

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 94-7747

Exam Date: 09/10/2018

1. Current Owner:
LARRY DONOHOE 31146 S HWY 3 MEDIMONT ID 83842
2. Accompanied by: Larry Donohoe
Phone No: (208) 689-3385
Address: Same as above
Relationship to permit Holder: Permit Holder

3. **SOURCE:**
GROUND WATER

Method of Determination: Arcmap and DRG

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

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

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER SE¼ NE¼, Sec. 5, Twp 47N, Rge 02W, B.M. KOOTENAI County

Method of Determination: Maps and GPS. POD located at -116° 36.556, 47° 27.492, well ID# D002814.

PLACE OF USE: DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
47N	02W	4							X										
47N	02W	5				X													

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	
47N	02W	4							0.8										0.8
									L4										

Total Acres: 0.8

Method of Determination: GIS and Field Examination.

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
D0028014	Unknown	1.5			

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NONE						

2. Measurements: Unable to perform flow measurement due to piping from well going directly into pressure tank.

E. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

Measured Method: Theoretical pumping equation estimates flow at 0.05 cfs. See attached theoretical pumping equation worksheet.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.8 \text{ acres} \times 3 \text{ AF} = 2.4 \text{ AF}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.02 \text{ cfs} \times 231 \text{ days} \times 1.9835 = 9.2$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 2.4 \text{ AF.}$$

2. Volume Calculations for Other Uses:

$$\text{Domestic RV sites} = 10 \text{ RVs} \times 50 \text{ GPD} \times 244 \text{ days} = 122,000 \text{ gallons}$$

$$\text{Domestic Tent Camp sites} = \text{AVG } 24 \text{ people per week} \times 35 \text{ GPD} \times 35 \text{ weeks} = 29,000 \text{ gallons}$$

$$\text{Domestic Total Volume} = (\text{RV site } 122,000 \text{ gallons} + \text{Tent site } 29,000 \text{ gallons}) / 325,850 \text{ gallons} = 0.5 \text{ AF} \rightarrow 0.5 \text{ AF (RV and Tent sites)} + 0.6 \text{ AF (1 home)} = 1.1 \text{ AF domestic volume}$$

$$\text{Maximum Diversion Volume} = 2.4 \text{ AF (irrigation)} + 1.1 \text{ AF (domestic)} = 3.5 \text{ AF}$$

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed with the applicant, Larry Donohoe, showed a well being used for domestic and irrigation purposes. The well, D00828014, has a 1.5 HP pump that draws water for one home, 10 RV units (with full hook-ups), and a tent campground site with two shower units. I was unable to perform a flow measurement because water was diverted directly into a 1,500 gallon storage tank without a proper place to perform measurements. Theoretical pumping equation was used to determine a flow rate of 0.05 cfs. The pump was estimated to be 107 feet down and the system running at 40 psi (equation attached). At time of permitting, a diversion rate of 0.10 cfs was authorized, but applicant is limited to the pumping diversion rate determined by theoretic pumping equation of 0.05 cfs, which will be carried to licensing.

There was one home identified and verified using water for in-home use. Irrigation of the lawn, garden, and landscaping around home and tent camp sites is associated with the irrigation component of this water right. There was a 10 slip RV site, with full hook up and septic for each slip using water for domestic purposes. There was a tent only campsite with 12 units set up that incorporated a men/women's bathroom with two toilets and two showers using water for domestic purposes. At time of exam applicant stated he had an average of six tent camp sites full per week. The domestic volume will be limited to 1.1 af (1 home 0.6 af + RV/tent sites 0.5 af).

Photographs from exam identified several frost free hydrants and a hose bib in use to provide irrigation by hoses and sprinkler around home and tent camp site. Acreage for irrigation was identified at time of exam, and traced out using Arcmap resulting in 0.8 acres. The irrigation volume will be limited to 2.4 af (0.8 acres x 3 AF). The overall license will be limited to a diversion rate of 0.05 cfs and an annual volume of 3.5 af (1.1 af domestic + 2.4 af irrigation).

All conditions from permit will remain on license. There are no overlap concerns.

At time of licensing, the permitted POU for domestic/irrigation components, and the irrigation Period of Use were found to be inaccurate, see below:

POU: authorized on permit = Domestic 47N02W5SENE and Irrigation 47N02W5SENE.
 POU: verified at time of licensing = Domestic 47N02W4SWNW (L4) and 47N02W5SENE
 = Irrigation 47N02W4SWNW (L4)

Season of Use: authorized on permit = 03/15 to 11/15 (for Irrigation component).

Season of Use: verified at time of licensing = 03/15 to 10/31 (corrected to standard use for irrigation component).

An Application for Amendment was initiated, and mailed with cover letter to applicant on 25 March 2020.

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>
DOMESTIC	01/01 to 12/31	0.05 CFS	1.1 AF
IRRIGATION	03/15 to 10/31	0.02 CFS	2.4 AF

Totals: 0.05 CFS 3.5 AF

02. 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

☒ Change Season of Use as reflected above

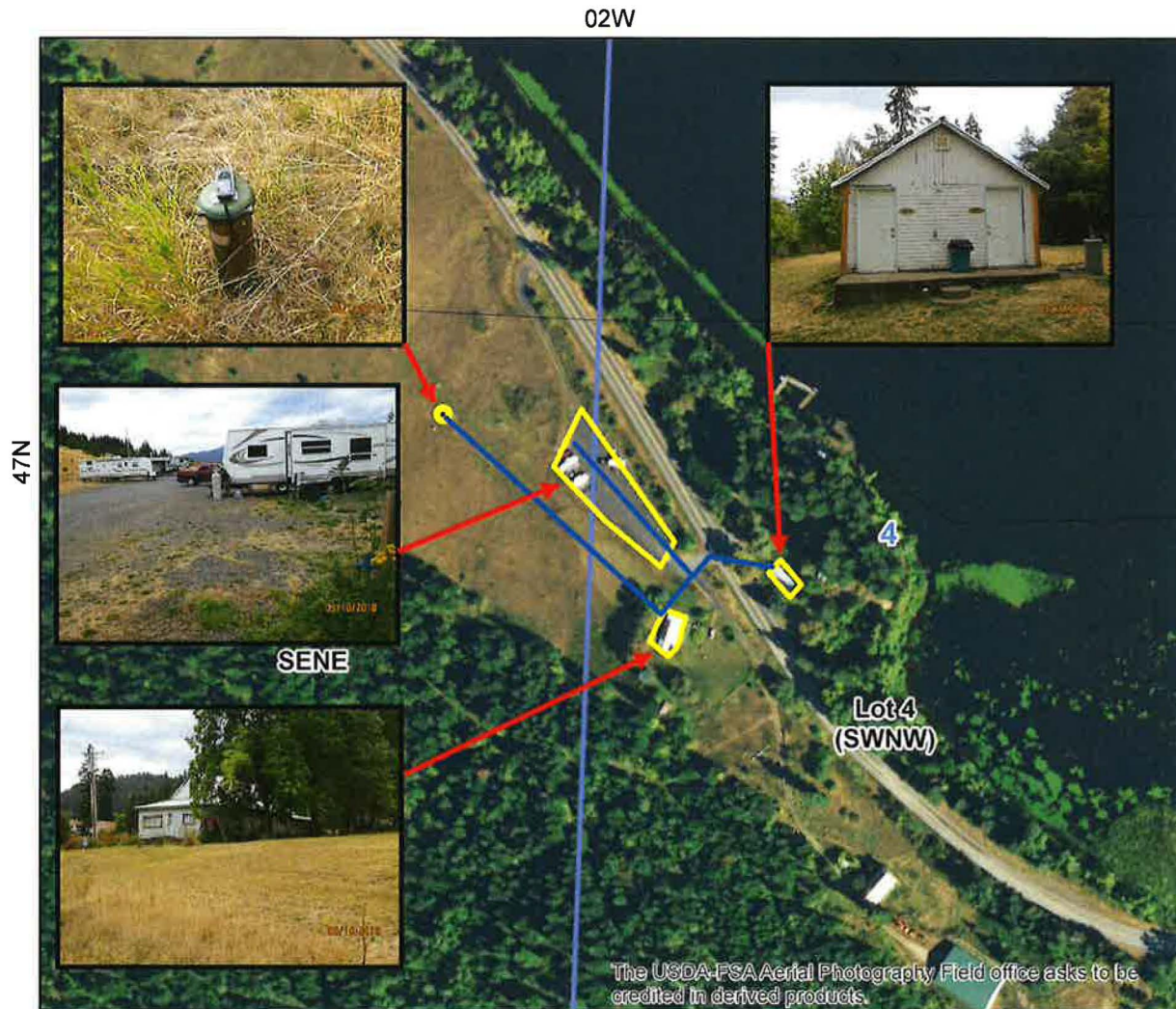
I. AUTHENTICATION Luke Bates - Water Resource Agent

Field Examiner's Name Adam F. Bates Date 4/13/2020

Reviewer [Signature] Date 4/2/2020

State of Idaho
Department of Water Resources
Attachment to Field Exam
94-7747

DOMESTIC system diagram.



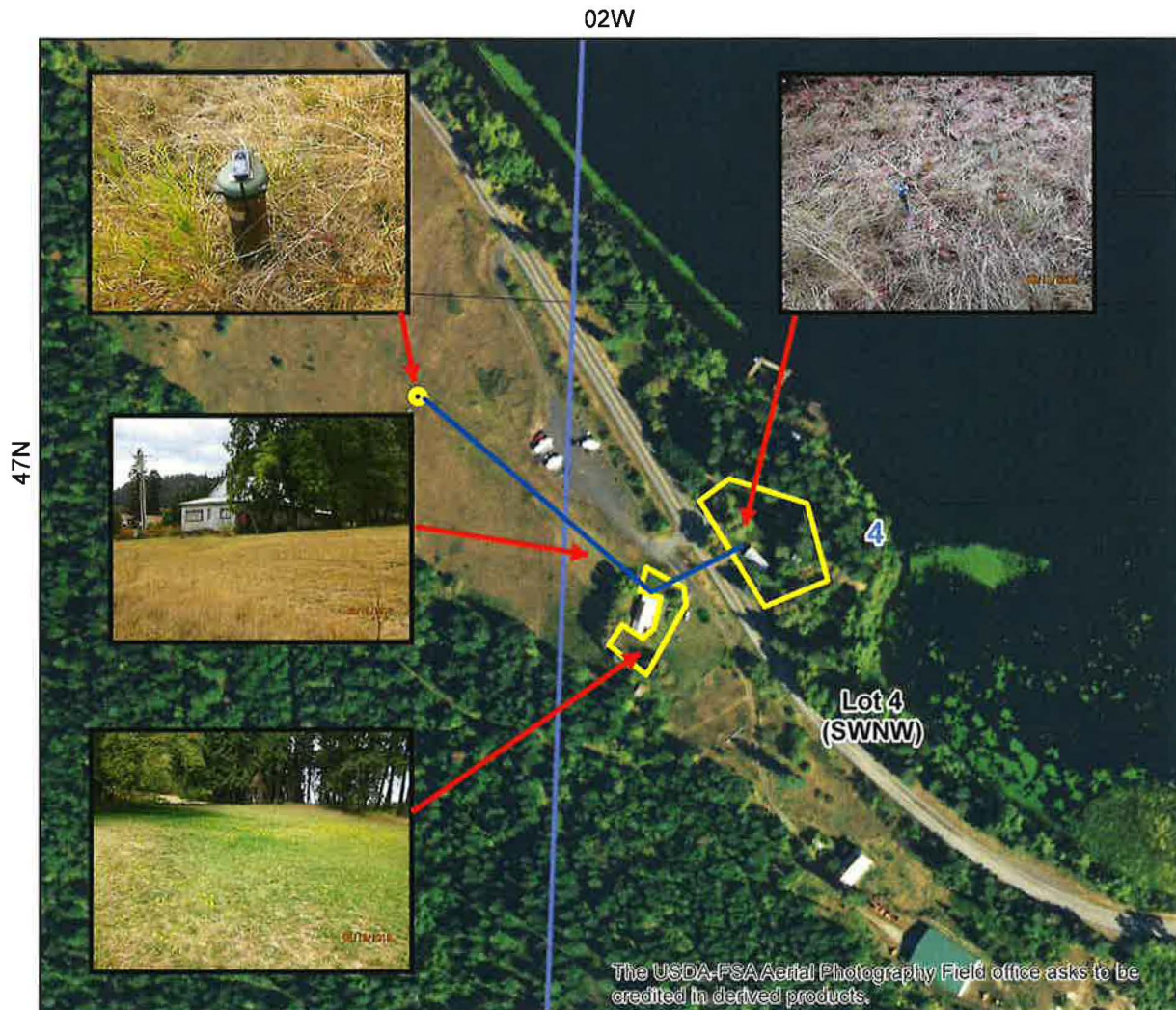
- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters

0 0.035 0.07 0.14 Miles



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IRRIGATION system diagram.

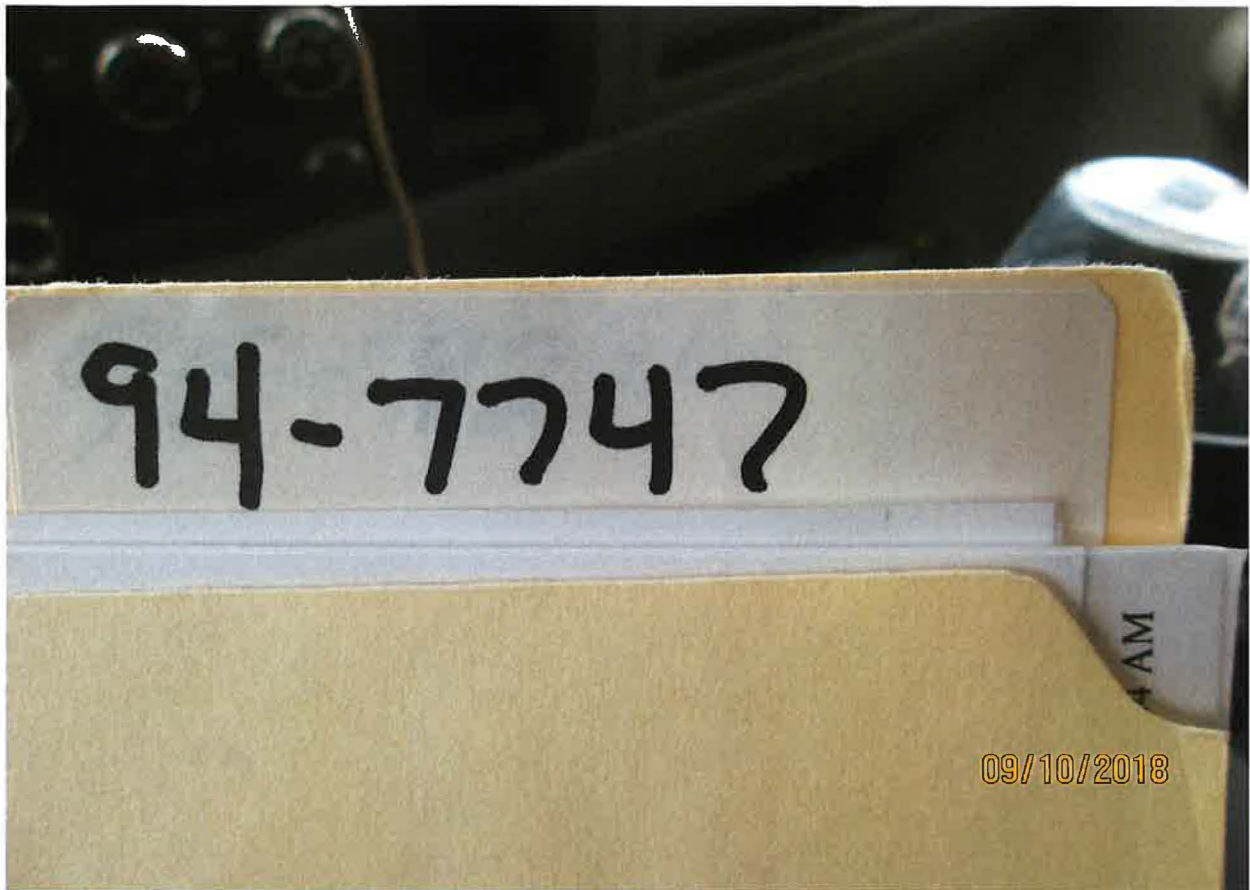


- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters

0 0.035 0.07 0.14 Miles



<div style="text-align: center;"> PUMP EQUATIONS WATER RIGHT No. 94-7747 </div>						
		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q =	HP*8.8*Eff/H	1.5	199.517	0.8	107	40
Q =		0.053 cfs	23.8 gpm			



POD



POD – D0028014



DOMESTIC POU – 10 RV SPOTS WITH FULL HOOK UPS.



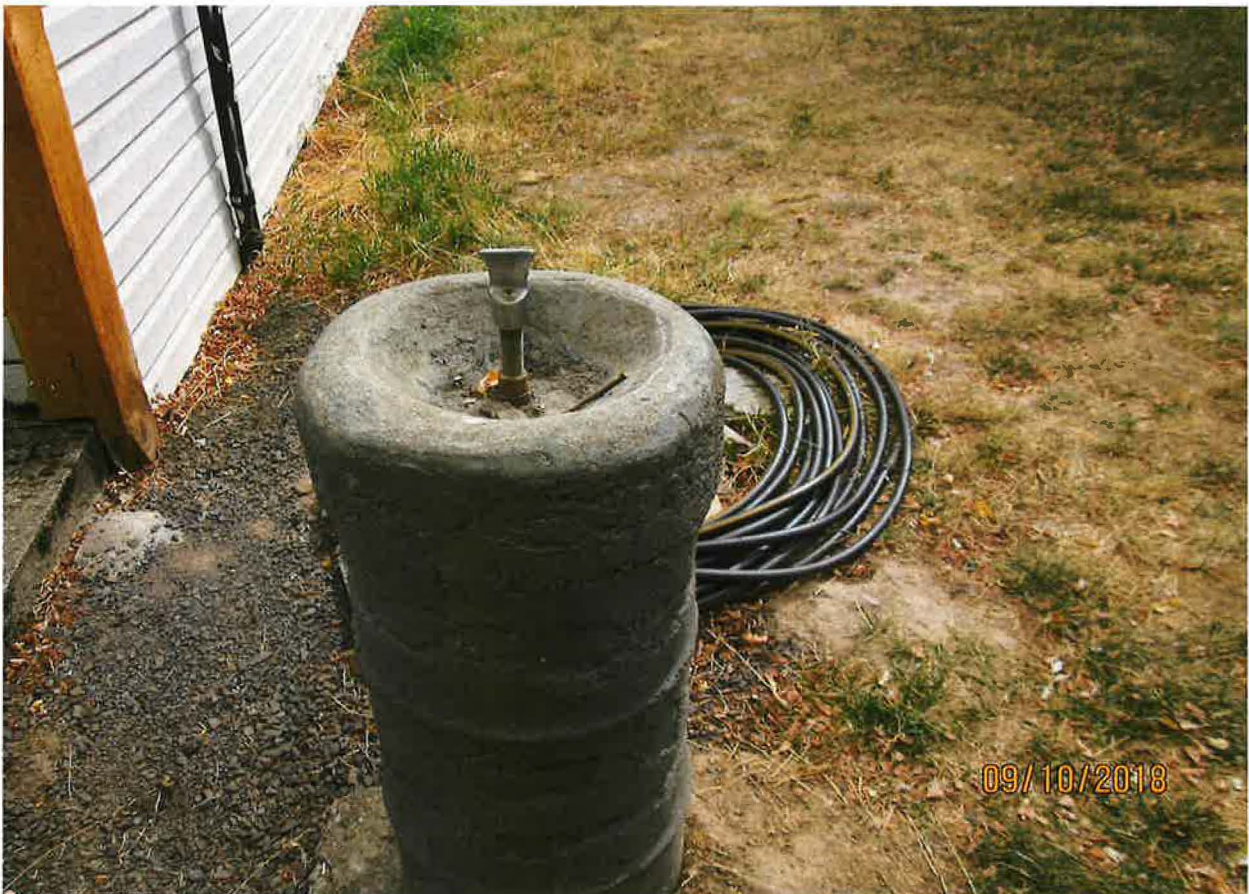
POU – FROST FREE HYDRANT AT RV CAMPGROUND



BATHROOMS WITH UTILITIES FOR TENT CAMPGROUND



POU – 1 HOME



POU – DRINKING FOUNTAIN FOR CAMPGROUND



POU – IRRIGATION



POU – HOSE BIB FOR SPRINKLER IRRIGATION