

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 72-16873
Exam Date: 6/14/2019

1. Current Owner:

PETERSEN RANCH TRUST
C/O GARY PETERSEN
207 PAINTED HILLS DR
IVINS UT 84738

2. Accompanied by: NA

Phone No:

Address:

Relationship to permit Holder:

3. **SOURCE:**

GROUND WATER

Method of Determination: Looked at well casing going into the ground.

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 72-4077- mitigation right for this permit

Water Right No.	Source	Purpose of Use	Basis
72-4077	Bayhorse Creek	Mitigation	Decreed

Comments: Water from this permit is the only water being used at this POU.

2. Other water rights with the same point-of-diversion: None

Water Right No.	Source	Purpose of Use	Basis

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER SE¼ NW¼, Sec. 7, Twp 12N, Rge 19E, B.M. CUSTER County

Method of Determination: ArcMap aerial imagery and field exam.

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	
12N	19E	7								19.7 L4									19.7
12N	19E	7								0.3									0.3

Total Acres: 20.0

Method of Determination: ArcMap aerial imagery and field exam.

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

☒ Indicate weir size/pipe as applicable.

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

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

No well tag visible; possibly under well cap.

D. FLOW MEASUREMENTS

1.

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

2. Measurements: No measurement was made. The Seametrics AG 2000 flowmeter was installed properly and was on the IDWR approved meter list when it was installed. Attached photo shows a flow rate of 164.9 gpm, or 0.37 cfs, which is more than necessary flow for the permitted 0.34 cfs.

E. FLOW CALCULATIONS

Additional Computation Sheets Attached

Measured Method: $164.9 \text{ gpm} / 448.83 \text{ gpm per cfs} = 0.37 \text{ cfs}$. Licensed flow rate cannot exceed the permitted rate of 0.34 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 20.0 \text{ acres} \times 3.5 \text{ AF/acre} = 70.0 \text{ AF}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.34 \text{ cfs} \times 214 \text{ days in season} \times 1.9835 = 144.3 \text{ AF}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 70.0 \text{ AF}$$

2. Volume Calculations for Other Uses: NA

G. NARRATIVE/REMARKS/COMMENTS

The Beneficial Use Field Exam for permit 72-16873 was conducted on June 14, 2019. Water for the permit is pumped from a well located approximately 50 feet from the Salmon River and is delivered to a 5 tower pivot via a 30' long 6" diameter pipe. On the day of the exam, the 10 horsepower submersible pump was delivering 164.9 gpm (0.37 cfs) to the pivot, according to the Seametrics AG 2000 flow meter, which was installed with sufficient upstream and downstream spacing from the meter to allow for an accurate reading. This flow exceeds the 0.34 cfs permitted flow rate, so I recommend licensing at the 0.34 cfs rate. The annual volume is recommended at 70.0 AF and is derived by multiplying the number of licensed acres (20.0) by the field headgate requirement of 3.5 AF/acre.

A review of the permit conditions shows that they have been complied with. A flow meter is in place which displayed the flow rate in gpm, and the accumulated volume in acre-feet. The lockable device condition is met because the electrical switch could be locked in the 'off' position, and the pipe to the pivot appeared to have a valve which could also be locked shut. During the field exam, it was noted that the only water being used at the site was the ground water, and, in accordance with the mitigation condition, no surface water was being used on the land located in the SENW of Section 7, T12N, R19E.

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	04/01 to 10/31	0.34 CFS	70.0 AF
<u>Totals:</u>		0.34 CFS	70.0 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

Field Examiner's Name Jim Bitzenburg Date 6-21-19
 Jim Bitzenburg - Senior Water Resource Agent, Southern Region

Reviewer _____ Date _____



The point of diversion (well).

Flow meter installation (well at arrow).





Flow meter reading during exam.

Pivot irrigating place of use with Salmon River in background.



72-16873 Petersen Ranch Trust

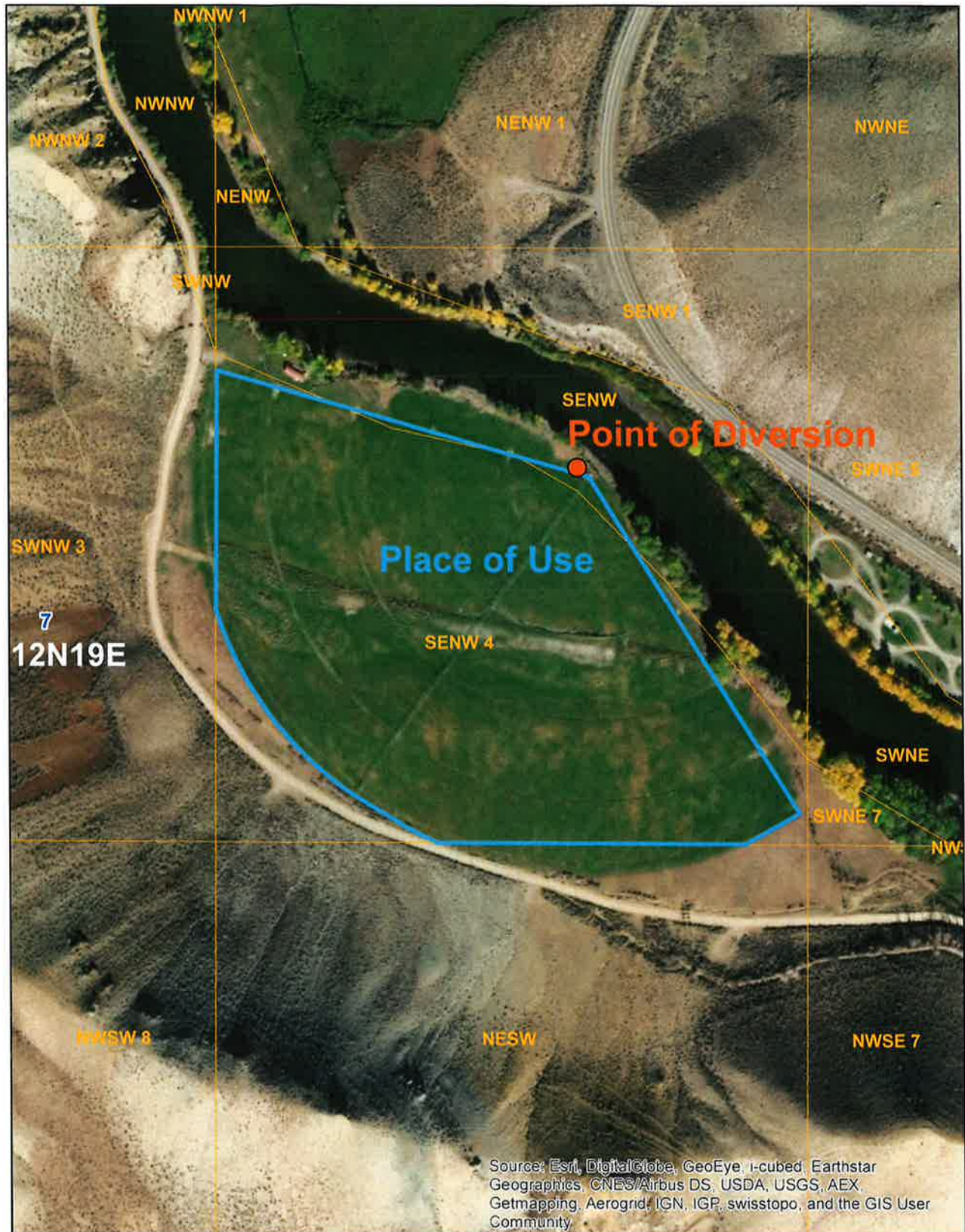


Place of use.

Point of diversion with place of use in background.



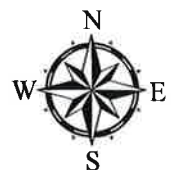
Place of Use, Point of Diversion. On Map



Legend

- Township/Range
- Sections
- QQ

0 0.0325 0.065 0.13 Miles



72-16873 Petersen Ranch Trust



0 0.0325 0.065 0.13 Miles

