

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 67-15099
Exam Date: 08/28/2019

1. Current Owner:
RANDY MARK WILLIAMS 11600 N RIVER RD PAYETTE ID 83661 AND/OR
SUSAN ANNETT WILLIAMS 11600 N RIVER RD PAYETTE ID 83661
2. Accompanied by: Randy Williams
Phone No: (208) 405-1475
Address: same as above
Relationship to permit Holder: Owner

3. SOURCE:
GROUND WATER

Method of Determination: Site visit

B. OVERLAP REVIEW

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

Water Right No.	Source	Purpose of Use	Basis
3-10257	Snake River	Irrigation	Decreed

Comments: Surface water right is not used. The application for permit says that 3-10257 should be considered forfeited for non-use as the water user no longer has access to the POD and has not used for many years. This is the reason no supplemental conditions were placed on this permit and shouldn't be carried forward to licensing.

2. Other water rights with the same point-of-diversion: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
67-14517	Ground Water	Irrigation	License

Comments: Both rights use same well (D0047895)

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER L2 (SW¼ NW¼), Sec. 11, Twp 09N, Rge 05W, B.M. PAYETTE County

Method of Determination: GPS, aerial imagery, digital PLS map

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
09N	05W	11							1.4 L2	4.7									6.1

Total Acres: 6.1

Method of Determination: aerial imagery, digital PLS map, site visit

3.

 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.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Site tag #D0047895	Franklin Electric	5	2821139310	Franklin Electric	2 inch discharge

Comments: Motor/pump was not visibly inspected during the site visit as it is a submersible pump. The majority of the above information was obtained from the field exam for water right 67-14517.

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Ultrasonic	Panametrics	GE	PT878	GAA1620004		

2. Measurements: Flow measurements were recorded every minute for 10 minutes during the site visit, which resulted in an average volume discharge of **74.6 GPM or 0.17 cfs**. The individual measurements obtained (in GPM) were as follows: 74.6, 74.9, 74.5, 74.5, 74.5, 74.7, 74.6, 74.5, 74.5, 74.5, 74.8.

E. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Irrigated land for permit: 6.1 acres

Irrigated land/rate covered by license 67-14517: 1.4 acres (0.04 cfs)

Total system capacity: 0.17 cfs

Total available system capacity: 0.17 cfs – 0.04 cfs = 0.13 cfs

Recommended licensed rate for 67-15099: 6.1 acres x 0.02 cfs = **0.12 cfs**

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 6.1 \text{ acres} \times 4.5 \text{ afa/acre} = 27.5 \text{ afa}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.12 \text{ cfs} \times 260 \text{ days} \times 1.9835 = 61.9 \text{ afa}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 27.5 \text{ afa}$$

2. Volume Calculations for Other Uses: n/a

G. NARRATIVE/REMARKS/COMMENTS

Permit 67-15099 has a priority date of 6/11/2013 and authorized the diversion of up to 0.18 cfs to provide ground water irrigation to 9 acres. The water user (Randy Williams) provided proof of beneficial use on 2/1/2019. On 8/28/2019, I (Amy Steimke) visited the site to complete a beneficial use field examination. Randy Williams was also present for the field examination.

Mr. Williams irrigates a total of 7.5 acres on his property as measured using GIS and aerial imagery. The water user currently holds a license (67-14517) for 1.4 acres of pasture, and so has developed an additional 6.1 acres of irrigated land. Randy also has a decreed water right for the Snake River (3-10257), but this right has not been used for many years.

The point of diversion (POD) is a well that is also used as the POD for license 67-14517. The property receives irrigation water from this well using a 5-horsepower submersible pump. Water is pumped through a 2" pipe that transitions to a 4" mainline that runs throughout the property. The pasture located on the western portion of the property is irrigated using 8 sprinklers and the alfalfa field is irrigated using a combination of risers and handlines with up to 27 sprinklers.

A flow measurement was taken off the 2" pipe coming from the pump using a Panametrics flow meter, which resulted in an average of 74.6 GPM (0.17 cfs) when the system was at full capacity.

Given that the water user already has a license for 0.04 cfs from the same POD, this leaves 0.13 cfs available from the well when at full capacity. The additional development at the property was 6.1 acres, so I recommend to license 6.1 acres with this permit. Because the maximum allowable diversion rate is 0.02 cfs per acre, this results in a total license rate of 0.12 cfs for permit 67-15099. The annual volume I recommend for this license is 27.5 afa, which is the product of number of irrigated acres developed and the headgate requirement of 4.5 afa/acre.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
IRRIGATION	03/01 to 11/15	0.12 CFS	27.5 AF

Totals: 0.12 CFS 27.5 AF

2. Recommended Amendments

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

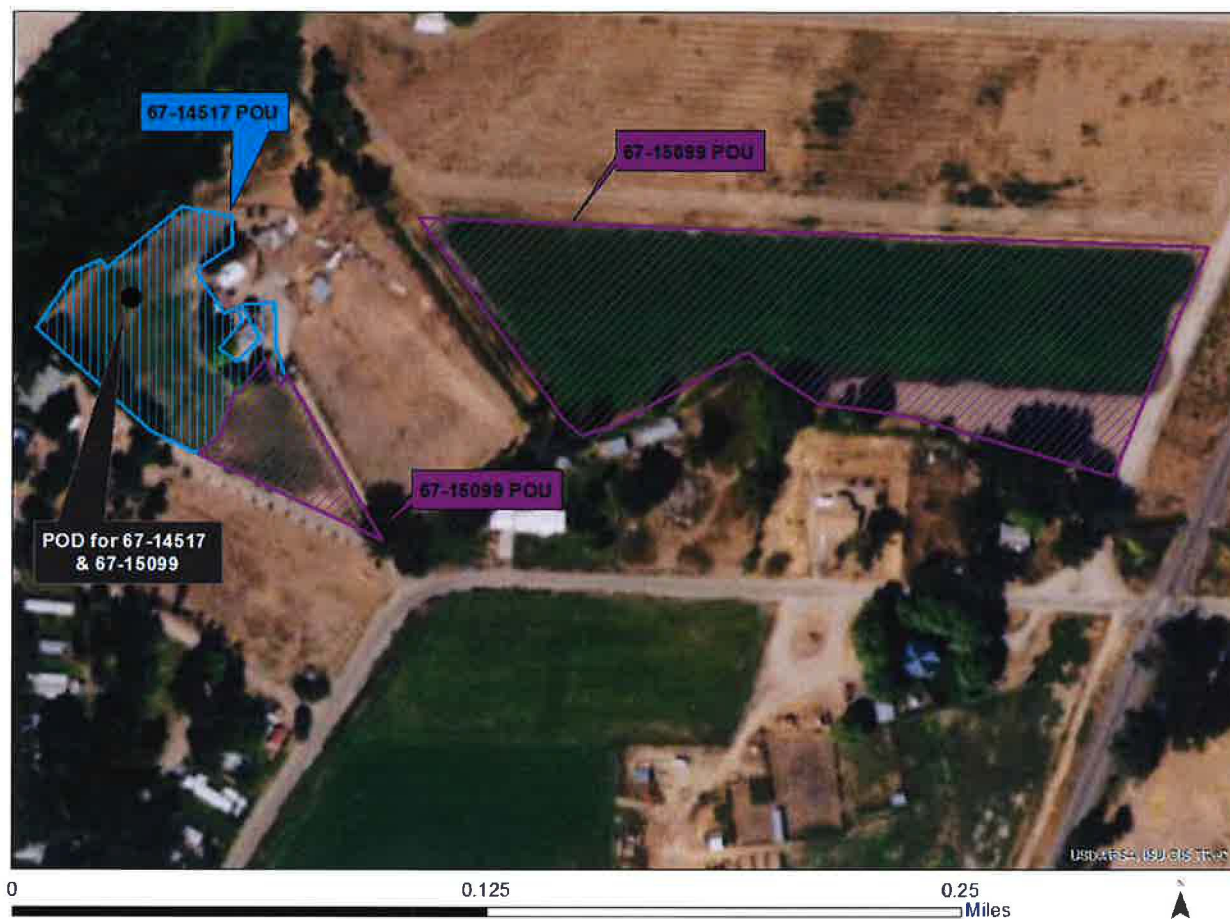
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ None

I. AUTHENTICATION Amy Steimke - Hydrogeologist, Staff

Field Examiner's Name Amy Steimke Date 9/18/2019

Reviewer Donald A. Nicks Date 9-19-19

Map showing place of use (POU) and point of diversion (POD) for water right 67-15099



System diagram for water right 67-15099



Pictures



Figure 1: POD



Figure 2: Pasture POU



Figure 3: Alfalfa field POU