

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 98-7860
Exam Date: 07/27/2018

1. Current Owner:
ELIZABETH PETERSON 3388 DISTRICT TWO RD BONNERS FERRY ID 83805 AND/OR
MIKE PETERSON 3388 DISTRICT TWO RD BONNERS FERRY ID 83805
2. Accompanied by: Mike Peterson
Phone No: (208) 290-7629
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 L5 (SE¼ SE¼), Sec. 19, Twp 62N, Rge 02E, B.M. BOUNDARY County

Method of Determination:

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	
62N	02E	19													1.0			28.0	29.0
																			L5

Total Acres: 29.0

Method of Determination: Arcmap 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
D0051751	Selectric	40			

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
GE Panemetric	Ultrasonic		PT878	PCC1316134		4/2/2019

2. Measurements: flow measurement taken using GE Panemetric Ultrasonic Flowmeter (see attached photographs)

E. FLOW CALCULATIONS

Measured Method: flow rate determined by GE Panemetric Ultrasonic Flowmeter = 0.42 cfs

Starting gallons on meter = 10,572

Ending gallons on meter = 12,472

$12,472 - 10,572 = 1,900$ gallons / 10 minutes = 190 gpm or 0.42 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 29 \text{ acres} \times 3 \text{ af} = 87 \text{ af}$

$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.42 \text{ cfs} \times 214 \text{ days} \times 1.9835 = 178 \text{ af}$

$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 87 \text{ af}$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS

The field exam conducted with the applicant, Mike Peterson, showed water from a well being used for irrigation purposes. At POD, applicant used a 40 HP pump to serve a 35 K-Line sprinkler system irrigating at POU. An adequate surface area of pipe was located near the POD to complete flow measurements using a GE Panemetric Ultrasonic Flowmeter (S/N PCC1316134). Flowmeter measurements derived the rate of diversion to be 0.42 cfs, which will be carried forward to licensing.

The 70 acres at POU applied to permit were adapted to 29 acres concluding field exam and using arcmap, which was used to trace out irrigated acreage at POU. Applicant had applied for two 40 acre tracts that were designated at time of permitting, but at time of field exam, applicant had only applied irrigation to one 40 acre tract (river side tract). Using arcmap to trace out irrigated acreage, it was found that the GIS overlay appeared to be incorrect, from which imagery showed irrigation extending into the upper 40 acre tract. As a result, 1 acre of irrigation was identified in the PLS QQ NESE tract, and remaining 28 acres in the PLS QQ SESE tract. Initial calculations showed acreage value to be 28.5, but referencing department admin memo No.6 (Significant Figures for Numeric Values) the acreage was rounded up to 29 total acres, which will be applied to license.

At time of field exam, no water from well was being used for domestic purposes. The domestic component was removed at licensing.

Conditions 046, 132, and 26A were removed from license. Condition 004 to describe right-of-way or easement requirements. There are no overlap concerns for this water right.

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	0.42 CFS	87.0 AF

Totals: 0.42 CFS 87.0 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

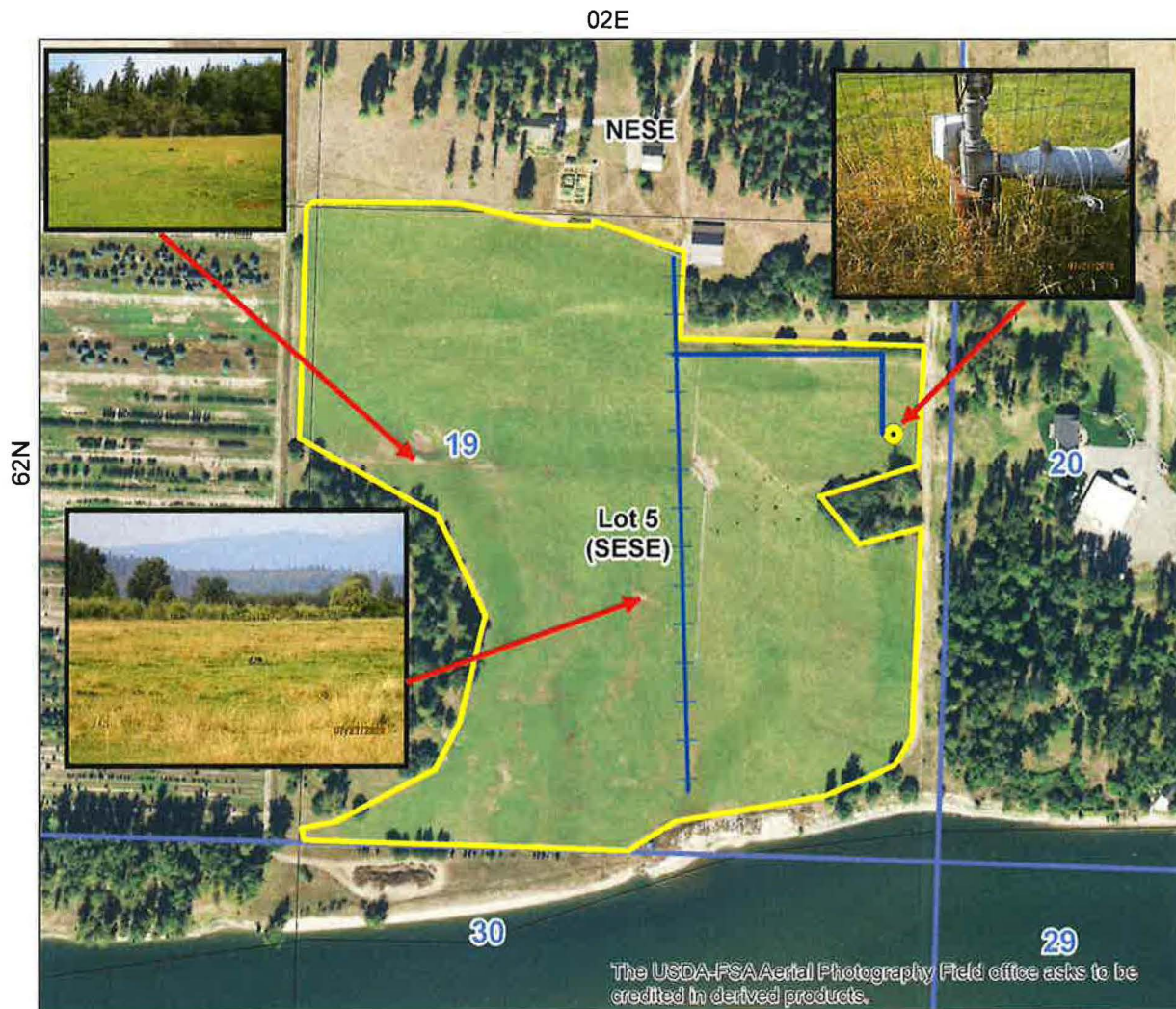
Luke Bates - Water Resource Agent

Field Examiner's Name Alex F. Lewis Date 4/13/2020

Reviewer [Signature] Date 4/17/2020

State of Idaho
Department of Water Resources
Attachment to Field Exam
98-7860

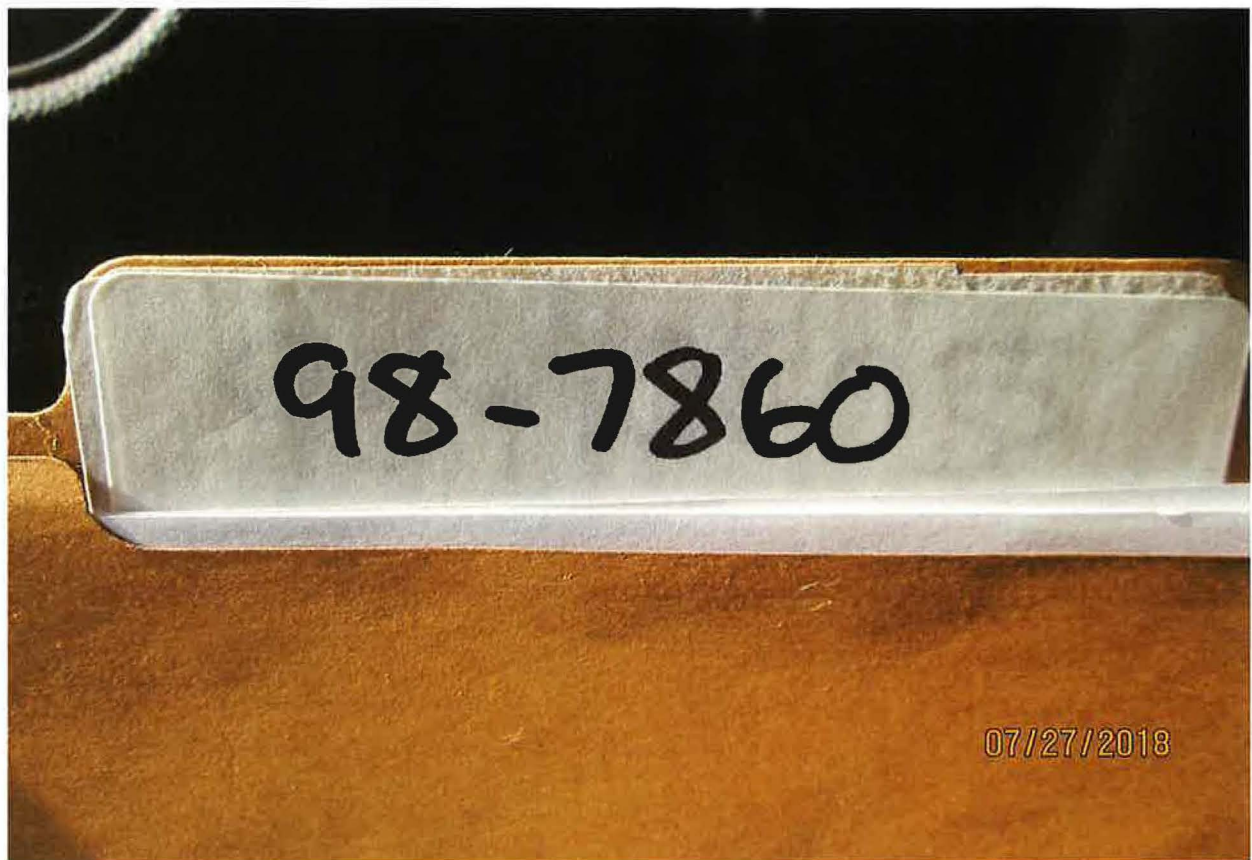
IRRIGATION system diagram.



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

0 0.045 0.09 0.18 Miles





Well D0056281 given IDWR tag A0020106.



Well tag D0056281.



Pump tag showing 40hp pump.



Flow measurement taken using GE Panametric Ultrasonic Flowmeter.





Section of pipe used for flow measurement.



Applicant used K-Line irrigation sprinklers.



Irrigation POU.





Irrigation POU.





Irrigation POU.

