

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-23797
Exam Date: 9/23/2019

1. **Current Owner:** Eric Bry
 2. **Accompanied by:** Eric Bry, Owner
 3. **Source:** Scriver Creek
- Method of Determination:** Field Exam, aerial imagery, NHD

Tributary: Middle Fork Payette River

B. OVERLAP REVIEW

1. **Other water rights with the same place of use:** YES Overlap

Water Right No.	Source	Purpose of Use	Basis
65-12103	Groundwater	Domestic	Decreed
65-12347	Groundwater	Domestic	Decreed
65-18109	Groundwater	Domestic	Decreed
65-13412	Scriver Creek	Fire Protection	License
65-13064	Scriver Creek	Irrigation	License

Comments: Rights 65-12103 and 65-12347 are the source of domestic water for the subdivision. The POU in our GIS for 65-18109 overlaps this permit POU, but appears to be in the wrong place. The water right states it is associated with parcel # RP054020000230 which is not the permit holder's property. Right 65-13064 is within this QQ but not on the same property. Other POUs are within this QQ but not on this property.

2. **Other water rights with the same point-of-diversion:** NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: There are multiple diversions from Scriver Creek in this QQ, but they are located on other properties and use separate pumps.

C. DIVERSION AND DELIVERY SYSTEM

1. **Point(s) of Diversion:**
SHRIVER CREEK SE ¼ SW ¼, Sec. 22, Lot 3, Twp, 10N Rge, 04E

Boise County

Method of Determination: Field Exam, Permit holder's description

2. **Place of Use:**

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
10N	04E	22												2					2

Total Acres: 2

Method of Determination: Field Exam

3. **Supporting Documents:**

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

 X Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

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

 X Photo of Diversion and System Attached

4. Diversion Pumps

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
	Century	1/2	07216J2	MOD C48D47Z01	

D. FLOW MEASUREMENTS**1. Equipment**

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

2. Measurement Description: No measurements were taken. The pump had been pulled from the creek for the season.

E. FLOW CALCULATIONS

 X Additional Computation Sheets Attached

Measurements:

The owner said he uses a 1 inch garden hose from the pump that is split to 2 Rain Bird sprinklers and used for irrigation. He estimates 10 – 15 gpm (0.02 – 0.03 cfs).

Irrigation Use:

Administrative Processing Memo #17 indicates 0.03 cfs/acre for irrigation up to 5 acres.

Admin memo allows: 2.0 acres x (0.03cfs) = 0.06 cfs

Permit authorizes: 0.08 cfs

Capacity of the pump: 0.03 cfs (see attached theoretical)

Recommend licensing 0.03 cfs for irrigation use.

Domestic Use:

Administrative Processing Memo #22 indicates 0.04 cfs for one household.

Permit authorizes: 0.04 cfs

Capacity of the pump: 0.03 cfs (see attached theoretical)

Recommend licensing 0.03 cfs for domestic use.

F. VOLUME CALCULATIONS**1. Volume Calculations for irrigation:**

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 2 \times 3.5 = 7 \text{ AF}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \times 231 \times 1.9835 = 13.8 \text{ AF}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 7 \text{ AF}$$

2. Volume Calculations for domestic:

Administrative Processing Memo #22 indicates 0.6 AFA for one household.

G. NARRATIVE/REMARKS/COMMENTS

A ½ hp pump is used to transport water from Scriver Creek to irrigate the property with portable sprinklers. At the time of the field exam the pump had been removed from the creek for the year and was stored in the lockable garage. The primary purpose of the domestic use is as back up for the Homeowners Association primary domestic water supply which has been unavailable on occasion. In the event that use of Scriver Creek water for domestic use becomes necessary the sprinklers will be disconnected, the water run via hose to the house using a generator, and the water used for purposes such as personal care. In addition, the domestic use is used for outdoor tasks such as washing automobiles and hosing off equipment.

Have conditions of permit approval been met? X Yes No

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Volume</u>
IRRIGATION	3/01 to 11/15	0.03 CFS	7 AF
DOMESTIC	01/01 TO 12/31	0.03 CFS	0.6 AF

Totals:~~0.06~~ CFS

7.6 AF

0.03

CP 12-18-19

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
 ☒ None

I. AUTHENTICATION

Field Examiner's Name

Paula Dillon - GIS Analyst II

Date

11/16/19

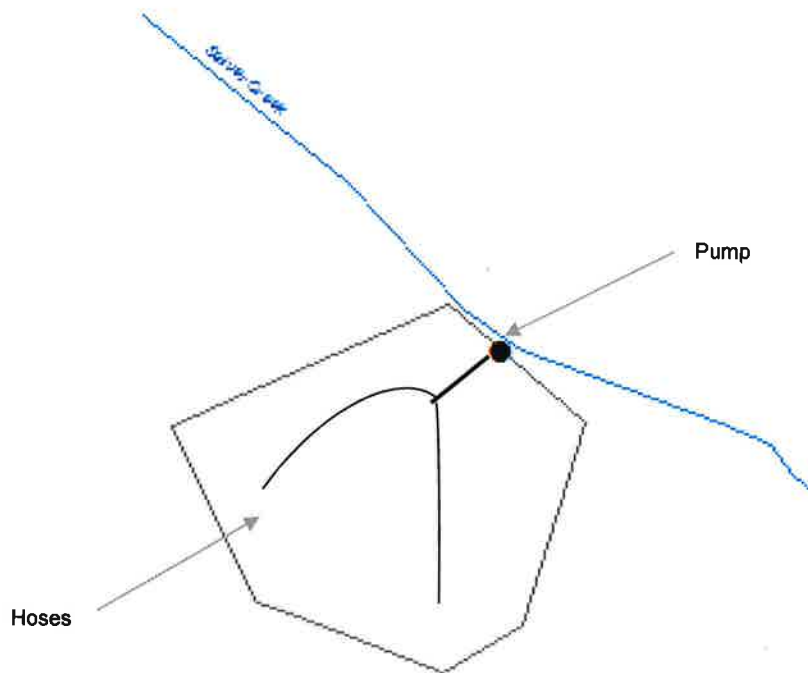
Reviewer

Dan Nelson, Water Allocation Analyst III

Date

11-7-19



System Diagram

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 65-23797
 Reviewer: Paula Dillon
 Date of Review: 9/23/2019

P/D No.:

PUMP HORSEPOWER
 BOOSTER HORSEPOWER

PUMPING LEVEL

DISCHARGE PRESSURE

RATE OF FLOW (cfs)

Scriber Ck
0.5
0
2
50
0.03
12

The above calculates the formula -

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

Assumptions: 870 efficiency.
 No Friction

Examiners Notes:

The pump sits on the creek bank approximately 2 feet above water level. The discharge pressure to run 2 rain bird sprinklers was estimated to be approximately 50 psi.

Photos



Pump stored in garage for the winter.



This is a 1/2 hp pump, even though the labels do not match.



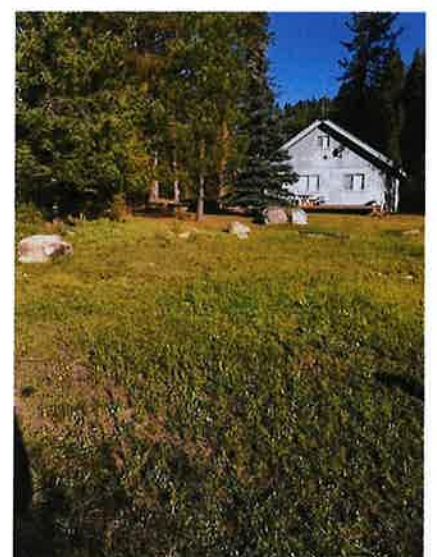
Two rain bird sprinklers used to irrigate.



Location where water is pumped from Scriver Creek.



Irrigated area from house.



Irrigated area looking at house.