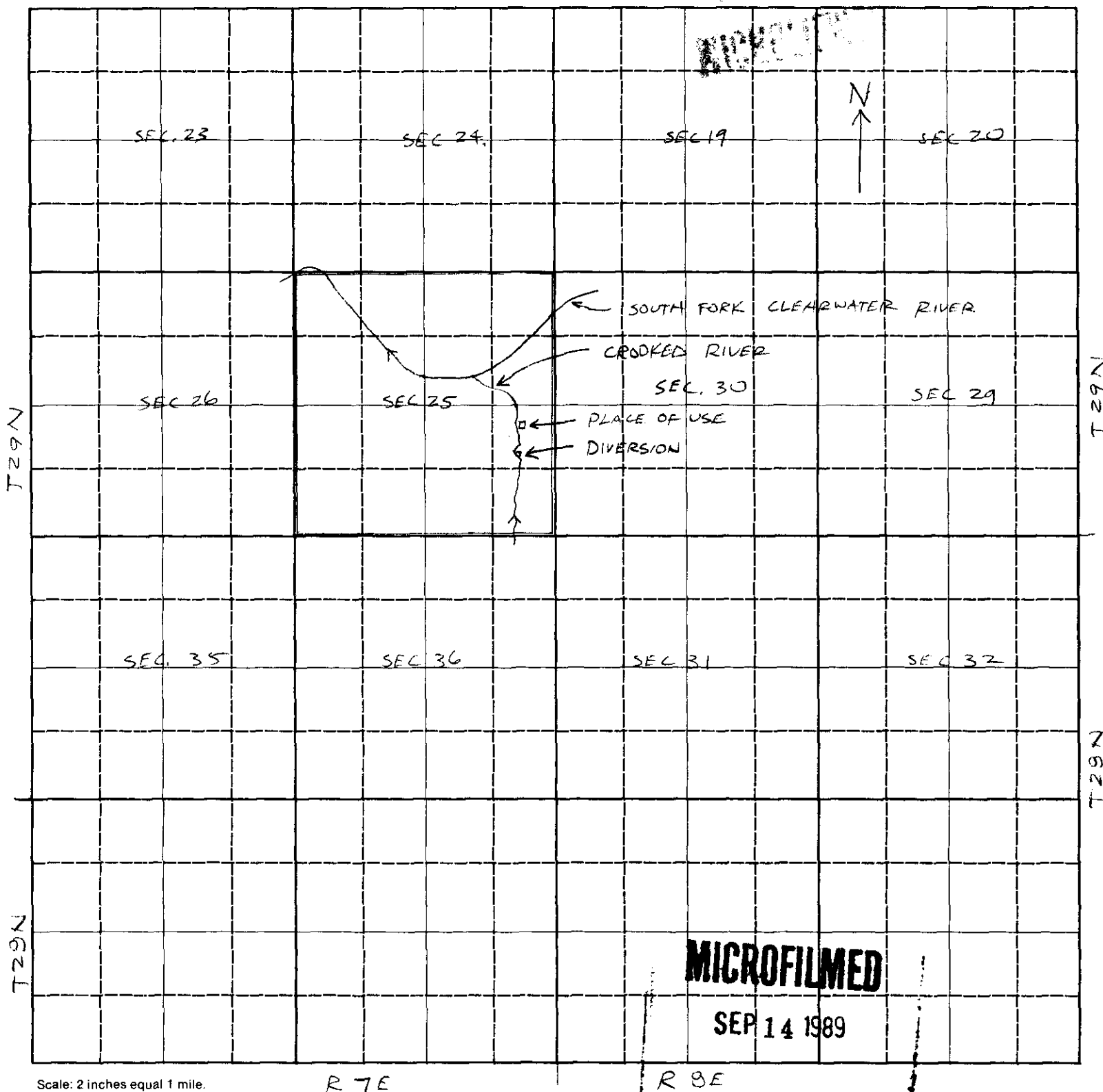
b. Stockwatering; list number and kind of livestock. _____

c. Municipal; show name of municipality. _____

d. Domestic; show number of households. _____

e. Other; describe fully. Fish cultural purposes--to provide water for attracting adult Chinook Salmon and Steelhead up a fish ladder and holding in a trap. _____

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.

Pho Juma for Jd. F. 46.
(Applicant)
Engineering Supervisor

Proposed Priority 1/23/89

Received by [Signature] Date 1/23/89 Time 1:00pm Preliminary check by JK
Fee \$ 225 Received by JK # N 2266 Date 1/24/89
Publication prepared by [Signature] Date 1/23/89 Published in 2/18/89, 3/12/89
Publication approved [Signature] Date 3/21/89

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. 82-7185, 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:

SEE ATTACHED SHEET FOR ADDITIONAL CONDITIONS OF APPROVAL

Witness my hand this 10th day of July, 1989.

[Signature: J. Glen Saylor]

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ATTACHMENT TO CONDITIONS OF APPROVAL
FOR PERMIT NO. 82-7186

- e. 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.
- f. The issuance of this permit in no way grants any right-of-way or easement across the land of another.
- g. Use of water under this permit shall be non-consumptive.
- h. Measuring devices of a type approved by the Department shall be permanently installed and maintained at the point of diversion and the point of effluent discharge.
- i. Assignment or sale of this permit is subject to a determination by the Department that the permit holder has proceeded to develop the permit with due diligence and without speculation.
- j. Water used under this permit if discharged into a natural channel shall meet Idaho Water Quality Standards.
- k. The permit holder shall be required to provide the Department, upon request, information showing volume changes per hour necessary to maintain an adequate environment for the fish propagation facility. Volume changes per hour shall be based upon actual fish production.
- l. Use of water under this right is subject to policies set forth in the State of Idaho Water Plan, including Policy No. 5G.
- m. Minimum streamflows shall be maintained in Crooked River to allow year round migration of fish from the point of discharge upstream to the point of discharge upstream to the point of diversion.

Witness my hand this 10th day of July, 1989.

J. Glen Saxon

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SEP 14 1989

U.S. Dept. of Agriculture Forest Service SPECIAL USE PERMIT Act of October 21, 1976 (43 USC 1761) This permit is revocable and nontransferable (Ref. FSM 2710)	a. Record no. (1-2) 70	b. Region (3-4) NORTHERN 01	c. Forest (5-6) NEZ PERCE 17
	d. District (7-8) ELK CITY 08	e. User No. (9-12) 0952-01	f. Kind of Use (13-15) WATER DIVERSION 923 WEIR
	g. State (16-17) IDAHO 16	h. County (18-20) IDAHO 049	k. Card no. (21) 1

Permission is hereby granted to U.S. ARMY CORPS OF ENGINEERS of Walla Walla District, Bldg. 602, City-County Airport, Walla Walla, WA 99362, hereinafter called the permittee, to use subject to the conditions set out below, the following described lands in the attached Exhibits which are hereby made a part of this permit.

Exhibit A - Lower Snake River Fish and Wildlife Compensation Plan, Clearwater Hatchery, Crooked River Satellite Facilities.

Exhibit B - Legal Description.
Exhibit C - Project Map.

Exhibit D - Environmental Analysis.

This permit covers 12.27 acres and is issued for the purpose of: Construction, maintaining and operating a satellite fish hatchery facility. **The permittee is authorized to sublet the facilities through the U.S. Fish and Wildlife Service to the Idaho Fish and Game for operation and maintenance.** See Exhibit A - Sheet 1 for list of improvements.

GENERAL CONDITIONS

1. This use shall be actually exercised at least 60 days each year, unless otherwise authorized in writing.

2. The holder is a Federal agency exempt from annual rental fees pursuant to Secretary of Agriculture's Regulation 36 CFR 251.57(b)(4). Provided, however, charges for this use may be made or readjusted whenever necessary to place the charges on a basis commensurate with the value of use authorized by this permit. See Clause 18.

3. This permit is accepted subject to the conditions set forth herein, and to conditions 18 to 45 attached hereto and made a part of this permit.

4. Development plans; layout plans; construction, reconstruction, or alteration of improvements; or revision of layout or construction plans for this area must be approved in advance and in writing by the authorized officer. Trees or shrubbery on the permitted area may be removed or destroyed only after the forest officer in charge has approved, and has marked or otherwise designated that which may be removed or destroyed. The Forest Service reserves the right to dispose of the merchantable timber to other than the permittee at no stumpage cost to the permittee. Trees, shrubs, and other plants may be planted in such manner and in such places about the premises as may be approved by the forest officer in charge.

HOLDER	Name of Holder U.S. Army Corps of Engrs. Walla Walla District	Signature of Authorized Officer <i>Richard Carlton</i> Title: Chief, Real Estate Div.	Date 17 Dec. 1987
	Name and Signature <i>Dave E. Poncin</i> Dave E. Poncin	Title Lands Staff Officer (for) Forest Supervisor	Date 1/4/88

(Continued)
SEP 14 1989

2700-4 (7/71)

T-R

5. The holder shall maintain the improvements and premises to standards of repair, orderliness, neatness, sanitation, and safety acceptable to the forest office in charge.

6. This permit is subject to all valid claims.

7. The holder, in exercising the privileges granted by this permit, shall comply with the regulations of the Department of Agriculture and all Federal laws, ordinances, or regulations which are applicable to the area or operations covered by this permit.

8. The holder shall take all reasonable precautions to prevent and suppress Forest fires. No material shall be disposed of by burning in open fires during the closed season established by law or regulation without a written permit from the forest officer in charge or his authorized agent.

9. The holder shall exercise diligence in protecting from damage the land and property of the United States covered by and used in connection with this permit, by the holder, or by agents or employees of the holder acting within the scope of their agency or employment.

10. The holder shall fully repair all damage, other than ordinary wear and tear, to National Forest roads and trails caused by the holder in the exercise of the privilege granted by this permit.

11. No member of, or delegate to Congress or Resident Commissioner, shall be admitted to any share or part of this agreement or to any benefit that may arise herefrom unless it is made with a corporation for its general benefit.

12. Upon abandonment, termination, revocation, or cancellation of this permit in whole or in part, the holder shall remove within one (1) year all affected structures and improvements except those owned by the Forest Service, and shall restore the site, unless otherwise agreed upon in writing or in this permit.

13. This permit is not transferable except as noted in clause 15..

14. In case of change of address, the holder shall immediately notify the authorized officer.

15. The temporary use and occupancy of the premises and improvements herein described shall not be sublet by the holder to third parties EXCEPT that the holder may sublet the facility through the U.S. Fish and Wildlife Service to the Idaho Fish and Game for operations and maintenance.

16. This permit may be limited, suspended or revoked, in whole or in part, by the authorized officer only after advance notice to, and mutual consent of, the holder.

17. In the event of any conflict between any of the preceding printed clauses or any provisions thereof, and any of the following clauses or any provisions thereof, the following clauses will control:

FEES AND PAYMENTS

18. Required Payments. Any fees or payments required to be made by the permittee under this permit shall be subject to fund availability for the permitted purpose.

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SAFETY, HEALTH, AND LIABILITY

19. Risks and Hazards. Avalanches, rising waters, high winds, falling limbs or trees, and other hazards are natural phenomena in the Forest that present risks which the holder assumes. The holder has responsibility of inspecting the site, lot, right-of-way, and immediate adjoining area for dangerous trees, hanging limbs, and other evidence of hazardous conditions and, after securing permission from the Forest Service, of removing such hazards.

20. Construction Safety. The holder shall carry on all operations in a skillful manner, having due regard for the safety of employees; and shall safeguard with fences, barriers, fills, covers, or other effective devices, pits, cuts, and other excavations which otherwise would unduly imperil the life, safety, or property of other persons.

21. Health, Safety, and Environmental Protection. Holder shall take all measures necessary to protect the health and safety of all persons affected by its activities performed in connection with the construction, operation, maintenance, or termination of the right-of-way, and shall promptly abate as completely as possible any physical or mechanical procedures, activity, event, or condition, existing or occurring at any time:

- (1) that is susceptible to abatement by the holder,
- (2) which arises out of, or could adversely affect the construction, operation, maintenance, or termination of all or any part of the water diversion, weir and rearing pond, and
- (3) that causes or threatens to cause:
 - (a) a hazard to the safety of workers or to public health or safety or
 - (b) serious and irreparable harm or damage to the environment (including but not limited to areas of vegetation or timber, fish or other wildlife populations, or their habitats, or any other natural resource).

Holder shall immediately notify the authorized officer of all serious accidents which occur in connection with such activities.

22. Area Maintenance. The permitted area will be maintained to present a clean, neat, and orderly appearance. Trash, debris, unusable machinery, improvements, etc., will be disposed of currently. Building materials, firewood, etc., will be neatly stacked.

23. Refuse Disposal. The holder shall dispose of refuse resulting from this use, including waste materials, garbage, and rubbish of all kinds in the following manner: In accordance with current Idaho County policies or regulations.

24. Sanitation. The operation and maintenance of all sanitation, food service, and water-supply methods, systems and facilities shall comply with the standards of the local department of health and the United States Public health Service.

25. Electrical Wiring. All electrical equipment and facilities installed and operated shall conform to the National Electric Code. ~~and the equipment must have been approved by the American Insurance Association~~ 6117 1/4/27

26. Fire Equipment. The holder shall install fire extinguishers and firefighting apparatus of types, of capacities, in numbers, and at locations approved by the authorized officer. This equipment shall be in readiness at all times for immediate use, and shall be tested each year, at such times as may be required by the authorized

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TENURE, TERMINATION, SUSPENSION AND LIMITS OF USE

27. Long-term Use. Unless sooner terminated or revoked by the authorized officer, in accordance with the provisions of the authorization, this authorization shall expire and become void on January 1, 2007, but a new special-use authorization to occupy and use the same National Forest System land may be granted provided the holder will comply with the then-existing laws and regulations governing the occupancy and use of National Forest lands and shall have notified the authorized officer not less than one (1) year prior to said date that such new authorization is desired.

28. Periodic Revision. The terms and conditions of this authorization shall be subject to revision in the years 1992, 1997, and 2002 to reflect changing times and conditions.

29. Performance by Holder, Successors, or Assigns. Notwithstanding the expiration or any renewal of this permit or its earlier relinquishment, abandonment, or other termination, the provisions of this permit, to the extent applicable, shall continue in effect and shall be binding on the holder, successors, or assigns, until they have fully performed their respective obligations and liabilities accruing before or on account of the expiration, or prior termination, of the permit.

30. Performance by Other Than Holder. The acquisition or assumption by another party under an agreement with the holder of any right or obligation of the holder under this permit shall be ineffective as to the Forest Service unless and until signed by the authorized Forest officer. A subsequent acquisition or assumption shall not:

- (1) Operate to relieve the holder of the responsibilities or liabilities they have assumed hereunder, or
- (2) Be given unless such other party
 - (a) Is acceptable to the Forest Service as a holder, and assumes in writing all of the obligations to the Forest Service under the terms of this permit as to the incomplete portion thereof, or
 - (b) Acquires the rights in trust as security and subject to such conditions as may be necessary for the protection of the public interests.

OPERATIONS, ACTIVITIES AND SERVICES

31. Signs. No signs or advertising devices shall be erected on the area covered by this permit, or highways leading thereto, without prior approval by the Forest Service as to location, design, size, color and message. Erected signs shall be maintained or renewed as necessary to neat and presentable standards, as determined by the Forest Service.

32. Subleasing, Requirements. The holder, in the exercise of the privileges granted by this permit, shall require that employees, sublessees, contractors, subcontractors, or renters and their employees comply with all applicable conditions of this permit and that the conditions of this permit be made a part of all subleases, contracts, subcontracts, or rental agreements. This clause shall not be construed as authorizing such subleases, contracts, subcontracts, or rental agreements unless specifically authorized elsewhere in the permit.

33. Nonexclusive Use. This permit is not exclusive; that is, the Forest Service reserves the right to use or permit others to use any part of the land for any purpose, provided such use does not interfere with the rights and privileges hereby authorized.

35. Site Plan. The holder shall submit a site plan showing the location of buildings, roads, and other improvements.

DEVELOPMENT, CONSTRUCTION AND MAINTENANCE

SEP 14 1989

33. Nonexclusive Use. reserves the right to use or permit others to use any purpose, provided such use does not interfere with the rights and privileges authorized.

DEVELOPMENT, CONSTRUCTION AND MAINTENANCE

35. Site Plan. The holder shall prepare site plans to show the location of all buildings, service areas, roads, and structures. Such plan shall be on a scale of 1" = 40 feet with 1 foot contour intervals. The holder is encouraged to consult with the authorized officer during the preparation of the site plan to ensure that it is adequate and to gain multiple-use compliance. No construction shall be undertaken by the holder prior to site plan approval.

36. Site Grading Plans. The holder shall prepare grading plans, profiles and cross-sections to show precise elevations, excavations, and other details related to the installation of buildings, structures, or improvements on the permitted-use area. Such plans shall include provisions for drainage, retaining structures, seeding, and planting, to be made for the prevention and control of erosion on the permitted area and the National Forest lands adjacent to the permitted area, insofar as the latter may be influenced by the permitted use.

37. Site Planting Plans. The holder shall submit plans to reasonably restore or protect all areas disturbed during construction. Such plans will identify plant material by botanical name, size, and location. Each stage of construction will be considered complete only upon completion and acceptance of the successful seeding and planting in the vicinity of construction. All seeding and planting required on the permitted area shall be completed according to the development schedule.

38. Plan, Map, and Specification Language. All plans, maps, and specifications shall be written in English and shall use American standards of measurement.

39. Site Development Plans. This permit is contingent upon the installation layout and development plans as submitted by the holder and approved as a part of this permit for this specific location. Any and all subsequent relocations, alternations, revisions, additions, construction, or reconstruction of housing and mounting facilities, including antenna towers or masts, shall require advance notification and approval of the Forest Service and advance modification of this permit.

40. Environmental Standards. Holder shall conduct all activities associated with the water diversion, weir, and rearing pond in a manner that will avoid or minimize degradation of air, land, and water quality. In the construction, operation, maintenance, and termination of the water diversion, weir, and rearing pond, holder shall perform its activities in accordance with applicable air and water quality standards, related facility siting standards, and related plans of implementation, including but not limited to standards adopted pursuant to the Clean Air Act, as amended (42 USC 1857) and the Federal Water Pollution Control Act, as amended (33 USC 1321).

41. Implied Permission. Nothing in this authorization shall be construed to imply permission to use the area for any purpose nor to build or maintain any structure or facility not specifically named on the face of this special-use permit or listed herein, or approved by the Forest Service in the form of construction plans and an authorization amendment or a new special-use permit.

RESOURCE PROTECTION

42. Esthetics. The holder shall protect the scenic esthetic values of the area under this permit, and the adjacent land, as far as possible with the authorized use, during construction, operation, and maintenance of the improvements.

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SEP 14 1989

43. Revegetation, Surface Restoration of Ground Cover. Holder shall be responsible for prevention and control of soil erosion and gullyng on lands covered by this permit and adjacent thereto, resulting from construction, operation, maintenance, and termination of the permitted use. Holder shall so construct, operation, maintenance, and termination of the permitted use. Holder shall so construct permitted improvements to avoid the accumulation of excessive heads of water and to avoid encroachment on streams. Holder shall revegetate or otherwise stabilize all ground where the soil has been exposed and shall construct and maintain necessary preventive measures to supplement the vegetation.

44. Pesticide Use. Pesticides may not be used to control undesirable woody and herbaceous vegetation, aquatic plants, insects, rodents, trash fish, etc., without the prior written approval of the Forest Service. A request for approval of planned uses of pesticides will be submitted annually by the holder on the due date established by the authorized officer. The report will cover a 12-month period of planned use beginning 3 months after the reporting date. Information essential for review will be provided in the form specified. Exceptions to this schedule may be allowed, subject to emergency request and approval, only when unexpected outbreaks of pests require control measures which were not anticipated at the time an annual report was submitted.

Only those materials registered by the U.S. Environmental Protection Agency for the specific purpose planned will be considered for use on National Forest System lands. Label instructions will be strictly followed in the application of pesticides and disposal of excess materials and containers.

45. Archeological-Paleontological Discoveries. If, prior to or during excavation work, items of archaeological, paleontological, or historic value are reported or discovered, or an unknown deposit of such items is disturbed, the holder will immediately cease excavation in the area so affected. Holder will then notify the Forest Service and will not resume excavation until written approval is given by the authorized officer.

If it deems it necessary or desirable, the Forest Service may require the holder to have performed recovery, excavation, and preservation of the site and its artifacts at the holder's expense.

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FINDINGS OF NO SIGNIFICANT IMPACT
HATCHERY PROJECT

LOWER SNAKE RIVER
FISH AND WILDLIFE COMPENSATION PLAN
CLEARWATER HATCHERY SATELLITE FACILITIES
CROOKED RIVER FACILITY

U.S. Dept. of Agriculture
Forest Service

Tract R
12.27 Acres±

Description of Tract

Parcel 1
Adult Facility

A parcel of land lying in unsurveyed Section 25, Township 29 North, Range 7 East of the Boise Meridian, Idaho County, State of Idaho, being more particularly described as follows:

Commencing at the northwest corner of Section 30, Township 29 North, Range 8 East of the Boise Meridian;

thence South 0° 16' 39" West, a distance of 2,879.37 feet to the POINT OF BEGINNING;

thence South 3° 14' 35" East, a distance of 370.26 feet;

thence WEST, a distance of 215 feet;

thence SOUTH, a distance of 460 feet;

thence North 67° 14' 57" West, a distance of 168.08 feet;

thence North 51° 50' 34" West, a distance of 89.02 feet;

thence North 9° 27' 44" West, a distance of 91.24 feet;

thence North 30° 15' 23" East, a distance of 138.92 feet;

thence North 52° 25' 53" East, a distance of 82.01 feet;

thence North 3° 34' 35" West, a distance of 80.16 feet;

thence North 23° 44' 58" West, a distance of 136.56 feet;

thence North 4° 45' 49" West, a distance of 120.42 feet;

thence North 71° 20' 08" East, a distance of 389.54 feet to the point of beginning.

The parcel of land above described contains 4.34 acres, more or less.

NOTE: Bearings and distances cited in Parcel 1 are based on a local grid coordinate system established by the U.S. Army Corps of Engineers. The point of origin of said local grid system is a U.S. Army Corps of Engineers Monument, "CRHP-1-84", grid coordinates being y, North 10,000 feet and x, East 10,000 feet.

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EXHIBIT "B"

Parcel 2
Freezer Site

A parcel of land located on the left (west) bank of the Crooked River, westerly of County Road No. 121, in the projected northeast quarter of unsurveyed Section 36, Township 28 North, Range 7 East of the Boise Meridian, Idaho County, State of Idaho, more particularly described as follows:

Commencing at a U.S. Army Corps of Engineers Survey Monument marked "85-95-1", the local grid coordinates of said monument being y, North 13,096.82 feet and x, East 12,311.12 feet;

thence South 89° 34' 04" West, a distance of 189.13 feet to the POINT OF BEGINNING;

thence EAST, a distance of 80 feet;

thence SOUTH, a distance of 50 feet;

thence WEST, a distance of 80 feet;

thence NORTH, a distance of 50 feet to the point of beginning.

There is EXCEPTED therefrom all that part of the above described parcel 2 lying within the right-of-way of said County Road No. 121.

The parcel of land above described contains 0.09 of an acre, more or less.

NOTE: Bearings and distances cited in description of Parcel 2 is based on a local grid coordinate system established by the U.S. Army Corps of Engineers. The point of origin of said local grid system is U.S. Army Corps of Engineers Monument marked "CRH-1", grid coordinates being y, North 10,000 feet and x, East 10,000 feet.

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-2-

SEP 14 1989

EXHIBIT "B"

Parcel 3
Acclimation Facility

A parcel of land located on the left (west) bank of the Crooked River, easterly of Forest Road No. 233 (County Road No. 121), north of the Orogrande Landing Strip, in the projected unsurveyed Section 30, Township 28 North, Range 8 East of the Boise Meridian, Idaho County, State of Idaho, more particularly described as follows:

Beginning at a point, which is located on north (downstream) end of the Orogrande Landing Strip. Said point is a U.S. Army Corps of Engineers monument marked "86-26-3", the local grid coordinates of said monument being Y, North 16,131.327 feet and X, East 14,137.709 feet;

thence South 61° 31' 33" East, a distance of 139.12 feet to a point lying on the thread of the stream on the Crooked River;

thence North 1° 19' 56" East, a distance of 86.02 feet to a point lying on the thread of the stream of said river;

thence North 24° 26' 38" East, a distance of 24.17 feet to a point lying on the thread of the stream of said river;

thence North 44° 01' 04" East, a distance of 495.05 feet to a point lying on the thread of the stream of said river;

thence North 22° 46' 57" East, a distance of 54.23 feet to a point lying on the thread of the stream of said river;

thence North 0° 47' 45" West, a distance of 72.01 feet to a point lying on the thread of the stream of said river;

thence North 16° 27' 36" West, a distance of 91.76 feet to a point lying on the thread of the stream of said river;

thence North 3° 54' 02" East, a distance of 44.10 feet to a point lying on the thread of the stream of said river;

thence North 7° 55' 58" East, a distance of 123.18 feet to a point lying on the thread of the stream of said river;

thence South 90° 00' 00" West, a distance of 455.00 feet to a point lying on the Easterly edge of Forest Road No. 233 (County Road No. 122);

thence South 35° 40' 07" West, a distance of 152.63 feet to a point lying on the Easterly edge of said road;

thence South 20° 22' 35" West, a distance of 37.34 feet to a point lying on the Easterly edge of said road;

thence South 1° 35' 28" West, a distance of 36.01 feet to a point lying on the Easterly edge of said road;

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SEP 14 1989

EXHIBIT "B"

Parcel 3
Acclimation Facility

thence South 11° 40' 25" East, a distance of 123.56 feet to a point lying on the Easterly edge of said road;

thence South 8° 07' 48" East, a distance of 77.78 feet to a point lying on the Easterly edge of said road;

thence South 2° 07' 16" West, a distance of 81.06 feet to a point lying on the Easterly edge of said road;

thence South 4° 14' 11" West, a distance of 54.15 feet to a point lying on the Easterly edge of said road;

thence South 17° 02' 16" West, a distance of 64.85 feet to a point lying on the Easterly edge of said road;

thence South 30° 06' 49" West, a distance of 57.80 feet to a point lying on the Easterly edge of said road;

thence South 40° 21' 52" West, a distance of 26.25 feet to a point lying on the Easterly edge of said road;

thence South 24° 28' 11" West, a distance of 51.56 feet to a point lying on the Easterly edge of said road;

thence South 61° 31' 33" East, a distance of 140.00 feet to the point of beginning.

There is EXCEPTED therefrom all that part of the above described Parcel 3 lying within the right-of-way of said Forest Road No. 233 (County Road No. 122).

The parcel of land above described contain 7.85 acres, more or less. The total acreage in parcel 1, 2 and 3 comprising Tract R is 12.27 acres, more or less.

NOTE: Bearings and distances cited in description of Parcel 3 are based on a local grid coordinate system established by the U.S. Army Corps of Engineers. The point of origin of said local grid system is U.S. Army Corps of Engineers monument marked "CRH-1", grid coordinates begin Y, North 10,000 feet and X, East 10,000 feet.

CLW 17 Jan 86
Rev (1) CLW 13 Feb 86
Rev (2) REJ 9 Jan 87

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SEP 14 1989

EXHIBIT "B"



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

CECIL D. ANDRUS
GOVERNOR

R. KEITH HIGGINSON
DIRECTOR

December 12, 1994

STATE OF IDAHO
DEPT OF FISH & GAME
PO BOX 25
BOISE ID 83707

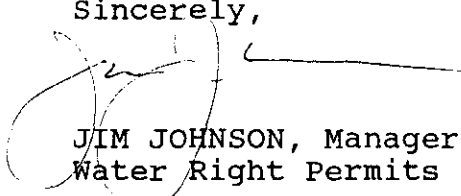
RE: WATER RIGHT NO. 82-07185

Dear Water Right Holder(s):

Enclosed herewith is a copy of the Amended Water Right License issued on the above referenced permit. This amended license supercedes the license issued on September 9, 1994.

If you have any questions, please contact me within 10 days of receipt of this license.

Sincerely,



JIM JOHNSON, Manager
Water Right Permits Section

JJ:dc

Enclosure

DEC 20 1994

M E M O R A N D U M

DATE: December 5, 1994

TO: Norm Young

FROM: Shelley W. Keen *SWK*

RE: License 82-07185

=====

Today I spoke with Cindy Robertson of Fish and Game. She said that she discussed your suggestion with Jerry McGehee, director of their Crooked River facility. He told Cindy that a license for 10.0 cfs from April through June and 6.0 cfs from July through September would be satisfactory for their purposes.

DEC 20 1994

Keen SK

MEMORANDUM

DATE: November 23, 1994

TO: Norm Young *SK*

FROM: Shelley W. Keen *SK*

RE: License 82-07185

=====

I am forwarding this amended license form to you for your signature because I concur with Fish & Game that a rate of 10.0 cfs is warranted. The file contains correspondence from Fish & Game explaining their thinking. It also contains a memo I prepared on 11/16/94 to explain why I concur. Please let me know if you have any questions.

*Based upon the recent F&G memo
perhaps the licensed rate should be
10 cfs. April thru June
6 cfs July thru Sept.*

DEC 20 1994

RECEIVED

NOV 21 1994

Department of Water Resource

facsimile

TRANSMITTAL

to: Shelley Keen, Idaho Dept. of Water Resources
fax #: 327-7866
re: Water right no. 82-7185
date: November 21, 1994
pages: 2 page(s) total, including this cover sheet

Shelley:

Attached is a copy of a memo Jerry McGehee sent to me regarding the Crooked River fish trap water right. I had requested that he send me justification for the requested 10 cfs for the trap and any measurements that had been made when the trap was operating. I am disappointed with what I received and am unsure if what he sent will suffice. Please let me know if I need to request additional information from Jerry.

From the desk of...

Cindy Robertson
Fishery Staff Biologist
Idaho Dept. of Fish & Game
600 S. Walnut, P.O. Box 25
Boise, ID 83707

tel: (208) 334-2597
fax: (208) 334-2114 / (208) 334-2148

DEC 20 1994

Clearwater Fish Hatchery
Idaho Fish and Game
4156 Ahsahka Rd
Ahsahka, Id 83520

RECEIVED

NOV 21 1994

Department of Water Resources

Nov. 15, 1994

TO: Cindy Robertson

FROM: Jerry McGehee *JM*

SUBJECT: Re-examination for Crooked River water rights.

The field examination for the Crooked River trap was done during the month of August. This is the month that has the lowest water flow in Crooked River and the month we need the lowest amount of attraction water through the trap. A reevaluation of the Crooked River facility should be scheduled for June. This is the month that we trap most of our fish, as well as the month with the highest flow in the river where we would require the most attraction water flowing through fish ladder. During June the designed amount of 10 cfs is what is required to quickly attract the fish into the fish ladder. This will minimize them fighting the weir across the river and becoming injured or killing themselves while challenging the weir. During average flows throughout the remainder of the summer an amount of 6 cfs would enable us to operate the trap efficiently. We have recently operated the trap and measured water flows to see what the minimum flow through the fish ladder would need to be to adequately attract fish into the facility. The amount required would be 6 cfs. This is based on our past experience of operating salmon traps throughout Idaho. With this amount of attraction water and flow through the traps has kept the fish in the healthiest conditions.

During the next field evaluation of the Crooked River facility, I would request that the field examiners coordinate it with the Clearwater Hatchery office so that I could be present.

JM/rdh

NOV 20 1994

M E M O R A N D U M

DATE: November 16, 1994

TO: File 82-07185

FROM: Shelley W. Keen *SWK*

RE: Justification for Amended License

=====

Permit 82-07185 was issued to the Dept. of Fish and Game on 7/10/89 with a diversion rate of 10.0 cfs. License 82-07185 was issued on 9/9/94 with a diversion rate of 3.21 cfs. The licensed rate was based on a measurement made by IDWR field examiner Theresa Bright on 8/7/91.

Fish and Game officials have requested a re-examination of the system based on their contention that 3.21 cfs is inadequate for the purpose of this right, which is for a fish ladder and trap for adult salmonids at a hatchery on the Crooked River. Fish and Game base their request on the following considerations.

- Their diversion system was designed for 10.0 cfs.
- They are capable of diverting 10.0 cfs during periods of adequate flow in the Crooked River.
- The diversion of 10.0 cfs is necessary to attract adult salmonids into the ladder and trap when river flows are relatively high.
- Flows in the Crooked River tend to be higher from April through July, when most of the adult salmonids are arriving in the river, than they are in August, when the measurement was made.

To support their request, Fish and Game provided information from Design Memorandum No. 18 of the Lower Snake River Fish and Wildlife Compensation plan. The memorandum, prepared by the U.S. Army Corps of Engineers, includes a study of stream flow and related data for the Crooked River. Although actual flow data for the Crooked River is sparse, the study projects average flows in the "early" season, April through June, to be roughly three times the flows in the "late" season, July through September (Table 3-3, p. 3-10). The projected average "early" season flow

NOV 20 1994

Shelley Keen
Memo to File 82-07185
November 16, 1994
Page 2

is 271 cfs, while the "late" season average is estimated at 96 cfs. Moreover, the study indicates that in the area

the "late season," that season for which it is desirable to operate the new facilities for chinook salmon (June through August), does include approximately 17 percent of the historical annual low flow events, specifically, the month of August (p. 3-5).

If the study is accurate, it supports Fish and Game's position that a measurement made in August is not likely to reflect flows needed to operate the facility at capacity.

The memorandum also addresses the design of the diversion system. On page 8-2, it says that the distribution line from the river intake to the trap will be a 28-inch steel pipe designed to carry 10 cfs at a velocity of 2.4 fps.

Fish and Game also provided blueprints for the Crooked River facility. The design shows the weir structures used to create the fish ladder to be 3.0' contracted rectangular weirs, not Cipolletti weirs as indicated by our field examiner. The blueprints show the vertical sides of the rectangular notch to be 1.0'. According to the Water Measurement Manual published by the U.S. Bureau of Reclamation, 1.0' of head over a 3.0' contracted rectangular weir should produce 9.32 cfs (Table 8, p. 246).

If the Corps of Engineers built the facility according to their own design specifications, then the capacity of the diversion is 10.0 cfs. The dimensions of the weir determine an ability to measure flows. They do not necessarily limit capacity, since flow over the bulkhead could be achieved.

The memorandum does not adequately address the flow needed to attract an adult salmonid into a ladder and trap. However, the general principle seems to be that higher flows are better. Moreover, the greater the flow in river, the greater the flow needed in the ladder to attract the fish away from the main channel.

The field report prepared by Theresa Bright is valuable as on-site confirmation that the Crooked River adult salmonid trapping facility is in place and operational. Her measurement, however, may or may not be accurate depending on whether the weir is a Cipoletti, as she indicated, or a rectangular, as the design specifications show. Nevertheless, a measurement in August, when flows are probably quite low, is not reasonable for indicating

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Shelley Keen
Memo to File 82-07185
November 16, 1994
Page 3

diversion capacity. The Corps of Engineers study shows that actual data is sparse, but that flows are probably much higher in April through July, during peak operation, than in August. Requiring another flow measurement does not seem necessary to be confident that 10.0 cfs is diverted when river flows are high enough. Therefore, I conclude that license 82-07185 should be amended to reflect the system capacity of 10.0 cfs.

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basin characteristics were plotted, as shown in Exhibit 9, to determine a relationship between discharge and watershed area. In general, the larger the watershed, the smaller the expected discharge on a per-mile basis, usually expressed as csm (cfs/square mile). The best fit curve to the available data would predict a 100-year recurrence interval discharge at the adult trap location of Crooked River of approximately 22 csm, or 1,627 cfs, approximately 13 percent lower than the model results. Within the limited available data, these results are considered conservative and acceptable for utilization as the basis of the upper design limits. Peak flows from the HEC-1 model results, as rounded for use at each stream station of the HEC-2 water surface profile model, are tabulated for the 100-year recurrence interval discharges in Table 3-3 along with the expected (2.33-year recurrence interval) seasonal high, average, and low flows.

TABLE 3-3

Design Discharges
Crooked River/Red River Satellite Facilities

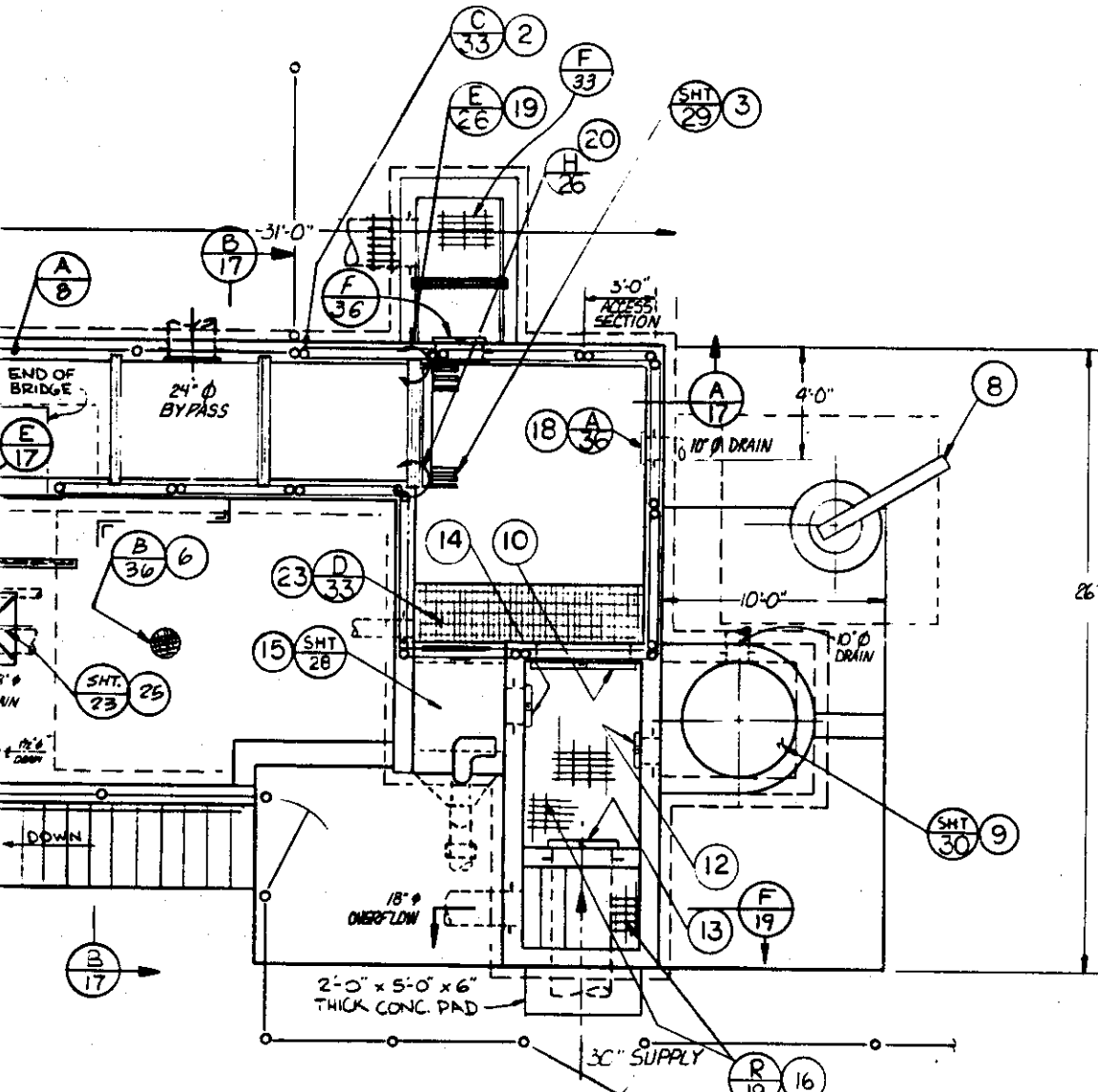
	Location (1)			
<u>Season (2)</u>	<u>RR (14.8)</u>	<u>SFRR (0.1)</u>	<u>CR (0.4)</u>	<u>CR (9.5)</u>
Early - Max	642	277	461	250
Early - Ave	377	163	271	147
Early - Min	183	79	131	71
Late - Max	370	160	265	144
Late - Ave	133	58	96	52
Late - Min	105	45	75	41
.....				
Return Period (3)				
.....				
100-Year	2,760	1,300	1,870	1,370
2.33 Min	85	37	61	33

Notes: (1) Location is by river mile of stream; e.g., RR (14.8) is discharge in the Red River at mile 14.8. SFRR is South Fork Red River; CR is Crooked River.

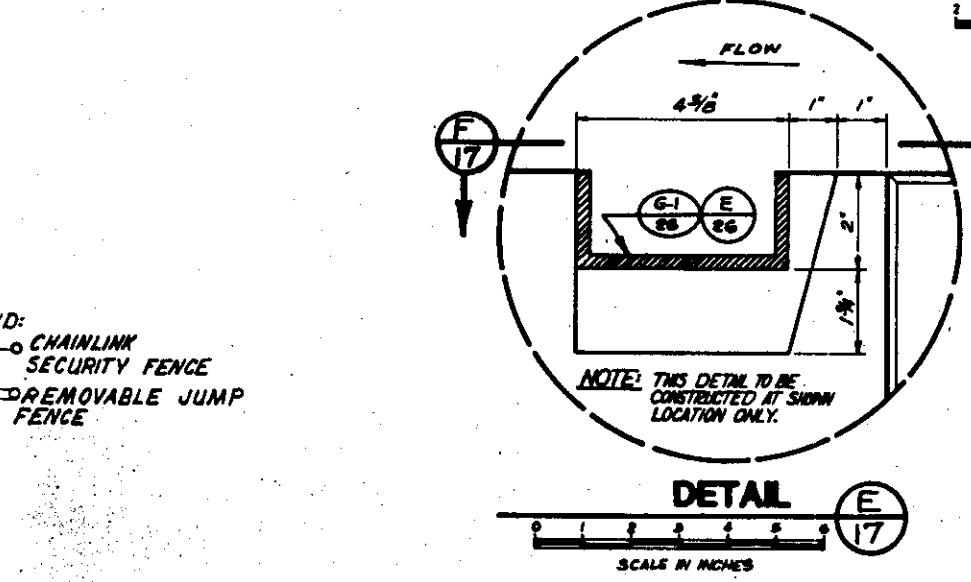
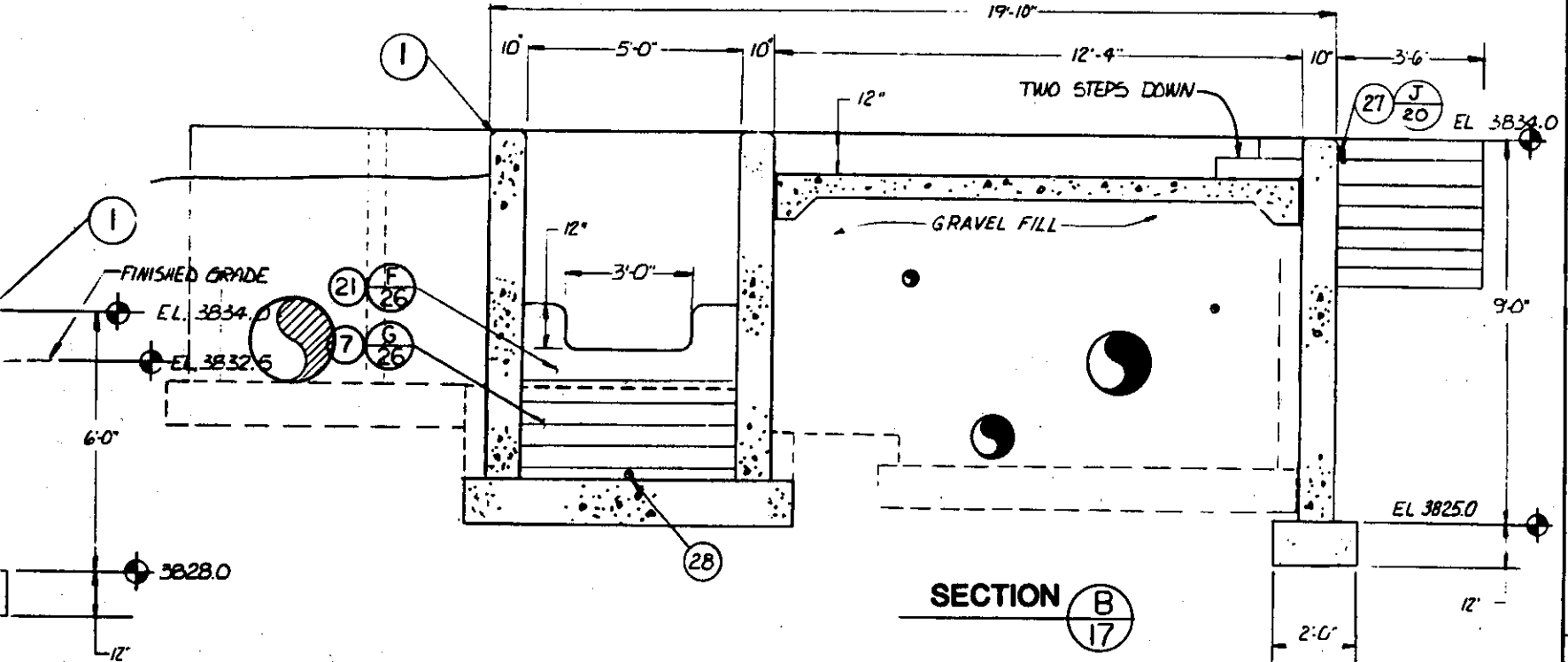
(2) Seasonal mean discharges for maximum, average, and minimum in April through June, "Early," and July through September, "Late," seasons. Operational seasons overlap in May through July.

(3) Peak design discharges of 100-year recurrence interval are from HEC-1 computer model synthetic hydrograph analyses. Minimum average annual flow is from Type I external value series of regionalized data.

NOTES



1. 3/4" X 45° CHAMFER TYPICAL AT ALL EXPOSED CONCRETE EDGES.
2. JUMP FENCE SOCKETS, SEE DET. "C" ON SHT. 33.
3. FINDER WEIR, SEE SHT. 29.
4. BRIDGE, SEE SHT. 22.
5. BARRIER SUPPORT, SILL-LOCK, SEE DET. "E" ON SHT. 33.
6. FLOOR DRAIN, SEE DET. "B" ON SHT. 36.
7. STOP LOG, SEE DET. "Q" ON SHT. 26.
8. JIB CRANE, AND ELECTRIC TROLLEY MOUNT (NOT SHOWN) 12' SPAN, 18'-0" HT, 2-TON CAPACITY, SEE SPECS.
9. FISH TRANSFER TANK, SEE SHTS. 30 AND 31.
10. "WATERMAN" 48" X 18" "SENTINEL" GATE WITH 2" NUT, FLUSH BOTTOM SEAL AND NON-RISING STEM OR APPROVED EQUAL. SEE DET. "C" ON SHT. 36.
11. "WATERMAN" 18" X 18" "SENTINEL" GATE WITH 2" NUT AND NON-RISING STEM OR APPROVED EQUAL. SEE DET. "F" ON SHT. 36.
12. "WATERMAN" 12" X 12" "SENTINEL" GATE WITH 2" NUT, FLUSH BOTTOM SEAL AND NON-RISING STEM OR APPROVED EQUAL. SEE DET. "D" ON SHT. 36.
13. "WATERMAN" 30" X 30" "SENTINEL" GATE WITH 2" NUT, FLUSH BOTTOM SEAL AND NON-RISING STEM OR APPROVED EQUAL. SEE DET. "E" ON SHT. 36.
14. "WATERMAN" 18" X 18" "SENTINEL" GATE WITH 2" NUT, FLUSH BOTTOM SEAL AND NON-RISING STEM OR APPROVED EQUAL. SEE DET. "Q" ON SHT. 36.
15. FALSE WEIR, SEE SHT. 28.
16. FIBERGLASS GRATING, SEE DET. "R" ON SHEET 28.
17. OUTLET SCREEN, SEE DET. "A" ON SHT. 26.
18. OUTLET GRATE, SEE DET. "A" ON SHT. 36.
19. STOP LOG GUIDE, SEE DET. "E" ON SHT. 26.
20. STOP LOG GUIDE, SEE DET. "H" ON SHT. 26.
21. ALUMINUM WEIR, SEE DET. "F" ON SHT. 26.
22. REMOVABLE JUMP FENCE, SEE DET. "A" ON SHT. 33.
23. TRAP UPWELL GRATE, SEE DET. "D" ON SHT. 33.
24. MP-101 SHT. PILING X 10'-0" L (CONT FURNISHED).
25. OVERHEAD HOIST BEAM & SUPPORTS, SEE SHT. 23.
26. CONVEYOR BELTING 8" WIDTH, SEE DETAIL "A" ON SHT. 33.
27. PIPE HAND RAIL, SEE SECTION "U" ON SHEET 20.
28. 2" DIA. HOLE DRAIN HOLE TO BE LOCATED IN BOTTOM OF THE THREE LOWEST STEPS.
29. CORNER SECTIONS OF SHEET PILING TO BE SUPPLIED BY CONTRACTOR.
30. "WATERMAN" 12" X 12" "SENTINEL" GATE 1/2" NUT AND NON-RISING STEM, OR APPROVED EQUAL. SEE DETAIL "F" ON SHEET 36.





IDAHO FISH & GAME

600 South Walnut / Box 25
Boise, Idaho 83707-0025

November 10, 1994

Cecil D. Andrus / Governor
Jerry M. Conley / Director

Mr. Allen Beardslee
Idaho Department of Water Resources
1910 Northwest Blvd. #210
Coeur d'Alene, ID 83814

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NOV 14 1994

Department of Water Resources

RE: Water Right Permits 82-07185 and 82-07186

Dear Allen:

Idaho Department of Fish and Game (IDFG) would like to request a re-examination of the above-referenced water right permits at the Crooked River fish facility. The water right application for the adult trapping facility (82-07185) called for 10 cfs and the design memorandum (enclosed) prepared by the Corps of Engineers (COE) indicates that the trap was designed to function at 10 cfs. I have talked with Jerry McGehee, IDFG manager for the Crooked River facility, and he said the bulk of the fish come into the facility during the high flow period of June and July and that river flows fall off by August. The field examination for 82-07185 was conducted during August when flows are normally low and the trap is not operating at full capacity.

With regards to permit 82-07186, the field examiner indicated that no measuring device was located at the point of diversion and the permit could not proceed to license until that condition had been met. Jerry McGehee informed me there is a flow measurement port in the pipeline within approximately 100 yards of the intake structure and wonders if this could meet the requirement for the point of diversion measuring device. In addition, Jerry also would like to amend the permit to change the period of use from May 1-November 1 to March 1-November 1. Please send me the appropriate forms (if necessary) and I will prepare them.

If you have any questions regarding this letter, please call me at 334-2597 or you can contact Jerry McGehee at 476-3331. Thank you in advance for your assistance.

Sincerely,

Cindy Robertson
Fisheries Staff Biologist

CR:tlv
Enclosures

cc: Jerry McGehee, Clearwater Hatchery
Shelley Keen, IDWR, State Office

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US Army Corps
of Engineers
Walla Walla District

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Department of Water Resources

Lower Snake River Fish and Wildlife Compensation

Red River and Crooked River Satellite Facilities

Design Memorandum No. 18

Revised December 1987

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Its contents are not to be used for AD-
VERTISING, PUBLICATION, OR PRO-
MOTIONAL PURPOSES.**

b. Crooked River Adult Facility.

(1) The Crooked River adult facility will provide 384 cubic feet of space for short-term holding of returning spring chinook salmon and summer steelhead. With a density criteria of 4 cubic feet per fish, 96 fish can be held in the trap at once. The average weight of the fish is 20 pounds, resulting in a maximum total of 1,920 pounds of adult fish. A flow rate of 10 cfs (4,480 gpm) has been established for the Crooked River adult facility by IDFG. With 1,920 pounds of adult fish and 4,480 gpm, the actual maximum loading will be 0.43 pounds per gpm. However, fluctuations in numbers of fish, average weight, and average water temperatures will vary the actual flow requirements, as presented in Exhibit 28.

(2) Adult summer "B" run steelhead weighing 8.0-28.0 pounds (14-pound average) will also be collected at the Crooked River adult facility to provide additional broodstock for the Clearwater Hatchery. IDFG criteria for steelhead are the same as those for spring chinook salmon. With a trap volume of 384 cubic feet and a density criteria of 4 cubic feet per fish, 96 fish may be held on a short-term basis (less than 24 hours).

6.05. REARING/ACCLIMATION RACEWAY CRITERIA.

a. IDFG has established that the Crooked River smolt rearing acclimation pond shall provide 25,000 pounds of spring chinook salmon smolts each year. Fish will be reared to the size of 30 fish per pound. The following biological design criteria have been established for the Crooked River rearing/acclimation raceways.

Production Goal: 25,000 lbs of spring chinook salmon smolts at
a size of 5 inches total length and 30 fish/
lb = 750,000 fish

Total Raceway

Volume: 17,400 cubic feet

Maximum Density $(25,000 \text{ lbs}) / (17,400 \text{ cu ft} / (5.0 \text{ inch})) = 0.3$
Index: lbs/cu ft/inch

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SECTION 8 - HYDRAULIC DESIGN, WATER SUPPLY, AND
WASTEWATER - CROOKED RIVER ADULT FACILITY

8.01. GENERAL.

This section contains the hydraulic engineering design descriptions for the water supply and wastewater system at the Crooked River adult facility.

8.02. WATER RIGHTS.

The water rights to the Crooked River adult facility will be obtained by IDFG and transferred to the Federal Government.

8.03. RIVER INTAKE AND SUPPLY LINE.

a. The design capacity for this facility was calculated with the low-flow elevation of the Crooked River at the intake location. Although return of adult fish occurs usually at higher flow elevations, the natural meander or unusually low flows could lessen the design head. The usual aesthetic practice of placing temporary boulder diversion weirs would compensate for any condition causing less than designed head at the intake. Also, the intake is located at a natural bend to take advantage of higher velocities over the intake. Another consideration at this site is that the design inflow of ~~10 cfs~~ relates to attraction water more than biological requirements; thus, a temporary reduction of flow can be tolerated.

b. Water supply for the operation of the fish ladder and adult trap shall be obtained from the Crooked River approximately 550 feet upstream from the adult collection unit (Plate 8). The river water collection system will be similar to the Red River design, providing 10 cfs to the trap facility with a screen intake velocity of 0.5 fps. The 48-square-foot area of the 3-mm wedgewire screen is sized at 16 feet by 4 feet, using the design assumption that periods of 45 percent blinding may occur, and that the ratio of open area to screen area is 0.57.

c. The average msl elevation of the water surface above the intake screens is 3,833.0 feet. Control of sediment and fines in the intake structure will be partially accomplished by the 3-mm screens. The system is designed to pass any sediment below 3 mm through the system, with any accumulation at the trap to be removed during normal maintenance of that facility. As the river intake is a short structure, the head losses are considered negligible.

d. The main distribution line shall be 28-inch steel pipe which will travel 550 feet to discharge into a control box at the head of the trap. At the maximum operating capacity of 10 cfs, a velocity of 2.4 fps will be attained in the supply line, thereby providing a self-cleaning action. As explained in paragraph 7.03.e, a pipe roughness value of 0.0005 foot is used. When equivalent pipe length is added to account for entrance loss, exit loss, and two 45-degree elbows, the resulting head loss value is 0.70 foot. Assuming a head of 3,833.0 feet into the supply line, there is sufficient head to operate the trap at elevation 3,831.5 feet.

8.04. FISH DIVERSION.

Fish diversion shall be provided by a bridge-type semipermanent weir at the Crooked River adult collection facility. This structure will include a concrete sill across the bed of the river, removable weir fish screens (pipe picket-type with extruded structural aluminum frames), a removable weir screen support system, a grip-strut walkway, and an overhead chain hoist and I-beam gantry for removal of weir sections. The fish diversion weir shall be installed during the collection of spring chinook salmon (June to August) and steelhead trout (April to mid-May). During periods of nonuse, weir support sections will be removed from the stream and kept in on-site storage. Cleaning of stream debris will be done manually during operation of the weir. Upstream fish passage will be accomplished through the ladder, trap, and false weir system or by removal of river weir sections. Details of the fish barrier may be seen in Plate 21.

8.05. FISH LADDER.

A concrete fish ladder similar to the ladder design used at the Red River adult facility will be used at the Crooked River facility. The ladder will operate with 10-cfs flow obtained as overflow water from the trap. An elevation difference of 4.0 feet will exist between the water surface levels of the river and the trap located at elevations 3,827.5 feet and 3,831.5 feet, respectively. Therefore, three ladder steps with 1.0-foot vertical drops between steps will be required. Each step will measure 5 feet wide by 6 feet long and have an average depth of 3.5 feet; an additional 2 feet of freeboard will be placed above each weir. The weirs are composed of wooden stoplogs, with top rectangular notches and bottom orifices sized such that the water will run 1.0-foot deep through the top notch. For the Crooked River ladder, the bottom orifice will be a 2-inch-diameter hole, while the top notch is sized 1-foot deep by 3 feet wide. The bottom orifices will serve to flush out any settled sediment within the ladder and to drain the structure. Only head loss due to drop in elevation is considered for this structure; friction and local losses are negligible in comparison.

8.06. FISH TRAP.

a. The concrete trap shall have water dimensions of 12 feet wide, 8 feet long, and 4 feet deep, providing 384 cubic feet of effective volume. A 2-foot freeboard will be provided. Plate 19 illustrates the Crooked River trap design.

b. Fish access to the trap will be via the fish ladder. A finger weir at the trap entrance shall prevent adults from returning to the ladder. Fish jumping will be lessened by a spray system and 4-foot aluminum insertable fencing around the perimeter of the trap. Provisions will be made for manual crowding.

c. The operating elevation of the trap will be 3,831.5 feet. A waterflow rate of 10 cfs will come from one of two locations, depending on the mode of operation. When fish trapping is in progress, water will be delivered through a 28-inch pipe from the main supply line. Alternatively, when adult release or pass-through is desired, 5 of the 10 cfs will come from the false weir contiguous to the trap (see paragraph 8.07). In both cases, the trap water will discharge via the finger weir, thereby providing the water supply to the fish ladder.

8.07. VOLITIONARY RELEASE/FALSE WEIR.

a. A false weir capable of delivering 5 cfs will be operated when the release of adults or pass-through is desired without handling the fish. After jumping the crest of the weir, the fish will land on a stainless steel chute wetted by water from an orifice in the back of the weir. The chute will transition into a 14-inch fiberglass tube which will deliver the adults to a plunge pool in the river upstream of the fish barrier.

b. Water delivery to the false weir will come from the main supply line. Nearly all water will discharge through 15 9-inch by 1.5-inch slots in the front of the weir, dropping 0.5 foot to the trap elevation of 3,831.5 feet. A small portion of the flow will exit the 4-inch by 1-inch back orifice, serving to wet the return chute. Operation of the false weir may be suspended by closing the 18-inch butterfly valve. Details of the Crooked River false weir may be found in Plate 23.

8.08. ADULT TRANSFER UNIT.

Fish loading will be accomplished with a jib crane and electric motored chain hoist from the trap area to a truck loading zone. The loading basket will fit snugly in the 4-foot-diameter by 4-foot deep section off the main trap area and is designed to match the loading orifice

of the transport trucks. Water will enter the loading area via an independent 8-inch line stemming from the main supply line and will exit at floor level through a 12-inch line to the trap.

8.09. CROWDERS.

Crowders will be constructed as described in paragraph 7.10.

8.10. SPAWNING AREA.

Adjacent to the trap, a concrete slab will be constructed with curbing and drain provisions. Pressurized water for spawning purposes will be available through a nearby hydrant. This area may also be used for general purposes such as storage or for future expansion.

8.11. WATER DISCHARGE.

The water discharged from the new adult trapping facility will not be appreciably altered from the source water that will be diverted through it in terms of waste load. Since the adults will not be fed during the collection period, there will be no uneaten food and minimal body wastes discharged into the water. Therefore, the addition of these facilities will not have a significant detrimental effect on the Crooked River.

8.12. DOMESTIC WATER.

Potable water for the support building will be provided by a well located near the building but outside of the 100-year floodplain. The Government will drill a test well at the site to determine potential yield and aquifer characteristics. It is anticipated that a 10-gpm well can be developed. Depending upon final yield, an 8- to 10-gpm pump will be installed. Pump controls and a hydropneumatic tank will be located in the storage area of the building.

8.13. DOMESTIC WASTE.

Domestic waste disposal from the support building will be accomplished with a septic tank/seepage field system. A 500-gallon precast concrete septic tank will be located near the building, with the access manhole above the 100-year flood elevation. Effluent from the septic tank will flow into another 500-gallon precast tank that will serve as a pump sump. A submersible sewage pump, with an easily removable discharge hose, will pump effluent to the seepage field located near and parallel to the existing USFS road. The local health department code requires seepage fields to be located a minimum of 300 feet from the river. Since less than 300 feet is available at the site, IDFG will

contact the health department and resolve the permit issue. After the local health department (Idaho County Health Department, Grangeville, Idaho) has evaluated the soil conditions, the seepage field will be sized according to the 1980 EPA design manual "On-Site Wastewater Treatment and Disposal."

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SECTION 9 - HYDRAULIC DESIGN, WATER SUPPLY, AND WASTEWATER - CROOKED
RIVER REARING/ACCLIMATION RACEWAYS

9.01. GENERAL.

This section contains the hydraulic engineering design descriptions for the water supply and wastewater systems at the Crooked River rearing/acclimation site.

9.02. WATER RIGHTS.

The water rights to the Crooked River rearing/acclimation raceways will be obtained by IDFG and transferred to the Federal Government.

9.03. RIVER INTAKE AND SUPPLY LINE.

a. The hydraulic design capacity of the intake and supply line for the rearing/acclimation raceways was based on the low-water elevation of 4,356.5 feet on the Crooked River at the site of the intake. Temporary boulder weirs will be used should channel meander or unusually low flow create a head lower than required. Water enters the intake structure through screens which have a minimum surface area of 52 square feet exposed to water at low flow. Since the intake screen has 60-percent net open area and could be 30-percent clogged by debris, the effective open flow area is 22 square feet. For the desired project supply flow of ~~5.5 cfs~~ and the smallest expected effective flow area of 22 square feet, the criteria is met for 0.5 fps passing through the intake screens. Also, head loss through the screens is negligible.

b. The vertical location of the supply pipe inlet was determined by pipe submergence requirements to prevent vortexing. At lowest flows, the water surface in the intake structure still meets submergence requirements above the top of the pipe. If vortexing should occur, simple modifications, such as a floating raft, could eliminate vortex action.

c. The supply pipe is 30-inch-diameter concrete cylinder pipe (CCP) from the intake structure to the raceways. At the raceways, a pipe manifold divides flow into four 14-inch-diameter pipes. Two pipes supply 5.5 cfs of flow that upwells into each raceway upstream from fish barrier screens. Knife gates on each 14-inch-diameter pipe regulate inflow to the raceways so that water is distributed evenly between both pipes in each raceway and also distributed evenly between both raceways. The gate at the intake structure will be used for on/off regulation of flow to completely prevent flow from entering the supply pipe for maintenance purposes and for closing the facility during the off-season.

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9.04. REARING/ACCLIMATION RACEWAYS.

a. The spring chinook rearing and acclimation facility will consist of two raceway ponds. Each pond is 145 feet long (between screens), 20 feet wide, with an average water depth of 3 feet. The total water volume for both ponds, between the fish barrier screens, is 17,400 cubic feet. Each pond will receive a 5.5-cfs water inflow, which results in 2.28 water volume changes per hour.

b. Water discharging from each rearing raceway will flow over stoplog weirs that maintain the water depth in the ponds. This discharge falls into a drainage bay and then enters a 24-inch-diameter CCP pipe through a mud valve. The two pipes are routed from the raceways to the sedimentation pond.

9.05. FACILITY DRAINAGE.

a. Flow exits each raceway pond through a 24-inch-diameter CCP ($n = 0.015$) pipe and is routed to the sedimentation pond. The combined raceway flow of 11 cfs enters the sedimentation pond through a submerged inlet pipe. The sedimentation pond water surface elevation is maintained at 4,350 feet by the downstream drain sumps. The pond is configured so that retention time of the flow is 30 minutes. Flow exits from the sedimentation pond through three 18-inch-diameter pipes and is passed to the Crooked River. A riprap blanket at the river will protect the riverbed from the energy of the outflow.

b. Throughout the system, pipes are sized to maintain a scouring velocity of nearly 2 fps at the 11-cfs normal operating flow. This velocity should keep any sediment in suspension so it may pass through the facility and back into the river.

c. During fish rearing, the raceways will be vacuum cleaned by the use of a portable electric vacuum pump, a 2-inch floating hose, and a manually-controlled vacuum cleaner head (similar to those used to clean swimming pools). The cleaning waste will be pumped into the cleaning sedimentation pond, which has a volume of 4,000 cubic feet. Cleaning waste will be retained in the cleaning sedimentation pond for 4 hours before being introduced into the main sedimentation pond. The solid waste in the cleaning sedimentation pond can be dewatered by use of decanting valves at the downstream end of the pond. Once the solid waste is dried out, a front-end loader can enter the pond for waste removal by using the access ramp.

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9.06. FISH RELEASE.

Before fish release, the mud valve on the raceway drainage pipe will be closed and the gate on the fish release pipe will be opened. Then, raceway screens and stoplogs will be removed, allowing fish to pass downstream with the draining water. As fish leave each raceway, they pass through an 18-inch-diameter fish release pipe and enter the river. The maximum anticipated velocity in the 18-inch-diameter pipe during fish release is 7.5 fps. The outlets of the pipes are located so that fish will be released into a 3-foot-deep pool. Also, the pond drainage system can completely empty one raceway pond in less than 1 hour.

M E M O R A N D U M

DATE: October 24, 1994

TO: File 82-07185

FROM: Shelley W. Keen *SWK*

RE: Licensed diversion rate

=====

Cindy Robertson of Idaho Dept. of Fish and Game visited today to discuss the diversion rate issued on this license. She said that Jerry Mc Gehee, manager of the facility for which this license was issued, is concerned that the 3.21 cfs rate is too low. The application was for 10.00 cfs.

The licensed rate is based on a Cipolletti weir measurement made in August of 1991 by examiner Teresa Bright.

The diversion is for a bypass fish ladder leading to a trap for adult Chinook salmon. According to Cindy, the flow in the ladder needs to be high to entice the fish to enter. August, when the measurement was made, is about the time of year when the ladder would be in use.

I asked Cindy to provide a written request for a re-examination. I suggested that she attach design specifications for the facility. I also requested an explanation of what time of year the facility is needed and whether its operation was successful in 1991.

[Handwritten signature]

DEC 20 1994



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

CECIL D. ANDRUS
GOVERNOR

R. KEITH HIGGINSON
DIRECTOR

September 12, 1994

STATE OF IDAHO
DEPT OF FISH & GAME
PO BOX 25
BOISE ID 83707

RE: WATER RIGHT NO. 82-07185

Dear Water Right Holder(s):

Enclosed herewith is a copy of the Water Right License issued on the above referenced permit. If you have any questions, please contact me within 10 days of receipt of this license.

Sincerely,

A handwritten signature in cursive script that reads 'Shelley W. Keen'.

Shelley W. Keen
Water Rights Supervisor

SK:dc

Enclosure

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DEC 20 1994

LICENSE REVIEW CHECKLIST

PERMIT NO. 82-7185 DATE 8-26-94



NAME	Yes ☐	No ☒	Or Address Change?
PRIORITY DATE	☐	☒	Advance? ☐ Advanced to: _____ Order to reinstate needed? ☐ Incorrect fee for rate recommended? ☐
SOURCE	☐	☒	Changes or just clarification of originally intended source? _____ Notice of Intent to Void necessary? ☐
POINT OF DIV	☐	☒	Amendment needed? _____ ☒ Overlaps? _____
PLACE OF USE	☐	☒	Amendment needed? _____ ☒ Overlaps? _____
DIV RATE	☐	☒	Measurement Q = <u>3.21</u> Theoretical Q = _____ Capacity: <u>3.21</u> Combined rates exceed capacity _____ Permit/fee limits: <u>10 CFS</u> Allowable: <u>3.21</u>
ANNUAL VOLUME	<u>NA</u>	☒	Season of use: _____ Calculations: _____ Flow limit: _____ cfs x _____ x 1.9835 = _____ Combined volumes exceed capacity/allowable _____
USES	☐	☒	Change in Nature of Use or additional uses? _____ Amendment necessary? ☐
REMARKS	☐	☒	Multiple p/d(s) in 1/4 1/4? _____ ☒ Other _____
CONDITIONS	<u>002</u>	☐	Measuring/Locking Devices _____ ☒ Watermaster control - District _____ ☒ Irrigation Overlap _____ ☒ Water Quality _____ <u>027</u> ☐ Other <u>NON-CONSUMPTIVE</u>

COMMENTS: part KNOWN AS CLEARWATER FISH HATCHERY; IS an adult fish ladder and trap, NOT A REARING FACILITY.
FLOW THROUGH FACILITY - Volume need not be calculated.

RECOMMENDED	CFS	VOLUME	LICENSE ☒
<u>Fish Prop</u>	<u>3.21</u>	<u> </u>	ADJUSTMENT MEMO NEEDED ☐
<u> </u>	<u> </u>	<u> </u>	1ST AMENDMENT LETTER ☐
<u> </u>	<u> </u>	<u> </u>	FINAL AMENDMENT LETTER ☐
TOTALS			



STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

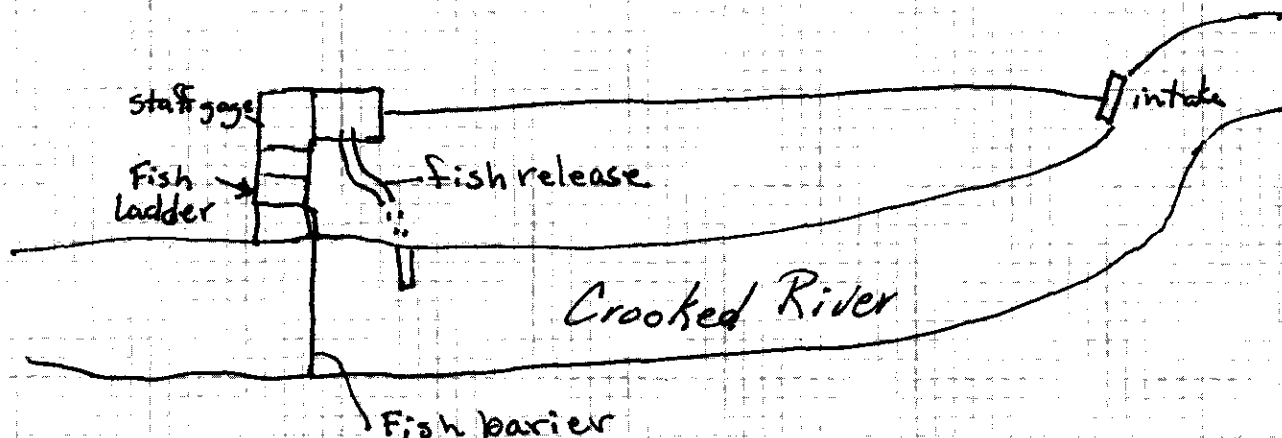
Permit No. 82-07185
1. Owner: Idaho Dept. Fish & Game Phone No. 334-3730
Current Address: P.O. Box 25, Boise, ID 83707
2. Accompanied by: Jerry McGhee EXAM. DATE: 8/7/91
Address: Rt 2 Box 121A Kamiah ID 83536 Phone No. 9352112
Relationship to Permit Holder: Dept. Rep
3. Source: Crooked River tributary to South Fork Clearwater River

B. OVERLAP REVIEW

1. Other water rights with same place of use: None ☐ 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" = NTS

2. ☒ Copy of U.S.G.S. Quadrangle Attached Showing location(s) of point(s) of diversion and place(s) of use (required). ☐ Aerial Photo Attached N/A (required for irrigation of 10 acres or more).
☒ Photo of Diversion and System Attached (required for all but single household domestic groundwater, and stockwater).

DEC 20 1994

System Description (continued)

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

Water from the Crooked River enters system through valve in screened intake structure, travels through trap area to a series of weirs and then returns to the river. The weirs form a fish ladder. This structure is an adult fish trap, not a rearing facility. When adult fish are released, a tube is attached to the valve at the trap & the fish release tube, and the fish are flushed back into the river.

☐ 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
Gravity					

*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
		SW	NE	SE	25	29N	7E	Idaho	Map

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

Indicate Method of Determination Map

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	
29N	7E	25													H				

Do not use this space

DEC 20 1994

Do not use this space

D. FLOW MEASUREMENTS

☐ Additional Data Sheets Attached

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Staff Gage						
Cipolletti Weir	36"					

2. Measurements:

.47 feet on a 36" Cipolletti weir

E. FLOW CALCULATIONS

☐ Additional Computation Sheets Attached

1. Measured Method:

3.21 cfs as per "Water Measurement" handbook from U. of I

2. Alternate Method for Checking Purposes:

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:

None consumptive
No raceways or ponds - only a fish ladder & trap

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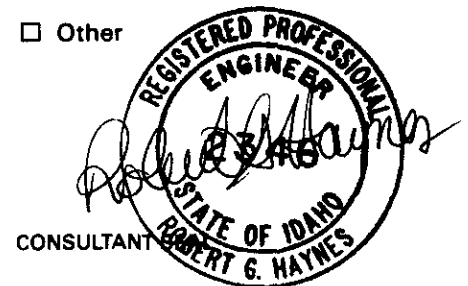
[illegible]

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
Fish culture	4-1	10 - 1	3.21 cfs	—
Totals:			3.21 cfs	—

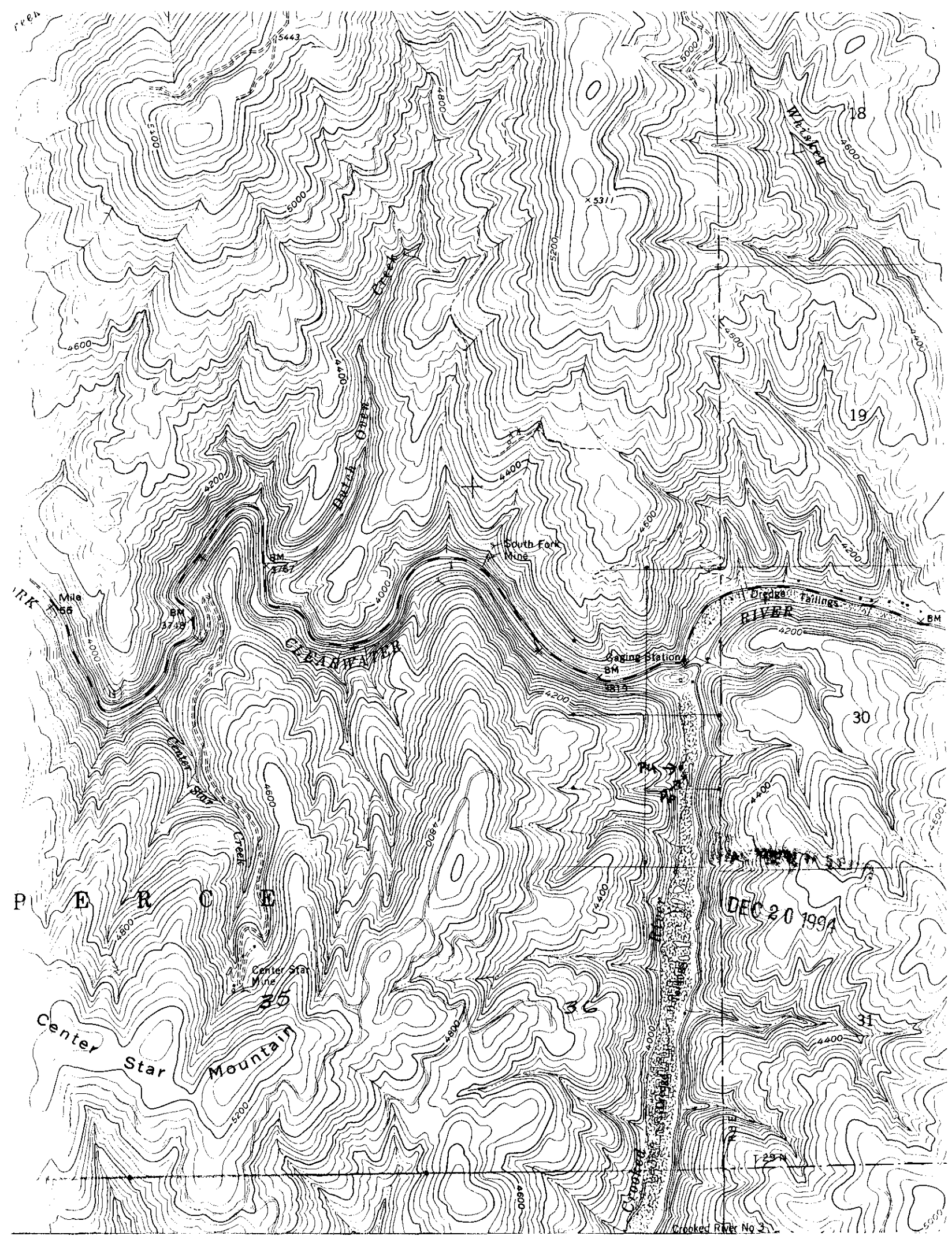
☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

Field Examiner's Name Theresa J. Bright
Signature Theresa J. Bright
Certification Date 4/10/96
Field Report Preparation Date 8/22/91



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

DEC 20 1994



STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
FIELD REPORT SUPPLEMENT

PERMIT # 82-07185
Barnatran

PHOTOGRAPHS



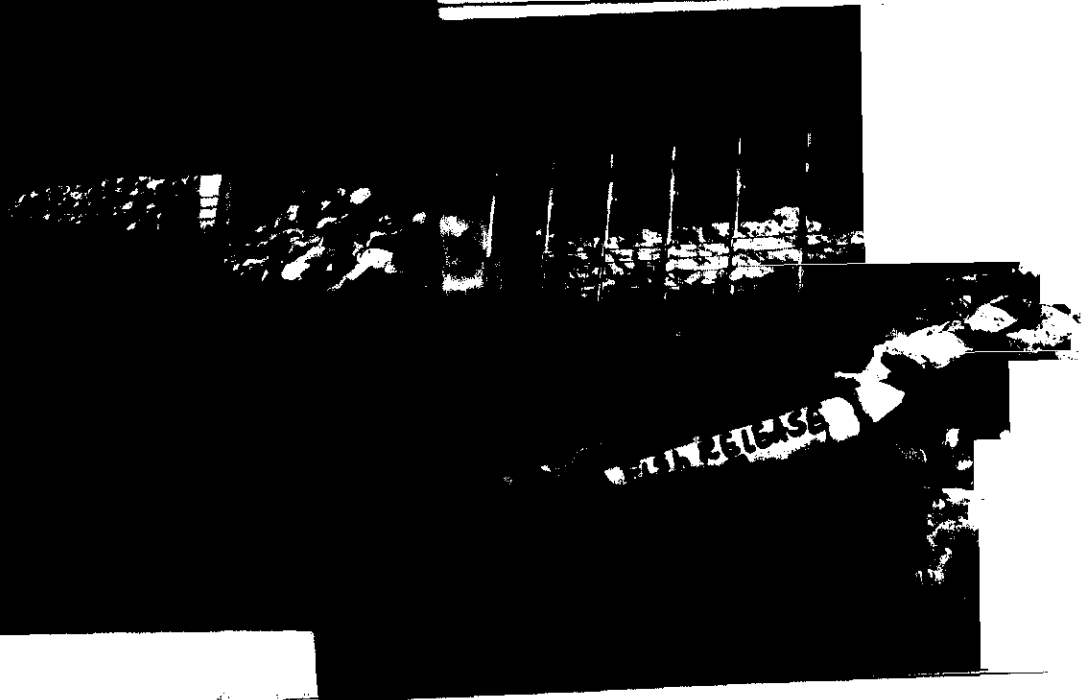
INTAKE STRUCTURE

FISH RELEASE TUBE

&

"TRAP" AREA

DEC 20 1994





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

CECIL D. ANDRUS
GOVERNOR

R. KEITH HIGGINSON
DIRECTOR

October 25, 1991

Department of Fish and Game
P.O. Box 25
Boise, ID 83707

RE: Permit No. 82-07186 and Permit No. 82-07185

Dear Permit Holder:

This office acknowledges receipt of the Proof of Beneficial use form submitted on July 15, 1991.

Note the condition of approval of your permit which requires you to install a flow measurement port or other device to provide for the determination of the rate of diversion. The next step is for the department to conduct a field examination for licensing purposes. At the time the field examination is conducted, a type of measuring device must be installed. Failure to comply is reason for the department to cancel the permit.

The department understands, however, that certain methods of diversion make it impossible to install measuring devices. If this situation applies to you, discuss with the department representatives alternative techniques of measuring your diversion rate. At the time of the field inspection, the field examiner can be prepared with the appropriate measuring equipment.

Also, you have indicated the rate of diversion on Permit No. 82-07186 to be 12 cfs and submitted a \$400 license exam fee for permit no. 82-07186. The license exam fee for 12 cfs is \$375. You have indicated the rate of diversion on Permit No. 82-07185 to be 10 cfs and submitted a \$375 license exam fee. The license exam fee for 10 cfs is \$350. Therefore, I have initiated the process to refund the difference of \$25 on each permit.

The department will continue to process the proof. If you have any questions concerning this matter, feel free to contact this office.

Sincerely,

Karen Gustafson

Karen L. Gustafson
Secretary/Records Manager

CC: Northern Region

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NOV 21 1991



IDAHO FISH & GAME

600 South Walnut / Box 25
Boise, Idaho 83707

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AUG 01 1991

Department of Water Resources

July 26, 1991

Idaho Department of Water Resources
Statehouse Mail
Boise, ID 83725

Gentlemen:

Enclosed are Proof of Beneficial Use forms together with the required fees for Permit Numbers 82-07185 and 82-07186.

If you need any further information, please let me know.

Sincerely,

Philip G. Jeppson
Engineering Supervisor
Bureau of Engineering

PGJ:Q

Encs.

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Cecil D. Andrus / Governor
Jerry M. Conley / Director



NW2

**RECEIPT
For Monies Paid
to the
IDAHO DEPARTMENT OF WATER RESOURCES**

Receipt No: 0021371

Date: 8/ 1/1991
Time: 08:19:18

Received

From: IDAHO, STATE OF (F & G)

Type of Payment	Program Acct Class	Amount
PROOF OF BENEFICIAL USE (B2 07185)	550122 1238 6490	350.00
Total		\$350.00
CHECK	042996	

Region: STATE

Signature: J. Yarbrough

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138720
May 31, 1991

STATE OF IDAHO
DEPT. OF FISH & GAME
P.O. BOX 25
BOISE, ID 83707

PROOF DUE NOTICE

RE: PERMIT NO. 82-07185

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

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NOV 21 1991

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
COMMENCEMENT OF WORKS

Permit No. 82-07185
Name(s) of Permit Holder(s): Idaho State Fish & Game Dept.
Post Office Address: P.O. Box 25, Boise, Id. 83707
334-3730

☒ I hereby certify that construction of diverting works for the above referenced permit began on June 1989. I understand that I must continue to develop the water system with due diligence to maintain a valid permit.

☐ I hereby certify that construction of diverting works on the above referenced project has not yet begun due to the following reason beyond my control:

*Note: A financing difficulty is not an acceptable reason.

7-14-89
Date

Reilly J. Suppa
Signature of Permit Holder

Idaho Fish & Game Dept.

P.O. Box 25

Boise, Id. 83707

PLACE
STAMP
HERE

RECEIVED

SLY 14



JUL 19 1989

Department of Water Resources

IDAHO DEPARTMENT OF WATER RESOURCES
STATEHOUSE
BOISE, IDAHO 83720

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Statehouse
Boise, Idaho 83720
(208) 334-7900
July 12, 1989

STATE OF IDAHO
DEPT. OF FISH & GAME
P.O. BOX 25
BOISE, ID 83707

PERMIT APPROVAL NOTICE

RE: PERMIT NO. 82-07185

Dear Permit Holder:

Enclosed is a copy of your approved application for permit. We direct your attention to the conditions of approval on the final page.

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 permit was issued, and you must proceed diligently until the project is completed. The enclosed blue card must be completed and returned to this office as soon as you commence construction, no later than one year from the date the permit was 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 this permit into a license.

Sincerely,

GARY SPACKMAN, Supervisor
Water Right Permits Section

GS: SC
Enclosures

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State of Idaho

License and Certificate of Water Right

Water License No. 18034

Water District No. _____

Amount 85.0 sec. ft.

Priority August 17, 1934

THIS IS TO CERTIFY that OROGRANDE-FRISCO GOLD MINES, INC. of Lewiston, Idaho, made application for a permit to appropriate the public waters of the State of Idaho, dated August 17, 1934; that Permit No. 18034 was issued under said application; that Certificate of Completion of works, with a carrying capacity of 85.0 second feet, was issued thereunder on April 20, 1936, showing that said works were completed on the 1st day of May, 1935; and that on the 1st day of May, 1935,

OROGRANDE-FRISCO GOLD MINES, INC.

of Lewiston, State of Idaho, made proof to the satisfaction of the Commissioner of Reclamation of Idaho, of the right to use the waters of Crooked River, a tributary of South Fork Clearwater River, for the purpose of power, mining, and milling, under Use Permit No. 18036 of the Commissioner of Reclamation, and that said right to the use of said waters has been perfected in accordance with the laws of Idaho, and is hereby confirmed by the Commissioner of Reclamation of Idaho and entered of record in Volume of Licenses, at page 3831, on the 19th day of May, 1936.

The right hereby confirmed dates from August 17, 1934.

The Point of Diversion is located at the mouth of Crooked River, just below the confluence of Gratiot Creek with Crooked River, in B. M. Idaho County, Idaho.

That the amount of water to which such right is entitled and hereby confirmed, for the purpose of power, is limited to an amount actually needed and beneficially used for said purposes, and shall not exceed 85.0 cubic feet per second.

Description and location of use:

Trp.	Range	Sec.	Forty-acre Tract	No. Acres Described in Permit	No. Acres Actually Irrigated

The right to the use of the water stream hereby confirmed is restricted to the lands or place of use herein described, as provided by the laws of Idaho.

WITNESS the seal and signature of the Commissioner of Reclamation, affixed at Boise, Idaho, this 15th day of May, 1936.

R. W. FARIS
Commissioner of Reclamation

(Seal)

HC 10040

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STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
APPLICATION FOR PERMIT

Ident. No. 82-7155

To appropriate the public waters of the State of Idaho

1. Name of applicant Glamis Gold, Inc. Phone (602)783-1891
Post office address P. O. Box 2015, Yuma, AZ 85364

2. Source of water supply Crooked River which is a tributary of South Fork Clearwater

3. Location of point of diversion is SW $\frac{1}{4}$ of SE $\frac{1}{4}$ of NW $\frac{1}{4}$, Govt. Lot
Sec. 1 Township T27N Range R7E B.M. Idaho* County; additional
points of diversion if any: _____

*kw 5/7/1987

4. Water will be used for the following purposes:

Amount 1.00 for Mining purposes from Jan. 1 to Dec. 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) 1.00 and/or (b) 5
cubic feet per second acre feet per annum

6. Proposed diverting works:

a. Description of ditches, flumes, pumps, headgates, etc. A 5hp pump with a 4" intake will be
used to fill a 5000 gal. water truck.

b. Height of storage dam -0- feet; active reservoir capacity -0- acre-feet; total
reservoir capacity -0- acre-feet; period of year when water will be diverted to storage:
-0- to -0- inclusive.

c. Proposed well diameter is -0- inches; proposed depth of well is -0- 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 of the water to the _____ use is
5 years (minimum 1 year).

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required per annum.



FTU Inc. V.P. Glamis Inc.
(Applicant)

Received by RL Date 3-5-87 Time 10:00 am Proposed Priority 2/20/87
Fee \$ 4500 Received by RL # 42291 Date 3/9/87
Publication prepared by RL Date 3/20/87 Published in Idaho Water Review
Publication approved RL Date 4/2/87

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. 82-7155, 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 June 1, 19 89.

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.

The issuance of this permit in no way grants any right-of-way or easement across the land of another.

Prior to the diversion of water under this permit a flow measurement port or other device as specified by the Department shall be installed to provide for the installation of measuring equipment and the determination of the rate of diversion by the Department.

In the event that water used under this permit should be discharged into a natural channel, settling ponds will be required which are capable of reducing the silt load to such a level that the quality of the water would not be impaired for other beneficial uses.

Water used under this permit if discharged into a natural channel or subsurface system shall meet Idaho Water Quality Standards.

Witness my hand this 12th day of May, 1987.

L. Glen Saxton
Chief, Operations Bureau

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IDAHO FISH & GAME

600 South Walnut / Box 25
Boise, Idaho 83707

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JUN 06 1989

Department of Water Resources

June 4, 1989

Mr. Gary Spackman, Manager
Water Right Permits Section
Idaho Department of Water Resources
Statehouse Mail
Boise, ID 83720

Dear Gary:

Enclosed for your review is a copy of "Findings of no Significant Impact" for the Crooked River satellite facilities. This document includes correspondence from the Division of Environment, Idaho Department of Health and Welfare.

Also enclosed is a copy of our correspondence with the Idaho County Commission regarding this facility. I will forward any comments from the County Commissioners as soon as they are received in this office.

Thank you for your support on this projects.

Sincerely,

Philip G. Jeppson
Engineering Supervisor
Bureau of Engineering

PGJ:Q

Encs.

Cecil D. Andrus / Governor
Jerry M. Conley / Director



Working for wildlife since 1938

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JUN 06 1989

Department of Water Resources

June 4, 1989

Chairman, Idaho County Commissioners
Idaho County Court House
Grangeville, ID 83544

Dear Sir:

Enclosed is a copy of the Design Memorandum for the Red River and Crooked River satellite facilities which are part of the Clearwater Hatchery complex being constructed by the U. S. Army Corps of Engineers. The Crooked River facilities are to withdraw from Crooked River a maximum of 10 cfs for the downstream adult facility and 12 cfs, maximum, for the upstream juvenile rearing facilities.

Rule 4.5. of the Water Appropriation Rules and Regulations, promulgated by the Department of Water Resources, requires that detailed information must be submitted for applications proposing diversions in excess of 5 cfs.

Because of this rule, we are soliciting your comments on these water right applications. If possible, please provide any comments you have to my attention as soon as possible.

Sincerely,

Philip G. Jeppson
Engineering Supervisor
Bureau of Engineering

PGJ:Q

Encs.

C: Gary Spackman
Idaho Department of Water Resources

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FINDINGS OF NO SIGNIFICANT IMPACT
CLEARWATER FISH HATCHERY PROJECT
CROOKED RIVER SATELLITE FACILITY
IDAHO COUNTY, OREGON

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Department of Water Resources

The project is to construct and operate a spring chinook acclimation facility and an adult trap facility on the Crooked River near Orogrande, Idaho. The adult facility will consist of a weir/sill diversion structure in the river, intake structure, holding pond, outlet structure, and maintenance building. The adult facility will be used from June to September for adult holding, spawning, and egg hardening. The juvenile facility will consist of an intake structure, raceways, sedimentation ponds, and outlet structure. The juvenile facility will be operated each year from July to October to acclimate spring chinook smolts reared at the Clearwater Fish Hatchery. The facility is part of the Clearwater Hatchery system which is being constructed and operated under the Lower Snake River Fish and Wildlife Compensation Plan.

Construction and operation effects at the proposed site are addressed in the project environmental assessment. The primary impact of this project would be that the spring chinook populations in the Crooked River would increase.

The project has been in ongoing coordination with concerned state and Federal agencies and the public. In view of the information provided by these sources, the Section 404(b)(1) evaluation, and the environmental assessment, I find that the project would not result in significant impacts and that an environmental impact statement is not required.

DATE: 15 July 1987

MICROFILMED
James B. Royce SEP 14 1989
James B. Royce
Colonel, Corps of Engineers
District Engineer

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ENVIRONMENTAL ASSESSMENT
CLEARWATER FISH HATCHERY PROJECT
CROOKED RIVER SATELLITE
IDAHO COUNTY, IDAHO

Department of Water

1. INTRODUCTION.

A. This environmental assessment considers effects of a facility identified as the Clearwater Fish Hatchery Project, Crooked River Satellite Facility, Idaho County, Idaho. The facility will be used in final rearing and acclimation of fish produced at the Dworshak and Clearwater Fish Hatcheries and as a trapping station for returning adult fish. As required by the National Environmental Policy Act (NEPA) of 1969 and subsequent implementing regulations promulgated by the Council on Environmental Quality, this assessment is prepared to determine whether the action proposed by the Corps of Engineers constitutes a "...major Federal action significantly affecting the quality of the human environment...." and whether an environmental impact statement is required.

B. An environmental impact statement considering the overall Lower Snake River Fish and Wildlife Compensation Plan and an environmental assessment concerning the construction and operation of the Dworshak Fish Hatchery Expansion have previously been issued. Environmental assessment on another acclimation facility, Red River, which is associated with the Dworshak Fish Hatchery was issued. The environmental assessment for the Clearwater Hatchery is scheduled to be issued in 1987. Clearwater Hatchery will supply the spring chinook smolts for the Crooked River Satellite. The Clearwater Hatchery program will also include the planting of steelhead smolts directly into Crooked River.

C. The Crooked River Satellite is located within the boundaries of the Nezperce National Forest, which is administered by the U.S. Department of Agriculture Forest Service. The Forest Service will issue a special use permit to the Army Corps of Engineers (Corps) and/or the Idaho Department Fish and Game (IDG) for the construction, operation, and maintenance of the proposed facilities on the Crooked River. The Crooked River Satellite will have a rearing and holding facility for adult spring chinook and steelhead. At a separate location, it will have a juvenile rearing and acclimation facility for spring chinook smolts. For a three-month period (late June through

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September) each year, the adult facilities would be used to contain adults. These fish would be taken to the Clearwater Hatchery. The holding facility can maintain 96 fish for 24 hours. It is designed for short-term holding. Clearwater Hatchery would incubate spring chinook salmon eggs and raise fry for release in the Crooked River and other tributaries of the Clearwater River. From July through October, the juvenile facility would be used to rear and acclimate spring chinook smolts.

D. The Clearwater Hatchery is designed to produce 350,000 pounds of steelhead trout smolts (1,750,000 fish) and 91,300 pounds of spring chinook smolts (1,369,500 fish). To aid in this production, satellite facilities will be constructed to trap and hold adult fish to be used for broodstock. Additional satellite facilities will be constructed for the rearing and acclimation of smolts prior to release. Crooked River Satellite will be sized for release of 750,000 spring chinook smolt.

E. The Crooked River adult spring chinook run size is approximately 75 adults/year. Redd counts are currently 10 (1985 estimate) at their highest level since 1978. From late June through July, Adult spring chinook arrive at the Crooked River. They begin spawning during the third week in August and continue through mid-September. The average size of the adult Crooked River chinook salmon is 33.5 inches long, weighing an average 20 pounds. Adult female salmon usually carry a minimum of 3,000 eggs with an average fecundity at 4,500 eggs per female. Eggs incubate in the river through the winter and early spring. The growth period lasts from emergence in the late spring through their migration as smolts 12 months later. Smolts outmigrate in late spring as 1+ year olds. Currently, there is no intensive fish planting plan for Crooked River. The Forest Service habitat improvement program should be at full potential by 1989. The number of salmon to be taken from the Crooked River depends on the success of the Forest Service habitat improvement program. The IDG will limit the initial use of native run fish to preserve the wild fish while increasing the overall species population.

F. Crooked River receives adult steelhead when steelhead arriving at the Dworshak National Fish Hatchery are in excess of the required egg take. This project is variable and does not occur on a scheduled basis. Adult steelhead in the Crooked River arrive as early as mid-April. Adult steelhead weigh between 8 and 28 (14 pounds average). Adult female steelhead trout in the Crooked River carry an average of 5000 eggs. Spawning begins during the last week of April and continues through mid-May. Fry emerge beginning in July and emergence continues for approximately three weeks. Steelhead typically follow a one year rearing schedule, outmigrating in late spring/early summer of the following year.

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2.PROJECT PURPOSE AND NEED.

A. The satellite facility is part of the Lower Snake River Fish and Wildlife Compensation Plan which was authorized to compensate for losses caused by the Lower Snake River Dams and Reservoirs (Ice Harbor, Lower Monumental, Little Goose, and Lower Granite) located in Washington and Idaho. The Compensation Plan was authorized by the Water Resources Development Act of 1976, Public Law 94-587. The applicable portion of the act reads as follows:

Section 102. "...The following works or improvement for the benefit of navigation and the control of destructive floodwaters and other purposes are hereby adopted and authorized to be prosecuted by the Secretary of the Army, acting through the Chief of Engineers, substantially in accordance with the plans and subject to the conditions recommended by the Chief of Engineers, in the respective reports hereinafter designated...

COLUMBIA RIVER BASIN

Fish and Wildlife Compensation Plan for the Lower Snake River, Washington and Idaho, substantially in accordance with a report on file with the Chief of Engineers, at an estimated cost of \$58,400,000."

B. The anadromous fisheries portion of the Compensation Plan is based on the recognition that construction and operation of the lower Snake River dams adversely impact anadromous fish production in the Snake River system. The Snake River is one of the outstanding river systems in the United States for production of fish and supports large populations of both anadromous and resident species. Anadromous fish from the Snake River system, particularly chinook salmon, contribute substantially to the large commercial and sport fisheries in the Columbia River and the Pacific Ocean from California to Alaska. Salmon and steelhead trout support an extensive sport fishery throughout the lower Columbia and Snake Rivers and tributaries, a limited commercial fishery below Bonneville Dam, and an Indian commercial fishery above Bonneville Dam. An excellent sport fishery for anadromous, as well as resident species, existed in the Snake River prior to lower Snake River dam construction.

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SEP 14 1989

C. The Lower Snake River Fish and Wildlife Compensation project will provide sufficient smolts to compensate for anadromous fish

losses caused by the four lower Snake River projects and provide 93,000 pounds of trout for the resident sport fishery. In addition, the project will acquire 750 acres of land along streams in the lower and middle Snake River areas to provide assured access for anadromous sport fishing. The Plan also proposes wildlife compensation in the State of Washington for losses caused by the lower Snake River dams.

D. The Crooked River Satellite Facility is designated as a satellite of the Clearwater Fish Hatchery. It is designed to provide the capability for trapping and holding 500 spring chinook and 640 steelhead adults returning to the Crooked River. The smolt facility will be acclimating and releasing 25,000 pounds (30 fish per pound) of spring chinook smolts (750,000 fish). The Satellite will help meet the anadromous fish population goals for the Clearwater River Region. The attached plates show the major features of the facility.

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3. AFFECTED ENVIRONMENT.

A. General Site Description.

The satellite facilities are located in the existing Crooked River floodplain. The adult facility is within one-quarter mile of the Crooked River's confluence with the Clearwater River. The acclimation pond is about nine miles upstream. A large gold dredge has greatly modified this floodplain, and other temporary mining activities have also disturbed the area. This mining has damaged the riparian zone at both construction sites. The land is composed mostly of gravel and cobbles with little soils. Some conifers have rooted, but the majority of the land remains disturbed. Normally, riparian vegetation includes cottonwood trees (*Populus trichocarpa*), smooth sumac (*Rhus glabra*), willow (*Salix* sp.), water birch (*Betula occidentalis*), rose (*Rosa* sp.), ponderosa pine (*Pinus ponderosa*), and cheatgrass (*Bromus tectorum*). At this higher elevation, spruces, other pines, and firs would dominate the tree constituents. Mining activities have discouraged most vegetation growth. Much of the existing vegetation is composed of conifer trees with patches of grasses and forbs. Attached to the back of this document, there are plates and photographs showing the acclimation pond satellite site.

The United States Geological Survey (USGS) has not completed the Quadrangle for this location. The location is approximated in the following description. The adult facility of the Crooked River Satellite is near the confluence of the Clearwater River and Crooked River, USGS 7-1/2 Quadrangle - Center Star Mountain, latitude 45 degrees 49 minutes North, longitude 115 degrees 32 minutes 10 seconds West. The acclimation pond of the Crooked River Satellite is near the Orogrande Airport Runway, USGS 7-1/2 Quadrangle - Orogrande, latitude 45 degrees 40 minutes 30 seconds North, longitude 115 degrees 32 minutes 10 seconds West, Idaho County, Idaho. See the attached vicinity map for general location.

B. Resource Information.

This section describes those components of the environment that are likely to affect or be affected by the proposed action. This information is substantially taken from the environmental assessment for the Crooked River Fish Habitat Improvement Project, Idaho County Ranger District in 1984.

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(1). General Description & History

Crooked River originates on the northeast perimeter of the Gospel Hump Wilderness area and flows north approximately 14 miles to its confluence with the South Fork Clearwater River. The drainage has an area of 44,914 acres and an average annual water yield of approximately 76,300 acre feet. The drainage is primarily National Forest lands with some private ownership.

Crooked River has as its headwaters two branches, both beginning at about 7000 foot elevation on the northern edge of Columbia Ridge. The streams drop rapidly to their confluence at Old Orogrande; Crooked River then flows for 5 miles on a gentler grade in a wider valley which has been dredged - refer to aerial photo. Most of the dredge piles in this river segment are in windows generally parallel to the stream course. The river then enters the 2.5 mile "narrows" section, which has only a few tailings piles in the widest areas. Sediment from the road itself has the most significant effect on fish habitat in this portion of the river. Downstream from the "narrows", the valley widens again. This portion of the river was also dredged, but in this case, the tailings piles are short and are perpendicular to each other, forming "T" and "L" shapes. In part of this section, the river is forced to meander in a symmetrical, right angle course around these dredge piles, in a fashion similar to a overly meandered pattern. Numerous rock windrows formed by the dredging operations lie adjacent to the river.

Dredge mining between 1936 and 1958 has been the principle activity affecting the river. Four different dredges were used on Crooked River. The first recorded dredge operated at the mouth of the river in 1936, using a 2 cubic foot bucket line system. A 4 cubic foot YUBA boat dredge operated from 1939 until 1942. From 1951 to 1953, a 2 cubic foot bucket dredge operated in the vicinity of Five Mile Creek. In 1958, a small dragline and washing plant was worked from 1.5 miles below Relief Creek to Five Mile Creek.

(2). GEOLOGY

The bedrock geology is complex and diverse due to an intergradation of rock types. Quartzite, biotite gneiss, augen gneiss and granitic rock are the dominant lithologies. Andesite and amphibolite dikes and sills are scattered through the area. Most of the rocks are moderate to well folded. The bedrock is best exposed along the narrows in Section 1 of Township 28N, Range 7E.

Most of the valley bottom occupied by Crooked River is covered by a mixed assemblage of unconsolidated fluvial deposits and boulders. Large areas of this material have been reworked by dredging

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activity. This sorting has left rock and gravel overlying sand. The gravel and sand is porous with a low percent of silt and clay. Most of the natural clay has probably eroded downstream during dredging. The silts and sands have undergone oxidation and are now reddish-brown. The average thickness of the fluvial material is unknown but in one backhoe pit, bedrock was exposed at 7 feet.

(3). RANGE

The sterile conditions created by the dredging have destroyed the original meadows along Crooked River. Commercial grazing, therefore, is not economically or ecologically feasible. There is some grazing potential in the transitory range created by timber harvest in the headwaters of tributaries to Crooked River. Due to the rocky/cobble nature of the dredge piles and lack of fine materials, it is unlikely that adequate forage could be established in the valley bottom in the near future.

(4). TIMBER

This satellite is located in the river's flood plain, most of which was cleared of vegetation when the river was dredged. The dredged area has only partially revegetated due to the lack of soil and the few trees that have become established are small. There is significant merchantable timber on the valley walls.

(5). RECREATION

Primary recreational activities along Crooked River are fishing, camping, gold panning and gold sluicing. Secondary activities include hiking, horseback riding, motorcycling, berry and mushroom picking, observing wildlife, photography, rock and mineral collecting and swimming. Annual recreational use of the river is largely seasonal and estimated to be 1200 visitor days per year. In addition, approximately 1200 people use the Crooked River for access to the Buffalo Hump Area, Gospel Hump Wilderness and Wildhorse Lake.

(6). ARCHAEOLOGICAL AND HISTORICAL RESOURCES

There are no known archeological sites on Crooked River. The dredging and road construction would have destroyed most potential sites on the river bottom. Sites could still exist on the relatively untouched benches above the river floodplain. The earliest historical record of activity in Crooked River is related to gold prospecting and mining and considerable evidence remains in the area of old mining methods and life styles. Although the dredge tailings are harsh,

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man-caused intrusion in the area, they may have historic appeal. If sites are found which are eligible for nomination to the National Register of Historic Places, they will be protected until the decision is made whether or not the project can be moved or adjusted to protect the site.

(7). FISHERIES

In the Crooked River drainage there are approximately 8707 square yards of suitable steelhead and 5026 yards of suitable salmon spawning gravels. This is enough for 580 and 314 spawning pairs, respectively.

The dredging reconstructed the river channel and has had several adverse effects on fish habitat. During dredging operations, the distribution of natural stream bottom and bank material was completely altered. Any large boulders encountered were worked around, moved or allowed to drop into holes in the bottom of the excavation. The fine sands, which were worked for gold, were dumped back into the water and filled the excavation to the water line. Most of the organic matter, silt and clay, were suspended and moved downstream. The pebbles and small boulders were passed through the dredge and placed above the sand layer in the form of tailings piles. The materials in the tailings piles range in size from sand particles through boulders about 12" in size. The sands have washed from the surface of the piles, leaving them with a cobbled appearance. The river channel has rearmored itself with material from the tailings piles. As a result, water flows smoothly without disruption from large boulders. Pools form where snags from adjacent, residual timber stands fall into the river; however, there are few pools presently being formed this way due to lack of suitable trees. Pools also form where the stream course turns sharply. Pools provide deep resting areas for spawning salmonids and resident fish.

The dredging activity has removed most of the vegetation from the streamside and has created a sterile environment where it is difficult to establish new vegetation. Vegetation on stream banks reduces bank erosion, creates overhanging banks and provides cooler temperatures and improved fish habitat.

In the meandered section (about river mile 3 to 6), the original stream course was on a steeper gradient than the present stream. The man-made meanders cause the river to travel a longer horizontal distance for the same vertical drop than the original stream course had.

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This extra distance partially compensates for the lack of obstructions (boulders, logs, etc.) in reducing stream velocities, but it has adverse effects also. Longer exposure to the sun causes a rise in water temperatures. Also, the numerous right angle turns increase the amount of bank erosion and sloughing at each meander. Even after 20-40 years the tailings piles are not at the final angle of repose. Neither is there enough vegetation to stabilize the tailings. As a result, at each meander the current washes the finer sands and gravels from the bank, removing support for the larger material, which then sloughs into the river channel. Sediment introduction by this method is a continuing problem.

Many of the tributary streams flow underground after they enter the dredged area. This results in a barrier to any fish which would normally migrate into these streams to spawn.

Another factor affecting the river is the Crooked River Road (Road #233). For most of its length, the road was constructed on benches adjacent to the riparian zone, but in the 2.5 mile stretch through the narrows, the steep canyon walls have forced the road to the edge of the stream. The proximity of the road to this portion of Crooked River results in the introduction of sediment directly into the stream when water runs off the road during rainstorms, snowmelt, and during normal maintenance and repair.

Due to the previously discussed effects of dredging, including high sediment concentrations in the spawning gravels, lack of rearing habitat and insufficient adult holding habitat, current fishery potential output is well below optimum. A survey completed in 1980 on the Crooked River shows 30-40% fines (particles less than 6.3 mm diameter) in spawning gravel substrate. Less than 15% fines is considered optimum. Good pools (classes I, II or III) constitute only 8% of the stream area; whereas 35% pools is desirable. Hiding cover is almost nonexistent.

(9). WILDLIFE

Although some of the tailings piles appear to be slowly revegetating, most have very little vegetation and provide little cover or forage for wildlife. The lack of vegetation reduces both quantity and diversity of habitat available for riparian-dwelling wildlife.

Because of its degraded nature, there is reduced wildlife use of the Crooked River valley bottom. There is ~~no~~ small beaver

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population which suffers from a lack of suitable forage (riparian hardwoods). There is also heavy moose use of the old dredge ponds during the summer. Due to the lack of hiding cover and proximity of the road, there is a severe moose unregulated harvest problem.

(10). ENDANGERED OR THREATENED WILDLIFE

In informal consultations, the United States Fish and Wildlife Service has expressed concern over possible effects of this project on recovery of the gray wolf. In addition, the northern bald eagle was identified for the potential concern over its perching trees. Biological evaluations for the gray wolf and the bald eagle have been written. The United States Fish and Wildlife Service did not express concern over potential impacts of this project on any other endangered or threatened plant or animal.

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4. ALTERNATIVES.

A. Proposed Action.

The proposed action is to construct, operate and maintain a fish barrier, fish trap and rearing pond. The Corps of Engineers will do the site construction. The Idaho Department of Fish and Game will be responsible for all operation and maintenance of the satellite.

B. No Action.

The no action alternative is the no change or do nothing alternative. In this alternative the construction and operation of the barrier, fish trap and rearing pond would not take place. Failure to provide permanent spring chinook acclimation facilities on the Clearwater tributaries would severely limit the capability of the Compensation Plan to reestablish anadromous runs in Central Idaho streams.

c. Alternative Locations.

The Idaho Department of Fish and Game has investigated various locations on the Crooked River for acclimation ponds. Initial testing of the Crooked River has shown that the water quality is adequate for the facilities. The proposed site is now considered the best location from the standpoint of feasibility of construction, environmental effects, mining potential, and fishery criteria. The Corps is constructing additional satellites on the Red River and the Lochsa River. When these satellites are fully operational, the anadromous fish runs in the Clearwater River system should increase over the next two decades. The Corps should not need any additional satellites to fulfil the Compensation Plan requirements.

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5. ENVIRONMENTAL IMPACTS.

A. Physical Considerations.

(1). Impacts on Land.

(a). Proposed Action.

The project will have little impact on soil quality. The use of equipment will compact soil in the vicinity of construction. The project will use the earth from the excavated areas as a fill material for some of the structural improvements. Because soils are very scarce in the riparian area, some fill material may be placed in the construction area for revegetation. The project will also require the use of gravel and concrete as construction material. These material will be obtained from local suppliers.

The results of the construction will be to slightly alter the landform by raising the modern structures as well as rearing or holding ponds. The proposed action would remove debris from the river channel and construction area. The contractor would place any debris in a proper disposal area. The projects design attempts to limit the alteration of the flood plain. However, slope protection is require in some places. Riprap will be required along short sections of both banks of Crooked River upstream and downstream of the water intake and fish diversion barrier to prevent bank scour. Site fill materials will be obtained from required excavation and will consist of rock fill and/or gravel fill materials. Riprap will be obtained from existing rock pits in the vicinity of the satellite facility. This development would not impede the flow-carrying capacity of the Crooked River.

When the satellite is operating, the domestic and fish rearing wastes will influence the soil quality. A septic tank/seepage field system will accomplish the domestic waste disposal from the support building at the adult facility. A 500 gallon pre-cast concrete septic tank will be located near the building with the access manhole above the 100 year flood plain. Effluent from the septic tank will flow into another 500 gallon pre-cast tank that will serve as a sump pump. A submersible sewage pump will pump effluent to the seepage field located near and parallel to the existing Forest Service road. The Idaho Department of Fish and Game is requesting a variance from the Idaho County Health Department Code of placing the seepage field within 300 feet of a river. The addition of

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soils of the area will not result in a adverse impact on the soil quality.

The rearing process will create waste from primarily uneaten fish food that has settled to the bottom of the raceway. When the operators clean the raceways, they will put all of the settling wastes into a cleaning pond. After the material has dried, the Forest Service will use it as a fertilizer for some of their revegetation programs.

The satellite would delay the recovery of surface gold or possibly other mineral resources. The previous gold dredging operations have removed most of the gold from the surface rock of the Crooked River Valley. The satellite could delay the recovery of any bedrock mineral. However, underground mine shafts could possibly be braced to support the structure. This would depend on the depth of the mineral resource. With proper water quality controls mining activities upstream or downstream of the facilities should not cause a problem for salmon production.

(b) No Action.

This alternative will leave the site as it is currently. It is expected that during the next high flow condition, the existing gravel and debris would obstruct water flow and cause the filling of the existing depressions. The riparian area will require many decades to return to natural conditions. Eventually, the area will naturally restore itself. Mineral resources would be available for immediate recovery.

2. Impacts on Water Quality.

(a) Proposed Action.

The satellite will divert surface water from Crooked River. The river flow information for Crooked River is very scarce. Using the data available, we have estimated the flows. The estimated average flow at the acclimation pond is 58 cfs from April through June and 24 cfs July through September. The juvenile facility will require 11 cubic feet per second (4,928 gpm). The estimated average flow at the trapping facility is 119 cfs from April through June and 48 cfs July through September. The adult facility will require 110 cubic feet per second (4,480 gpm). The Crooked River will provide adequate water.

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for the facility operation. The use of the water at these sites is nonconsumptive; the water would flow through the facilities and back into the river. The juvenile facility's water use will affect 900 feet of the Crooked River with lower flows; the adult facility will affect 780 feet.

The adult facility will use up to 10 gallons per minute of groundwater from a domestic well. The well will be located outside the 100 year floodplain. Most of the water would return to the groundwater through the treatment system.

During the construction phase of this project, (especially cofferdam activities), temporary, unavoidable increases in water turbidity will result. This impact, however, will be minimized since work will be restricted to a low flow period. Human and mechanical clearing activities will disturb the benthic area, causing increases in the suspended particles level in the creek. Appendix A contains an evaluation of the impact on water quality as it concerns the Clean Water Act.

(b) No Action.

This alternative would result in only slight turbidity increases during the high flow period. Water quality would continue to improve as riparian habitat develops. The Crooked River Valley should continue to stabilize and develop natural riparian conditions. However, because the past mining operations have severely disturbed the soils, it will be many decades before the area returns to its natural state.

3. Impacts on Air Quality.

(a) Proposed action.

Construction equipment operation will reduce the air quality at the local site. Construction equipment operation will create increases in particulates. There will also be dust created by the movement of the construction equipment as well as the effects of wind on the disturbed soils or fill material. The operation of the new buildings will create some particulates from the use of heating and cooling system as well as the use of organic fuels. The operation of other motorized equipment will create temporary increases in local concentrations of hydrocarbons and particulates. These effects are

temporary and localized. The satellite will not degrade the overall air quality of the Crooked River Valley.

The workers and equipment will increase the sound levels in the area. Sound levels in the area are low; they would range from 30 to 40 decibels. Construction activities would increase this to around 80 decibels. Naturally, the sound level reduces with distance from the work area. The configuration of the valley, the equipment use, and many factors contribute to the sound level. These estimates are only representative, actual construction sound levels will vary over the construction period. This impact would also be temporary.

The new buildings and tree plantings will create microclimates through shading and changes in windflow. The developments should not result in changes of temperature or humidity for the valley.

(b) No Action.

This alternative would not be expected to impact air quality.

4. Impacts on Physical Processes.

(a) Proposed Action.

The construction of the new building and structures will have an effect on physical processes. The building will have greater windbreak capacity. The trees plantings will also alter the wind. These new wind pattern will change this type of erosion around this area. The new building will settle creating compaction in the area. As time passes and as the compaction process ends, the building will become stable. This project will not significantly alter the river flow pattern, overbank flows, along the Crooked River. Deposition of debris will continue with or without the project, but the increased concentration of flow in the intake area may hold debris. This would have to be collected and removed.

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(b) No Action.

There are no physical changes that would be projected to occur in the immediate future. All aspects of the project area would remain relatively the same. Flooding would continue at the same rate as before. Because there was previous mining, the formation of debris jams may occur at the site. Until Crooked River returns to a natural flow patterns, the rows of cobbles and gravels will tend to trap debris. The river will smooth out the riparian area eventually; however, this will take several more decades. With development of soils, the site would revegetate as plant growth continued from sprouts and seeds of adjacent trees. If trees reached sufficient heights and densities, the vegetation would act as a debris barrier.

b. Biological Considerations.

1. Impacts on Vegetation.

(a) Proposed Action.

The direct impacts on natural vegetation will be minor. The previous gold dredging has greatly reduced the vegetation in the riparian area. The plants of the area are normally comprised of two zones of vegetation types. There are riparian grasses such as fescue, wheatgrass and some forbs in the area. The other vegetation in the area is common in a moist type of habitat. However, there are some isolated spots where the vegetation in a small pocket depressions has some alder or poplar saplings as well as some moss during the wet seasons. Some other plants that could comprise the mix in the area are: fescue, bluegrass, giant wildrye, needlegrass, threeawn, and squirreltail. Some other forbs are: balsomroot, mule's ear, lupine, and various aster. The wetter riparian areas may contain willow, dogwood, wild rose, current, reed canarygrass and cattail. The past mining activities have removed most large vegetation. The riparian zone is actually barren in most areas and lichens are dominate. There are small pines and spruces scattered around the area. Some plants will be removed during construction. Shrubs along the fishway channel and pond and any material creating a debris problem at the intake or fish barrier during higher flows will be removed. The construction of the buildings may use some of the smaller junipers and pines for landscaping, but construction activities will destroy all of the existing larger trees and other plants found at the site. Trees will be planted to cover or screen the man-made appearance of the area. Other shrubs will be planted to provide an enhanced natural appearance. The planted landscaping species should establish within one growing season, while natural revegetating area should return within three growing seasons. Any large trees will take at least two decades to replace. The disturbed area would provide new sites for plant establishment; however, without added soil, there will be a scattered or patchy regrowth pattern.

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The intake debris removal and other clearing activities may damage streambank vegetation. The maintenance tasks will be designed to minimize work in the river and to use areas where little riparian habitat would be disturbed. If the stewardship agencies so desired, the larger woody debris would be placed in piles to provide some wildlife habitat. However, the material may be disposed by the stewardship agencies through salvage of the larger wood and burning of the remaining slash. The riparian zone will receive some damage; however, most of the remaining smaller vegetation is the type that reestablishes itself quickly. If willow, alders and cottonwood trees are planted for screening, they would require around a decade to return to mature growth. The grass and forb vegetation at the burning areas will also be destroyed but likewise should reestablish itself within one or two years.

(b) No Action.

This alternative would create no changes from existing conditions. The vegetation would continue to grow and spread as conditions permit. The trees along the powerline right-of-way would be periodically cleared.

2. Impacts on Animals.

(a) Proposed Action.

The animal community around the satellite is limited to those species which have adapted to the climate and past and present human activity. In any habitat, insects inhabit all of the areas available to their many species. Other small animals like spiders, mollusks, and centipedes are the type of small animal that could be expected in the grassy areas. Representatives of the more recognizable animals include the western toad, the woodhouse toad, tree frogs, common garter snake and western garter snake. There are many common bird species that may occur around the complex. Some are: kingfisher, Cooper's hawk, Osprey, red-tailed hawk, rough-legged hawk, bald eagle, marsh hawk, and sparrow hawk; smaller birds are: sparrows, robin, starling, and warblers. Many of these birds are migrants or seasonal. There are also migrant waterfowl that pass through the area, underlying Mallards, pintails, wood duck, ring necks, wigeon, gadwalls and teal. There are herons and gulls around the project also. As fish populations increase, some occurrences of these bird species may increase. Work will be scheduled for late spring, summer and fall. This will help prevent bird nesting losses and ensure that the area will be partially free of nestlings during the main

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construction. If eggs are late in hatching, there would be some losses of nestlings. The possible small mammals in the areas are: meadow mouse, deer mouse, northern pocket gopher, squirrel, and cottontail rabbit. With such limited vegetation, these small animals may be from adjacent areas. Mule deer, moose, and elk are the larger mammals common in the area. The carnivores of this area include the weasels, mink, raccoon, river otter, beaver, muskrat, striped skunk, coyote, bobcat and black bear.

Most animals in the area of construction will be driven off by human activities or increased sound levels. Some of the smaller animals will be destroyed by construction equipment. Some animals will die from lack of available habitat carrying capacity or predator vulnerability. The wildlife should abandon the area until the construction activities end. Some animals that are not directly disturbed by human activities may remain in the area, but they will be under increased stress. The gradual repopulation of the area will occur as the vegetation increases. Carnivore occurrence will depend on the population of herbivores that return to the area. Depending on the final planting programs, some riparian habitat may be lost permanently. Grasses and landscape plants could be used to provide a small amount of upland brush and associated wildlife. The construction should not impact any animals significantly. We do anticipate a slight net loss of smaller wildlife species from the action. It is estimated that the disturbance in the project area will take about three years for the populations to return.

The construction work at the riverbanks will cause some particular impacts to this area. Debris removal and general clearing activities will cause temporary localized disruption to wildlife. The noise and activity however, should not be a particular long-term problem. The work would not take place during the spring breeding season. Small animals living in the bank area may be destroyed. When plantings are established, their populations should return quickly. Mice, sparrows, shrews, and voles, are the type of small animals that could be found at the riparian strip along the river. The adjacent river appears to have a few holes for fish. Minnows and fingerling of trout and anadromous fish are anticipated in the work area of the river. The river does have suitable habitat for mature fish and spawning areas. Following the project's operation, the river should exhibit new redds as fish populations increase. The work will assist the anadromous spring chinook salmonids by increasing the overall population.

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The primary influence of this satellite's operation will be the future increase in spring chinook populations in the river. The hatchery program will increase egg, fingerling and smolt survival.

This program will help return the river's salmon and steelhead populations to carrying capacity. As the program meet and then exceeds its production goals, the additional fish will be permitted to produce wild type fish for the general enhancement of the river fishery. The other efforts to insure survival of migrating smolts and adult will assist in the return of near optimum fish runs to the Crooked River. Adults will migrate into adjacent streams and creeks where suitable spawning habitat exists to expand their population into these area. Hopefully, the program will benefit other tributaries to the Clearwater River.

(b) No Action.

The no action alternative would maintain the status quo of the biological world. There would be no changes or influences as reflected in the proposed action. The plants would continue to mature and the associated animal populations would vary as local productivity varied. There would not be the opportunity for new species developing in the area the way that the disrupted areas would provide. The no action alternative would allow the natural system to continue.

C. Cultural Considerations.

(a) Proposed Action.

The proposed action will have little impact on land use. The small size of the satellite site does not impact the overall use of the area for forestry or grazing purposes.

The Crooked River Valley has a known mineral potential for gold. There are existing mining claims at both facility's locations. The U.S. Government will either attempt to purchase these claims or seek to have invalid claims declared null and void. For the life of the project, mining activities in the immediate area of the facilities would be restricted. When the fish run have reestablished, or when the facilities are worn out, then the area could be reopened for mining. Thus, the restriction on mining is temporary, but it is expected to last at least two decades. The actual length of the restriction would be based on the success of the spring chinook salmon reestablishment program. The major change will be in the recreational potential of the fishery.

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Recreation is the primary cultural factor to be influenced by the satellite. The recreational potential for a large salmon fishery will increase with the increased spring chinook populations. We would expect that angler use of the river would increase with the population. The area is currently used for hunting in the fall. Angler use would increase human activity in June, July and August. Steelhead fishing could increase recreation in April and May. Generally, recreation use in the immediate vicinity is light to moderate in the spring and summer when the use consists of sightseers, campers and anglers. In the fall, however, hunters occupy every promising location. Construction activities would cause noise which would reduce the quality of the recreational experience, but this would be a temporary disturbance.

There is a potential for increased highway traffic on U.S. Highway 12, State Highway 13, State Highway 14 and Crooked River Road #233. The Idaho Transportation Department has expressed concern over the ability of these roads to sustain additional traffic. There may be additional improvements required on the highways should traffic increase beyond design limits. There are methods of reducing traffic by decreasing recreational opportunities. These are management techniques for the fishery itself. The season on the Crooked River and other rivers can be limited to weekdays, permit only, and/or catch and release. These techniques will reduce the usage of the highways by reducing the number of recreators in the area.

The human interest factors begin with the protection of aesthetic or visual resources at the site. The general aesthetics of the area will be impacted by the construction. There will be some dust in the local atmosphere which could affect the visibility around the project. Visual Resources in the area were considered in the overall planning of the structures. The proposed project is in an area of foreground visibility due to its location between the Crooked River and the Crooked River Road. The project will comply with Nezperce National Forest Planning. The proposed action will result in minor changes in the land form of the area. The structure itself will be a change for the area. The design will try to blend the structure in the area. The siding for the new building will also encourage this concept. The screening plants will provide a more natural appearance to the satellite. The existing plants that can be transferred to the new complex will be saved. The plants will be arranged to provide harmony with the surrounding area and provide shade and a sense of natural conditions to the new facility. However, the plants will require about three years to provide adequate screening cover.

The Crooked River Valley does not contain roadless or wilderness characteristics. There is a road near both facilities. In

addition, the gold dredges have severely altered the riparian area near the river. In the foreseeable future, the Crooked River Valley would not be considered in a roadless or wilderness program. The fishery will increase to populations levels that would resemble wilderness conditions. Thus, the recreational potential for angling will increase, and this recreational use should increase in the future. Still, the surrounding riparian area would not meet wilderness quality.

The construction of the new facility involves a few additional human interest concerns. With the increase of salmonid populations, there is the potential for improvement of the Bald Eagle habitat along this river. The Fish and Wildlife service is currently studying this aspect for applicability. Bald Eagle occurrences may be so low in this area that the population increase of chinook will not benefit them immediately. However, the potential for future expansion of the species into the Crooked River area may improve. In addition, there is some concern over human activity and the Northern Rocky Mountain Wolf recovery program which is planned for this region of Idaho. Angler use will increase with the increased salmon populations. It is not expected to adversely impact the program but will be monitored. In addition to these interests, the historical and archaeological resources have been studied, and Idaho State Historical Preservation Officer has expressed no concerns over this development.

Aspects of cultural status involved in the project include minor changes in life-style and employment. There would be an increase in employment resulting from the temporary workers at the project. There would be the additional economic boost in the locality from the services provided by the local business for the workers. The summer working season would not result in a permanent increase of students to the educational system. It is not expected to provide a long-term increase in the local economy. The project would not create a long-term change in population density or would it significantly change life-styles other than the changes discussed in the recreational section.

(2) No Action.

The no action alternative would not result in the changes that have been indicated in the proposed action. The No Action alternative would only delay the date at which the rehabilitation of the salmon fishery in the Crooked River would occur. The river would need a hatchery or satellite for rapid fishery development. The existing fish habitat improvements will eventually have to be improved as weathering worsen the condition of the instream

structures. The fishery under natural conditions would not be expected to show substantial increases in chinook populations and may decline. Eventually, some other management plan would have to be developed.

d. Ecological Considerations.

(1) Proposed Action.

The food chain of the land is going to be slightly altered by the construction and fill activities. And the terrestrial area around the new buildings will also be impacted by the increase in vegetation. The loss in the land productivity is short-term and will return to near pre-project level within a few years. The major change will occur in the river system. The increased population of the chinook salmon will alter the food chain throughout the river system. Those predators using salmon as a food source would be benefited by the increased supply of animals. Bear, eagles, osprey, and otter would benefit. Moreover, raven, seagulls, crow, insects and other small carrion eaters would all benefit from the salmon carcasses. The smaller fish and aquatic insects that are prey for the juvenile salmon and steelhead would be reduced as the competition for the food source increased with the population. The compensation program is trying to return fish runs to optimum levels. The program of mixing wild type and hatchery fish should create a semi-natural population. When the runs are fully independent of the hatchery, then only wild type will inhabit the stream. The river's natural balance would be maintained through natural competition. The reduction of the salmonids from the river has already altered the interrelationships between the fish species. The increased species competition will change the population of fish with similar habitat requirements. The strongest competitive fish in the river will survive and the weaker fish in the populations will die.

(2) No Action.

The no action alternative would continue the status quo of the project. Depending on the weather patterns and other natural forces that shape the habitat of the area, the plants and animals would continue to vary in population and condition. If the current programs for salmonid population enhancement continues, the population of the chinook would make slow progress toward a optimum population. The rapid ecological shifting discussed in the proposed action would not occur.

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6. ENVIRONMENTAL REVIEW REQUIREMENTS.

The following paragraphs address the principal environmental review and consultation requirements applicable to Corps of Engineers civil works actions. Pertinent Federal statutes, executive orders, and executive memorandums are included.

A. Federal Statutes.

(1). Reservoir Salvage Act of 1960, As Amended; National Historic Preservation Act, As Amended; Executive Order 11593, Protection and Enhancement of the Cultural Environment, May 13, 1971.

Surveys of the satellite site have not revealed any indication of cultural resources. On March 16, 1987, the State Historic Preservation Officer determined that the project will have no effect on cultural resources.

(2). Clean Air Act, As Amended.

Pursuant to Section 176(C) and 309 of the Act, this environmental assessment will be coordinated with the Environmental Protection Agency.

(3). Clean Water Act.

Discharge of fill material below the line of ordinary high water in the waterway required evaluation under Section 404 of the Act. Nationwide 404 permits have been obtained. A Section 401 Certificate has been approved. A National Pollution Discharge Elimination System permit will be obtained in accordance with Section 402 of the Act.

(4). Endangered Species Act of 1973, As Amended.

The Fish and Wildlife Service has determined that the grey wolf and bald eagle, both endangered species, presently occur in the project area. Mr. W.E. McDonald, a Corps environmentalist, prepared biological evaluations on these endangered species and concluded that the project should not adversely affect these species protected under the Act.

(5). Fish and Wildlife Coordination Act. SEP 14 1989

The satellite facility, as part of the Lower Snake River Fish and Wildlife Compensation Plan, is being proposed in response to requirements of the Act. Coordination with the fish and wildlife agencies has been ongoing since initiation of the Compensation Plan development in 1966. The design and operation plans for this particular facility have been developed through close coordination

with the Idaho Department of Fish and Game and the United States Fish and Wildlife Service.

(6). National Environmental Policy Act (NEPA).

This environmental assessment is prepared and circulated to agencies and the public for review and comment pursuant to requirements of the Act. Full compliance with NEPA will be achieved when the Finding of No Significant Impact is signed.

(7). Wild and Scenic Rivers Act.

Crooked River is not included in the Wild and Scenic Rivers program. The river is not listed in the Nationwide Inventory of Potential Wild and Scenic Rivers.

(8). Northwest Electric Power Planning and Conservation Act.

The project will not conflict with the requirements of the Act or the Columbia Basin Fish and Wildlife Program which was developed in response to the Act.

B. Executive Orders.

(1). Executive Order 11988, Flood Plain Management, May 24, 1977.

The Executive Order objective is the avoidance, to the extent possible, of long-term and short-term adverse impacts associated with the occupancy and modification of the base flood plain and the avoidance of direct and indirect support of development in the base flood plain wherever there is a practicable alternative. Because of the necessity to locate the satellite facility adjacent to the river for water supply purposes, construction will be in the base flood plain. However, this action will not support further development of the flood plain and is not considered to have significant adverse effects on flood plain natural and beneficial values.

(2). Executive Order 11990, Protection of Wetlands, May 24, 1977.

No wetlands will be impacted by the proposed action.

C. Executive Memorandums.

(1). CEQ Memorandum, August 11, 1980, Analysis of Impacts on Prime or Unique Agricultural Lands in Implementing NEPA.

The proposed Crooked River Satellite will not impact prime or unique farmlands.

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(2). CEQ Memorandum, August 10, 1980, Interagency Consultation to Avoid or Mitigate Adverse Effects on Rivers in the Nationwide Inventory.

Crooked River is not listed in the Nationwide Inventory of Potential Wild and Scenic Rivers. The proposed satellite will not have an impact on this program.

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7. CONSULTATION AND COORDINATION.

The environmental assessment will be circulated as required by the Clean Air Act to the Environmental Protection Agency. Agencies, organizations and individuals that have shown an interest in the overall compenstion project will receive a copy of this assessment for review. Other organizations with a general interest in environmental issues will receive a notice of availability. Upon request a copy of the environmental assessment will be sent to any citizen or organization. If anyone has concerns or comments about the assessment, they should provide written comment within 30 days.

Public notice and involvement will continue throughout the life of the project. The environmental documentation will be revised and circulated as necessary to meet new or unforeseen needs. Also, supplemental information will be provided should substantial design changes occur. The project will be monitored to insure that an optimum population of Crooked River spring chinook salmon is attained.

The basic criteria for the planning and preliminary design of the satellite facility are the result of interaction between the following governments and agencies:

Columbia River Intertribal Fish Commission
Nez Perce Nation
Umatilla Nation
Yakima Nation

Bureau of Land Management
Environmental Protection Agency
Fish and Wildlife Service
Forest Service
National Marine Fisheries Service
U.S. Army Corps of Engineers

Idaho Department of Fish and Game
Idaho Department of Water Resources
Idaho Department of Health and Welfare
Idaho State Historic Preservation Officer

Idaho County, Idaho

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IDAHO STATE HISTORICAL SOCIETY
610 NORTH JULIA DAVIS DRIVE BOISE, 83702



August 19, 1985

RECEIVED
JUN 06 1989

Department of Water Resources

John P. Leier
Archaeologist
Walla Walla District
Corps of Engineers
Building 602, City-County Airport
Walla Walla, Washington 99362-9265

Dear John:

Thank you for your letter and accompanying information regarding the construction of three satellite fish facilities in north-central Idaho.

Since your inspection of the areas failed to identify significant cultural resources due to heavy ground disturbance, we agree that the construction of the three facilities will have no effect on historical or archaeological properties.

Sincerely,

A handwritten signature in cursive script, appearing to read "Thomas J. Green".

Thomas J. Green
State Archaeologist
State Historic Preservation Office

TJG/bhd

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IDAHO STATE HISTORICAL SOCIETY
610 NORTH JULIA DAVIS DRIVE BOISE, 83702



March 16, 1987

RECEIVED
JUN 06 1989

John Leier, Archaeologist
Walla Walla District
Corps of Engineers
Bldg. 602, City-County Airport
Walla Walla, WA 99362

Department of Water Resources

Dear John:

Thank you for sending us information about the Crooked River
satellite fish facilities. We believe the project will not effect
National Register properties.

Sincerely,

A handwritten signature in cursive script, reading "Thomas J. Green", followed by a horizontal line.

Thomas J. Green
State Archaeologist and
State Deputy Historic
Preservation Officer

TJG:dac

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STATE OF IDAHO

DEPARTMENT OF HEALTH AND WELFARE

DIVISION OF ENVIRONMENT - 1118 F. Street - Lewiston, Idaho 83501

799-3430

March 19, 1987

District Engineer
Walla Walla Corps of Engineers
Building 602, City County Airport
Walla Walla, Washington 99362

Department of Water Resources

Attn: NPWPL-ER 87-3 (Clearwater Fish
Hatchery)

Dear Sirs:

Thank you for the opportunity to review this proposal. Our only comment at this time is that the cofferdam material should be of such quality and placed in such a fashion as to minimize resultant turbidity.

Sincerely,

DIVISION OF ENVIRONMENT

George M. Dekan

George M. Dekan
Sr. Water Quality Specialist

GMD/cmd

xc: Jerry Yoder-IDHW/DOE, Boise

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STATE OF IDAHO

DEPARTMENT OF HEALTH AND WELFARE

DIVISION OF ENVIRONMENT
Statehouse
Boise, Idaho 83720

April 3, 1987

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JUN 06 1989

District Engineer
Walla Walla District Corps of Engineers
Bldg. 602, City County Airport
Walla Walla, Washington 99362

Department of Water Resources

REFERENCE TO: Department of the Army Proposed Permit
No.: NPWPL-ER 87-3
(Crooked River & Clearwater River, Idaho County, Idaho)

Gentlemen:

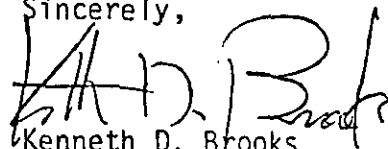
We have considered water quality certification of your proposal to install 750 cubic yards of gravel cofferdams and 818 cubic yards of quarried rock riprap on the Crooked River near its confluence with the Clearwater River, Idaho County, Idaho as described in public notice number NPWPL-ER 87-3. To ensure protection of water quality, the following condition should be included in the Department of the Army permit on the project:

1. The cofferdam material should be of such quality and placed in such a fashion as to minimize turbidity in the river.

If construction is completed in accordance with the described work plan and above condition, we certify under Section 401 that this construction will comply with applicable requirements of Sections 301, 302, 303, 306, and 307 of PL 92-500, as amended, and will not violate Idaho Water Quality Standards and Wastewater Treatment Requirements.

This certification does not imply approval of the activity by other agencies of the State of Idaho.

Sincerely,


Kenneth D. Brooks
Administrator

KDB/cc

cc: IDWR-Northern Region-Haynes
Mark Von Lindern/George Dékan
Nickie Arnold, EPA

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EQUAL OPPORTUNITY EMPLOYER



United States Department of the Interior

FISH AND WILDLIFE SERVICE

BOISE FIELD OFFICE
4696 Overland Road, Room 576
Boise, Idaho 83705

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Department of Water Resources

March 19, 1987

Colonel James B. Royce
District Engineer
Walla Walla District, Corps of Engineers
Bldg. 602, City-County Airport
Walla Walla, Washington 99362-9265

Re: NPWPL-ER 87-3
FWS-1-4-87-SP-96
(Revised March 17, 1987)

Dear Colonel Royce:

This responds to your referenced Public Notice of March 2, 1987. A salmon trap project is proposed for the Clearwater Fish Hatchery - Crooked River Satellite facility in Idaho County, Idaho.

The U.S. Fish and Wildlife Service (Service) has identified the presence of Federally listed endangered or threatened species within the project area. We are providing you a list of threatened and/or endangered species (Attachment A) that may be impacted. This list fulfills the FWS requirements of Section 7(c) of the Endangered Species Act of 1973, as amended (ESA). Your ESA responsibilities have been provided in Attachment B. Should your biological assessment determine that a listed species is likely to be affected (adversely or beneficially) by the project, you should request formal Section 7 consultation through this office. Even if your assessment shows a "no effect" situation on the listed species, we would appreciate receiving a copy of your assessment for our information. If there are any additional questions regarding your responsibilities under the ESA, please contact Rich Howard, Section 7 Coordinator; phone number: (208) 334-1888, FTS 554-1888.

Additional information on Federally listed and candidate species and State species of special concern is available through the Idaho Natural Heritage Program, **MICROFILMED** Groves, Program Coordinator, 4696 Overland Road, Boise, Idaho 83705, phone (208) 334-3402.

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Further, we have reviewed the proposed project in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and have identified no environmental impact that would justify denial or modification of this activity.

Given the value of the fish and wildlife and the potentially detrimental impacts on these valuable resources, the Service places the Clearwater and Crooked River drainages and their resources in resource category 1 in accordance with our Mitigation Policy (FR (15), pp. 7656-7663, 1981). Resource category 1 designates habitat for the evaluation species (chinook salmon and steelhead trout) as of a high value and unique and irreplaceable with a mitigation goal of no loss of existing habitat value.

If you have any further questions please contact David Irving (FTS 554-1931) of my staff.

Sincerely yours,

Walter D. Ray
for John P. Wolflin
Field Supervisor

cc: FWS, RO, Portland
FWS, SE, Boise (Rich Howard)
IDFG, Hdqtrs., Boise
IDFG, Region 2, Lewiston
EPA, Boise (Michelle Stevens)

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Department of Water Resources

Attachment A

LISTED AND PROPOSED ENDANGERED AND THREATENED
SPECIES, AND CANDIDATE SPECIES, THAT MAY OCCUR
WITHIN THE PROPOSED POWELL SATELLITE SALMON TRAP FACILITY PROJECT
IN IDAHO COUNTY, IDAHO
SP# FWS-1-4-87-SP-96

LISTED SPECIES

COMMENTS

Bald Eagle (Haliaeetus leucocephalus)

Perching habitat

Gray Wolf (Canis lupus)

None

PROPOSED SPECIES

None

CANDIDATE SPECIES

None

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DRAFT

SECTION 404(b)1 EVALUATION

Using EPA Guidelines of 24 December 1980 Department of Water Resources
(40 CFR 230)

I. PROJECT DESCRIPTION

a. Location. - Adult Facility: near the confluence of the Clearwater River and Crooked River, USGS 7-1/2 Quadrangle - Center Star Mountain, latitude 45 degrees 49 minutes North, longitude 115 degrees 32 minutes 10 seconds West; Juvenile Facility, near the Orogrande Airport Runway, USGS 7-1/2 Quadrangle - Orogrande, latitude 45 degrees 40 minutes 30 seconds North, longitude 115 degrees 32 minutes 10 seconds West, Idaho County, Idaho.

b. General Description.

(1). Juvenile Facilities. - The juvenile facility involves the excavation of a trench at the base of the banks along a total of 300 feet of the river area in vicinity of the intake structure, and a total of 150 feet of the riverbank in the vicinity of the outfall, placement of gravel bedding and riprap, and finally the replacement of streambed material to the natural streambed elevation. It is proposed to install 750 cubic yards of gravel cofferdams or bedding and 686 cubic yards of quarried rock for riprap along the riverward embankment near the satellite's intake structure and outfall structure.

(2). Adult Facilities. - The adult facility involves the excavation of a trench at the base of the banks along a total of 750 feet of the river area in vicinity of the intake structure, and a total of 100 feet of the riverbank in the vicinity of the outfall, placement of gravel bedding and riprap, and finally the replacement of streambed material to the natural streambed elevation. It is proposed to install 500 cubic yards of gravel cofferdams or bedding and 818 cubic yards of quarried rock for riprap along the riverward embankment near the satellite's intake structure and outfall structure.

c. Authority and Purpose. - The satellite is part of the Lower Snake River Fish and Wildlife Compensation Plan which was authorized to compensate for losses caused by the Lower Snake River project (Ice Harbor, Lower Monumental, Little Goose, and Lower Granite projects) located in Washington and Idaho. The Compensation Plan was authorized by the Federal Resources Development Act of 1976, Public Law 94-587.

The Crooked River Satellite is designated as a satellite of the Clearwater Fish Hatchery. This satellite is designed to provide the capability for trapping, holding, and spawning 500 spring chinook adults and 640 adult

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steelhead returning to the Crooked River. This facility will also acclimate and release 37,000 pounds of spring chinook smolts (750,000 fish). The Satellite will help meet the anadromous fish population requirements for the Clearwater River Region of Idaho.

d. General Description of Dredged and Fill Material. -

(1) General Characteristics of Material. - Two kinds of material will be used: river gravel for riprap bedding and cofferdams, and quarried rock for armoring. Some river gravels may be excavated from the proposed construction site. However most will be mine tailing as indicated below. Bedding will consist of native gravels roughly 3/4 to 2 inches in diameter plus a small amount of sand and silt. The riprap will probably be quarried at a Federal government pit. It will consist of 10 to 18-inch diameter angular rock with no accompanying fines.

(2) Quantity of Material. - Approximately 1250 cubic yards of gravel and backfill, and 1510 cubic yards of riprap will be placed in the river below the ordinary high waterline.

(3) Source of Material. - Gravel will come from river dredge tailings (a gold dredge has mined this river) near the Crooked River located just upstream from the site. Riprap will probably be brought in from a Federal government quarry.

e. Description of the Proposed Discharge Site.

(1) Location. - Riprap and bedding will be placed along sections of embankment shown in attached plates.

(2) Size. - As shown on the plates, most of the construction is above the ordinary high water. With excavation extending mostly into the upland area the permanent placement of fill materials will be small. The placement of the cofferdams will create a greater inwater disturbance, but even with this work, the total inwater work would be less than one acre.

(3) Type of Site. - Cofferdam discharge sites are unconfined streambed. The riprap and bedding will be placed directly on the prepared river bank.

(4) Type of Habitat. - Little vegetation is left at the two sites because they were actively dredged for gold. Aquatic habitat consists of a cobbly river bottom. The shoreline consist of loose, non-consolidated material placed in steep hillocks and mounds.

(5) Timing and Duration of Discharge. - Disposal operations will run from 1 May 1989 to 30 November 1989.

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f. Description of Disposal Method. - Some gravel and most quarry rock will be brought to the site by truck and dumped over the bank. Hydraulic excavating equipment such as a large backhoe will then spread and reposition the rock to form the cofferdams and/or riprap protection. If river gravel is used, bulldozers or dump trucks will return some of the excavated bed material to the site where a backhoe will place it in the excavated area to bring the streambed up to the original grade.

II. FACTUAL DETERMINATIONS.

a. Physical Substrate Determinations.

(1) Substrate Elevation and Slope. There would be no net impact on the elevation and slope of the river.

(2) Sediment Type. - Sediments are gravels and cobbles with some sand and very little silt.

(3) Dredged/Fill Material Movement. - There will be little movement. Fill material (cofferdams) during construction should be relatively free of movement. Material for the main structures would be concrete and not susceptible to movement. However, gravel fill would be susceptible to movement in high flows with smaller rock moving first. The riprap is sized to withstand expected river velocities.

(4) Physical Effects on Benthos. - Benthic organisms which inhabit the substrate within the excavation limits will be removed with the waste material. Recolonization of the disturbed area should occur in a short time. Benthos would also be buried by cofferdam fills and the permanent structures. Less than 1 acre would be affected.

(5) Other Effects. - There are no other effects anticipated due to the removal of the substrate.

(6) Actions Taken to Minimize Impacts. - Cofferdam fills will be placed within a minimum practicable time period. This work is being conducted to avoid the fall spawning season. This will mitigate any egg and fry loss that would occur in the fall.

b. Water Circulation, Fluctuation, and Salinity Determinations.

(1) Water.

(a) Salinity - Not applicable.

(b) Water Chemistry - No change is expected.

(c) Clarity - Solids suspended by the excavation, and introduced with placement of bedding and riprap will produce some turbidity



in the immediate work area and for a short distance downstream but it is not expected to extend far.

(d) Color - No effect.

(e) Odor - None anticipated.

(f) Taste - No effect.

(g) Dissolved Gas Levels - No effect.

(h) Nutrients - Nutrient levels will be elevated within the mixing zone downstream of the construction site. The level will fluctuate depending upon the sediment to be excavated. We do not anticipate a change in overall nutrients.

(i) Eutrophication - No effect.

(j) Others - No effect.

(2) Current Patterns and Circulation.

(a) Current Pattern and Flow - The fish barrier creates a ponding influence upstream. The water flow around the intake structure would be altered somewhat by the drawing power of the system. The outfall structure would increase velocity slightly as effluent merged with the river. The attraction water for the adult facility would increase the velocity at the fishway entrance.

(b) Velocity - Only slight increases localized around the fishway entrance and intake and outfall structures.

(c) Stratification - No effect.

(d) Hydrologic Regime - No effect.

(3) Normal Water Level Fluctuations. - No effect.

(4) Salinity Gradients. - Not applicable.

(5) Actions That Will be Taken to Minimize - No actions are necessary.

c. Suspended Particulate/Turbidity Determinations.

(1) Expected Changes in Suspended Particulates and Turbidity Levels in Vicinity of Construction Site. - Excavation and filling below the water surface will cause an increase in river turbidity near the construction site. However, because of the limited size of the project, such effects are considered minimal.

(2) Effects (Degree and Duration) on Chemical and Physical Properties of the Water Column.

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(a) Light Penetration - The increased turbidity expected during cofferdam placement will cause a short-term reduction in light penetration. The turbulent nature of the river, however, will allow rapid dissipation of any turbidity plume. Effects on chemical and physical properties of the water column will be negligible.

(b) Dissolved Oxygen - There may be a reduction in dissolved oxygen in the immediate vicinity of the excavation but this will have no effect on the downstream water column dissolved oxygen levels.

(c) Toxic Metals and Organics - No toxic metals will be released. There are no manufacturing sources of toxic metals on this river. Decayed organics may be released in the silt plume as excavation proceeds through the river bed.

(d) Pathogens - There are no known sources of pathogenic organisms in the area to be excavated.

(e) Aesthetics - A slight increase in turbidity will occur but will not extend far downstream from the excavation or disposal sites.

(f) Other - No other effects.

(3) Effects on Biota.

(a) Primary Production, Photosynthesis - Turbidity generated by excavation will be diluted to environmentally reasonable levels within a short distance downstream and have little effect on primary production.

(b) Suspension/Filter Feeders - The increase in suspended particulates will interfere with feeding mechanisms of certain benthic macroinvertebrates. However, this short-term impact will be restricted to the immediate vicinity of the work.

(c) Sight Feeders - In the immediate vicinity of the fill site, short-term turbidity will be high enough to interfere with predation success of vertebrate sight feeders. The disturbance will be of limited duration, however, and no population reductions for fish or other large sight feeder of the aquatic ecosystem are anticipated.

(4) Actions Taken to Minimize Impacts. - The river work is scheduled to avoid fall spawning disruption and associated egg and fry losses from cofferdam and other construction activities.

d. Contaminant Determinations - The constituents released from the fill are expected to cause no environmental quality problems.

e. Aquatic Ecosystem and Organism Determinations.

(1) Plankton Effect. - Only minor shifts in population should occur as a result of this work.

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(2) Benthos Effects. - Benthic communities in the construction area will be removed, disturbed, buried, and/or destroyed. Suspended solids generated by the project will bury communities a short distance downstream. Upon completion of the project, adjacent benthic communities will colonize the project area.

(3) Nekton Effects. - Mobile organisms will likely move out of the immediate excavation area until completion of the project.

(4) Aquatic Food Web Effects. - Removal of benthic communities in the project area and displacement of communities downstream of the project due to the disturbances created by the excavation will cause local reduction in the available food supply to higher organisms resident to this area. This will displace these resident populations to surrounding waters until the food chain is reestablished. The benthic colonization time period and its impact upon the river's total food web should be negligible due to the limited scope of scheduled work.

(5) Special Aquatic Sites Effects.

(a) Sanctuaries and Refuges - Not applicable.

(b) Wetlands - Not applicable.

(c) Mud Flats - Not applicable.

(d) Vegetated Shallows - Not applicable.

(e) Riffle and Pool Complexes - No effect.

(6) Threatened and Endangered Species. - There are currently no threatened or endangered species (flora or fauna) adversely impacted in the project area.

(7) Other Wildlife. - Dredging and disposal effects on fish, frogs, and other small life forms are expected to be small since the zone of turbidity will not extend far downstream. Fish will be able to easily avoid the turbid areas.

(8) Actions Taken to Minimize Impacts. - The use of a backhoe with upland disposal will enable the work to be done from the bank. This will minimize adverse impacts to the aquatic ecosystem. Such equipment reduces the disturbance time and thus the duration of the impact. The work will be accomplished with a minimum of inwater work. The use of cofferdams will also greatly reduce the turbidity and duration of such construction work.

f. Proposed Disposal Site Determinations.

(1) Mixing Zone Determination. - See Appendix with water quality standards below.

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(2) Determination of Compliance with Applicable Water Quality Standards. - The discharge of effluent from the construction area will be in compliance with the State of Idaho and Federal water quality standards.

(3) Short-Term Activity Authorization. - An Idaho Stream Alteration Permit will be obtained from the Idaho Department of Water Resources prior to construction.

(4) Potential Effects on Human Use Characteristics.

(a) Municipal and Private Water Supply - No effect.

(b) Recreational and Commercial Fisheries - Sedimentation and turbidity in the river will decrease water clarity downstream of the discharge site. This would impact the recreational fishery only minimally. The overall project would increase recreational and commercial fisheries potential of the river by increasing the chinook and steelhead population.

(c) Water Related Recreation - Recreational use other than fishery downstream from the site is insignificant.

(d) Aesthetics - The project will require construction equipment from the spring forward until the snow and weather conditions halt work. This may be displeasing to some people but the impact should be small and localized, particularly since there are no residences or businesses in the vicinity.

(e) Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves - The operation of the facility may enhance the Crooked River's recreational potential because the fishery will improve with the increased population of chinook salmon and steelhead. The Forest Service has been improving the quality of the fishery and other recreation on the Crooked River. We do not foresee an adverse impact on this river program.

(f) Actions To Minimize Impacts - Construction is scheduled to take place to avoid the fall fish spawning. Work will be conducted over the large time period with the bulk of the work occurring outside of spawning periods. The overall work period is between 1 May 1989 to 30 November 1989. A mitigation plan is being developed to replant the little riparian habitat denuded during construction with vegetation similar to that removed. The Idaho Department of Fish and Game has been notified of the proposed plan and has worked with us to select plants.

g. Determination of Cumulative Effects on the Aquatic Ecosystem. - No cumulative effects are anticipated.

h. Determinations of Secondary Effects on The Aquatic Ecosystem. - Placement of riprap along the bank will permanently alter the shore ecosystem. The layered angular rock will present a considerable enlargement of the exposed underwater surface area. This will provide habitat to small fish and various other benthos and may increase the diversity of the river.

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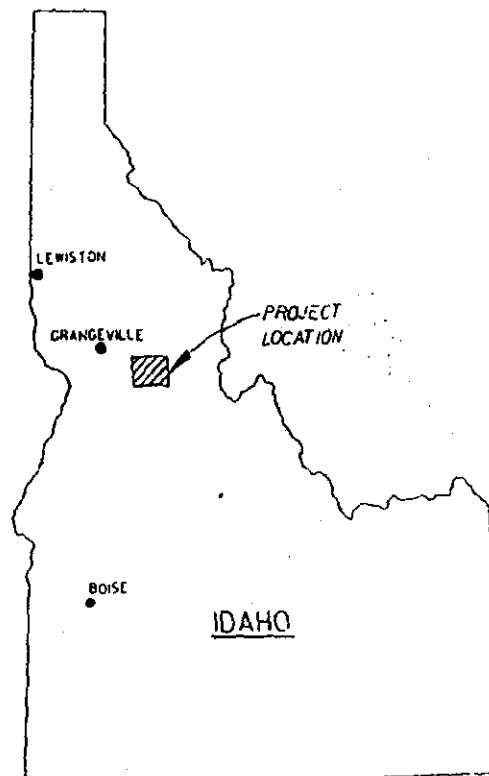
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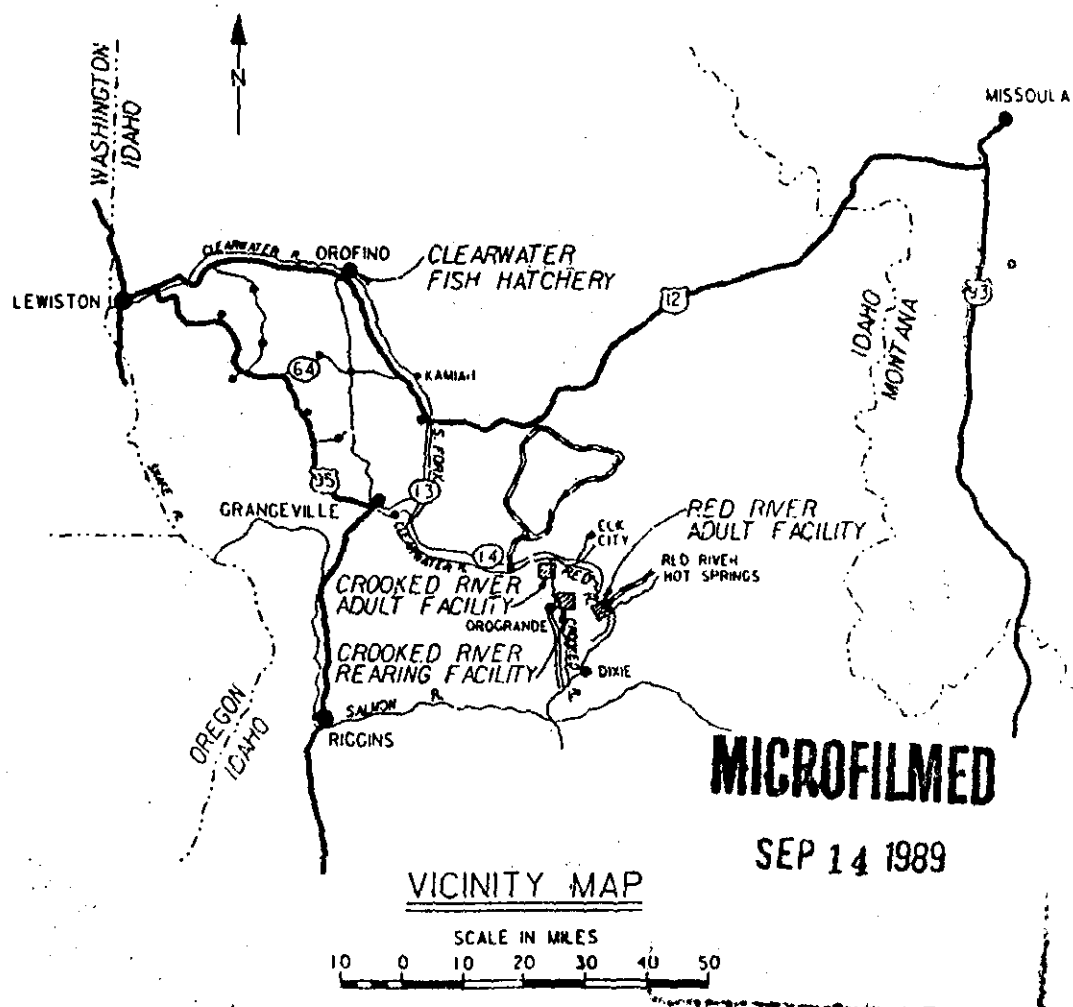
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LOCATION MAP



MEMORANDUM

TO: File no. 82-7185
FROM: Gary Spackman *Gary*
DATE: June 1, 1989
RE: Letter dated May 4, 1989 requesting information under Rule 4,5 of the Water Appropriation Rules and Regulations

I spoke with Mr. Philip Jeppson, Engineer for the Department of Fish & Game, about two fish rearing projects proposed on Crooked River in Idaho County. Application no. 82-7185 proposes the diversion of 10 cfs for operation of a fish trap near the mouth of Crooked River. Another application, which I do not know the number of, proposes diversion of water for rearing of fry salmon.

Mr. Jeppson and I discussed the submittal of information which I had requested. He stated that the use would be totally non-consumptive, and that between the diversion and discharge points of both projects, there were no other water users that would be impacted. He also stated that water levels in Crooked River would not fluctuate as a result of the operation. In addition, Mr. Jeppson stated that Fish & Game would not dewater Crooked River. The diversion structures that are proposed are grates mounted parallel to the stream bank, with no alteration in the stream channel itself to channel the water towards the inflow grates. As a result, the flows in the river could drop to levels where the grating would be high enough that very little water would flow through it. In periods of low flow, Fish & Game plans to release reared fish a little earlier to prevent diversion of water when flows in Crooked River are undesirably low.

It is important that a minimum streamflow remain in the stream. Fish & Game states that one-third of the salmon returning must be allowed to swim past the catch basin. Mr. Jeppson stated that 3-5 cfs would be required for the fish passage.

A condition should be imposed as follows:

A. Minimum streamflows shall be maintained in Crooked River to allow year round migration of fish from the point of discharge upstream to the point of diversion.

Finally, Mr. Jeppson stated that he would seek comments from the Idaho County Commissioners, and obtain copies of correspondence with the Division of Environmental Quality, Idaho Department of Health and Welfare. We should hold this file for thirty days, and then call it up again for inspection.

MICROFILMED

SEP 14 1989



State of Idaho

DEPARTMENT OF WATER RESOURCES

(208) 327-7900

1301 North Orchard Street, Statehouse Mail, Boise, Idaho 83720 - [REDACTED]

May 4, 1989

CECIL D. ANDRUS

GOVERNOR

R. KEITH HIGGINSON

DIRECTOR

Idaho Dept. of Fish & Game
P.O. Box 25
Boise, Idaho 83707

RE: Application for permit 82-7185 proposing diversion of water from Crooked River, tributary to South Fork Clear Water River for a fish trap.

Dear Sirs:

I have reviewed application for permit to appropriate water no. 82-7185, which proposes diversion of 10 cfs for fish culture purposes. The application proposes to divert water for attracting adult salmon and steelhead up a fish ladder and entrapment in a holding area.

Rule 4,5. of the Water Appropriation Rules and Regulations, promulgated by the Department of Water Resources, requires that detailed information must be submitted for applications proposing diversion in excess of 5 cfs.

The following information has not yet been submitted:

1. A statement of design construction or operation techniques which will be used to reduce impact on existing rights. Specifically, please describe whether the diversion will result in fluctuating water levels in Crooked River. Please also explain whether you intend to dewater Crooked River. The flow records which were submitted with the file show some periods of the year when the flow rate in Crooked River drops below 10 cfs. If the full amount of 10 cfs is diverted, the river will be dewatered.

2. Please submit comments from the commissioners of Idaho County, and also from the Division of Environmental Quality, Idaho Department of Health and Welfare.

Once the information requested above is received by the Department, we will process your application.

Sincerely,

Gary Spackman, Manager
Water Right Permits Section

MICROFILMED

GS:ds

SEP 14 1989

CLEARWATER RIVER BASIN

13337520 CROOKED RIVER NEAR MOUTH NEAR ELK CITY, ID

WATER-QUALITY RECORDS

LOCATION.—Lat 45°49'19", long 115°31'37", in SW 1/4 NW 1/4, sec. 25, T. 29 N., R. 7 E., Hydrologic Unit 17060305, in Idaho county. Temperature recorder is on right bank 600 ft west of Crooked river road, 1,000 ft upstream from mouth and approximately 5.5 mi west of Elk City.

PERIOD OF DAILY RECORD.—

WATER TEMPERATURES: July 1984 to current year.

INSTRUMENTATION.—Temperature recorder since July 1984.

EXTREMES FOR PERIOD OF DAILY RECORD.—

WATER TEMPERATURES: Maximum, 22.0° C July 27, 1987; minimum, 3.0° C Sept. 29-30, 1985.

EXTREMES FOR CURRENT YEAR.—

WATER TEMPERATURES: Maximum 22.0° C July 27; minimum, 7.5° C Sept. 17-18, 28-30.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1					---	---	17.5	13.5	19.5	12.5	19.0	13.0
2					---	---	19.0	13.5	19.0	12.0	18.0	14.0
3					---	---	19.5	14.0	19.5	12.0	17.5	12.5
4					---	---	18.5	12.5	20.5	13.0	16.5	10.5
5					---	---	16.0	12.5	20.5	13.5	17.0	10.5
6					---	---	17.5	10.5	20.0	13.5	17.5	10.5
7					---	---	18.0	12.5	20.0	13.0	17.5	11.0
8					---	---	19.0	13.0	20.5	13.5	17.5	10.5
9					---	---	17.0	12.5	21.0	14.5	17.5	11.0
10					---	---	14.5	12.0	20.5	15.0	17.5	11.0
11					---	---	17.5	11.0	19.5	13.5	18.0	11.0
12					---	---	18.5	11.0	17.0	13.5	18.0	11.0
13					---	---	19.5	11.5	15.5	13.5	17.0	11.0
14					---	---	20.0	12.5	17.0	13.5	17.5	11.0
15					---	---	20.5	14.0	16.0	13.0	13.5	10.5
16					---	---	18.0	12.5	16.5	12.5	13.5	9.5
17					---	---	15.0	12.0	17.5	11.0	13.5	7.5
18					12.0	11.0	12.5	11.0	18.0	11.0	13.5	7.5
19					15.0	10.0	14.5	10.0	18.5	11.5	14.5	8.0
20					15.5	9.5	16.0	10.5	19.0	12.5	15.0	8.0
21					13.0	10.0	15.5	11.0	19.0	12.5	15.5	8.5
22					13.0	9.5	17.0	12.5	18.5	12.0	15.0	8.5
23					13.0	8.5	19.0	12.0	16.0	14.0	13.0	9.0
24					16.5	7.5	20.0	12.5	17.0	13.5	16.0	9.5
25					18.0	9.0	19.5	14.5	17.5	12.5	12.5	10.0
26					19.0	10.5	21.0	13.5	19.0	13.0	11.0	9.5
27					20.0	12.0	22.0	14.5	15.5	12.0	14.0	8.5
28					20.5	13.0	19.5	16.0	18.5	11.0	13.5	7.5
29					20.5	13.0	21.5	14.0	19.0	12.5	14.0	7.5
30					20.0	13.5	21.5	16.0	19.5	12.5	14.0	7.5
31					---	---	20.0	15.5	19.5	12.5	---	---
MONTH					20.5	7.5	22.0	10.0	21.0	11.0	19.0	7.5

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SEP 14 1989

CLEARWATER RIVER BASIN

13337510 CROOKED RIVER NEAR OROGRANDE, ID

WATER-QUALITY RECORDS

LOCATION.—Lat 45°42'57", long 115°32'21", in NW¹/₄ SE ¹/₄, sec. 31, T.28 N., R.7 E., Hydrologic Unit 17060305, in Idaho County. Temperature recorder is on left bank 300 ft southeast of Crooked River Road, 400 ft upstream from Five Mile Creek, and 0.75 mi north of Orogrande.

PERIOD OF DAILY RECORD.—

WATER TEMPERATURES: July 1984 to current year.

INSTRUMENTATION.—Temperature recorder since July 1984.

EXTREMES FOR PERIOD OF DAILY RECORD.—

WATER TEMPERATURES: Maximum, 19.5° C Aug. 12, 1984; minimum, 1.0° C Sept. 28-29, 1984.

EXTREMES FOR CURRENT YEAR.—

WATER TEMPERATURES: Maximum, 18.0° C Aug. 8; minimum, 3.5° C Sept. 17-18.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1					---	---	14.0	10.5	16.5	8.5	15.0	9.5
2					---	---	15.0	11.0	16.5	8.0	16.0	11.0
3					---	---	15.5	9.5	17.0	8.0	14.0	9.0
4					---	---	15.0	9.5	17.5	8.5	14.5	7.5
5					---	---	11.5	9.0	17.5	9.5	15.0	7.5
6					---	---	13.5	7.5	16.5	9.5	14.5	7.5
7					---	---	13.0	9.5	17.0	9.0	15.5	7.5
8					---	---	14.5	9.5	18.0	9.5	15.0	7.5
9					---	---	12.5	9.0	16.5	10.0	15.5	8.0
10					---	---	10.0	8.5	17.5	10.5	15.0	8.0
11					---	---	13.0	7.5	15.5	9.5	15.0	7.5
12					---	---	15.5	7.5	13.5	8.5	15.0	7.5
13					---	---	16.5	8.0	11.5	9.0	14.5	7.5
14					---	---	17.5	9.0	13.5	9.5	14.5	7.5
15					---	---	18.0	10.5	13.0	9.0	9.0	7.5
16					---	---	15.0	9.0	14.0	7.5	10.5	5.5
17					---	---	11.5	9.0	14.5	6.5	11.0	3.5
18					8.5	---	9.0	7.5	15.0	6.5	11.0	3.5
19					10.0	7.0	11.5	6.5	15.5	7.0	11.5	4.5
20					12.5	6.5	13.5	7.0	16.0	8.5	12.0	4.5
21					9.5	7.5	13.5	8.0	15.5	8.0	12.5	4.5
22					9.0	6.5	14.5	10.0	15.0	8.0	12.5	5.0
23					9.0	5.0	16.0	8.5	12.5	10.0	13.0	6.0
24					12.5	5.0	17.5	9.0	15.0	9.5	13.5	6.5
25					14.0	6.0	16.5	11.0	14.5	8.0	11.0	7.0
26					15.5	8.0	18.5	10.0	15.5	7.5	9.0	6.5
27					16.0	9.0	19.0	11.0	14.5	8.0	11.0	5.0
28					16.5	10.0	16.0	12.0	16.0	8.0	10.5	4.0
29					16.0	10.0	18.0	11.0	16.5	8.5	11.0	4.0
30					17.5	10.5	18.0	12.0	17.0	8.5	11.5	4.5
31					---	---	18.0	11.5	17.0	9.0	---	---
MONTH					17.5	5.0	19.0	6.5	18.0	6.5	16.0	3.5

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SEP 14 1989



State of Idaho

DEPARTMENT OF WATER RESOURCES

NORTHERN REGION, Suite 210 • 1910 Northwest Blvd. • Coeur d'Alene, Idaho 83814 • (208) 765-4639

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

March 21, 1989

U.S. Forest Service
NezPerce National Forest
Rt. 2 Box 475
Grangeville, Id. 83530

Re: 82-7185

Gentlemen:

Enclosed is a recent filing with this Department that may be of interest to you.

Sincerely,

ROBERT G. HAYNES, P.E.
Regional Manager

RGH/pms

Enclosure

MICROFILMED

SEP 14 1989



AFFIDAVIT OF PUBLICATION

NOTICE IS HEREBY GIVEN THAT APPLICATION FOR PERMIT NO. 82-7185 in the name of the Idaho Dept. of Fish & Game was advertised incorrectly on February 1 & 2, 1989.

The place of use was incorrectly advertised as T29N R07E S26; whereas, correctly it should be T29N R07E S25 NESE.

Protests to the above-referenced application were filed with the Director, Dept. of Water Resources, 1810 Northwest Blvd., Suite 210, Coeur d'Alene, ID 83814 on or before March 20, 1989.

R. KEITH HIGGINSON, Dir.
Published in the Idaho County Free Press on 3/1 & 2/89.

M1-8

AK
3/26/89

STATE OF IDAHO

County of Idaho - ss.

Charlotte Sotin, being first duly sworn, says she is the Bookkeeper of the IDAHO COUNTY FREE PRESS, a weekly newspaper published and issued weekly at Grangeville, Idaho county, State of Idaho, and is of general circulation in said county and state, that the said notice, of which the one hereto attached is a true copy, was published in said paper for two weeks, being published two times, the first publication being on the 1st day of March, 1989, and the last publication on the 8th day of March, 1989; that the said notice was published in the newspaper proper and not a supplement; that said newspaper has been continuously and uninterruptedly published in said county during a period of seventy-eight consecutive weeks prior to the publication of said notice or advertisement.

Charlotte Sotin

STATE OF IDAHO }

COUNTY OF }

On this 8th day of March in the year of 1989, before me, a Notary Public, personally appeared Charlotte Sotin, known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that he executed the same.

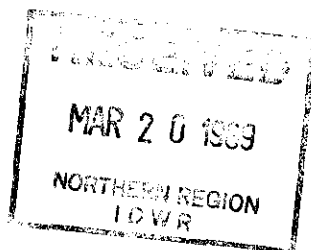
[Signature]
Notary Public for Idaho

Residing at Grangeville, Idaho

My commission expires: 9/10/92

MICROFILMED

SEP 14 1989



NOTICE OF CORRECTION

NOTICE IS HEREBY GIVEN THAT APPLICATION FOR PERMIT NO. 82-7185 in the name of the Idaho Dept. of Fish & Game was advertised incorrectly on February 1 & 8, 1989.

The place of use was incorrectly advertised as T29N R07E S25; whereas, correctly it should be T29N R07E S25 NESE.

Protests to the above-referenced correction must be filed with the Director, Dept. of Water Resources, 1910 Northwest Blvd., Suite 210, Coeur d'Alene, Id. 83814 on or before March 20, 1989.

R. KEITH HIGGINSON, Dir.

Published in the Idaho County Free Press on 3/1 & 8/89.

MICROFILMED

SEP 14 1989



State of Idaho
DEPARTMENT OF WATER RESOURCES

NORTHERN REGION, Suite No. 9 • 4055 Government Way • Coeur d'Alene, Idaho 83814 • (208) 765-4639

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

Dear Applicant:

The Department of Water Resources acknowledges receipt of your water right application for permit.

This office is currently in the process of advertising the application in the local county newspaper. The advertisement will be published 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 the 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.

Enclosed please find your receipt for the fee involved in filing this application.

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

Sincerely,

ROBERT G. HAYNES, P.E.
Regional Manager

RGH/pms
Enc. - Receipt

MICROFILMED

SEP 14 1989

AFFIDAVIT OF PUBLICATION

STATE OF IDAHO

County of Idaho - ss.

Charlotte Sotin

....., being first duly sworn, says she is the Bookkeeper of the IDAHO COUNTY FREE PRESS, a weekly newspaper published and issued weekly at Grangeville, Idaho county, State of Idaho, and is of general circulation in said county and state, that the said notice, of which the one hereto attached is a true copy, was published in said paper for two weeks, being published two times, the first publication being on the 1st day of February, 1989, and the last publication on the 8th day of February, 1989; that the said notice was published in the newspaper proper and not a supplement; that said newspaper has been continuously and uninterruptedly published in said county during a period of seventy-eight consecutive weeks prior to the publication of said notice or advertisement.

Charlotte Sotin

STATE OF IDAHO }

COUNTY OF }

On this 8th day of February in the year of 1989, before me, a Notary Public, personally appeared Charlotte Sotin, known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that he executed the same.

Notary Public for Idaho

Residing at Grangeville, Idaho

My commission expires: 9/10/92

RECEIVED

FEB 15 1989

NORTHERN REGION
IDWR

MICROFILMED

SEP 14 1989

82-07185

STATE OF IDAHO
DEPT. OF FISH & GAME
P.O. BOX 25
BOISE, ID 83707

Source: CROOKED RIVER

Tributary: CLEARWATER RIVER, SOUTH FO

Diversion Pt: SWNESE Sec 25 T 29N R 07E

Use: FISH PROPAGATION (10.000 CFS)

Date Filed: 1/23/1989

In: T29N R07E S25 NESE

*Added on
computer
2/10/89*

MICROFILMED

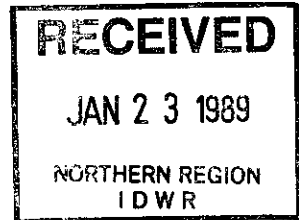
SEP 14 1989

IDAHO FISH & GAME

600 South Walnut / Box 25
Boise, Idaho 83707

January 12, 1989

Idaho Department of Water Resources
4055 Government Way
Coeur d'Alene, ID 83814



Gentlemen:

New Water Right Application

Enclosed are a Water Right Application for the new Crooked River Adult Trapping Facility and the application fee in the amount of \$225.00. Also enclosed are a site plan and a copy of the Special Use Permit between the U. S. Forest Service and the Army Corps of Engineers/Idaho Department of Fish and Game. (The Corps will own the facility and the Department of Fish and Game will be the operating agency.)

This facility consists of a gravity diversion, fish trap, loading tank, fish ladder, and fish weir for trapping returning adult Spring Chinook Salmon and Steelhead. Adults will not be held at this location due to high water temperatures, but will be loaded into fish transport trucks and hauled to the new Clearwater Fish Hatchery for holding and spawning.

Bid opening for this project is scheduled for March 1, 1989. It is anticipated that the facility will be ready to accommodate trapping of Steelhead in the spring of 1990.

Please advise if more information is needed.

Sincerely,

A handwritten signature in dark ink, appearing to read "Philip G. Jeppson".

Philip G. Jeppson
Fish and Game Engineer Supervisor

PGJ:Q

Encs.

c Mr. Joe McMichael, Corps of Engineers

Cecil D. Andrus / Governor
Jerry M. Conley / Director



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SEP 14 1989