

State of Idaho
Department of Water Resources
Water Right License

WATER RIGHT NO. 91-07122

Priority: June 15, 1992

Minimum Stream Flow: 941.00 CFS

It is hereby certified that STATE OF IDAHO
IDAHO WATER RESOURCE BOARD
PO BOX 83720
BOISE ID 837200098 has complied with the terms and
conditions of the permit, issued pursuant to Application for Permit dated June 15, 1992; and has
submitted Proof of Beneficial Use on August 31, 1998. A minimum stream flow for:

ST. JOE RIVER

Tributary: COEUR D'ALENE LAKE

has been established as follows:

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>MINIMUM STREAM FLOW</u>
MINIMUM INSTREAM FLOW	08/01 to 10/31	470.00 CFS
MINIMUM INSTREAM FLOW	11/01 to 07/31	941.00 CFS

MINIMUM STREAM FLOW REACH:

Beginning of Reach	NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$	Sec. 13, Twp 45N, Rge 03E, B.M.	SHOSHONE County
Ending of Reach	SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$	Sec. 23, Twp 46N, Rge 02W, B.M.	BENEWAH County

CONDITIONS OF APPROVAL

1. Use of water under this right shall be non-consumptive.
2. Upon future finding and order of the Director that gaging stations are required to maintain the approved minimum stream flow, the right holder shall permanently install and maintain gaging stations as specified by the department.
3. The Idaho Water Resource Board, upon receiving a request, or upon its own initiative, may petition the Director for an amendment to this water right. 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 notify interested parties of the proposed change, and conduct a hearing for the purpose of determining whether the right should be amended in the public interest. The burden of proof at the hearing shall be upon the person or parties seeking the amendment to establish that the amendment of the right would be in the public interest.
4. This minimum stream flow is for the protection of fish and wildlife habitat, aquatic life and recreational values.
5. This minimum streamflow begins at the confluence of St. Joe River with Marble Creek in the NENENW, S13, T45N, R3E and ends 36 miles downstream at the confluence of St. Joe River with the St. Maries River in the SENESW, S23, T46N, R2W.

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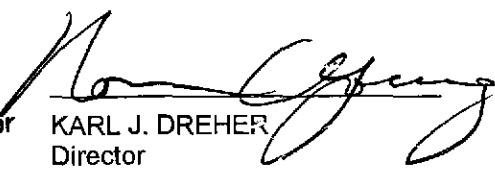
State of Idaho
Department of Water Resources
Water Right License

WATER RIGHT NO. 91-07122

This license is issued pursuant to the provisions of Section 42-219, Idaho Code. The water right confirmed by this license is subject to all prior water rights and shall be used in accordance with Idaho law and applicable rules of the Department of Water Resources.

Signed and sealed this 30TH day of APRIL, 2001.

Acting for


KARL J. DREHER
Director

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AUG 31 1998

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Department of Water Resources

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. 91-07122 Telephone No. 208-327-7900

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

3. Mailing Address: P.O. Box 83720, Boise ID 83720-0098

4. Source of Water: St. Joe River 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: Minimum Instream Flow

6. Total rate of diversion and/or volume for which proof is submitted: 941 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 <u>X</u>
	Has the measuring device been installed?	Yes _____	or	No <u>X</u>
Flow Measurement Port:	Is a flow measurement port required?	Yes _____	or	No <u>X</u>
	Has the measurement port been installed?	Yes _____	or	No <u>X</u>

8. Fee Enclosed: \$ N/A (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 Pass Date: 8/28/98
(include your title, if on behalf of company or organization)

State of Idaho
Department of Water Resources
Permit To Appropriate Water

NO. 91-07122

Proposed Priority: June 15, 1992

Maximum Diversion Rate:

941.00 CFS

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

has applied for a permit to appropriate water from:
ST JOE RIVER tributary of **COEUR D ALENE LAKE**

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	11/01 to 07/31	941.00 CFS
MINIMUM INSTREAM FLOW	08/01 to 10/31	470.00 CFS
	Totals	941.00 CFS

LOCATION OF POINT(S) OF DIVERSION:

Beginning of Stream Flow Reach

NENENW , Sec. 13, Township 45N, Range 03E
SHOSHONE County

End of Stream Flow Reach

SENESEW , Sec. 23, Township 46N, Range 02W
BENEWAH County

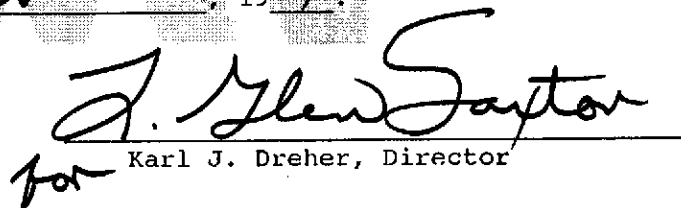
PLACE OF USE: See Remarks

CONDITIONS OF APPROVAL AND REMARKS

1. See Final Order for conditions and limitations for use of water under this 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

11th day of December, 1997.


for Karl J. Dreher, Director

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

IN THE MATTER OF APPLICATIONS FOR)	
PERMIT NOS. 91-07122 AND 92-07200)	
IN THE NAME OF THE IDAHO WATER)	FINAL ORDER
RESOURCE BOARD)	
_____)	

On June 15, 1992, the Idaho Water Resource Board (Board) filed the above captioned applications for permit with the Department of Water Resources (department) seeking to establish minimum stream flows on the St. Joe River and St. Maries River. The applications were filed pursuant to Chapter 15, Title 42, Idaho Code.

The department provided notice of the applications describing the proposed appropriations and setting the time and place for hearing on the applications. Notice was published on June 19 and 26, 1997 in the Bonner County Daily Bee, Sandpoint, Idaho, the Shoshone County News Press, Kellogg, Idaho, and on June 18 and 25, 1997 in the Priest River Times, Priest River, Idaho and in the St. Maries Gazette Record, St. Maries, Idaho. Statewide notice of the applications was also published on June 19 and 26, 1997 in the Lewiston Morning Tribune, Lewiston, Idaho, The Times News, Twin Falls, Idaho, The Post Register, Idaho Falls, Idaho and in the Idaho Statesman, Boise, Idaho.

On July 16 and 17, 1997, the department conducted public hearings in Sandpoint, Idaho and St. Maries, Idaho for the purpose of eliciting testimony regarding the applications.

Parties appearing in a formal capacity at the hearings included John Beal for the Idaho Water Resource Board, Cindy Robertson for the Idaho Department of Fish and Game, Bob Schloss for the Corps of Engineers, Bob Dunnagan for Trout Unlimited, Marti Bridges for Idaho Rivers United and Steven A. Fry for Washington Water Power. Public witnesses who testified in the matter included John Bentley and Buell Hollister.

On August 28, 1997, the hearing officer for the department issued a Recommended Order in connection with the above captioned matter. None of the parties filed a petition for reconsideration, briefs or exceptions in connection with the Recommended Order. Based upon his understanding of the law and the facts in this matter, the Director makes the following Findings of Fact, Conclusions of Law and Final Order:

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FINDINGS OF FACT:

1. Application for Permit No. 91-07122 seeks a minimum flow of 941 cubic feet per second (cfs) from November 1 to July 31, and 470 cfs from August 1 to October 31 of the water of the St. Joe River tributary to Coeur d'Alene Lake. The thirty-six (36) mile reach for the minimum flow begins at a point in NE1/4NE1/4NW1/4 Sec. 13, T45N, R3E, B.M. at the confluence of the St. Joe River with Marble Creek and ends at the confluence of St. Joe River with the St. Maries River in SE1/4NE1/4SW1/4 Sec. 23, T46N, R2W, B.M. The purpose of the application is to protect fish and wildlife habitat, aquatic life and recreational values. (Note: The "1/4" designations will be omitted from subsequent legal descriptions in this order).

2. Application for Permit No. 92-07200 seeks a minimum flow of 141 cfs from December 1 to July 31 and 65 cfs from August 1 to November 30 of the water of the St. Maries River tributary to St. Joe River. The twenty-six (26) mile reach for the minimum flow begins at a point in the SWSWNE Section 6, T42N, R2E, B.M. at the confluence of the West and Middle Forks of the St. Maries River and ends at the confluence with John Creek in the SENENW Section 33, T45N, R2W, B.M.

3. Exhibits offered and accepted as a part of the record include the following:

- a. Applicant's Exhibit 1 - Graph of average monthly flows, Flow Duration Curves, and Summary Hydrograph for St. Maries River.
- b. Applicant's Exhibit 2 - Listing of St. Maries River Water Rights.
- c. Applicant's Exhibit 3 - Graph of average monthly flows, Flow Duration Curves, and Summary Hydrograph for St. Joe River.
- d. Applicant's Exhibit 4 - Listing of St. Joe River Water Rights.
- e. IDFG Exhibit 1 - Table 1 - Instream Flow Regimens for Fish, Wildlife, Recreation and Related Environmental Resources.
- f. IDFG Exhibit 2 - Graph titled Species Composition Electrofishing for St. Joe River and St. Maries River.
- g. IDFG Exhibit 3 - Graph titled Species Composition Gillnetting for St. Joe River.
- h. IDFG Exhibit 4 - St. Joe River Harvest data.

- i. IDFG Exhibit 5 - St. Maries River Harvest data.
- j. IDFG Exhibit 6 - St. Joe River Management data.
- k. IDFG Exhibit 7 - St. Maries River Management data.
- l. IDFG Exhibit 8 - Fishery Research report, Project P-73-R-10, dated July 1988.

4. Flows in the sources for the applications have been measured as follows:

- a. 91-07122 - St. Joe River
 - Average Annual Flow = 2,353 cfs.
 - The requested flow of 941 cfs is equalled or exceeded about 67% of the time during the November 1 to July 31 period.
 - The requested flow of 470 cfs is equalled or exceeded about 52% of the time during the August 1 to October 31 period.
- b. 92-07200 - St. Maries River
 - Average Annual Flow = 353 cfs.
 - The requested flow of 65 cfs is equalled or exceeded about 73% of the time during the December 1 to July 31 period.
 - The requested flow of 141 cfs is equalled or exceeded about 52% of the time during the August 1 to November 30 period.

5. All rights acquired under application Nos. 91-07122 and 92-07200 are for instream non-consumptive use and are subject to all vested water rights, permits or applications for permit having dates of priority earlier than June 15, 1992.

6. The parties supported the minimum stream flow applications. There was no opposition to the approval of the applications.

CONCLUSIONS OF LAW:

1. Chapter 15, Title 42, Idaho Code, provides that stream flow preservation for the protection of fish and wildlife habitat, aquatic life, recreation, aesthetic beauty, navigation and water quality, when made pursuant to this statute, is in the public interest and is declared to be a beneficial use of such water.

2. The proposed minimum stream flows will not interfere with any vested water right, permit, or application for permit having a priority date earlier than June 15, 1992.

3. The flows requested in the applications are the minimum flows required to preserve the existing unique characteristics of the streams for the public benefit, and are not the ideal or most desirable flows which could be utilized for those purposes.

4. The proposed minimum stream flows are in the public, as opposed to private, interest.

5. The minimum stream flows proposed by the applications are necessary to fish and wildlife habitat, aquatic life and recreational values.

6. The proposed minimum stream flows as approved in this final order are generally capable of being maintained.

7. The department should approve the applications with certain conditions and limitations.

ORDER:

IT IS, THEREFORE, HEREBY ORDERED That Application for Permit Nos. 91-07122 and 92-07200 in the name of the Idaho Water Resource Board are **APPROVED** subject to the following conditions and limitations as follows:

1. The use of water under the permits is subject to all prior water rights.

2. The use of water under the permits shall be non-consumptive.

3. Upon the future finding and order of the Director that gaging stations are required to maintain the approved minimum stream flows, the right holder shall permanently install and maintain gaging stations as specified by the department.

4. The Director retains jurisdiction, as described below, to review and amend any and all parameters of these rights. The Board, upon receiving a request, or upon its own initiative, may petition the Director for an amendment to the right. 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 right 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 right would be in the public

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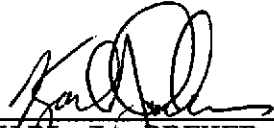
interest.

5. The applications hereby approved by the Director shall be submitted to the Idaho Legislature by the fifth day of the next regular legislative session and the Director's approval shall not become finally effective until approved by the legislature pursuant to provisions of Section 42-1503, Idaho Code.

6. Proof of instream beneficial use of the minimum flows appropriated shall be submitted in a manner approved by the Department on or before **October 1, 2002**.

7. This minimum stream flow is for the protection of fish and wildlife habitat, aquatic life and recreational values.

Dated this 11th day of December, 1997.



KARL J. DREHER
Director

CERTIFICATE OF SERVICE

I DO HEREBY CERTIFY that on the 12th day of December, 1997, the above and foregoing document was served upon the following, via certified mail, by placing a copy of the same in the United States Mail, postage prepaid and properly addressed to the following:

HAND DELIVERED

JOHN BEAL
IDWR
PO BOX 83720
BOISE ID 83720-0098

BOB SCHLOSS
CORPS OF ENGINEERS
ALBANY FALLS DAM PROJECT
2376 E HWY 2
OLDTOWN ID 83822

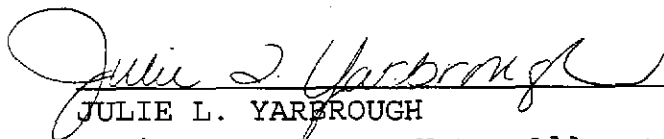
CERTIFIED MAIL

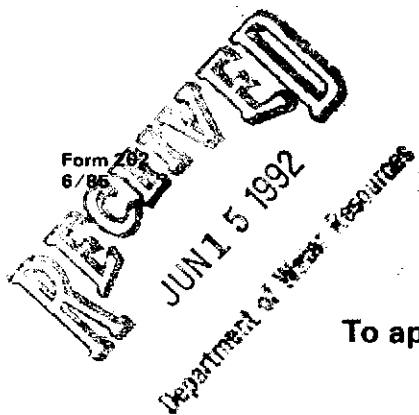
CINDY ROBERTSON
DEPT OF FISH AND GAME
PO BOX 25
BOISE ID 83707

BOB DUNNAGAN
TROUT UNLIMITED
361 EVERGREEN RD
SANDPOINT ID 83862

MARTI BRIDGES
IDAHO RIVERS UNITED
PO BOX 633
BOISE ID 83701

STEVEN A FRY
WASHINGTON WATER POWER
PO BOX 3727
SPOKANE WA 99220-3727


JULIE L. YARBROUGH
Senior Secretary, Water Allocation Bureau



Ident. No. 91-7122

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
APPLICATION FOR PERMIT

To appropriate the public waters of the State of Idaho

1. Name of applicant Idaho Water Resource Board Phone 327-7910
Post office address Statehouse, Boise, ID 83720
2. Source of water supply St. Joe River which is a tributary of Coeur d'Alene Lake
Instream flow downstream from the confluence with Marble Creek in the
3. Location of point of diversion is NE $\frac{1}{4}$ of NE $\frac{1}{4}$ of NW $\frac{1}{4}$, Govt. Lot _____
Sec. 13 Township 45N Range 3E B.M. Shoshone County; additional
to the confluence with the St. Maries River
points of diversion if any: in the SE $\frac{1}{4}$ of NE $\frac{1}{4}$ of SW $\frac{1}{4}$, Sec. 23, T46N, R2W, B.M. Benewah
County.
4. Water will be used for the following purposes:
Amount 941 cfs for instream purposes from Nov. 1 to July 31 (both dates inclusive)
(cfs or acre-feet per annum)
Amount 470 cfs for instream purposes from Aug. 1 to Oct. 31 (both dates inclusive)
(cfs or acre-feet per annum)
Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per annum)
Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per annum)
5. Total quantity to be appropriated is (a) 941 and/or (b) _____
cubic feet per second acre feet per annum
6. Proposed diverting works:
 - a. Description of ditches, flumes, pumps, headgates, etc. _____
None
 - 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).

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8. Description of proposed uses (*if irrigation only, go to item 9*):
- Hydropower; show total feet of head and proposed capacity in KW. _____
 - Stockwatering; list number and kind of livestock. _____
 - Municipal; show name of municipality. _____
 - Domestic; show number of households. _____
 - Other; describe fully. A minimum streamflow for the protection of fish and wildlife habitat, aquatic life and recreational values.
9. Description of place of use:
- If water is for irrigation, indicate acreage in each subdivision in the tabulation below.
 - If water is used for other purposes, place a symbol of the use (*example: D for Domestic*) in the corresponding place of use below. See instructions for standard symbols.

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. _____
11. a. Who owns the property at the point of diversion? _____
- b. Who owns the land to be irrigated or place of use? _____
- c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing. _____
12. Remarks: The affected reach is approximately 36 miles long.

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ATTACHMENT TO APPLICATION FOR PERMIT
TO APPROPRIATE A MINIMUM STREAM FLOW

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

The appropriation is junior to rights, permits, or applications with earlier dates of
priority. As a nonconsumptive, instream use this appropriation can have no impact on any
water user downstream except to help insure water availability.

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

The appropriation will be held by the Water Resource Board rather than a private entity.
The appropriated water will preserve river values for the benefit and enjoyment of all citizens
of the state.

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

The appropriation is for 40% of the mean annual flow for the period of November through July.
The request for the rest of the year is for the average monthly flow for September, the lowest
month for the period of record. This flow is close to 20% of the mean annual flow. These flows
will provide a "good" minimum flow for fish and wildlife habitat, aquatic life, and recreational
values for April through July.

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

The requested flows are based on the Montana Method which utilized field studies to identify
riverine conditions at varying flow rates. The optimum flow for fish, wildlife, recreation, and
related environmental resources ranges from 60% to 100% of the mean flow value.

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

A flow of 941 cfs is less than the average monthly flow for the requested period of use. The flow of 470 cfs is the lowest average monthly flow of the year for the period of record.

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

The requested flow is based on records for the Calder gage, 75 feet downstream of the road bridge at Calder. This gage has been used since 1921.

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

No

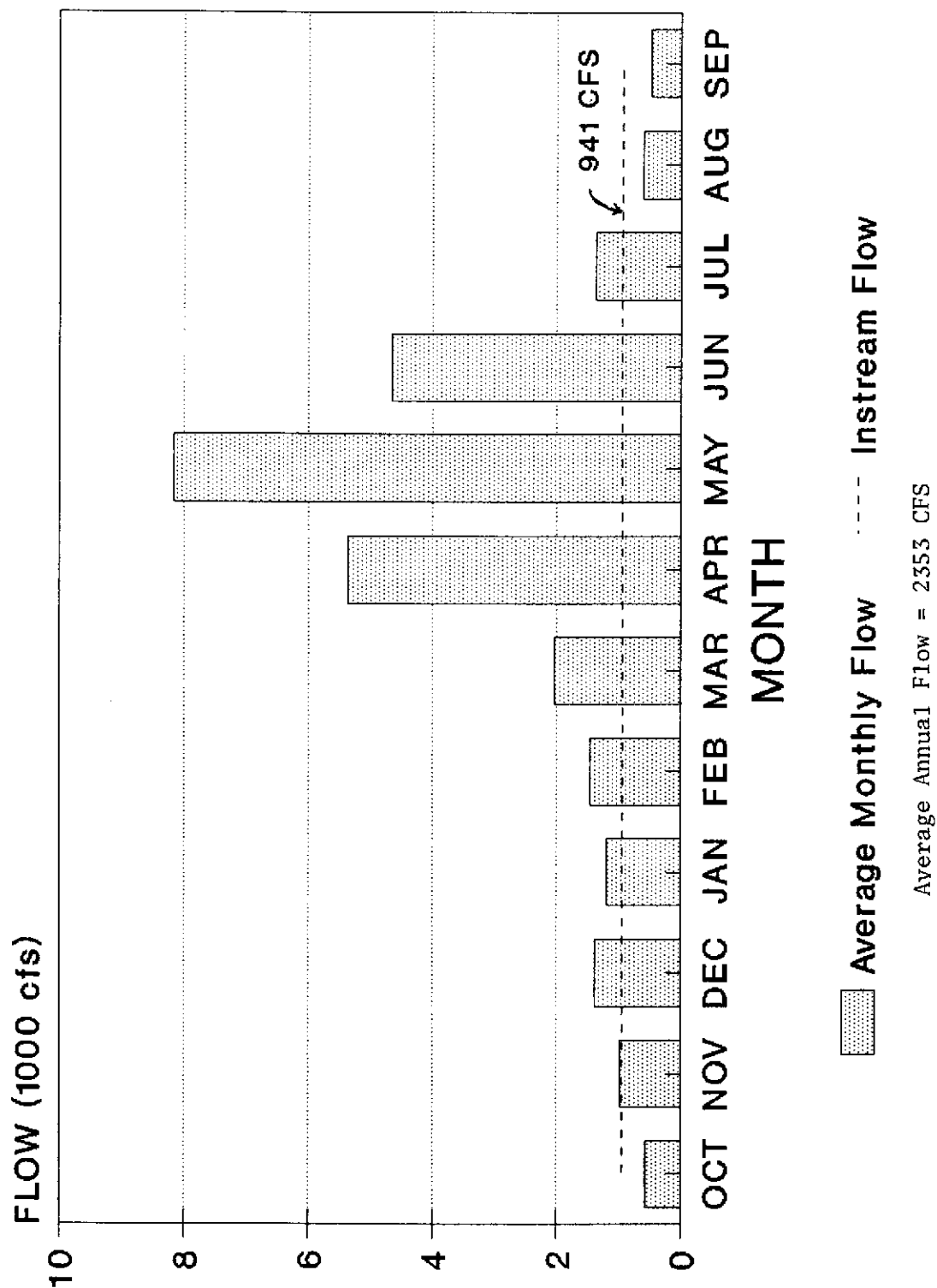
21. List any additional remarks related to this minimum stream flow application.

The flow request provides a "good" minimum flow for April to July and October, a "fair to poor" flow for August to September and an "outstanding" flow for November to March. Following consultation with the Division of Environmental Quality and Departments of Fish & Game and Parks & Recreation, the Water Resource Board may amend this application to more accurately reflect the necessary minimum flow based on new data provided by the above or other agencies.

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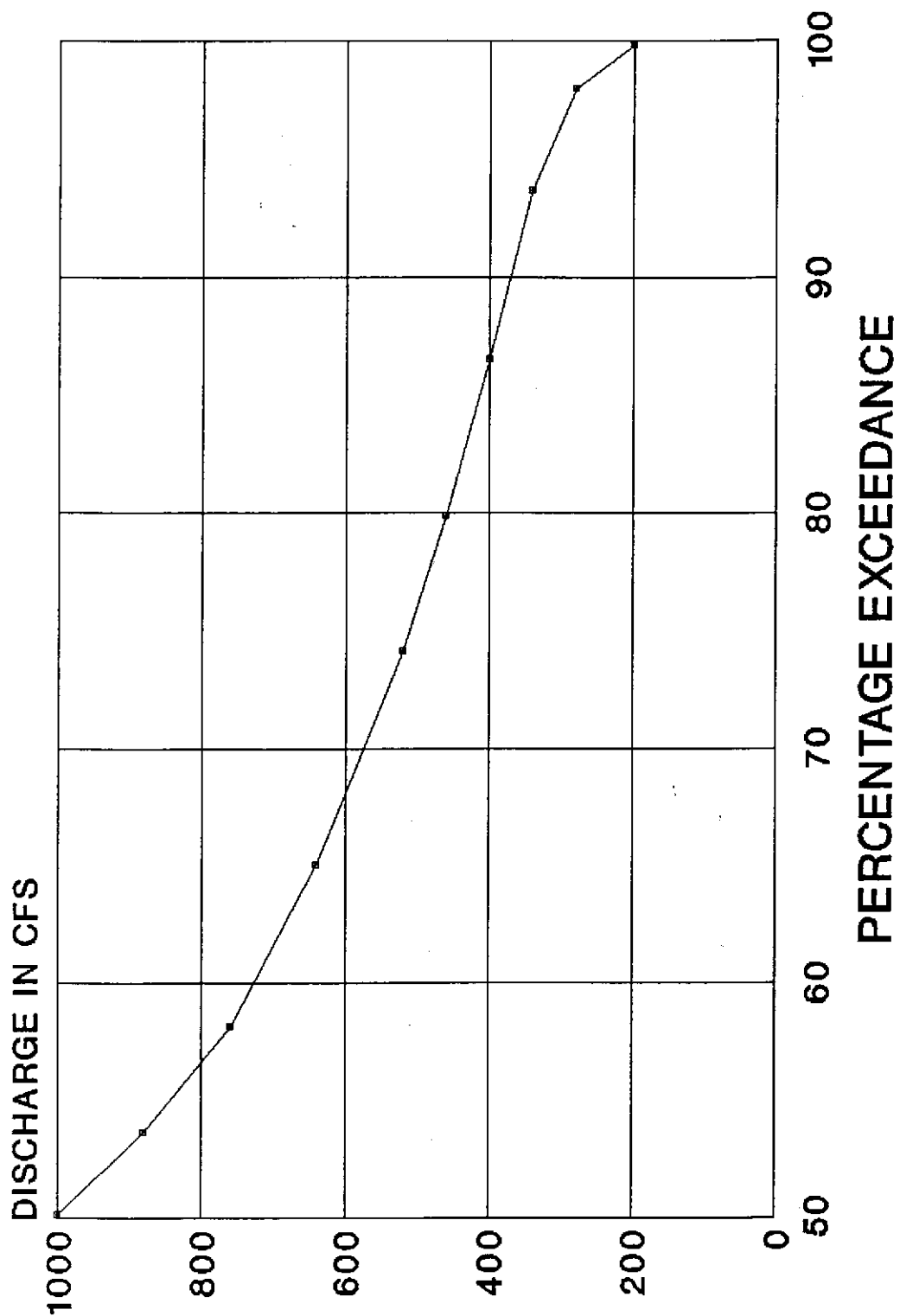
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ST. JOE RIVER AT CALDER (1921-90)



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FLOW DURATION CURVE ST. JOE RIVER AT CALDER



PERIOD 1921-90

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FLOW DURATION TABLE FOR STATION 12414500

FLOW	PERCENT = / +	FLOW	PERCENT = / +	FLOW	PERCENT = / +	FLOW	PERCENT = / +	FLOW	PERCENT = / +	FLOW	PERCENT = / +	FLOW	PERCENT = / +	FLOW	PERCENT = / +
15000.	0.79	14000.	1.11	13000.	1.60	12000.	2.22	11000.	3.00	10000.	3.91	9000.	5.21	8000.	6.76
9000.	5.21	8000.	6.76	7000.	8.83	6000.	11.53	5500.	12.92	5000.	14.65	4500.	16.60	4000.	18.60
4500.	16.60	4000.	18.60	3500.	21.00	3000.	23.85	2500.	27.38	2000.	32.09	1500.	39.25	1000.	50.14
1500.	39.25	1000.	50.14	980.	50.69	960.	51.18	940.	51.85	920.	52.36	900.	53.06	880.	53.67
900.	53.06	880.	53.67	860.	54.20	840.	54.87	820.	55.60	800.	56.49	780.	57.29	760.	58.19
780.	57.29	760.	58.19	740.	59.26	720.	60.22	700.	61.42	680.	62.49	660.	63.54	640.	65.00
660.	63.54	640.	65.00	620.	66.20	600.	67.60	580.	69.14	560.	70.53	540.	72.24	520.	74.14
540.	72.24	520.	74.14	500.	76.19	480.	78.09	460.	79.88	440.	82.01	420.	84.09	400.	86.56
420.	84.09	400.	86.56	390.	87.83	380.	88.99	370.	90.41	360.	91.50	350.	92.70	340.	93.65
350.	92.70	340.	93.65	330.	94.64	320.	95.48	310.	96.22	300.	96.98	290.	97.49	280.	97.94
290.	97.49	280.	97.94	270.	98.33	260.	98.66	250.	98.93	240.	99.18	230.	99.32	220.	99.53
230.	99.32	220.	99.53	210.	99.69	200.	99.82								

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Table 1

Instream Flow Regimens for Fish, Wildlife, Recreation and Related
Environmental Resources

Narrative Description of Flows ^{1/}	Fisheries Classification ^{2/}	Recommended Base Flow Regimens	
		Oct.-Mar.	: Apr.-Sept.
Flushing or Maximum	--	200% of the average flow ^{3/}	
Optimum Range	--	60%-100% of the average flow ^{4/}	
Outstanding	I	40%	60%
Excellent	II	30%	50%
Good	III	20%	40%
Fair or Degrading	IV	10%	30%
Poor or Minimum	--	10%	10%
Severe Degradation	--	10% of average flow to zero flow	

^{1/}Most appropriate description of the general condition of the streamflow for all the parameters listed in the title of this paper.

^{2/}Roman numeral ratings for Fisheries Classification Systems like those developed for the States of Idaho, Montana, West Virginia, Wyoming, and the Delaware River Basin Comprehensive Study by the U.S. Fish and Wildlife Service.^{5, 11, 14, 19, 26} The base flow regimens outlined above in columns 3 and 4 to maintain the respective designated classes, are judged to be as reliable and valid as the classification systems themselves. These recommended flows generally apply very well to both cold and warm water streams. Regimens should be reversed or altered to fit different hydrologic cycles, like the Salmonid streams on the West Coast, or to favor species like the fall spawning brown trout. Flows may be refined further by specifically matching them to vital periods of the life cycle of fishes, like migration, spawning, incubation, growth, etc. Use of the Montana Method on spring creeks or streams that have a very uniform flow year-around may provide unprecedented low-flow regimens at the minimum or base flow levels.

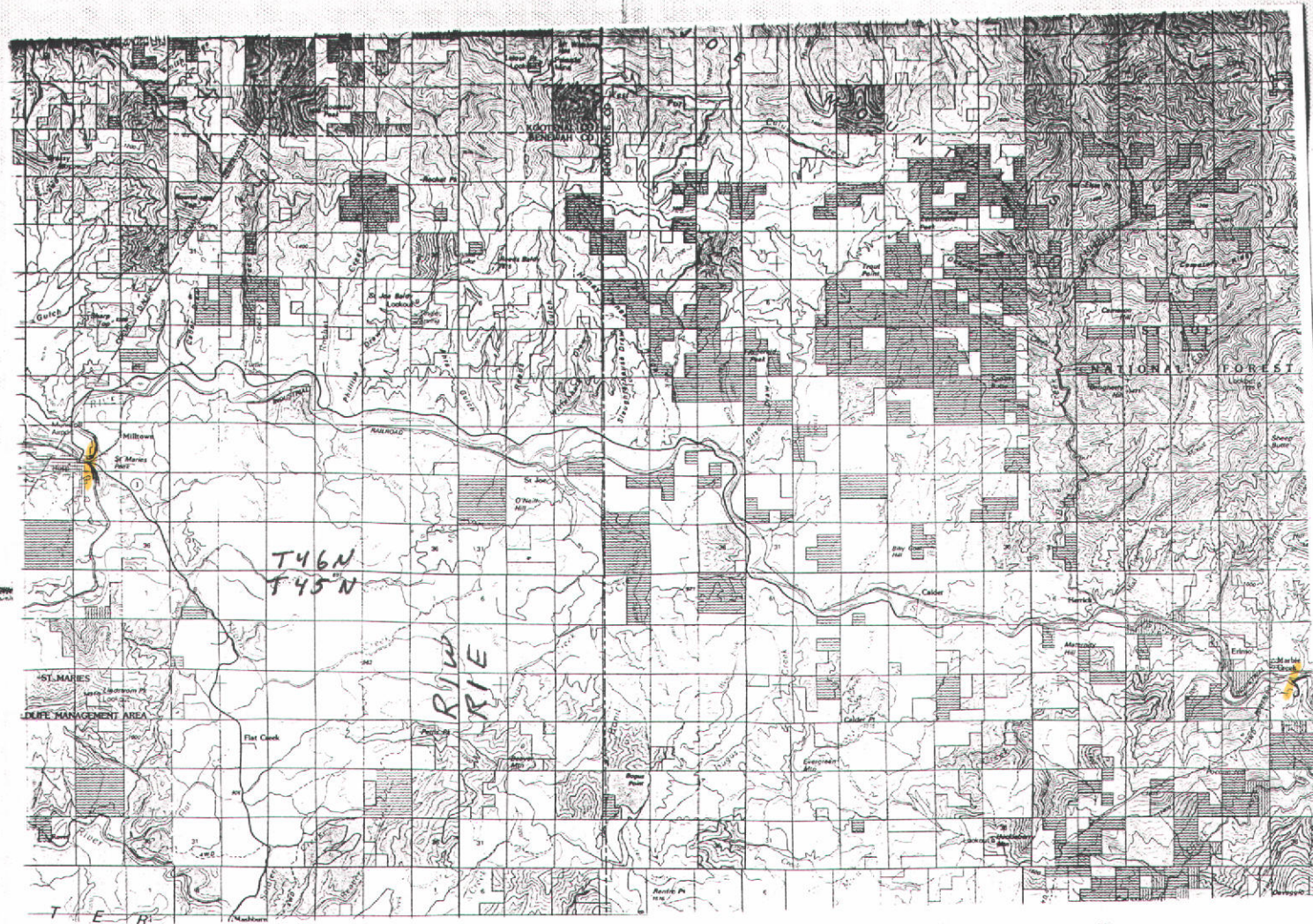
^{3/}The average flow will usually fill the active stream channel approximately 1/3 full or to the line of permanent terrestrial vegetation, while 3 times the average flow will often fill the active channel approximately to the point of spilling out on the first bench of the flood plain.¹⁵ Twice the average flow will produce effective depths and velocities within the stream channel for moving silt, sediment and other bed load material without doing extensive damage to the banks and riparian vegetation. Twice the average flow is a good maximum flow recommendation as well as a good flushing flow (Fig. 1).

^{4/}Optimum is a nebulous term; however, this flow range covers that definition best for all the parameters of this paper collectively.

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



Scale: 2 inches equal 1 mile.

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

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APR 09 1998

William S. Plots

(Applicant)

Received by DB Date 6-15-92 Time 11:45am Preliminary check by _____
Fee \$ _____ Received by _____ # _____ Date _____
Publication prepared by _____ Date _____ Published in _____
Publication approved _____ Date _____

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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APR 23 1992

LICENSING REVIEW
MINIMUM STREAM FLOW

RIGHT NO. 91-07122

Proof of beneficial use rec'd 8/31/98

Was flow data submittal a requirement
with proof submittal? Yes No ✓

If yes, has data been reviewed and a determination
made that minimum flow is capable of being
maintained? Yes No

Data submitted fully complies with permit condition Not rec'd but was Submitted
(i.e. # of years of flow data sufficient)

Data Entry for License:

Name Standardized ✓
Total cfs & div. capacity listed as highest flow ✓
P/D(s) beginning and ending descriptions listed ✓
Use flows defined for entire year ✓
P/U left blank (description in remarks) ✓
Remarks/non-standard conditions ✓
 Non-consumptive ✓
 Watermaster control N/A
 Jurisdiction retains to amend ✓
 Description of reach(es) ✓
 All other applicable permit conditions ✓
 carried forward ✓

Comments/adjustments

Printed license hand-edited

91 days 52%
274 days 67%
11/1-7/31 941.0 cfs 10/92-9/97
8/1-10/31 470.0 cfs
lowest ave 340±
" " 345±
mean - met or exceeded permit rates/season
(22) 78% short 96-97 (54) 41% short 94-95 (35) 62% short 92-93
(53) 88% long " (89) 72% long " (120) 56% long "
(38) 64% short 95-96 (19) 140% short 93-94
(17) 94% long " (146) 6% long "

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

RECEIVED

JAN 20 1999

Department of Water Resources

A. GENERAL INFORMATION

Permit No. 91-07122

1. Owner: Idaho Water Resource Board Phone No. (208) 327-7910

Current Address: P.O. Box 83720 Boise ID 83720-0098

2. Accompanied by: _____ EXAM DATE: 1-14-99

Address: _____ Phone No. _____

Relationship to Permit Holder: _____

3. Source: St. Joe River tributary to Coeur d'Alene Lake

B. OVERLAP REVIEW

1. Other water rights with the same place of use: _____

2. Other water rights with the same point of diversion: _____

C. DIVERSION AND DELIVERY SYSTEM

1. Point(s) of Diversion:

Ident No.	Gov't Lot	1/4	1/4	1/4	Sec.	Twp.	Rge.	County	Method of Determination/Remarks
			NE	NW	13	45N	3W	Shoshone	US Forest Service Map / Beginning Stream Reach
			NE	SW	23	46N	2W	Beneviah	US Forest Service / Ending Stream Reach

2. Place(s) of Use:

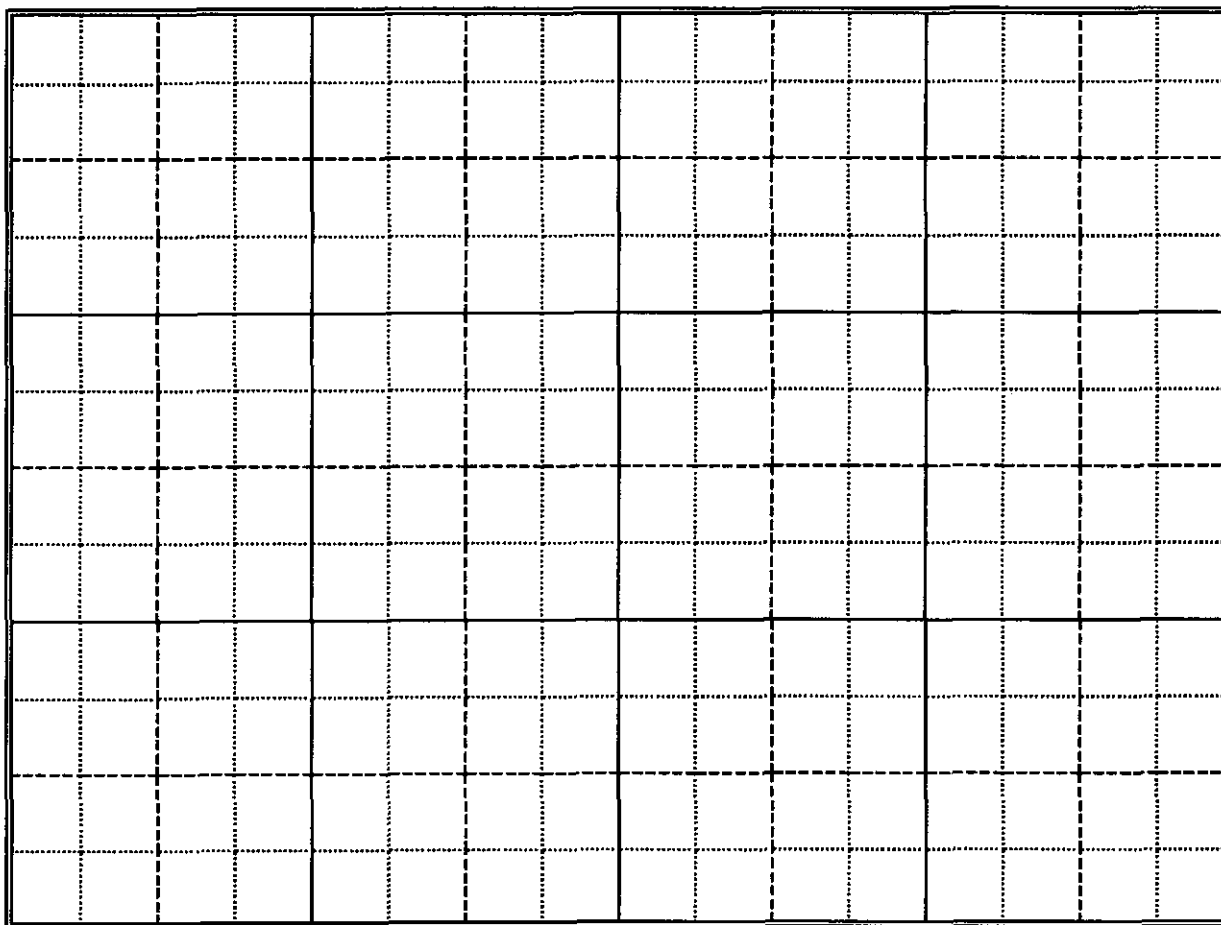
Indicate Method of Determination

TWP	RGE	SEC	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	

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OCT 12 2001

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe i.d. as applicable.



Scale: 1" = _____

_____ Copy of USGS Quadrangle Attached Showing location(s) of point(s) of diversion and place(s) of use (required).

_____ Aerial Photo Attached (required for irrigation of 10+ acres)

_____ Photo of Diversion and System Attached

4.

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

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

D. FLOW MEASUREMENTS

1.

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

2. Measurements: See USGS Discharge Records

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OCT 6 1981

[illegible]

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OCT 12 2001

F. FLOW CALCULATIONS

Measured Method:

☒ Additional Computation Sheets Attached**G. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \underline{\hspace{2cm}}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = \underline{\hspace{2cm}}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \underline{\hspace{2cm}}$$

2. Volume Calculations for Other Uses:

$$\frac{1 \text{ cfs}}{941 \text{ cfs}} = \frac{1.9835 \text{ af/day}}{x} \text{ then } x = 1866.5 \text{ af/day}$$

$$1866.5 \text{ af/day} \times 273 \text{ days} = 509547 \text{ af}$$

(11/01 to 7/31)

$$\frac{1 \text{ cfs}}{470 \text{ cfs}} = \frac{1.9835 \text{ af/day}}{x} \text{ then } x = 932 \text{ af/day}$$

$$932 \text{ af/day} \times 92 \text{ days} = 85766.5 \text{ af}$$

(8/1 to 10/31)

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
Minimum Instream Flow	11/01	07/31	941 cfs	509547
Minimum Instream Flow	08/01	10/31	470 cfs	85766.5
Totals:			941 cfs	595313.5 afa

2. Recommended Amendments

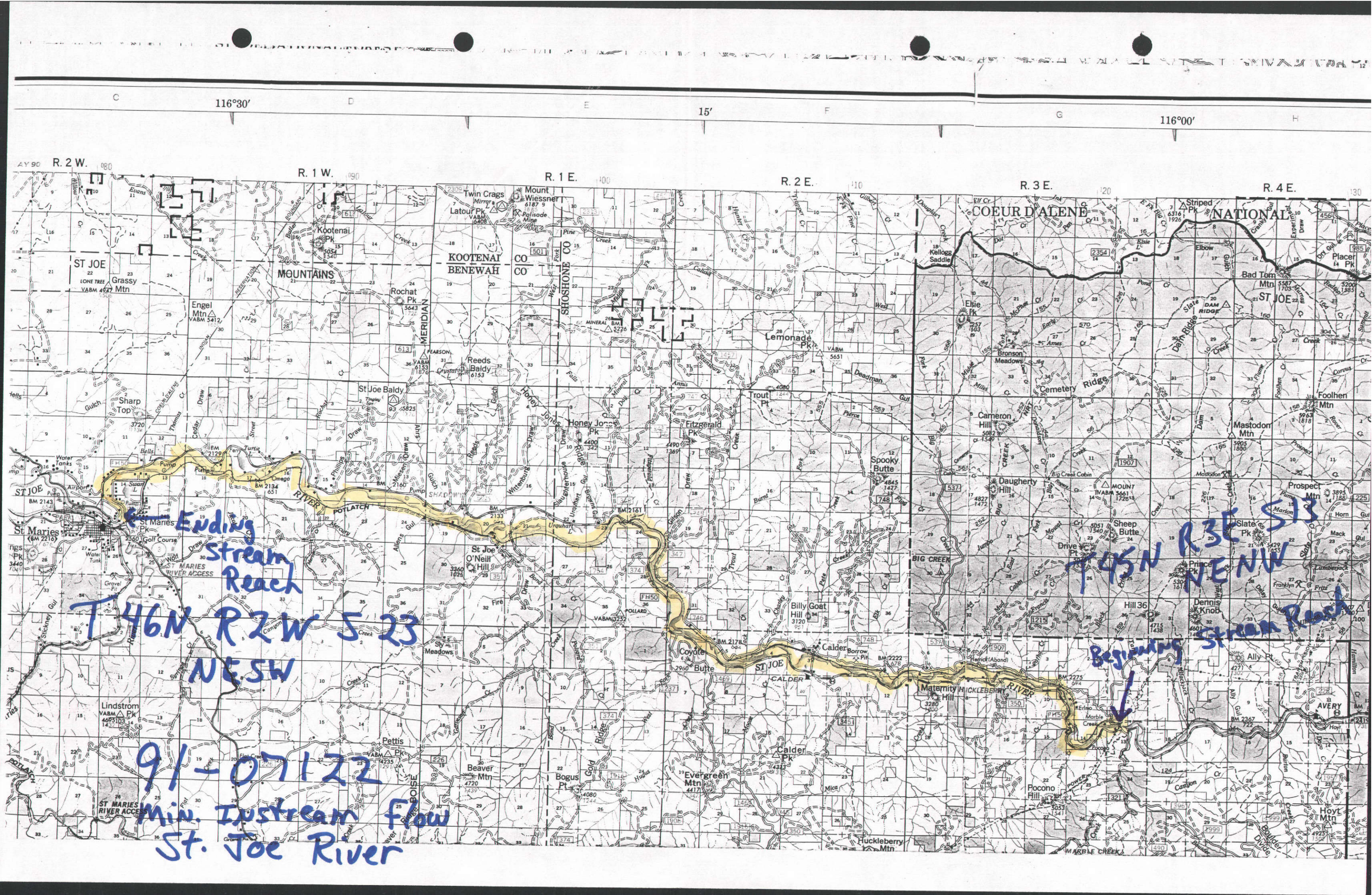
☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATIONField Examiner's Name David A. Page Date 1-14-99

Reviewer _____ Date _____

SEAL

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116°30'

15'

116°00'

AY 90 R. 2 W. 080

R. 1 W. 090

R. 1 E. 100

R. 2 E. 110

R. 3 E. 120

R. 4 E. 130

Ending Stream Reach

Beginning Stream Reach

T46N R2W S23 N3W

91-07122

Min. Instream Flow
St. Joe River

**ANALYSIS SHEET
FOR
PROOF OF BENEFICIAL USE**

Permit No. 91-87122 Reviewed by QJ Date 10-22-98

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

NO Required? - exempt

1 Amount Submitted

1 Correct?

MEASURING DEVICE

☐ 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 _____ Proof Made 8-31-98

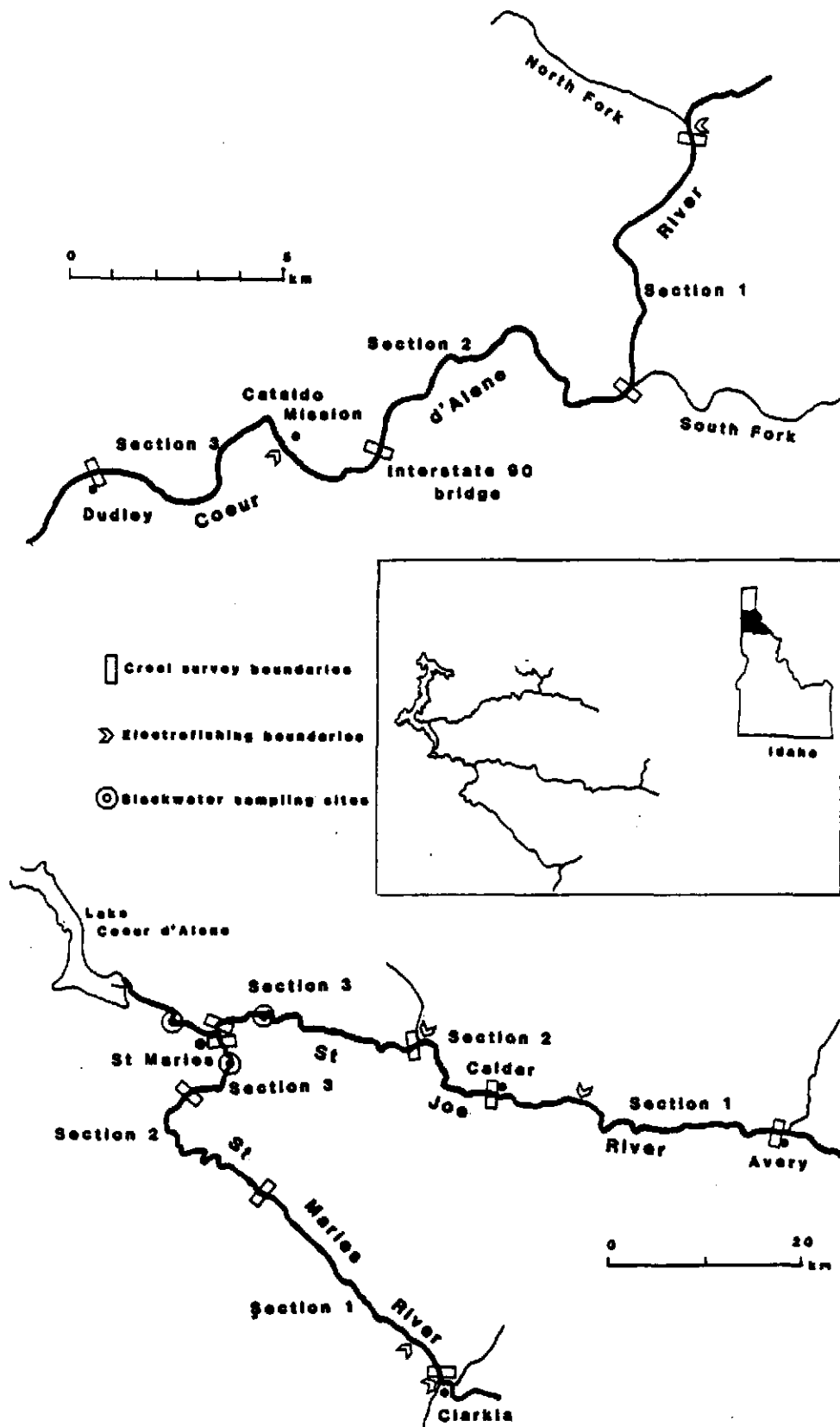


Figure 1. Location of creel survey and fish sampling areas in the Coeur d'Alene, St. Joe, and St. Maries rivers, 1984 through 1987.