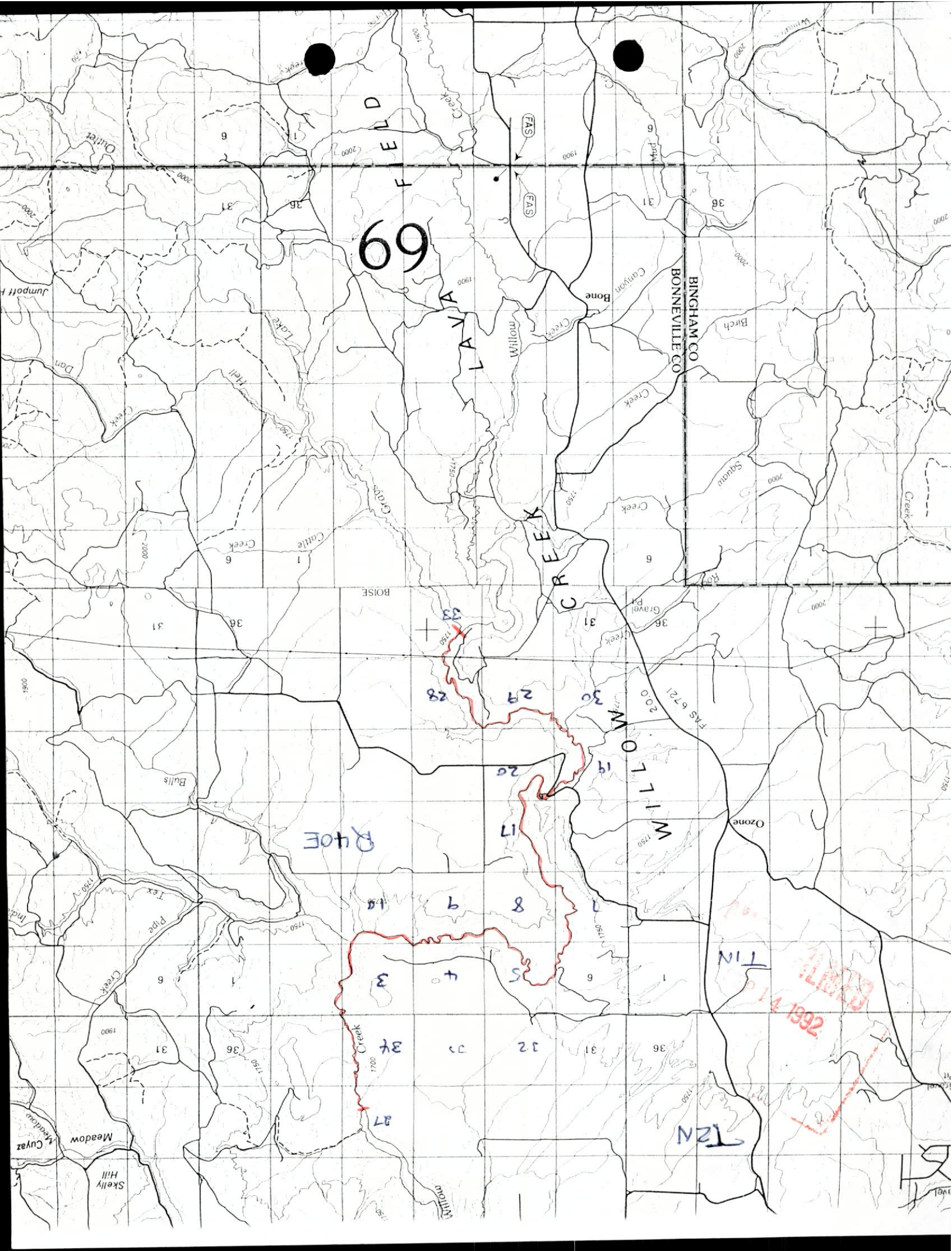




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AFFIDAVIT OF PUBLICATION

STATE OF IDAHO, ss.

09641
NOTICE OF HEARING FOR APPLICATION FOR MINIMUM STREAMFLOW
Notice is hereby given that the Idaho Water Resource Board submitted an application for permit to appropriate water to the Department of Water Resources, proposing to appropriate water for a minimum streamflow in Willow Creek, a tributary of the Snake River. The application is further described as follows:

Source:	Willow Creek
Application No.:	25-7597
Proposed Priority:	June 24, 1991
Amount and Period of Use:	30.0 cfs from December 1 to March 31 250.0 cfs from April 1 to May 31 100.0 cfs from June 1 to July 15 30.0 cfs from July 16 to September 30 40.0 cfs from October 1 to November 30
Purpose of Minimum Flow:	Preservation of fish and wildlife habitat, aquatic life and water quality.
Place of Use:	Willow Creek, commencing at the confluence of Grays Lake Outlet in the SE¼ of the NW¼, Section 33, T1N, R40E, and extending downstream to the backwaters of Ririe Reservoir in the NW¼ of the SE¼, Section 27, T2N, R40E, B.M., Bonneville County.

The Director of the Department of Water Resources will hold a public hearing in the State Office Building, 2nd Floor Conference Room 150 Shoup Avenue, Idaho Falls, Idaho, beginning at 1:30 p.m. on Tuesday October 29, 1991, for the purpose of hearing evidence in regard to the application. The hearing will be held pursuant to the provisions of Section 42-1503, Idaho Code.

Any party who wishes to formally appear in the proceeding for the purpose of presenting evidence or cross examining witnesses should file a notice of appearance with the Director of the Department of Water Resources, Statehouse Mail, 1301 North Orchard Street, Boise, Idaho 83720, five (5) days prior to the Hearing. Other parties will be given an opportunity to informally present their views and comments without the necessity of filing a notice of appearance. Written informal views and comments may also be submitted to the Department of Water Resources prior to the hearing.

If issued, this permit will be subject to all prior water rights.

R. KEITH HIGGINSON, Director
Idaho Department of Water Resources

I, Sue Laumeister, being duly sworn,
as Legal Clerk

Company, a corporation organized and existing under the laws of the State of Idaho, publishers of the TRIBUNE, a newspaper of general circulation in Perce County, Idaho; That the said Lewiston published paper and has been published regularly at least once a day for more than 21 consecutive days preceding the first publication of this notice, and uninterrupted for said period; that the

HEARING

This is made a part of this affidavit was published in the Lewiston Tribune, 2 time(s). Publication began on

or 2 consecutive WEEKS, the first on the 100391, and the last publication on the 101091, and said

HEARING

regular and entire issue of said newspaper and

not in a supplement thereof and was so published in every issue and number of the said paper, during the period and times of publication as set forth above.

SUBSCRIBED AND SWORN BEFORE ME THIS THE 16 day of October 1991

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SEP 14 1992

Sheral M. Laumeister
Notary Public in and for the State of Idaho,
residing at Lewiston, therein.

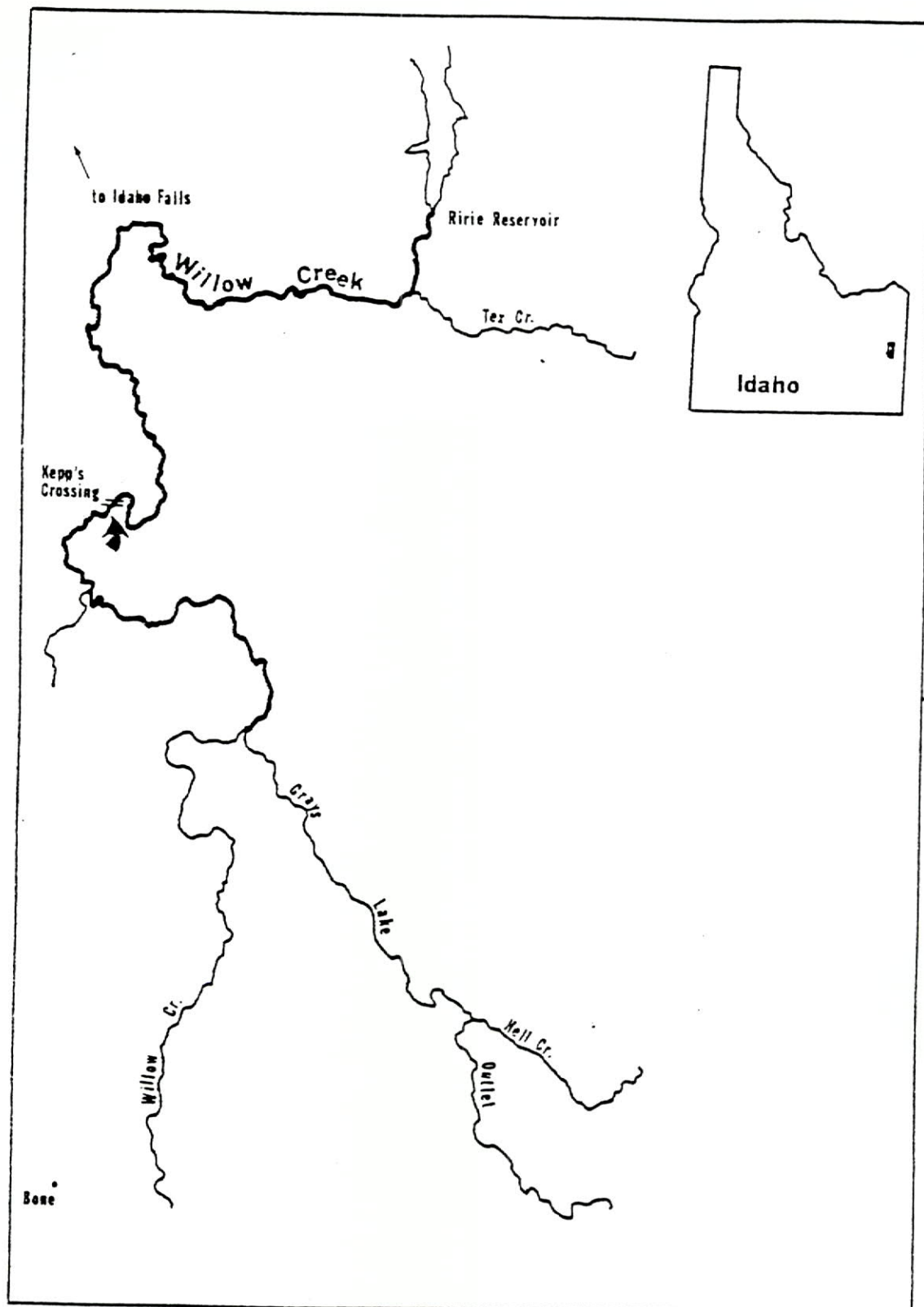
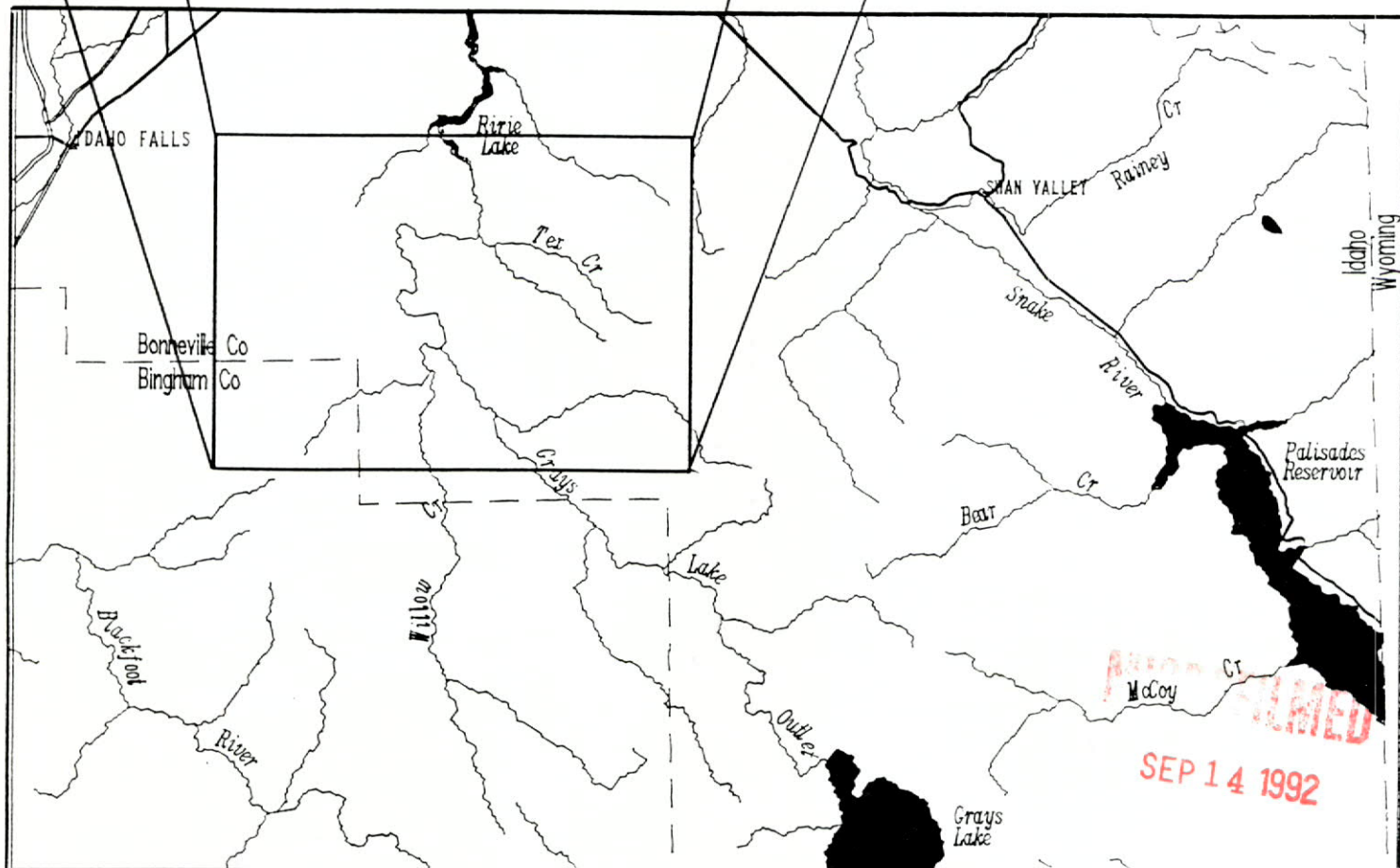
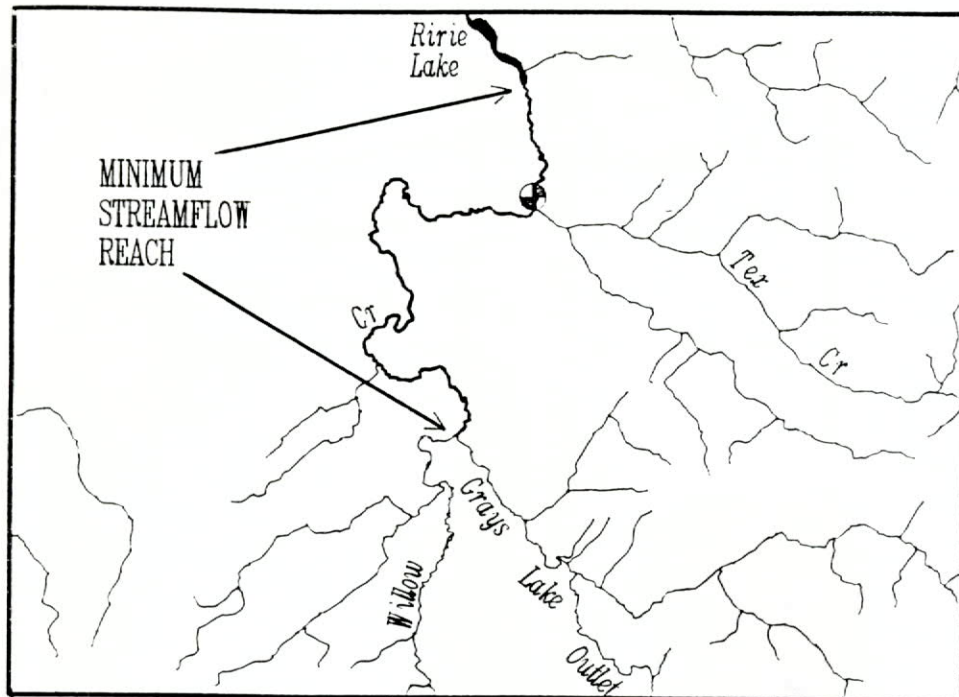


Figure 13. Location of instream flow study site on Willow Creek.



112°00' 2 R 38 E 550 25 000 FEET (WYO.)
43°30' 12 N

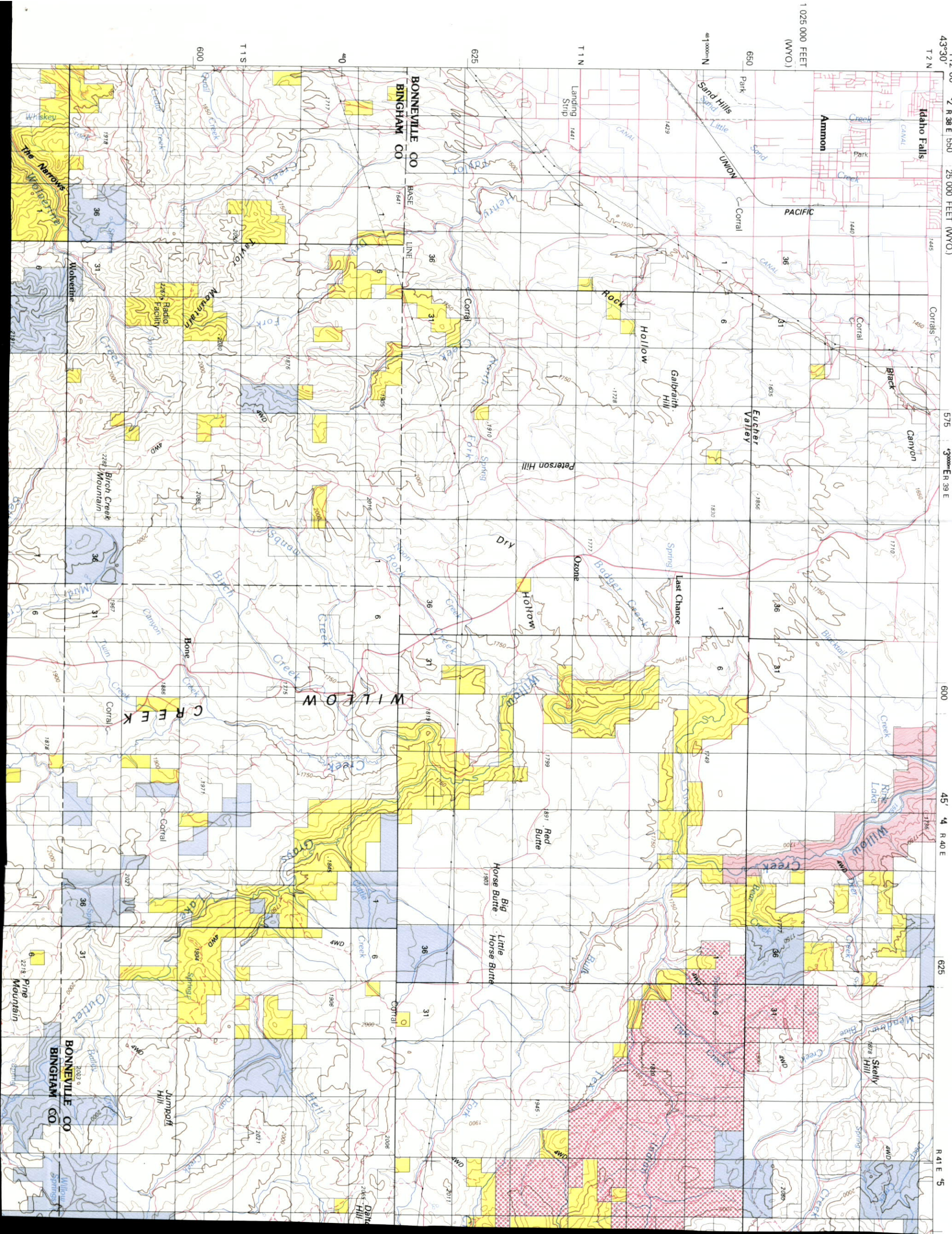
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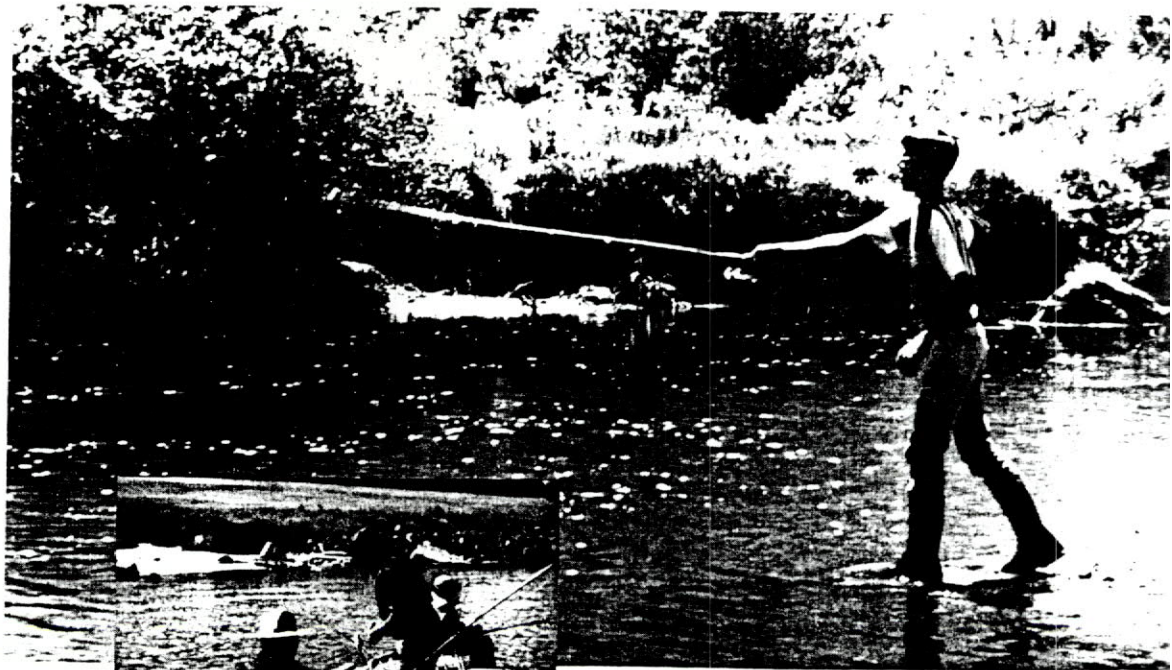
45' 4 R 40 E

625

R 41 E 45



FISHERIES MANAGEMENT PLAN 1991-1995



CHRIS CHAFFIN/IDFG



DON ANDERSON/IDFG



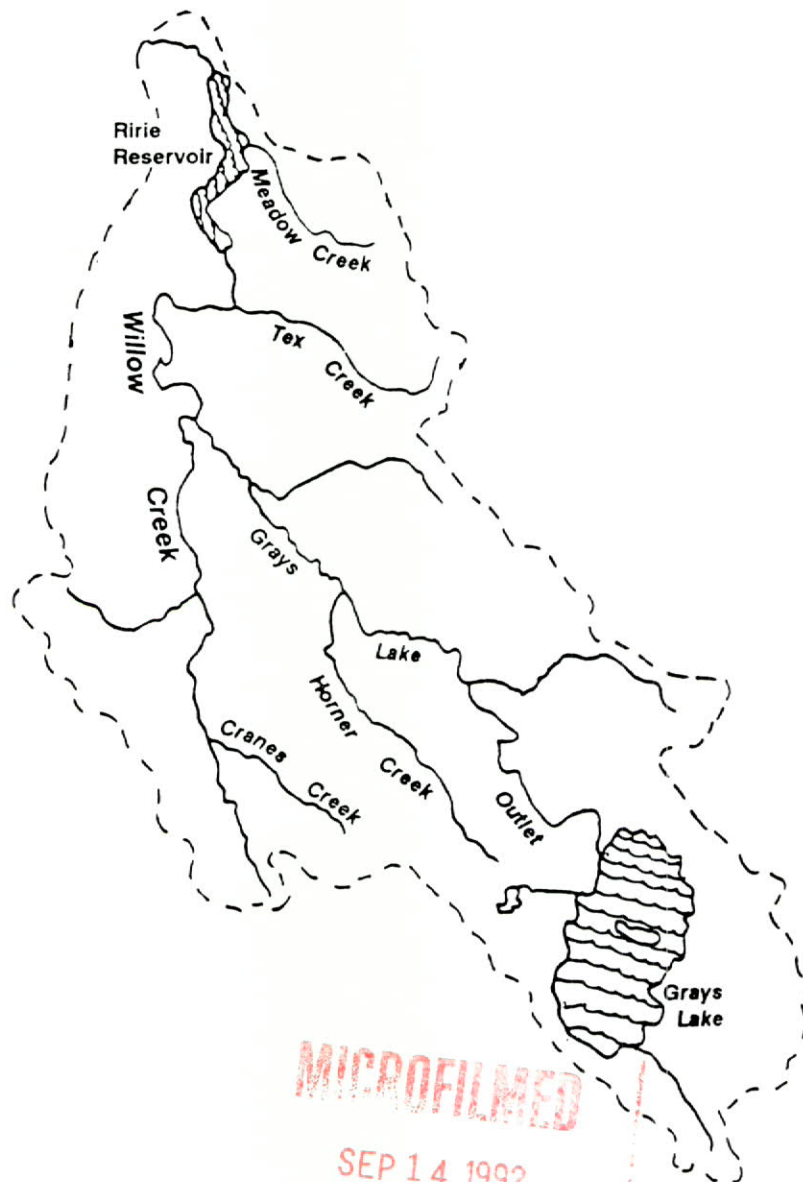
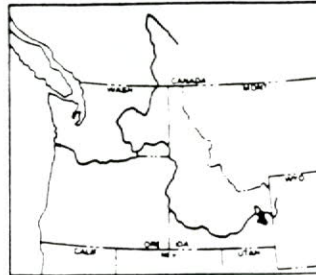
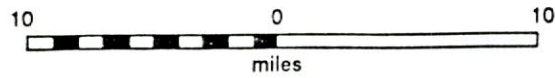
JACK MCNEEL/IDFG



Partial funding for this publication through Federal Aid in Sport Fish Restoration Program as an educational service.

SEP 14 1992

Willow Creek Drainage



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SEP 14 1992







RECEIVED

FEB 11 1997

FOR OFFICE USE ONLY

Amt. of Fee \$: _____

Receipt No. _____

Receipt By: _____

Date Received: _____

STATE OF IDAHO Department of Water Resources
DEPARTMENT OF WATER RESOURCES

FEB 11 1998

PROOF OF BENEFICIAL USE

The Idaho Department of Water Resources considers this form 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, when necessary, or be accompanied by a completed field examination report prepared by a certified water right examiner who has been appointed by the department.

1. Permit No. 25-07597 Telephone No. 208-327-7900

2. Name(s) of Permit Holder(s): IDAHO WATER RESOURCE BOARD

3. Mailing Address: 1301 North Orchard Street, P.O. Box 83720, Boise, Idaho 83720-0098

4. Source of Water: Willow Creek If **GROUNDWATER** (well), Date Drilled: mo. _____ / yr. _____

a. Well Driller: _____ Drilling Permit Number: _____ - _____ - _____

b. **OPTIONAL:**
Pump Horsepower: _____ Pressure (psi): _____ Dynamic pumping level (ft): _____

5. Use(s) (as authorized by the water right permit):

Domestic (No. of households): _____ Stockwater (No. and type of stock): _____

Irrigation (No. of acres): _____ Other: _____

6. Total rate of diversion and/or volume for which proof is submitted: 50 cfs OR _____ acre feet

7. Measuring Device Requirement: (refer to the approval conditions on your permit and respond accordingly)

(This question is not optional. Please check either yes or no. Proofs returned not checked accordingly, will be considered incomplete)

Measuring Device: Is a measuring device required? Yes _____ or No X

Has the measuring device been installed? Yes _____ or No X

Flow Measurement Port: Is a flow measurement port required? Yes _____ or No _____

Has the measurement port been installed? Yes _____ or No _____

8. Fee Enclosed: \$ NA (See Fee Schedule on back of the instructions for filing proof of beneficial use)

9. Person to contact to accompany the Department representative during field examination of the water system.

Name: _____ Telephone Number: _____

Address: _____

10. The information given on this form 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.

Signature of permit holder: Clarence Parr
(include your title, if on behalf of company or organization)

Date: 2/11/98

MAR 26 1998

State of Idaho
Department of Water Resources

AMENDED

Permit To Appropriate Water

AMENDED

NO. 25-07597

Proposed Priority: June 24, 1991

This is to certify, that **STATE OF IDAHO**
IDAHO WATER RESOURCE BOARD
STATEHOUSE MAIL
BOISE ID 83720

has applied for a permit to appropriate water from:

WILLOW CREEK

tributary of **SNAKE RIVER**

and a permit is **APPROVED** for development of water as follows:

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>RATE OF DIVERSION</u>
MINIMUM INSTREAM FLOW	12/01 to 03/31	22.00 CFS
MINIMUM INSTREAM FLOW	04/01 to 05/31	50.00 CFS
MINIMUM INSTREAM FLOW	06/01 to 07/15	50.00 CFS
MINIMUM INSTREAM FLOW	07/16 to 09/30	22.00 CFS
MINIMUM INSTREAM FLOW	10/01 to 11/30	36.00 CFS

LOCATION OF POINT(S) OF DIVERSION:

Beginning of Stream Flow Reach
End of Stream Flow Reach

SENW , Sec. 33, Township 01N, Range 40E
NWSE , Sec. 27, Township 02N, Range 40E
BONNEVILLE County

PLACE OF USE: See Remarks

CONDITIONS/REMARKS:

1. Proof of construction of works and application of water to beneficial use shall be submitted on or before **March 1, 1998**.
2. Subject to all prior water rights.
3. Use of water under this right shall be non-consumptive.
4. Use of water under this permit shall recognize and allow the continued beneficial diversion of water for irrigation or other purposes under any prior existing water right established by diversion and application to beneficial use or by an application, permit, or license on file or issued by the Director under the provisions of Chapter 2, Title 42, Idaho Code, with a priority of date earlier than June 24, 1991, for Application No. 25-07597.
5. Upon a future finding and order of the Director that gauging stations are required to maintain the approved minimum flows on Willow Creek, such measuring devices shall be permanently installed and maintained as specified by the Director.

APPROVED

SEP 24 1993

AMENDED

Permit To Appropriate Water

AMENDED

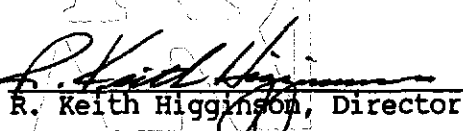
NO. 25-07597

CONDITIONS/REMARKS:

6. The Director retains jurisdiction, as described below, to review and amend any and all parameters of this permit and subsequent license. The Board, upon receiving a request, or upon its own initiative, may petition the Director for an amendment to the permit or license. The petition must set forth any significant change in circumstances and evidence of the public interest supporting the proposed amendment. The Director will notify the general public and specific persons or known interested parties of the proposed change, and conduct a hearing for the purpose of determining whether the permit or subsequent license should be amended in the public interest. The burden of proof at the hearing shall be upon the persons or parties seeking the amendment to establish that the amendment of the permit or license would be in the public interest.
7. During the duration of the permit, the upper flows shall be measured and the relationship between the measured flows and the Tex Creek gauge flows developed. Failure to measure the upstream flows and relate the measurements to the Tex Creek gauge data will result in a single point minimum flow located at the Tex Creek gauge. If a point minimum streamflow is established, Willow Creek upstream of Tex Creek will only be protected to the extent necessary to maintain the minimum flow at the Tex Creek gauge.
8. The minimum instream flow use is for the preservation of fish and wildlife habitat, and to maintain streambank integrity.

This permit is issued pursuant to the provisions of Section 42-204, Idaho Code.
Witness the signature of the Director, affixed at Boise, this

8th day of September, 1993.


R. Keith Higginson, Director

SEP 24 1993

State of Idaho
Department of Water Resources

Permit To Appropriate Water

NO. 25-07597

Proposed Priority: June 24, 1991 Maximum Diversion Rate: 180.00 CFS

This is to certify, that **STATE OF IDAHO**
IDAHO WATER RESOURCE BOARD
STATEHOUSE MAIL
BOISE ID 83720

has applied for a permit to appropriate water from:

WILLOW CREEK tributary of **SNAKE RIVER**

and a permit is **APPROVED** for development of water as follows:

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>RATE OF DIVERSION</u>
MINIMUM INSTREAM FLOW	12/01 to 03/31	22.00 CFS
MINIMUM INSTREAM FLOW	04/01 to 05/31	50.00 CFS
MINIMUM INSTREAM FLOW	06/01 to 07/15	50.00 CFS
MINIMUM INSTREAM FLOW	07/16 to 09/30	22.00 CFS
MINIMUM INSTREAM FLOW	10/01 to 11/30	36.00 CFS
Totals		180.00 CFS

LOCATION OF POINT(S) OF DIVERSION:

SENW , Sec. 33, Township 01N, Range 40E
BONNEVILLE County

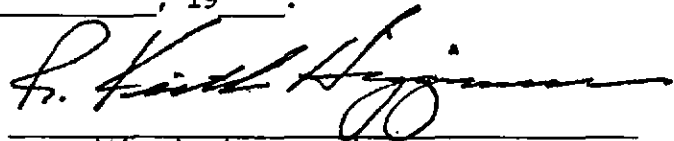
PLACE OF USE: See Remarks

CONDITIONS/REMARKS:

1. Proof of construction of works and application of water to beneficial use shall be submitted on or before **March 1, 1998**.
2. Subject to all prior water rights.
3. Use of water under this right shall be non-consumptive.
4. The minimum instream flow use is for the preservation of fish and wildlife habitat, and to maintain streambank integrity.
5. See Final Memorandum Decision and Order for additional conditions of approval.

This permit is issued pursuant to the provisions of Section 42-204, Idaho Code.
Witness the signature of the Director, affixed at Boise, this

28th day of August, 19 92.


R. Keith Higginson, Director

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SEP 14 1992

BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE
STATE OF IDAHO

IN THE MATTER OF APPLICATION FOR)	FINAL ORDER ADOPTING
PERMIT NO. 25-07597 TO ESTABLISH A)	PROPOSED MEMORANDUM
MINIMUM STREAMFLOW IN THE NAME OF)	DECISION AND ORDER
THE IDAHO WATER RESOURCE BOARD)	

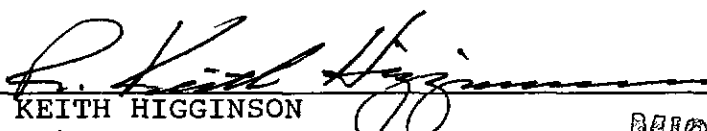
WHEREAS, R. Keith Higginson, Director of the Department of Water Resources, sent a copy of the Proposed Memorandum Decision and Order addressing the above captioned matter to the parties of record on August 5, 1992, pursuant to Section 67-5211, Idaho Code; and,

WHEREAS, more than fifteen days have passed since the service of the Proposed Memorandum Decision and Order; and,

WHEREAS, no exception to that Proposed Memorandum Decision and Order has been received;

IT IS, THEREFORE, HEREBY ORDERED that said Proposed Memorandum Decision and Order be adopted and issued as the Final Decision and Order, and Application for Permit No. 25-07597 is APPROVED, and proof of beneficial use must be submitted on or before March 1, 1998.

Dated this 28TH day of August, 1992.



R. KEITH HIGGINSON
Director

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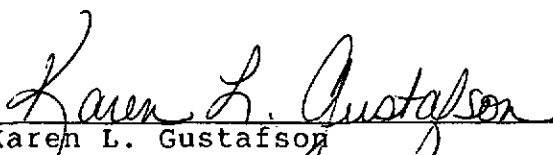
CERTIFICATE OF MAILING

I HEREBY CERTIFY that on this 14th day of September, 1992, I mailed/delivered a true and correct copy, postage prepaid, of the foregoing Final Memorandum Decision and Order to the following parties:

Gary Ball
368 East 3rd South
Rexburg, ID 83440

The Idaho Water Resource Board
1310 North Orchard
Statehouse Mail
Boise, ID 83720

Stephen Goddard
Department of Fish and Game
600 South Walnut
Statehouse Mail
Boise, ID 83720


Karen L. Gustafson
Secretary/Records Manager

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BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE
STATE OF IDAHO

IN THE MATTER OF APPLICATION FOR PERMIT	)	
	)	
NO. 25-07597 (WILLOW CREEK) TO ESTABLISH	)	
	)	PROPOSED MEMORANDUM
A MINIMUM STREAMFLOW IN THE NAME OF THE	)	DECISION AND ORDER
	)	
IDAHO WATER RESOURCE BOARD	)	
	)	

On October 29, 1991, the Idaho Department of Water Resources (Department) conducted a hearing to determine whether an application for permit to appropriate water, numbered in the Department records as 25-07597, should be approved or rejected. The application seeks to establish a minimum streamflow in Willow Creek, located in Bonneville County.

Notice of the hearing was published statewide. The Idaho Water Resource Board (Board), the Idaho Department of Fish and Game (Fish and Game), and Gary Ball appeared as formal parties. Fish and Game requested the minimum streamflow. Gary Ball (Ball) is a farmer/businessman who owns and leases farmland in the Willow Creek Drainage. Other individuals and representatives of organizations also appeared and presented their views and comments as public witnesses.

After the close of the hearing, the parties were granted until November 7 to comment on flow data presented by the Board. Additional flow data were submitted and distributed to the parties. Evidence having been taken, and the record having closed, the hearing officer, as a representative of the Director of the Department of Water Resources, proposes the following findings, conclusions and order:

FINDINGS OF FACT

1. Application for minimum streamflow no. 25-07597 proposes the following:

Rate of Flow:	30 cfs from December 1 through March 31;
	250 cfs from April 1 through May 31;

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100 cfs from June 1 through July 15;
30 cfs from July 16 through September 30; and
40 cfs from October 1 through November 30

Location: Beginning at the confluence of Grays Lake Outlet with Willow Creek, located in the SE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 33, T1N, R40E, B.M., and extending downstream to the backwaters of Ririe Reservoir, located in the NW $\frac{1}{4}$ SE $\frac{1}{4}$, Section 27, T2N, R40E,, B.M., Bonneville County.

Purpose: Preservation of fish and wildlife habitat, and streambank integrity.

2. Measurement of flows of Willow Creek began in 1917. The original flow gauge was located on Willow Creek in the SE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 17, T3N, R40E, Bonneville County, about 2 1/2 miles south of Ririe. This gauge will be referred to as the Ririe Gauge.

3. In 1924, a trans-basin diversion was completed out of Grays Lake, which delivers water through a channel into the Blackfoot River Drainage, and ultimately into the Blackfoot Reservoir. The project reduced the flow of water out of Grays Lake into the Grays Lake Outlet, and ultimately into Willow Creek.

4. Ririe Dam was built in the 1970's and water was stored in Ririe Reservoir. The operation of Ririe Reservoir changed the flow data taken at the Ririe gauge because the gauge was located downstream from the dam.

5. In 1978, a gauge was installed in Willow Creek above Ririe Reservoir, but below the confluence of Tex Creek with Willow Creek (referred to in the USGS literature as "Willow Creek below Tex Creek near Ririe"). This gauge will be referred to as the Tex Creek gauge.

6. The Board presented hydrologic data from both the Ririe gauge and the Tex Creek gauge. Recorded flows at the Ririe gauge were reduced by the proportion of flow draining from the area between the Tex Creek gauge and the Ririe gauge. Flow data at the Tex Creek gauge from 1981 through 1986 were not originally included in the information the Board submitted, but were subsequently submitted.

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7. With the above noted limitations in the available flow records, the Board compiled data and prepared exceedence curves which were submitted as evidence. An exceedence curve is produced by plotting the percentage of flows during a period of record which exceed various hypothetical flow rates. A large hypothetical flow will be exceeded fewer times than a small hypothetical flow, and so will have a lower percentage of exceedence.

8. According to the exceedence curves, the requested minimum flows are exceeded by the percentages listed below:

<u>Period</u>	<u>Requested Minimum Flow</u>	<u>Availability of Flow</u>
December - March	30 cfs	94%
April - May	250 cfs	75%
June - July	100 cfs	78%
August - September	30 cfs	70%
October - November	40 cfs	70%

9. The objecting parties questioned the exceedence numbers for four reasons. First, the numbers may have been over-estimated by records taken before the completion of the Grays Lake trans-basin diversion into the Blackfoot River. Second, it was alleged that the use of the Ririe gauge data, even with a reduction for water tributary between the gauge and Tex Creek, showed a higher flow rate than is available. Third, the data from 1981 through 1986 were not included in the summary. Last, the Tex Creek gauge, while located within the minimum streamflow reach, over estimates the available water in the upper parts of the minimum streamflow reach.

10. As requested by the hearing officer, the Board submitted additional flow information following the hearing which included the 1981 through 1986 data. The Board reviewed just the Tex Creek gauge data, and compared it to the long-term flow average using both the Ririe gauge (with adjustment) and the Tex Creek gauge. When using only the Tex Creek gauge data, the average flow was reduced approximately 5.0 cfs, but the information submitted by the Board concluded that the flows are maintainable in excess of 50% of the time.

11. Gary Ball also submitted additional information. The

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information submitted by Ball generally supports the conclusions of the Board. A portion of Ball's analysis focused only on years 1987 through 1991. Ball concluded that the minimum streamflows sought are less than the average flows during some of the last five years. The entire flow record of the Tex Creek gauge from 1978 through 1991 is a more complete and reliable record. The flows are capable of being maintained well in excess of 50% of the time at the Tex Creek gauge over the entire period of record.

12. Testimony was conflicting regarding the inflows from other streams above the Tex Creek gauge. One witness testified that Tex Creek contributes little or no additional flow to Willow Creek. Another witness stated that there are some perennial streams which contribute additional water to the streamflow within the minimum streamflow reach.

13. Testimony from the general public regarding flow availability above the Tex Creek gauge, leads to a conclusion that the flows are less than those measured directly at the Tex Creek gauge.

14. Witnesses testified that Willow Creek is a good trout fishery. All of the parties agreed that the trout fishery has been severely stressed during the last three to five years of drought, which has caused a reduction in fishing interest.

15. There was conflicting testimony about whether public use within the proposed minimum streamflow reach is increasing or decreasing. Sportsmen and a BLM manager, who have frequented the area, testified that use of the lands within the minimum streamflow reach has approximately doubled over the last decade. Farmers in the area, however, testified that the use on Willow Creek, particularly fishing pressure, has declined in the last five years. This decline is probably a direct result of drought conditions.

16. Willow Creek is a valuable natural resource because of its close proximity to the City of Idaho Falls, and the recreational opportunities it provides for a nearby urban population. In addition to fishing, the stream canyon offers an opportunity for hiking and observing a variety of wildlife.

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17. A large portion of the minimum streamflow reach is contained on lands owned by the Bureau of Land Management, Department of Interior (BLM). BLM is attempting to improve the natural characteristics of the area, and feels that protection of minimum streamflow will enhance riparian vegetation and fisheries values.

18. The proposed minimum streamflow reach is an important wintering area for big game, primarily deer and elk.

19. All witnesses agreed that the fishery in Willow Creek ought to be preserved and enhanced, and that Willow Creek should not be dried up.

20. BLM testified that the flows sought are necessary for preservation of the stream channel and the creek bottom vegetation. The testimony alluded that natural run-off flows or maintenance of near natural flows in Willow Creek were necessary for full preservation of the channel and supporting vegetation.

21. The Idaho Department of Fish and Game (Fish and Game) studied Willow Creek in 1983 using a method of analysis called the IFIM Model. The study found the following minimum flows necessary for preservation of trout populations:

<u>Period</u>	<u>Flow Rate</u>
January - March	22 cfs
April - July 15	50 cfs
July 16 - September	22 cfs
October - November	36 cfs
December	22 cfs

22. Fish and Game testified that the study only established flows necessary for preservation of the fish species of concern, but does not recognize that additional water is necessary to maintain fishable populations of trout. Willow Creek is a stream where fishable populations should be maintained.

23. Fish and Game testified about its method of determining the minimum streamflow amounts sought by this application. Fish and Game simply reviewed the flow data and determined what flow rate could be maintained approximately half the time. Recommended flow rates were not analyzed to determine whether the flow rates

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were minimums to maintain a fishable population.

24. There are a number of water rights which authorize diversion of water within or above the minimum streamflow reach. Any water right with date of priority earlier than the application for minimum streamflow may divert water from the stream without regard to the minimum flow.

25. Except for period of high run-off, all the water of Willow Creek not diverted within the reach or above the reach has been appropriated for consumptive use downstream. Agricultural interests above Ririe Reservoir have proposed diversion of water from Willow Creek to be compensated by releases from Ririe Reservoir. Exchanges of water which would reduce streamflows of Willow Creek below minimum flows necessary for maintenance of fish and wildlife habitat, and maintenance of riparian areas along Willow Creek are not in the public interest. These proposals must be supported by data showing that the diversion will not jeopardize these values in Willow Creek.

CONCLUSIONS OF LAW

1. Idaho Code § 42-1501 provides that streamflow preservation for the protection of fish and wildlife habitat, aquatic life, recreation, aesthetic beauty, navigation, and water quality when made pursuant to the minimum streamflow statutes, is in the public interest and is declared to be a beneficial use of such water.

2. Idaho Code § 42-1503 sets forth the criteria to be considered by the Department in reviewing an application for minimum streamflow:

Upon the conclusion of the hearings and completion of any investigation conducted by the director, he shall enter his findings in writing approving the application in full, or in part, or upon conditions or rejecting said application. Approval of any such application must be based upon the findings that such appropriation of minimum streamflow:

- (a) will not interfere with any vested water right, permit, or water right application with priority of right date earlier than the date of receipt in the office of the

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director of a complete application for appropriation of minimum streamflow filed under the provisions of this act;

- (b) is in the public, as opposed to the private interest;
- (c) is necessary for the preservation of fish and wildlife habitat, aquatic life, recreation, aesthetic beauty, navigation, transportation, or water quality of the stream;
- (d) is the minimum flow or lake level and not the ideal or most desirable flow or lake level; and
- (e) is capable of being maintained as evidenced by records of streamflows and water levels and the existing or future establishment of necessary gauging stations and bench marks.

3. Any right to be acquired under this application is for instream nonconsumptive use and is subject to all vested water rights, permit, or water right applications having dates of priority earlier than the respective filing dates of the applications set forth in the findings of fact.

4. Controversy in this matter focused on the issue of whether the flows are capable of being maintained. The flows are capable of being maintained as evidenced by flow data, at least at the Tex Creek gauge.

5. The term "capable of being maintained" does not require any specific percentage of exceedence. Because of wide public support, or because there is little risk of significant future appropriations, there may be cases where a minimum streamflow which can only occasionally be satisfied is capable of being maintained. There may also be other circumstances that will require a showing of consistent maintenance.

6. Testimony at the hearing established that the flows in the upper portion of the minimum flow reach are much smaller than flows read at the Tex Creek gauge. Additional measurement of upstream flows and comparison to the Tex Creek gauge data should establish a relationship whereby the lesser upstream flows can be determined. During the duration of the permit, the upper flows

should be measured and the relationship between the measured flows and the Tex Creek gauge flows developed. Failure to measure the upstream flows and relate the measurements to the Tex Creek gauge data will result in a single point minimum flow located at the Tex Creek gauge. If a point minimum streamflow is established, Willow Creek upstream of the Tex Creek gauge will only be protected to the extent necessary to maintain the minimum flow at the Tex Creek gauge.

7. Insufficient evidence was submitted to establish that the flows sought by the application are minimums, as opposed to the ideal, or optimum flow. While the advocates of the minimum streamflow can speculate about the minimum streamflow necessary to support fishable populations within Willow Creek, the specific IFIM studies by Fish and Game determine much smaller minimum streamflows. Without further studies and technical information, a minimum streamflow in excess of the values originally reported by the IFIM studies as minimums will not be approved. If additional minimum streamflows are sought, data must justify the minimum streamflows.

8. The minimum streamflows are necessary for the preservation of fish and wildlife habitat, aquatic life and water quality of the stream.

9. The Director of the Department of Water Resources has considerable flexibility to grant appropriations subject to future appropriation for which the public interest may show to be of greater importance. Shokal v. Dunn, 109 Idaho 330, 337, 707 P2d. 441 (1985).

ORDER

IT IS HEREBY ORDERED that application for permit no. 25-07597 is APPROVED with reduced flow rates as follows:

Period	Flow Rate (cfs)		
	Applied For	IFIM	Approved
December 1 - March 31	30	22	22
April 1 - May 31	250	50	50
June 1 - July 15	100	50	50
July 16 - September 30	30	22	22
October 1 - November 30	40	36	36

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IT IS FURTHER ORDERED that the permit no. 25-07597 is subject to the following conditions.

1. During the duration of the permit, the upper flows shall be measured and the relationship between the measured flows and the Tex Creek gauge flows developed. Failure to measure the upstream flows and relate the measurements to the Tex Creek gauge data will result in a single point minimum flow located at the Tex Creek gauge. If a point minimum streamflow is established, Willow Creek upstream of Tex Creek will only be protected to the extent necessary to maintain the minimum flow at the Tex Creek gauge.

2. Use of water under this permit shall recognize and allow the continued beneficial diversion of water for irrigation or other purposes under any prior existing water right established by diversion and application to beneficial use or by an application, permit, or license on file or issued by the Director under the provisions of Chapter 2, Title 42, Idaho Code, with a priority of water right date earlier than June 24, 1991, for application no. 25-07597.

3. Use of water under this permit shall be nonconsumptive.

4. Upon a future finding and order of the Director that gauging stations are required to maintain the approved minimum flows on Willow Creek, such measuring devices shall be permanently installed and maintained as specified by the Director.

5. The Director retains jurisdiction, as described below, to review and amend any and all parameters of this permit and subsequent license. The Board, upon receiving a request, or upon its own initiative, may petition the Director for an amendment to the permit or license. The petition must set forth any significant change in circumstances and evidence of the public interest supporting the proposed amendment. The Director will notify the general public and specific persons or known interested parties of the proposed change, and conduct a hearing for the purpose of determining whether the permit or subsequent license should be amended in the public interest. The burden of proof at the hearing shall be upon the persons or parties seeking the amendment to establish that the amendment of the permit or license would be in

SEP 14 1992

the public interest.

6. Proof of instream beneficial use of the minimum streamflow shall be submitted on or before March 1, 1998.

7. This minimum streamflow approval does not preclude additional requests for minimum streamflow brought before the Department regarding this stream segment if the Board or requesting parties can justify the need for the minimum streamflow.

Dated this 5th day of AUGUST, 1992.

Gary Spackman
GARY SPACKMAN, Hearing Officer
Idaho Department of Water Resources

SEP 14 1992

CERTIFICATE OF MAILING

I HEREBY CERTIFY that on this 6th day of August, 1992, I mailed/delivered a true and correct copy, postage prepaid, of the foregoing Proposed Memorandum Decision and Order and the Order Adopting the Proposed Memorandum Decision and Order to the following parties:

Gary Ball
368 East 3rd South
Rexburg, ID 83440

The Idaho Water Resource Board
1310 North Orchard
Statehouse Mail
Boise, ID 83720

Stephen Goddard
Department of Fish & Game
600 South Walnut
Statehouse Mail
Boise, ID 83720

Karen L. Gustafson
Karen L. Gustafson
Secretary/Records Manager

MICROFILMED

SEP 14 1992

BEFORE THE DIRECTOR OF THE DEPARTMENT
OF WATER RESOURCES OF THE
STATE OF IDAHO

IN THE MATTER OF APPLICATION FOR)	ORDER ISSUING
PERMIT NO. 25-07597 (WILLOW CREEK) TO)	PROPOSED MEMORANDUM
ESTABLISH A MINIMUM STREAMFLOW IN THE)	DECISION
NAME OF THE IDAHO WATER RESOURCE BOARD)	

R. Keith Higginson, Director of the Department of Water Resources, Having reviewed the attached proposed decision prepared by this appointee, Gary Spackman, who conducted the hearing or who has read the record in this case, hereby approves the same as a proposed decision pursuant to Idaho Code, Section 67-5211.

Each party to these proceedings who appeared at the hearing is given the opportunity, pursuant to Idaho Code, Section 42-1701A and 67-5211, to file exceptions to the proposed decision and to present briefs and oral arguments. If no timely and proper exceptions are received, an order by the Director will be entered adopting the proposed decision as his final decision.

I.
EXCEPTIONS

A. To be considered by the Director, exceptions must:

1. be received by the Director on or before the 15th day following the day of service of this Order and the proposed decision,

2. specifically identify the portions of the proposed decision to which exceptions are made and specifically state the grounds for those exceptions, and

3. be sent to each of the parties who appeared or their attorneys.

II.
BRIEFS

A. Any briefs in support of exceptions to the proposed decision shall be filed with the Director at the same time that party's exceptions are filed with the Director.

B. All response briefs to the exceptions must be filed with the Director within 15 days after the exceptions were served upon the responding party.

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III.

A. No oral arguments before the Director on the proposed decision will be held unless specifically requested by a party filing exceptions to the proposed decision and unless that request is filed with the Director concurrently with the filing of that party's exception.

B. If oral arguments have been properly requested by a party filing exceptions, any other party, upon reasonable notice to the Director, shall have the right to present oral argument in response to the exceptions filed.

C. Oral arguments before the Director on exceptions to the proposed decision shall be heard at the discretion of the Director, pursuant to Idaho Code, Section 42-1701A. If oral arguments are to be heard, the Director will, within a reasonable time, notify each party of the place, date and hour the oral arguments will take place and of the period of time allocated for the arguments of this case. Unless the Director orders otherwise, all oral arguments shall be heard in Boise, Idaho.

IV.

CERTIFICATE OF SERVICE

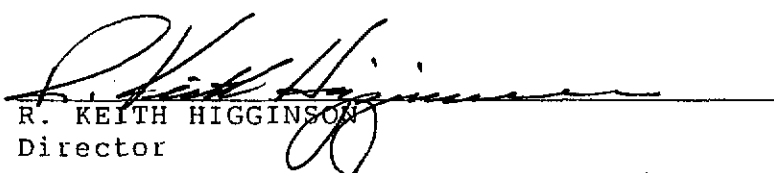
All exceptions, briefs, requests for oral argument and other matters filed with the Director in connection with the proposed decision shall be served on all other parties to these proceedings in accordance with Rule 7.2.

V.

FINAL DECISION

Following the submission of all exceptions, briefs and oral arguments, if they are heard, the Director shall issue a final decision adopting, modifying or rejecting and replacing the proposed decision. Copies of the decision and order shall be served on all parties.

Dated this 5th day of August, 1992.


R. KEITH HIGGINSON
Director

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SEP 14 1992

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JUN 24 1991

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
APPLICATION FOR PERMIT

25-7597
Ident. No. _____

To appropriate the public waters of the State of Idaho
Department of Water Resources

1. Name of applicant Idaho Water Resource Board Phone _____

Post office address Statehouse Mail, Boise, ID 83720

2. Source of water supply Willow Creek which is a tributary of Snake River

3. Location of point of diversion is _____ 1/4 of SE 1/4 of NW 1/4, Govt. Lot _____

Sec. 33 Township 1N Range 40E B.M. Bonneville County; additional

~~points of diversion if any:~~ downstream to the backwaters of Ririe Reservoir located in NW 1/4 of SE 1/4, Sec 27, T2N, R40E, B.M. Bonneville County

4. Water will be used for the following purposes:

Minimum
Amount 30 cfs for instream flow purposes from 12/1 to 3/31 (both dates inclusive)
(cfs or acre-feet per annum)

Amount 250 cfs for instream flow purposes from 4/1 to 5/31 (both dates inclusive)
(cfs or acre-feet per annum)

Amount 100 cfs for instream flow purposes from 6/1 to 7/15 (both dates inclusive)
(cfs or acre-feet per annum)

Amount 30 cfs for instream flow purposes from 7/16 to 9/30 (both dates inclusive)
(cfs or acre-feet per annum)

5. Total quantity to be appropriated is (a) 40 cfs instream flow 250 and/or (b) 10/1 11/30
cubic feet per second Minimum acre feet per annum

6. Proposed diverting works: No diversion--instream flow

a. Description of ditches, flumes, pumps, headgates, etc. _____

b. Height of storage dam _____ 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 _____ inches; proposed depth of well is _____ feet.

d. Is ground water with a temperature of greater than 90°F being sought? _____

7. Time required for the completion of the works and application of the water to the proposed beneficial use is

5 years (minimum 1 year).

SEP 14 1992

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

- a. Hydropower; show total feet of head and proposed capacity in KW. 25013 100
- b. Stockwatering; list number and kind of livestock. _____
- c. Municipal; show name of municipality. _____
- d. Domestic; show number of households. _____
- e. Other; describe fully. Instream flow to provide rearing and spawning habitat and migration passage for fish; to protect wildlife habitat; to maintain channel integrity.

9. Description of place of use: Willow Creek from Grays Lake outlet downstream to Ririe Reservoir.

- 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.

TWP	RANGE	SEC.	NE¼				NW¼				SW¼				SE¼				TOTALS
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	

Total number of acres to be irrigated _____

10. Describe any other water rights used for the same purposes as described above. None

11. a. Who owns the property at the point of diversion? NA

b. Who owns the land to be irrigated or place of use? NA

c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing. NA

12. Remarks:

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SEP 14 1992

F. Don O'Leary
(Applicant)

Received by AW B6 Date 6-27-91 Time 1:00p. Preliminary check by _____
Date 6-24-91 Time 2:50 pm
Fee \$ _____ Receipted by _____ # _____ Date _____
Publication prepared by RB Date 7-18-91 Published in statewide
RB 9-12-91
Publication approved RB Date 7-30-91

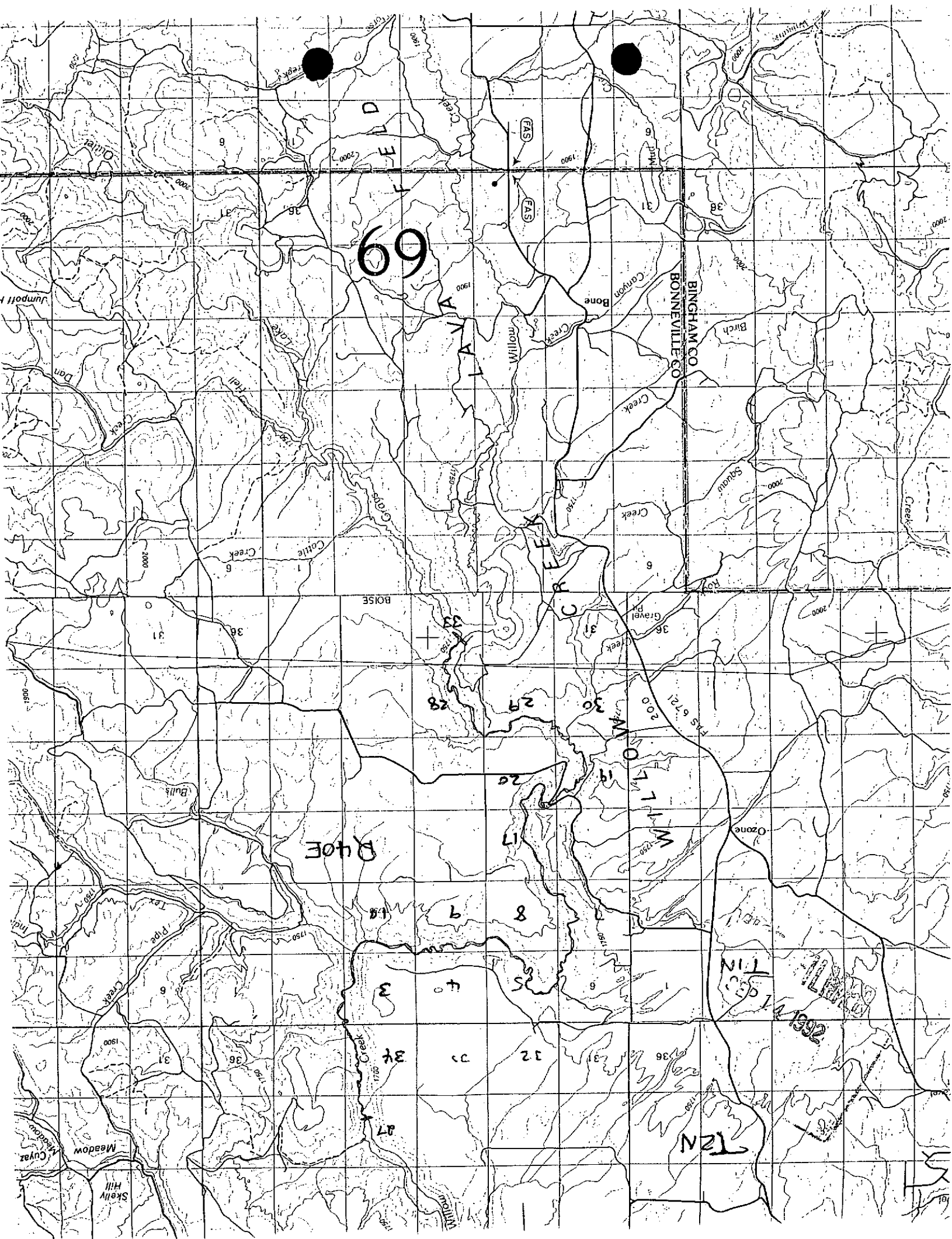
ACTION OF THE DIRECTOR, DEPARTMENT OF WATER RESOURCES

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

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 _____, 19____.
- 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:

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ATTACHMENT TO APPLICATION FOR PERMIT
TO APPROPRIATE A MINIMUM STREAM FLOW

11. Provide evidence that the appropriation will not interfere with any vested water right, permit, or water right application of earlier date of priority.

The requested flow is an instream use and will be subject to all vested water rights, permits, or application of earlier dates of priority.

12. Provide evidence to show that the appropriation would be in the public interest as opposed to private interest.

The above requested flow is for instream non-consumptive use to protect fish and wildlife habitat for the state of Idaho and its general public.

13. Provide evidence or justification that the appropriation is necessary for the purposes shown in Item 4.

Flow recommendations are based on flow data collected by Idaho Department of Fish and Game and from U.S. Geological Survey Gauge Station (USGS #13057940) data.

The methodology used for the flow determination is detailed in:

Horton, W.D. and Tim Cochnauer. 1980. Instream Flow Methodology Evaluation, Biological Criteria Determination, and Water Quantity Needs for Selected Idaho Streams. Job Completion Report, Stream Evaluation Project -- Phase II, OBS, Western Water Allocation Project. Idaho Department of Fish and Game. 101 pp.

14. Provide evidence that the minimum flow or lake level is minimum and not the ideal or most desirable flow or lake level.

The ideal flow to protect fish and wildlife habitat would be a bank full discharge.

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SEP 14 1992

15. Provide evidence that the flow or lake level requested is capable of being maintained as evidenced by records of stream flows and water levels.

Flow records are available from gage station #13057940 from August 1977 to September 1979, and from October 1985 to September 1989 (Figures 1A - 1E, attached).

16. Describe the location of existing gaging stations that can be used in the administration of this appropriation.

Gage #13057940 is below the mouth of Tex Creek - no gage on proposed reach.

17. Do you intend to install additional gaging stations? Describe the location.

No.

18. List any additional remarks related to this minimum stream flow application.

Willow Creek is managed as a quality fishery for cutthroat trout (Idaho state fish), i.e. we depend on natural reproduction, and as a put-and-take fishery for rainbow and brown trout.

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SEP 14 1992

RECEIVED

OCT - 4 1991

Department of Water Resources
Eastern District Office

DEPT. OF WATER RESOURCES
150 Shoup Ave., Suite 15
Idaho Falls, Idaho 83402
(208) 525-7161

**NOTICE OF APPLICATION
FOR MINIMUM STREAMFLOW**

NOTICE is hereby given that the IDAHO WATER RESOURCE BOARD has submitted an Application for Permit to the Department of Water Resources proposing to appropriate water for a minimum streamflow on Willow Creek, a tributary of the Snake River. The application is further described as follows:

Application No.: 25-7597.

Source: Willow Creek

Proposed Priority: June 24, 1991

Place of Use: Willow Creek, commencing at the confluence of Grays Lake Outlet in the SE $\frac{1}{4}$ of the NW $\frac{1}{4}$, Section 33, T1N, R40E, and extending downstream to the backwaters of Ririe Reservoir in the NW $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 27, T2N, R40E, B.M., Bonneville County.

Amounts and Periods of Use: 30 cfs from December 1 to March 31.

250 cfs from April 1 to May 31.

100 cfs from June 1 to July 15.

30 cfs from July 16 to September 30.

40 cfs from October 1 to November 30.

Purposes: Preservation of fish and wildlife habitat, aquatic life and water quality.

The Idaho Water Resource Board will hold a public meeting on this application on September 23, 1991, at 7:30 P.M. in the state office building, 2nd floor conference room, 150 Shoup Ave., Idaho Falls, Idaho. The purpose of the meeting is to provide more information about the application to the public and to gather information on public support for the application.

F. DAVE RYDALCH, Chairman
Idaho Water Resource Board

(1275)
Pub 0.9/220

AFFIDAVIT of PUBLICATION

County of Bingham

State of Idaho

I, Jaqueline Graham do
solemnly

I swear that I am the Legal Coordinator of The Morning News which is a daily newspaper of general circulation published each day except Sunday at Blackfoot, Bingham County, Idaho, said newspaper having been so published at Blackfoot, aforesaid for more than one year past; that said newspaper heretofore complied with all the provisions of Chapter 154 of the Sessions Laws of Idaho of 1931, approved March 11, 1931, and duly designated, pursuant to law, a particular day of the week as the day on which legal notices required by law or by the order of any Court of competent jurisdiction within the State of Idaho shall be published to-wit: of each week; that the notice attached hereto and which is a part of this affidavit and part of the proof of publication was published in said issue or said newspaper Two consecutive Weeks.

the first publication having been made on the 12th day of September, 1991;

and the last publication having been made on the 20th day of September, 1991; that said notice was published in the regular and entire issue of every number of the paper as aforesaid during the period and time of publication, and that notice was published in the newspaper and not in a supplement.

On this 30th day of September, in the year 1991 before me a Notary Public of said State, personally appeared

Jaqueline Graham
known or identified to me to be the person whose name is 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.

Kaye Rayson
Notary Public for the State of Idaho,
Residing at Blackfoot, Idaho
My commission expires
November 10, 1994

Affidavit Processing Fee..... \$5.00

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SEP 14 1992

Proof of Publication
The Post-Register

RECEIVED

SEP 29 1991

Department of Water Resources
Eastern District Office

State of Idaho, }
County of Bonneville } ss

I, S. BOB BRIGHT or TED DELEZENE, first being duly sworn, depose and say: That I am the Production Supervisor or Asst. Prod. Supervisor of The Post Company, a corporation of Idaho Falls, Bonneville County, Idaho, publishers of The Post-Register, a newspaper of general circulation, published daily, except Saturday, at Idaho Falls, Idaho; said Post-Register being a consolidation of the Idaho Falls Times, established in the year 1890, The Idaho Register, established in the year 1880 and the Idaho Falls Post, established in 1903, such consolidation being made on the 1st day of November, 1931, and each of said newspapers have been published continuously and uninterruptedly, prior to consolidation, for more than seventy-eight (78) weeks and said Post-Register having been published continuously and uninterruptedly from the date of such consolidation, up to and including the last publication of notice hereinafter referred to.

That the notice, of which a copy is hereto attached and made a part of this affidavit, was published in said Post-Register for Two consecutive weeks, first publication having been made on the 12th day of September, 1991, last publication having been made on the 19th day of September, 1991, and that the said notice was published in the regular and entire issue of said paper on the respective dates of publication, and that such notice was published in the newspaper and not in a supplement.

Subscribed and sworn to before me, this 25th day of September, 1991

NOTICE OF APPLICATION
FOR MINIMUM STREAMFLOW

Notice is hereby given that the IDAHO WATER RESOURCE BOARD has submitted an Application for Permit to the Department of Water Resources proposing to appropriate water for a minimum streamflow on Willow Creek, a tributary of the Snake River. The application is further described as follows:

Application No.: 25-7597

Source: Willow Creek

Proposed Priority: June 24, 1991

Place of Use: Willow Creek, commencing at the confluence of Grays Lake Outlet in the SE1/4 of the NW1/4, Section 33, T1N, R40E and extending downstream to the backwaters of Ririe Reservoir in the NW1/4 of the SE1/4 of Section 27, T2N, R40E, B.M., Bonneville County.

Amounts and Periods of Use: 30 cfs from December 1 to March 31.

250 cfs from April 1 to May 31.

100 cfs from June 1 to July 15.

30 cfs from July 16 to September 30.

40 cfs from October 1 to November 30.

Purposes: Preservation of fish and wildlife habitat, aquatic life and water quality.

The Idaho Water Resource Board will hold a public meeting on the application on September 23, 1991, at 7:30 PM in the state office building, 2nd floor conference room, 150 Shoup Ave., Idaho Falls, ID. The purpose of the meeting is to provide more information about the application to the public and to gather information on public support for the application.

F. DAVE RYDALCH, CHAIRMAN
IDAHO WATER RESOURCE BOARD
Published: September 12, 19, 1991

S. Bob Bright

Susan Magnum
Notary Public

My commission expires July 1st, 1997

B10

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SEP 14 1992

**NOTICE OF HEARING
FOR APPLICATION
FOR MINIMUM STREAMFLOW**

Notice is hereby given that the Idaho Water Resource Board submitted an application for permit to appropriate water to the Department of Water Resources, proposing to appropriate water for a minimum streamflow in Willow Creek, a tributary of the Snake River. The application is further described as follows:

Source: Willow Creek

Application No.: 25-7597

Proposed Priority: June 24, 1991

Amount and Period of Use: 30.0 cfs from December 1 to March 31

250.0 cfs from April 1 to May 31

100.0 cfs from June 1 to July 15

30.0 cfs from July 16 to September 30

40.0 cfs from October 1 to November 30

Purpose of Minimum Flow: Preservation of fish and wildlife habitat, aquatic life and water quality.

Place of Use: Willow Creek, commencing at the confluence of Grays Lake Outlet in the SE $\frac{1}{4}$ of the NW $\frac{1}{4}$, Section 33, T1N, R40E, and extending downstream to the backwaters of Ririe Reservoir in the NW $\frac{1}{4}$ of the SE $\frac{1}{4}$, Section 27, T2N, R40E, B.M., Bonneville County.

The Director of the Department of Water Resources will hold a public hearing in the State Office Building, 2nd Floor Conference Room, 150 Shoup Avenue, Idaho Falls, Idaho, beginning at 1:30 p.m. on Tuesday October 29, 1991, for the purpose of hearing evidence in regard to the application. The hearing will be held pursuant to the provisions of Section 42-1503, Idaho Code.

Any party who wishes to formally appear in the proceeding for the purpose of presenting evidence or cross examining witnesses should file a notice of appearance with the Director of the Department of Water Resources, Statehouse, Mail, 1301 North Orchard Street, Boise, Idaho 83720, five (5) days prior to the hearing. Other parties will be given an opportunity to informally present their views and comments without the necessity of filing a notice of appearance. Written informal views and comments may also be submitted to the Department of Water Resources prior to the hearing.

If issued, this permit will be subject to all prior water rights.

R. KEITH HIGGINSON, Director
Idaho Department of Water Resources
Published: October 3, 10, 1991

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SEP 14 1992

Proof of Publication
The Post-Register

RECEIVED

OCT 21 1991

Department of Water Resources
Eastern District Office

State of Idaho, }
County of Bonneville } ss

I, **S. BOB BRIGHT or TED DELEZENE**, first being duly sworn, depose and say: That I am the **Production Supervisor or Asst. Prod. Supervisor** of The Post Company, a corporation of Idaho Falls, Bonneville County, Idaho, publishers of The Post-Register, a newspaper of general circulation, published daily, except Saturday, at Idaho Falls, Idaho; said Post-Register being a consolidation of the Idaho Falls Times, established in the year 1890, The Idaho Register, established in the year 1880 and the Idaho Falls Post, established in 1903, such consolidation being made on the 1st day of November, 1931, and each of said newspapers have been published continuously and uninterruptedly, prior to consolidation, for more than seventy-eight (78) weeks and said Post-Register having been published continuously and uninterruptedly from the date of such consolidation, up to and including the last publication of notice hereinafter referred to.

That the notice, of which a copy is hereto attached and made a part of this affidavit, was published in said Post-Register for ... Two ... consecutive weeks, first publication having been made on the ... 3rd ... day of ... October ... 1991 ... last publication having been made on the ... 10th ... day of ... October ... 1991 ... and that the said notice was published in the regular and entire issue of said paper on the respective dates of publication, and that such notice was published in the newspaper and not in a supplement.

Subscribed and sworn to before me, this ... 16th ... day of October ... 1991 ...

Susan Hagman
Notary Public

My commission expires ... July 1st ... 1997 ...

B10

RECORDED

SEP 14 1992

TRIBUNE PUBLISHING COMPANY, INC.

The Lewiston Morning Tribune
505 C St., P.O. Box 957
Lewiston, Idaho 83501
(208) 743-9411

Date 101091 INVOICE No. L00309641

Account No. 446600 WELLOW CRE

Description 09641NOTIC

Times 2 Lines 33

Tab Lines 66

\$ 82.50

**LEGAL ADVERTISING
INVOICE**

SOLD TO:

DEPT OF WATER RESOURCES
150. SHOLP
IDAHO FALLS
ID 83402

NOTICE: This is an invoice of Purchase made by you. Statement will be rendered the first of the month.
Please Retain This Invoice as Your Statement Will Refer To Invoice by No. Only.

AFFIDAVIT OF PUBLICATION

STATE OF IDAHO, ss.
County of Nez Perce

Sue Baumeister being duly sworn,

deposes and says, I am the Legal Clerk of the Tribune Publishing Company, a corporation organized and existing under and by virtue of the laws of the State of Idaho, publishers of the LEWISTON MORNING TRIBUNE, a newspaper of general circulation published at Lewiston, Nez Perce County, Idaho; That the said Lewiston Morning Tribune is an established paper and has been published regularly and issued regularly at least once a day for more than 21 consecutive years next immediately preceding the first publication of this notice, and has been so published uninterrupted for said period; that the

NOTICE OF HEARING

attached hereto and which is made a part of this affidavit was published in the said Lewiston Morning Tribune, 2 time(s). Publication beginning on 100391 or once a

WEEK for 2 consecutive WEEKS, the first publication thereof being on the 100391, and the last publication thereof being on the 101091, and said

NOTICE OF HEARING

was so published in the regular and entire issue of said newspaper and not in a supplement thereof and was so published in every issue and number of the said paper, during the period and times of publication as set forth above.

Sue Baumeister

SUBSCRIBED AND SWORN BEFORE ME THIS THE 16

day of October 1991

Sheryl M. Lantz

Notary Public in and for the State of Idaho,
residing at Lewiston, therein.

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SEP 14 1992

OK

TRIBUNE PUBLISHING COMPANY, INC.

The Lewiston Morning Tribune
505 C St., P.O. Box 957
Lewiston, Idaho 83501
(208) 743-9411

Date 101091

INVOICE No. L00309641

Account No. 446600

WILLOW CRE

Description 09641NOTIC

Times 2

Lines 33

Tab Lines 66

\$ 82.50

**LEGAL ADVERTISING
INVOICE**

SOLD TO:

DEPT OF WATER RESOURCES
150 SHOUP
IDAHO FALLS
ID 83402

NOTICE: This is an invoice of Purchase made by you. Statement will be rendered the first of the month.
Please Retain This Invoice as Your Statement Will Refer To Invoice by No. Only.

AFFIDAVIT OF PUBLICATION

STATE OF IDAHO, ss.

NOTICE OF HEARING FOR APPLICATION FOR MINIMUM STREAMFLOW

Notice is hereby given that the Idaho Water Resource Board submitted an application for permit to appropriate water to the Department of Water Resources, proposing to appropriate water for a minimum streamflow in Willow Creek, a tributary of the Snake River. The application is further described as follows:

Source: Willow Creek
Application No.: 25-7597
Proposed Priority: June 24, 1991
Amount and Period of Use: 30.0 cfs from December 1 to March 31
250.0 cfs from April 1 to May 31
100.0 cfs from June 1 to July 15
30.0 cfs from July 16 to September 30
40.0 cfs from October 1 to November 30
Purpose of Minimum Flow: Preservation of fish and wildlife habitat, aquatic life and water quality.
Place of Use: Willow Creek, commencing at the confluence of Grays Lake Outlet in the SE 1/4 of the NW 1/4, Section 33, T1N, R40E, and extending downstream to the backwaters of Ririe Reservoir in the NW 1/4 of the SE 1/4, Section 27, T2N, R40E, B.M., Bonneville County.

The Director of the Department of Water Resources will hold a public hearing in the State Office Building, 2nd Floor Conference Room 150 Shoup Avenue, Idaho Falls, Idaho, beginning at 1:30 p.m. on Tuesday October 29, 1991, for the purpose of hearing evidence in regard to the application. The hearing will be held pursuant to the provisions of Section 42-1503, Idaho Code.

Any party who wishes to formally appear in the proceeding for the purpose of presenting evidence or cross examining witnesses should file a notice of appearance with the Director of the Department of Water Resources, Statehouse Mail, 1301 North Orchard Street, Boise, Idaho 83720, five (5) days prior to the hearing. Other parties will be given an opportunity to informally present their views and comments without the necessity of filing a notice of appearance. Written informal views and comments may also be submitted to the Department of Water Resources prior to the hearing.

If issued, this permit will be subject to all prior water rights.

R. KEITH HIGGINSON, Director
Idaho Department of Water Resources

I, Sue Laumeister, being duly sworn,
as Legal Clerk

Company, a corporation organized and existing
laws of the State of Idaho, publishers of the
TRIBUNE, a newspaper of general circulation
in Perce County, Idaho; That the said Lewiston
published paper and has been published regular-
least once a day for more than 21 consecutive
preceding the first publication of this notice, and
interrupted for said period; that the

HEARING

is made a part of this affidavit was published in
g Tribune, 2 time(s). Publication be-

or 2 consecutive WEEKS, the first
on the 100391, and the last pub-
he 101091, and said
HEARING

regular and entire issue of said newspaper and
not in a supplement thereof and was so published in every issue and
number of the said paper, during the period and times of publication as
set forth above.

Sue Laumeister

SUBSCRIBED AND SWORN BEFORE ME THIS THE 16
day of October 1991

Sheral M. Sant
Notary Public in and for the State of Idaho,
residing at Lewiston, therein.

MICROFILMED

SEP 14 1992

OK

Account Number 100564		Identification LEGAL NOTICE OF HEARING FOR APPLICATION FOR MINIMUM STREAMFLOW	
Ordered By Rita Bode11	P.O. Number	Rate NT	Run Dates October 3, 10, 1991
State of Idaho Department of Water Resources Eastern Region Idaho Falls, Idaho 83402 150 Shoup Avenue, Suite 15		Estimated Inches	Real Inches
		= Affidavits 1	Legal Number 9550

RB

**NOTICE OF HEARING FOR
APPLICATION FOR
MINIMUM STREAMFLOW**

Notice is hereby given that the Idaho Water Resource Board submitted an application for permit to appropriate water to the Department of Water Resources, proposing to appropriate water for a minimum streamflow in Willow Creek, a tributary of the Snake River. The application is further described as follows:

SOURCE

Willow Creek

APPLICATION NO.:

25-7597

PROPOSED PRIORITY:

June 24, 1991

AMOUNT AND PERIOD OF USE:

30.0 cfs from December 1 to

March 31

250.0 cfs from April 1 to May 31

100.0 cfs from June 1 to July 15

30.0 cfs from July 16 to

September 30

40.0 cfs from October 1 to

November 30

PURPOSE OF MINIMUM FLOW:

Preservation of fish and wildlife habitat, aquatic life and water quality

PLACE OF USE:

Willow Creek, commencing at the confluence of Grays Lake Outlet in the SE1/4 of the NW1/4, Section 33, T1N, R40E, and extending downstream to the backwaters of Ririe Reservoir in the NW1/4 of the SE1/4, Section 27, T2N, R40E, B.M., Bonneville County.

The Director of the Department of Water Resources will hold a public hearing in the State Office Building, 2nd Floor Conference Room, 150 Shoup Avenue, Idaho Falls, Idaho, beginning at 1:30 p.m. on Thesday October 29, 1991, for the purpose of hearing evidence in regard to the application. The hearing will be held pursuant to the provisions of Section 42-1503, Idaho Code.

Any party who wishes to formally appear in the proceeding for the purpose of presenting evidence or cross examining witnesses should file a notice of appearance with the Director of the Department of Water Resources, Statehouse Mail, 1301 North Orchard Street, Boise, Idaho 83720, five (5) days prior to the hearing. Other parties will be given an opportunity to informally present their views and comments without the necessity of filing a notice of appearance. Written informal views and comments may also be submitted to the Department of Water Resources prior to the hearing.

If issued, this permit will be subject to all prior water rights.

R. Keith Higginson,
Director

Jill Roberts

_____ , being duly

sworn, deposes and says: That she is the Principal Clerk of The Idaho Statesman, a daily newspaper printed and published at Boise, Ada County, State of Idaho, and having a general circulation therein and which said newspaper has been continuously and uninterruptedly published in said County during a period of twelve consecutive months prior to the first publication of the notice, a copy of which is attached hereto; that said notice was published in The Idaho Statesman in conformity with Section 60-108, Idaho Code as amended, for two

☒ consecutive weekly ☐ consecutive daily ☐ single ☐ odd skip

insertion(s) beginning with the issue of October 3, 1991

and ending with the issue of October 10, 1991

Jill Roberts

STATE OF IDAHO)

ss.

COUNTY OF ADA)

On this 10th day of October in the year of 1991, before me, a Notary Public, personally appeared Jill Roberts

_____, 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 she executed the same.

Thula Lee
Notary Public for Idaho

Residing at Boise, ID

My commission expires: 11-27-93

UNRECORDED

SEP 14 1992

OK

TRIBUNE PUBLISHING COMPANY, INC.
The Lewiston Morning Tribune
505 C St., P.O. Box 957
Lewiston, Idaho 83501
(208) 743-9411

Date 072591 INVOICE No. 100022273
Account No. 446600 STREAM FLO
Description 02275NCT10
Times 2 Lines 28
Tab Lines _____

**LEGAL ADVERTISING
INVOICE**

OLD TO:

\$ 34.50

DEPT OF WATER RESOURCES
250 SHOLP AVE SUITE 12
IDAHO FALLS
ID 83402

NOTICE: This is an invoice of Purchase made by you. Statement will be rendered the first of the month.
Please Retain This Invoice as Your Statement Will Refer To Invoice by No. Only.

RECEIVED

AUG 2 1991

Department of Water Resources
Eastern District Office

**NOTICE OF APPLICATION FOR
MINIMUM STREAM FLOW**

Notice is hereby given that the Idaho Water Resource Board has, on June 24, 1991, submitted application No. 25-07597 for a permit from the Department of Water Resources proposing the appropriation of 250 cubic feet per second of water within the SENW, Sec 33, T 1N, R 40E, B.M.; downstream to the backwaters of Ririe Reservoir located in the NWSE, Sec 27, T 2N, R 40E, Bonneville County to preserve the minimum streamflow for rearing and spawning habitat and migration passage for fish; to protect wildlife habitat; and to maintain channel integrity in Willow Creek tributary to the Snake River.

Pursuant to Title 42, Chapter 15 of the Idaho Code a legal notice will be published at a later date setting a time and place for a hearing during which opportunity will be provided for public comment.

R. Keith Higginson
Director

AFFIDAVIT OF PUBLICATION

STATE OF IDAHO, ss.
County of Nez Perce

Sue Baumeister, being duly sworn, deposes and says, I am the Legal Clerk of the Tribune Publishing Company, a corporation organized and existing under and by virtue of the laws of the State of Idaho, publishers of the LEWISTON MORNING TRIBUNE, a newspaper of general circulation published at Lewiston, Nez Perce County, Idaho; That the said Lewiston Morning Tribune is an established paper and has been published regularly and issued regularly at least once a day for more than 21 consecutive years next immediately preceding the first publication of this notice, and has been so published uninterrupted for said period; that the

NOTICE OF APPLICATION attached hereto and which is made a part of this affidavit was published in the said Lewiston Morning Tribune, 2 time(s). Publication being on 071891, or once a WEEK for 2 consecutive WEEKS, the first publication thereof being on the 071891, and the last publication thereof being on the 072591, and said NOTICE OF APPLICATION

was so published in the regular and entire issue of said newspaper and not in a supplement thereof and was so published in every issue and number of the said paper, during the period and times of publication as set forth above.

SUBSCRIBED AND SWORN BEFORE ME THIS THE 31
day of July 1991

Sheryl M. Lantz
Notary Public in and for the State of Idaho,
residing at Lewiston, therein.

MIDNIGHT MED

SEP 14 1992

Proof of Publication
The Post-Register

RECEIVED

AUG 6 1991

Department of Water Resources
Eastern District Office

State of Idaho, }
County of Bonneville } ss

I, S. BOB BRIGHT or TED DELEZENE, first being duly sworn, depose and say: That I am the Production Supervisor or Asst. Prod. Supervisor of The Post Company, a corporation of Idaho Falls, Bonneville County, Idaho, publishers of The Post-Register, a newspaper of general circulation, published daily, except Saturday, at Idaho Falls, Idaho; said Post-Register being a consolidation of the Idaho Falls Times, established in the year 1890, The Idaho Register, established in the year 1880 and the Idaho Falls Post, established in 1903, such consolidation being made on the 1st day of November, 1931, and each of said newspapers have been published continuously and uninterruptedly, prior to consolidation, for more than seventy-eight (78) weeks and said Post-Register having been published continuously and uninterruptedly from the date of such consolidation, up to and including the last publication of notice hereinafter referred to.

That the notice, of which a copy is hereto attached and made a part of this affidavit, was published in said Post-Register for Two consecutive weeks, first publication having been made on the 18th day of July, 1991, last publication having been made on the 25th day of July, 1991, and that the said notice was published in the regular and entire issue of said paper on the respective dates of publication, and that such notice was published in the newspaper and not in a supplement.

Subscribed and sworn to before me, this 31st day of July, 1991.

Susan Nagao
Notary Public

My commission expires July 1st, 1997.

B10

NOTICE OF APPLICATION FOR MINIMUM STREAM FLOW
Notice is hereby given that the Idaho Water Resource Board has, on June 24, 1991, submitted application No. 25-07597 for a permit from the Department of Water Resources proposing the appropriation of 250 cubic feet per second of water within the SENW Sec 33, T 1N, R 40E B.M., downstream to the backwaters of Ririe Reservoir located in the NWSE, Sec 27, T 2N, R 40E, Bonneville County to preserve the minimum streamflow for rearing and spawning habitat and migration passage for fish; to protect wildlife habitat; and to maintain channel integrity in Willow Creek tributary to the Snake River.
Pursuant to Title 42, Chapter 15 of the Idaho Code a legal notice will be published at a later date setting a time and place for a hearing, during which opportunity will be provided for public comment.
R. Keith Higginson
Director
Published: July 18, 25, 1991

SEP 14 1992

NOTICE OF
APPLICATION FOR
MINIMUM
STREAM FLOW

Notice is hereby given that the Idaho Water Resource Board has, on June 24, 1991, submitted application No. 25-07597 for a permit from the Department of Water Resources proposing the appropriation of 250 cubic feet per second of water within the SENW, Sec 33, T. 1N, R. 40E, B.M.; downstream to the backwaters of Fille Reservoir located in the NWSE, Sec 27, T. 2N, R. 40E, Bonneville County to preserve the minimum streamflow for rearing and spawning habitat and migration passage for fish; to protect wildlife habitat; and to maintain channel integrity in Willow Creek tributary to the Snake River.

Pursuant to Title 42, Chapter 15 of the Idaho Code a legal notice will be published at a later date setting a time and place for a hearing during which opportunity will be provided for public comment.

R. Keith Higginson
Director
PUBLISHED: Thursday, July 18 & 25, 1991.

Affidavit of Publication

AUG 9 1991

No 22604

STATE OF IDAHO } ss. Department of Water Resources
COUNTY OF TWIN FALLS } Eastern District Office

I, Shirley Capen McElwaine being first duly sworn upon oath, depose and say that I am Shirley Capen McElwaine of the TIMES-NEWS, published daily, at Twin Falls, Idaho, and do solemnly swear that a copy of the notice of advertisement, as per clipping attached, was published in the regular and entire issue of said newspaper, and not in any supplement thereof, for two consecutive weeks commencing with the issue dated July 18, 1991, and ending with the issue dated July 25, 1991.

And I do further certify that said newspaper is a consolidation, effective February 16, 1992, of the Idaho Evening Times, published theretofore daily except Sunday, and the Twin Falls News, published theretofore daily except Monday, both of which newspapers prior to consolidation had been published under said names in said city and county continuously and uninterruptedly during a period of more than twelve consecutive months, and said TIMES-NEWS, since such consolidation, has been published as a daily newspaper except Saturday, until July 31, 1978, at which time said newspaper began daily publication under said name in said city and county continuously and uninterruptedly.

And I further certify that pursuant to Section 60-108 Idaho Code, Thursday of each week has been designated as the day on which legal notice by law or by order of any court of competent jurisdiction within the state of Idaho to be published weekly, will be published; and that at the head of the editorial column of said combined newspapers, and in each issue thereof, Thursday is announced as the day on which said legal notices will be published.

STATE OF IDAHO
COUNTY OF TWIN FALLS

On this 25 day of July, in the year of 1991, before me, a Notary Public, personally appeared Shirley Capen McElwaine, 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 Twin Falls, ID
My commission expires: 8-8-96

SEP 14 1992

RECEIVED

JUL 26 1991

LB

The Idaho Statesman

P.O. BOX 40, BOISE, IDAHO 83707

Department of Water Resources
Eastern District Office

LEGAL ADVERTISING INVOICE

Amount Due

Account Number 100564		Identification Notice Of Application For Minimum Stream Flow	
Ordered By Rita Bodell	P.O. Number	Rate NT	Run Dates July 18, 25, 1991
Idaho Department of Water Resources Eastern Region 150 Shoup Ave., Suite 15 Idaho Falls, Idaho 83402 Attention: Rita Bodell		Estimated Inches	Real Inches
		= Affidavits 1	Legal Number 8951

NOTICE OF APPLICATION
FOR MINIMUM STREAM FLOW

Notice is hereby given that the Idaho Water Resource Board has, on June 24, 1991, submitted application No. 25-07597 for a permit from the Department of Water Resources proposing the appropriation of 250 cubic feet per second of water within the SENW, Sec 33, T 1N, R 40E, B.M.; downstream to the backwaters of Ririe Reservoir located in the NWSE, Sec 27, T 2N, R 40E, Bonneville County to preserve the minimum streamflow for rearing and spawning habitat and migration passage for fish; to protect wildlife habitat; and to maintain channel integrity in Willow Creek tributary to the Snake River.

Pursuant to Title 42, Chapter 15 of the Idaho Code a legal notice will be published at a later date setting a time and place for a hearing during which opportunity will be provided for public comment.

R. Keith Higginson

Director

Jill Roberts

_____, being duly sworn, deposes and says: That she is the Principal Clerk of The Idaho Statesman, a daily newspaper printed and published at Boise, Ada County, State of Idaho, and having a general circulation therein and which said newspaper has been continuously and uninterruptedly published in said County during a period of twelve consecutive months prior to the first publication of the notice, a copy of which is attached hereto; that said notice was published in The Idaho Statesman in conformity with Section 60-108, Idaho Code as amended, for two

☒ consecutive weekly ☐ consecutive daily ☐ single ☐ odd skip

insertion(s) beginning with the issue of July 18, 1991

and ending with the issue of July 25, 1991

STATE OF IDAHO)

ss.

COUNTY OF ADA)

On this 25th day of July in the year of 1991, before me, a Notary Public, personally appeared Jill Roberts, 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 she executed the same.

MICROFILMED

SEP 14 1992

Jamie Madie
Notary Public for Idaho
Residing at Boise, ID
My commission expires: 5/97

**ANALYSIS SHEET
FOR
PROOF OF BENEFICIAL USE**

Permit No. 23-07597 Reviewed by QJ Date 3-19-98

GENERAL CONSIDERATIONS

yes Name same as permit?
yes Address same as permit?
yes Proof timely received?
If not, complete calculation below.

TYPES OF USE

min. stream flow

Correct Uses? yes

SOURCE OF WATER

☒ Surface water source

☐ Ground water source

☐ Drilling permit required?

☐ Copy in the file? Drilling Permit No. _____

☐ Amount paid for permit

☐ Well log in the file?

_____ Correct?

LICENSE EXAMINATION FEE

NA Required?
_____ Amount Submitted
_____ Correct?

MEASURING DEVICE

NO Required?
_____ Installed?
_____ Waiver requested?

PRIORITY CALCULATION

Date proof received _____
Date proof due _____
No. of days late _____
Priority Date _____
New Priority Date _____

DEFICIENCIES OR ACTION ITEMS

Proof acceptable

DATA ENTRY

New Address X Proof Made 2-11-98



State of Idaho

DEPARTMENT OF WATER RESOURCES

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

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

PHILIP E. BATT
GOVERNOR

KARL J. DREHER
DIRECTOR

March 19, 1998

IDAHO WATER RESOURCE BOARD
ATTN JOHN BEAL
P O BOX 83720
BOISE ID 83720-0098

PROOF ACKNOWLEDGMENT LETTER

RE: PERMIT NO. 25-07597

Dear Permit Holder:

The department acknowledges receipt of the proof of beneficial use form submitted for the above referenced permit.

The next step in the process of recommending a minimum stream flow is for the department to review the information submitted and make a recommendation.

Sincerely,

JULIE L. YARBROUGH
Senior Secretary, Water Allocation Bureau

c: IDWR - Eastern Region

MICROFILMED
MAR 26 1998

MEMORANDUM

To: File 25-07597, Minimum Stream Flow Water Right on Willow Creek

From: John Beal *John Beal*

Date: February 11, 1998

Re: Proof of Beneficial Use

The provided flow data indicates a relationship between the upstream end of the reach and the Tex Gage at the downstream end of 94% to 103%.

If this correlation is not adequate to provide the evidence needed under the permit. Please let me know and we will request an extension of time and request that additional measurements be taken.



IDAHO FISH & GAME

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

Philip E. Batt / Governor
Stephen P. Mealey / Director

February 9, 1998

Mr. Bill Graham, Planning Bureau
Idaho Department of Water Resources
1301 North Orchard Street
Boise, ID 83706

Re: Willow Creek instream flow water right (25-07597)--additional flow data

Dear Bill:

I have enclosed the flow measurements that I was able to put together for the Willow Creek instream flow water right. The data are a combination of flow records from the Bureau of Land Management and Idaho Department of Fish and Game. I also have compared the flow measurements to the gage readings from the Tex Creek gaging station (13057940). As you can see for the years we have concurrent data, albeit limited, the Tex Creek gage data are similar to the data from our measurements at Kepp's Crossing. I think this demonstrates the applicability of the Tex Creek gage data to the instream flow reach. Please let me know if the data are insufficient and we will collect additional data.

Sincerely,

Cindy Robertson

Cindy Robertson
Fishery Staff Biologist

CR:tlv

Enclosure

cc: Bob Martin, Upper Snake Region

MICROFILMED
MAR 26 1998

Willow Creek Flow Data

Willow Creek at Kepp's Crossing, T1N R40E SECTION 19, NENE, Bonneville Co.

<u>DATE</u>	<u>FLOW(CFS)</u>	<u>TEX CREEK</u>	<u>% TEX CREEK</u>
11/20/79	25.0	NO GAGE	--
03/26/80	31.0	NO GAGE	--
04/21/80	40.5	NO GAGE	--
08/28/80	44.6	NO GAGE	--
06/24/94	24.4	26.0	94
08/10/95	41.0	40.0	98 ✓ / 103
09/14/95	29.6	31.0	96

DATA WERE PROVIDED BY THE BLM AND IDFG

MICROFILMED

MAR 26 1998

To: <croberts@id.g.state.id.us>
From: Dan Kotansky <dkotansk@id.blm.gov>
Cc:
Bcc:
Subject: Bitch Creek, Willow Creek flows
Attachment: Headers.822
Date: 1/20/98 3:47 PM

Here's what I have:

1. Bitch Creek @ T7N R45E Section 3 NWSW, on Fremont-Teton County Line.
These are both BLM measurements (I made the one in 1994).

Date	Time	Flow (cfs)	Water Temp (F)	D.O.
7/21/83	1400	161.32		48.
	9.49			
8/24/94	1020	24.66		52.

2. Willow Creek @ Kepp's Crossing @ T1N R40E Section 19 NENE, in Bonneville County. BLM made the 1994 measurement. I have listed the State of Idaho for the source of the earlier measurements.

Date	Flow (CFS)	Water Temp (F)	D.O.
11/20/79	25.00		32.
	11.0		
03/26/80	31.10		39.
	11.3		
04/21/80	40.50		46.4
	8.0		
08/28/80	44.60		67.
	8.8		
06/20/94	24.42		71.6

3. Willow Creek @ Clowards Crossing @ T1N R40E Section 5, NWSW in Bonneville County. This is a BLM measurement.

Date	Flow (cfs)
08/17/94	8.03

Let me know if you need anything else. Sorry this is all I have, but hopefully we'll do better in the future.

MICROFILMED

MAR 26 1998

Stream Name: Willow Creek

Site Location: 40 yards upstream from bridge at Kepps Crossing

Transect No.: 1

Date: August 10, 1995

<u>Distance (ft)</u>	<u>Depth (ft)</u>	<u>Velocity (fps)</u>	<u>Cell Width (ft)</u>	<u>Discharge (cfs)</u>
4.70				0.00
6.00	0.31	0.00	0.95	0.00
6.60	0.75	0.35	0.50	0.13
7.00	0.80	0.39	0.70	0.22
8.00	1.00	0.26	1.00	0.26
9.00	1.00	0.69	1.00	0.69
10.00	1.00	1.03	1.00	1.03
11.00	1.20	1.08	1.00	1.30
12.00	1.30	1.54	1.00	2.00
13.00	1.30	1.97	1.00	2.56
14.00	1.60	2.17	1.00	3.47
15.00	1.50	2.75	1.00	4.13
16.00	1.40	3.15	1.00	4.41
17.00	1.45	2.60	1.00	3.77
18.00	1.45	3.03	1.00	4.39
19.00	1.30	1.99	1.00	2.59
20.00	1.10	1.75	1.00	1.93
21.00	0.95	0.89	1.00	0.85
22.00	1.00	1.92	1.00	1.92
23.00	0.85	1.62	1.00	1.38
24.00	0.75	1.54	1.00	1.16
25.00	0.65	1.64	1.00	1.07
26.00	0.60	1.35	1.00	0.81
27.00	0.50	0.83	1.00	0.42
28.00	0.45	0.74	1.00	0.33
29.00	0.40	0.40	1.00	0.16
30.00	0.20	0.06	1.00	0.01
31.00	0.10	0.00	1.05	0.00
32.10	0.00			

Total Discharge (cfs)

40.96

MICROFILMED

MAR 26 1998

Stream Name: Willow Creek
Site Location: Kepps Crossing
Trasect No.: 1
Date: 09/14/95

Distance (ft)	Depth (ft)	Velocity (fps)	Cell Width (ft)
4.50			
5.50	0.35	0.10	0.75
6.00	0.50	0.29	0.75
7.00	0.70	0.29	1.00
8.00	0.90	0.51	1.00
9.00	1.10	0.70	1.00
10.00	1.15	0.75	1.00
11.00	1.20	1.21	1.00
12.00	1.40	1.40	1.00
13.00	1.35	2.15	1.00
14.00	1.45	2.27	1.00
15.00	1.25	2.90	1.00
16.00	1.20	3.11	1.00
17.00	1.15	2.51	1.00
18.00	1.10	1.93	1.00
19.00	1.05	1.10	1.00
20.00	0.90	0.69	1.00
21.00	0.75	1.69	1.00
22.00	0.65	1.25	1.00
23.00	0.50	1.27	1.00
24.00	0.50	0.98	1.00
25.00	0.45	0.47	1.00
26.00	0.40	0.04	1.00
27.00	0.30	0.02	1.00
28.00	0.15	0.01	1.00
29.00	0.05	0.00	

MICROFILMED

MAR 26 1998

Discharge (cfs) Total Discharge (cfs)

0.00

0.03

29.618

0.11

0.20

0.46

0.77

0.86

1.45

1.96

2.90

3.29

3.63

3.73

2.89

2.12

1.16

0.62

1.27

0.81

0.64

0.49

0.21

0.02

0.01

0.00

0.00

MICROFILMED

MAR 26 1998

WILLOW CREEK BASIN

13057940 WILLOW CREEK BELOW TEX CREEK, NEAR RIRIE, ID

LOCATION.--Lat 43°26'33", long 111°43'37", in NE¼SE¼ sec.3, T.1 N., R.40 E., Bonneville County, Hydrologic Unit 17040205, on right bank, 0.3 mi below Tex Creek and 13.2 mi southeast of Ririe.

DRAINAGE AREA.--568 mi².

PERIOD OF RECORD.--August 1977 to September 1979, October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,200 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. Station equipment includes satellite telemetry. Diversions above station for irrigation of about 7,300 acres, of which 100 acres are irrigated by withdrawals from ground water (1966 determination). Since May 1924, water has been diverted from Grays Lake into Meadow Creek basin and thence into Blackfoot Reservoir.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	e43	e44	e37	e31	64	81	163	74	17	11	11
2	37	e43	e44	e36	e32	69	99	148	69	16	11	11
3	38	e44	e42	e37	e33	68	106	139	65	15	11	11
4	38	e45	e43	e38	e32	74	127	134	61	16	11	11
5	38	e44	e40	e39	e31	78	118	173	55	14	9.6	11
6	40	e44	e41	e38	e34	68	107	208	49	14	9.2	12
7	45	e45	e42	e37	e32	57	107	175	48	16	8.8	12
8	49	e46	e44	e37	e31	62	101	157	50	17	8.6	12
9	52	e46	e44	e37	e32	51	96	147	50	15	9.5	12
10	54	e47	e45	e38	e33	54	99	138	48	14	9.0	12
11	53	e47	e44	e37	e31	59	113	131	44	13	11	12
12	51	e46	e42	e38	e28	49	140	125	41	12	13	13
13	52	e45	e40	e38	e31	54	165	121	40	12	15	13
14	53	e45	e42	e39	e33	61	167	116	39	12	15	13
15	57	e44	e42	e40	e34	61	148	109	39	11	14	14
16	66	e45	e41	e40	e38	74	149	105	40	10	14	16
17	65	e46	e41	e41	e39	81	273	110	40	10	13	15
18	59	e45	e39	e42	e38	77	384	127	36	10	12	15
19	54	e42	e38	e42	e37	80	389	119	33	10	12	15
20	51	e43	e39	e42	e34	65	351	109	31	9.2	12	15
21	49	e44	e38	e43	e35	69	332	106	29	9.0	12	15
22	48	e43	e36	e44	e35	72	300	101	30	8.8	12	15
23	47	e40	e36	e43	e36	69	270	92	29	8.8	12	15
24	46	e38	e37	e42	e38	62	232	85	26	9.9	12	15
25	48	e35	e37	e41	e39	67	207	79	24	11	12	15
26	47	e37	e38	e38	e38	63	194	72	22	11	11	16
27	46	e39	e38	e37	e37	58	193	70	21	10	11	16
28	46	e42	e37	e35	e35	56	196	84	20	9.5	11	16
29	46	e43	e36	e34	---	58	202	100	19	10	10	17
30	e43	e44	e37	e32	---	63	189	99	18	9.3	10	21
31	e43	---	e38	e29	---	66	---	83	---	9.2	10	---
TOTAL	1498	1300	1245	1191	1051	2009	5635	3725	1190	369.7	352.7	417
MEAN	48.3	43.3	40.2	38.4	37.5	64.8	188	120	39.7	11.9	11.4	13.9
MAX	66	47	45	44	77	81	389	208	74	17	15	21
MIN	37	35	36	29	28	49	81	70	18	8.8	8.6	11
AC-FT	2970	2580	2470	2360	2080	3980	11180	7390	2360	733	700	827

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1994, BY WATER YEAR (WY)

	MEAN	33.1	38.0	69.9	34.6	39.9	87.8	301	328	127	45.1	28.1	24.3
	MAX	73.6	74.8	424	54.9	65.1	264	867	868	317	113	71.3	70.4
(WY)	1987	1987	1985	1987	1986	1986	1986	1993	1993	1986	1986	1986	1986
	MIN	10.5	16.7	19.5	20.2	20.2	42.7	63.5	25.3	15.2	6.48	3.16	7.38
(WY)	1993	1993	1993	1993	1993	1993	1991	1992	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1977 - 1994
ANNUAL TOTAL	56035	19983.4	
ANNUAL MEAN	154	54.7	93.9
HIGHEST ANNUAL MEAN			224
LOWEST ANNUAL MEAN			27.4
HIGHEST DAILY MEAN	1350	389	1370
LOWEST DAILY MEAN	16	8.6	2.4
ANNUAL SEVEN-DAY MINIMUM	19	9.4	2.7
INSTANTANEOUS PEAK FLOW		^a 418	1490
INSTANTANEOUS PEAK STAGE		^b 5.32	5.76
INSTANTANEOUS LOW FLOW		^c 8.2	^d 2.1
ANNUAL RUNOFF (AC-FT)	111100	39640	68000
10 PERCENT EXCEEDS	433	117	235
50 PERCENT EXCEEDS	47	40	42
90 PERCENT EXCEEDS	21	11	15

^a Gage height, 3.98 ft.

^b Backwater from ice.

^c Also occurred Aug. 8; gage height, 1.88 ft.

^d Gage height, 1.62 ft.

^e Estimated

MICROFILMED

MAR 26 1998

WILLOW CREEK BASIN

17040 WILLOW CREEK BELOW TEX CREEK, NEAR RIRIE, ID

LOCATION.--Lat 43°26'33", long 111°43'37", in NE¼SE¼ sec.3, T.1 N., R.40 E., Bonneville County, Hydrologic Unit 17040205, on right bank, 0.3 mi below Tex Creek and 13.2 mi southeast of Ririe.

DRAINAGE AREA.--568 mi².

PERIOD OF RECORD.--August 1977 to September 1979, October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,200 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. Station equipment includes satellite telemetry. Diversions above station for irrigation of about 7,300 acres, of which 100 acres are irrigated by withdrawals from ground water (1966 determination). Since May 1924, water has been diverted from Grays Lake into Meadow Creek basin and thence into Blackfoot Reservoir.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	25	e22	e15	84	55	117	640	357	120	45	28
2	27	e25	e22	e17	97	56	124	607	352	120	45	28
3	25	e23	e21	e18	78	69	139	623	368	127	42	30
4	24	e24	e21	e20	67	58	162	611	362	163	41	35
5	30	e25	e20	e22	66	51	226	634	348	147	43	40
6	48	e26	e20	e23	64	47	335	836	342	126	43	41
7	42	e25	e19	e25	60	42	449	822	357	117	42	37
8	33	e24	e18	e27	58	44	488	655	368	110	40	34
9	28	e25	e17	e29	56	55	433	611	383	100	42	34
10	26	e26	e18	e32	53	53	355	601	339	97	40	33
11	24	e28	e19	e31	e47	96	300	692	305	94	38	34
12	24	e27	e20	e30	e42	199	290	807	279	96	37	32
13	25	e25	e21	e30	e43	166	382	746	255	123	36	31
14	26	e23	e21	e31	e40	137	629	724	239	108	36	31
15	28	e22	e19	e32	e37	118	564	634	218	96	35	29
16	33	e22	e21	e31	e39	134	470	592	208	88	32	29
17	32	e20	e23	e29	e41	130	439	577	201	84	33	29
18	32	e19	e23	e30	43	147	453	579	200	80	35	29
19	29	e19	e22	e31	46	196	470	570	199	77	37	30
20	28	e19	e23	e30	49	185	435	541	201	78	36	31
21	27	e19	e24	e29	47	264	400	513	189	76	35	31
22	27	e18	e25	e28	49	254	387	528	190	73	35	32
23	26	e19	e26	e27	50	205	423	625	184	71	37	33
24	25	e20	e25	e29	48	188	442	569	169	69	39	33
25	25	e21	e25	e32	53	151	459	501	159	65	42	33
26	25	e20	e24	34	56	141	466	465	148	59	40	34
27	25	e19	e24	33	63	134	422	464	141	56	37	35
28	25	e19	e23	e31	54	127	504	477	135	52	34	37
29	25	e18	e20	e30	---	128	556	446	130	51	31	36
30	25	e20	e17	e32	---	122	660	399	126	47	29	38
31	25	---	e13	35	---	117	---	375	---	46	28	---
TOTAL	873	665	656	873	1530	3869	11979	18464	7452	2816	1165	987
MEAN	28.2	22.2	21.2	28.2	54.6	125	399	596	248	90.8	37.6	32.9
MAX	48	28	26	35	97	264	660	836	383	163	45	41
MIN	24	18	13	15	37	42	117	375	126	46	28	28
AC-PT	1730	1320	1300	1730	3030	7670	23760	36620	14780	5590	2310	1960

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

	MEAN	32.7	36.6	36.3	34.0	41.1	90.8	309	350	137	48.9	28.9	25.0
MAX	73.6	74.8	62.8	54.9	65.1	264	867	868	317	113	71.3	70.4	
(WY)	1987	1987	1978	1987	1986	1986	1986	1993	1993	1986	1986	1986	
MIN	10.5	16.7	19.5	20.2	20.2	42.7	63.5	25.3	15.2	6.48	3.16	7.38	
(WY)	1993	1993	1993	1993	1993	1991	1992	1992	1992	1992	1992	1992	

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	PERIOD OF RECORD
ANNUAL TOTAL	18134.4	51329	
ANNUAL MEAN	49.7	141	97.8
HIGHEST ANNUAL MEAN			224
LOWEST ANNUAL MEAN			27.4
HIGHEST DAILY MEAN	389	836	1370
LOWEST DAILY MEAN	8.6	13	2.4
ANNUAL SEVEN-DAY MINIMUM	9.4	17	2.7
INSTANTANEOUS PEAK FLOW		897	1490
INSTANTANEOUS PEAK STAGE		4.90	5.76
INSTANTANEOUS LOW FLOW			* 2.1
ANNUAL RUNOFF (AC-PT)	35970	101800	70820
10 PERCENT EXCEEDS	117	464	235
50 PERCENT EXCEEDS	28	42	41
90 PERCENT EXCEEDS	11	22	15

a Gage height, 1.62 ft.
e Estimated

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MAR 26 1998

December 31, 1997

STATE OF IDAHO
IDAHO WATER RESOURCE BOARD
STATEHOUSE
BOISE ID 83720

PROOF DUE NOTICE

RE: PERMIT NO. 25-07597

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 March 1, 1998. (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.

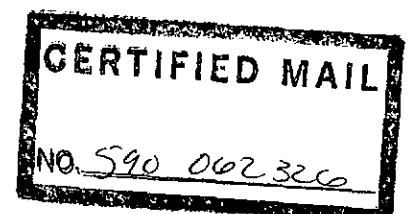
SINCERELY,

JULIE L. YARBROUGH
Senior Secretary

Enclosures

MICROFILMED

MAR 26 1998





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 14, 1992

Re: In the Matter of Application for Permit No. 25-07597
to establish a minimum streamflow in the name of the
Idaho Water Resource Board

Dear Permit Holder:

Enclosed is a copy of the Final Memorandum Decision and
Order in reference to the above mentioned permit.

Any person who does not agree with the decision of the
department may request a rehearing before the Director
within 20 days, or may appeal directly to the district
court within 30 days of the date the decision is mailed.

If you have any questions concerning this matter, please
feel free to contact this office.

Sincerely,

L. GLEN SAXTON
Chief, Water Allocation Bureau

Enc: Final Order
Certificate of Mailing
Copy of the Approved Permit

MICROFILMED

SEP 14 1992



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

July 14, 1992

Dear Interested Party:

Enclosed are copies of the Proposed Memorandum Decision and Order and the Order Issuing the Proposed Memorandum Decision and Order.

Any party who appeared at the hearing is given the opportunity to file exceptions or briefs, or to request oral arguments within 15 days of the date of this mailing. At the end of that time, the director will issue his final decision adopting, modifying rejecting or replacing the proposed decision. Copies of that decision and order shall also be mailed to all parties.

If you have any questions concerning this matter, please feel free to contact this office.

Sincerely,

L. Glen Saxton
Chief, Water Allocation Bureau

Enc: Proposed Memorandum Decision and Order
Order Issuing Proposed Memorandum Decision and Order
Certificate of Mailing

MICROFILMED

SEP 14 1992

APPLICATION FOR PERMIT REVIEW

Application #: 25-7597 Reviewer: Brenda Miller
Date: 7-21-92

SYSTEM COMPLETED:

No - 26A-P17
Complete in 1 year - P16
Yes
Proof not submitted - P16
Proof submitted - N/A

GROUNDWATER:

GT. 0.2 cfs <flo-ch> - 01G-P03, 01C-P03 (existing well)
- NMR <fl ch>, A of C
LT. 0.2 cfs - No measurement required <flow chart>
Drilling Permit:
Approved w/permit - P99
Not included - 046-46A-46B-P23 (after 7/1/87), N/A
SURFACE WATER: not in w/d - 01C-P03 (=GT.2 w/pump), NMR <flow chart>

LOCATION:

Water Districts - WD No. 01
Surface water - 005, 005-01H-P01(LT.2 w/pump)
005-01J-P08(GT.2), NMR <flow chart>
Groundwater - P05
Irrigation Districts - 023
Canal Co. Areas - 023
Drainage Districts - 024
Boise Front (63) - 058 (Groundwater)
Swan Falls Flag - (1, Blank or Other)
Trust - 051-052-053-P74(Consumptive Uses)
Non Trust <1> - ~~048-049~~

RIVER BASINS:

(Surface Water) Water District Control Condition &....
Boise (63) - 05A & 11E
Payette (65) - 047-P04, 059-P71
Snake (01, 02 & 03) - 11A-P04(01), 061-P07(02/03 No W.D.Cond.)

USE:

Fish Propagation - 06A, 09E-P10 & 010 (WQ/Choose One),
042(req.), 002-P06(MD), 07A(Spec.),
044(Policy 5G)
Power - Use Power Review
Mining - 06A, 010, or 09E-P10 & 054(req.)
Storage - 18A-for multiple measuring devices(In WD),
18B-P09(Size)
Rec/Wildlf/Aes - 027(Non-Consumptive)
Domestic - 021(restricted areas)

OWNERSHIP:

Non land owner - 004

PROTESTED:

Agreement - 020

Beneficial Use Due Date: -

Other Conditions Recommended

NA
Memorandum Decision
EO Order



IDAHO FISH & GAME
600 South Walnut / Box 25
Boise, Idaho 83707

RECEIVED
DEC 19 1991

Department of Water Resources

December 16, 1991

Mr. Gary Spackman
Idaho Department of Water Resources
1301 North Orchard Street
STATEHOUSE MAIL

Dear Mr. Spackman:

In response to your letter of December 13, 1991, please find enclosed a copy of the report you requested.

As you requested, copies have been sent to Mr. Dave Rydalch and Mr. Gary Ball.

Sincerely,

Stephen V. Goodard
Deputy Attorney General

SVG:mc

Enclosure

cc: Dave Rydalch (w/encl.)
Gary Ball (w/encl.)

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



Working for wildlife - since 1938

SEP 14 1992

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DEC 19 1991

Department of Water Resources

IDAHO DEPARTMENT OF FISH & GAME

JERRY M. CONLEY, DIRECTOR

INSTREAM FLOW STUDY

Annual Report



Prepared for the Bureau of Land Management

Contract No. YA-553-CT0-1080

by

William D. Horton
Senior Fishery Research Biologist

November, 1982

RECEIVED
SEP 14 1992

Willow Creek

Willow Creek is a tributary to the Snake River entering near Idaho Falls at river mile 796.5. In its lower reaches, several diversions take much of the water for agricultural use during the irrigation season. Seasonal floods were common until completion of Ririe Dam in the late 1970's. The study site is located upstream from the reservoir and 0.3 miles upstream from Kepp's Crossing (Fig. 13). Geologically, Willow Creek carves its way through Quaternary loess and alluvium, sedimentary deposits and Cretaceous shale, sandstone, and limestone. In the lower reaches, pyroclastic and flow rock volcanics of the Pliocene epoch overlay the older sedimentary deposits. Willows and grasses are the most abundant streamside vegetation downstream from the watershed. The watershed is a mixture of aspen patches, sparse fir-pine forests, and junipers. The primary land use is dry-land agriculture, which creates heavy erosion losses and severely impacts the stream environment.

Game fish populations in Willow Creek include rainbow, brown, cutthroat, and brook trout. Wildlife species known to utilize this stream include Canada goose, mallard duck, muskrat, beaver, and mink.

The required instream flows are based upon game fish requirements for rearing space, and spawning and egg incubation needs. From 16 July through September, and December through March, a rearing flow of 22 cfs is recommended. For the fall-spawning fish, 36 cfs should be adequate in October and November, and for spring spawners, 50 cfs is requested from 1 April through 15 July.

SALMON DISTRICT

Big Springs Creek

Big Springs Creek flows less than six miles from source to mouth before it enters the Lemhi River approximately 3.3 miles north of Leadore (Fig. 14). The transect is located 1.2 miles upstream from the mouth on land owned by Mr. Sam McKinney. Geologically, the Lemhi Valley, including Big Springs Creek, is in a Holocene floodplain with silt and silt loam deposits over gravel bounded by Quaternary alluvial fans. As described by its name, Big Springs Creek is primarily spring influenced, which is atypical of the general ground-water-influenced tributaries of the Lemhi River. Riparian habitat is characterized by grasses and abundant willow patches. Bank stability is heavily impacted by cattle grazing. The land ownership is almost all private and primarily in agricultural use. In terms of fish biomass, this stream is one of Idaho's most productive, and has been intensively studied by personnel from the Cooperative Fishery Research Unit at the University of Idaho.

SEP 14 1992

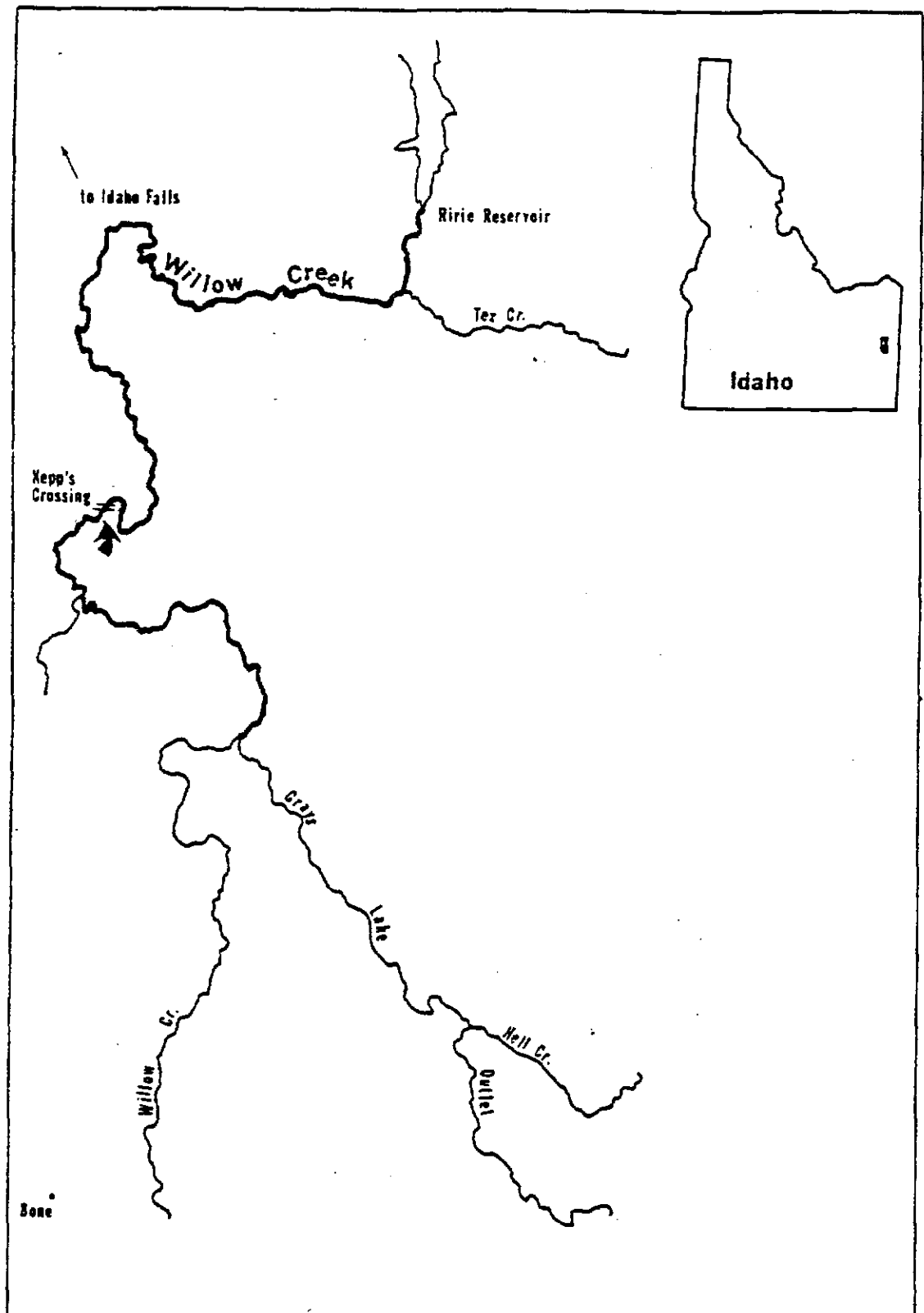


Figure 13. Location of instream flow study site on Willow Creek

Figure A-21. Instream flow request for maintenance of game fish habitat on Willow Creek from Grays Lake Outlet downstream to Ririe Reservoir.

NAME OF STREAM: Willow Creek, a tributary to the Snake River.

LEGAL DESCRIPTION OF THE POINT OF THE STREAM WHERE STREAM FLOW IS REQUESTED:

At Grays Lake Outlet, Bonneville County, SE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 33, T. 1 N., R. 40 E.

THE PROPOSED STREAM FLOW IN CUBIC FEET PER SECOND:

<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
22	22	22	50	50	50	50/22	22	22	36	36	22

THE PURPOSE FOR WHICH THE MINIMUM STREAM FLOW IS PROPOSED:

To maintain trout and char habitat from the point of requested flow downstream to the Ririe Reservoir flow line.

THE PERIOD OF TIME OR SEASON OF YEAR DURING WHICH APPROPRIATION IS PROPOSED:

See above.

EVIDENCE THAT THE APPROPRIATION WILL NOT INTERFERE WITH ANY VESTED WATER RIGHT, PERMIT, OR WATER APPLICATION OF EARLIER DATE OF PRIORITY:

The requested flow is an instream use and will be subject to all vested water rights, permits, or application of earlier dates of priority.

EVIDENCE THAT THE APPROPRIATION WOULD BE IN THE PUBLIC INTEREST AS OPPOSED TO PRIVATE INTEREST:

The above requested flow is for instream non-consumptive use to support fish and wildlife for the State of Idaho and its general public.

EVIDENCE OR JUSTIFICATION THAT THE APPROPRIATION IS NECESSARY FOR THE PURPOSES SHOWN ABOVE:

During 1981, personnel from the Idaho Department of Fish and Game collected field data for use with instream flow methodologies to determine flows for fish and wildlife resources. Flow recommendations are presented in this report and the methodology used for the flow determination is detailed in the following report:

Horton, W. D. and Tim Cochnauer. 1980. Instream Flow Methodology Evaluation, Biological Criteria Determination, and Water Quantity Needs for Selected Idaho Streams. Job Completion Report, Stream Evaluation Project -- Phase II, OBS, Western Water Allocation Project. Idaho Department of Fish and Game. 101 pp.

PROCESSED

Figure A-21 continued.

EVIDENCE THAT THE REQUESTED FLOW IS MINIMUM AND NOT THE IDEAL OR MOST DESIRABLE FLOW:

The ideal flow to protect fish and wildlife habitat would be a bank full discharge which, according to available monthly mean flow data, is 5% to 700% greater than the requested flow.

EVIDENCE THAT THE REQUESTED FLOW IS CAPABLE OF BEING MAINTAINED AS EVIDENCED BY RECORDS OF STREAM FLOWS:

Flow records are available from gage station #13057940 from August 1977 to September 1979, only. This marginally useful information is offered as supporting evidence (Figure A-22), but should be treated cautiously because hydrologically, 26 months is a short time period.

LOCATION OF EXISTING GAGING STATION THAT CAN BE USED IN THE ADMINISTRATION OF THIS APPROPRIATION:

No existing gage station on Willow Creek.

RECEIVED

SEP 14 1992

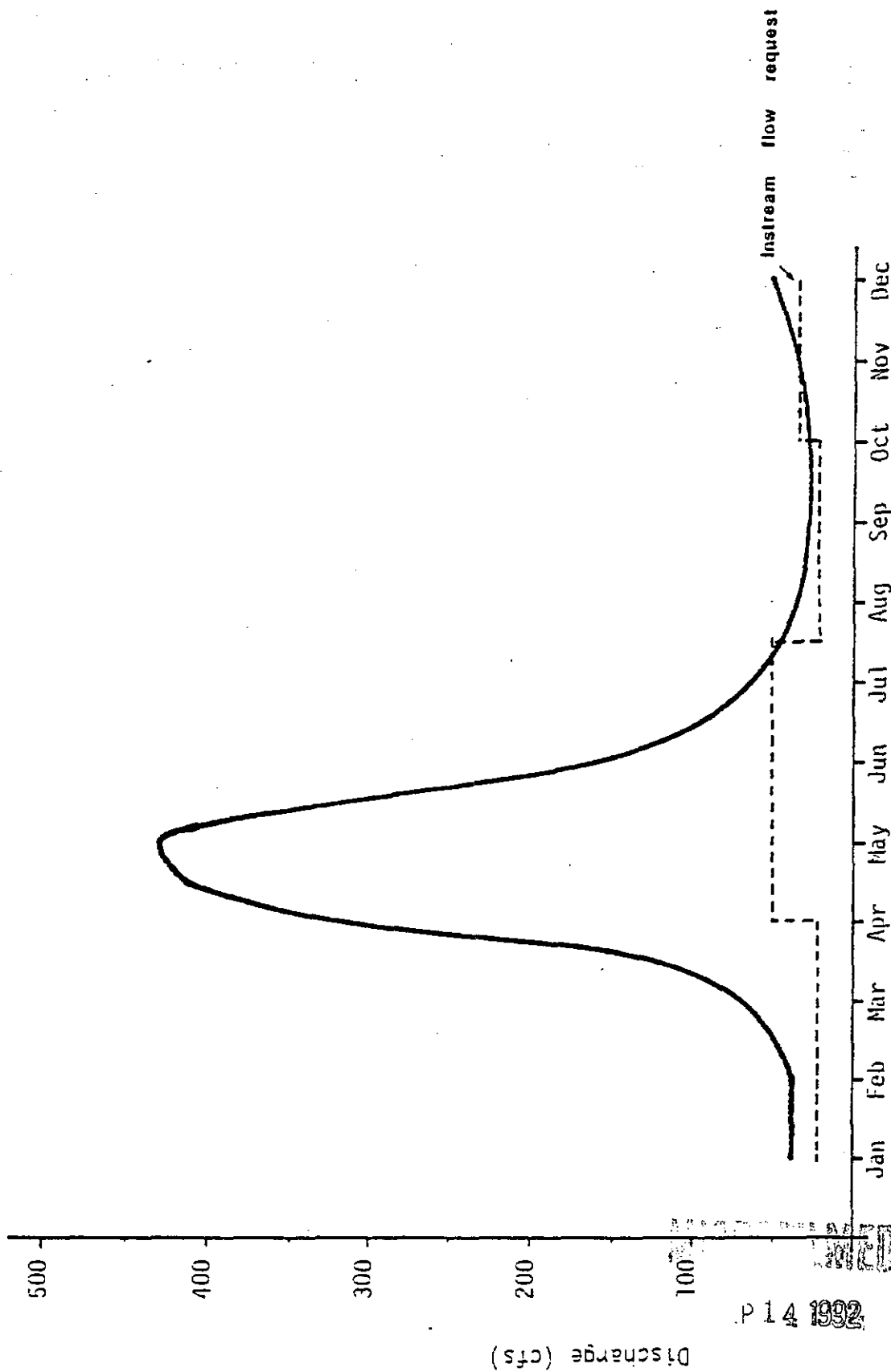


Figure A-22. Mean monthly flow curve for Willow Creek based on two years of flow data from USGS gaging station #13-057940.



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 13, 1991

Idaho Department of Fish and Game
Steve Goddard
Statehouse Mail
Boise, ID 83720

RE: Application for Permit to Appropriate Water for a Minimum
Streamflow No. 27-7597; Willow Creek

Dear Steve:

In reviewing the evidence that was submitted for the Willow Creek hearing, I discovered that I do not have a copy of the report which discusses the IFIM study and recommends the minimum flow rate. Cindy Robertson testified that the original study data had been lost, but that Bill Horton had written a report summarizing the results of the study. Cindy appeared to testify from the report when she cited the various flow rates which were found to be minimums by the study. It is this report which I am seeking.

Upon submittal of the report, you should also send copies to Gary Ball and Dave Rydalch.

Please submit the report within thirty (30) days of the date of this letter. Another thirty days will be granted after submittal for the other parties to comment on the information.

Respectively,

GARY SPACKMAN, Manager
Water Right Permits Section

GS:js

cc: Gary Ball
Dave Rydalch
BLM - Dan Kotanski

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SEP 14 1992



IDAHO FISH & GAME

600 South Walnut / Box 25
Boise, Idaho 83707

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NOV 07 1991

Department of Water Resources

November 5, 1991

Gary Spackman, Hearing Officer
Idaho Department of Water Resources
STATEHOUSE MAIL
1301 North Orchard Street
Boise, Idaho 83720

Re: Willow Creek Flow Data #25-7597

Dear Mr. Spackman:

Enclosed for filing in the above-referenced proceeding are an original and one copy of Idaho Department of Fish and Game's Post Hearing Comments.

Thank you for your assistance in this matter.

Sincerely,

Stephen V. Goddard
Deputy Attorney General

SVG:mc

Enclosures

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

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SEP 14 1992



Working for wildlife - since 1938

1 LARRY ECHOHAWK
ATTORNEY GENERAL

2 Stephen V. Goddard
3 W. Dallas Burkhalter
Deputy Attorney Generals
4 P O Box 25
Boise, ID 83707
5 Telephone (208) 334-3715
FAX (208) 334-2114
6

7 BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO
8

9 In the Matter of the)
Minimum Streamflow)
10 Application for Willow)
Creek)
11 No. 25-7597)
12

POST HEARING COMMENTS
ON FLOW DATA

13 During the hearing held on October 29, 1991, additional flow
14 data were provided to the parties. The hearing officer allowed the
15 parties 10 days to comment on the data. The Idaho Department of Fish
16 and Game hereby makes the following comments.

17 The December 1 to March 31 flow request of 30 cfs was
18 available for every day of the 1980-1986 flow years. For limited
19 periods, flows were not available to meet the entire request during the
20 severe drought years of 1987-1989.

21 The April 1 to May 31 flow request of 250 cfs was generally
22 available for the April 15 through May 31 period, except for the
23 drought water years of 1986 and 1987.

24 The flow year data for the June 1 through July 15 indicates
25 that the requested flow of 100 cfs was available in June, except for
26 the end of June in the very driest years (1986-1989 water years). The
27 July flows were available about every day during the 1981-1984 water

POST HEARING COMMENTS
ON FLOW DATA - 1

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SEP 14 1992

years, but flows were not available during the drought years of 1986 through 1989.

The requested flow of 30 cfs for the July 16 to September 30 period was always available in the 1981-1985 water years.

Finally, the requested flow of 40 cfs from October 1 to November 30 was available almost every day during the 1980-1987 water years. The flow was also generally available during the 1988-1989 water years.

In summary, the flow data show that the requested flows are capable of being maintained.

DATED this 5th day of November, 1991.

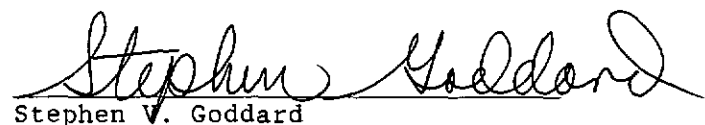


Stephen V. Goddard
Deputy Attorney General
Attorney for the
Idaho Department of Fish & Game

CERTIFICATE OF SERVICE

I hereby certify that on this 5th day of November, 1991, I caused to be served a true and correct copy of the above POST HEARING COMMENTS ON FLOW DATA by placing a copy thereof in the U.S. Mail, postage prepaid, addressed to:

Gary Ball
368 East Third South
Rexburg, Idaho 83440


Stephen V. Goddard

MICROFILMED
SEP 14 1992

1 LARRY ECHOHAWK
2 ATTORNEY GENERAL

3 Stephen V. Goddard
4 W. Dallas Burkhalter
5 Deputy Attorney Generals
6 P O Box 25
7 Boise, ID 83707
8 Telephone (208) 334-3715
9 FAX (208) 334-2114

10 BEFORE THE DEPARTMENT OF WATER RESOURCES
11 OF THE STATE OF IDAHO

12 In the Matter of the)
13 Minimum Streamflow)
14 Application for Willow) POST HEARING COMMENTS
15 Creek) ON FLOW DATA
16 No. 25-7597)
17)

18 During the hearing held on October 29, 1991, additional flow
19 data were provided to the parties. The hearing officer allowed the
20 parties 10 days to comment on the data. The Idaho Department of Fish
21 and Game hereby makes the following comments.

22 The December 1 to March 31 flow request of 30 cfs was
23 available for every day of the 1980-1986 flow years. For limited
24 periods, flows were not available to meet the entire request during the
25 severe drought years of 1987-1989.

26 The April 1 to May 31 flow request of 250 cfs was generally
27 available for the April 15 through May 31 period, except for the
drought water years of 1986 and 1987.

The flow year data for the June 1 through July 15 indicates
that the requested flow of 100 cfs was available in June, except for
the end of June in the very driest years (1986-1989 water years). The
July flows were available about every day during the 1981-1984 water

POST HEARING COMMENTS
ON FLOW DATA - 1

RECEIVED

SEP 14 1992

1 years, but flows were not available during the drought years of 1986
2 through 1989.

3 The requested flow of 30 cfs for the July 16 to September 30
4 period was always available in the 1981-1985 water years.

5 Finally, the requested flow of 40 cfs from October 1 to
6 November 30 was available almost every day during the 1980-1987 water
7 years. The flow was also generally available during the 1988-1989
8 water years.

9 In summary, the flow data show that the requested flows are
10 capable of being maintained.

11 DATED this 5th day of November, 1991.

12 
13 Stephen V. Goddard
14 Deputy Attorney General
15 Attorney for the
16 Idaho Department of Fish & Game

17 CERTIFICATE OF SERVICE

18 I hereby certify that on this 5th day of November, 1991, I
19 caused to be served a true and correct copy of the above POST HEARING
20 COMMENTS ON FLOW DATA by placing a copy thereof in the U.S. Mail,
21 postage prepaid, addressed to:

22 Gary Ball
23 368 East Third South
24 Rexburg, Idaho 83440

25 
26 Stephen V. Goddard

27
FILMED
SEP 14 1992



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

November 4, 1991

Mr. Gary Ball
368 East., 3rd South
Rexburg, ID 83440

Dear Gary:

RE: Supplemental flow data for Willow Creek.

I have asked our Hydrology Section to conduct additional analyses of the discharge data for Willow Creek based solely on the Tex Creek gage measurements. The attached items were produced to define discharges within the minimum streamflow reach:

- (1) A summary hydrograph for Willow Creek prepared from daily data collected at the Tex Creek gage.
- (2) A summary of hydrograph data for Willow Creek at the Tex Creek gage.
- (3) A summary of discharge estimates for Willow Creek based measurements at the Ririe gage. These data are estimates of inflow to Ririe Reservoir from Willow Creek, and are based on the Ririe gage.
- (4) A summary of average daily discharges for Willow Creek at the Tex Creek gage.

This information has been submitted to Mr. Spackman for his consideration in determining the availability of water to support the minimum streamflows requested for Willow Creek under application no. 25-7597.

Sincerely,

William G. Graham, Manager
Planning Section

cc: Steve Goddard, IDFG

encl.

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SEP 14 1992

October 31, 1991

TO: Bill Graham

FROM: Alan Robertson 

SUBJECT: Willow Creek above Ririe Reservoir

Attached are the items which we discussed this morning to represent flows of Willow Creek above the reservoir. The first is a summary hydrograph prepared from daily data at the below Tex Creek site [Aug77-Sep90, but with major omissions in the period 1980-85 when the gage was not operated by USGS]. overall, these years appear to approximate the long term average as determined from records for Willow Creek near Ririe [1925, 1963-90] and corrected for reservoir storage change and evaporation. This can be seen by comparing the average from p.4 of the Summary Hydrograph data sheets to the average from Attachment 2.

REPRODUCTION

SEP 14 1992

WILLOW CREEK BL TEX CREEK NR RIRIE

13057940

***** MEAN DAILY FLOW BY MONTH *****

MONTH	MAXIMUM	YEAR	DAY	MINIMUM	YEAR	DAY	AVERAGE	COUNT
OCT	148.	1983	1	13.	1988	2	55.	317
NOV	188.	1982	24	20.	1988	1	54.	263
DEC	1050.	1984	15	21.	1988	27	91.	248
JAN	729.	1985	14	20.	1988	19	78.	268
FEB	652.	1985	3	20.	1989	6	85.	236
MAR	837.	1986	31	34.	1985	10	103.	279
APR	1370.	1986	23	57.	1985	1	383.	300
MAY	3899.	1984	15	62.	1990	29	548.	310
JUN	928.	1983	1	16.	1990	29	214.	300
JUL	335.	1984	1	6.	1990	29	82.	310
AUG	258.	1984	3	2.	1990	5	49.	318
SEP	128.	1983	30	7.	1988	1	40.	330

***** YEARLY FLOW DATA *****

MAXIMUM	YE AR	MINIMUM	YEAR	AVERAGE	COUNT
3899.	1984	2.	1990	151.	3479

***** MEAN MONTHLY FLOW DATA *****

MONTH	MAXIMUM	YEAR	MINIMUM	YEAR
OCT	104.	1984	16.	1988
NOV	112.	1984	28.	1988
DEC	424.	1984	26.	1988
JAN	504.	1985	24.	1989
FEB	646.	1985	27.	1989
MAR	264.	1986	52.	1985
APR	867.	1986	164.	1990
MAY	1535.	1984	91.	1990
JUN	582.	1984	46.	1990
JUL	228.	1984	11.	1990
AUG	132.	1984	6.	1990
SEP	95.	1984	11.	1990

***** MEAN ANNUAL FLOW DATA *****

MAXIMUM	YEAR	MINIMUM	YEAR
430.	1984	17.	1977

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ATTACHMENT 2

W-YR	0580GG UNREGULATED FLOW, WILLOW CK NEAR RIRIE*										(CFS)		CFS-MNTHS
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
35	33	29	20	24	29	120	652	603	314	133	50	45	2058
63	29	35	31	26	155	115	165	247	176	50	13	24	1073
64	21	39	33	37	38	36	171	815	578	211	70	40	2095
65	42	54	91	94	99	72	684	750	363	146	68	69	2538
66	60	59	50	57	52	128	329	234	106	41	11	18	1153
67	23	30	34	36	36	70	163	444	279	112	31	22	1285
68	44	39	39	36	61	72	190	429	272	78	67	47	1379
69	54	47	42	159	50	122	718	678	235	96	46	39	2291
70	47	40	26	55	65	59	124	838	378	115	47	52	1852
71	55	77	63	68	58	153	622	1460	460	172	85	74	3354
72	83	72	63	54	104	273	743	960	392	133	73	71	3026
73	93	81	78	76	79	88	477	673	188	86	47	55	2028
74	60	74	50	72	65	156	716	873	318	68	26	35	2519
75	47	55	44	52	52	78	111	940	823	234	96	54	2593
76	55	59	8	52	63	107	514	1454	368	120	60	22	2888
77	104	76	37	34	47	57	148	70	27	20	13	8	646
78	16	27	57	33	32	94	558	527	175	18	11	25	1579
79	57	12	29	31	36	67	192	359	101	18	10	20	937
80	36	25	24	55	96	54	304	424	267	68	20	30	1409
81	57	42	59	42	86	86	220	272	150	16	10	3	1049
82	24	40	49	36	131	75	388	1399	450	148	60	82	2889
83	93	77	65	72	76	189	370	1405	548	208	119	89	3315
84	141	158	91	86	75	83	360	1675	659	223	117	99	3772
85	114	121	78	75	65	81	684	468	146	60	34	57	1989
86	72	59	57	57	133	317	914	800	274	94	52	79	2914
87	91	87	50	52	67	132	203	109	57	23	13	22	912
88	34	35	31	33	40	63	215	127	37	20	11	24	675
89	23	35	26	29	31	91	509	332	113	15	2	37	1247
90	49	32	33	34	41	63	148	85	40	24	15	3	573
MEAN	57	56	47	54	68	107	400	671	286	95	44	43	1932 = 160 cfs

VERY LOW SUMMER TIME FLOWS MAY BE IN SUBSTANTIAL ERROR DUE TO ERRORS IN ESTIMATING EVAPORATION) AS WELL AS MEASUREMENT ERROR

*WILLOW CR NEAR RIRIE + ΔS + EVAP

MICROFILMED

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					EXCEEDENCE PROBABILITY*				
					90%	75%	50%	25%	10%
MIN			MAX						
				AVE					
13057940 WILLOW CREEK BL TEX CREEK NR RIRIE									
JAN 1	25.	1989	63.	38.	26.	26.	29.	59.	63.
JAN 2	24.	1988	62.	38.	25.	25.	32.	60.	62.
JAN 3	25.	1989	300.	68.	25.	29.	50.	61.	300.
JAN 4	26.	1989	308.	71.	26.	32.	48.	75.	308.
JAN 5	25.	1989	254.	65.	27.	34.	47.	75.	254.
JAN 6	25.	1989	95.	46.	26.	33.	42.	61.	95.
JAN 7	24.	1989	140.	51.	27.	34.	41.	58.	140.
JAN 8	24.	1989	130.	49.	28.	35.	41.	54.	130.
JAN 9	24.	1989	110.	47.	29.	36.	41.	50.	110.
JAN 10	25.	1989	95.	46.	30.	39.	41.	50.	95.
JAN 11	24.	1989	100.	46.	29.	37.	40.	49.	100.
JAN 12	24.	1989	309.	73.	28.	40.	47.	85.	309.
JAN 13	23.	1989	544.	97.	29.	38.	46.	61.	544.
JAN 14	24.	1989	729.	119.	30.	40.	47.	70.	729.
JAN 15	25.	1989	729.	119.	31.	40.	49.	68.	729.
JAN 16	25.	1989	729.	120.	30.	41.	49.	73.	729.
JAN 17	25.	1989	729.	120.	26.	41.	51.	76.	729.
JAN 18	22.	1988	729.	118.	26.	43.	49.	64.	729.
JAN 19	20.	1988	729.	118.	26.	42.	47.	70.	729.
JAN 20	23.	1988	64.	41.	25.	32.	43.	47.	64.
JAN 21	24.	1988	63.	41.	25.	34.	43.	52.	63.
JAN 22	25.	1988	62.	41.	26.	38.	42.	55.	62.
JAN 23	25.	1989	280.	68.	28.	41.	45.	61.	280.
JAN 24	23.	1989	432.	86.	28.	41.	45.	62.	432.
JAN 25	22.	1989	456.	89.	29.	40.	48.	63.	456.
JAN 26	23.	1989	456.	88.	30.	39.	49.	61.	456.
JAN 27	23.	1989	456.	88.	34.	37.	51.	62.	456.
JAN 28	23.	1989	456.	90.	36.	39.	53.	67.	456.
JAN 29	24.	1989	456.	95.	36.	43.	55.	101.	456.
JAN 30	24.	1989	458.	91.	35.	41.	53.	65.	458.
JAN 31	26.	1989	546.	100.	35.	38.	52.	63.	546.
FEB 1	25.	1989	642.	110.	35.	38.	50.	64.	642.
FEB 2	24.	1989	647.	112.	34.	39.	49.	79.	647.
FEB 3	23.	1989	652.	120.	34.	40.	50.	147.	652.
FEB 4	22.	1989	652.	147.	35.	39.	49.	385.	652.
FEB 5	21.	1989	652.	159.	37.	39.	48.	501.	652.
FEB 6	20.	1989	652.	171.	39.	45.	47.	601.	652.
FEB 7	22.	1989	652.	156.	40.	42.	46.	465.	652.
FEB 8	23.	1989	648.	137.	41.	44.	46.	292.	648.
FEB 9	23.	1989	647.	115.	42.	44.	48.	95.	647.
FEB 10	25.	1989	642.	114.	43.	46.	53.	71.	642.
FEB 11	25.	1989	617.	113.	41.	46.	52.	81.	617.
FEB 12	25.	1989	69.	48.	39.	44.	50.	56.	69.
FEB 13	24.	1989	71.	48.	37.	42.	48.	60.	71.
FEB 14	24.	1989	76.	47.	36.	38.	45.	58.	76.
FEB 15	25.	1989	70.	46.	35.	36.	47.	60.	70.
FEB 16	26.	1989	63.	47.	35.	40.	56.	59.	63.
FEB 17	27.	1989	68.	48.	36.	37.	54.	65.	68.
FEB 18	28.	1989	74.	48.	36.	38.	51.	58.	74.
FEB 19	29.	1989	78.	48.	37.	38.	48.	57.	78.
FEB 20	28.	1989	75.	49.	40.	40.	47.	68.	75.
FEB 21	27.	1989	72.	49.	42.	42.	50.	60.	72.
FEB 22	27.	1989	70.	50.	41.	42.	52.	62.	70.
FEB 23	30.	1989	80.	53.	41.	42.	59.	64.	80.
FEB 24	32.	1989	92.	57.	42.	43.	56.	74.	92.
FEB 25	39.	1989	102.	61.	40.	42.	53.	93.	102.
FEB 26	38.	1989	99.	61.	41.	42.	49.	93.	99.
FEB 27	37.	1989	94.	57.	39.	42.	50.	80.	94.
FEB 28	33.	1978	92.	58.	37.	41.	58.	85.	92.

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* PLOTTED DATA HAVE BEEN SMOOTHED

MAR	1	38.	1989	129.	1983	67.	39.	48.	62.	100.	129.
MAR	2	38.	1978	318.	1983	89.	40.	43.	67.	110.	318.
MAR	3	37.	1978	238.	1983	84.	40.	51.	78.	118.	238.
MAR	4	39.	1989	192.	1983	92.	42.	65.	122.	127.	192.
MAR	5	42.	1989	155.	1987	82.	44.	58.	62.	145.	155.
MAR	6	38.	1985	156.	1987	78.	44.	48.	61.	140.	156.
MAR	7	45.	1978	176.	1987	87.	46.	48.	100.	150.	176.
MAR	8	37.	1985	278.	1987	98.	44.	56.	67.	190.	278.
MAR	9	45.	1979	304.	1986	129.	49.	58.	140.	283.	304.
MAR	10	34.	1985	270.	1986	113.	45.	53.	141.	208.	270.
MAR	11	42.	1985	256.	1986	110.	45.	51.	125.	195.	256.
MAR	12	37.	1985	244.	1986	100.	42.	49.	122.	177.	244.
MAR	13	40.	1990	228.	1986	96.	46.	53.	113.	148.	228.
MAR	14	38.	1990	218.	1986	94.	40.	49.	91.	176.	218.
MAR	15	36.	1990	202.	1986	84.	39.	51.	71.	145.	202.
MAR	16	38.	1990	195.	1986	82.	38.	46.	91.	126.	195.
MAR	17	39.	1988	190.	1986	80.	42.	48.	74.	117.	190.
MAR	18	40.	1988	186.	1986	81.	46.	53.	67.	117.	186.
MAR	19	48.	1985	182.	1986	83.	49.	58.	76.	107.	182.
MAR	20	48.	1985	178.	1986	86.	57.	64.	94.	99.	178.
MAR	21	51.	1985	188.	1986	88.	58.	70.	92.	96.	188.
MAR	22	54.	1985	238.	1986	98.	59.	83.	92.	100.	238.
MAR	23	48.	1985	255.	1986	99.	59.	74.	99.	106.	255.
MAR	24	50.	1985	296.	1986	103.	55.	66.	92.	132.	296.
MAR	25	55.	1988	355.	1986	112.	59.	79.	85.	121.	355.
MAR	26	52.	1985	337.	1986	117.	72.	83.	94.	131.	337.
MAR	27	46.	1985	353.	1986	125.	78.	82.	103.	155.	353.
MAR	28	39.	1985	422.	1986	128.	69.	85.	93.	164.	422.
MAR	29	44.	1985	532.	1986	141.	59.	79.	90.	194.	532.
MAR	30	40.	1985	671.	1986	164.	69.	78.	107.	239.	671.
MAR	31	48.	1985	837.	1986	193.	51.	86.	112.	283.	837.
APR	1	57.	1985	807.	1986	199.	58.	92.	115.	425.	807.
APR	2	70.	1988	749.	1986	213.	70.	96.	125.	501.	749.
APR	3	68.	1979	625.	1986	214.	92.	99.	166.	420.	625.
APR	4	68.	1979	581.	1986	218.	92.	105.	195.	372.	581.
APR	5	67.	1979	564.	1986	218.	91.	110.	156.	434.	564.
APR	6	78.	1979	599.	1986	229.	105.	128.	179.	453.	599.
APR	7	102.	1983	693.	1986	256.	103.	165.	201.	432.	693.
APR	8	95.	1979	769.	1986	307.	109.	156.	230.	530.	769.
APR	9	106.	1983	849.	1986	316.	115.	155.	270.	545.	849.
APR	10	111.	1983	904.	1986	316.	113.	139.	309.	559.	904.
APR	11	109.	1979	940.	1986	342.	113.	196.	328.	614.	940.
APR	12	97.	1979	1010.	1986	367.	111.	200.	315.	676.	1010.
APR	13	94.	1979	1030.	1986	369.	111.	168.	329.	651.	1030.
APR	14	94.	1979	878.	1986	354.	110.	150.	335.	627.	878.
APR	15	107.	1983	832.	1986	360.	112.	152.	306.	715.	832.
APR	16	114.	1983	856.	1986	406.	149.	203.	318.	850.	856.
APR	17	125.	1983	1069.	1985	462.	144.	217.	322.	853.	1069.
APR	18	149.	1983	1150.	1985	490.	158.	249.	430.	921.	1150.
APR	19	148.	1990	1170.	1985	493.	173.	207.	447.	1020.	1170.
APR	20	134.	1990	899.	1989	450.	166.	234.	497.	878.	899.
APR	21	124.	1990	1160.	1989	481.	151.	244.	469.	964.	1160.
APR	22	120.	1990	1220.	1989	512.	140.	259.	492.	1150.	1220.
APR	23	125.	1990	1370.	1986	530.	131.	341.	428.	998.	1370.
APR	24	126.	1987	1240.	1986	522.	147.	352.	402.	804.	1240.
APR	25	123.	1987	1110.	1986	503.	147.	323.	470.	848.	1110.
APR	26	120.	1987	1040.	1986	474.	142.	289.	606.	722.	1040.
APR	27	116.	1987	929.	1986	451.	132.	279.	541.	748.	929.
APR	28	112.	1987	868.	1986	449.	164.	305.	500.	666.	868.
APR	29	110.	1987	833.	1986	474.	153.	366.	568.	804.	833.
APR	30	111.	1987	1146.	1983	507.	159.	392.	541.	747.	1146.

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MAY	1	110.	1987	1397.	1983	551.	156.	381.	547.	820.	1397.
MAY	2	130.	1987	1619.	1983	560.	136.	384.	605.	753.	1619.
MAY	3	126.	1990	1741.	1983	596.	131.	391.	576.	850.	1741.
MAY	4	112.	1987	1823.	1983	619.	116.	395.	558.	931.	1823.
MAY	5	103.	1987	1894.	1983	625.	108.	393.	513.	1065.	1894.
MAY	6	96.	1987	1825.	1983	593.	103.	391.	537.	972.	1825.
MAY	7	90.	1987	1491.	1983	535.	99.	353.	498.	951.	1491.
MAY	8	87.	1987	1649.	1983	540.	97.	338.	419.	904.	1649.
MAY	9	84.	1987	1945.	1983	600.	100.	327.	430.	1175.	1945.
MAY	10	82.	1987	1824.	1984	625.	97.	364.	436.	1524.	1824.
MAY	11	81.	1987	1873.	1984	618.	91.	318.	515.	1256.	1873.
MAY	12	80.	1987	2135.	1984	627.	90.	288.	445.	1211.	2135.
MAY	13	77.	1987	2832.	1984	653.	88.	282.	434.	1051.	2832.
MAY	14	75.	1987	3312.	1984	679.	92.	285.	421.	939.	3312.
MAY	15	72.	1987	3899.	1984	733.	91.	309.	395.	875.	3899.
MAY	16	86.	1990	3511.	1984	702.	92.	334.	397.	887.	3511.
MAY	17	82.	1990	2397.	1984	585.	130.	347.	386.	818.	2397.
MAY	18	76.	1990	1881.	1984	534.	125.	337.	361.	847.	1881.
MAY	19	72.	1990	1773.	1984	540.	117.	315.	346.	1061.	1773.
MAY	20	75.	1990	1769.	1984	531.	111.	300.	339.	1105.	1769.
MAY	21	86.	1990	1735.	1984	529.	111.	284.	342.	1135.	1735.
MAY	22	89.	1990	1521.	1984	516.	114.	270.	321.	1231.	1521.
MAY	23	82.	1990	1331.	1984	490.	103.	253.	310.	1224.	1331.
MAY	24	75.	1990	1301.	1984	477.	93.	249.	300.	1263.	1301.
MAY	25	79.	1990	1312.	1983	466.	91.	240.	286.	1246.	1312.
MAY	26	80.	1990	1333.	1983	449.	101.	230.	299.	1104.	1333.
MAY	27	72.	1990	1303.	1983	430.	98.	211.	293.	1004.	1303.
MAY	28	66.	1990	1218.	1983	417.	92.	208.	302.	919.	1218.
MAY	29	62.	1990	1114.	1983	406.	90.	217.	347.	859.	1114.
MAY	30	65.	1990	1053.	1983	387.	93.	220.	302.	819.	1053.
MAY	31	74.	1990	1053.	1983	380.	100.	212.	288.	813.	1053.
JUN	1	91.	1990	928.	1983	355.	105.	195.	272.	928.	928.
JUN	2	86.	1990	804.	1983	326.	100.	178.	278.	713.	804.
JUN	3	75.	1990	748.	1983	312.	93.	173.	247.	712.	748.
JUN	4	65.	1990	776.	1984	313.	83.	163.	223.	752.	776.
JUN	5	59.	1990	792.	1984	306.	74.	152.	212.	763.	792.
JUN	6	54.	1990	770.	1984	290.	70.	146.	206.	721.	770.
JUN	7	51.	1990	778.	1984	285.	63.	146.	198.	714.	778.
JUN	8	48.	1990	721.	1984	270.	59.	147.	188.	634.	721.
JUN	9	46.	1990	669.	1984	259.	55.	142.	182.	587.	669.
JUN	10	49.	1990	683.	1984	253.	53.	136.	180.	567.	683.
JUN	11	50.	1988	921.	1984	271.	63.	129.	172.	565.	921.
JUN	12	49.	1988	835.	1984	262.	71.	120.	165.	621.	835.
JUN	13	49.	1988	671.	1984	233.	64.	115.	153.	562.	671.
JUN	14	48.	1988	615.	1984	216.	56.	110.	148.	507.	615.
JUN	15	45.	1988	573.	1984	204.	52.	107.	144.	475.	573.
JUN	16	40.	1988	550.	1984	194.	50.	101.	139.	453.	550.
JUN	17	37.	1988	529.	1984	185.	47.	96.	135.	426.	529.
JUN	18	35.	1988	509.	1984	175.	45.	93.	128.	392.	509.
JUN	19	37.	1988	512.	1984	171.	38.	87.	123.	372.	512.
JUN	20	37.	1990	482.	1984	165.	37.	81.	138.	359.	482.
JUN	21	34.	1990	454.	1984	158.	39.	83.	118.	353.	454.
JUN	22	31.	1990	428.	1984	153.	35.	85.	107.	356.	428.
JUN	23	29.	1990	409.	1984	145.	33.	85.	104.	318.	409.
JUN	24	27.	1990	393.	1984	139.	29.	89.	102.	300.	393.
JUN	25	25.	1990	393.	1984	137.	28.	88.	113.	288.	393.
JUN	26	21.	1990	389.	1984	135.	30.	82.	124.	281.	389.
JUN	27	18.	1990	372.	1984	132.	32.	76.	114.	302.	372.
JUN	28	17.	1990	356.	1984	127.	32.	71.	104.	299.	356.
JUN	29	16.	1990	344.	1984	122.	32.	68.	99.	286.	344.
JUN	30	16.	1990	342.	1984	119.	29.	62.	94.	288.	342.

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JUL	1	15.	1990	335.	1984	115.	27.	59.	89.	273.	335.
JUL	2	16.	1990	323.	1984	116.	26.	59.	85.	295.	323.
JUL	3	15.	1990	307.	1984	110.	25.	54.	80.	282.	307.
JUL	4	15.	1990	298.	1984	104.	23.	51.	78.	251.	298.
JUL	5	14.	1990	286.	1984	99.	22.	47.	75.	235.	286.
JUL	6	12.	1990	278.	1984	96.	21.	45.	73.	224.	278.
JUL	7	12.	1990	279.	1984	94.	20.	43.	72.	217.	279.
JUL	8	12.	1990	271.	1984	91.	18.	40.	70.	208.	271.
JUL	9	14.	1990	263.	1984	89.	18.	39.	68.	205.	263.
JUL	10	14.	1990	289.	1983	96.	17.	40.	66.	255.	289.
JUL	11	16.	1990	258.	1983	91.	17.	39.	65.	230.	258.
JUL	12	14.	1990	222.	1983	85.	15.	40.	66.	216.	222.
JUL	13	12.	1990	211.	1984	85.	15.	39.	79.	206.	211.
JUL	14	12.	1990	202.	1984	78.	14.	35.	69.	193.	202.
JUL	15	11.	1990	196.	1984	76.	13.	34.	64.	194.	196.
JUL	16	11.	1990	195.	1983	76.	12.	34.	62.	192.	195.
JUL	17	10.	1990	188.	1984	76.	12.	33.	66.	173.	188.
JUL	18	10.	1990	184.	1984	72.	12.	33.	64.	156.	184.
JUL	19	9.	1990	178.	1984	68.	12.	32.	62.	145.	178.
JUL	20	9.	1990	181.	1984	65.	10.	29.	59.	140.	181.
JUL	21	9.	1990	189.	1984	66.	10.	29.	59.	135.	189.
JUL	22	9.	1990	213.	1984	69.	10.	37.	58.	133.	213.
JUL	23	9.	1990	239.	1984	80.	9.	49.	75.	135.	239.
JUL	24	9.	1990	215.	1984	76.	9.	46.	66.	143.	215.
JUL	25	8.	1990	190.	1984	69.	9.	38.	51.	138.	190.
JUL	26	7.	1990	189.	1984	68.	9.	30.	50.	141.	189.
JUL	27	7.	1990	177.	1984	67.	8.	27.	48.	163.	177.
JUL	28	7.	1990	199.	1984	65.	8.	27.	48.	139.	199.
JUL	29	6.	1990	206.	1984	65.	9.	32.	50.	125.	206.
JUL	30	6.	1990	204.	1984	65.	11.	31.	49.	119.	204.
JUL	31	6.	1990	179.	1984	60.	10.	28.	46.	114.	179.
AUG	1	4.	1990	176.	1984	58.	9.	25.	45.	119.	176.
AUG	2	3.	1990	214.	1984	60.	9.	24.	44.	119.	214.
AUG	3	3.	1990	258.	1984	63.	8.	22.	42.	111.	258.
AUG	4	3.	1990	159.	1984	52.	9.	21.	41.	104.	159.
AUG	5	2.	1990	152.	1984	49.	10.	20.	39.	99.	152.
AUG	6	2.	1990	148.	1984	47.	11.	21.	36.	95.	148.
AUG	7	3.	1990	139.	1984	45.	11.	19.	35.	92.	139.
AUG	8	3.	1990	130.	1984	44.	11.	20.	34.	91.	130.
AUG	9	2.	1990	127.	1984	45.	11.	21.	35.	91.	127.
AUG	10	3.	1990	121.	1984	45.	11.	22.	34.	98.	121.
AUG	11	3.	1990	125.	1983	47.	10.	25.	33.	120.	125.
AUG	12	3.	1990	187.	1983	54.	12.	29.	32.	119.	187.
AUG	13	4.	1990	130.	1983	51.	12.	31.	48.	118.	130.
AUG	14	5.	1990	119.	1984	51.	13.	38.	52.	107.	119.
AUG	15	5.	1990	121.	1984	50.	12.	30.	51.	100.	121.
AUG	16	6.	1990	130.	1984	49.	11.	27.	45.	100.	130.
AUG	17	8.	1990	140.	1984	51.	10.	24.	44.	106.	140.
AUG	18	9.	1988	129.	1984	51.	11.	23.	44.	125.	129.
AUG	19	9.	1988	142.	1983	57.	11.	27.	48.	121.	142.
AUG	20	8.	1988	141.	1983	54.	12.	30.	47.	120.	141.
AUG	21	7.	1988	151.	1983	52.	10.	28.	43.	115.	151.
AUG	22	7.	1988	168.	1983	52.	10.	26.	39.	110.	168.
AUG	23	8.	1988	138.	1983	50.	10.	24.	41.	109.	138.
AUG	24	8.	1988	125.	1983	45.	11.	22.	40.	112.	125.
AUG	25	7.	1988	121.	1984	44.	12.	27.	37.	107.	121.
AUG	26	6.	1988	133.	1984	45.	15.	30.	36.	97.	133.
AUG	27	6.	1988	122.	1984	43.	20.	27.	35.	91.	122.
AUG	28	7.	1988	110.	1984	41.	20.	25.	35.	87.	110.
AUG	29	7.	1988	130.	1986	45.	18.	23.	35.	100.	130.
AUG	30	7.	1988	117.	1986	42.	17.	22.	33.	96.	117.

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AUG	31	7.	1988	98.	1984	40.	16.	21.	33.	93.	98.
SEP	1	7.	1988	103.	1984	39.	15.	19.	33.	85.	103.
SEP	2	7.	1988	101.	1984	38.	15.	16.	31.	79.	101.
SEP	3	8.	1988	98.	1984	38.	15.	17.	29.	77.	98.
SEP	4	9.	1990	93.	1984	38.	14.	16.	28.	79.	93.
SEP	5	10.	1990	100.	1984	37.	14.	18.	27.	74.	100.
SEP	6	9.	1988	100.	1984	37.	14.	18.	28.	72.	100.
SEP	7	9.	1988	102.	1984	37.	14.	18.	30.	71.	102.
SEP	8	9.	1988	101.	1984	37.	13.	20.	30.	73.	101.
SEP	9	9.	1988	98.	1984	38.	13.	19.	31.	89.	98.
SEP	10	9.	1988	93.	1984	38.	13.	19.	31.	86.	93.
SEP	11	9.	1990	91.	1984	38.	13.	19.	39.	80.	91.
SEP	12	9.	1990	95.	1984	41.	13.	19.	55.	75.	95.
SEP	13	9.	1990	96.	1984	41.	13.	20.	55.	73.	96.
SEP	14	9.	1990	92.	1984	39.	14.	19.	53.	72.	92.
SEP	15	9.	1990	88.	1984	37.	16.	19.	46.	72.	88.
SEP	16	9.	1990	88.	1984	38.	17.	20.	41.	70.	88.
SEP	17	9.	1990	85.	1984	36.	19.	21.	38.	67.	85.
SEP	18	9.	1990	82.	1984	37.	18.	21.	38.	65.	82.
SEP	19	10.	1990	81.	1984	41.	19.	20.	43.	71.	81.
SEP	20	12.	1990	80.	1984	41.	18.	20.	46.	76.	80.
SEP	21	13.	1990	94.	1984	42.	19.	21.	44.	78.	94.
SEP	22	13.	1990	112.	1984	44.	20.	20.	41.	85.	112.
SEP	23	13.	1990	104.	1984	43.	20.	22.	39.	82.	104.
SEP	24	13.	1990	114.	1984	44.	21.	22.	38.	78.	114.
SEP	25	12.	1988	106.	1984	42.	21.	22.	36.	78.	106.
SEP	26	12.	1988	98.	1984	41.	21.	22.	36.	76.	98.
SEP	27	13.	1990	94.	1984	40.	19.	21.	35.	81.	94.
SEP	28	13.	1990	99.	1983	42.	19.	22.	35.	92.	99.
SEP	29	13.	1990	113.	1983	43.	19.	23.	33.	90.	113.
SEP	30	13.	1990	128.	1983	45.	21.	23.	33.	89.	128.
OCT	1	15.	1988	148.	1983	54.	23.	26.	49.	93.	148.
OCT	2	13.	1988	133.	1983	55.	24.	27.	50.	93.	133.
OCT	3	14.	1988	124.	1983	55.	23.	24.	50.	99.	124.
OCT	4	14.	1988	113.	1983	54.	24.	24.	49.	102.	113.
OCT	5	13.	1988	99.	1983	52.	23.	25.	49.	96.	99.
OCT	6	14.	1988	93.	1984	50.	23.	25.	49.	91.	93.
OCT	7	14.	1988	93.	1984	49.	23.	25.	53.	89.	93.
OCT	8	14.	1988	96.	1984	51.	24.	25.	70.	92.	96.
OCT	9	13.	1988	96.	1984	50.	23.	26.	64.	92.	96.
OCT	10	14.	1988	96.	1984	53.	21.	27.	61.	92.	96.
OCT	11	14.	1988	95.	1984	53.	21.	26.	57.	91.	95.
OCT	12	13.	1988	108.	1984	55.	21.	26.	57.	105.	108.
OCT	13	14.	1988	113.	1984	56.	21.	27.	59.	112.	113.
OCT	14	15.	1988	121.	1984	59.	21.	28.	57.	121.	121.
OCT	15	15.	1988	114.	1983	60.	21.	30.	57.	114.	114.
OCT	16	15.	1988	111.	1983	58.	21.	29.	56.	107.	111.
OCT	17	15.	1988	106.	1984	56.	21.	29.	53.	104.	106.
OCT	18	16.	1988	110.	1984	57.	21.	28.	53.	109.	110.
OCT	19	16.	1988	108.	1984	57.	21.	29.	52.	106.	108.
OCT	20	17.	1988	107.	1984	56.	22.	30.	51.	105.	107.
OCT	21	18.	1988	105.	1984	55.	21.	29.	51.	103.	105.
OCT	22	17.	1988	103.	1984	56.	21.	28.	61.	102.	103.
OCT	23	18.	1988	112.	1984	52.	21.	29.	66.	82.	112.
OCT	24	19.	1988	110.	1984	60.	22.	32.	70.	108.	110.
OCT	25	19.	1988	101.	1984	58.	22.	32.	68.	100.	101.
OCT	26	19.	1988	110.	1984	59.	22.	35.	62.	110.	110.
OCT	27	19.	1988	113.	1984	59.	22.	39.	57.	110.	113.
OCT	28	19.	1988	99.	1984	51.	21.	39.	55.	81.	99.
OCT	29	19.	1988	115.	1984	58.	22.	39.	53.	111.	115.
OCT	30	20.	1988	102.	1984	55.	23.	36.	52.	101.	102.

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OCT	31	20.	1988	112.	1984	58.	27.	34.	52.	110.	112.
NOV	1	20.	1988	104.	1982	50.	27.	34.	40.	83.	104.
NOV	2	20.	1988	110.	1984	55.	24.	40.	52.	85.	110.
NOV	3	22.	1988	128.	1984	55.	25.	42.	53.	72.	128.
NOV	4	25.	1977	122.	1984	56.	34.	41.	52.	71.	122.
NOV	5	25.	1977	110.	1984	53.	30.	41.	52.	71.	110.
NOV	6	25.	1977	110.	1984	52.	26.	38.	53.	71.	110.
NOV	7	25.	1988	110.	1984	52.	26.	37.	53.	70.	110.
NOV	8	25.	1988	111.	1984	54.	26.	42.	62.	69.	111.
NOV	9	25.	1977	111.	1984	53.	26.	42.	61.	69.	111.
NOV	10	24.	1977	70.	1982	44.	26.	36.	41.	63.	70.
NOV	11	26.	1988	109.	1984	53.	33.	39.	48.	70.	109.
NOV	12	26.	1988	119.	1984	52.	26.	38.	50.	66.	119.
NOV	13	24.	1977	113.	1984	52.	28.	39.	51.	72.	113.
NOV	14	23.	1977	113.	1984	52.	34.	40.	50.	80.	113.
NOV	15	25.	1977	85.	1982	48.	33.	33.	40.	79.	85.
NOV	16	25.	1977	107.	1984	54.	29.	38.	47.	82.	107.
NOV	17	24.	1977	98.	1984	52.	29.	39.	50.	78.	98.
NOV	18	24.	1977	102.	1984	52.	28.	42.	52.	73.	102.
NOV	19	24.	1977	110.	1984	55.	26.	47.	48.	85.	110.
NOV	20	24.	1977	81.	1986	47.	25.	32.	50.	70.	81.
NOV	21	24.	1977	101.	1984	54.	27.	44.	53.	88.	101.
NOV	22	24.	1977	83.	1986	47.	29.	29.	45.	71.	83.
NOV	23	26.	1977	99.	1982	50.	29.	32.	42.	83.	99.
NOV	24	28.	1977	188.	1982	65.	30.	32.	45.	104.	188.
NOV	25	27.	1988	167.	1982	62.	27.	34.	48.	104.	167.
NOV	26	26.	1988	146.	1982	53.	29.	37.	44.	59.	146.
NOV	27	25.	1988	127.	1982	67.	28.	44.	73.	115.	127.
NOV	28	28.	1988	141.	1984	66.	29.	44.	78.	109.	141.
NOV	29	30.	1987	109.	1984	59.	32.	45.	63.	99.	109.
NOV	30	30.	1988	122.	1982	59.	31.	35.	53.	113.	122.
DEC	1	28.	1988	101.	1984	49.	32.	33.	44.	65.	101.
DEC	2	29.	1988	154.	1984	58.	34.	35.	49.	68.	154.
DEC	3	30.	1988	319.	1984	89.	36.	37.	48.	126.	319.
DEC	4	31.	1988	520.	1984	121.	36.	40.	46.	175.	520.
DEC	5	29.	1988	777.	1984	143.	37.	43.	45.	93.	777.
DEC	6	29.	1988	970.	1984	164.	37.	41.	47.	74.	970.
DEC	7	28.	1988	996.	1984	165.	33.	38.	50.	67.	996.
DEC	8	27.	1988	905.	1984	151.	31.	38.	52.	60.	905.
DEC	9	28.	1988	584.	1984	109.	33.	39.	45.	56.	584.
DEC	10	28.	1988	254.	1984	68.	34.	38.	42.	57.	254.
DEC	11	28.	1988	205.	1984	62.	32.	39.	41.	60.	205.
DEC	12	29.	1988	308.	1984	74.	29.	40.	43.	61.	308.
DEC	13	27.	1987	448.	1984	92.	29.	38.	42.	62.	448.
DEC	14	25.	1987	825.	1984	139.	27.	40.	42.	64.	825.
DEC	15	24.	1988	1050.	1984	178.	27.	41.	47.	134.	1050.
DEC	16	24.	1988	680.	1984	133.	28.	39.	48.	141.	680.
DEC	17	25.	1988	645.	1984	121.	29.	36.	49.	84.	645.
DEC	18	25.	1988	668.	1984	123.	28.	35.	50.	76.	668.
DEC	19	24.	1988	670.	1984	121.	29.	37.	51.	60.	670.
DEC	20	24.	1988	367.	1984	82.	28.	39.	45.	58.	367.
DEC	21	24.	1988	235.	1984	65.	29.	37.	45.	57.	235.
DEC	22	24.	1988	184.	1984	58.	26.	37.	45.	60.	184.
DEC	23	22.	1987	147.	1984	54.	24.	39.	46.	60.	147.
DEC	24	23.	1988	155.	1984	55.	26.	38.	46.	59.	155.
DEC	25	24.	1988	187.	1984	59.	26.	33.	45.	62.	187.
DEC	26	22.	1988	161.	1984	55.	25.	34.	46.	60.	161.
DEC	27	21.	1988	130.	1984	50.	25.	35.	44.	58.	130.
DEC	28	22.	1988	208.	1984	59.	27.	34.	41.	54.	208.
DEC	29	23.	1988	112.	1984	48.	29.	35.	39.	59.	112.
DEC	30	24.	1988	98.	1984	44.	28.	28.	39.	57.	98.

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DEC 31

25. 1988

90. 1984

43.

27.

28.

39.

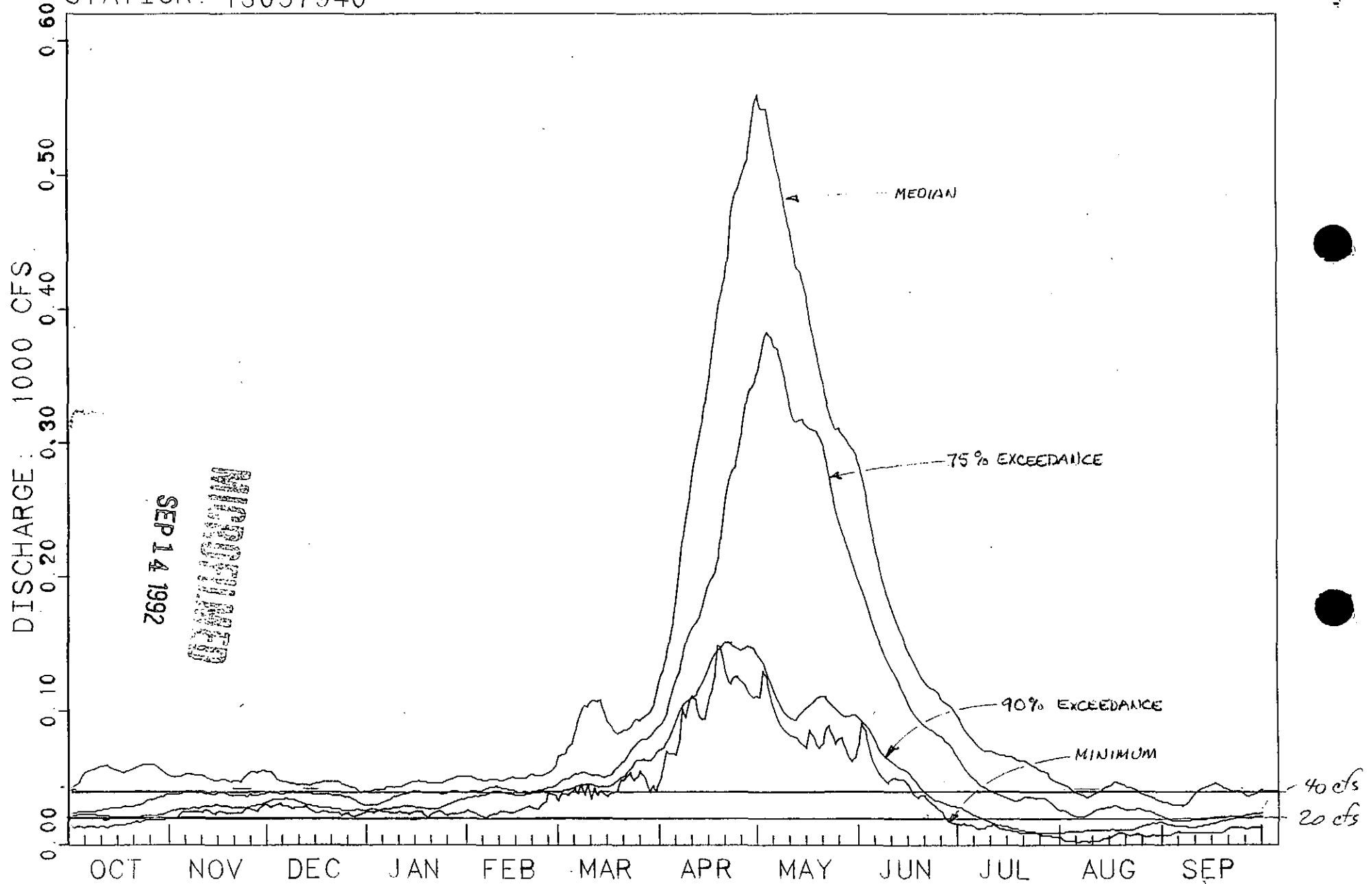
56.

90.

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NAME: WILLOW CREEK BL TEX CREEK

STATION: 13057940



**WILLOW CREEK
MINIMUM STREAMFLOW APPLICATION DATA**

WATER RIGHT NUMBER: 25-7597

SOURCE: WILLOW CREEK

APPLICANT: IDAHO WATER RESOURCE BOARD

**REQUESTING AGENCY:
IDAHO DEPARTMENT OF FISH AND GAME**

DATE FILED: JUNE 24, 1991

MINIMUM STREAMFLOW REACH:
COMMENCES AT THE CONFLUENCE OF GRAYS LAKE OUTLET
WITH WILLOW CREEK IN SECTION 33, T1N, R40E, AND EXTENDS
DOWNSTREAM FOR APPROXIMATELY 12 MILES TO THE
BACKWATERS OF RIRIE RESERVOIR IN SECTION 27, T2N, R40E,
B.M., BONNEVILLE COUNTY.

PERIOD OF USE: JANUARY 1 - DECEMBER 31

RATES OF FLOW:
DEC 1 TO MAR 31 - 30 CFS
APR 1 TO MAY 31 - 250 CFS
JUN 1 TO JUL 15 - 100 CFS
JUL 16 TO SEP 30 - 30 CFS
OCT 1 TO NOV 30 - 40 CFS

PURPOSES:
**PRESERVATION OF FISH AND WILDLIFE HABITAT,
AQUATIC LIFE AND WATER QUALITY**

MICROFILMED
SEP 14 1992

WILLOW CREEK BELOW TEX CREEK

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Dec 1-Mar 31 30 CFS	56.5	44.3	46.5	87.0	59.3	172.5	283.0	62.5	106.3	72.5	44.3	39.8	45.3	28.6
Apr 1-May 31 250 CFS	516.0	284.0	89.5	244.5	630.0	808.0	934.0	413.5	802.0	169.5	174.0	426.0	127.4	231.5
Jun 1-Jul 15 100 CFS	136.0	97.0	218.1	161.7	334.5	412.7	476.0	128.7	235.2	58.9	39.8	94.3	33.4	98.0
Jul 16-Sep 30 30 CFS	41.7	29.9	187.2	21.1	83.3	105.6	130.8	53.6	78.2	22.6	10.4	25.7	9.4	July 16 Sep 22 21.5
Oct 1-Nov 30 40 CFS	27.0	40.5	131.0	38.5	60.0	91.0	115.0	82.0	52.7	74.2	33.5	21.8	32.8	

Please Note:

Dec 1-Mar 31 is not sustainable 1 of the last 5 years.

Apr 1-May 31 is not sustainable 4 of the last 5 years.

Jun 1-Jul 15 is not sustainable 5 of the last 5 years.

Jul 16-Sep 30 is not sustainable 5 of the last 5 years.

Oct 1-Nov 30 is not sustainable 3 of the last 4 years and when the 91 year is complete it will probably show 4 of the last 5 years.

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WILLOW CREEK BELOW TEX CREEK

		<u>AVERAGE</u>	<u>HIGH</u>	<u>LOW</u>
Dec. 1-Mar. 31	30 CFS	82.0	283.0	28.6
Apr. 1-May 31	250 CFS	417.9	934.0	89.5
Jun. 1-Jul. 15	100 CFS	180.3	476.0	33.4
Jul. 16-Sep. 30	30 CFS	58.6	187.2	9.4
Oct. 1-Nov. 30	40 CFS	61.5	131.0	21.8

SEP 14 1992

WILLOW CREEK BASIN

13057940 WILLOW CREEK BELOW TEX CREEK, NEAR RIRIE, ID

LOCATION.--Lat 43°26'33", long 111°43'37", in NE1/4 sec. 3, T.1 N., R.40 E., Bonneville County, Hydrologic Unit 17040205, on right bank 0.3 mi (0.48 km) below Tex Creek, and 13.2 mi (21.2 km) southeast of Ririe.

DRAINAGE AREA.--

PERIOD OF RECORD.--August 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,200 ft (1,580 m) from topographic map.

REMARKS.--Records good except for winter period, which are fair. Diversions above station for irrigation of about 7,300 acres (3,000 km²) of which 100 acres (40 km²) are by withdrawals from ground water (1966 determination). Since May 1924 water has been diverted from Grays Lake into Meadow Creek basin and thence into Blackfoot Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 868 ft³/s (24.6 m³/s) May 1, 1978, gage height, 5.12 ft (1.561 m); minimum, 10 ft³/s (0.283 m³/s) Aug. 25, 1977, gage height, 1.99 ft (0.607 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 868 ft³/s (24.6 m³/s) May 1, gage height, 5.12 ft (1.561 m); minimum daily, 21 ft³/s (0.595 m³/s) Oct. 5-19, 21-23, 28.

Maximum discharge during period Aug. 24 to September 1977, 27 ft³/s (0.765 m³/s) Sept. 24, gage height, 2.29 ft (0.698 m); minimum discharge, 10 ft³/s (0.283 m³/s) Aug. 25, gage height, 1.99 ft (0.607 m).

Discharge, in cubic feet per second, August to September 1977.

DAY	AUG	DAY	AUG	DAY	SEP	DAY	SEP	DAY	SEP	DAY	SEP	DAY	SEP	DAY	SEP	DAY	SEP
24	11	28	20	1	15	5	14	9	13	13	13	17	19	21	19	26	21
25	12	29	18	2	15	6	14	10	13	14	14	18	18	22	20	27	19
26	15	30	17	3	15	7	14	11	13	15	16	19	19	23	22	28	19
27	20	31	16	4	14	8	13	12	13	16	17	20	18	24	25	29	19
														25	23	30	21
TOTAL																	508
MEAN																	16.9
MAX																	25
MIN																	13
AC-FT																	1010

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	27	36	26	38	39	425	420	337	109	45	33
2	27	24	50	26	39	38	501	690	314	106	44	31
3	24	25	126	27	40	37	420	671	313	101	42	29
4	24	25	175	31	39	45	372	660	320	99	41	28
5	21	25	93	35	38	45	334	589	305	102	39	27
6	21	25	74	42	45	49	289	437	284	96	36	24
7	21	25	84	41	40	45	320	496	258	99	35	30
8	21	26	60	41	44	44	330	475	254	93	34	30
9	21	25	56	41	43	49	545	454	244	89	34	31
10	21	24	50	40	45	53	559	471	232	85	34	31
11	21	33	47	40	41	51	614	546	233	85	33	39
12	21	26	43	40	39	53	676	578	223	82	32	56
13	21	24	38	38	37	53	651	514	212	79	30	58
14	21	23	40	40	36	45	608	486	200	74	32	53
15	21	25	134	40	39	39	548	491	175	70	54	53
16	21	25	141	41	35	38	642	499	164	69	50	41
17	21	24	84	41	36	46	625	620	161	67	44	38
18	21	24	76	43	38	53	484	592	153	64	42	38
19	21	24	54	42	37	63	647	614	150	62	48	43
20	27	24	45	43	40	77	697	522	147	59	47	46
21	21	24	41	34	42	65	661	462	143	59	42	44
22	21	24	42	38	42	98	527	461	140	58	39	41
23	21	26	42	37	42	106	626	454	134	55	39	39
24	27	24	44	34	43	132	402	440	131	53	40	38
25	27	27	45	36	40	121	470	438	127	51	37	36
26	22	37	46	36	41	131	620	412	130	50	36	36
27	22	107	44	37	39	155	748	492	130	48	35	35
28	21	61	41	37	33	164	666	374	125	48	35	35
29	27	63	36	37	---	194	568	358	116	50	28	33
30	23	35	39	38	---	239	620	354	113	49	33	33
31	27	---	39	34	---	283	---	365	---	46	33	---
TOTAL	442	956	1948	1106	1106	2670	15717	13796	5983	2256	1246	1122
MEAN	22.0	31.9	62.8	37.6	39.5	86.1	524	508	100	72.8	40.2	37.4
MAX	27	107	175	63	48	283	748	620	337	109	54	56
MIN	21	23	36	26	33	37	284	354	113	46	32	27
AC-FT	1350	1900	3660	2310	2190	5300	31170	31250	11870	4470	2470	2230
WTR YR 1978	TOTAL	80606	MEAN	139	MAX	820	MIN	21	AC-FT	100400		

41.7
38.8

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WILLOW CREEK BASIN

115

11057940 WILLOW CREEK BELOW TEX CREEK, NEAR RIRIE, ID

LOCATION.--Lat 43°26'33", long 111°43'27", in NEHEW sec.3, T.1 N., R.40 E., Bonneville County, Hydrologic Unit 17040205, on right bank 0.1 mi (0.48 km) below Tex Creek, and 13.2 mi (21.2 km) southeast of Ririe.

DRAINAGE AREA.--

PERIOD OF RECORD.--August 1977 to September 1979 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,200 ft (1,580 m) from topographic map.

REMARKS.--Records good except those for winter periods, which are poor. Diversions above station for irrigation of about 7,300 acres (3,000 km²) of which 100 acres (40 km²) are by withdrawals from ground water (1966 determination). Since May 1924 water has been diverted from Grays Lake into Meadow Creek basin and thence into Blackfoot Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 868 ft³/s (24.6 m³/s) May 1, 1978, gage height, 5.12 ft (1.561 m); minimum, 10 ft³/s (0.283 m³/s) Aug. 25, 1977, gage height, 1.99 ft (0.607 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 761 ft³/s (21.8 m³/s) Apr. 30, gage height, 4.87 ft (1.484 m); minimum, 11 ft³/s (0.312 m³/s) Aug. 7, gage height, 2.66 ft (0.808 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

(Stage-discharge relation affected by ice Nov. 13-19, 24-29, Dec. 2 to Feb. 11, Feb. 13-15, Mar. 3-5, 7-19)

2.1	15	3.5	228
2.3	27	4.0	375
2.5	46	4.5	572
2.7	71	5.0	800
3.0	115		

DISCHARGE, IN CUBIC FEET PER SECOND; WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	40	53	29	35	43	74	718	195	42	25	25
2	34	40	49	32	35	43	70	650	169	61	23	25
3	34	41	45	33	38	41	66	676	173	58	22	24
4	35	41	44	34	37	42	64	625	163	56	21	22
5	38	41	43	34	38	44	67	613	182	53	20	21
6	35	38	41	34	39	46	70	667	144	52	21	21
7	39	38	38	34	40	46	103	681	146	51	19	21
8	37	42	38	35	41	46	95	615	173	47	22	20
9	37	43	39	36	42	45	115	382	189	46	35	19
10	37	41	40	39	43	45	112	364	190	44	33	19
11	38	43	41	40	44	49	109	318	129	42	21	20
12	37	49	43	41	44	46	97	288	120	40	31	20
13	37	41	42	42	44	47	94	282	115	37	38	21
14	37	46	42	42	43	49	94	265	110	36	53	21
15	37	49	41	43	42	51	112	309	107	34	51	21
16	38	42	41	43	41	51	109	334	104	34	44	21
17	38	44	42	43	41	54	217	347	103	33	41	21
18	39	46	43	43	42	59	249	337	101	32	38	21
19	38	47	44	43	43	58	207	315	120	29	49	20
20	39	50	45	43	43	57	170	300	138	26	56	20
21	40	53	45	43	42	58	207	284	118	25	46	21
22	39	51	45	42	41	59	259	279	107	37	38	20
23	38	49	46	42	41	59	341	264	100	106	41	20
24	37	44	46	41	42	62	308	259	94	66	39	21
25	34	43	45	40	42	71	331	254	88	60	29	21
26	38	46	46	39	42	72	321	238	87	60	37	23
27	39	44	41	37	43	78	366	230	76	35	32	23
28	39	44	39	36	41	85	493	224	71	32	30	25
29	39	47	36	36	---	79	598	217	70	32	24	24
30	37	33	33	35	---	78	691	220	64	32	22	23
31	34	---	29	35	---	74	---	212	---	28	23	---
TOTAL	1153	1312	1303	1189	1147	1727	4362	11034	3446	1356	1089	643
MEAN	37.2	42.3	42.0	38.4	41.0	55.7	212	356	122	43.7	35.1	21.4
MAX	40	53	53	43	44	65	641	719	195	106	89	25
MIN	33	35	29	29	38	41	67	212	64	28	19	19
AC-FT	2290	2600	2540	2360	2280	3430	12620	21880	7230	2640	2160	1280

C&L YR 1978 TOTAL 56788 MEAN 139 MAX 820 MIN 25 AC-FT 100700
WTR YR 1979 TOTAL 31960 MEAN 87.6 MAX 718 MIN 19 AC-FT 63390

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IRRIG YEAR 1980 TOTAL 46000 MEAN 126 AC-FT 91200

04/13/81

13058000 WILLOW CREEK NR RIFLE
DISCHARGE, CUBIC FEET PER SECOND, IRRIGATION YEAR NOVEMBER 1979 TO OCTOBER 1980
MEAN VALUES

DAY	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
1	81	29	0	0	73	67	152	353	114	81	211	282
2	54	29	0	0	73	67	152	386	134	81	211	282
3	54	29	0	0	73	67	152	408	134	81	211	10
4	54	29	0	0	73	67	152	415	134	81	209	10
5	54	29	0	0	73	67	152	415	134	113	209	10
6	54	29	0	0	73	67	152	415	134	157	208	19
7	54	29	0	0	73	67	70	415	133	156	208	19
8	54	2	0	0	73	55	70	415	133	156	208	290
9	54	2	0	0	73	55	70	415	128	156	208	290
10	51	2	0	0	73	55	70	415	121	156	293	503
11	51	40	0	0	73	34	70	358	117	156	293	498
12	51	34	0	0	73	34	44	358	117	156	296	497
13	51	32	78	0	73	34	44	274	117	156	295	490
14	32	31	29	0	73	34	44	232	117 218.1	156	293	490
15	31	30	13	0	73	34	47	232	117 120.4	155	293	486
16	31	30	4	0	73	34	47	244	118	155	293	495
17	31	30	0	0	73	34	47	244	118	155	292	493
18	31	34	0	0	73	34	47	242	117	155	290	107
19	29	34	0	0	73	86	47	242	102	155	290	107
20	29	34	0	0	73	86	47	242	102	155	289	107
21	29	34	0	0	73	86	47	242	102	155	289	107
22	29	34	0	0	73	86	47	139	102	155	288	107
23	29	34	0	50	73	86	47	108	83	213	287	108
24	29	34	0	50	73	86	47	81	83	212	287	108
25	29	34	0	50	67	86	158	81	83	212	285	108
26	29	39	0	50	67	86	158	104	83	211	284	108
27	29	39	0	58	67	86	158	114	83	211	284	108
28	29	39	0	58	67	86	204	114	83	211	283	108
29	31	37	0	58	67	107	286	114	83	211	283	108
30	31	36	0	---	67	152	319	114	67	211	282	108
31	35	35	0	---	67	---	297	---	67 92.3	211	---	302
TOTAL	1221	933	124	374	2221	2025	3444	7931	3360	4985	7452 187.2	6865
MEAN	41	30	4	13	72	68	111	264	108	161	265	221
MAX	81	40	78	58	73	152	319	415	134	213	296	503
MIN	24	2	0	0	67	34	44	81	67	81	208	10
AC-FT	2400	1900	246	742	4400	4000	6800	15700	6700	9900	15800	13600

IRRIG YEAR 1980 TOTAL 41400 MEAN 113 AC-FT 82200

10/01/82

1305/940 WILLOW CREEK BLW TEX CREEK
DISCHARGE, CUBIC FEET PER SECOND, IRRIGATION YEAR NOVEMBER 1980 TO OCTOBER 1981
MEAN VALUES

DAY	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
1	43	45	75	82	59	94	213	375	78	25	16	22
2	43	45	74	137	81	85	202	353	78	24	17	22
3	43	45	74	137	85	106	194	369	77	23	17	22
4	43	45	64	175	81	97	186	363	72	22	17	25
5	43	45	50	218	82	85	176	321	67	22	17	26
6	43	45	50	150	84	78	170	297	64	20	18	24
7	43	50	78	64	70	91	176	290	64	19	18	24
8	43	50	152	58	70	88	184	290	65	19	19	25
9	43	50	178	128	106	78	190	282	62	20	18	28
10	43	50	161	117	91	79	182	259	56	21	18	29
11	53	50	131	59	106	78	174	242	53	19	17	32
12	53	50	103	47	112	133	199	229	49	19	17	41
13	53	50	75	56	119	154	218	221	46	19	17	39
14	50	50	59	157	104	152	211	227	42	18	16	37
15	50	50	61	69	146	245	201	228	40	18	16	36
16	50	50	92	92	139	208	211	215	39	19	16	33
17	50	50	63	128	124	265	242	193	38	20	16	31
18	50	79	62	215	94	128	293	184	36	18	16	30
19	50	90	71	106	88	361	277	174	35	18	16	29
20	50	75	74	117	82	328	253	161	34	19	16	28
21	50	75	66	104	88	435	265	145	30	20	16	28
22	50	53	62	88	84	526	431	134	28	20	17	27
23	50	66	68	82	78	351	448	123	28	19	17	28
24	50	51	51	97	79	259	411	113	26	19	18	28
25	50	78	61	88	92	228	389	105	26	17	19	29
26	50	185	68	108	96	270	428	103	27	17	21	29
27	50	148	47	88	98	210	614	99	32	17	23	30
28	50	129	45	93	85	200	589	94	31	17	21	30
29	50	103	46	---	88	180	500	88	28	16	21	31
30	50	100	45	---	109	161	442	83	27	16	22	33
31	---	91	48	---	112	---	394	---	27	16	---	34
TOTAL	1439	2143	2359	3055	2932	5903	9063	6362	1408	597	533	907
MEAN	48	69	76	109	95	197	292	212	45	19	18	29
MAX	53	185	178	218	146	526	614	375	78	25	23	41
MIN	43	45	45	47	59	78	170	83	26	16	16	22
AC-FT	2800	4300	4700	6100	5800	11700	18000	12600	2800	1200	1100	1800

WATER YEAR 1981 TOTAL 36700 MEAN 101 AC-FT 72800

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13057940 WILLOW CREEK PLM TEX CREEK
DISCHARGE, CUBIC FEET PER SECOND, IRRIGATION YEAR NOVEMBER 1981 TO OCTOBER 1982
MEAN VALUES

DAY	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
1	32	158	45	45	69	69	1001	613	220	112	74	81
2	11	51	45	45	76	63	1104	627	201	103	66	87
3	32	56	45	45	67	67	1303	653	187	98	61	82
4	31	54	45	45	58	64	1531	593	185	94	59	75
5	31	47	45	45	46	55	1217	554	188	89	58	70
6	31	42	45	50	46	59	1040	527	187	84	56	66
7	31	43	45	50	50	57	1014	512	180	82	54	65
8	31	43	45	50	40	53	1065	524	184	82	54	68
9	30	43	45	55	50	53	1118	522	200	89	52	69
10	30	45	45	60	51	51	1107	477	188	85	52	67
11	30	44	45	65	64	171	915	450	174	79	53	65
12	30	45	45	70	62	331	814	427	162	76	54	64
13	33	45	45	80	55	276	788	413	154	72	66	63
14	42	45	45	80	58	292	838	428	148	70	72	62
15	47	44	50	90	63	324	862	436	140 334.5	72	82	61
16	46	45	68	100	53	273	882	442	135	76	121	60
17	45	45	57	100	53	249	922	398	133	69	103	59
18	45	45	50	113	51	250	903	365	131	67	82	59
19	45	45	49	81	51	238	1107	342	125	68	71	60
20	45	45	48	118	48	229	1198	325	120	66	69	60
21	40	45	49	279	43	226	972	304	124	62	64	61
22	45	45	48	232	41	243	894	302	118	61	60	61
23	56	45	51	103	47	305	865	309	116	58	58	63
24	62	45	45	58	48	394	842	286	119	56	56	62
25	64	45	46	74	48	524	790	285	131	56	55	62
26	50	45	45	86	55	649	770	274	125	55	72	66
27	78	45	52	70	60	707	780	263	114	54	110	77
28	131	45	50	60	73	794	885	248	121	55	90	78
29	107	45	44	---	90	884	913	232	138	63	88	72
30	173	45	43	---	72	966	766	223	138	74	81	83
31	---	45	39	---	73	---	656	---	129	77	---	115
TOTAL	1521	1526	1466	2350	1759	8914	29861	12353	4716	2303	2095	2142
MEAN	51	49	47	84	57	297	963	412	152	74	70	69
MAX	173	158	68	279	90	966	1531	653	220	112	121	115
MIN	30	42	39	45	40	51	656	223	114	54	52	59
AC-FT	3000	3000	2900	4700	3500	17700	59200	24500	9400	4600	4200	4200

WATER YEAR 1982 TOTAL 71006 MFAN 195 AC-FT 140800

A-384

SEP 14 1992

WILLOW CREEK PLM TEX CREEK

83.3

04/17/84

13057940 WILLOW CREEK BLW TEX CREEK
DISCHARGE, CUBIC FEET PER SECOND, IRRIGATION YEAR NOVEMBER 1982 TO OCTOBER 1983
MEAN VALUES

DAY	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
1	104	124	63	64	129	141	1397	928	273	119	78	148
2	85	110	62	79	318	125	1619	804	295	119	75	133
3	72	69	60	147	238	121	1741	748	282	111	76	124
4	71	63	75	385	192	105	1823	752	251	104	75	113
5	70	64	75	501	145	109	1894	763	235	99	73	99
6	68	63	95	601	118	105	1825	721	224	95	71	91
7	67	66	140	465	100	102	1491	714	217	92	71	87
8	68	153	130	292	105	109	1649	634	208	91	73	84
9	69	345	110	95	140	106	1945	587	205	91	89	85
10	70	519	95	71	161	111	1524	567	289	98	86	89
11	70	525	100	81	195	113	1256	565	258	125	80	88
12	62	551	85	69	177	111	1211	621	222	187	75	84
13	65	544	61	71	148	111	1051	562	206	130	73	84
14	55	476	70	76	176	110	939	507	193	107	72	90
15	85	366	68	70	145	107	875	475	194 ^{412.7}	100	72	114
16	82	221	73	59	126	114	882	453	195	100	70	111
17	73	124	76	65	117	125	818	426	173	106	67	99
18	67	157	64	58	117	149	847	392	156	125	65	92
19	78	114	70	57	107	173	1061	372	145	142	66	88
20	70	90	64	68	95	234	1105	359	140	141	69	65
21	67	64	63	60	92	325	1135	353	135	151	70	83
22	71	63	62	62	100	492	1231	356	133	168	72	82
23	69	61	61	64	105	645	1224	318	135	138	73	82
24	108	75	62	74	94	804	1263	300	143	125	78	96
25	167	184	63	93	97	848	1312	288	138	107	78	95
26	126	377	61	93	89	722	1333	281	141	97	76	89
27	127	540	62	68	91	648	1303	302	163	91	81	85
28	109	932	67	70	93	647	1218	299	139	87	99	81
29	99	1148	101	---	89	804	1114	286	125	85	113	78
30	22	1167	65	---	107	1146	1053	288	119	83	128	79
31	---	1152	63	---	147	---	1053	---	114	81	---	81
TOTAL	2647	10505	2367	3958	4153	9564	40193	15019	5847	3495	2344 ^{105.6}	2919
MEAN	88	339	76	141	134	319	1297	501	189	113	78	94
MAX	188	1167	140	601	318	1146	1945	928	295	187	128	148
MIN	55	61	60	57	89	102	818	281	114	81	65	78
AC-FT	5300	20800	4700	7800	8200	19000	79700	29800	11600	6900	4600	5800
WATER YEAR 1983 TOTAL 103010 MEAN 282 AC-FT 204300												

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13057940 WILLOW CREEK BLW TEX CREEK
DISCHARGE, CUBIC FEET PER SECOND, IRRIGATION YEAR NOVEMBER 1983 TO OCTOBER 1984
MEAN VALUES

DAY	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
1	85	102	381	603	69	92	547	779	335	176	103	90
2	87	112	364	603	67	93	605	713	323	214	101	89
3	92	102	298	603	71	92	850	712	307	258	98	95
4	126	95	199	603	121	100	926	776	298	159	93	99
5	158	87	162	603	137	110	1065	792	286	152	100	93
6	145	103	172	603	81	132	913	770	278	148	100	89
7	191	89	166	603	76	140	794	778	279	139	102	89
8	192	82	242	603	69	137	839	721	271	130	101	92
9	188	93	129	603	71	142	1175	669	263	127	98	92
10	182	99	248	603	74	135	1824	683	255	121	93	92
11	192	91	81	603	77	130	1873	921	230	120	91	91
12	211	94	79	603	78	127	2135	835	216	119	95	105
13	225	91	98	558	78	125	2832	671	211	118	96	112
14	206	91	117	301	94	128	3312	615	202	119	92	121
15	75	95	117	112	94	152	3899	573	196 476.0	121	88	113
16	80	109	152	65	100	209	3511	550	192	130	88	105
17	115	103	276	67	88	294	2397	529	188	140	85	104
18	124	143	529	77	86	402	1881	509	184	129	82	109
19	107	228	661	82	76	556	1773	512	178	121	81	106
20	107	224	734	132	89	543	1769	482	181	120	80	105
21	101	233	739	110	90	469	1735	454	189	115	94	103
22	98	306	741	89	85	516	1521	428	212	110	112	102
23	102	566	739	102	83	645	1331	409	239	109	104	112
24	103	825	737	80	91	795	1301	393	215	112	114	110
25	94	1085	731	68	87	790	1246	393	190	121	106	101
26	96	946	715	71	87	687	1104	389	189	133	98	110
27	100	805	710	100	81	557	1004	372	177	122	94	113
28	105	726	659	118	83	555	919	356	199	110	92	99
29	93	725	603	100	91	585	859	344	206	100	90	115
30	56	654	603	---	83	541	819	342	204	96	89	102
31	---	444	603	---	88	---	813	---	179	98	---	112
TOTAL	3836	9548	12784	9469	2648	9978	47572	17469	7073	4085	2860	3171
MEAN	128	308	412	327	85	333	1535	582	228	132	95	102
MAX	225	1085	741	603	137	795	3899	921	335	258	114	121
MIN	56	82	79	65	67	92	547	342	177	96	80	89
AC-FT	7600	18900	25400	18800	5300	19800	94400	34700	14000	8100	5700	6300

WATER YEAR 1984 TOTAL 130491 MEAN 357 AC-FT 258800

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09/24/86

13057940
WILLOW CREEK BLW TEX CREEK
DISCHARGE, CUBIC FEET PER SECOND, IRRIGATION YEAR NOVEMBER 1984 TO OCTOBER 1985
MEAN VALUES

DAY	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
1	102	101	60	65	48	57	474	272	89	65	39	51
2	110	95	60	65	40	96	456	278	85	59	44	52
3	128	90	60	65	51	229	482	247	80	61	51	52
4	122	85	60	65	127	221	558	223	78	59	49	51
5	110	80	60	65	62	156	468	212	75	55	46	51
6	110	75	55	65	38	204	391	206	73	52	44	51
7	110	75	55	65	106	201	353	198	72	51	43	55
8	111	75	52	65	37	223	338	188	70	49	42	72
9	111	75	50	65	70	270	327	182	68	46	46	66
10	90	75	60	65	34	309	374	180	66	46	48	62
11	109	75	50	60	42	405	515	172	65	46	48	59
12	119	75	60	60	37	546	445	165	66	48	65	59
13	113	75	50	60	53	584	355	153	90	48	72	61
14	113	75	60	60	53	627	312	148	69	47	58	59
15	88	75	65	60	51	715	351	144	64 128.7	46	51	59
16	107	70	65	60	46	850	392	139	62	45	49	58
17	98	70	65	60	42	1069	376	135	66	44	47	55
18	102	70	65	60	46	1150	361	128	65	44	51	55
19	110	70	65	60	48	1170	346	123	63	45	71	54
20	84	70	65	60	48	878	339	119	59	45	71	53
21	101	70	65	60	51	586	342	112	66	43	60	53
22	95	70	65	60	54	455	321	105	65	42	60	62
23	99	70	65	60	48	394	310	104	75	42	63	68
24	104	70	65	60	50	352	300	102	94	41	57	72
25	104	70	65	60	59	323	286	113	81	41	53	70
26	101	70	65	60	52	289	299	124	70	40	52	64
27	115	70	65	60	46	279	293	114	62	39	52	59
28	110	70	65	60	39	305	302	104	60	39	52	58
29	109	70	65	---	44	366	347	99	60	38	52	55
30	103	65	65	---	40	453	302	94	77	38	51	54
31	---	65	65	---	48	---	288	---	73	38	---	54
TOTAL	2187	2311	1897	1730	1610	13762	11403	4683	2208	1442	1587 53.6	1804
MEAN	106	75	61	62	52	459	368	156	71	47	53	58
MAX	128	101	65	65	127	1170	558	278	94	65	72	72
MIN	84	65	50	60	34	57	286	94	59	38	39	51
AC-FT	6300	4600	3800	3400	3200	27300	22600	9300	4400	2900	3100	3600

IRRIGATION YEAR 1985 TOTAL 47624 MEAN 130 AC-FT 94500

Fig. 1B

WILLOW CREEK BASIN

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13057840 WILLOW CREEK BELOW TEX CREEK, NEAR RIRIE, ID

LOCATION.--Lat 43°26'33", long 111°43'37", in NE¼Sec. 3, T.1 N., R.40 E., Bonneville County, Hydrologic Unit 17040205, on right bank 0.3 mi below Tex Creek, and 13.2 mi southeast of Ririe.

PERIOD OF RECORD.--August 1977 to September 1979, October 1985 to September 1986.

GAGE.--Water-stage recorder. Elevation of gage is 5,200 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 28, Nov. 11 to Mar. 17. Records good except for periods of estimated record, which are fair. Diversions above station for irrigation of about 7,300 acres, of which 100 acres are irrigated by withdrawal from ground water (1986 determination). Since May 1924, water has been diverted from Grays Lake into Meadow Creek basin and thence into Blackfoot Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,490 ft³/s Apr. 23, 1986, gage height, 5.76 ft; minimum, 10 ft³/s Aug. 25, 1977, gage height, 1.99 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,490 ft³/s Apr. 23, gage height, 5.76 ft; minimum daily, 40 ft³/s Dec. 11.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Oct. 28 and Nov. 11 to Feb. 15)

2.4	39	4.0	428
2.5	51	5.0	950
3.0	125	6.0	1680

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	52	44	50	50	100	807	727	505	139	85	85
2	50	52	46	51	49	110	749	753	491	135	82	79
3	50	53	48	50	50	118	625	839	472	131	78	77
4	49	52	46	48	49	122	581	931	450	126	76	79
5	49	52	45	47	48	130	564	986	426	121	74	74
6	48	53	47	48	47	140	599	972	403	122	71	72
7	53	53	50	48	46	150	693	951	386	122	67	70
8	70	62	52	47	45	190	769	904	383	125	67	70
9	64	61	45	48	48	304	849	808	403	122	66	68
10	61	51	42	50	53	270	904	891	381	119	66	73
11	57	48	40	48	51	256	940	880	353	118	64	71
12	57	50	42	47	54	244	1010	839	329	114	64	68
13	59	51	46	46	57	228	1030	739	310	110	62	62
14	57	50	44	47	58	218	878	715	295	104	61	54
15	57	48	47	49	60	202	832	685	295	106	61	53
16	56	47	48	52	63	195	856	672	280	117	61	62
17	53	50	49	51	68	190	853	657	259	152	62	56
18	53	52	50	49	74	186	770	632	244	123	62	55
19	52	48	51	47	78	182	718	633	219	112	60	69
20	51	45	50	47	75	178	739	654	203	104	63	76
21	51	44	48	46	72	188	964	698	194	100	66	78
22	61	43	47	45	70	238	1150	760	188	96	66	85
23	66	42	49	45	80	255	1370	765	183	92	66	82
24	70	45	52	45	92	296	1240	683	174	93	68	76
25	68	48	51	47	102	355	1110	614	168	100	68	71
26	62	46	49	49	89	337	1040	587	167	113	65	69
27	57	44	48	51	94	353	929	579	161	112	61	69
28	55	46	49	53	92	422	868	572	154	104	58	68
29	53	45	48	55	---	532	833	560	149	101	130	69
30	52	44	47	53	---	671	747	543	144	94	117	70
31	52	---	49	52	---	837	---	526	---	88	93	---
TOTAL	1743	1477	1469	1511	1822	8197	26017	22853	8769	3515	2211	2111
MEAN	56.2	49.2	47.4	48.7	65.1	264	867	737	292	113	71.3	70.4
MAX	70	62	52	55	102	837	1370	986	505	152	130	85
MIN	49	42	40	45	45	100	564	526	144	88	58	53
AC-FT	3460	2930	2910	3000	3610	16260	51600	45330	17390	6970	4390	4190

WTR YR 1986 TOTAL 81695 MEAN 224 MAX 1370 MIN 40 AC-FT 162000

RECORDED

SEP 14 1992

WILLOW CREEK BASIN

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Fig. 1C

13057940 WILLOW CREEK. BELOW TEX CREEK, NEAR RIRIE, ID

LOCATION.—Lat 43°26'33", long 111°43'37", in NE 1/4, SE 1/4, sec. 3, T. 1 N., R. 40 E., Bonneville County, Hydrologic Unit 17040205, on right bank 0.3 mi below Tex Creek, and 13.2 mi southeast of Ririe.

PERIOD OF RECORD.—August 1977 to September 1979, October 1985 to September 1986.

GAGE.—Water-stage recorder. Elevation of gage is 5,200 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.—Records good except for estimated daily discharges, which are fair. Diversions above station for irrigation of about 7,300 acres, of which 100 acres are irrigated by withdrawals from ground water (1966 determination). Since May 1924, water has been diverted from Grays Lake into Meadow Creek basin and thence into Blackfoot Reservoir.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,490 ft³/s Apr. 23, 1986, gage height, 5.76 ft; minimum, 10 ft³/s Aug. 25, 1977, gage height, 1.99 ft.

EXTREMES FOR CURRENT YEAR.—Maximum discharge, 495 ft³/s Apr. 6, 8, gage height, 4.09 ft; maximum gage height, 4.99 ft, Jan. 12, (backwater from ice); minimum, 12 ft³/s Aug. 12, 13, gage height, 2.03 ft; minimum gage height, 2.02 ft, Sept. 2.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 17 to Sept. 30; stage-discharge relation
affected by ice Nov. 8-13, 27, Dec. 1 to Jan 5, Jan. 7-31, Feb. 4 to Mar. 1)

2.1	10	3.0	125
2.5	51	4.0	428
		5.0	950

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	83	e65	e59	56	e62	115	110	131	42	28	19
2	82	79	e68	e60	56	67	182	130	115	51	24	16
3	86	72	e69	e61	57	83	224	131	105	47	22	17
4	82	70	e72	e59	e54	124	323	112	97	40	19	16
5	77	71	e74	e60	e50	155	434	103	87	35	17	18
6	75	71	e70	61	e52	156	453	96	82	32	15	20
7	73	70	e67	e58	e53	176	432	90	89	28	15	19
8	71	e69	e56	e54	e54	278	432	87	95	27	15	20
9	71	e67	e50	e50	e52	283	352	84	107	27	15	19
10	70	e63	e57	e45	e56	208	313	82	107	28	16	19
11	69	e70	e60	e49	e56	166	344	81	94	38	16	19
12	69	e66	e61	e51	e56	128	315	80	82	42	14	19
13	69	e72	e62	e53	e60	139	242	77	74	39	14	20
14	70	80	e64	e56	e58	132	201	75	69	33	15	19
15	71	79	e61	e52	e55	112	200	72	64	28	16	19
16	71	78	e59	e49	e56	107	203	92	59	24	19	20
17	70	78	e54	e51	e55	111	195	130	56	25	19	21
18	74	73	e56	e54	e54	117	186	125	53	33	18	22
19	81	85	e60	e52	e50	107	176	117	54	37	16	21
20	79	81	e58	e47	e52	99	166	111	51	33	15	21
21	77	88	e57	e52	e51	94	151	111	50	32	15	22
22	76	83	e60	e55	e53	92	140	114	53	40	17	22
23	74	83	e60	e57	e59	86	131	103	52	49	19	22
24	72	81	e59	e59	e56	83	126	93	51	46	22	22
25	71	74	e62	e63	e53	82	123	91	46	38	27	22
26	70	59	e60	e60	e49	83	120	105	42	30	30	22
27	70	e73	e58	e54	e50	78	116	114	38	27	27	21
28	70	78	e54	e55	e58	82	112	208	36	27	25	22
29	70	77	e59	e57	---	68	110	262	37	32	23	23
30	71	71	e57	e54	---	74	111	230	38	31	22	24
31	78	---	e56	e55	---	86	---	157	---	33	21	---
TOTAL	2281	2244	1885	1702	1523	3718	6728	3573	2114	1074	596	606
MEAN	73.6	74.8	60.8	54.9	54.4	120	224	115	70.5	34.6	19.2	20.2
MAX	86	88	74	63	60	283	453	262	131	51	30	24
MIN	69	59	50	45	49	62	110	72	36	24	14	16
AC-FT	4520	4450	3740	3380	3020	7370	13340	7090	4190	2130	1180	1200

CAL YR 1986 TOTAL 83413 MEAN 229 MAX 1370 MIN 45 AC-FT 165400
WTR YR 1987 TOTAL 28044 MEAN 76.8 MAX 453 MIN 14 AC-FT 55630

e Estimated

SEP 14 1992

Fig. 1D

WILLOW CREEK BASIN

13057940 WILLOW CREEK BELOW TEX CREEK, NEAR RIRIE, ID

LOCATION.—Lat 43°26'33", long 111°43'37", in NE 1/4, SE 1/4, sec. 3, T.1 N., R.40 E., Bonneville County, Hydrologic Unit 17040205, on right bank 0.3 mi below Tex Creek, and 13.2 mi southeast of Ririe.

DRAINAGE AREA.—568 mi².

PERIOD OF RECORD.—August 1977 to September 1979, October 1985 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 5,200 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.—Records good except for estimated daily discharges, which are fair. Diversions above station for irrigation of about 7,300 acres, of which 100 acres are irrigated by withdrawals from ground water (1966 determination). Since May 1924, water has been diverted from Grays Lake into Meadow Creek basin and thence into Blackfoot Reservoir.

AVERAGE DISCHARGE.—5 years (water years 1978-79, 1986-88), 117 ft³/s, 84,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,490 ft³/s Apr. 23, 1986, gage height, 5.76 ft; minimum, 5.0 ft³/s Aug. 26, 27, 1988, gage height, 1.85 ft.

EXTREMES FOR CURRENT YEAR.—Maximum discharge, 499 ft³/s Apr. 18, gage height, 4.17 ft; maximum gage height, 4.51 ft, Jan. 17, (backwater from ice); minimum, 5.0 ft³/s Aug. 26, 27, gage height, 1.85 ft.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Mar. 12, July 15 to Aug. 24; stage-discharge relation affected by ice Nov. 15, 17-21, Nov. 23 to Feb. 7, Feb. 13, 14, 17-21, 23-27, Mar. 8, 9, 11-17)

1.9	3.0	2.5	51
2.0	8.0	3.0	125
2.1	13	3.5	256
2.3	28	4.1	468

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	36	e33	e26	e36	97	58	176	103	27	9.0	7.4
2	24	37	e35	e24	e34	86	70	172	100	26	8.6	7.1
3	23	42	e37	e25	e34	78	98	152	93	25	8.1	8.0
4	24	47	e36	e26	e35	70	123	139	83	23	9.1	9.1
5	25	41	e37	e27	e37	61	116	133	74	22	10	9.3
6	25	41	e37	e26	e39	61	128	129	70	21	11	9.3
7	25	44	e33	e27	e42	64	193	145	63	20	11	8.8
8	25	46	e31	e28	46	e58	230	172	59	18	11	8.3
9	26	42	e33	e29	45	e55	177	192	55	18	11	8.9
10	26	40	e34	e30	46	53	139	188	53	17	11	8.7
11	26	39	e32	e29	46	e48	196	173	50	17	10	9.0
12	26	38	e29	e28	50	e42	269	164	49	15	12	10
13	27	39	e27	e29	e48	e46	329	158	49	15	12	12
14	28	40	e25	e30	e45	e40	335	157	48	14	13	14
15	30	e39	e27	e31	47	e48	306	157	45	13 398	12	15
16	29	38	e28	e30	56	e43	318	147	40	12	11	15
17	29	e39	e29	e26	e54	e39	322	139	37	12	10	14
18	28	e42	e28	e22	e51	40	430	141	35	12	9.2	13
19	29	e47	e29	e20	e48	58	312	138	37	12	9.1	14
20	30	e50	e28	e23	e47	94	235	131	37	10	8.4	14
21	29	e52	e29	e24	e50	96	244	124	39	10	7.4	16
22	28	45	e26	e25	52	91	242	117	35	10	6.8	16
23	29	e37	e22	e28	e59	74	223	112	33	9.1	8.4	15
24	32	e32	e26	e28	e69	55	200	108	29	8.5	8.0	14
25	32	e30	e26	e29	e75	55	195	103	28	8.5	6.7	12
26	33	e29	e25	e30	e77	114	197	101	30	8.8	6.0	12
27	31	e28	e25	e34	e80	136	178	98	32	7.5	5.6	13
28	31	e29	e27	e39	85	69	164	92	32	7.9	7.3	14
29	31	e30	e29	e43	89	59	153	90	32	9.4	7.4	14
30	31	e31	e28	e41	---	69	159	93	29	11	6.9	16
31	33	---	e27	e37	---	51	---	100	---	9.6	7.1	---
TOTAL	868	1170	918	894	1522	2050	6339	4241	1501	449.3	284.1	357.3
MEAN	28.0	39.0	29.6	28.8	52.5	66.1	(211)	137	50.0	14.5	9.16	11.9
MAX	33	52	37	43	89	136	430	192	105	27	13	16
MIN	23	28	22	20	34	39	58	90	28	7.3	5.6	7.1
AC-FT	1720	2320	1820	1770	3020	4070	12570	8410	2980	891	564	709

CAL YR 1987 TOTAL 24590 MEAN 67.4 MAX 453 MIN 14 AC-FT 48770
WTR YR 1988 TOTAL 20593.7 MEAN 56.3 MAX 430 MIN 5.6 AC-FT 40850

• Estimated

SEP 14 1992

Fig. 1E

WILLOW CREEK BASIN

13057940 WILLOW CREEK BELOW TEX CREEK, NEAR RIRIE, ID

LOCATION.—Lat 43°26'33", long 111°43'37", in NE $\frac{1}{4}$, SE $\frac{1}{4}$, sec.3, T.1 N., R.40 E., Bonneville County, Hydrologic Unit 17040205, on right bank 0.3 mi below Tex Creek, and 13.2 mi southeast of Ririe.

DRAINAGE AREA.—568 mi².

PERIOD OF RECORD.—August 1977 to September 1979, October 1985 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 5,200 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.—Records good except for estimated daily discharges, which are fair. Diversions above station for irrigation of about 7,300 acres, of which 100 acres are irrigated by withdrawals from ground water (1966 determination). Since May 1924, water has been diverted from Grays Lake into Meadow Creek basin and thence into Blackfoot Reservoir.

AVERAGE DISCHARGE.—6 years (water years 1978-79, 1986-89), 115 ft³/s, 83,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,490 ft³/s Apr. 23, 1986, gage height, 5.76 ft; minimum, 5.0 ft³/s Aug. 26, 27, 1988, gage height, 1.85 ft.

EXTREMES FOR CURRENT YEAR.—Maximum discharge, 1,340 ft³/s Apr. 21, 22, gage height, 5.57 ft; minimum daily, 13 ft³/s Oct. 2, 5, 9, 12.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 20-30, Dec. 1-19, Dec. 21 to Feb. 18, Feb. 26 to Mar. 5)

2.1	13	3.5	256
2.3	28	4.0	428
2.5	51	4.5	663
3.0	125	5.0	950
		5.5	1280

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	20	e28	e25	e25	e38	103	381	203	59	24	22
2	13	20	e29	e25	e24	e42	104	384	178	59	24	20
3	14	22	e30	e25	e23	e40	99	391	179	54	25	18
4	14	34	e31	e26	e22	e39	92	395	205	51	24	19
5	13	30	e29	e25	e21	e42	91	393	187	47	23	19
6	14	26	e29	e25	e20	44	118	394	166	45	22	18
7	14	25	e28	e24	e22	47	210	403	154	43	20	18
8	14	25	e27	e24	e23	67	389	419	147	40	20	20
9	13	26	e28	e24	e23	161	446	430	142	39	21	20
10	14	26	e28	e25	e25	141	372	436	136	40	22	21
11	14	26	e28	e24	e25	123	328	451	130	39	25	22
12	13	26	e29	e24	e25	122	322	443	126	39	29	23
13	14	28	e29	e23	e24	113	359	434	121	49	31	22
14	15	36	e27	e24	e24	91	407	421	116	47	38	22
15	15	33	e24	e25	e25	71	478	395	110	40	30	22
16	15	29	e24	e25	e26	91	560	397	101	39	27	21
17	15	29	e25	e25	e27	74	775	386	96	38	24	21
18	16	28	e25	e26	e28	67	921	352	93	36	23	28
19	16	26	e24	e26	29	76	1020	328	87	32	27	37
20	17	e25	24	e25	28	58	899	300	81	29	30	28
21	18	e27	e24	e25	27	59	1160	284	83	29	28	26
22	17	e29	e24	e26	27	71	1220	270	85	31	26	25
23	18	e32	e24	e25	30	62	998	253	85	35	24	25
24	19	e30	e23	e23	32	66	788	249	89	35	24	24
25	19	e27	e24	e22	39	79	688	240	90	29	28	24
26	19	e26	e22	e23	e38	94	606	230	84	27	33	24
27	19	e25	e21	e23	e37	103	541	211	78	26	31	25
28	19	e28	e22	e23	e37	106	500	199	72	26	27	25
29	19	e32	e23	e24	---	117	427	198	68	25	26	27
30	20	e30	e24	e24	---	117	392	191	62	25	24	26
31	20	---	e25	e26	---	112	---	212	---	26	22	---
TOTAL	495	826	802	759	756	2535	15413	10470	3554	1179	802	692
MEAN	16.0	27.5	25.9	24.5	27.0	81.8	514	338	118	38.0	25.9	23.1
MAX	20	36	31	26	39	161	1220	451	205	59	38	37
MIN	13	20	21	22	20	38	91	191	62	25	20	18
AC-FT	982	1640	1590	1510	1500	5030	30570	20770	7050	2340	1590	1370

CAL YR 1988 TOTAL 19760.7 MEAN 54.0 MAX 430 MIN 5.6 AC-FT 39200
WTR YR 1989 TOTAL 38283 MEAN 105 MAX 1220 MIN 13 AC-FT 75930

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WILLOW CREEK BASIN

13057940 WILLOW CREEK BELOW TEX CREEK, NEAR RIRIE, ID

LOCATION.—Lat 43°26'33", long 111°43'37", in NE 1/4, SE 1/4, sec.3, T.1 N., R.40 E., Bonneville County, Hydrologic Unit 17040205, on right bank 0.3 mi below Tex Creek, and 13.2 mi southeast of Ririe.

DRAINAGE AREA.—568 mi².

PERIOD OF RECORD.—August 1977 to September 1979, October 1985 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 5,200 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.—Records good except for estimated daily discharges, which are poor. Station equipment includes satellite telemetry. Diversions above station for irrigation of about 7,300 acres, of which 100 acres are irrigated by withdrawals from ground water (1966 determination). Since May 1924, water has been diverted from Gray's Lake into Meadow Creek basin and thence into Blackfoot Reservoir.

AVERAGE DISCHARGE.—7 years (water years 1978-79, 1986-90), 105 ft³/s, 76,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,490 ft³/s Apr. 23, 1986, gage height, 5.76 ft; minimum, 5.0 ft³/s Aug. 26, 27, 1988, gage height, 1.85 ft.

EXTREMES FOR CURRENT YEAR.—Maximum discharge, 309 ft³/s Apr. 29, gage height, 3.63 ft; minimum daily, 6.0 ft³/s Aug. 6, 9.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 28 to Sept. 30; stage-discharge relation affected
by ice Oct. 30, 31, Nov. 1-3, 14, 22-25, Nov. 28 to Dec. 8, Dec. 10-29, Jan. 1-7,
12, 14, 15, 17-31, Feb. 1-10, 12-21, Feb. 23 to Mar. 3, Mar. 14, 15)

Oct. 1 to Mar. 5				Mar. 5 to Sept. 30			
2.2	20	2.6	63	1.7	6.0	2.5	50
2.4	39	2.9	107	1.8	8.0	3.0	125
				2.0	15	3.5	256
				2.2	25	4.0	428

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	e33	e32	e27	e43	e50	119	156	90	16	7.5	7.9
2	37	e35	e34	e27	e41	e56	143	136	84	17	7.0	8.0
3	34	e37	e36	e29	e40	e63	166	126	73	16	6.6	8.5
4	35	39	e40	e32	e42	65	195	116	63	15	6.5	8.8
5	39	38	e43	e30	e43	58	194	108	56	15	6.2	10
6	34	38	e45	e33	e46	48	179	103	49	13	6.0	11
7	30	37	e43	e34	e43	48	165	99	47	13	7.0	11
8	28	35	e41	36	e41	56	156	97	44	13	6.5	10
9	27	34	39	38	e44	58	155	100	43	14	6.0	9.7
10	27	36	e38	41	e49	54	205	97	45	15	6.3	9.5
11	26	37	e39	37	52	66	241	91	58	15	6.2	9.2
12	25	37	e40	e34	e47	49	200	90	66	14	6.8	8.8
13	26	36	e40	37	e42	40	168	88	58	13	7.4	8.8
14	26	e34	e42	e36	e38	e38	150	92	49	13	7.7	8.6
15	27	33	e41	e34	e36	e36	145	91	45	12	7.5	8.6
16	27	34	e39	36	e40	38	149	86	43	11	8.1	8.6
17	27	34	e36	e37	e37	48	144	82	41	11	8.9	8.9
18	26	34	e35	e36	e38	49	158	76	39	11	11	9.0
19	26	34	e37	e34	e38	49	148	72	34	10	11	9.9
20	26	32	e39	e32	e40	64	134	75	33	10	12	12
21	26	30	e37	e34	e46	70	124	86	31	10	10	13
22	27	e29	e37	e38	49	83	120	89	29	10	10	13
23	29	e29	e39	e41	e47	99	125	82	27	10	10	13
24	32	e31	e38	e45	e45	92	147	75	25	10	9.9	13
25	31	e34	e33	e48	e46	85	147	79	24	9.8	10	13
26	35	39	e34	e42	e45	78	142	80	21	9.2	10	13
27	41	e39	e35	e39	e42	82	132	72	19	9.4	8.8	13
28	42	e39	e34	e45	e46	89	178	66	18	9.2	9.0	13
29	41	e32	e35	e43	---	90	294	62	17	8.3	8.4	13
30	e35	e31	28	e43	---	85	206	65	17	8.4	8.0	13
31	e35	---	28	e41	---	96	---	74	---	8.1	8.0	---
TOTAL	955	1040	1157	1139	1206	1982	4929	2811	1288	369.4	254.3	316.8
MEAN	30.8	34.7	37.3	36.7	43.1	63.9	164	90.7	42.9	11.9	8.20	10.6
MAX	42	39	45	48	52	99	294	156	90	17	12	13
MIN	25	29	28	27	36	36	119	62	17	8.1	6.0	7.9
AC-FT	1890	2060	2290	2260	2390	3930	9780	5580	2550	733	504	628

CAL YR 1989 TOTAL 39312 MEAN 108 MAX 1220 MIN 18 AC-FT 72980
WTR YR 1990 TOTAL 17447.5 MEAN 47.8 MAX 294 MIN 6.0 AC-FT 34610

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PROVISIONAL DATA

10/31/91

UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - BOISE

STATION NUMBER 13057940 WILLOW CREEK BL TEX CREEK NR RIRIE ID STREAM SOURCE AGENCY USGS
LATITUDE 432633 LONGITUDE 1114337 DRAINAGE AREA 0.00 DATUM STATE 16 COUNTY 019

PROVISIONAL DATA

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
SUBJECT TO REVISION
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	20	e21	e30	25	35	50	140	222	66	21	16
2	12	20	e20	e28	25	34	70	151	200	59	20	15
3	14	21	e18	e27	24	31	97	193	222	55	20	15
4	13	20	e21	e26	24	49	114	223	257	51	20	14
5	12	23	e19	e25	24	117	144	198	247	48	24	13
6	15	25	e18	e26	e23	53	191	188	221	44	24	---
7	14	30	e20	e28	e24	e56	214	278	195	41	23	13
8	16	29	e22	e27	e24	e59	192	321	163	40	21	15
9	16	28	e23	e28	e23	49	143	376	150	38	20	16
10	15	27	e24	e29	e23	49	120	473	141	40	20	18
11	15	27	25	e30	e24	44	100	474	129	40	19	22
12	16	26	25	28	25	36	86	432	118	39	18	23
13	16	25	e23	27	25	38	80	381	112	36	17	23
14	16	24	e20	e25	26	37	78	356	105	33	15	24
15	17	25	e19	e24	29	39	79	410	100	37	15	23
16	21	24	e18	e23	e30	33	105	396	99	39	17	22
17	22	24	e19	26	e28	34	125	371	97	33	20	---
18	22	24	e20	26	e27	35	121	410	91	31	22	---
19	21	24	e21	e22	e28	36	114	438	89	30	21	---
20	20	29	e17	e19	e30	39	111	379	84	29	21	---
21	21	30	e15	e20	31	37	131	348	80	29	19	---
22	20	30	e14	e22	30	39	178	333	77	30	17	---
23	20	27	e16	e25	e29	41	248	321	74	29	16	---
24	20	24	e16	e23	e28	39	286	312	71	30	15	---
25	21	e23	e17	e22	e29	38	290	302	65	31	14	---
26	20	e21	e18	e24	e31	40	268	287	65	36	15	---
27	19	e20	e19	26	e33	38	205	290	68	32	17	---
28	19	e19	e20	26	36	36	176	263	71	27	18	---
29	19	e21	e17	e18	---	36	162	236	72	25	19	---
30	19	e23	e19	e21	---	37	156	235	69	23	18	---
31	20	---	e23	e23	---	40	---	240	---	22	17	---
TOTAL	544	733	607	774	758	1324	4434	9755	3744	1143	584	---
MEAN	17.5	24.4	19.6	25.0	27.1	42.7	148	315	125	36.9	18.8	---
MAX	22	30	25	30	36	117	290	474	257	66	24	---
MIN	12	19	14	18	23	31	50	140	65	22	14	---
AC-FT	1080	1450	1200	1540	1500	2630	8790	19350	7430	2270	1160	---

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Department of Water Resources

Idaho Water Resources Board
1301 N. Orchard
Boise, ID 83706

Oct. 31, 1991

Dear Board Members:

Recently a hearing on minimum stream flows for Willow Creek was held in Idaho Falls. Unfortunately, I was unable to attend; but I would like to offer my comments on this issue. I strongly support the proposed minimum stream flows on Willow Creek. I believe that Willow Creek can return to the excellent fishery that it once was if minimum stream flows are established. As Idaho Falls continues to grow, local streams such as Willow Creek will become increasingly important. Many local conservation groups, such as Trout Unlimited, have been reluctant to become involved in conservation activities concerning Willow Creek due to the lack of adequate streamflows during critical summer and winter periods. This plan would eliminate that hurdle and allow for local groups to get involved with this potentially fine stream's restoration. Willow Creek can be a fine fishery and an important local asset and resource. Please consider this plans merits and do not be easily swayed by the few skeptics.

Sincerely,

Joseph Timchak

Joseph Timchak
9673 N. 45th E.
Idaho Falls, ID
83401

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SEP 14 1992

Notice is hereby given that the Idaho Water Source Board submitted an application for permit to appropriate water to the Department of Water Resources, proposing to appropriate water for a minimum streamflow in Willow Creek, a tributary of the Snake River. The application is further described as follows:

Source: Willow Creek
Application No.: 25-7597
Proposed Priority: June 24, 1991

Amount and Period of Use: 30.0 cfs from December 1 to March 31

250.0 cfs from April 1 to May 31

100.0 cfs from June 1 to July 15

30.0 cfs from July 16 to September 30

40.0 cfs from October 1 to November 30

Purpose of Minimum Flow: Preservation of fish and wildlife habitat, aquatic life and water quality.

Place of Use: Willow Creek, commencing at the confluence of Grays Lake Outlet in the SE 1/4 of the NW 1/4, Section 33, T1N, R40E, and extending downstream to the backwaters of Ririe Reservoir in the NW 1/4 of the SE 1/4, Section 27, T2N, R40E, B.M. Bonneville County.

The Director of the Department of Water Resources will hold a public hearing in the State Office Building, 2nd Floor Conference Room, 150 Shoup Avenue, Idaho Falls, Idaho, beginning at 1:30 p.m. on Tuesday, October 29, 1991, for the purpose of hearing evidence in regard to the application. The hearing will be held pursuant to the provisions of Section 42-1503, Idaho Code.

Any party who wishes to formally appear in the proceeding for the purpose of presenting evidence or cross examining witnesses should file a notice of appearance with the Director of the Department of Water Resources, Statehouse Mail, 1301 North Orchard Street, Boise, Idaho 83720, five (5) days prior to the hearing. Other parties will be given an opportunity to informally present their views and comments without the necessity of filing a notice of appearance. Written informal views and comments may also be submitted to the Department of Water Resources prior to the hearing.

If issued, this permit will be subject to all prior water rights.

R. KEITH HIGGINSON,
Director

Idaho Department of
Water Resources.

PUBLISH: Thursday, October 3 & 10, 1991

COUNTY OF TWIN FALLS, SS.

I, Linda Camps being first duly sworn upon oath and say that I am Public Clerk of the TIMES-NEWS, published in Twin Falls, Idaho, and do solemnly swear that a copy of the notice of advertisement clipping attached, was published in the regular and entire issue of said newspaper, any supplement thereof, for Two consecutive issues commencing with the issue dated October 3, 1991 and ending with the issue dated October 10, 1991.

And I do further certify that said newspaper is a consolidation, effective February 16, 1942, of the Evening Times, published theretofore daily except Sunday, and the Twin Falls News, published theretofore except Monday, both of which newspapers prior to consolidation had been published under said names in said county continuously and uninterruptedly during a period of more than twelve consecutive months, and the TIMES-NEWS, since such consolidation, has been published as a daily newspaper except Saturday, until July 1, 1991, at which time said newspaper began daily publication under said name in said city and county continuously and uninterruptedly.

And I further certify that pursuant to Section 60-108 Idaho Code, Thursday of each week has been designated as the day on which legal notice by law or by order of any court of competent jurisdiction within the state of Idaho is to be published weekly, will be published; and that at the head of the editorial column of said combined newspaper and in each issue thereof, Thursday is announced as the day on which said legal notices will be published.

STATE OF IDAHO COUNTY OF TWIN FALLS

On this 25 day of October in the year of 1991

a Notary Public, personally appeared Linda Camps known or identified to me to be the person whose name subscribed to the within instrument, and being duly sworn, declared that the statements therein are true, and acknowledged to me that he executed the same.

MICROFILMED

SEP 14 1992

Sheva R. Feltman
Notary Public for Idaho
Residing at Twin Falls, Idaho
My commission expires: 5/19/94

ROSTER OF ATTENDANCE

IDAHO DEPARTMENT OF WATER RESOURCES
HEARING - WILLOW CREEK
MINIMUM STREAM FLOW
OCTOBER 29, 1991 - DEPT. OF WATER RESOURCES
SECOND FLOOR CONFERENCE ROOM

Name	Address	Representing
------	---------	--------------

Edison Rockwood	2032 Chasedot I.F.	
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✓ Marv Hoyt	1307 Herring St. I.F.	Greater Yellowstone Coalition
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Testify

Bruce Staples	291 Dale Drive IF	SELF
---------------	-------------------	------

✓ JACK PARKER	1636 HALSEY I.F. ID	WESTERN ROCKY MOUNTAIN COUNCIL - FEDERATION of FLY FISHERS
---------------	---------------------	--

✓ MATT WOODARD	1102 ATLANTIC I.F.	Trout Unlimited.
----------------	--------------------	------------------

CRAIG JENSEN	2768 S. HIGBEE AVE., I.F.	SELF
--------------	---------------------------	------

✓ Paul Bowen	2893 W 6960S Rubing Id. 83400	Self.
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Maria Meyer	1415 Bone Road Iona, Id. 83427	Self
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Arlan P. Meyer	1420 Bone Rd Iona Id.	Self
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George H. Meyer	1430 Bone Rd. Iona Id.	Self
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✓ Dale M. Meyer	1415 Bone Rd Iona Idaho	Self
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✓ Keith Ellington	5080 East Sunnyvale Rd. Idaho Falls 83402	
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✓ Tom Loutch	1357 Bone Road Iona, ID 83427	LEGISLATURE
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JOAN HAWKINS	Box 367 Ucon	LEGISLATION
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NOTIFIED

SEP 14 1992

ROSTER OF ATTENDANCE

IDAHO DEPARTMENT OF WATER RESOURCES
 HEARING - WILLOW CREEK
 MINIMUM STREAM FLOW
 OCTOBER 29, 1991 - DEPT. OF WATER RESOURCES
 SECOND FLOOR CONFERENCE ROOM

TESTIFY?

Name	Address	Representing
Gary Ball	368 E. 3 rd So. Rexburg, Id 83440	Self
Paul Clements	P.O. Box 190 Pirie, ID 83443	BOR
Herb Pollard	1575 Lincoln Rd IF, ID 83401	IDFG
Lyle Swank	150 Shoup, Suite 15, Idaho Falls, ID 83401	W.D. #1
Wayne C. Cooper	6185 E Pirie Hwy. Idaho Falls, Idaho	
Steven Elle	1515 Lincoln Rd, Idaho Falls, ID	IDFG
Dan Kotansky	940 Lincoln Rd IF, ID	BLM
Keith Olsen	5828 E Jona Rd	Olsen Ranch
Shirley Hart	336 W. 18 th Idaho Falls	Olsen Ranch
B. Watts	2273 Croft Ida. Falls	Olsen Ranch
Jim Watts	4655 No Hwy 69 Brigham U.I.	" "
Ronald J. Ferguson	11171 N. Engstrom Road	
Debra Foxenmeyer	170 E 3 rd S. Soda Springs	
Steven Hansen	255 Harvard ave Rexburg, Ida.	Hansen Farm
Kevin R. HERT	P.O. Box 1800 Idaho Falls, ID 83403	Post Register.
Paul J. Hark	Idaho Falls	State Legislature Resource + Conc. Comm.

[Signature]

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Willow Creek Landowners Mailing List

Jensen Land Corp

2768 S. Higbee Ave
ID Falls, ID

83404

Army Corp of Engineers (Walla Walla)

Harold L. Hansen

P.O. Box 146

Iona, ID 83427-0146

U.S.A. (BLM)

Philip Knowles

5116 E. Lincoln Rd

ID Falls, ID 83401

Dwayne T. Simmons

6919 E. Iona Rd

Idaho Falls, ID 83401

Quarter Circle - O - Ranch Inc

c/o Le Ferebaur

2017 E. Iona Rd

ID Falls, ID 83401

Rex O'Dell & Eva K. Young

175 Evergreen Dr

ID Falls, ID

83401-230

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SEP 14 1992

Willow Creek

continued

S + S Farms Inc

2330 S. Ammon Rd

ID Falls, ID 83406

Delva N. Edwards

925 N. Boulevard

ID Falls, ID 83402

Keith M. Olsen

5828 E. Iowa Rd

ID Falls, ID 83401

H. D + R. E. Elkington

3330 S. 45th E.

ID Falls, ID 83401

Elkington Bros.

5080 E. Sunnyvale Rd

ID Falls, ID 83406

Keith + Brent Elkington

1316 Bone Rd

ID Falls, ID 83427

UNRECORDED

SEP 14 1992

NOTICES OF APPEARANCE - WILLOW CREEK MSF

Full Parties

Department of Fish & Game
Steve Goddard

United States Department of the Interior - BLM
Dan Kotansky

Representing Himself
Gary Ball

MICROFILMED

SEP 14 1992

October 24, 1991

Gary Spackman
1301 North Orchard
Boise, ID 83720
FAX 327-7866

Dear Gary:

I wish to appear as a formal party for Willow Creek Minimum
Streamflow hearing to be held in Idaho Falls October 29, 1991.

Sincerely,



Gary Ball
368 East Third South
Rexburg, ID 83440

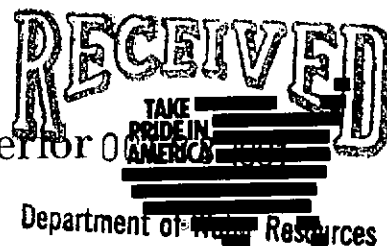
MICROFILMED

SEP 14 1992



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Idaho Falls District Office
940 Lincoln Road
Idaho Falls, Idaho 83401



IN REPLY REFER TO:
7200

October 22, 1991

Idaho Dept. of Water Resources
Attn: Gary Spackman
1301 N. Orchard St.
Boise, ID. 83706-2237

Dear Gary:

This is to notify the Department that Dan Kotansky from this office will be present Tuesday, October 29 at the Willow Creek hearing at 1:30 pm as a formal party to present testimony on the water right application. No witness calling will be sought, only a few brief statements concerning riparian vegetation concerns will be addressed.

Thank you for the opportunity for BLM to appear at the formal hearing.

Sincerely,


Lloyd H Ferguson
District Manager

SEP 14 1991

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OCT 10 1991

LARRY ECHOHAWK
ATTORNEY GENERAL

Department of Water Resources

Stephen V. Goddard
W. Dallas Burkhalter
Deputy Attorney Generals
Telephone (208) 334-3751
FAX (208) 334-2114

BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO

In the Matter of the)
Minimum Streamflow) NOTICE OF APPEARANCE
Application for Willow)
Creek)
No. 25-7597)

Stephen V. Goddard, Deputy Attorney General, hereby enters an
appearance as attorney of record for the Idaho Department of Fish and
Game for the hearing to be held in this matter on Tuesday, October 29,
1991, in Idaho Falls, Idaho.

DATED this 10th day of October, 1991.


Stephen V. Goddard
Deputy Attorney General
Attorney for the
Idaho Department of Fish & Game

SEP 14 1992

WATER RIGHTS - WILLOW CREEK
Willow Creek and Tributaries
In Minimum Streamflow Reach and Upstream of Minimum Streamflow Reach

In Minimum Streamflow Reach

Twn/Rng	Sec	1/4	Uses	Water Right	Stg	Priority	Source	Quantity	In/a
1N/39E	14	SESW	01,43	25-02029	L	11/01/1911	BADGER CREEK	0.400CFS	I
1N/39E	14	SESW	04,43	25-04309	S	04/01/1924	SPRING	0.040CFS	I
1N/39E	14	SWSE	01,43	25-02025	L	03/08/1911	BADGER CREEK	0.520CFS	I
	14	NWNW							
1N/39E	14	SWSE	04	25-04310	S	04/01/1924	SPRING	0.020CFS	I
1N/39E	24	NESW	04	25-04308	S	05/01/1900	SPRING	0.020CFS	I
1N/39E	25	SWSE	04,43	25-04079	S	05/28/1914	SPRING	0.090CFS	I
1N/39E	27	NWSW	43	25-02082	L	11/16/1918	CARLSON SPRINGS	0.100CFS	I
1N/39E	34	SWSE	01,43	25-02046	L	06/24/1914	NOON CREEK SPRING	0.200CFS	I
1N/39E	35	SESW	01,04	25-04080	S	06/23/1917	UNNAMED STREAM	0.650CFS	I
1N/39E	35	NESE	01,04	25-04301	S	06/23/1917	SPRINGS	0.070CFS	I
		NWNE							
		SWSE							
1N/39E	36	SENE	01,02,04	25-07262	P	10/15/1981	ROCK CREEK	0.400CFS	I
1N/40E	10	SWNE	04,43	25-04131	S	09/01/1919	SPRING	0.080CFS	I
1N/40E	13	NESW	01	25-02141	L	07/03/1962	BULLS FORK	0.400CFS	I
		SWSE							
		SESE							
1N/40E	19	NWSE	47	25-07580	P	09/19/1990	SPRING	1.000AFA	I
1N/40E	21	SWSE	04	25-04182	S	05/01/1936	UNNAMED STREAM	0.040CFS	I
1N/40E	22	SENE	04,43	25-04184	S	05/01/1900	SPRING	0.060CFS	I
1N/40E	22	NESW	04	25-04183	S	05/01/1900	UNNAMED STREAM	0.040CFS	I
1N/40E	23	NESW	04	25-04179	S	05/01/1900	UNNAMED STREAM	0.040CFS	I
		SESW							
1N/40E	27	NWNW	04	25-04181	S	05/01/1936	UNNAMED STREAM	0.040CFS	I
	28	NENE							
1N/40E	27	SWSW	04	25-04180	S	05/01/1936	UNNAMED STREAM	0.040CFS	I
1N/40E	30	SWNE	01,02,03,04	25-04110	S	01/17/1886	ROCK CREEK	5.000CFS	I
1N/40E	30	SESW	47,48	25-07421	P	10/23/1987	ROCK CREEK	95.000AFA	I
1N/41E	22	NENE	04	25-04019	S	07/01/1969	SPRING	0.040CFS	I
1N/41E	30	NESW	43	25-02038	L	09/08/1913	DECKER CREEK	0.200CFS	I
1S/39E	13	SESE	04	25-04111	S	08/01/1950	SPRINGS	0.050CFS	I
1S/39E	34	SWSE	04	25-07155	L	08/03/1978	SPRING	0.030CFS	I

01 Irrigation 02 Irrigation Storage 03 Irrigation From Storage 04 Stockwater 43 Domestic
47 Recreation Storage 48 Recreation From Storage

Springs	0.50 CFS	+1.00 AFA (Acre Feet per Annum)
Unnamed Streams	0.85 CFS	
Badger Creek	0.92 CFS	
Carlson Springs	0.10 CFS	
Noon Creek Spring	0.20 CFS	
Rock Creek	5.40 CFS	+95.00 AFA
Bulls Fork	0.40 CFS	
Decker Creek	0.20 CFS	

Irrigation and Domestic	1.120 CFS	
Stockwater and Domestic	0.270 CFS	
Stockwater	0.360 CFS	
Domestic	0.300 CFS	
Irrigation and Stockwater	0.720 CFS	
Irrigation, Irrigation Storage and Stockwater	0.400 CFS	
Irrigation	0.400 CFS	
Irrigation, Irrigation Storage, Irrigation from Storage and Stockwater	5.000 CFS	
Recreation Storage and Recreation From Storage		+95.00 AFA
Recreation Storage		+1.00 AFA

License	1.85 CFS	
Claims	6.32 CFS	
Permits	0.40 CFS	+96.00 AFA

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Upstream of Minimum Streamflow Reach

Twn/Rng	Sec	1/4	Uses	Water Right	Stg	Priority	Source	Quantity	In/a
1S/40E	7	SENE	01,43	25-02062	L	07/26/1916	SQUAW CREEK	0.400CFS	A
1S/40E	7	SENE	01,43	25-02063	L	02/23/1916	SQUAW CREEK	1.900CFS	A
1S/40E	7	SENE	01,02,03	25-04107	S	04/22/1916	SQUAW CREEK	2.800CFS	A
1S/40E	9	NWNW	01,43	25-02056	L	01/25/1915	BIRCH CREEK	0.500CFS	A
1S/40E	13	SENE	01,43,04	25-00055D	D	04/01/1874	LITTLE POISON/ALLY LYONS MILL CREEK	0.800CFS	A
	34	SWNE							
	19	NESW							
		SWSW							
		SESW							
1S/40E	1	NENE	01	25-00055B	D	04/01/1874	WILLOW CREEK	0.800CFS	A
		NWNE							
		SWNE							
1S/40E	17	NWSW	02,03	25-07141	P	02/03/1978	BIRCH CREEK	4.000CFS	A
1S/40E	20	NWNW	43	25-04056	S	05/01/1912	SPRING	0.040CFS	A
1S/40E	20	SWSW	04	25-04098	S	06/15/1947	SPRING	0.020CFS	A
1S/40E	20	NESE	01,43	25-02077	L	11/08/1917	CANYON CREEK	0.840CFS	A
	21	SWSW							
1S/40E	21	NWNW	43	25-07385	P	10/03/1983	SPRING	0.020CFS	A
1S/40E	21	SWSW	01	25-07386	P	10/03/1983	UNNAMED STREAM	0.120CFS	A
1S/40E	28	NWNW	04,16	25-07311	L	02/25/1983	SPRING	0.020CFS	A
1S/40E	28	SENE	43	25-04049	S	05/01/1915	SPRING	0.040CFS	A
1S/40E	28	SWSW	01	25-07512	P	06/15/1989	TWIN CREEK	0.400CFS	A
1S/40E	28	SWSW	43	25-07507	P	07/12/1989	SPRINGS	0.060CFS	A
1S/40E	28	NWSE	43	25-07184	P	01/21/1980	SPRING	0.040CFS	A
1S/40E	29	SWNE	04	25-07247	L	03/16/1981	SPRING	0.020CFS	A
1S/40E	29	NENW	04	25-04040	S	06/01/1915	SPRING	0.020CFS	A
1S/40E	29	NENW	43	25-04099	S	06/15/1947	SPRING	0.040CFS	A
1S/40E	29	NWNW	43	25-07255	L	05/19/1981	SPRING	0.010CFS	A
1S/40E	31	SENE	01,02,03,43	25-04004	S	05/01/1908	SO. & NO. TWIN CREEK SPR	2.140CFS	A
		NESE							
1S/40E	34	SENE	04,05,06	25-04134	S	04/01/1935	SPRING	0.050CFS	A
1S/40E	35	NESW	04,05,06	25-04135	S	04/01/1940	SPRING	0.050CFS	A
1S/41E	8	NESE	43	25-07324	A	05/09/1983	SPRINGS	0.080CFS	A
1S/41E	22	SWNE	04	25-04213	S	05/01/1938	DAN CREEK	0.070CFS	A
		SENE							
		SWNW							
		SENE							
		SESE							
2S/39E	1	SESW	01,04,43	25-04230	S	01/01/1914	SPRINGS	0.100CFS	A
		SWSE							
2S/39E	2	NENW	04	25-04251	S	12/01/1916	SPRINGS	0.100CFS	A
		NWNW							
		SENE							
2S/39E	2	NWSE	43	25-07137	P	10/26/1977	SPRING	0.060CFS	A
2S/39E	11	SWSW	43	25-07505	P	05/16/1989	SPRING	0.020CFS	A
2S/39E	22	NENE	43	25-07413	L	11/14/1977	SPRING	0.030CFS	A
2S/39E	23	NWNW	43	25-07341	L	06/29/1983	SPRING	0.020CFS	A
2S/40E	2	NESW	04,05,06	25-04127	S	04/01/1940	UNNAMED STREAM	0.050CFS	A
2S/40E	4	NESE	43	25-04133	S	04/01/1971	SPRING	0.050CFS	A
2S/40E	4	NWSE	04,43	25-04148	S	07/01/1910	SPRING	0.070CFS	A
		SWSE							
		SESE							
2S/40E	5	SWSW	04	25-04239	S	05/01/1935	SPRINGS	0.035CFS	A
2S/40E	6	SENE	01,43	25-02058	L	07/24/1915	MUD CREEK	1.200CFS	A
		SWSE							
2S/40E	6	SWSE	04	25-04236	S	05/01/1935	SPRINGS	0.035CFS	A
2S/40E	6	SWSE	04	25-04238	S	05/01/1935	SPRINGS	0.035CFS	A
2S/40E	6	SWSE	43,47	25-07360	P	06/23/1983	SPRING/MUD CREEK	0.020CFS	A
2S/40E	7	NWNE	01,43	25-02020	L	05/08/1909	MUD/SELLARS	6.000CFS	A
	8	SWSW					SELLARS, MIDL & SO		
2S/40E	8	SESW	01,43	25-02035	L	10/05/1912	WILLIAMS/MUD	0.820CFS	A
		SWSE					SELLARS, MID & SO		
2S/40E	8	SENE	01	25-04026	S		MUD CREEK	9.200CFS	A
2S/40E	12	SENE	01,05,06	25-04138	S	04/01/1935	HORSE CREEK	1.000CFS	A
2S/40E	13	NENE	04	25-04122	S	04/01/1930	SPRING	0.030CFS	A
2S/40E	15	SENE	04	25-04094	S	07/01/1885	SPRINGS	0.070CFS	A
		NESW							
	23	NESE							
		NWNW							
2S/40E	17	NWSW	01	25-04008	S	05/01/1918	ROBBINS SPRING	0.250CFS	A
2S/40E	18	SWNE	43	25-07478	P	12/16/1988	UNNAMED STREAM	0.020CFS	A

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2S/40E	18	SWSE	43	25-07479	P	12/16/1988	UNNAMED STREAM	0.020CFS	A
2S/40E	19	SENE	01,43	25-02023	L	05/09/1910	BUCK CREEK	1.540CFS	A
2S/40E	22	NENE	04,43	25-04093	S	07/01/1912	SPRINGS	0.300CFS	A
		NWNE							
2S/40E	31	NWSE	01,43	25-02047	L	08/01/1914	SEVENTY CREEK	2.700CFS	A
2S/40E	32	SWSW	01,43	25-02022	L	03/25/1910	SEVENTY CREEK	1.300CFS	A
2S/40E	32	SWSW	43	25-07586	P	02/26/1991	SPRING	0.040CFS	A
2S/41E	3	SESE	43	25-04149	S	06/01/1918	SPRINGS	0.040CFS	A
2S/41E	7	SENE	04	25-04121	S	04/01/1930	SPRING	0.040CFS	A
2S/41E	7	NWNW	04	25-04120	S	04/01/1930	SPRING	0.050CFS	A
2S/41E	14	SWNE	04,16	25-04311	S	06/28/1934	GRAYS LAKE OUTLET	0.340CFS	A
		SUNW							
		SENW							
2S/41E	17	SWSW	01,43	25-02081	L	08/01/1918	SPRING	0.500CFS	A
2S/41E	24	SESE	01,43	25-02089	L	11/01/1924	SPRINGS	1.000CFS	A
	25	SESE							
	31	NWNE							
2S/41E	30	SESE	04	25-04074	S	06/01/1928	MOONSHINE SPRING	0.070CFS	A
2S/41E	31	NENE	04	25-04073	S	06/01/1928	ANNES SPRING	0.070CFS	A
2S/41E	32	NWSE	04	25-04072	S	06/01/1928	JONS SPRING	0.070CFS	A
2S/42E	4	SWNE	13	25-07521	P	09/05/1989	LAVA CREEK	0.300CFS	A
		SESW							
2S/42E	21	SENW	01	25-02071	L	10/05/1916	SPRINGS	1.000CFS	A
2S/42E	27	SUNW	01,43	25-02041	L	10/20/1913	BROCKMAN CREEK	3.500CFS	A
							UNNAMED STREAM		
2S/42E	27	SWSE	01,43	25-02040	L	10/30/1913	BROCKMAN CREEK	2.800CFS	A
	30	SESE					UNNAMED STREAMS		
	32	NESE							
2S/42E	27	SWSE	01,04	25-04115	S	06/01/1916	BROCKMAN CREEK	1.680CFS	A
2S/42E	28	SENE	01,43	25-02070	L	09/19/1916	BROCKMAN CREEK	3.900CFS	A
2S/42E	28	SENE	01,04	25-04156	S	11/15/1913	BROCKMAN CREEK	7.672CFS	A
2S/42E	31	SWSW	01	25-00004	D	06/24/1907	SGR LF MT	6.300CFS	A
							BIG, CLTER, LIT & MAM SPR		
2S/42E	31	SWSW	01	25-00005	D	06/24/1907	S L M	6.300CFS	A
							BIG, CL, LIT, MAM & CRJK SPRS		
2S/42E	31	SWSW	01	25-00006	D	06/24/1907	S L M	4.700CFS	A
							LIT, BIG, CLU, & SA ROC SPRS		
2S/42E	31	SWSW	01	25-00007	D	06/24/1907	S L M	4.700CFS	A
							BIG, CLU, LIT & MAMMOTH SPRS		
2S/42E	32	NESE	01,04	25-04306	S	09/10/1919	BROCKMAN CREEK	6.852CFS	A
	33	NWSW					NONAME CR/OUTLET CR		
	34	NWNE							
2S/43E	19	SWNE	43	25-02164	L	12/30/1964	SPRING	0.020CFS	A
3S/40E	5	SWSW	04,43	25-04153	S	05/11/1911	SPRINGS	0.060CFS	A
		NESE							
3S/40E	8	SENE	02,03,04	25-04283	S	05/01/1958	UNNAMED STREAM	0.260CFS	A
3S/40E	9	SWNE	01	25-04276	S	04/01/1970	DEER CREEK	1.400CFS	A
3S/40E	9	SWSW	05,06	25-04278	S	05/01/1905	SRPING	3.000AFA	A
3S/40E	11	NENE	01,04	25-04014	S	05/01/1912	SPRING	0.450CFS	A
3S/40E	16	NESE	01,02,03,04	25-04277	S	04/01/1954	UNNAMED STREAM	1.000CFS	A
3S/41E	3	SUNW	04	25-07550	P	10/16/1989	SPRING	0.030CFS	A
3S/41E	3	SWSE	05,06	25-07282	L	03/16/1982	SPRING	0.100AFA	A
3S/41E	5	SWSE	04,16	25-07384	L	08/26/1983	SPRING	0.030CFS	A
3S/41E	6	NENE	04	25-07349	P	06/28/1983	SPRING	0.100CFS	A
3S/41E	6	SENE	04	25-07350	P	06/28/1983	ROCK SPRING	0.100CFS	A
3S/41E	6	SESE	04	25-07348	P	06/28/1983	SPRING	0.100CFS	A
3S/41E	14	NESW	04	25-07551	P	10/16/1989	SPRING	0.030CFS	A
3S/41E	16	SENE	01	25-02068	L	01/23/1918	SHEEP CREEK	2.800CFS	A
3S/41E	16	SESW	01,43	25-02051	L	11/04/1914	UNNAMED STREAM	3.200CFS	A
3S/41E	21	NESW	01,43	25-02076	L	11/01/1917	CRANES CREEK	1.200CFS	A
3S/41E	21	NWSW	04	25-04176	S	04/21/1932	CRANE CREEK	0.400CFS	A
		SESW							
		SWSE							
3S/41E	24	SWNE	01,43	25-02052	L	08/27/1914	UNNAMED STREAM	2.400CFS	A
3S/41E	24	NWNW	04	25-07281	L	03/16/1982	SPRING	0.020CFS	A
3S/42E	12	NWSE	01,43	25-02085	L	09/15/1920	SPRINGS	0.500CFS	A
3S/42E	15	NENE	01,04	25-02117	L	02/07/1955	SPRINGS	1.800CFS	A
3S/42E	16	NENE	01	25-02136	L	08/11/1961	GRAYS LAKE OUTLET	0.800CFS	A
3S/42E	17	SWNE	04	25-04012	S	06/01/1967	SPRING	0.020CFS	A
3S/42E	19	SUNW	01,43	25-02050	L	10/13/1915	RUSH CREEK	5.300CFS	A
3S/42E	20	NESW	04	25-04241	S	07/01/1923	UNNAMED STREAM	0.030CFS	A
		NWSE							
3S/42E	20	SESW	01,43	25-02049	L	01/12/1917	HOMER CREEK	4.100CFS	A
3S/42E	20	SESE	01,43	25-02087	L	09/10/1920	SPRINGS	0.140CFS	A
3S/42E	28	NWSE	04	25-07504	P	05/22/1989	SPRING	0.040CFS	A
3S/42E	32	SESW	01	25-02048	L	08/26/1914	HOMER CREEK	4.600CFS	A

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3S/43E	5	SWSW	01,43	25-02053	L	11/17/1914	SHIRLEY CR, MID & NORTH	4.000CFS	A
	8	NENW							
3S/43E	8	SESE	01,43	25-02015	L	10/10/1907	CLARK CREEK/ WILLOW SPG	1.400CFS	A
	17	NWNE							
3S/43E	15	SENW	05,06,04	25-07265	L	11/06/1981	SPRING	0.020CFS	A
3S/43E	15	NWSW	05,06,04	25-07266	L	11/06/1981	SPRING	0.020CFS	A
3S/43E	16	SESW	01,04	25-04152	S	06/15/1921	POSEY CREEK	2.004CFS	A
3S/43E	17	NENE	01,43	25-02018	L	04/15/1908	CLARK CREEK	1.600CFS	A
3S/43E	17	NWNE	01	25-04296	S	04/01/1931	CLARK CREEK	8.800CFS	A
		NWSW							
3S/43E	17	SWSW	01	25-04284	S	04/01/1931	POSEY CREEK	1.600CFS	A
3S/43E	17	NWSE	01,43	25-02007	L	08/26/1906	POSEY CREEK	1.000CFS	A
3S/43E	18	NESE	01,04	25-04173	S	06/15/1885	CLARK CREEK	1.000CFS	A
		SWSE							
		SESE							
3S/43E	27	SWNE	01,43	25-02030	L	09/02/1911	CROOKED CREEK/SPRINGS	0.200CFS	A
		SENW							
3S/43E	27	SWNW	01,43	25-02092	L	05/26/1923	SPRINGS/MAPLE CREEK	1.500CFS	A
	28	NWSW							
		SENE							
3S/43E	29	SWNE	01	25-04070	S	05/15/1940	HERMAN CREEK	1.600CFS	A
3S/43E	34	NESE	01	25-04046	S	12/31/1904	WILLOW CREEK	4.000CFS	A
	35	NESW							
3S/43E	35	SWNE	43	25-04015	S	06/01/1919	SPRING	0.030CFS	A
4S/42E	3	SWSW	05	25-04245	S	01/01/1905	SPRINGS	1000.000AFA	A
		SESW							
4S/42E	3	SESW	05	25-04272	S	04/01/1897	LITTLE VALLEY CREEK	1000.000AFA	A
4S/42E	6	NESW	43,01	25-02016	L	06/11/1907	ROUND VALLEY CREEK	2.100CFS	A
4S/42E	11	NWNW	01,43	25-02004A	L	10/11/1905	SPRINGS/UNNAMED STREAM	9.500CFS	A
4S/43E	11	SESE	01,04	25-04084	S	07/26/1910	UNNAMED STREAM	1.840CFS	A
	12	SWSW							
4S/43E	12	SWNW	01	25-04045	S	12/31/1904	HAWKINS CREEK	1.000CFS	A
4S/43E	12	SWSE	01,43	25-02034	L	06/21/1912	SPRINGS	0.200CFS	A
4S/43E	12	SWSE	01,43	25-04023	S	06/01/1934	SPRINGS/UNNAMED STREAM	1.240CFS	A
	14	NENE							
		NWNE							
4S/43E	13	SWSW	01	25-04265	S	06/01/1880	EAGLE CREEK NO. FORK	6.000CFS	A
	23	NENE							
4S/43E	13	SWSE	43	25-07034	L	04/03/1973	SPRING	0.044CFS	A
4S/43E	13	SWSE	43	25-07435	P	08/17/1988	SPRING	0.040CFS	A
4S/43E	14	SESE	01,04	25-04034	S	05/01/1886	EAGLE CREEK, SO FORK	5.050CFS	A
4S/43E	23	NENE	04	25-02152	L	11/01/1966	EAGLE CREEK, SO FORK	0.200CFS	A
	26								
4S/43E	23	NWNE	01,04	25-04005	S	01/11/1888	EAGLE CREEK	10.000CFS	A
		NENW							
4S/43E	23	NWNE	01,04	25-04261	S	06/20/1900	EAGLE CREEK	1.600CFS	A
4S/43E	23	SENE	43	25-02165	L	07/08/1941	SPRING	0.020CFS	A
4S/43E	23	SENE	43	25-02167	L	01/18/1929	SPRING	0.120CFS	A
4S/43E	23	SENE	04,43	25-04033	S	01/01/1886	SPRINGS	0.070CFS	A
4S/43E	24	NWSW	05,04,06	25-07239	L	11/26/1980	SPRING	0.020CFS	A
4S/43E	24	SESW	43	25-02075	L	03/01/1917	SPRING	0.010CFS	A
4S/43E	24	SESW	43	25-02093	L	04/04/1925	RED WILLOW SPRING	0.010CFS	A
4S/43E	24	SESW	05,06,04	25-07250	L	03/30/1981	SPRING	0.020CFS	A
4S/43E	24	SESW	05,06,04	25-07251	L	03/30/1981	SPRING	0.020CFS	A
4S/43E	24	SESW	05,06,04	25-07252	L	03/30/1981	SPRING	0.020CFS	A
4S/43E	25	NENE	01,43	25-02039	L	12/30/1913	GROUSE HOLLOW SPRING	0.020CFS	A
4S/43E	26	NENW	01,04	25-04032	S	06/06/1883	BRIDGE CREEK	1.620CFS	A
4S/43E	31	NWSW	04,43	25-04031	S	11/01/1908	SPRING	0.090CFS	A
4S/43E	36	NESE	01	25-02072	L	09/07/1916	FULTON CREEK	1.000CFS	A
4S/43E	36	SESE	01,43	25-02003	L	05/10/1905	UNNAMED STREAM	1.000CFS	A
4S/43E	36	SESE	01	25-02004B	L	05/10/1905	UNNAMED STREAM/SPRINGS	0.500CFS	A
4S/44E	19	SESW	05,06,04	25-07253	L	03/30/1981	SPRING	0.020CFS	A
4S/44E	29	NWSW	05,06,04	25-07254	L	03/30/1981	SPRING	0.020CFS	A
4S/44E	29	SESW	05,04,06	25-07235	L	11/26/1980	SPRING	0.020CFS	A
4S/44E	30	NENE	05,04,06	25-07236	L	11/26/1980	SPRING	0.020CFS	A
4S/44E	30	SENE	05,06,04	25-07249	L	03/30/1981	SPRING	0.020CFS	A
4S/44E	30	NENW	01,43	25-02001	L	12/09/1903	EAGLE CREEK	5.300CFS	A
4S/44E	30	NWNW	05,04,06	25-07237	L	11/26/1980	UNNAMED CREEK	0.020CFS	A
4S/44E	30	NWNW	05,04,06	25-07238	L	11/26/1980	SPRING	0.020CFS	A
4S/44E	30	SESW	01,43	25-02043	L	11/17/1913	SPRING	0.200CFS	A
4S/44E	32	NWNE	05,04,06	25-07240	L	11/26/1980	SPRING	0.020CFS	A
5S/42E	1	SWSW	02,03,44	25-02157	P	11/02/1923	JOHN GRAYS LAKE	100000.000AFA	A
	10	NESW							
5S/42E	1	SWSW	03	25-02160	L	09/12/1919	JOHN GRAYS LAKE	100000.000AFA	A
5S/43E	1	NENE	05,06,04	25-07227	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/43E	1	SENE	05,06,04	25-07224	L	09/17/1980	UNNAMED STREAM	0.020CFS	A

SEP 14 1992

5S/43E	1	SWSW	04	25-07559	P	01/17/1990	SPRING	0.040CFS	A
5S/43E	1	NESE	05,06,04	25-07220	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/43E	1	NWSE	05,06,04	25-07221	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/43E	12	NWSE	05,06,04	25-07209	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/43E	12	SESE	05,06,04	25-07225	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/43E	12	SESE	05,06,04	25-07226	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/43E	13	SWNW	01,43	25-02024	L	11/09/1910	WILLOW SPRINGS	0.600CFS	A
5S/43E	20	SESE	05,06,04	25-07218	L	09/17/1980	RESERVOIR CANYON	0.020CFS	A
5S/43E	21	NWSE	05,06,04	25-07219	L	09/17/1980	RESERVOIR CANYON	0.020CFS	A
5S/43E	23	NESW	01,43	25-02057	L	02/01/1915	HEATLEY CREEK	0.800CFS	A
5S/43E	25	SWSE	04,43	25-04231	S	06/01/1914	SPRINGS	0.260CFS	A
	30	SESE	04,43						
	30	????							
5S/43E	26	SWNE	04,43	25-07560	P	01/19/1990	SPRING	0.040CFS	A
5S/43E	28	NWNW	05,06,04	25-07230	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/43E	28	NWNW	05,06,04	25-07233	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/43E	34	NENE	05,06,04	25-07214	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/43E	35	NENE	05,06,04	25-07206	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/43E	35	SWNE	01,43	25-02168	L	05/02/1905	GRAVEL CREEK	2.000CFS	A
5S/44E	5	NWSW	05,06,04	25-07213	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/44E	6	SWNE	05,06,04	25-07215	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/44E	6	NENW	05,06,04	25-07223	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/44E	6	SENW	05,06,04	25-07216	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/44E	6	SESW	05,06,04	25-07222	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/44E	7	NWNW	05,06,04	25-07234	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/44E	7	SWNW	05,06,04	25-07211	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/44E	7	NWSW	05,06,04	25-07210	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/44E	7	SESW	05,06,04	25-07212	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/44E	7	NESE	05,06,04	25-07208	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/44E	7	SWSE	05,06,04	25-07217	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/44E	17	NWNW	05,06,04	25-07231	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/44E	17	SWSW	05,06,04	25-07207	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/44E	18	NWNE	05,06,04	25-07229	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
5S/44E	18	NWNE	05,06,04	25-07232	L	09/17/1980	UNNAMED STREAM	0.020CFS	A
6S/43E	1	NESE	05,06,04	25-07228	L	09/17/1980	UNNAMED STREAM	0.020CFS	A

01 Irrigation
05 Stockwater Storage
43 Domestic

02 Irrigation Storage
06 Stockwater From Storage
44 Domestic Storage

03 Irrigation From Storage
13 Mining
47 Recreation Storage

04 Stockwater
16 Wildlife
48 Recreation From Storage

Squaw Creek	5.100 CFS
Birch Creek	4.500 CFS
Little Poison Creek, Alley Lyons Creek and Mill Creek	.800 CFS
Willow Creek	4.800 CFS
Spring(s)	9.799 CFS
Canyon Creek	.840 CFS
Unnamed Stream(s)	10.500 CFS
Twin Creek	.400 CFS
South and North Twin Creek Springs	2.140 CFS
Dan Creek	.070 CFS
Mud Creek	10.400 CFS
Mud Creek and Springs	.020 CFS
Mud and Sellars Creeks	6.000 CFS
Williams Creek, Mud Creek and Sellars Creek	.820 CFS
Horse Creek	1.000 CFS
Robbins Springs	.250 CFS
Buck Creek	1.540 CFS
Seventy Creek	4.000 CFS
Grays Lake Outlet	1.140 CFS
Moonshine Spring	.070 CFS
Annes Spring	.070 CFS
Jons Spring	.070 CFS
Lava Creek	.300 CFS
Brockman Creek and Unnamed Stream(s)	6.300 CFS
Brockman Creek	13.252 CFS
Sugar Loaf Mountain Creek, Big Spring, Cluster Springs, Little Springs, Mammoth Springs, Cracker Jack Spring and Sand Rock Spring	22.000 CFS
Brockman Creek, Noname Creek and Outlet Creek	6.852 CFS
Deer Creek	1.400 CFS

+ 1003.100 AFA

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Rock Spring	.100 CFS	
Sheep Creek	2.800 CFS	
Crane(s) Creek	1.600 CFS	
Rush Creek	5.300 CFS	
Homer Creek	8.700 CFS	
Shirley Creek, Middle and North Forks	4.000 CFS	
Clark Creek and Willow Springs	1.400 CFS	
Posey Creek	4.604 CFS	
Clark Creek	11.400 CFS	
Crooked Creek and Springs	.200 CFS	
Maple Creek and Springs	1.500 CFS	
Herman Creek	1.600 CFS	
Little Valley Creek		+ 1000.000 AFA
Round Valley Creek	2.100 CFS	
Unnamed Streams and Springs	11.240 CFS	
Hawkins Creek	1.000 CFS	
Eagle Creek	28.150 CFS	
Red Willow Springs	.010 CFS	
Grouse Hollow Springs	.020 CFS	
Bridge Creek	1.620 CFS	
Fulton Creek	1.000 CFS	
John Grays Lake and Tin Cup Creek		+ 100000.000 AFA
John Grays Lake		+ 100000.000 AFA
Willow Springs	.600 CFS	
Reservoir Canyon	.040 CFS	
Heatley Creek	.800 CFS	
Gravel Creek	2.000 CFS	

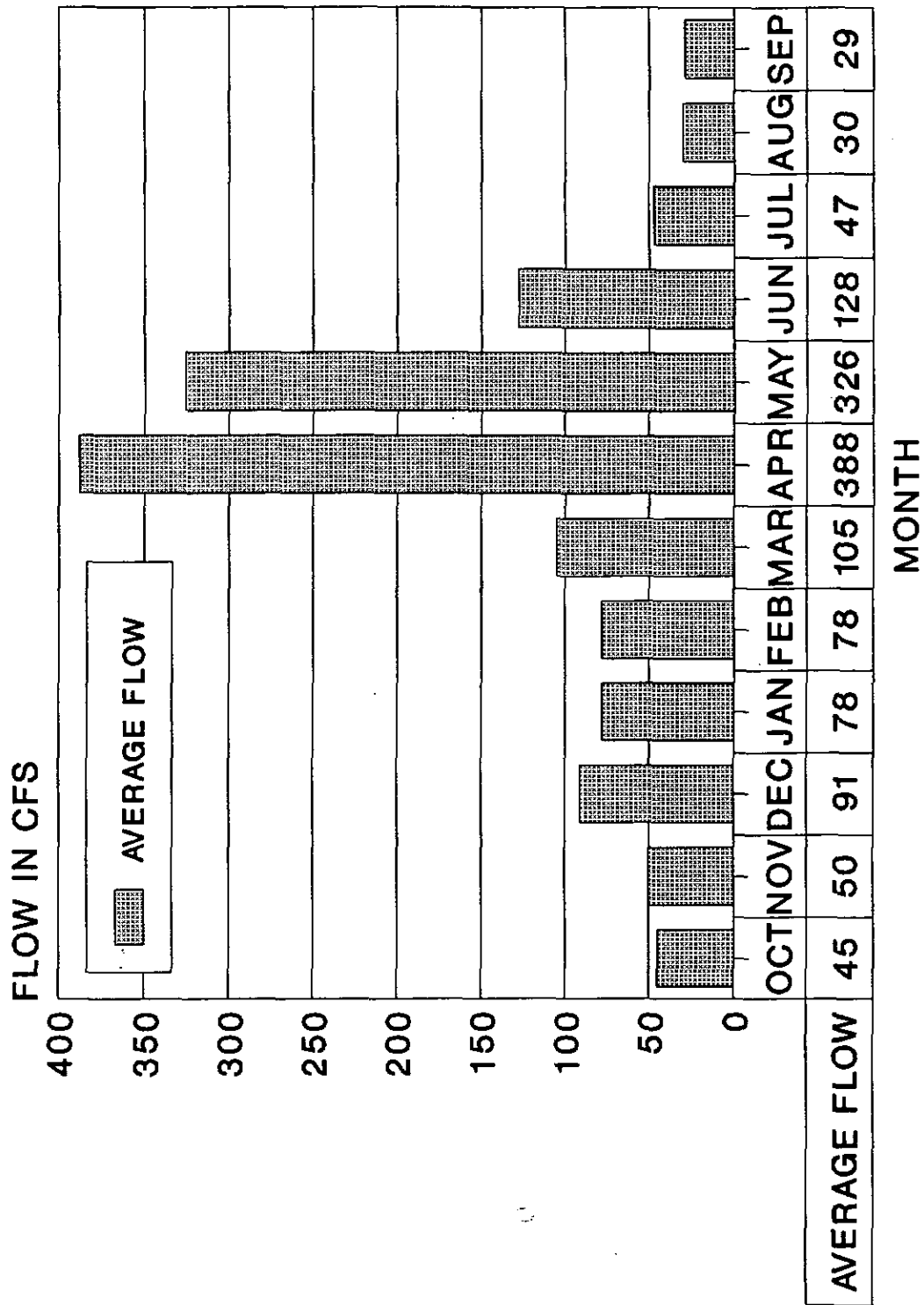
Irrigation and Domestic	74.000 CFS	
Stockwater and Domestic	0.890 CFS	
Stockwater	1.895 CFS	
Domestic	0.874 CFS	
Irrigation and Stockwater	41.568 CFS	
Irrigation	67.870 CFS	
Irrigation, Irrigation Storage, Irrigation		
from Storage and Stockwater	1.000 CFS	
Irrigation, Irrigation Storage and		
Irrigation From Storage	2.800 CFS	
Irrigation, Stockwater and Domestic	0.900 CFS	
Irrigation Storage and		
Irrigation From Storage	4.000 CFS	
Stockwater and Wildlife	0.390 CFS	
Irrigation, Irrigation Storage, Irrigation		
from Storage and Domestic	2.140 CFS	
Stockwater, Stockwater Storage and		
Stockwater From Storage	0.990 CFS	
Domestic and Recreation Storage	0.020 CFS	
Irrigation, Stockwater Storage and		
Stockwater From Storage	1.000 CFS	
Mining	0.300 CFS	
Irrigation Storage, Irrigation From		
Storage and Stockwater	0.260 CFS	
Stockwater Storage and Stockwater		
From Storage		+3.10 AFA
Stockwater Storage		+2000.00 AFA
Irrigation Storage, Irrigation From Storage		
and Domestic Storage		+100000.00 AFA
Irrigation From Storage		+100000.00 AFA

License	91.134 CFS	+100000.10 AFA
Permit	5.600 CFS	+100000.00 AFA
Claim	84.903 CFS	+2003.00 AFA
Decree	23.600 CFS	
Application	0.080 CFS	

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SEP 14 1992

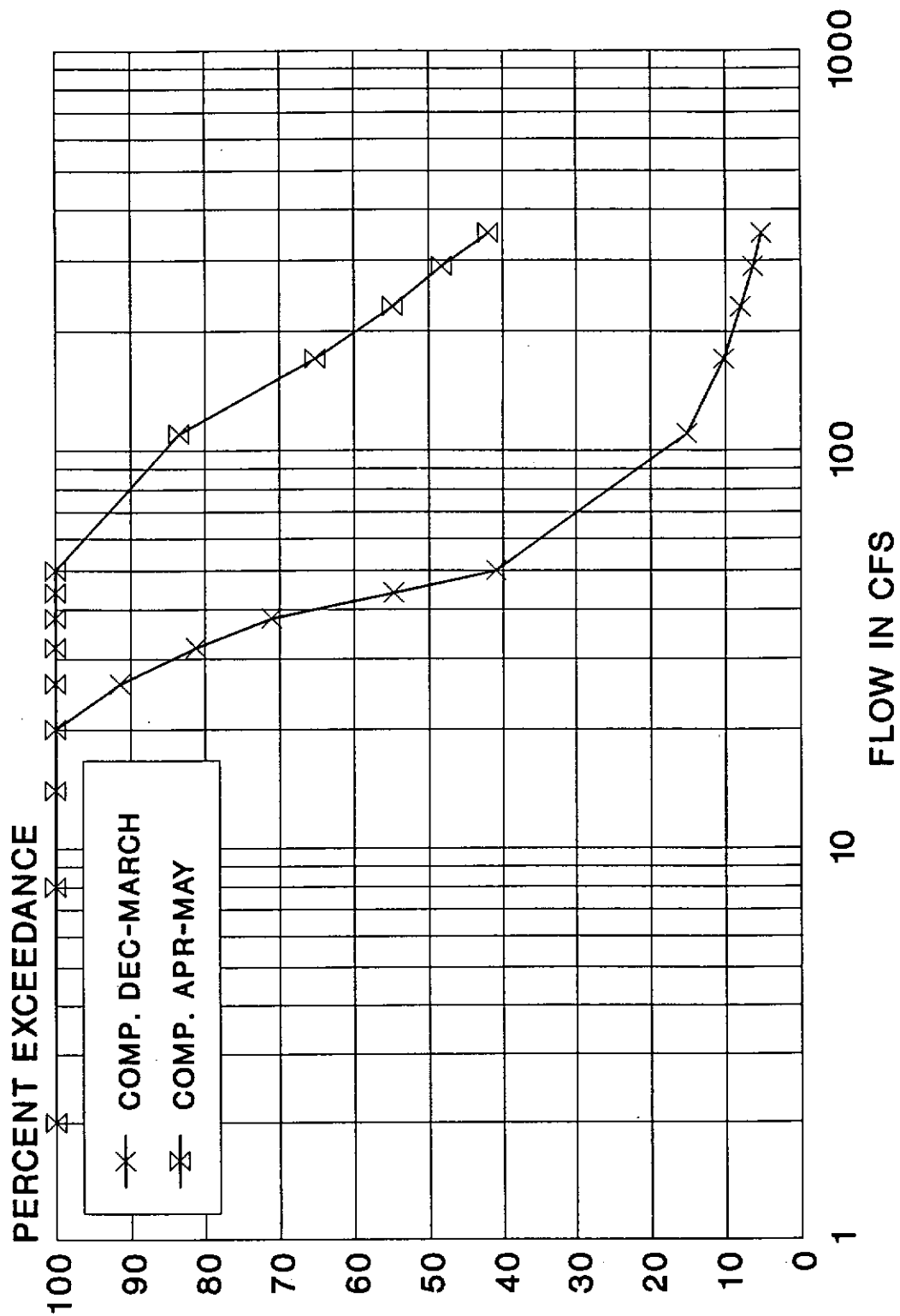
AVERAGE FLOW WILLOW CREEK BELOW TEX CREEK, IDAHO



UNRECORDED

SEP 14 1992

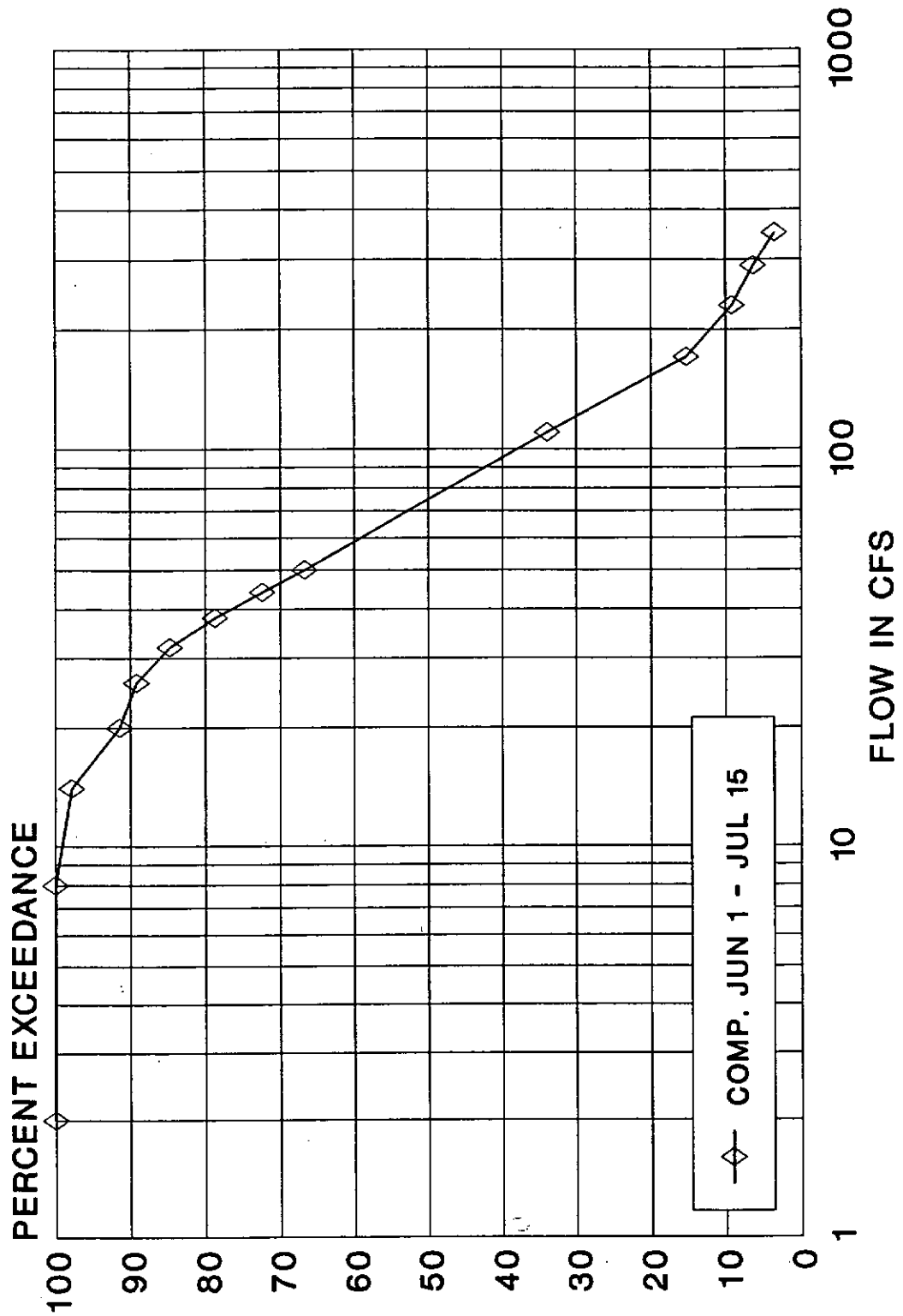
FLOW DURATION CURVES
WILLOW CREEK BELOW TEX CREEK



REPRODUCTION

SEP 14 1992

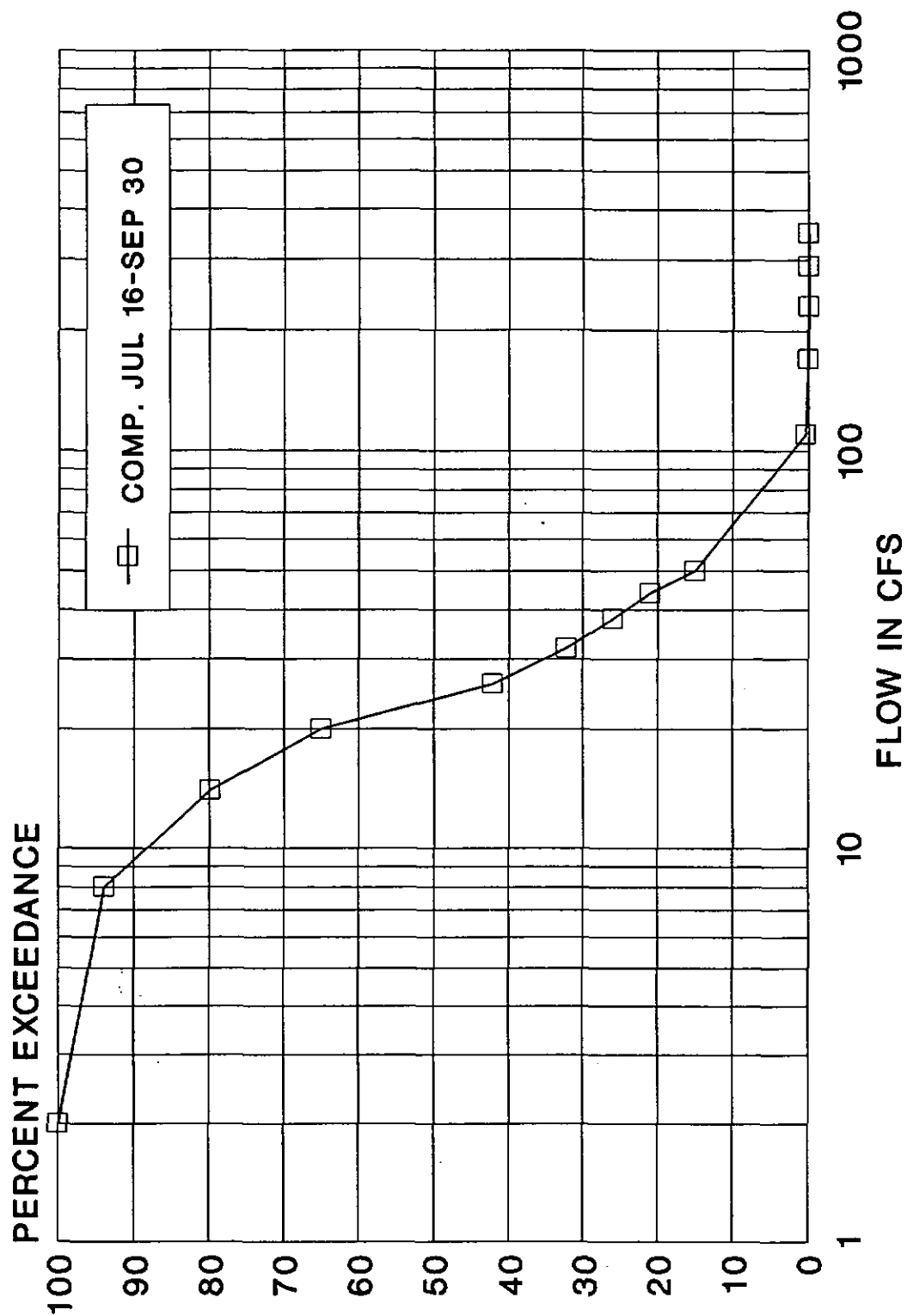
FLOW DURATION CURVES
WILLOW CREEK BELOW TEX CREEK



RECEIVED

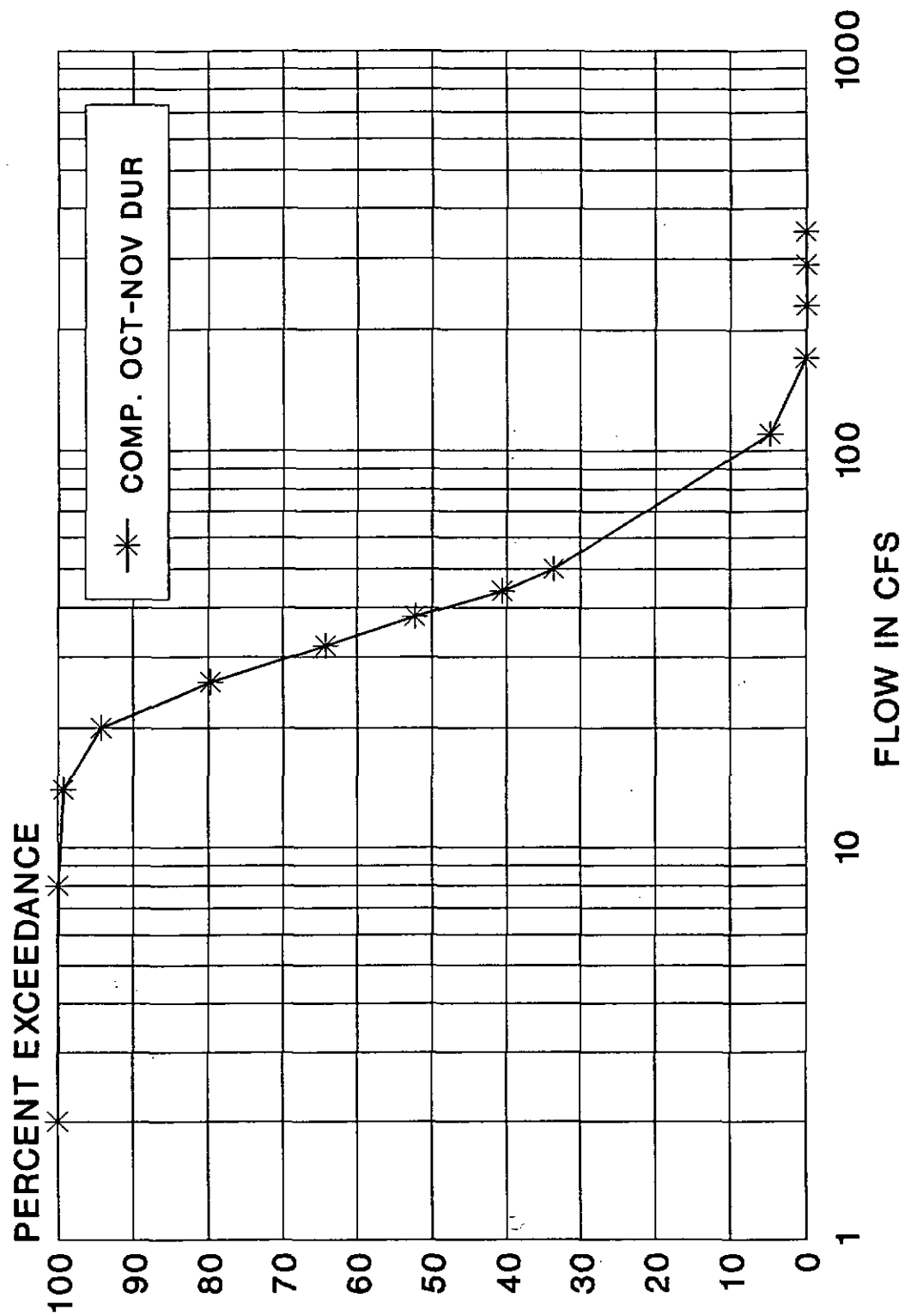
SEP 14 1992

FLOW DURATION CURVES
WILLOW CREEK BELOW TEX CREEK



SEP 14 1992

FLOW DURATION CURVES
WILLOW CREEK BELOW TEX CREEK



SEP 14 1962

NEWS RELEASE

Statehouse Mail, Boise, Idaho 83720

October 10, 1991

Contact: Bill Graham
327-7900

FOR IMMEDIATE RELEASE:

WILLOW CREEK MINIMUM STREAM FLOW HEARINGS

Formal public hearings will be conducted by the Idaho Department of Water Resources on an application by the Idaho Water Resource Board for certain minimum streamflows on Willow Creek Tuesday, Oct. 29 beginning at 1:30 p.m. in the second floor conference room, state office building, 150 Shoup Ave., Idaho Falls.

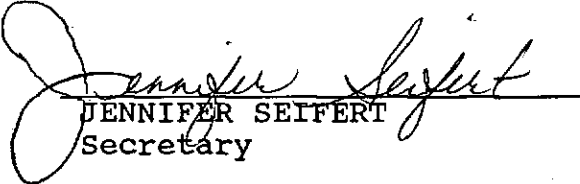
The board has made an application to the Idaho Department of Water Resources for a minimum streamflow on Willow Creek commencing at the confluence of Grays Lake Outlet and extending downstream to the backwaters of Ririe Reservoir in Bonneville County.

The board's application is for 30 cfs. from Dec. 1 to March 1; 250 cfs from April 1 to May 31; 100 cfs from June 1 to July 15; 30 cfs from July 16 to Sept. 30; and 40 cfs from Oct. 1 to Nov. 30. The purpose of the application is for the preservation of fish and wildlife habitat, aquatic life and water quality. The permits, if approved, will be subject to all prior water rights. Any party wishing to formally appear in the hearing to present evidence or cross examine witnesses should file a notice of appearance with the Director of the Department of Water

SEP 14 1992

CERTIFICATE OF MAILING

I hereby certify that on the 9th day of October, 1991, I mailed a corrected copy of the following letter, informing the interested parties of the evening comment session at 7:00 p.m. The attached list of individuals received a copy of the letter.


JENNIFER SEIFERT
Secretary

MICROFILMED
SEP 14 1992



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

October 9, 1991

CECIL D. ANDRUS
GOVERNOR

R. KEITH HIGGINSON
DIRECTOR

<name>

RE: Minimum Streamflow Application for Willow Creek No. 25-7597

Dear <sal>:

The Idaho Department of Water Resources will conduct a hearing on Tuesday October 29, 1991, to determine whether a minimum streamflow on Willow Creek should be approved. The hearing will commence at the Statehouse Office Building, 2nd Floor Conference Room, 150 Shoup Avenue, Idaho Falls, Idaho, beginning at 1:30 p.m.

The hearing will recess at the close of formal testimony, but will reconvene at 7:00 p.m. for the taking of public testimony.

A notice of appearance must be filed with the Department at least five days (5) prior to the hearing if you want to become full party to the action. A full party may call and cross examine witnesses.

If you do not wish to become a full party, you may also testify informally without filing a notice of appearance. Written comments may also be filed with the Department prior to the hearing.

Sincerely,

GARY SPACKMAN, Manager
Water Right Permits Section

GS:js

Enclosures

RECORDED

SEP 14 1992

<name>Wendell Day
283 4th St.
Idaho Falls, ID 83401
<sal>Mr. Day
<>

<name>Dale Meyer
1415 Bone Rd.
Iona, ID 83427
<sal>Mr. Meyer
<>

<name>George and Helen Meyer
1420 Bone Rd.
Iona, ID 83427
<sal>Mr. and Mrs. Meyer
<>

<name>Duane Jones
1020 12th St.
Idaho Falls, ID 83404
<sal>Mr. Jones
<>

<name>Keith Elkington
5080 East Sunnyside
Idaho Falls, ID 83401
<sal>Mr. Elkington
<>

<name>Reed Elkington
3330 S. 45 E.
Idaho Falls, ID 83401
<sal>Mr. Elkington
<>

<name>Brent Elkington
1316 Bone Rd.
Iona, ID 83427
<sal>Mr. Elkington
<>

<name>Claude Storer
12313 N. 65 E.
Idaho Falls, ID 83401
<sal>Mr. Storer
<>

<name>Kevin Richert
P.O. Box 1800
Idaho Falls, ID 83401
<sal>Mr. Richert
<>

MICROFILMED

SEP 14 1992

<name>Steven Elle
1515 Lincoln Rd.
Idaho Falls, ID 83401
<sal>Mr. Elle
<>

<name>Jack Parker
605 N. Capital
Idaho Falls, ID 83401
<sal>Mr. Parker
<>

<name>Mark Gamblin
1515 Lincoln Rd.
Idaho Falls, ID 83401
<sal>Mr. Gamblin
<>

<name>Mel Moore
P.O. 50363
Idaho Falls, ID 83401
<sal>Mr. Moore
<>

<name>Wayne Cooper
6185 E. Ririe Hwy
Idaho Falls, ID 83401
<sal>Mr. Cooper
<>

<name>Eldon Rockwood
2032 Claredot Dr.
Idaho Falls, ID 83402
<sal>Mr. Rockwood
<>

<name>Nick Olson
13241 N. 105 E.
Idaho Falls, ID 83401
<sal>Mr. Olson
<>

<name>Jerry T. Twiggs
955 West 100 South
Blackfoot, ID 83221
<sal>Senator Twiggs
<>

<name>Raymond G. Parks
1054 West Tabor Road
Blackfoot, ID 83221
<sal>Representative Parks
<>

MICROFILMED
SEP 14 1982

<name>Michael K. Simpson
786 Hoff Drive
Blackfoot, ID 83221
<sal>Representative Simpson
<>

<name>Allan F. Larsen
848 W. Taber Rd.
Blackfoot, ID 83221
<sal>Senator Larsen
<>

<name>Myron Jones
Malad Summit
Malad, ID 83252
<sal>Representative Jones
<>

<name>Evan Frasure
1946 Beth
Pocatello, ID 83201
<sal>Representative Frasure
<>

<name>Mark G. Ricks
3348 S. 1400 W.
Rexburg, ID 83440
<sal>Senator Ricks
<>

<name>R.L. Davis
P.O. Box 391
Rexburg, ID 83440
<sal>Representative Davis
<>

<name>H. Grant Mortensen
230 N. 7 E.
St. Anthony, ID 83445
<sal>Representative Mortensen
<>

<name>Michael D. Crapo
P.O. Box 50130
Idaho Falls, ID 83405
<sal>Senator Crapo
<>

<name>Lee Staker
2553 Everon
Idaho Falls, ID 83401
<sal>Senator Staker
<>

NOT REFILED
SEP 14 1992

<name>John D. Hansen
260 Marjacq Ave.
Idaho Falls, ID 83401
<sal>Senator Hansen
<>

<name>John O. Sessions
Box 89
Driggs, ID 83422
<sal>Representative Sessions
<>

<name>Ralph J. Steele
531 South 52nd East
Idaho Falls, ID 83401
<sal>Representative Steele
<>

<name>Con Mahoney
4871 S. 15 W.
Idaho Falls, ID 83402
<sal>Representative Mahoney
<>

<name>Thomas F. Loertscher
1357 Bone Road
Iona, ID 83427
<sal>Representative Loertscher
<>

<name>Melvin M. Richardson
3725 Brookfield
Idaho Falls, ID 83406
<sal>Representative Richardson
<>

<name>Reed Hansen
4329 N. 26 W.
Idaho Falls, ID 83402
<sal>Representative Hansen
<>

<name>Stan Hawkins
Box 367
Ucon, ID 83454
<sal>Senator Hawkins
<>

<name>S. Lynn Loosli
Rt. 1 Box 72
Ashton, ID 83420
<sal>Representative Loosli
<>

MICROFILMED
SEP 14 1992

<name>Golden C. Linford
2120 West 4200 South
Rexburg, ID 83440
<sal>Representative Linford
<>

<name>Steve Goddard
Dept. of Fish and Game
Statehouse Mail
Boise, ID 83720
<sal>Mr. Goddard
<>

<name>Cindy Robertson
Dept. of Fish and Game
Statehouse Mail
Boise, ID 83720
<sal>Ms. Robertson
<>

<name>Jensen Land Corp.
2768 S. Higbee Ave.
Idaho Falls, ID 8344
<sal>Interested Party
<>

<name>Corps of Engineers
Building 602
City-County Airport
Walla Walla, WA 99362
<sal>Interested Party
<>

<name>Harold L. Hansen
P.O. Box 146
Iona, ID 83427-0146
<sal>Mr. Hansen
<>

<name>Philip Knowles
5116 E. Lincoln Rd.
Idaho Falls, ID 83401
<sal>Mr. Knowles
<>

<name>Dwayne T. Simmons
6919 E. Iona Rd.
Idaho Falls, ID 83401
<sal>Mr. Simmons
<>

<name>Quarter Circle-O-Ranch Inc.
c/o L. Ferebaur
2017 E. Iona Rd.

MICROFILMED

SEP 14 1992

Idaho Falls, ID 83401
<sal>Mr. Ferebaur
<>

<name>Rex ODell
Eva K. Young
175 Evergreen Dr.
Idaho Falls, ID 83405-2307
<sal>Interested Parties
<>

<name>S & S Farms Inc.
2330 S. Ammer Rd.
Idaho Falls, ID 83406
<sal>Interested Party
<>

<name>Delva N. Edwards
925 N. Boulevard
Idaho Falls, ID 83402
<sal>Delva
<>

<name>Keith M. Olsen
5828 E. Iona Rd.
Idaho Falls, ID 83401
<sal>Mr. Olsen
<>

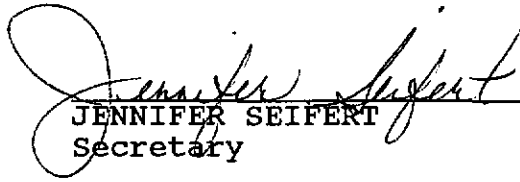
<name>Bureau of Land Management
3380 Terrace Americana Blvd
Boise, ID 83706
<sal>Interested Party
<>

MICROFILMED

SEP 14 1992

CERTIFICATE OF MAILING

I hereby certify that on the 4th day of October, I mailed a true and correct copy of the following letter, postage prepaid, to the attached list of individuals:


JENNIFER SEIFERT
Secretary

RECEIVED
SEP 14 1992



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

October 3, 1991

CECIL D. ANDRUS
GOVERNOR

R. KEITH HIGGINSON
DIRECTOR

<name>

RE: Minimum Streamflow Application for Willow Creek No. 25-7597

Dear <sal>:

The Idaho Department of Water Resources will conduct a hearing on Tuesday October 29, 1991, to determine whether a minimum streamflow on Willow Creek should be approved. The hearing will commence at the State Office Building, 2nd Floor Conference Room, 150 Shoup Avenue, Idaho Falls, Idaho, beginning at 1:30 p.m.

Information describing the application is shown on the enclosed fact sheet. Also, enclosed is a brochure which describes the minimum flow procedure.

A notice of appearance must be filed with the Department at least five days (5) prior to the hearing if you want to become full party to the action. A full party may call and cross examine witnesses.

If you do not wish to become a full party, you may also testify informally without filing a notice of appearance. Written comments may also be filed with the Department prior to the hearing.

Sincerely,

GARY SPACKMAN, Manager
Water Right Permits Section

GS:js

Enclosures

MICROFILMED
SEP 14 1992

<name>Wendell Day
283 4th St.
Idaho Falls, ID 83401
<sal>Mr. Day
<>

<name>Dale Meyer
1415 Bone Rd.
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<sal>Mr. Meyer
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Iona, ID 83427
<sal>Mr. and Mrs. Meyer
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<name>Duane Jones
1020 12th St.
Idaho Falls, ID 83404
<sal>Mr. Jones
<>

<name>Keith Elkington
5080 East Sunnyside
Idaho Falls, ID 83401
<sal>Mr. Elkington
<>

<name>Reed Elkington
3330 S. 45 E.
Idaho Falls, ID 83401
<sal>Mr. Elkington
<>

<name>Brent Elkington
1316 Bone Rd.
Iona, ID 83427
<sal>Mr. Elkington
<>

<name>Claude Storer
12313 N. 65 E.
Idaho Falls, ID 83401
<sal>Mr. Storer
<>

<name>Kevin Richert
P.O. Box 1800
Idaho Falls, ID 83401
<sal>Mr. Richert
<>

MICROFILMED

SEP 14 1992

<name>Steven Elle
1515 Lincoln Rd.
Idaho Falls, ID 83401
<sal>Mr. Elle
<>

<name>Jack Parker
605 N. Capital
Idaho Falls, ID 83401
<sal>Mr. Parker
<>

<name>Mark Gamblin
1515 Lincoln Rd.
Idaho Falls, ID 83401
<sal>Mr. Gamblin
<>

<name>Mel Moore
P.O. 50363
Idaho Falls, ID 83401
<sal>Mr. Moore
<>

<name>Wayne Cooper
6185 E. Ririe Hwy
Idaho Falls, ID 83401
<sal>Mr. Cooper
<>

<name>Eldon Rockwood
2032 Claredot Dr.
Idaho Falls, ID 83402
<sal>Mr. Rockwood
<>

<name>Nick Olson
13241 N. 105 E.
Idaho Falls, ID 83401
<sal>Mr. Olson
<>

<name>Jerry T. Twiggs
955 West 100 South
Blackfoot, ID 83221
<sal>Senator Twiggs
<>

<name>Raymond G. Parks
1054 West Tabor Road
Blackfoot, ID 83221
<sal>Representative Parks
<>

UNRECORDED

SEP 14 1992

<name>Michael K. Simpson
786 Hoff Drive
Blackfoot, ID 83221
<sal>Representative Simpson
<>

<name>Allan F. Larsen
848 W. Taber Rd.
Blackfoot, ID 83221
<sal>Senator Larsen
<>

<name>Myron Jones
Malad Summit
Malad, ID 83252
<sal>Representative Jones
<>

<name>Evan Frasure
1946 Beth
Pocatello, ID 83201
<sal>Representative Frasure
<>

<name>Mark G. Ricks
3348 S. 1400 W.
Rexburg, ID 83440
<sal>Senator Ricks
<>

<name>R.L. Davis
P.O. Box 391
Rexburg, ID 83440
<sal>Representative Davis
<>

<name>H. Grant Mortensen
230 N. 7 E.
St. Anthony, ID 83445
<sal>Representative Mortensen
<>

<name>Michael D. Crapo
P.O. Box 50130
Idaho Falls, ID 83405
<sal>Senator Crapo
<>

<name>Lee Staker
2553 Everon
Idaho Falls, ID 83401
<sal>Senator Staker
<>

NOT RECORDED
SEP 14 1992

<name>John D. Hansen
260 Marjacq Ave.
Idaho Falls, ID 83401
<sal>Senator Hansen
<>

<name>John O. Sessions
Box 89
Driggs, ID 83422
<sal>Representative Sessions
<>

<name>Ralph J. Steele
531 South 52nd East
Idaho Falls, ID 83401
<sal>Representative Steele
<>

<name>Con Mahoney
4871 S. 15 W.
Idaho Falls, ID 83402
<sal>Representative Mahoney
<>

<name>Thomas F. Loertscher
1357 Bone Road
Iona, ID 83427
<sal>Representative Loertscher
<>

<name>Melvin M. Richardson
3725 Brookfield
Idaho Falls, ID 83406
<sal>Representative Richardson
<>

<name>Reed Hansen
4329 N. 26 W.
Idaho Falls, ID 83402
<sal>Representative Hansen
<>

<name>Stan Hawkins
Box 367
Ucon, ID 83454
<sal>Senator Hawkins
<>

<name>S. Lynn Loosli
Rt. 1 Box 72
Ashton, ID 83420
<sal>Representative Loosli
<>

MICROFILMED
SEP 14 1992

<name>Golden C. Linford
2120 West 4200 South
Rexburg, ID 83440
<sal>Representative Linford
<>

<name>Steve Goddard
Dept. of Fish and Game
Statehouse Mail
Boise, ID 83720
<sal>Mr. Goddard
<>

<name>Cindy Robertson
Dept. of Fish and Game
Statehouse Mail
Boise, ID 83720
<sal>Ms. Robertson
<>

<name>Jensen Land Corp.
2768 S. Higbee Ave.
Idaho Falls, ID 8344
<sal>Interested Party
<>

<name>Corps of Engineers
Building 602
City-County Airport
Walla Walla, WA 99362
<sal>Interested Party
<>

<name>Harold L. Hansen
P.O. Box 146
Iona, ID 83427-0146
<sal>Mr. Hansen
<>

<name>Philip Knowles
5116 E. Lincoln Rd.
Idaho Falls, ID 83401
<sal>Mr. Knowles
<>

<name>Dwayne T. Simmons
6919 E. Iona Rd.
Idaho Falls, ID 83401
<sal>Mr. Simmons
<>

<name>Quarter Circle-O-Ranch Inc.
c/o L. Ferebaur
2017 E. Iona Rd.

MICROFILMED
SEP 14 1992

Idaho Falls, ID 83401
<sal>Mr. Ferebaur
<>

<name>Rex ODell
Eva K. Young
175 Evergreen Dr.
Idaho Falls, ID 83405-2307
<sal>Interested Parties
<>

<name>S & S Farms Inc.
2330 S. Ammer Rd.
Idaho Falls, ID 83406
<sal>Interested Party
<>

<name>Delva N. Edwards
925 N. Boulevard
Idaho Falls, ID 83402
<sal>Delva
<>

<name>Keith M. Olsen
5828 E. Iona Rd.
Idaho Falls, ID 83401
<sal>Mr. Olsen
<>

<name>Bureau of Land Management
3380 Terrace Americana Blvd
Boise, ID 83706
<sal>Interested Party
<>

RECORDED

SEP 14 1992

MINIMUM STREAMFLOW
Fact Sheet

Water Right No. 27-7597

Source: Willow Creek

Applicant: Idaho Water Resource Board

Requesting Agency: Department of Fish and Game

Date Application Filed: June 24, 1991

Rate of Flow: 30.0 cfs from December 1 to March 31
250.0 cfs from April 1 to May 31
100.0 cfs from June 1 to July 15
30.0 cfs from July 16 to September 30
40.0 cfs from October 1 to November 30

Place of Use: Willow Creek, commencing at the confluence of Grays Lake outlet in the SE $\frac{1}{4}$ of the NW $\frac{1}{4}$, Section 33, T1N, R40E, and extending downstream to the backwaters of Ririe Reservoir in the NW $\frac{1}{4}$ of the SE $\frac{1}{4}$, of Section 27, T2N, R40E, B.M., Bonneville County.

Purpose: Preservation of fish and wildlife habitat, and maintenance of channel integrity.

Hearing Location: Tuesday October 29, 1991, Department of Water Resources State Office Building, 2nd Floor Conference Room, 150 Shoup Avenue, Idaho Falls, Idaho, beginning at 1:30 p.m.

REPROFLED

SEP 14 1992

Post-It™ brand fax transmittal memo 7671

of pages >

To G. J. Sargent	From Southern R
Co. State Office	Co. Jude
Dept. WR Permits	Phone # 206 3037
Fax #	Fax #

Thursday, October 3, 1991

Times-News, Twin Falls, Idaho C-3

Legals-Announcements-F

LEGAL NOTICE

College,
Jeffery M. Harmon
Assistant Dean of Finance
PUBLISH: Thursday, Oc-
tober 3 and 10, 1991.

NOTICE OF HEARING
FOR APPLICATION FOR
MINIMUM STREAMFLOW

Notice is hereby given
that the Idaho Water Re-
source Board submitted
applications for permit to
appropriate water to the
Department of Water Re-
sources on August 3,
1990, proposing to ap-
propriate water for minimum
instream flows in several
springs and outflow chan-
nels in the vicinity of Thousand Springs. The applica-
tions are further described
as follows:

Source: South Thousand
Springs Channel
Application No.: 96-8558
Proposed Priority: August
3, 1990

Amount and Period of
Use: 500.0 cfs from Janu-
ary 1 through December
31

Purpose of Minimum Flow:
Preservation of aesthetics,
recreation, aquatic life,
beauty, and fish and wild-
life habitat.

Place of Use: Beginning at
the Idaho Power Thou-
sand Springs Power Plant,
in Government Lot 3 (SE-
1/4NE1/4SW1/4), Section 8,
T8S, R14E, and extending
downstream to the conflu-
ence with the Snake River,
located in Government
Lot 1 (NE1/4NE1/4NW1/4),
Section 17, T8S, R14E.

Source: Sculpin Springs
Creek
Application No.: 96-8557
Proposed Priority: August
3, 1990

Amount and Period of
Use: 35.0 cfs from Janu-
ary 1 through December
31

Purpose of Minimum Flow:
Preservation of aesthetics,
recreation, aquatic life,
and fish and wildlife habi-
tat.

Place of Use: Beginning at
a point where the water
falls off the Snake River
canyon wall, located in the
NW1/4SW1/4SE1/4, Section
17, T8S, R14E, and ex-
tending downstream to the
confluence of Sculpin
Springs Creek and the
Snake River, located in
Government Lot 4 (SE1/4-
SE1/4NW1/4), Section 17,
T8S, R14E, B.M., Gooding
County.

Source: Springs and Sand
Springs Creek
Application No.: 96-8558
Proposed Priority: August
3, 1990

Amount and Period of
Use: 34.0 cfs from Janu-
ary 1 through December
31

Purpose of Minimum Flow:
Preservation of aesthetics,
recreation, aquatic life, and
fish and wildlife habitat.

Place of Use: Beginning at
the outflow of the headwa-
ter spring from the Snake
River wall, located in the
SW1/4SW1/4SE1/4, Section
17, T8S, R14E, and ex-
tending downstream to
where Sand Springs
Creek discharges into the
Snake River, located in
Government Lot 5 (SE1/4N-
E1/4SW1/4), Section 17,
T8S, R14E, B.M., Gooding
County. This minimum
streamflow would include
all unappropriated water
that discharges to the
creek within the reach, in-
cluding any springs from
their point of origin to their
discharge into the creek.

The Director of the De-
partment of Water Re-
sources will hold a public
hearing in the Hagerman
Senior Citizen's Center,
140 Lake Street, Hager-
man, Idaho, beginning at
1:30 p.m. on Tuesday, Oc-
tober 22, 1991, for the
purpose of hearing evi-
dence in regard to the ap-
plication. The hearing will
be conducted pursuant to
the provisions of Section
42-1503, Idaho Code.

The hearing will recess at
the close of formal testi-
monies at

Any party who wishes to
formally appear in the pro-
ceeding for the purpose of
presenting evidence or
cross examining witnesses
should file a notice of ap-
pearance with the Director
of the Department of Wa-
ter Resources, 222 Shee-
hona St. East, Twin Falls,
Idaho 83301, five (5) days
prior to the hearing. Other
parties will be given an op-
portunity to informally
present their views and
comments without filing a
notice of appearance.
Written informal views and
comments may also be
submitted to the Depart-
ment of Water Resources
prior to the hearing.

If issued, these permits
will be subject to all prior
water rights.

R. KEITH HIGGINSON
Director
Idaho Department of Wa-
ter Resources
PUBLISH: Thursday, Oc-
tober 3 and 10, 1991.

NOTICE OF HEARING
FOR APPLICATION FOR
MINIMUM STREAMFLOW

Notice is hereby given
that the Idaho Water Re-
source Board submitted
an application for permit to
appropriate water to the
Department of Water Re-
sources, proposing to ap-
propriate water for a mini-
mum streamflow in Willow
Creek, a tributary of the
Snake River. The applica-
tion is further described as
follows:

Source: Willow Creek
Application No.: 25-7597
Proposed Priority: June
24, 1991

Amount and Period of

continued

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SEP 14 1992

LEGAL NOTICE

continued

Use: 30.0 cfs from December 1 to March 31
250.0 cfs from April 1 to May 31

100.0 cfs from June 1 to July 15, 1991
30.0 cfs from July 16 to September 30

40.0 cfs from October 1 to November 30

Purpose of Minimum Flow: Preservation of fish and wildlife habitat, aquatic life and water quality.

Place of Use: Willow Creek, commencing at the confluence of Grays Lake Outlet in the SE 1/4 of the NW 1/4, Section 33, T1N, R40E, and extending downstream to the backwaters of Firie Reservoir in the NW 1/4 of the SE 1/4, Section 27, T2N, R40E, B.M. Bonneville County.

The Director of the Department of Water Resources will hold a public hearing in the State Office Building, 2nd Floor Conference Room, 150 Shoup Avenue, Idaho Falls, Idaho, beginning at 1:30 p.m. on Tuesday, October 23, 1991, for the purpose of hearing evidence in regard to the application. The hearing will be held pursuant to the provisions of Section 42-1503, Idaho Code.

Any party who wishes to formally appear in the proceeding for the purpose of presenting evidence or cross examining witnesses should file a notice of appearance with the Director of the Department of Water Resources, Statehouse Mall, 1301 North Orchard Street, Boise, Idaho 83720, five (5) days prior to the hearing. Other parties will be given an opportunity to informally present their views and comments without the necessity of filing a notice of appearance. Written informal views and comments may also be submitted to the Department of Water Resources prior to the hearing.

If issued, this permit will be subject to all prior water rights.

R. KEITH HIGGINSON,
Director

Idaho Department of Water Resources,
PUBLISH: Thursday, October 3 & 10, 1991

NOTICE OF HEARING FOR APPLICATION FOR MINIMUM STREAMFLOW

Notice is hereby given that the Idaho Water Resource Board has submitted two applications to the Department of Water Resources for permits to appropriate water for a minimum streamflow in the Big Wood River. The applications are further described as follows:

Source: Big Wood River
Application No.: 37-8258
Proposed Priority: January 16, 1988

Amount and Period of Use: 200.0 cfs from January 1 through December 31, 1991

Purpose of Minimum Flow: Fish and wildlife habitat, water quality, aesthetics and recreation.

Place of Use: Beginning at the intersection of the Big Wood River with the Sawtooth National Recreational Area Boundary, located in the SE 1/4 NW 1/4, Section 20, T6N, R17E, B.M., and extending downstream approximately 3 miles to the confluence of the Big Wood River, and Warm Springs Creek, located in the SE 1/4 NW 1/4, Section 18, T4N, R17E, B.M., Blaine County.

Source: Big Wood River
Application No.: 37-8307
Proposed Priority: October 16, 1987

Amount and Period of Use: 119.23 cfs from January 1 through December 31, 1991

Purpose of Minimum Flow: Fish and wildlife habitat, water quality, aesthetics and recreation.

Place of Use: Beginning at the confluence of the Big Wood River and Warm Springs Creek, located in the SE 1/4 NW 1/4, Section 18, T4N, R17E, B.M., and extending downstream about 18 miles to the Bellevue diversion located in the SW 1/4 NW 1/4, Section 36, T2N, R18E, B.M., Blaine County.

The Director of the Department of Water Resources will hold a public hearing in the Blaine County Courthouse, 101 2nd Avenue South, Hailey, Idaho, beginning at 1:30 p.m. on Wednesday, October 23, 1991, for the purpose of hearing evidence in regard to the application. The hearing will be held pursuant to the provisions of Section 42-1503, Idaho Code.

The hearing will recess at the close of formal testimony, but will reconvene at 7:00 p.m. for the taking of public testimony. The evening meeting will be held in the Ketchum City Hall, 480 East Avenue North, Ketchum, Idaho.

Any party who wishes to formally appear in this proceeding for the purpose of presenting evidence or cross examining witnesses should file a notice of appearance with the Director of the Department of Water Resources, Statehouse Mall, 1301 N. Orchard Street, Boise, Idaho 83720, five (5) days prior to the hearing. Other parties will be granted an opportunity to informally present their views and comments without the necessity of filing a notice of appearance. Written informal views and comments

may also be submitted to the Department of Water Resources prior to the hearing.

If issued, these permits will be subject to all prior water rights.

R. KEITH HIGGINSON,
Director

Idaho Department of Water Resources.

PUBLISH: Thursday, October 3 and 10, 1991.

MICROFILMED

SEP 14 1992

TO: BOISE

OCT-03-'91 THU 15:31

IDWR EASTERN REGION

TEL NO: (208) 525-7177

#547 P01

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
EASTERN REGION
IDAHO FALLS, ID
ph. (208) 525-7161

FAX NO. (208) 525-7177

TRANSMITTAL COVER SHEET

OMNIFAX

TO: Gary Spackman

FROM: H. C. Jones

DOCUMENT DESCRIPTION: Mailing List & Legal Notice
ref Willow Creek

TOTAL NUMBER OF PAGES (Including this page): 4

*
* BILLING ADDRESS: _____ *
* _____ *
* _____ *
* NO. OF PAGES _____ COST/PAGE _____ TOTAL CHARGE _____ *
*

MICROFILMED

SEP 14 1992

From Post Register 10-3-1991

Be. The prospective bridegroom is the son of Dan and Ruth Lybbert of Shelby, Mont. He is a graduate of Shelby High School and attends Ricks College.

LEGAL NOTICE

NOTICE OF HEARING FOR APPLICATION FOR MINIMUM STREAMFLOW

Notice is hereby given that the Idaho Water Resource Board submitted an application for permit to appropriate water to the Department of Water Resources, proposing to appropriate water for a minimum streamflow in Willow Creek, a tributary of the Snake River. The application is further described as follows:

Source: Willow Creek
Application No.: 24-7997
Proposed Priority: June 24, 1991
Amount and Period of Use: 30.0 cfs from December 1 to March 31
250.0 cfs from April 1 to May 31
100.0 cfs from June 1 to July 15
30.0 cfs from July 16 to September 30
40.0 cfs from October 1 to November 30
Purpose of Minimum Flow: Preservation of fish and wildlife habitat, aquatic life and water quality.
Place of Use: Willow Creek, commencing at the confluence of Camps Lake Outlet in the SEW of the NWA, Section 33, T1N, R40E, and extending downstream to the backwaters of Ririe Reservoir in the NWA of the SEW, Section 27, T2N, R40E, B.M., Bonneville County.

The Director of the Department of Water Resources will hold a public hearing in the State Office Building, 1st Floor Conference Room, 150 Shoup Avenue, Idaho Falls, Idaho, beginning at 1:30 p.m. on Tuesday October 29, 1991, for the purpose of hearing evidence in regard to the application. The hearing will be held pursuant to the provisions of Section 42-1503, Idaho Code.

Any party who wishes to formally appear in the proceeding for the purpose of presenting evidence or cross examining witnesses should file a notice of appearance with the Director of the Department of Water Resources, Statehouse Mail, 1301 North Orchard Street, Boise, Idaho 83720, five (5) days prior to the hearing. Other parties will be given an opportunity to informally present their views and comments without the necessity of filing a notice of appearance. Written informal views and comments may also be submitted to the Department of Water Resources prior to the hearing.

If issued, this permit will be subject to all prior water rights.

R. KEITH HIGGINSON, Director
Idaho Department of Water Resources
Published: October 3, 10, 1991

LEGAL NOTICE

Pursuant to Section 24-46-302 of the Idaho Uniform Consumer Credit Code, you hereby are notified that Beneficial Mortgage Co. of Idaho, 2217 17th Street, Idaho Falls, Idaho 83406, has filed an application with the Office of the Commissioner of Finance to do business as a Registered Lender.

Objections to issuance of this license may be filed with the Department of Finance, Supervisor Consumer Credit, Boise, Idaho 83720 within thirty (30) days of mailing of this notice.
Published: Sept 26, Oct 3, 10, 1991

LEGAL NOTICE

Pursuant to Section 24-46-302 of the Idaho Uniform Consumer Credit Code, you hereby are notified that Beneficial Idaho Inc. d/b/a Benchmark Credit Service,

illegal hearings on the issue.
"I want to see, in this new modern livestock world, what should be the responsibility of the federal

LEGAL NOTICE

2217 17th Street, Idaho Falls, Idaho 83406, has filed an application with the Office of the Commissioner of Finance to do business as a Registered Lender.

Objections to issuance of this license may be filed with the Department of Finance, Supervisor Consumer Credit, Boise, Idaho 83720 within thirty (30) days of mailing of this notice.
Published: Sept 26, Oct 3, 10, 1991

NOTICE OF APPLICATION FOR WATER RIGHT

The following application has been filed to appropriate the public waters of the State of Idaho:

47-08271
MILLER ENTERPRISES INC., J.M.
P.O. BOX 593
TWIN FALLS, ID 83303
Source: UNNAMED STREAM
Tributary: SNAKE RIVER
Source: WASTE WATER
Tributary: SNAKE RIVER
Diversion Pt: SESENE Sec 13 T 09S R 15E
Use: STOCKWATER (1,850 CFS)
FISH PROPAGATION (4,500 CFS)
POWER (20,000 CFS)
Total Diversion: (20,000 CFS)
Date Filed: 4/24/1991
In: TOSS RISE S 13 NENE SENE

The permit will be subject to all prior water rights. Protests must be filed with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, ID 83301 on or before October 21, 1991.

Published: October 3, 10, 1991

NOTICE OF APPLICATION FOR WATER RIGHT

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

36-08666
BUCK, CAMERON
1802 PINE ST
SANDPOINT, ID 83864
Source: JOHNSON CREEK
Tributary: CLARK FORK RIVER,
SOUTH FORK
Diversion Pt: MENW Sec 17 T 55N R 02E
Use: POWER (21,000 CFS)
Total Diversion: (21,000 CFS)
Date Filed: 9/23/1991
In: T25N R02E S04 NWSE

For additional information concerning the property location, call the Northern Regional Office at 765-4639.

The permit(s) will be subject to all prior water rights. Protests must be filed with the Director, Dept. of Water Resources, Northern Region, 1919 Northwest Blvd., Suite 210, Coeur d'Alene, Idaho 83814 on or before OCTOBER 21, 1991.

R. KEITH HIGGINSON, Director
Published: October 3, 10, 1991

ADVERTISEMENT FOR BIDS

Sealed bids will be received by the City Clerk of the City of Idaho Falls, Idaho, at the Office of the City Clerk, 308 Constitution Way, Idaho Falls, Idaho until 10:00 o'clock A.M. prevailing local time, on October 22, 1991, for the re-roofing of the Idaho Falls Public Library, for the above named Owner at Idaho Falls, Idaho, and with them and there be opened and publicly read aloud. Bids received after the time fixed for opening will not be considered. Plans, Specifications and form of Contract Documents may be examined at the office

Another to rustlers involves killing checks to pay for cattle. By the time the bad check clears, said Henderson and

LEGAL NOTICE

of the above named clerk and at the office of the Architects, and a set of said Plans, Specifications and forms for bidding may be obtained at the office of Sandberg and Associates, Inc., Architects, Idaho Falls, Idaho, upon deposit of \$25.00.

A Pre-Bid Conference will be held at the Idaho Falls Public Library, 457 Broadway Street, Idaho Falls, Idaho at 10:00 A.M. prevailing local time, on October 13, 1991. Each bid shall be accompanied by a cashier's check or bid bond (with authorized surety company at surety) made payable to the Owner in an amount not less than 5% of the amount of bid.

The City of Idaho Falls reserves the right to reject any or all bids and to waive informalities. No bidder may withdraw his bid after the hour set for the opening thereof, or before award of Contract, unless said award is delayed for a period exceeding thirty days.

City of Idaho Falls, Idaho
By Valma Chandler
City Clerk
Published: October 3, 10, 1991

NOTICE OF HEARING FOR APPLICATION FOR MINIMUM STREAMFLOW

Notice is hereby given that the Idaho Water Resource Board has submitted two applications to the Department of Water Resources for permits to appropriate water for a minimum streamflow in the Big Wood River. The applications are further described as follows:

Source: Big Wood River
Application No.: 17-8258
Proposed Priority: January 16, 1986
Amount and Period of Use: 300.0 cfs from January 1 through December 31
Purpose of Minimum Flow: Fish and wildlife habitat, water quality, aesthetics and recreation.
Place of Use: Beginning at the intersection of the Big Wood River with the Sawtooth National Recreational Area boundary, located in the SEWNWA, Section 10, T34N, R17E, B.M., and extending downstream approximately 9 miles to the confluence of the Big Wood River, and Warm Springs Creek, located in the SEWNWA, Section 13, T4N, R17E, B.M., Blaine County.

Source: Big Wood River
Application No.: 37-8307
Proposed Priority: October 16, 1987
Amount and Period of Use: 119.25 cfs from January 1 through December 31
Purpose of Minimum Flow: Fish and wildlife habitat, water quality, aesthetics and recreation.

Place of Use: Beginning at the confluence of the Big Wood River and Warm Springs Creek, located in the SEWNWA, Section 13, T4N, R17E, B.M., and extending downstream.

The Director of the Department of Water Resources will hold a public hearing in the Blaine County Courthouse, 101 2nd Avenue South, Blaine, Idaho, beginning at 1:30 p.m. on Wednesday October 23, 1991, for the purpose of hearing evidence in regard to the application. The hearing will be held pursuant to the provisions of Section 42-1503, Idaho Code.

The hearing will occur at the close of formal testimony, but will reconvene at 7:00 p.m. for the taking of public testimony. The evening meeting will be held in the Ketchikan City Hall, 440 East Avenue North, Ketchikan, Idaho.

Any party who wishes to formally appear

"It's becoming a problem," said. "There's no question in my mind about it."

LEGAL NOTICE

in this proceeding for the purpose of presenting evidence or cross examining witnesses should file a notice of appearance with the Director of the Department of Water Resources, Statehouse Mail, 1301 N. Orchard Street, Boise, Idaho 83720, five (5) days prior to the hearing. Other parties will be granted an opportunity to informally present their views and comments without the necessity of filing a notice of appearance. Written informal views and comments may also be submitted to the Department of Water Resources prior to the hearing.

If issued, these permits will be subject to all prior water rights.

R. KEITH HIGGINSON, Director
Idaho Department of Water Resources
Published: October 3, 10, 1991

NOTICE OF HEARING FOR APPLICATION FOR MINIMUM STREAMFLOW

Notice is hereby given that the Idaho Water Resource Board submitted applications for permit to appropriate water to the Department of Water Resources on August 3, 1990, proposing to appropriate water for minimum streamflow in several springs and outflow channels in the vicinity of Thousand Springs. The applications are further described as follows:

Source: South Thousand Springs Channel
Application No.: 36-8356
Proposed Priority: August 3, 1990
Amount and Period of Use: 500.0 cfs from January 1 through December 31
Purpose of Minimum Flow: Preservation of aesthetics, recreation, aquatic life, beauty, and fish and wildlife habitat.
Place of Use: Beginning at the Idaho Power Thousand Springs Power Plant, in Government Lot 3 (SEWNWA), Section 8, T8S, R14E, and extending downstream to the confluence with the Snake River, located in Government Lot 1 (SEWNWA), Section 17, T8S, R14E, Blaine County.

Source: Sculptin Springs Creek
Application No.: 36-8357
Proposed Priority: August 3, 1990
Amount and Period of Use: 33.0 cfs from January 1 through December 31
Purpose of Minimum Flow: Preservation of aesthetics, recreation, aquatic life, and fish and wildlife habitat.

Place of Use: Beginning at a point where the water falls off the Snake River canyon wall, located in the NWWSWSEW, Section 17, T8S, R14E, and extending downstream to the confluence of Sculptin Springs Creek and the Snake River, located in Government Lot 4 (SEWNWA), Section 17, T8S, R14E, B.M., Gooding County.

Source: Springs and Sand Springs Creek
Application No.: 36-8358
Proposed Priority: August 3, 1990
Amount and Period of Use: 34.0 cfs from January 1 through December 31
Purpose of Minimum Flow: Preservation of aesthetics, recreation, aquatic life, and fish and wildlife habitat.

Place of Use: Beginning at the outflow of the headwater spring from the Snake River wall, located in the SWWSWSEW, Section 17, T8S, R14E, and extending downstream to where Sand Springs Creek discharges into the Snake River, located in Government Lot 5 (SEWNWA), Section 17, T8S, R14E, B.M., Gooding County. This minimum streamflow would include all unappropriated water that discharges to the creek within the reach, including any springs from their point of origin to their

discharge into the creek.
The Director of the Department of Water Resources will hold a public hearing in the Hagerman Senior Citizens Center, 140 Lake Street, Hagerman, Idaho, beginning at 1:30 p.m. on Tuesday October 22, 1991, for the purpose of hearing evidence in regard to the application. The hearing will be conducted pursuant to the provisions of Section 42-1503, Idaho Code.

just over 2 billion bushels last month, 15 percent below the year-

for wheat mark last

LEGAL NOTICE

discharge into the creek.
The Director of the Department of Water Resources will hold a public hearing in the Hagerman Senior Citizens Center, 140 Lake Street, Hagerman, Idaho, beginning at 1:30 p.m. on Tuesday October 22, 1991, for the purpose of hearing evidence in regard to the application. The hearing will be conducted pursuant to the provisions of Section 42-1503, Idaho Code.

The hearing will occur at the close of formal testimony, but will reconvene at 7:00 p.m. for the taking of public testimony. Any party who wishes to formally appear in the proceeding for the purpose of presenting evidence or cross examining witnesses should file a notice of appearance with the Director of the Department of Water Resources, 222 Shoshone St. East, Twin Falls, Idaho 83301, five (5) days prior to the hearing. Other parties will be given an opportunity to informally present their views and comments without filing a notice of appearance. Written informal views and comments may also be submitted to the Department of Water Resources prior to the hearing.

If issued, these permits will be subject to all prior water rights.

R. KEITH HIGGINSON, Director
Idaho Department of Water Resources
Published: October 3, 10, 1991

NOTICE OF EXPIRATION OF TIME FOR REDEMPTION PROGRESSIVE IRRIGATION DISTRICT

Notice is hereby given that the time to redeem property situated in the said Irrigation District for the year of 1988 will expire on the last day of December, 1991, and that the list given below shows the names of the persons to whom the respective entries were made. That the delinquent entries in each case were made on the 20th day of December, 1988. That the following described lands are situated in the County of Bonneville, State of Idaho, to-wit:

NAME AND DESCRIPTION
The 1/2 Water Right in the 11th Center, beginning 22, 1991, hence in bearing a sum of \$ 7.00 per acre.
The 1/2 formal 1.700 per acre.
Any party wishing to redeem the property should file a notice of redemption with the District Engineer, Idaho Department of Water Resources, Statehouse Mail, 1301 North Orchard Street, Boise, Idaho 83720, on or before the last day of December, 1991.
If no notice of redemption is filed by the last day of December, 1991, the property will be sold to satisfy the delinquent entries.
The following is a list of the names of the persons to whom the respective entries were made. That the delinquent entries in each case were made on the 20th day of December, 1988. That the following described lands are situated in the County of Bonneville, State of Idaho, to-wit:

Ammon
Cody Smith
Lot 1, Blk 8,
Daw R. Blk
W 140' x 91'
Rodney Olds
N 110' W 1'
110' NE Co.
Michael K.
130' x 128'
Linda Clem
S 160' E 62'
Treasure R.
Lot 3, Blk 1
Terry Merr
Lot 4, Blk 1
Terry L. T.
Lot 14, Blk
Mark Wall
Lot 8, Blk 1
Washington
Lot 2, Blk 1
Anthony J.
Lot 1, Blk 1
Dated 10/3/91
/s/ Keith H.
Secretary
Published:

Idaho Department of Water Resources
Published: October 3, 10, 1991

Idaho Department of Water Resources
Published: October 3, 10, 1991

Idaho Department of Water Resources
Published: October 3, 10, 1991

Idaho Department of Water Resources
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Idaho Department of Water Resources
Published: October 3, 10, 1991

Idaho Department of Water Resources
Published: October 3, 10, 1991

SEP 14 1992

TO: BOISE

OCT-03-'91 THU 15:33

DWR EASTERN REGION TEL NO: (208) 5-7177

#547 P03

Willow Creek Landowners Mailing List

~~Jensen Land Corp~~

2768 S. Higbee Ave
ID Falls, ID

83404

~~Army Corp of Engineers (walla walla)~~

~~Harold L. Hansen~~

P.O. Box 146
Tona, ID 83427-0146

U.S.A. (BLM)

~~Philip Knowlts~~

5116 E. Lincoln Rd
ID Falls, ID 83401

~~Dwayne T. Simmons~~

6919 E. Tona Rd
Idaho Falls, ID 83401

~~Quarter Circle - O - Ranch Inc
c/o L. Ferebaun~~

2017 E. Tona Rd
ID Falls, ID 83401

~~Rex O'Dell + Eva M. Young~~

175 Evergreen Dr
ID Falls, ID

83401-2307

SEP 14 1992

TO:BOISE

OCT-03-'91 THU 15:33

DWR EASTERN REGION

TEL NO: (208)

5-7177

#547 P04

Willow Creek

continued

~~S + S Farms Inc~~

2330 S. Ammon Rd
ID Falls, ID 83406

~~Delva N. Edwards~~

925 N. Boulevard
ID Falls, ID 83402

~~Keith M. Olsen~~

5828 E. Tena Rd
ID Falls, ID 83401

~~H.D + R.E. Elkington~~

3330 S. 45th E.
ID Falls, ID 83401

~~Elkington Bros.~~

5080 E. Sunnyside Rd
ID Falls, ID 83406

~~Keith + Brent Elkington~~

1316 Bone Rd
ID Falls, ID 83427

RECEIVED

SEP 14 1992

Beauty for all Seasons.
The prospective bridegroom is the son of Don and Ruth Lybbert of Shelby, Mont. He is a graduate of Shelby High School and attends Ricks College.

muscle
illegal livestock sales, and he plans hearings on the issue.
"I want to see, in this new modern livestock world, what should be the responsibility of the federal

the brands."
Another technique used by rustlers involves killing checks to pay for cattle. By the time the bad check clears, said Henderson and

33 app '92
legal drug profits.
"It's becoming a problem," he said. "There's no question in my mind about it."

ping to its
the avera
for wheat
mark last

LEGAL NOTICE

NOTICE OF HEARING FOR APPLICATION FOR MINIMUM STREAMFLOW

Notice is hereby given that the Idaho Water Resource Board submitted an application for permit to appropriate water to the Department of Water Resources, proposing to appropriate water for a minimum streamflow in Willow Creek, a tributary of the Snake River. The application is further described as follows:
Source: Willow Creek
Application No.: 25-7597
Proposed Priority: June 24, 1991
Amount and Period of Use: 30.0 cfs from December 1 to March 31
250.0 cfs from April 1 to May 31
100.0 cfs from June 1 to July 15
300.0 cfs from July 16 to September 30
400.0 cfs from October 1 to November 30
Purpose of Minimum Flow: Preservation of fish and wildlife habitat, aquatic life and water quality.
Place of Use: Willow Creek, commencing at the confluence of Grays Lake Outlet in the SE 1/4 of the NW 1/4, Section 33, T1N, R40E, and extending downstream to the backwaters of Ririe Reservoir in the NW 1/4 of the SE 1/4, Section 21, T2N, R40E, B.M., Bonneville County.

The Director of the Department of Water Resources will hold a public hearing in the State Office Building, 2nd Floor Conference Room, 130 Shoup Avenue, Idaho Falls, Idaho, beginning at 1:30 p.m. Tuesday, October 28, 1991, for the purpose of hearing evidence in regard to the application. The hearing will be held pursuant to the provisions of Section 42-1503, Idaho Code.

Any party who wishes to formally appear in the proceeding for the purpose of presenting evidence or cross examining witnesses should file a notice of appearance with the Director of the Department of Water Resources, 222 Shoshone St., East, Twin Falls, Idaho 83301, five (5) days prior to the hearing. Other parties will be given an opportunity to informally present their views and comments without filing a notice of appearance. Written informal notice of appearance may also be submitted to the Department of Water Resources prior to the hearing.

If issued, this permit will be subject to all prior water rights.
Idaho Department of Water Resources
Published: October 3, 10, 1991

LEGAL NOTICE

NOTICE OF APPLICATION FOR WATER RIGHT

The following application has been filed to appropriate the public waters of the State of Idaho:
47-08271
MILLER ENTERPRISES INC., J.M.
P.O. BOX 595
TWIN FALLS, ID 83303
Source: UNNAMED STREAM
Tributary: SNAKE RIVER
Source: WASTE WATER
Tributary: SNAKE RIVER
Diversion Pt: SESENE Sec 13 T 09S R 15E
Use: STOCK WATER (.050 CFS)
FISH PROPAGATION (.4,500 CFS)
POWER (.20,000 CFS)
Total Diversion: (20,000 CFS)
Date Filed: 4/24/1991

The permit will be subject to all prior water rights. Protests must be filed with the Director, Dept. of Water Resources, South Region, 222 Shoshone Street East, Twin Falls, ID 83301 on or before October 31, 1991.
Published: October 3, 10, 1991

LEGAL NOTICE

NOTICE OF HEARING FOR APPLICATION FOR MINIMUM STREAMFLOW

Notice is hereby given that the Idaho Water Resource Board has submitted two applications to the Department of Water Resources for permits to appropriate water for a minimum streamflow in the Big Wood River. The applications are further described as follows:
Source: Big Wood River
Application No.: 31-8258
Proposed Priority: January 16, 1986
Amount and Period of Use: 200.0 cfs from January 1 through December 31
Purpose of Minimum Flow: Fish and wildlife habitat, water quality, aesthetics and recreation.
Place of Use: Beginning at the intersection of the Big Wood River with the Snake River National Recreation Area Boundary, R17E, B.M., and extending downstream approximately 1/2 mile to the confluence of the Big Wood River with the Snake River, T3N, R17E, B.M., Blaine County.
Source: Big Wood River
Application No.: 31-8307
Proposed Priority: October 16, 1987
Amount and Period of Use: 119.23 cfs from January 1 through December 31
Purpose of Minimum Flow: Fish and wildlife habitat, water quality, aesthetics and recreation.

The Director of the Department of Water Resources will hold a public hearing in the Blaine County Courthouse, 101 2nd Avenue South, Hailey, Idaho, beginning at 1:30 p.m. on Wednesday, October 23, 1991, for the purpose of hearing evidence in regard to the application. The hearing will be held pursuant to the provisions of Section 42-1503, Idaho Code.

The hearing will recess at the close of formal testimony, but will reconvene at 7:00 p.m. for the taking of public testimony. The evening meeting will include all minimum streamflow would include all creek within the reach, including any springs from their point of origin to their

LEGAL NOTICE

NOTICE OF HEARING FOR APPLICATION FOR MINIMUM STREAMFLOW

Notice is hereby given that the Idaho Water Resource Board submitted applications for permit to appropriate water to the Department of Water Resources on August 3, 1990, proposing to appropriate water for a minimum streamflow in several springs and outflow channels in the vicinity of Thousand Springs. The applications are further described as follows:
Source: South Thousand Springs Channel
Application No.: 36-8556
Proposed Priority: August 3, 1990
Amount and Period of Use: 500.0 cfs from January 1 through December 31
Purpose of Minimum Flow: Preservation of aesthetics, recreation, aquatic life, beauty, and fish and wildlife habitat.
Place of Use: Beginning at the Idaho Power Thousand Springs Power Plant, in Government Lot 3 (SE 1/4 NE 1/4 SW 1/4), Section 8, T8S, R14E, and extending downstream to the confluence with the Snake River, located in Government Lot 1 (NE 1/4 NE 1/4 NW 1/4), Section 17, T8S, R14E.
Source: Sculpin Springs Creek
Application No.: 36-8557
Proposed Priority: August 3, 1990
Amount and Period of Use: 33.0 cfs from January 1 through December 31
Purpose of Minimum Flow: Preservation of aesthetics, recreation, aquatic life, and fish and wildlife habitat.

Place of Use: Beginning at a point where the water falls off the Snake River canyon wall, located in the NW 1/4 SW 1/4 SE 1/4, Section 17, T8S, R14E, and extending downstream to the confluence of Sculpin Springs Creek and the Snake River, located in Government Lot 4 (SE 1/4 NE 1/4 NW 1/4), Section 17, T8S, R14E, B.M., Gooding County.
Source: Springs and Sand Springs Creek
Application No.: 36-8558
Proposed Priority: August 3, 1990
Amount and Period of Use: 34.0 cfs from January 1 through December 31
Purpose of Minimum Flow: Preservation of aesthetics, recreation aquatic life, and fish and wildlife habitat.

Place of Use: Beginning at the outflow of the headwater spring from the Snake River well located in the SW 1/4 SW 1/4 SE 1/4, Section 17, T8S, R14E, and extending downstream to where Sand Springs Creek discharges into the Snake River, located in Government Lot 5 (SE 1/4 NE 1/4 SW 1/4), Section 17, T8S, R14E, B.M., Gooding County. This minimum streamflow would include all creek within the reach, including any springs from their point of origin to their

LEGAL NOTICE

NOTICE OF EXPIRATION OF TIME FOR REDEMPTION PROGRESSIVE IRRIGATION DISTRICT

Notice is hereby given that the time to redeem property situated in the said Irrigation District for the year of 1988 will expire on the last day of December, 1991, and that the list below shows the names of the persons to whom the respective entries were made. That the delinquent entries in each case were made on the 20th day of December, 1988. That the following described lands are situated in the County of Bonneville, State of Idaho, to-wit:
NAME AND DESCRIPTION
Charles Edwin Tawzer
1.64 Acres Sec 2, T1N, R38E
William S. Stanger
27 Acres NE 1/4 Sec 1, T2N, R38E
Karen Russell
5 Acres Lot 5 Sec 6, T2N, R38E
Clifford Sherman Mansfield
28 Acres Center SE 1/4 Sec 11, T2N, R38E
Fred Adams
Tract 7 Sec 24, T2N, R38E
Bruce Ward
1.6 Acres NE 1/4 Sec 29, T3N, R38E
Dennis C. Shaul
49 Acres SW 1/4 Sec 33, T3N, R38E
William S. Stanger
16 Acres NW Corner Lot 7 & 2 Acres NW 1/4 Lot 2 Sec 6, T2N, R39E
Russell N. Swensen
W 1/2 Sec 5 E 3/4 Lot 1, Blk 1, Ammon
Cherol Anne Severson, and HUD
N 1/2 E 1/4 Lot 5, S 9/2 E 1/4 Lot 6, Blk 6, Ammon
Russell N. Swensen
S 85 E 1/2 Lot 1, Blk 7, Ammon
Otto Meng
Center 313.5' x 92' Lot 7, Blk 9, Ammon
Wendell Day and Owen Tanner
W 1/2 Lot 6, Blk 11, Ammon
William V. Jorgensen
75' x 105' NW Corner Lot 8, Blk 14, Ammon
Helen Judy Hogarth Edgmon
N 6 S 109' & W 1/2 Lot 3, Blk 15,

LEGAL NOTICE

NOTICE OF EXPIRATION OF TIME FOR REDEMPTION PROGRESSIVE IRRIGATION DISTRICT

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Karen Russell
5 Acres Lot 5 Sec 6, T2N, R38E
Clifford Sherman Mansfield
28 Acres Center SE 1/4 Sec 11, T2N, R38E
Fred Adams
Tract 7 Sec 24, T2N, R38E
Bruce Ward
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W 1/2 Sec 5 E 3/4 Lot 1, Blk 1, Ammon
Cherol Anne Severson, and HUD
N 1/2 E 1/4 Lot 5, S 9/2 E 1/4 Lot 6, Blk 6, Ammon
Russell N. Swensen
S 85 E 1/2 Lot 1, Blk 7, Ammon
Otto Meng
Center 313.5' x 92' Lot 7, Blk 9, Ammon
Wendell Day and Owen Tanner
W 1/2 Lot 6, Blk 11, Ammon
William V. Jorgensen
75' x 105' NW Corner Lot 8, Blk 14, Ammon
Helen Judy Hogarth Edgmon
N 6 S 109' & W 1/2 Lot 3, Blk 15,



State of Idaho

DEPARTMENT OF WATER RESOURCES

1301 North Orchard Street, Statehouse Mall, Boise, Idaho 83720 - (208) 327-7900

CECIL D. ANDRUS

GOVERNOR

R. KEITH HIGGINSON

DIRECTOR

TRANSMITTAL COVER SHEET

FAX No. (208) 327-7866

DATE:

9/25/91

TO:

Skip/Farkner

FROM:

IT/S.D.

DOCUMENT DESCRIPTION:

notice for MSF hearing

TOTAL PAGES SENT:

2 + 1 Cover Sheet

CONTACT:

J. Sargent
(Name of Sender)

MICROFILMED

SEP 14 1992

NOTICE OF HEARING FOR APPLICATION FOR MINIMUM STREAMFLOW

Notice is hereby given that the Idaho Water Resource Board submitted an application for permit to appropriate water to the Department of Water Resources, proposing to appropriate water for a minimum streamflow in Willow Creek, a tributary of the Snake River. The application is further described as follows:

Source:	Willow Creek
Application No.:	25-7597
Proposed Priority:	June 24, 1991
Amount and Period of Use:	30.0 cfs from December 1 to March 31 250.0 cfs from April 1 to May 31 100.0 cfs from June 1 to July 15 30.0 cfs from July 16 to September 30 40.0 cfs from October 1 to November 30
Purpose of Minimum Flow:	Preservation of fish and wildlife habitat, aquatic life and water quality.
Place of Use:	Willow Creek, commencing at the confluence of Grays Lake Outlet in the SE $\frac{1}{4}$ of the NW $\frac{1}{4}$, Section 33, T1N, R40E, and extending downstream to the backwaters of Ririe Reservoir in the NW $\frac{1}{4}$ of the SE $\frac{1}{4}$, Section 27, T2N, R40E, B.M., Bonneville County.

The Director of the Department of Water Resources will hold a public hearing in the State Office Building, 2nd Floor Conference Room, 150 Shoup Avenue, Idaho Falls, Idaho, beginning at 1:30 p.m. on Tuesday October 29, 1991, for the purpose of hearing evidence in regard to the application. The hearing will be held pursuant to the provisions of Section 42-1503, Idaho Code.

Any party who wishes to formally appear in the proceeding for the purpose of presenting evidence or cross examining witnesses should file a notice of appearance with the Director of the Department of Water Resources, Statehouse Mail, 1301 North Orchard Street, Boise, Idaho 83720, five (5) days prior to the hearing. Other parties will be given an opportunity to informally present their views and comments without the necessity of filing a notice of appearance. Written informal views and comments may also be submitted to the Department of Water Resources prior to the hearing.

MICROFILMED

SEP 14 1992

If issued, this permit will be subject to all prior water rights.

R. KEITH HIGGINSON, Director
Idaho Department of Water Resources

PUBLISHED OCTOBER 3 & 10, 1991

REPRODUCED

SEP 14 1992

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
EASTERN REGION
IDAHO FALLS, ID
ph. (208) 525-7161

FAX NO. (208) 525-7177

TRANSMITTAL COVER SHEET

OMNIFAX

TO: IDAHO STATESMAN

FROM: RITA BODELL

ATTEN: Iris

DOCUMENT DESCRIPTION: LEGAL NOTICE OF HEARING FOR APPLICATION
FOR MINIMUM STREAMFLOW

TOTAL NUMBER OF PAGES (Including this page): 3

Please advertise these on October 3 & 10, 1991. If there is a problem,
please call me as soon as possible. Thanks

*
* BILLING ADDRESS: _____
* _____
* _____
*
* NO. OF PAGES _____ COST/PAGE _____ TOTAL CHARGE _____
*

MICROFILMED

SEP 14 1992

OK

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
EASTERN REGION
IDAHO FALLS, ID
ph. (208) 525-7161

FAX NO. (208) 525-7177

TRANSMITTAL COVER SHEET

OMNIFAX

TO: LEWISTON MORNING TRIBUNE FROM: RITA BODELL
ATTEN: SUE

DOCUMENT DESCRIPTION: LEGAL NOTICE OF HEARING FOR APPLICATION
FOR MINIMUM STREAMFLOW

TOTAL NUMBER OF PAGES (Including this page): 3

Please advertise these on October 3 & 10, 1991. If there is a problem
please call me as soon as possible.

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* BILLING ADDRESS: _____
* _____
* _____
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* NO. OF PAGES _____ COST/PAGE _____ TOTAL CHARGE _____
*

MICROFILMED

SEP 14 1992

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
EASTERN REGION
IDAHO FALLS, ID
ph. (208) 525-7161

FAX NO. (208) 525-7177

TRANSMITTAL COVER SHEET

OMNIFAX

TO: TIMES-NEWS FROM: RITA BODELL

ATTEN: Karen

DOCUMENT DESCRIPTION: LEGAL NOTICE OF HEARING FOR APPLICATION

FOR MINIMUM STREAMFLOW

TOTAL NUMBER OF PAGES (Including this page): 3

PLEASE advertise these on October 3 & 10, 1991. If there is a problem, please call me as soon as possible. Thanks

*
* BILLING ADDRESS: _____*
* _____*
* _____*
*
* NO. OF PAGES _____ COST/PAGE _____ TOTAL CHARGE _____*
*

MICROFILMED

SEP 14 1992

O.K.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
EASTERN REGION
IDAHO FALLS, ID
ph. (208) 525-7161

FAX NO. (208) 525-7177

TRANSMITTAL COVER SHEET

OMNIFAX

TO: THE POST-REGISTER FROM: RITA BODELL
ATTN: Kathy

DOCUMENT DESCRIPTION: LEGAL NOTICE OF HEARING FOR APPLICATION
FOR MINIMUM STREAMFLOW.

TOTAL NUMBER OF PAGES (Including this page): 3

Please advertise these on October 3 & 10, 1991. If there is a problem, please call me as soon as possible. Thanks.

*
* BILLING ADDRESS: _____*
* _____*
* _____*
*
* NO. OF PAGES _____ COST/PAGE _____ TOTAL CHARGE _____*
*

RECEIVED
OCT 14 1992

NOTICE OF HEARING FOR APPLICATION FOR MINIMUM STREAMFLOW

Notice is hereby given that the Idaho Water Resource Board submitted an application for permit to appropriate water to the Department of Water Resources, proposing to appropriate water for a minimum streamflow in Willow Creek, a tributary of the Snake River. The application is further described as follows:

Source:	Willow Creek
Application No.:	25-7597
Proposed Priority:	June 24, 1991
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Purpose of Minimum Flow:	Preservation of fish and wildlife habitat, aquatic life and water quality.
Place of Use:	Willow Creek, commencing at the confluence of Grays Lake Outlet in the SE $\frac{1}{4}$ of the NW $\frac{1}{4}$, Section 33, T1N, R40E, and extending downstream to the backwaters of Ririe Reservoir in the NW $\frac{1}{4}$ of the SE $\frac{1}{4}$, Section 27, T2N, R40E, B.M., Bonneville County.

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RECORDED

SEP 14 1992

If issued, this permit will be subject to all prior water rights.

R. KEITH HIGGINSON, Director
Idaho Department of Water Resources

PUBLISHED OCTOBER 3 & 10, 1991

RECEIVED
SEP 14 1992

Madison
Bonnevile
Bingham

Willow Creek Minimum Streamflow

9-23-91

83427 - Bone

Legal notice - advertiser two Thursdays
12th & 17th of Sept.

IF Falls } Papers
Blackfoot }

NOTICE OF APPLICATION FOR MINIMUM STREAMFLOW

Notice is hereby given that the IDAHO WATER RESOURCE BOARD has submitted an Application for Permit to the Department of Water Resources proposing to appropriate water for a minimum streamflow on Willow Creek, a tributary of the Snake River. The application is further described as follows:

Application No: 25-7597

Source: Willow Creek

Proposed Priority: June 24, 1991

Place of Use: Willow Creek, commencing at the confluence of Grays Lake Outlet in the SE 1/4 of the NW 1/4, Section 33, T1N, R40E and extending downstream to the backwaters of Ririe Reservoir in the NW 1/4 of the SE 1/4 of Section 27, T2N, R40E, B.M., Bonneville County.

Amounts and Periods of Use: 30 cfs from December 1 to March 31.

250 cfs from April 1 to May 31.

100 cfs from June 1 to July 15.

30 cfs from July 16 to September 30.

40 cfs from October 1 to November 30.

Purposes: Preservation of fish and wildlife habitat, aquatic life and water quality.

The Idaho Water Resource Board will hold a public meeting on the application on September 23, 1991 at 7:30 PM in the State Office Building, 2nd Floor Conference Room, 150 Shoup Ave. The purpose of the meeting is to provide more information about the application to the public and to gather information on public support for the application.

F. DAVE RYDALCH, CHAIRMAN
IDAHO WATER RESOURCE BOARD

MICROFILMED

SEP 14 1992

Post-It™ brand fax transmittal memo 7671		# of pages > 1
To Skip Jones	From Bill Graham	
Co.	Co.	
Dept.	Phone #	
Fax #	Fax #	

NOTICE OF APPLICATION FOR MINIMUM STREAMFLOW

Notice is hereby given that the IDAHO WATER RESOURCE BOARD has submitted an Application for Permit to the Department of Water Resources proposing to appropriate water for a minimum streamflow on Willow Creek, a tributary of the Snake River. The application is further described as follows:

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F. DAVE RYDALCH, CHAIRMAN
IDAHO WATER RESOURCE BOARD

Published in the Morning News 9-12 & 9-19-1991.

SEP 14 1991

*For the 12th
Jackie
Not the 19th
Will run 20th*

WATERMASTER COMMENTS

I have reviewed Application for Permit No. 25-7597 and have the following comments objections to the approval of this application for permit:

This in stream flow
will limit the opportunity
for individuals wishing to
exchange willow creek water
for storage released somewhere
else in the system for
the irrigation of land that
is currently dry farmed.

8/2/91

Date

R. Carlson
RONALD D. CARLSON, WATERMASTER
Water District No. 01

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SEP 14 1992

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AUG 2 1991

Department of Water Resources
Eastern District Office

Dist. for staffing: 27-Jun-1991
Submitted for advertising:

Form No. 202a
4/87

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
APPLICATIONS FOR PERMIT ANALYSIS SHEET

25.7597

25.7597

INITIAL REVIEW BY HWS DATE 7-5-91
APPLICANT NAME: IDAHO WATER RESOURCE BOARD

APPLICATION NO. _____

REQUIRED INFORMATION

- ☒ Name (If applicant is a corporation or partnership, names must be provided for the director, officers, & other partners.)
☒ Address
☒ Source (See USGS Quad for names of water sources)
☒ Point of Diversion (10 acres for spring, lot & block descriptions for subdivisions, local name, flow and/or volume)
☒ County
☒ Quantity (flow and/or volume)
☒ Period of Use
☒ Nature of proposed use (Include description of use.)
☒ Description of diverting works
☒ Time required for beneficial use of water
☒ Place of use or acres irrigated
☒ Map
☒ Signature (If applicant is corp. partnership, or municipality, title of signator is required)
☒ Fee
Yes _____ No* In form to receipt

ADDITIONAL INFORMATION

- Overlapping place of use (Describe source & relationship to present application on the back.)
Overlapping point of diversion
Yes _____ No _____ Field check required
Field check by _____
Yes _____ No _____ Field report attached
Yes _____ No _____ Critical groundwater area
Yes _____ No _____ Groundwater management area
Yes _____ No _____ Send dam safety information
Yes _____ No _____ Send power requirement letter
Yes _____ No _____ Send fish farm requirement letter
Yes _____ No _____ Power residency affidavit
Yes _____ No _____ Power efficiency form
Yes _____ No _____ Within trustwater boundary (If yes, attach trust water supplementary analysis sheet.)
Yes _____ No _____ Diversion greater than 5 cfs or 500 acre ft. (If yes, attach large diversion supplementary analysis sheet.)

See reverse side for additional information

*REQUEST THE FOLLOWING ADDITIONAL INFORMATION FROM THE APPLICANT

Date Requested _____

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JUL 21 1992

Department of Water Resources

PROCESSING Yes No In form for advertising
 Yes No Statewide advertising
 Yes No Fee amount, receipt date & No. recorded on application

FINAL REGIONAL PROCESSING REVIEW

<u>/</u>	Yes	<u> </u>	No	Publication dates & paper, recorded on application
<u> </u>	Yes	<u> </u>	No	Protests received
				Final date for protest <u>8-5-91</u>
<u> </u>	Yes	<u> </u>	No	Protests, dates, resolution of protest, recorded on application
<u> </u>	Yes	<u> </u>	No	Recommendations, attached
<u> </u>	Yes	<u> </u>	No	Measuring device required
<u> </u>	Yes	<u> </u>	No	Access port required
<u> </u>	Yes	<u> </u>	No	Will water be delivered by watermaster? If yes, what Dist. <u> </u>
<u> </u>	Yes	<u> </u>	No	Special conditions of approval or cover letter below.

STATE OFFICE REVIEW

ADDITIONAL INFORMATION

LOCAL PUBLIC INTEREST

Comments received from

_____ City	_____ Idaho Fish & Game	_____ Irrigation District
_____ County	_____ Idaho Health & Welfare	_____ Canal Company
_____ Reservations	_____ Division of Environment	_____ Other _____

Project impacts/implications report

COMMENTS

NOTICE OF APPLICATION FOR MINIMUM STREAM FLOW

Notice is hereby given that the Idaho Water Resource Board has, on June 24, 1991, submitted application No. 25-07597 for a permit ^{From} ~~to~~ the Department of Water Resources proposing the appropriation of 250 cubic feet per second of water within the SENW, Sec 33, T 1N, R 40E, B.M.; downstream to the backwaters of Ririe Reservoir located in the NWSE, Sec 27, T 2N, R 40E, Bonneville County to preserve the minimum streamflow for rearing and spawning habitat and migration passage for fish; to protect wildlife habitat; and to maintain channel integrity in Willow Creek tributary to the Snake River.

Pursuant to Title 42, Chapter 15 of the Idaho Code a legal notice will be published at a later date setting a time and place for a hearing during which opportunity will be provided for public comment.

R. Keith Higginson
Director

Published in the Post-Register on July 18 & 25, 1991

SEP 14 1992

O.K.

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Director

Published in the TIMES NEWS on July 18 & 25, 1991

RECEIVED

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OK

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Director

Published in the IDAHO STATESMAN on July 18 & 25, 1991

WIPDORR 22

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O.K.



State of Idaho

DEPARTMENT OF WATER RESOURCES

150 Shoup Ave., Suite 15, Idaho Falls, Idaho 83402 - (208) 525-7161

EASTERN REGION

CECIL D. ANDRUS
GOVERNOR
R. KEITH HIGGINSON
DIRECTOR

12-Jul-1991

IDAHO WATER RESOURCE BOARD
STATEHOUSE MAIL
BOISE ID 83720

RE: Application No. 25-07597

Dear Water Right Applicant:

The Department of Water Resources acknowledges receipt of your water right permit. This office is currently in the process of advertising the application in Post-Register on July 18 & 25, 1991. The advertisement will be published for two consecutive weeks, and a period of ten days following the second publication will be allowed for the submittal of protests.

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

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

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

Sincerely,

Harold W. Jones
HAROLD W. JONES
Water Rights Supervisor

HWJ/rb

SEP 14 1991

TAPES

29 Oct 1991

TAPE #1 - SIDE A

COUNT

INDIVIDUAL

0028 —

BEGINNING

GARY SPACKMAN

0145

0145 — Dave Rydatch

0180

? From Mr Ball

0190

BILL GRAHAM

0545

? From Gary

0620

0624 — ? From Dave Rydatch

0630 — ? From Mr. Goddard

0710 — ? From Mr. Ball

0916 — ? From Mr. Goddard

0946 — ? From Mr. Ball

0975 — ? From Gary Spackman

1034 — GARY SPACKMAN

1060 — DAVE RYDATCH ? on Id. Code
about protection of CRP water1117 — Dave Rydatch read into record Id. Code
dealing w/CRP1185 — Dan Kotansky -
1508

1550 — GARY SPACKMAN Began tape

1580 — Dan Kotansky

1581 — ? From Dave Rydatch

1614 — ? From Mr Goddard

1898 — ? From Mr. Ball

2037 — Mrs Robertson

2056 — ? From Mr Goddard

2769 — ? From Mr. Ball

2984 — ? From Mr Goddard

3077 — ? From Gary Spackman

3251 — ? From Mr Goddard

3300 — ? From Gary Spackman (Restatement of ?)

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TAPE #1 Side A

29 Oct 1991

COUNT INDIVIDUAL

(CONT.)

MRS Robertson

3300 - Restatement of ? from Gary Spackman

3417 - ? from Mr. Goddard

3630 - Steve Ellie

3659 - ? from Mr. Goddard

5114 - ? Dave Rydatch

5180 - ? Mr. Ball

5686 - ? Mr. Goddard

5787 Restart Recording after Break

5818 - MR. Ball - Testimony

6064 - ? Dave Rydatch

6221 - ? Mr. Goddard

TAPE #2

MR BALL
0002 - Restart - NEW TAPE

0066 - ?/1 Mr. Rydatch

0089 - End of Formal Hearing

0310 - Mr. Olsen

0318 - Start

0649 - Paul Olsen

0954 - Blair T. Simmons

1180 - Steve Hansen

1394 - MR. Ball

1463 - END OF TESTIMONY

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Willow Creek Minimum Flow 25-7597

Introduce -

1917 - 1990

- Tex Creek 1978 thru 1990 -
26 years -

1917 - 1990

1978 - 1990

Could be used in future -

Jan - March 22

Apr. - July¹⁵ 50

July¹⁵ - Sept 22

Oct - Nov. 36

Dec 22

Dan Kotansky - BLM

Supports the minimum flow -

BLM has about 16 miles within reach
including meanders

Important for fish watershed values

Big game -

laws binding -

Protection of wetlands -

No net loss of wetlands

Stabilize stream banks -

Improves water quality

Floodplain buffers flooding

Floodplains add water to stream
later in the year

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Watershed management

How much public how much private

Current plan requires maintenance of
riparian (8 miles) growth -

Willow Creek Canyon is important
wintering range.

Important to upland game

BLM has adopted Idaho's antidegradation
policy.

Willow Creek is virtually roadless

Necessary to save recreational values.

Thinks flows - can maintain riparian
areas.

Yellow areas depict BLM ownership

Have to have seasonal flooding to
maintain dogwoods.

Heart of all habitat is the riparian
zones.

Willow Creek area is very erodible

What would be the optimum flow

Optimum would be the natural →

Fishing & camping is increasing

Increase has occurred in the last 3

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Cindy Robertson -

Model only accounts for individual
fish survival -

Method will not maintain a fishable
population -

Minimum needed -

Aquatic life -

Recreation uses -

Riparian areas - filters pollutants
& sediments - cover provides thermal
protection -

Optimum flow would be all
the natural flow -

X-Exam by Ball -

Kep's crossing -

was Willow Creek modeled -

~~Not it was not~~

Modeled in 1983 - Data is missing

Bill Horton recommended

Report written -

Lowest flow of Willow Creek may
have been

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January - March	22 cfs
April - July 15	50 cfs
July 15 - Sept. 15	22 cfs
Oct - Nov.	36 cfs
Dec	22 cfs

Gauge data
Mean monthly flow -
50% of the time

Steve Elle

Regional fisheries manager - since May 1984
Monitors fish populations

"sinuosity" - This is the meander pattern

Management plan calls for maintenance & enhancement of cutthroat-brown trout including introduction.

Migration from reservoir is important
Willow Creek

Fish spawn in headwaters of Willow Creek etc

Recruit into mainstem areas after 8" in length -

Brown trout may grow to 24"

Where
is
Kets
crossing

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Willow Creek is quality fishing
Not crowded
big fish
Native trout

Use data collected 1984 - 54,000 hours
Catch rate goals - ~~hours per~~
Fish/hour - used to evaluate drainage
Want one fish per hour
Meeting goal in 1984
Not satisfying goals
0.5 to 0.6 fish per hour - This
is an estimate

Population density dropped
1983 - 1987 Dropped by 10x
Wild populations severely depressed

1. overharvest
2. drought (H₂O temp. was too high)

Proposed flow will provide sufficient
habitat

Riparian zone provides benefits

Riparian area is a key to recreation

F&G owns property along Willow
Creek -

Optimum is natural, unregulated

How much flow does Tex Creek contribute
Tex Creek is now intermittent

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Contributes very little to Tex Creek flow

X Exam by Ball

Willow Creek flows are runoff stream hydrology -

Mr. Ball -

Did not have access to the information

Appreciates concerns -

Flows are not sustainable

Data presented -

Gage moved to Pirie -

Flow from Tex Creek

100,000 acre feet held in Grays Lake
flowed down Willow Creek -

See reconsideration of the data -

Testimony -

Farm above Tex Creek measuring station.
Views this as overprotection -

Amount not sustainable -

Precludes other uses -

Request could not be sustained

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Keith M. Olsen

Olsen - No axe to grind w/ Fish & Game
Keeps & Clowards. Furnish access for
fishing - furnish feed
1000 head of sheep

Done away with water sprinkled with
the $\frac{1}{2}$ inch line.
600 acres of ground

~~Have~~
Wants to maintain water that rises on
property - don't want to sell out to F & G

Have to get min. flow from somebody -
25-4181 25-4182

Paul Olsen

Trucks provide the fish.

Blair T. Simmons

Farm on top of Clowards crossing - almost
to Tex Creek

Game winters on farm -

Put up

Talked to Ren Carlson about getting
water out of Willow Creek -

Could water swap - Snake River & Willow
Creek

If enough water - met w/ F & G
Don't want all fish to die

Water
is
appropriated

State
name

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Not sure whether project is financially
feasible -

Simmons discussion - block possible
equitable use -

Blocking all other use of the water

Steve Hanson - professional geologist

Flooding does not improve habitat
* MSF is not good for this system
Teaches geology at Ricks -

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Evening session

Bruce Staples

Drought is temporary - fishes on private ground
In favor of maintenance
Importance because of close proximity
Reach is easily accessed
Pretty area
Increase in use

Marv Hoyt

Greater Yellowstone Coalition - representing
this organization

Protect riparian and streamside values
Children both caught first fish out of
Willow Creek on Flys

→ 4500 individual members

90 organizations - ICL - Wilderness Society

1/5 - 1/6 of time

Use has increased

Jack Parker Western Rocky Mtn. Council -

Federation of Fly Fishers

Large fish =

Exec. V P Member

700-1000 member -

U. MONTANA, MT.
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Park & Rec. Director for Bonneville Co.

Matt Woodard - Self - Trout Unlimited

- Good idea to support - Close to town
Snake River Cutthroats

Board of Directors -

Local chapters 100-150 -

Geographical boundaries

50 miles radius of Idaho Falls

10 years - doubled use -

Paul Bower -

Idaho Wildlife

See Region 6 - ~~F&G~~ Counsel -
geographical wildlife boundary

19 organizations belong

9 county area -

Upper Snake Flyfishers

How familiar - has not fished Willow Creek

Dale Meyer -

Willow Creek water user - Dad has
lived on Willow Creek - seen declines
in Willow Creek - used to be a lot of
fish - irrigated a lot -

Most people don't take care of property

Don't see a lot of vehicles now -

Question this testimony

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Doesn't object - not sure it can be maintained
Thinks it should be maintainable 95%
of the time.

Users could dry the stream up -
Are going down the stream -

Keith ElKington

Been a decline in fishing on Willow Creek
Possibility of unrealistic nature =

Doesn't believe it -

Fish didn't die in the outlet in drought
years -

Doesn't want to see Willow Creek dried up.

Doesn't want

Minimum flows too high - knows what
stream flows.

Tom Loertscher - Bone

Statistical analysis -

30-40% - never establish -

exceeds

Minimum - worst case

Oldest water right on Willow Creek -

5 year decline in fishermen -

This year - no one fished on his place on
opening day

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Best way to use water is divert it out of
the stream.

Irrigation enhances the streamflow -
Couldn't get all water out of willow 
creek.

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EXHIBITS

29 Oct 1991

#	DESCRIPTION	SUBMITTED Y/N
A	IDWR - Willow CK Min Streamflow App.	Y
1	Id DEPT FISH & GAME Diagram - Chart CHART	Y
2	IDFG - Completion Report from L12	Y
3	IDFG - Regional Fisheries Management Investigation	Y
4	IDFG - Current Fish Management	Y
5	IDFG - Symposium on Small Hydropower & Fisheries	Y
I	BLM - Cops of Map Palisade, Idaho-Wyoming	Y
II	BLM - Cops of USGS QUAD MAP	Y
III	BLM - Photo of Fisherman w/fish	Y
IV	BLM - Photo of Willow Creek area	Y

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**WILLOW CREEK
MINIMUM STREAMFLOW APPLICATION DATA**

WATER RIGHT NUMBER: 25-7597

SOURCE: WILLOW CREEK

APPLICANT: IDAHO WATER RESOURCE BOARD

**REQUESTING AGENCY:
IDAHO DEPARTMENT OF FISH AND GAME**

DATE FILED: JUNE 24, 1991

MINIMUM STREAMFLOW REACH:

COMMENCES AT THE CONFLUENCE OF GRAYS LAKE OUTLET WITH WILLOW CREEK IN SECTION 33, T1N, R40E, AND EXTENDS DOWNSTREAM FOR APPROXIMATELY 12 MILES TO THE BACKWATERS OF RIRIE RESERVOIR IN SECTION 27, T2N, R40E, B.M., BONNEVILLE COUNTY.

PERIOD OF USE: JANUARY 1 - DECEMBER 31

RATES OF FLOW:

DEC 1 TO MAR 31 - 30 CFS

APR 1 TO MAY 31 - 250 CFS

JUN 1 TO JUL 15 - 100 CFS

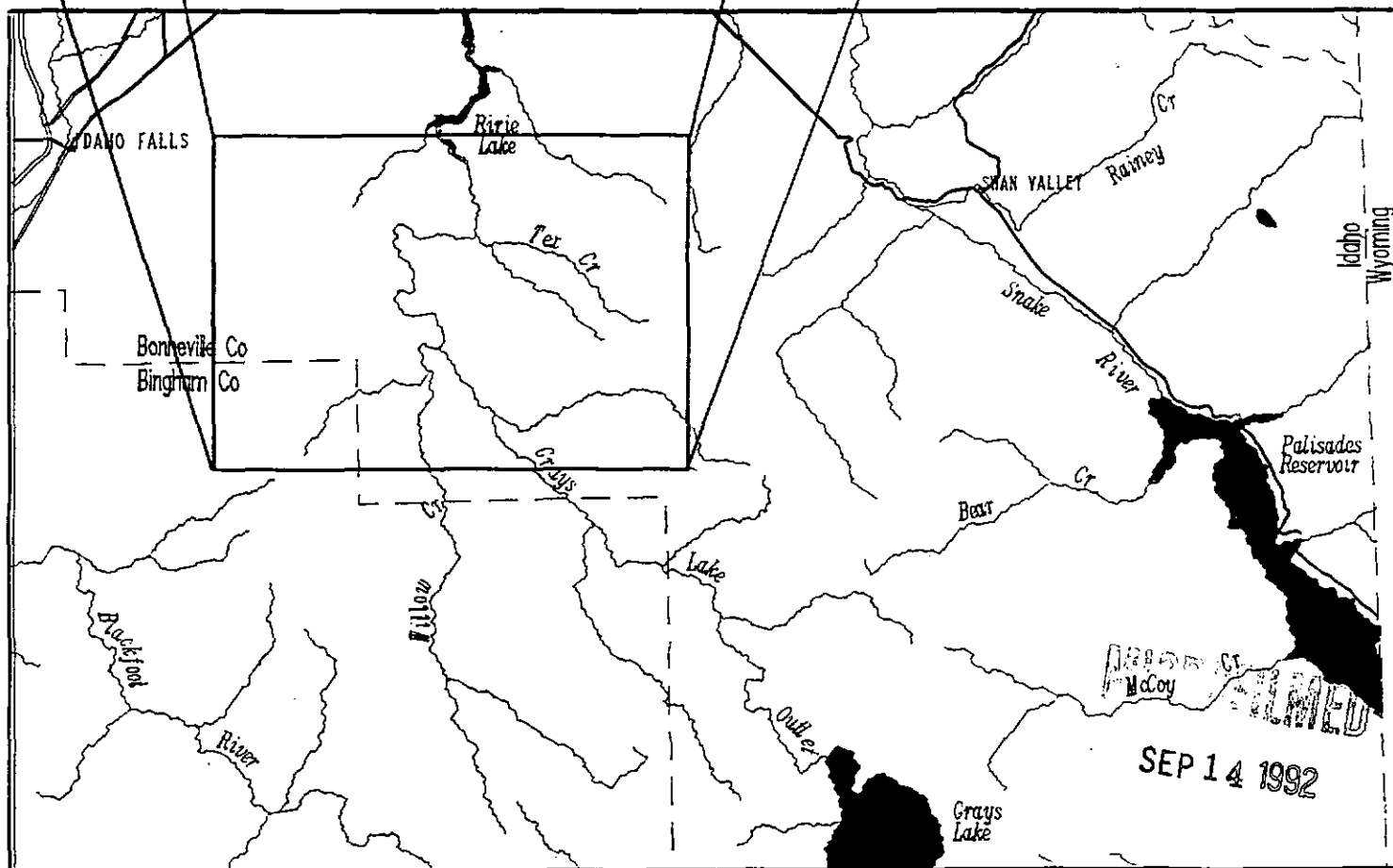
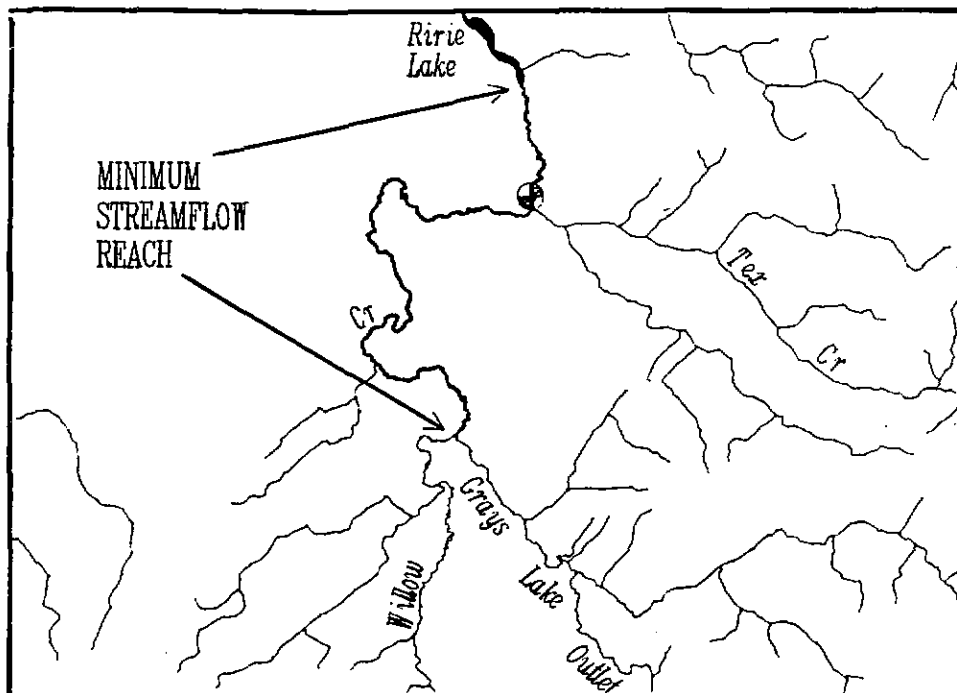
JUL 16 TO SEP 30 - 30 CFS

OCT 1 TO NOV 30 - 40 CFS

PURPOSES:

**PRESERVATION OF FISH AND WILDLIFE HABITAT,
AQUATIC LIFE AND WATER QUALITY**

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**WILLOW CREEK BASIN
Summary of Water Rights**

Upstream of Minimum Streamflow Reach

Consumptive:

196 recorded water rights.

204 cfs + 102,000 AFA diverted under licenses, claims, decrees
and developed permits.

1.68 cfs filed under permits and applications.

Nonconsumptive:

No recorded nonconsumptive water rights.

Within Minimum Streamflow Reach

Consumptive:

26 recorded water rights.

8.17 cfs diverted under licenses and claims.

0.40 cfs filed under permits

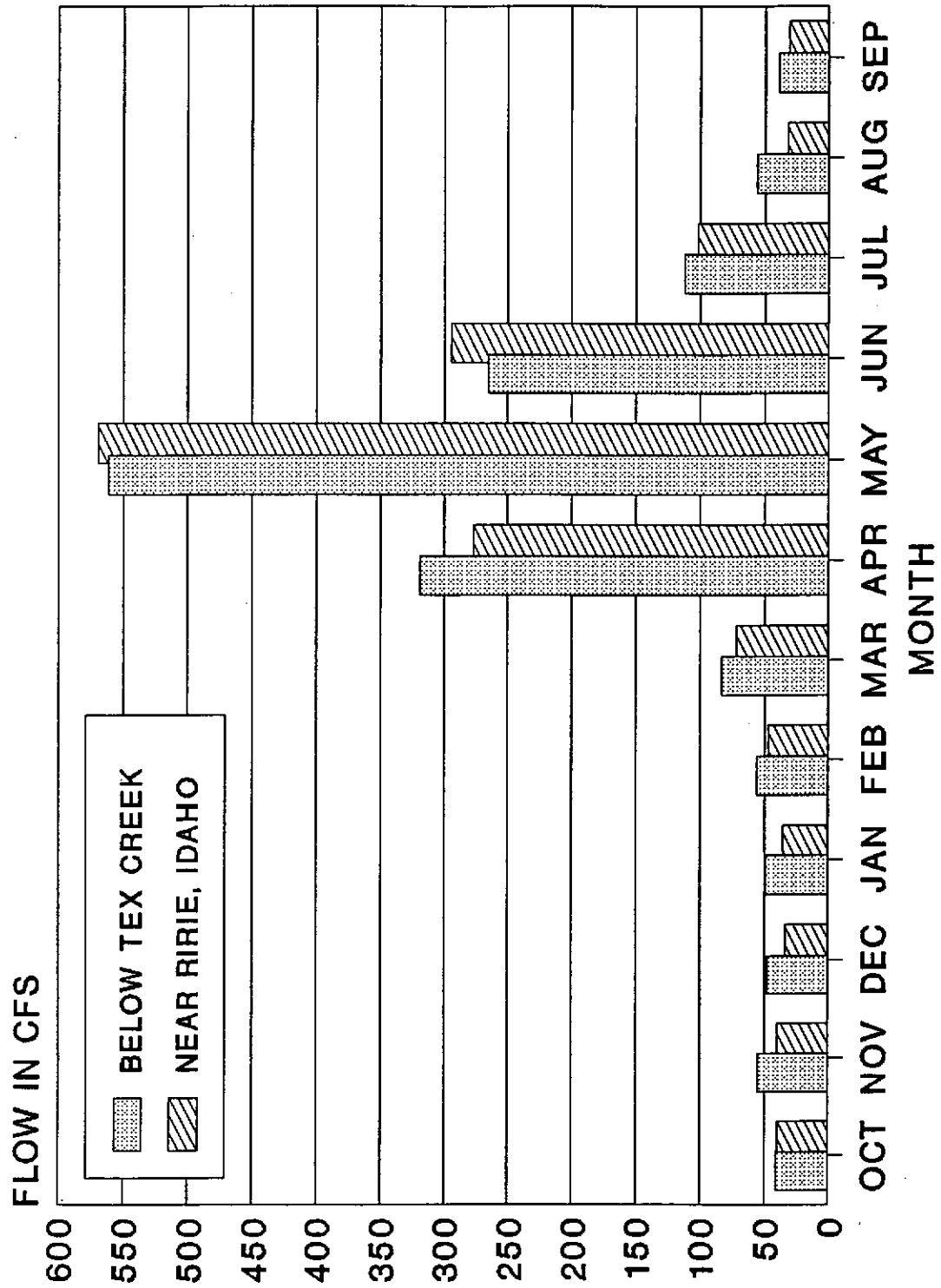
Nonconsumptive:

96.0 AFA filed under 2 permits for recreation.

NOTE: All recorded water rights in the Willow Creek Basin above
Ririe Lake are also above the USGS stream gage near Tex Creek.

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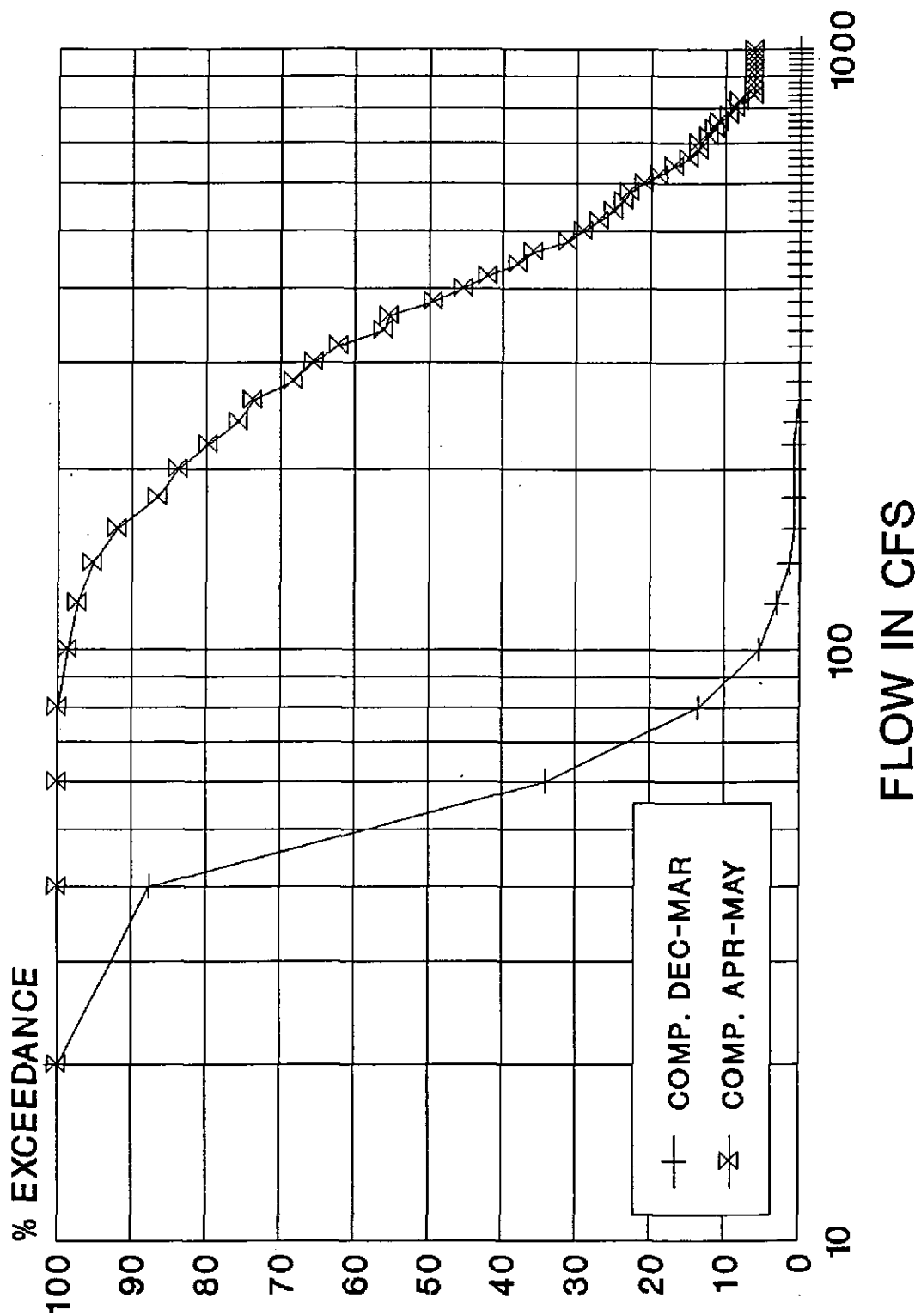
AVERAGE FLOW WILLOW CREEK



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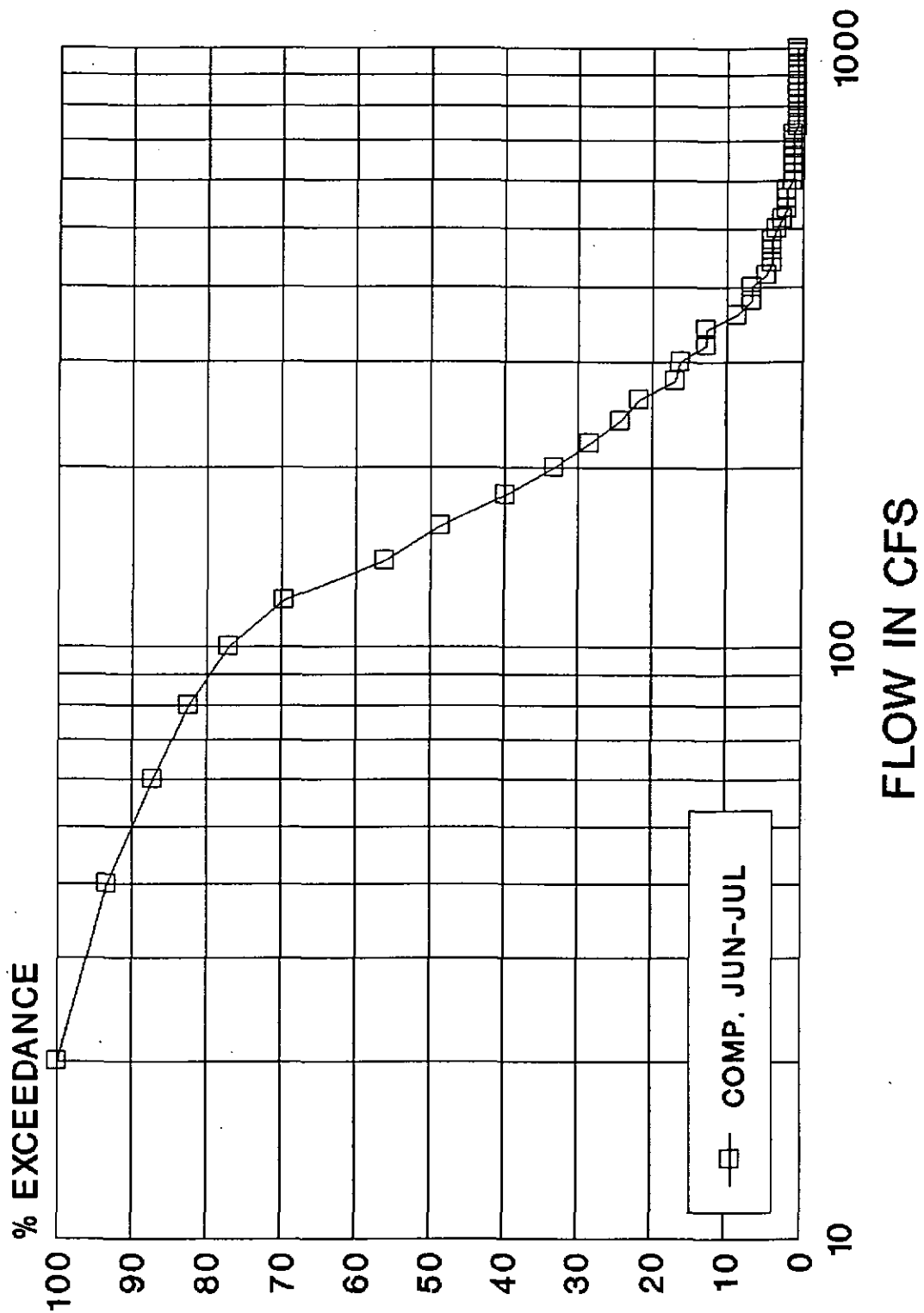
FLOW DURATION CURVES WILLOW CREEK BELOW TEX CREEK NR RIRIE



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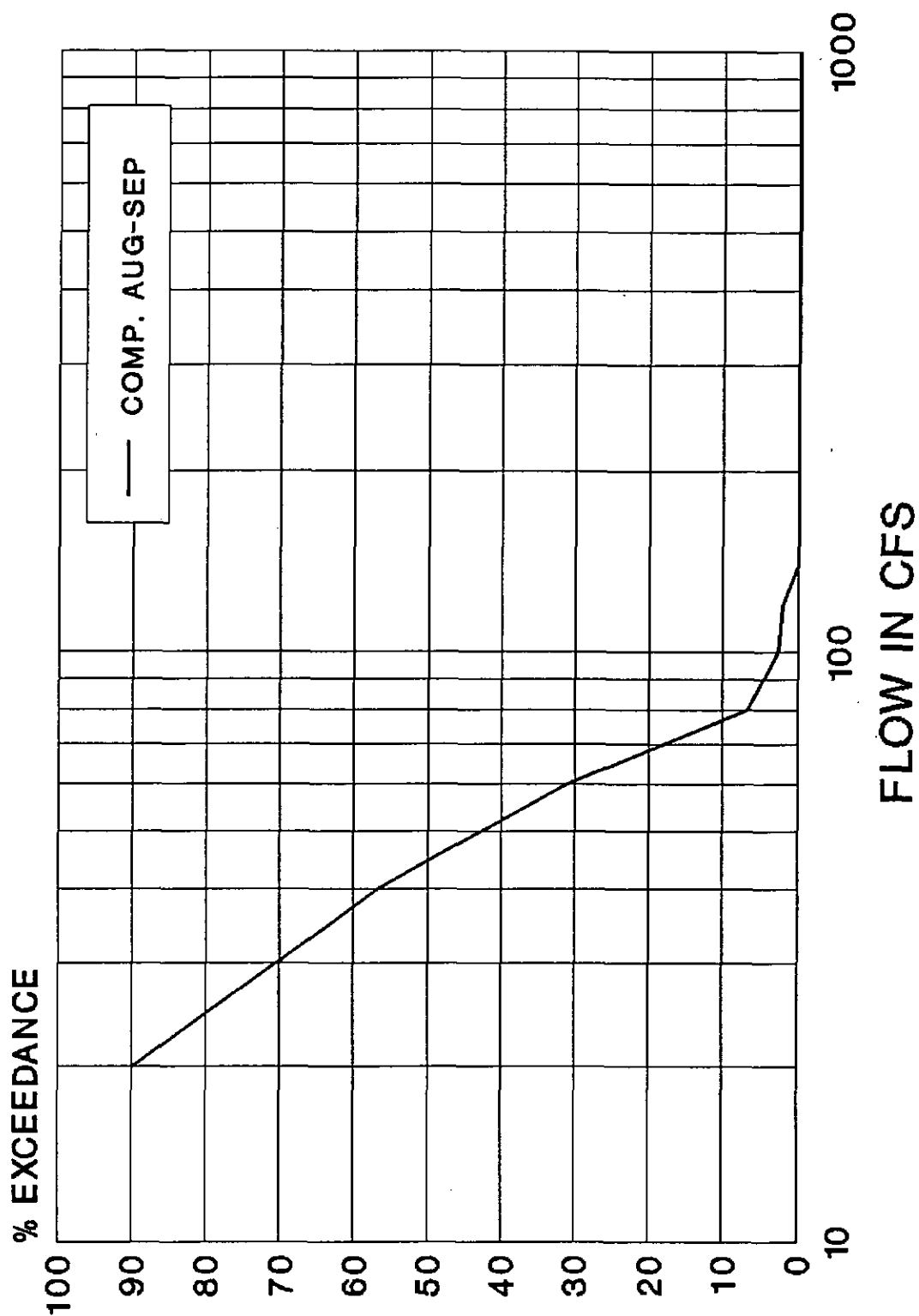
SEP 14 1992

FLOW DURATION CURVES
WILLOW CREEK BELOW TEX CREEK NEAR RIRIE



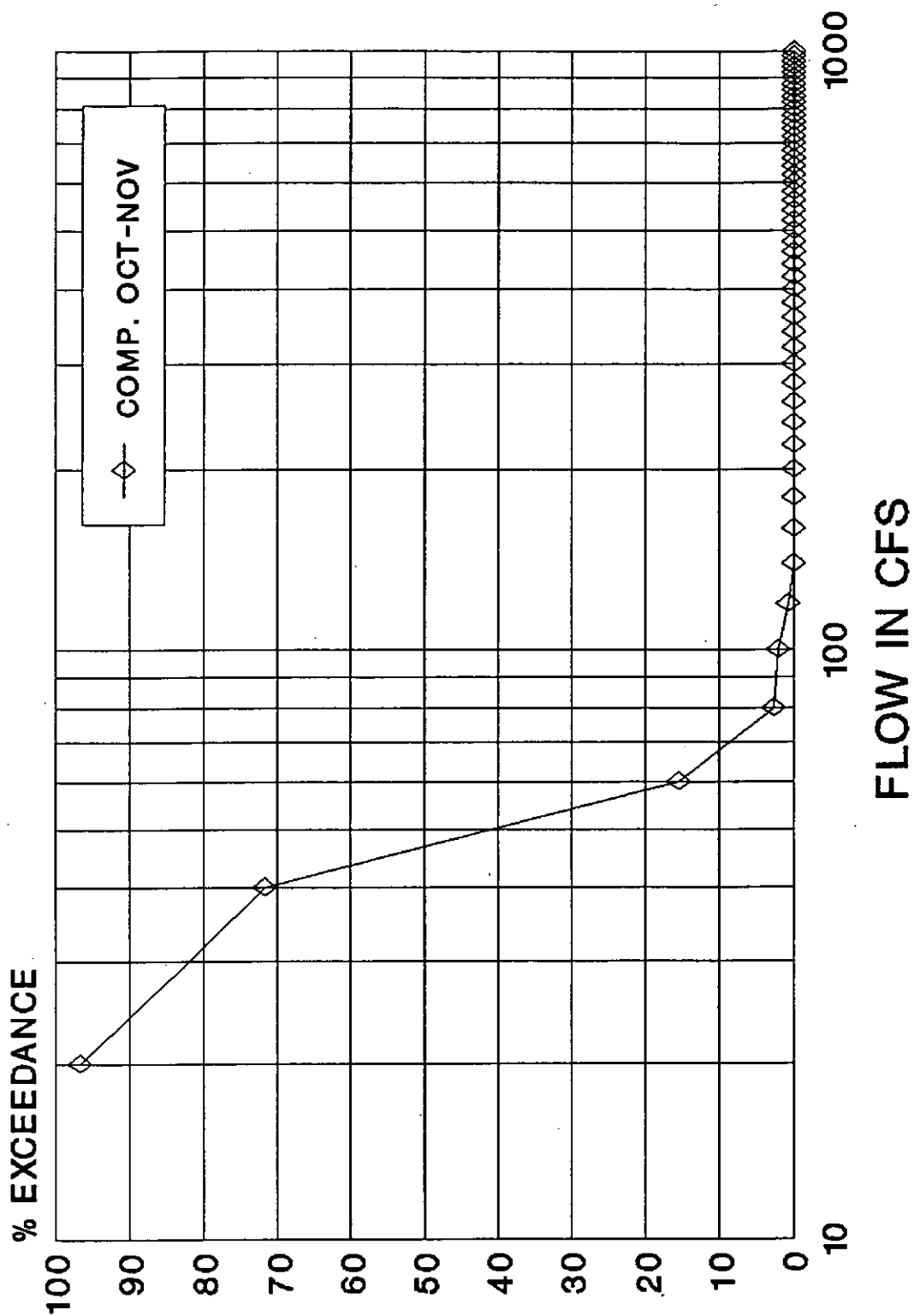
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FLOW DURATION CURVES WILLOW CREEK BELOW TEX CREEK NEAR RIRIE



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FLOW DURATION CURVES WILLOW CREEK BELOW TEX CREEK NR RIRIE



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112°00' 2 R 38 E 1550 125 000 FEET (WYO)

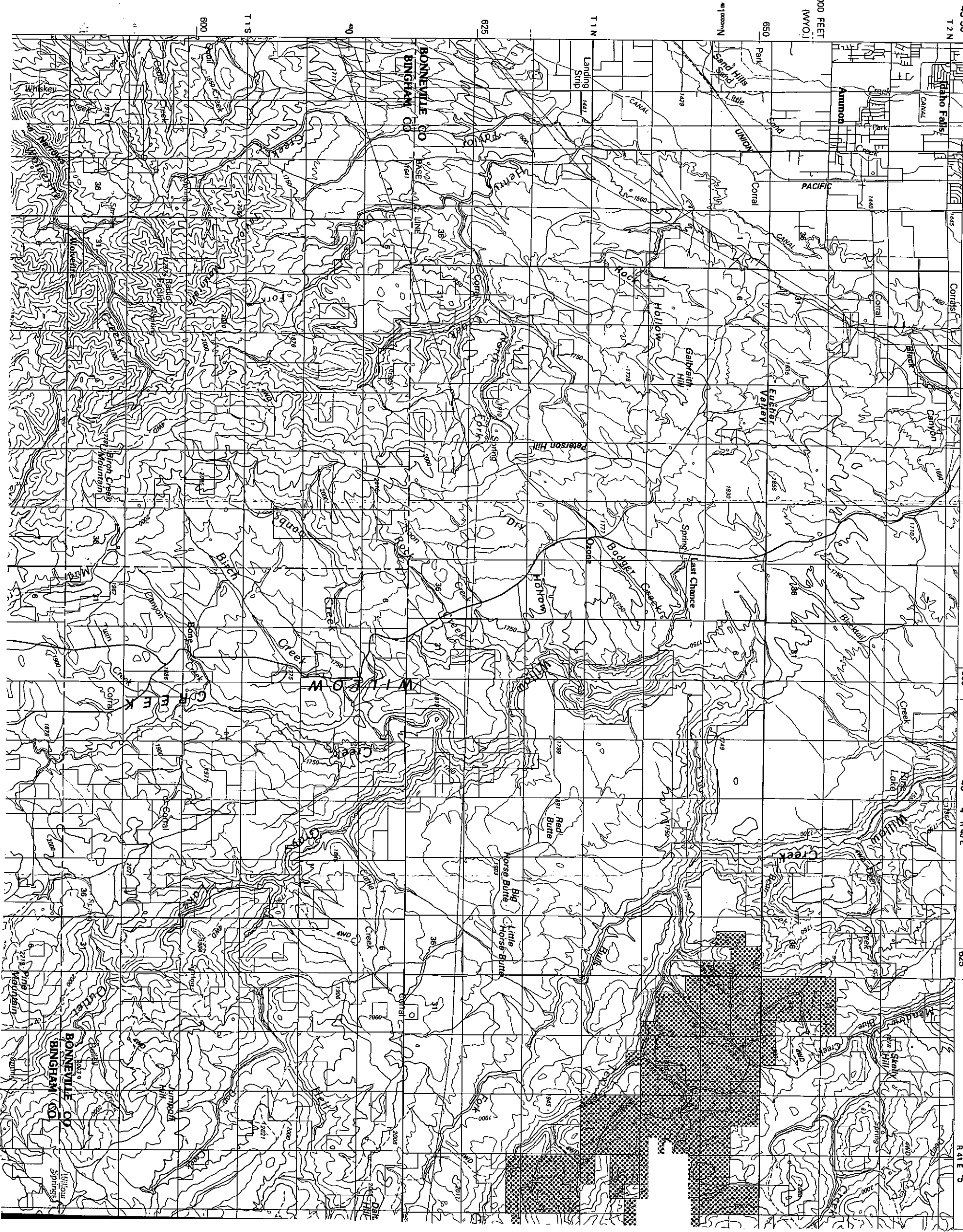
575 1 3000 E R 39 E

600 45 14 R 40 E

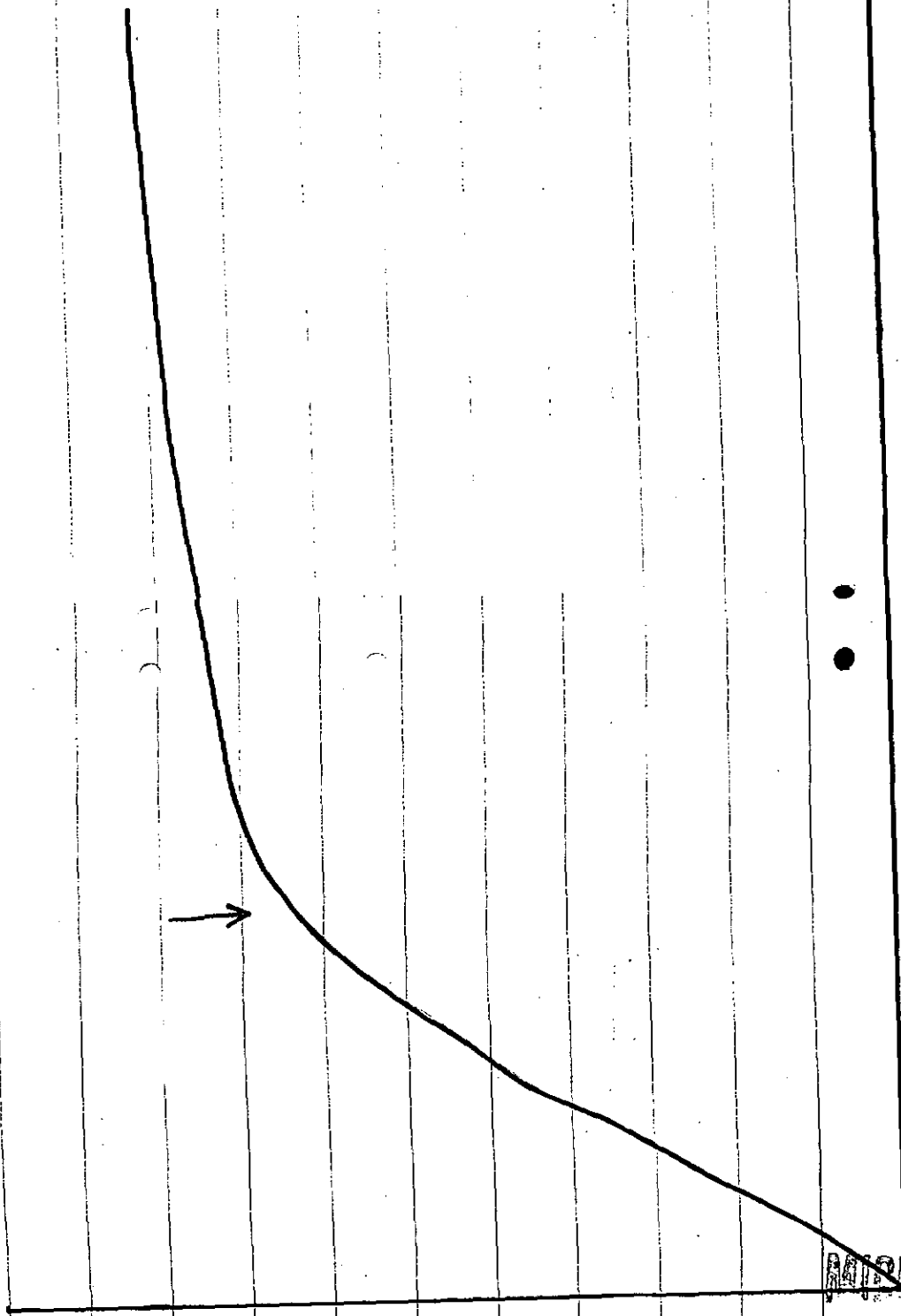
625

R 41 E 45

1 025 000 FEET
(WYO)



FISH AND GAME #1



SEP 14 1992

IDAHO

DEPARTMENT OF FISH AND GAME

Jerry M. Conley, Director

FEDERAL AID TO FISH AND WILDLIFE RESTORATION

Job Performance Report

Project F-71-R-9



REGIONAL FISHERY MANAGEMENT INVESTIGATIONS

Job VI-c. Willow Creek Investigation

by

Charles Corsi
Regional Fisheries Biologist

May 1986

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Tex Creek supports a moderate population of age 1+ and older cutthroat in its headwaters and on the wildlife management area, but densities are considerably lower downstream (Table 2). Fry were common in both areas, and fish in upper Tex Creek appeared to be residents, as several age 4+ fish were observed. In lower Tex Creek, adult fish were only observed in the early summer, indicating the presence of migratory fish.

Tributaries to Grays Lake Outlet with low densities of cutthroat trout include Hell Creek, Brockman Creek, and Homer Creek. Over 95% of the trout captured in Hell Creek and Brockman Creek were cutthroat, but less than 50% were cutthroat in Homer Creek. Cutthroat were more numerous in lower Homer Creek than in upstream areas.

Mainstems

Cutthroat trout occur in all mainstem reaches except for Grays Lake Outlet upstream from the barrier falls. As in its tributaries upstream from Pole Bridge, upper Willow Creek has low numbers of cutthroat trout. I captured no cutthroat by electrofishing in this area, and only 18% of the 50 fish captured by angling were cutthroat (Fig. 5).

In the middle portion of Willow Creek (Grays Lake Outlet upstream to Pole Bridge), cutthroat are the most abundant salmonids (Table 3). Of 527 trout captured by electrofishing, 65% were cutthroat. Densities ranged from 2.3 to 7.6 fish/100 m². These densities are not as high as those found in major cutthroat trout producing tributaries, but represent a different population structure. Age 2+ cutthroat were the most numerous age group in this reach as compared with age 1+ in the tributaries.

Downstream from Grays Lake Outlet, the relative abundance of cutthroat trout in Willow Creek declines to 26%, but an undetermined portion of the other trout species present (brown and rainbow) are of hatchery origin. Cutthroat density in this section was 0.6 fish/100 m². Age 2+ fish are again the dominant age class, but nearly as many fish were age 3+ or older.

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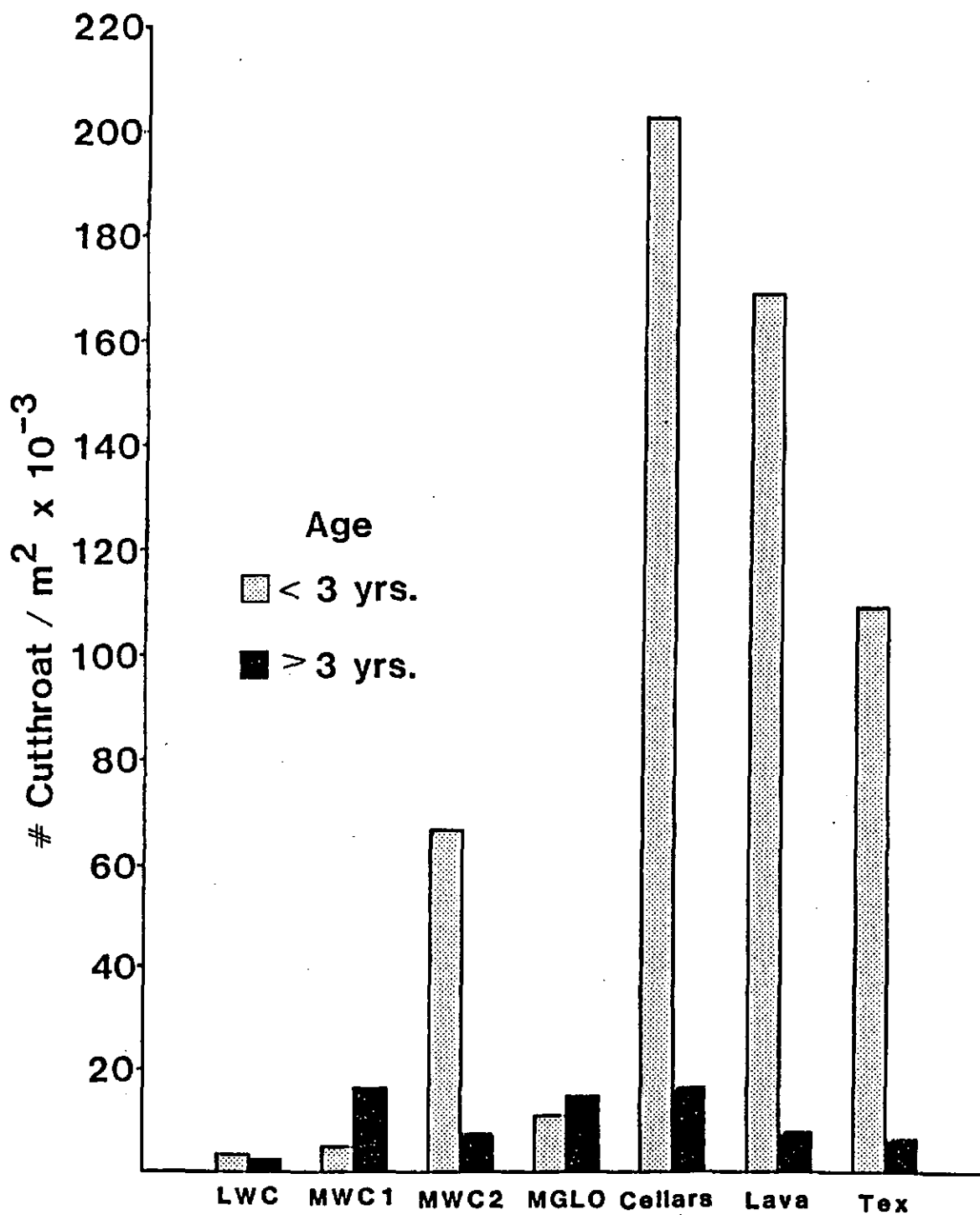


Figure 5. Comparative densities of cutthroat trout from selected stream areas of the Willow Creek drainage.

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Table 3. Comparative densities of cutthroat trout from mainstem areas of the Willow Creek drainage.

Location	Date	Cutthroat trout density (fish/100 m ²)	Relative abundance to other salmonids (%)
Willow Creek Kepps to Clowards	9/83	0.6 (.4-1.0)	26
Willow Creek near GLO confluence	10/84	2.3 (1.5-3.8)	65
Willow Creek near High Bridge	7/84	7.6 (5.6-10.9)	62
Grays Lake Outlet upstream from Homer Creek	6/84	2.5 (1.3-7.2)	81

() 95% confidence interval.

In Grays Lake Outlet downstream from the barrier falls, cutthroat are the most abundant salmonids. In the area near Homer Creek the density of cutthroat was 2.5 fish/100 m². Eighty-one percent of the 84 trout captured by electrofishing at this station were cutthroat. Of the 114 trout captured by angling on Grays Lake Outlet, 96% were cutthroat. Grays Lake Outlet was the only stream which had higher densities of age 3+ cutthroat than younger aged fish. This may be due to the early sampling dates (25 and 27 June) when juveniles had probably not fully recruited from tributaries and cutthroat spawners were still in the vicinity. Project angling indicated that age 2+ and 3+ fish were more abundant. I found no records to indicate that cutthroat trout were ever present between the falls and Grays Lake although cutthroat reportedly inhabit tributaries to Grays Lake (Idaho Department of Fish and Game, Region 6 file data).

Ririe Reservoir

Cutthroat made up 14% and 9% of the game fish caught during spring gillnetting in 1983 and 1984, respectively. All of the cutthroat captured in spring samples were mature fish, predominantly males. In 1984 all of the cutthroat captured were in the Meadow Creek area (Table 4), and all were males in prespawning condition.

Table 4. Summary of gill net catches from Ririe Reservoir during the period May 1983 to November 1984.

Location	Date	Set	Length (m)	Mesh (mm)	Number of fish captured							
					Cutthroat	Brown	Rainbow	Coho	Chinook	sucker	Utah chub	Redside Shiner
1	5/18-19/83	Horiz.	15.2	3-12	2	0	5	3	1	0	0	28
1	5/19-20/84	Horiz.	7.6	25	0	0	0	66 ¹	0	0	3	0
2	5/18-19/83	Vert.	30.4	38	1	1	14	0	0	52	24	0
2	5/19-20/84	Vert.	30.4	38	0	1	0	2	0	14	0	0
3	5/18-19/83	Horiz.	30.4	38	1	0	1	0	0	6	0	0
3	5/19-20/84	Horiz.	30.4	38	2	1	0	0	0	21	7	0
4	5/19-20/84	Horiz.	7.6	38	5	0	2	0	0	16	3	0
4	11/15-16/84	Horiz.	7.6	38	3	1	0	0	0	28	0	0
5	11/12-13/84	Vert.	30.4	38	2	2	1	0	0	9	0	0
5	11/15-16/84	Vert.	30.4	38	0	1	2	0	0	0	0	0
6	5/19-20/84	Horiz.	38.1	25-50	0	0	0	0	0	23	5	0
6	11/12-13/84	Horiz.	7.6	38	3	0	0	0	0	16	0	0
6	11/15-16/84	Horiz.	38.1	25-50	27	1	1	0	0	13	1	0
Totals	All dates		All nets		46	8	26	69	1	198	43	28

¹Stocked previous day.

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Fall gillnetting showed a significant difference (chi square test, $p < .05$) in the relative abundance of cutthroat to other game species. Cutthroat made up 78% of the game species collected (Table 4). In the Willow Creek arm, nearly two-thirds of the cutthroat captured were sub-adult fish. Probably most of these would have spawned the following spring and apparently were using the reservoir as a wintering area.

Movement of Cutthroat Trout

Tagged Cutthroat Trout

Anglers reported catching 51 of the 850 cutthroat trout tagged in 1983 and 1984. Project personnel recaptured an additional 119 fish. Ninety-six percent of the fish recaptured by project personnel were recaptured in the same year they had been tagged, compared with 55% for angler returns. Three angler tag returns were unusable for discerning movement.

Forty-five percent of the 51 tags recovered by anglers were from cutthroat which had moved a discernible distance (either more than 1.0 km or from a tributary to a mainstem). The longest observed distance moved by cutthroat trout was 48.0 km by two fish moving in a downstream direction. Seventy-eight percent of the 23 fish which had moved had moved downstream (Appendix 3).

Most (67 of 119) of the tagged fish recaptured by project personnel were fish which had been tagged the same year in Cellars Creek and subsequently recaptured without having moved. However, 31 tagged fish were recaptured migrating downstream past the weirs and presumably entered Willow Creek shortly afterwards. In 1984, project personnel recaptured three fish which had been tagged in Cellars Creek and moved downstream into Willow Creek. Two cutthroat tagged in Lava Creek in 1983 and recaptured in 1984 had not moved and were presumed to be residents.

Fin Clipped Cutthroat Trout

A total of 1,896 cutthroat trout were fin clipped. Eighty-five percent of these (1,621) were marked in 1983, and 1,586 were from Cellars Creek. In 1983, project personnel recaptured 704 fin clipped fish, all in Cellars Creek. Of these, 124 were captured as they were emigrating past the Cellars Creek weirs. In 1984 we recaptured 31 marked cutthroat. Twenty-five of these had been marked in 1984 and none of them showed any significant movement. Of the six which had been marked in 1983, four had moved downstream from Cellars Creek to Willow Creek, distances from 6.5 km to 13.0 km. The other two were recaptured in Cellars Creek.

Fish and Game -
3

IDAHO DEPARTMENT OF FISH AND GAME

Jerry M. Conley, Director

FEDERAL AID IN FISH RESTORATION

Job Performance Report

Project F-71-R-12



REGIONAL FISHERIES MANAGEMENT INVESTIGATIONS

Job No. 6 (IF)-b.	Region 6 (Idaho Falls) Lowland Lakes Investigations
Job No. 6 (IF)-c ¹ .	Region 6 (Idaho Falls) Rivers and Streams Investigations
Job No. 6 (IF)-c ² .	Region 6 (Idaho Falls) Rivers and Streams Investigations -- Big Lost and Little Lost Rivers, and Birch and Medicine Lodge Creeks Survey
Job No. 6 (IF)-d.	Region 6 (Idaho Falls) Technical Guidance

By

Chip Corsi, Regional Fisheries Biologist
Steve Elle, Regional Fisheries Manager

May 1989

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Timing of Movements

I used the actual numbers of fish caught in the Cellars Creek weirs to identify the timing of emigration of cutthroat trout. Weir efficiencies varied with discharge and state of repair (undercutting of weirs occasionally occurred during periods of high turbidity and went undetected for short periods of time) and were not consistent enough to permit a reliable estimate of fish passage for the entire trapping season. Efficiency estimates for the fall months ranged from 10% to 20%.

Two peaks were observed in the numbers of cutthroat trapped, one at the end of spring runoff and one during late fall when nighttime temperatures dropped below 5 C (Fig. 6). Occasional freshets also resulted in an increase in the number of cutthroat captured by weirs. Most of the fish captured were juveniles aged 1+ and 2+ with some age 0+ and 3+ also emigrating. Because the weirs could not be installed during high flows, it is possible that many juvenile and adult outmigrants were missed. Spent adult fish were observed moving downstream mainly in the spring following runoff, but some fish remained for all or part of the summer before leaving.

One fish was also observed to have moved from lower Willow Creek into Ririe Reservoir during the fall months. Another was captured in the reservoir in the following spring, indicating that some fish are moving into the reservoir to overwinter.

Age and Growth of Cutthroat Trout

Growth of cutthroat trout from the Willow Creek drainage is slow during the first year. In Cellars Creek, where cutthroat growth is significantly slower ($p < .05$) in the first two years of life, I observed a high incidence of retarded annulus formation (70%, 122 fish). In Cellars Creek, fish that formed an annulus their first year had six to seven circuli preceding the annulus (Fig. 7). I also noted retarded annulus formation in cutthroat trout from Mill Creek (43%, 7 fish) and the middle portion of Willow Creek (11%, 63 fish). I used the same circuli criteria in Mill Creek as I had in Cellars Creek due to the small sample size, but in the middle portion of Willow Creek I found that fish forming an annulus the first year had as many as eight circuli preceding the first annulus (Fig. 8). Growth in middle Willow Creek for the first year was lower than that for other streams tested except Cellars Creek, but not at a significant level ($p < .05$). I did not observe cutthroat fry in Cellars Creek until early August, but fry were abundant in Lava Creek and Tex Creek by mid-July. By late September, cutthroat fry in Lava Creek averaged 63 mm (44 fish) and in Tex Creek 67 mm (32 fish) compared with 58 mm (7 fish) in Cellars Creek. All of the fish I examined from Lava Creek (25) and Tex Creek (40) had formed an annulus the first year.

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Henrys Fork Snake River

Population estimates were conducted on two 6.4 km long reaches of the Henrys Fork downstream from St. Anthony in October 1987 (Figure 2). The lower reach was located between the mouth of the Texas Slough and the Menan Buttes; the upper reach was located between the Hibbard Bridge and the Fish and Game Department access downstream. Additional sampling was conducted immediately downstream from the Hibbard section to assess species presence and relative abundance and collect additional length and weight data. All sampling was conducted with a jetboat and boom shocker arrangement. Chapman's modification of the Peterson Method (Ricker 1975) was used to estimate population size, with two marking runs and one recapture run used for each estimate. Lengths were collected on all trout captured, with a subsample of the Hibbard area trout being weighed. Jaw tags were placed on most cutthroat trout longer than 250 mm to assess future movement. All fished marked for population estimates received a caudal clip. An estimate was made for whitefish at the downstream site. Sampling efficiency was used to determine which size groups estimates would be computed for.

Members of the North Fork Club were asked to participate in a voluntary creel survey during 1987. The survey was conducted on the Henrys Fork from Island Park Reservoir to Henrys Lake Outlet. Anglers recorded the number of hours fished each day as well as the numbers of each species caught and released. Lengths of fish landed were also recorded by some of the volunteers. Data were collected throughout the fishing season.

Willow Creek Drainage

Willow Creek

A mark-recapture estimate was made on a 3.2 km long reach of Willow Creek downstream from Kepps Crossing, including some of the water sampled during 1983 (Corsi 1984). Fish were marked on September 28 using electrofishing gear mounted in a canoe with a handheld anode. Two backpack shockers were used on the October 5 recapture run due to the low water conditions. Fish were marked with a caudal clip and measured to the nearest millimeter. We placed jaw tags on cutthroat trout to further evaluate their movement patterns.

Homer Creek

We electrofished two sections of Homer Creek during August 1987 to evaluate the success of fingerling cutthroat trout plants made in 1986. The three-pass method was used in Section 2 (Corsi 1984). We attempted an estimate in Section 1, but too few fish were present on the first pass to warrant additional passes. All fish were captured with the backpack shocker.

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higher than that of trout. Many of the whitefish captured were juvenile fish which could be utilized as forage. Forage for juvenile fish may be limiting. Riffles with clean gravels are uncommon, and the substrate in both reaches is primarily silt due to low gradient, agricultural inputs and the large scale deposition resulting from the Teton Dam disaster. Limited invertebrate production for juveniles may partially explain the high attrition rate observed for rainbow trout.

Spawning habitat in both sections appears to be extremely limited. Due to the low gradient, little flushing of sediment deposits resulting from the Teton Dam failure has occurred. The river bottom substrate is primarily made up of fine sand up to six to eight inches deep in several locations we checked. The few riffle areas present are impacted by fine sediments.

Angler Surveys

Data from 106 fishing trips were turned in by volunteers from the North Fork Club. In all, they fished 228 hours and caught 456 fish for a catch rate of 2.44 fish per hour. The overall release rate was 11.9%, although some species were harvested at a greater rate than others (Table 9). According to the volunteer report forms, only 12.9% of the fish caught were hatchery rainbows. This may be a factor of misidentification, or poor return.

More trips were recorded in July than in any other month of the season. Catch rates were also higher during July but were above the management plan goals of 0.7 fish per hour most of the season (Table 9). Anglers participating were probably more skilled than the average angler, and the high catch rates are probably not truly representative of the fishery. A full creel census in 1988 will serve to monitor the entire fishery. It may be possible to use North Fork Club volunteer census data as a trend indicator to monitor the fishery in future years, if a relationship exists between their catch rates and those of the general public.

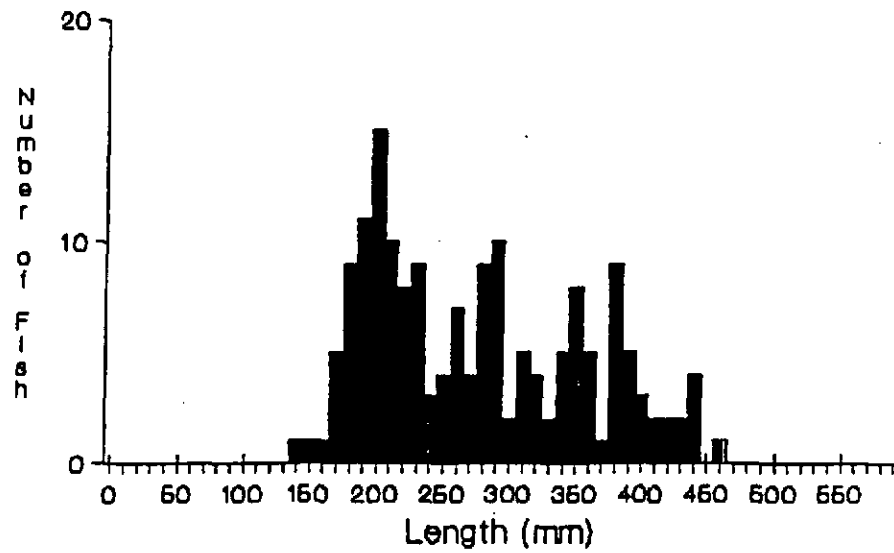
Anglers were asked to record fish lengths from a representative sample of the fish they caught (i.e., all of the fish caught on a given day). However, anglers collected only limited length data, most of which was not usable. It did appear that most of the fish caught were less than 254 mm long.

Willow Creek Drainage

Willow Creek

An estimated 31 ($19 \leq N \leq 61$) cutthroat trout and 41 ($26 \leq N \leq 75$) brown trout were present in the sampled reach of Willow Creek. Low flows prevented sampling all the way through the 1983 section. Only the upper half was sampled in 1987. Population estimates were converted to aerial

WILLOW CK CUTTHROAT TROUT 1983



1987

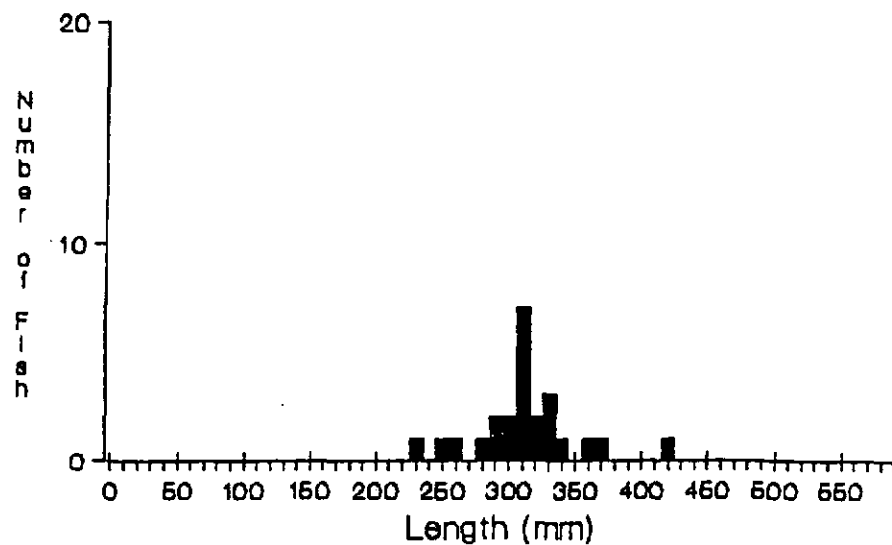
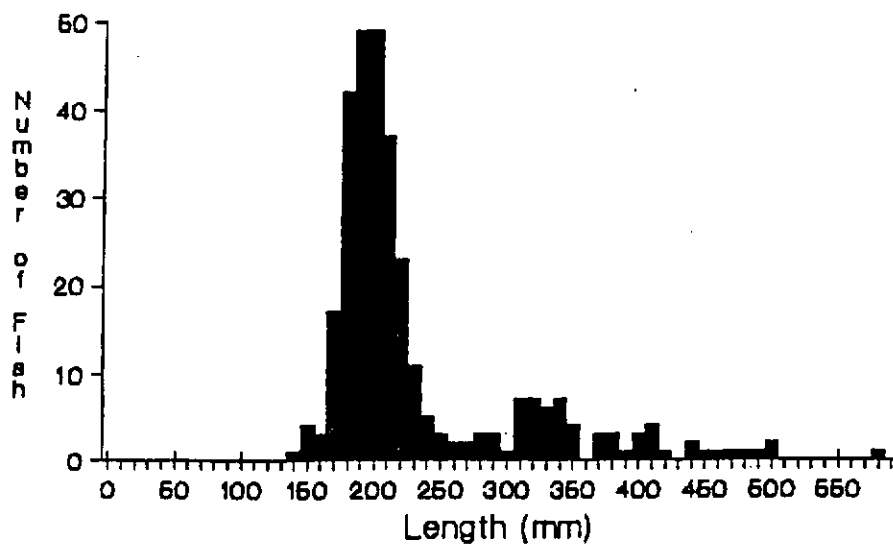


Figure 9. Length frequency distribution of cutthroat trout captured in Willow Creek downstream from Kepps Crossing, fall, 1983 (n = 164) and fall, 1987 (n = 24).

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WILLOW CK BROWN TROUT 1983



1987

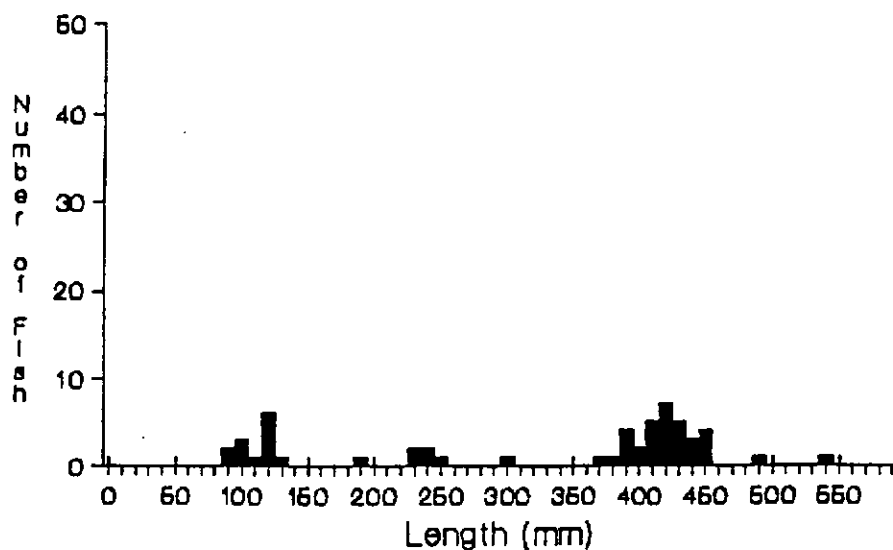


Figure 10. Length frequency distribution of brown trout captured in Willow Creek downstream from Kepps Crossing, fall, 1983 (n = 311) and fall, 1987 (n = 54).

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densities to allow for comparison with the 1983 data (Table 10). Cutthroat trout densities showed a sharp decline, largely as a result of the low numbers of juvenile fish observed. However, densities of cutthroat trout larger than 250 mm declined by nearly two-thirds. Brown trout densities were also considerably lower, again a result of fewer juvenile fish being present. Densities of larger brown trout (>270 mm) declined by about one-third. Lengths of fish (both species) were similar to those observed in 1983 (Figures 9 and 10).

Smallmouth bass, which had become established in Ririe Reservoir since 1983, were not present in the sampled reach of Willow Creek upstream of the reservoir.

Several explanations may be offered for the lower densities of juvenile fish. Examination of the stocking records from 1982 and 1986 show that 62,840 brown trout fingerlings were planted in Willow Creek during 1982 and none were stocked in 1986. The 1982 fingerling plant probably contributed most of the fish observed in the two year class observed in 1983 (Corsi 1984). The absence of two-year-old brown trout in 1987 is probably a direct result of no 1986 fingerling stocking.

Numbers and densities of rainbow trout which are dependent on catchable stocking and utilization, as well as upstream movement of fingerlings planted in Ririe Reservoir, were considerably higher than in 1983 (Table 10). The high number of catchable rainbow observed in 1987 ($0.22/100 \text{ m}^2$) is indicative of poor utilization of the fall plant by anglers.

The lack of juvenile cutthroat trout is less easily explained but is probably a factor of the drought conditions which occurred in 1987. Corsi (1986) observed that cutthroat trout were utilizing deeper, slower areas for overwintering. Low water conditions in 1987 may have caused cutthroat trout moving downstream in search of wintering areas to enter Ririe Reservoir rather than remain in Willow Creek. Low flows have resulted in a reduction of wintering habitat in Willow Creek. An elevated harvest of migrating juveniles during June may have also contributed to the reduced numbers observed. Typically, fish in Willow Creek are less vulnerable to harvest during the first two to four weeks of the season because high flows make the stream unfishable.

Homer Creek

Only two trout, both juvenile wild cutthroat, were captured in Section 1. Low flows due to the drought resulted in only limited holding areas for trout in Section 1. The two fish, which measured 108 and 114 mm in length, appeared to be in good condition and active despite a water temperature of 26°C .

Section 2, which in 1983 consisted of run, riffle and pool habitat, has been impounded by a series of small beaver ponds. Wild cutthroat trout and brook trout densities were higher than those observed in 1983 (Table 11). We did not observe any brown trout and the density of adipose-clipped Henrys Lake cutthroat were higher than the density of wild

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Table 10. Estimated densities (fish/100 m²) of cutthroat, brown and rainbow trout from Willow Creek downstream from Kepps Crossing, 1983 and 1987. Rainbow trout are primarily fish stocked as fingerlings or catchables in Willow Creek and Ririe Reservoir.

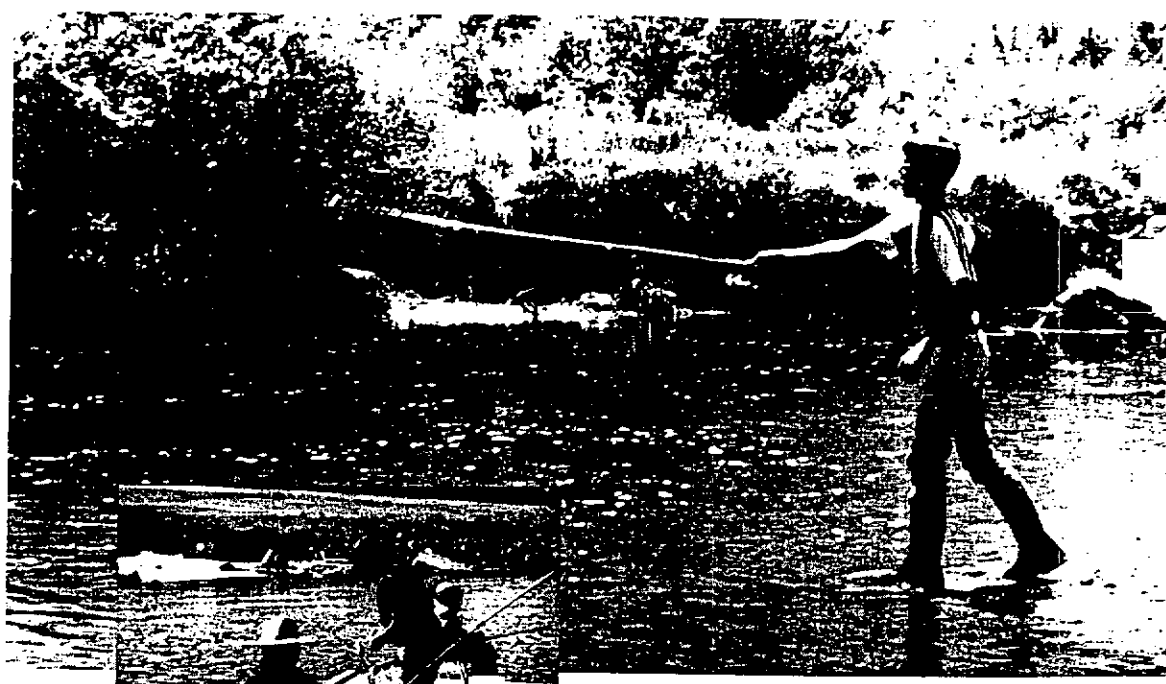
Species	Density	
	1983	1987
All cutthroat	0.60	0.07
Cutthroat >250 mm	0.22	0.07
All brown	1.25	0.15
Brown >270 mm	0.16	0.10
Rainbow	0.50	0.95

Table 11. Estimated densities (fish/100 m²) of trout in Homer Creek (Section 2), 1983 and 1987.

Species	Density	
	1983	1987
Brook trout	4.7	31.3
Wild cutthroat trout	0.2	1.0
Hatchery cutthroat trout	0.0	21.6
Brown trout	0.4	0.0

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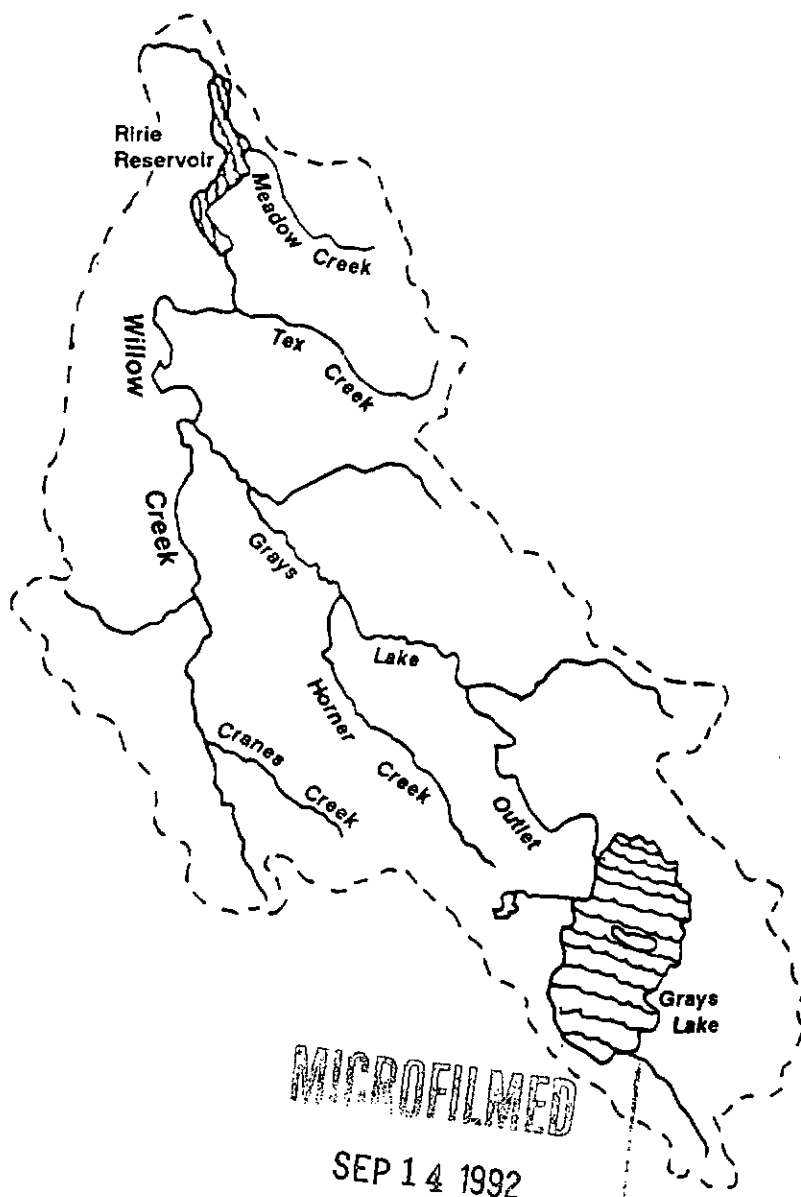
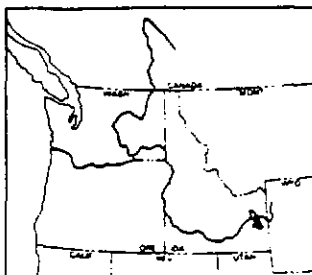
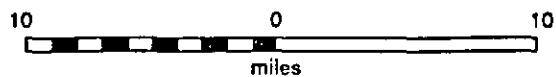
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Willow Creek Drainage



WILLOW CREEK DRAINAGE

A. Overview

Major tributaries to Willow Creek are Grays Lake Outlet and Cranes Meadow and Tex creeks. Since 1924, up to 20,000 acre-feet of water a year has been diverted from the Willow Creek drainage to Blackfoot Reservoir through Clark's Cut Canal. The construction of Ririe Dam, a rock-face, earth-filled structure, was completed by the Corp of Engineers in 1976. The reservoir has a total capacity of 80,540 acre-feet and a surface area of 1,470 acres. Water is diverted for irrigation of about 7,300 acres upstream from Ririe Reservoir, but as yet the storage in Ririe is unobligated. The reservoir is drawn down to 35,000 acre-feet annually by November 1 to provide winter flow storage.

The 20 miles of Willow Creek below Ririe Dam is controlled for irrigation and flood control. This segment of Willow Creek is annually dewatered to keep ice buildup from causing floods near Idaho Falls. Maintaining a wild fishery in this area is only feasible with minimum year long releases below Ririe Reservoir although numerous trout from irrigation ditches which flow into Willow Creek via the South Fork Snake River provide a seasonal fishery. Prior to dewatering lower Willow Creek in 1976, the catch rate was 0.44 trout/hour with 10,500 hours (5,600 angler days) of effort annually. Catch rates declined to 0.33 trout/hour and 3,000 hours of effort in 1980. Game fish found in this area are primarily cutthroat and brown trout. Lesser numbers of rainbow and whitefish are also present.

A 400 yard long portion of Willow Creek flows through Highland Park within Idaho Falls. This area has marginal water quality during summer months and is dewatered during the winter time. However, the area is suitable for development as a short-term fishing area to support activities such as fishing clinics, free fishing day, etc. The area needs a water control structure on the west side of the park.

Ririe Reservoir has developed into a very popular fishery only 20 miles from Idaho Falls. It supports one of the most intensive salmonid reservoir fisheries in Idaho. Angler use was 80,000 hours with a catch rate of 0.75 trout/hour in 1989. This fishery is supported primarily through hatchery releases of rainbow trout and coho salmon. Minor catches of cutthroat and brown trout are also made. Steep banks and limited access restrict bank fishermen to 35% of the effort. Kokanee will be substitute for coho salmon in 1990 due to disease in coho brood stock and lack of coho recruitment into the fishery as two and one half year old fish. Smallmouth bass were introduced into Ririe Reservoir from 1984 to 1986. Self reproducing populations have developed from the original introductions. The smallmouth fishery should continue to expand in Ririe Reservoir during the early 1990s as naturally reproduced fish begin to contribute to angler catch.

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The 95 miles streams in the drainage of Willow Creek above Ririe Reservoir are mainly in narrow canyons and contain important wild cutthroat populations. Water flows vary from extremes of several thousand second-feet during runoff to a few second-feet in late summer and winter in Willow Creek. Dry land farming and grazing practices have denuded riparian vegetation within the upper watershed. As a result, ground water inflow is virtually nonexistent within the lower portion of this area. Water temperature varies widely, daily and seasonally. Turbidity is high during the late winter and spring runoff and generally remains so until mid-summer. The Soil Conservation Service has identified the Willow Creek drainage as one of the most serious (ten worst) soil erosion areas in the United States. A water quality program has been initiated to reduce loss of topsoils and improve the water quality of Willow Creek above Ririe Dam. Riparian habitat improvement through improved grazing management is a high priority on both state and private lands.

Cutthroat in the mainstem areas of Willow Creek and Grays Lake Outlet are dependent on downstream movement from tributary spawning and nursery areas. Most tributaries of Willow Creek contain wild populations of cutthroat, brown or brook trout. Native cutthroat trout populations are presently depressed in the drainage although viable. Overharvest of cutthroat is contributing to the decline of this species. Angler catch and effort information available for this area shows catch rates of 0.8 fish/hour and effort of 60,000 hours in 1984. Cutthroat and brown trout presently dominate the catch in tributaries with hatchery catchable rainbow found in areas of road access where they are stocked. No wild rainbow have been found in the Willow Creek drainage. Beginning in 1990, an Area 6 restricted harvest regulation was enacted for cutthroat in rivers and streams. The limit is 2 cutthroat or cutthroat hybrids, all fish between 8 and 16 inches must be released. This regulation should begin to restore cutthroat populations in the Willow Creek system above Ririe Reservoir by 1992 with major increases in numbers and size of cutthroat by 1995.

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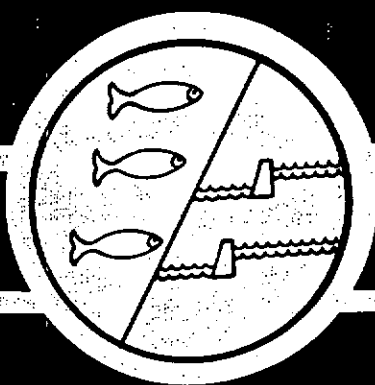
DRAINAGE: Willow Creek

Fishery					Management direction	
Water	Miles/acres	Type	Species present	Management		
Willow Creek in Idaho Falls	0.25/	Coldwater	Rainbow trout	Put-and-take trout	Seasonal releases of catchable rainbow for fishing clinics and free fishing day.	
Willow Creek from Eagle Rock Canal to Ririe Dam	5/	Coldwater	Rainbow trout Cutthroat trout Brown trout	General	Area annually dewatered. Low priority fishery unless year-round flows negotiated with Bureau of Reclamation	
Ririe Reservoir	/1,470	Mixed	Rainbow trout Cutthroat trout Kokanee salmon Brown trout Smallmouth bass	Put-and-take trout General	Put-and-grow fishery supplemented with catchable releases for rainbow. Put-and-grow kokanee salmon fishery. Maintain catch rates of 0.6 fish/hr with lengths 10" to 12". Review cutthroat reservoir harvest status as stream populations rebuild. Reservoir harvest may limit stream recovery. Manage bass under general statewide bass limits. Monitor populations.	
Willow Creek and Grays Lake Outlet above Ririe Reservoir	80/	Coldwater	Cutthroat trout Rainbow trout Brown trout	Quality Put-and-take trout	Restore wild populations of native cutthroat through restricted harvest regulations. Put-and-grow brown trout fishery. Put-and-take rainbows during interim cutthroat recovery. Catch rates of 1.0 fish/hr.	
All other tributaries	83/	Coldwater	Cutthroat trout Brown trout Brook trout	Quality Wild trout	Restore wild populations of native cutthroat through restricted harvest regulations and delayed season openers. Catch rates of 1.0 fish/hr. Naturally reproducing populations of brown or brook trout occur in specific tributaries and provide fishery diversity.	

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Proceedings of the

Symposium on Small Hydropower and Fisheries



**May 1, 2, and 3, 1985
Aurora, Colorado**

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Evolution and Application of Instream Flow Methodologies to Small Hydropower Developments: An Overview of the Issues¹

E. Woody Trihey² and Clair B. Stalnaker³

Abstract.--Methods for evaluating instream flow needs have evolved over the last 30 years resulting in two categories which are defined as "standard-setting" and "incremental". Standard-setting methodologies refer to those measurement and interpretative techniques designed to generate a flow value(s) which is intended to maintain the fishery at some acceptable level. Incremental methodologies on the other hand are organized and repeatable processes by which: (1) a fishery habitat/streamflow relationship and the hydrology of the stream are transformed into a baseline habitat time series; (2) proposed water management alternatives are quantified and compared with the baseline; and (3) project operating rules are negotiated. A hierarchical approach to small-hydro instream flow analysis is suggested.

Several techniques exist today which, to varying degrees, are capable of either identifying a base streamflow necessary to maintain instream resources at some acceptable level or quantifying the incremental response of the instream resource to naturally occurring or project-induced changes in streamflow, stream temperature, sediment transport, or water quality. These techniques were developed primarily to resolve conflicts resulting from excessive allocation of streamflow to out-of-stream uses. Central to the evolution of instream flow methodologies are western water law (appropriation doctrine), Federal water policy (e.g., the Carey Act) and environmental concerns (e.g., NEPA). A discussion of the evolution of institutional awareness and the quantification of instream flow needs is found in Stalnaker (1982).

Today we are discussing instream flow methodologies due to yet another institutional stimulus that is particularly applicable to small scale hydropower development. This stimulus is the Public Utility Regulatory

Policies Act of 1978 (PURPA). Without the economic incentives provided by this Act--which stimulate small scale hydropower development on steep gradient headwater streams--little interest or need for new or modified instream flow methods would exist.

In this paper, we define methods as specific techniques for measuring or predicting changes in important physical, chemical, or biological variables of the stream environment. Methodologies on the other hand, are collections of methods sequenced in organized repeatable processes which identify the response of specific resources to changes in water, sediment, chemical, and/or nutrient supply. Quantifying these changes leads to either specific limits on streamflow modifications necessary for protecting the existing instream resource or identification of impacts and tradeoffs among the resource uses evaluated. Consequently, neither a fish sampling method nor a hydraulic simulation method constitute an instream flow methodology. They are simply methods for examining important variables.

A brief review of the evolution of instream flow methodologies from early studies to the small-hydro era shows that during the 1950's and 1960's the concentration was on the construction of large federally-funded irrigation and hydropower projects in the West, particularly those of the Bureau of Reclamation and to a lesser extent the Corps of Engineers. Due to the nature of western water law and the fact that most of these projects were predominantly associated with downstream diversions for

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which lead to minimum flow recommendations based on streamflow statistics (e.g., 40% of mean annual flow), or hydraulic, which lead to recommendations based on some streamflow-dependent habitat index (e.g., the break in the wetted perimeter vs. flow relationship). Methodologies developed to set minimum flow standards on streams for the purpose of State water allocation or to protect water quality in receiving streams were nearly always based on analyses of the historic streamflow record. Minimum standards were often indexed to flow amounts equalled or exceeded 90% of the time; 10% of the mean annual flow; 7 day Q_{10} , or even the lowest daily flow on record. An excellent discussion of these different standard-setting methods are found in Wesche and Rechard (1980) and Loar and Sale (1981).

The problem with basing the well-being of fish populations on low-flow statistics is that the long term effects of artificially maintaining these minimum flows is seldom the same as infrequent, naturally occurring, short term effects that may appear in the historic record (e.g., three drought years in a row is uncommon). The ability of fish populations to compensate for a one-in-ten-year low flow event may give the false impression that the fish population will remain healthy and viable if this minimum flow (drought) condition were imposed year after year. As water projects were built and operated, it became apparent that in many cases the fishery resources were decimated as a result of the planners' and hydrologists' illogically assigned low-flow statistics.

Streamflow releases immediately downstream from the large federal water impoundments built during the 1950's and 60's were not as constrained by the low-flow statistics of the particular stream because upstream storage was very large, and water could be stored and carried over from one season to another and, in many cases, from one year to another. Therefore, instream flow methodologies developed to determine minimum flow recommendations below large reservoirs tend to focus upon stabilizing or even enhancing the downstream fishery. This came about because the normal project operation tended to provide fairly cold water releases in amounts often in excess of natural, mid-summer, preproject streamflows. In addition, many of the large storage reservoirs were built on streams in arid environments and as a result of the cool water release the downstream fishery was often converted from warm water species to trout. Hence, maintenance of the predevelopment fish population was not always the motivating factor when quantifying the minimum flow. In several instances intentionally replacing the predevelopment fishery with a viable trout fishery was the objective of the "minimum flow."

Definition of acceptable levels of the post-development fishery is quite variable and ranges from the minimum flow needed for the

maintenance of the existing fishery to enhancement or even changing or maximizing of fish populations. In the past thirty years, several of the resource agencies have conducted biological studies on unregulated streams for the purpose of examining correlations between fish standing crop and the instream flow as determined from one of the standard setting methods.

Trout populations in the intermountain west have been shown to remain healthy and viable when minimum flows during the summer low flow months are in the range of 30 to 60% of the mean annual flow (Elser 1972; Wesche and Rechard 1973; Stalnaker and Arnette 1976), keeping in mind that flows are well above these minimums during most of the remainder of the year. In trout streams possessing a relatively rectangular cross-sectional shape, it has also been found that a "minimum flow" at or above the inflection point of a wetted perimeter versus discharge plot generally maintains the fishery in a healthy status (Nelson 1980), but again, streamflows associated with these studies were well above the "minimum" value during most of the year.

Post audit studies conducted for the Fish and Wildlife Service by Hazel (1976) and Nelson et al. (1976) found that for 90% of the western Federal water projects evaluated, the minimum flow agreed upon was frequently violated during drought cycles. Inasmuch as the identification of minimum streamflows had evolved with the understanding that they would protect the fishery during the low-flow season and droughts, the wide-scale violation of these standards prompted notable concern on the part of the general public, fisheries managers, and the water planning community.

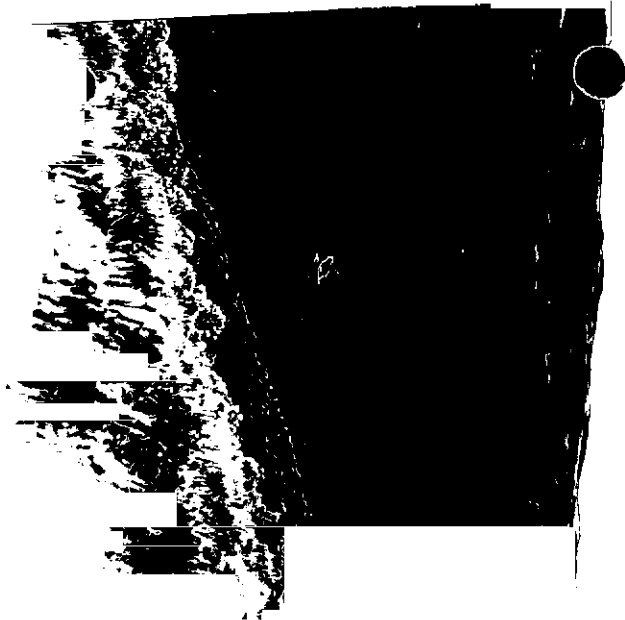
The Water Resources Council and the numerous River Basin Commissions provided an impetus throughout the 1960's for planning the multiple use of water. This impetus on multiple use planning and the poor track record of protecting instream values using standard-setting methodologies led to the request by many resource agencies for stricter permitting requirements, including monitoring and enforcement clauses. Enforcement is likely only when the trade-offs between offstream uses and instream uses are clear. Hence, more sophisticated methodologies were needed to address the "what if" questions and in particular, "What happens to the fishery resource when the streamflow (standard) identified for maintaining the fishery is not delivered?" (Orsborn and Allman 1976).

This state of affairs in the late 1960's and early 70's led to many symposia and meetings where a need was expressed for methodologies which would answer the "what if" questions proposed by the water development and planning community. Allred (1976) presented the perspective of the water administrator when he said "if instream flow interests expect to compete with other uses for limited water supplies, they must be able to demonstrate with the same type of

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UPPER SNAKE RIVER CHAPTER

RECEIVED
OCT 22 1991
Department of Water Resources

1528 Halsey
Idaho Falls, ID 83402
October 20, 1991

Mr. Gary Spackman
State of Idaho Department of Water Resources
1301 North Orchard St.
Boise, ID 83706

Dear Sir:

Willow Creek is a small but excellent trout stream which flows north from Bingham County, through Bonneville County to the Snake River. The lower reach, between the Gray's Lake Outlet and Ririe Reservoir, although somewhat isolated, has several public and private access sites. These sites are within twenty miles of Idaho Falls and other towns on the Snake River Plain. These places are, therefore, popular fisherman destinations for an area with a growing population. In order to protect this fishery the Idaho Department of Fish and Game has requested the Water Resources Board to file for the following minimum stream flows to maintain the reach's fishery:

<u>Months</u>	<u>Flow (cfs)</u>
Dec.-March	30
April-May	250
June-July	100
Aug.-Sept.	30
Oct.-Nov.	40

On behalf of the Snake River Cutthroats, also known as the Upper Snake River Chapter of Trout Unlimited, I ask that the Department of Water Resources grant this request. The resulting fishery will provide quality recreational opportunities and economic value for the general public in eastern Idaho.

Respectfully submitted,

Mel Moore

Mel Moore, President
Snake River Cutthroats

MICROFILMED

SEP 14 1992

291 Dale Drive
Idaho Falls, ID 83402
October 20, 1991

RECEIVED
OCT 21 1991

Department of Water Resources

Mr. Gary Spackman
State of Idaho Department of
Water Resources
1301 North Orchard St.
Boise, Idaho 83706

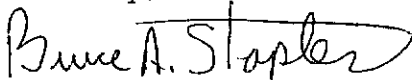
Dear Sir:

Willow Creek is a small but popular trout fishery in Bonneville County. It is only 20 miles east of Idaho Falls. Much of Willow Creek is isolated, thus it holds an excellent trout population with trophy brown and cutthroat trout. But there are several public and private access points on the creek. Even in recent years of drought the trout population has been self-sustaining in the reach of Willow Creek between the Gray's Lake Outlet confluence and Ririe Reservoir. Thus the Idaho Department of Fish and Game has filed with the Water Resources Board a request for the following minimum instream flows for the reach to maintain its trout fishery.

December to March	30 cfs
April to May	250 cfs
June to July	100 cfs
August to September	30 cfs
October to November	40 cfs

I urge the Water Resources board to grant this request. It is in the best interest of the general public as it will maintain a significant source of recreation and thus has economic value.

Sincerely,



Bruce A. Staples

MICROFILMED

SEP 14 1992

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OCT 16 1991

Department of Water Resources

October 10, 1991

Gary Spackman, Mgr
Water Right Permits Section
IDWR
1301 North Orchard St.
Boise, ID 83706

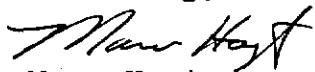
Re: Willow Creek Minimum Streamflow
No. 25-7597

Dear Mr. Spackman:

As a resident of Idaho Falls I believe that the proposed minimum streamflow for Willow Creek should be approved. I have fished & hunted along Willow Creek for some time and, outside of the recent dry cycle, more and more people use this stream for recreational activities. My son and daughter caught their first fish on a fly from Willow Creek and I have caught some very large brown and cut-throat trout from the stream. The minimum flows proposed could help preserve the streams fisheries as well as wildlife that depend on the riparian area.

Because of its close proximity to Idaho Falls and the increasing interest in and use of the stream by residents of the area it is important that this stream segment receive some guarantee of protection from future consumptive use. This is exactly the type of situation that the minimum streamflow law was enacted. This is a public resource and it should not be compromised because someone in the future may want to divert it for agriculture or hydroelectric development.

Sincerely,



Marv Hoyt
1307 Herring St.
Idaho Falls, ID 83404

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