

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
IN-OFFICE REVIEW/BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 91-7462

Exam Date: 10/27/2015

1. Does this qualify for an in-office field exam (IDAPA 035.02.r)? ☒ Yes ☐ No
- Irrigation of 5 acres or less
 - Storage of up to 14.6 AF for stockwater purposes only
 - Any use other than irrigation or storage, if the combined diversion rate is 0.24 cfs or less
 - Other < >

2. Current Owner: Name: Steve Renfro and/or Rori Renfro
 Owner-of-Record Correct? ☒ Yes ☐ No
 Address-of-Record Correct? ☒ Yes ☐ No
 If No: <Address>

3. Beneficial Use Fees have been paid: ☒ Yes ☐ No Receipt No: C101048

4. SOURCE**TRIBUTARY**

St Joe River

Coeur D'Alene Lake

Method of Determination: Applicant submitted an aerial photo map that POU.

Change in Source: ☐ Yes ☒ No**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: Overlap? ☒ Yes ☐ No

Water Right No.	Source	Purpose of Use	Basis
91-7080	GW	Municipal	Recommendation
91-7080	GW	Domestic & Irrigation	License

Comments: This property lies within the service territory of the Cottonwood Point Water & Sewer Assn. In-house domestic use is provided through right 91-7080.

2. Other water rights with the same point of diversion: Overlap? ☐ Yes ☒ No

Water Right No.	Source	Purpose of Use	Basis

Comments:

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

Source	Govt. Lot	%	%	%	Sec.	TWP	RGE		County
St Joe River			NE	SW	17	46N	02W	B.M	BENEWAH

Method of Determination: PLS data and aerial photography show the POD located in the river channel not in government lot 8.

Change in POD? ☐ Yes ☒ NoAmendment Required? ☐ Yes ☒ No

2. **LOCATION OF PLACE(S) OF USE:** Use: Irrigation

TWP	RGE	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
46N	02W	17									0.1								0.1
46N	02W	17									0.4								0.4
											L8								

Method of Determination: aerial photography.

Change in POU? ☐ Yes ☒ NoAmendment Required? ☐ Yes ☒ No

3.

☐ Delivery System Diagram Attached (required). Indicate all major components and distances between components.
Indicate weir size/pipe as applicable.

The pipe size is unknown.

☒ 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
Unknown.		2.0		Unknown	Unknown

*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: In-office field exam. No measurements taken**E. FLOW CALCULATIONS**☒ Additional Computation Sheets Attached

0.02 cfs = 1 inch per acre (IDWR standard) 0.5 acres x (0.02 cfs) = 0.01 cfs

Per App. Processing Memo #17, up to 0.03 cfs/acre for irrigation of up to 5 acres is acceptable. 0.5 acres x (0.03 cfs) = 0.015 cfs

Calculated standard = 0.015 cfs**Permit allowed = 0.03 cfs****License recommended for 0.02 cfs.****F. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.5 \times 3.0 = 1.5 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \times 231 \times 1.9835 = 13.7 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 1.5 \text{ af}$$

Volume Calculations for Other Uses: N/A**G. PURPOSE OF USE**Irrigation ☒ Yes ☐ No # Stock _____ Domestic # of Homes _____

Other: < >

Change in Purpose of Use? ☐ Yes ☒ No

Method of Determination: Information in the water right file is consistent with aerial photography of the property.

If Yes: From Use _____ To Use _____ Amount _____ CFS _____ AFA _____

H. NARRATIVE/REMARKS/COMMENTS

Permit 91-7462 authorized diversion from the St Joe River of 0.03 cfs for irrigation of 1 acre. Based on the small permitted diversion rate, this permit qualifies for an in-office field exam.

The legal description of the POU was used to locate the property. Available taxlot information shows that Steve G Renfro is owner of Lot 32 A of Cottonwood Point 1st Addition. The physical address of the property is 1802 Cottonwood Dr, St Maries ID. A map identifying the POU was submitted with the application and the shape outlined on that map matches the taxlot boundary.

Steve Renfro works and lives in Boise Idaho. I confirmed the POU and POD locations with Steve Renfro via phone. He requested that the license be mailed to 6124 Randolph Dr, Boise ID.

A 2-hp pump is positioned at the end of the Renfro's dock for operation in deeper water. That dock is located on the river side of Lot 32 A of Cottonwood Point 1st Addition. The pump diverts water for use in a manual hose and sprinkler system.

POD is actually located in the river channel and not in gov't lot 8. An amendment is not needed to drop the government lot number at licensing.

The entire lot is approximately 1 acre. The irrigated acreage is less than that. Mr. Renfro stated that recently they have not been irrigating the street-side portion of the lot. That yard was lower, pooled some water and didn't need as much irrigation.

I created the POU and POD shapes based on aerial photography and the taxlot information.

Overlap review showed that license 91-7080 in the name of Cottonwood Point Water & Sewer Assn for domestic and irrigation use from groundwater exists and overlaps the POU. That license has been recommended in the CdA adjudication with the same number, but for Municipal use.

The permit authorized the standard rate for a small irrigation use and I am recommending that rate for the use. Because this is a diversion out of a river, no volume is required for the license pursuant to BU Exam Rule 35 j.

The applicant stated that the pump intake has appropriate fish screening.

Have conditions of permit approval been met? ☒ Yes ☐ No**I. RECOMMENDATIONS****1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
Irrigation	03/15-11/15	0.02 cfs	N/A
	<u>Totals</u>	0.02 cfs	N/A

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

Other: < >

I. AUTHENTICATIONField Examiner's Name Michele Edl Date October 27, 2015Reviewer *Samuel Shaggs* Date 10-27-2015



POD 91-7462

POUS 91-7462

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 91-7462
 Reviewer: Michele Edl
 Date of Review: 10/22/2015

P/D No.:	Senerio 1	Senerio 2	Senerio 3
PUMP HORSEPOWER	2	2	2
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	8.0	8.0	8.0
DISCHARGE PRESSURE	35	45	55
RATE OF FLOW (cfs)	0.14	0.11	0.09 0.11

The above calculates the formula =
$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: % 70 efficiency
 No Friction

Examiners Notes:

Horsepower was given by the applicant. Lift was estimated by the applicant and is from the submerged pump location in the river to the irrigation level of the property. Discharge pressure ranges from 35-55 psi to account for expected sprinkler system in use.