

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
IN-OFFICE REVIEW/BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 78-12402

Exam Date: 2/3/2014

1. Does this qualify for an in-office field exam (IDAPA 035.02.r)? ☒ Yes ☐ No
- a. Irrigation of 5 acres or less
- b. Storage of up to 14.6 AF for stockwater purposes only
- c. Any use other than irrigation or storage, if the combined diversion rate is 0.24 cfs or less
- d. Other < >

2. Current Owner: Name: Ray, Vickie, Jody & Norman Rueth
- Owner of Record Correct? ☒ Yes ☐ No
- Address of Record Correct? ☒ Yes ☐ No
- If No: Address

3. Beneficial Use Fees have been paid: ☒ Yes ☐ No Receipt No: CO96857

4. **SOURCE** **TRIBUTARY**

Little Salmon River

Salmon River

Method of Determination: Aerial photography map submitted by applicant outlined POD.

Change in Source: ☐ Yes ☒ No**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: Overlap? ☒ Yes ☐ No

Water Right No.	Source	Purpose of Use	Basis
78-10080	Groundwater	Domestic	Decreed

Comments: Domestic water right comes from well to serve cabin on property. Owned by Ray Rueth

2. Other water rights with the same point of diversion: Overlap? ☐ Yes ☒ No

Water Right No.	Source	Purpose of Use	Basis

Comments: No POD overlap.

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

Source	Govt. Lot	1/4	1/4	1/4	Sec.	Twp.	Rge.		County
Little Salmon River			NE	NW	11	21N	01E	B.M.	Adams

Method of Determination: POD was marked by applicant on an aerial map. The legal description was verified using PLSS data available through ArcMap.

Change in POD? ☐ Yes ☒ NoAmendment Required? ☐ Yes ☒ No

2. **PLACE OF USE:** Use: Irrigation

TWP	RGE	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
21N	01E	11					0.4												
Total Acres =																			0.4

Method of Determination: Measuring the acreage tool calculated 0.4 acres on the property yard or irrigated land.

Change in POU? ☐ Yes ☒ No Amendment Required? ☐ Yes ☒ No☐ Delivery System Diagram Attached (required). Indicate all major components and distances between components.

Indicate weir size/pipe as applicable.

☒ Aerial Photo Attached (required for irrigation of 10+ acres).☐ Photo of Diversion and System Attached

4. Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Small pump	NA	3	NA	NA	NA

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

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

2. Measurements: In-office field exam. Theoretical calculations made.**E. FLOW CALCULATIONS**☒ Additional Computation Sheets Attached

Measured Method:

0.03 cfs = 1 inch per acre (IDWR standard) 0.04 acres * 0.03 cfs = 0.02 cfs at 1 inch per acre

Per App. Processing Memo #17, up to 0.03 cfs/acre for irrigation up to 5 acres acceptable. 0.4 acres * 0.03 cfs = 0.02 cfs

Theoretical measurement (see additional computation sheet) established an average rate of 0.14 cfs.

Measurement = 0.14 cfs**Permit allowed = 0.06 cfs****License recommend for 0.02 cfs****F. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.4 \times 3.0 = 1.2 \text{ af}$$

$$V = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.02 \times 214 \times 1.9835 = 8.5 \text{ af}$$

$$V = \text{Smaller of } \begin{matrix} \text{D.R.} \\ \text{I.R.} \end{matrix} \text{ and } \begin{matrix} \text{V} \\ \text{D.R.} \end{matrix} = \underline{\hspace{2cm}} \text{ 1.2 af}$$

2. Volume Calculations for Other Uses:

G. PURPOSE OF USE

Irrigation ☒ Yes ☐ No # Stock 0 Domestic # of Homes 0

Other: < >

Change in Purpose of Use? ☐ Yes ☒ No

Method of Determination: Use described in the beneficial use report suggest use for land irrigation purposes only. A domestic right already exists on the land and there is no evidence to suggest a change in use.

If Yes: From Use _____ To Use _____ Amount _____ CFS _____ AFA _____

H. NARRATIVE/REMARKS/COMMENTS

The ownership does not match taxlot data since the owner of the property appears as Isaac Allison. A memo from Angela Grimm on Jan 24 2013 stated that permit owner is refilling on previous land owners application on an existing irrigation system. The Rueth's may have recently acquired the land since our taxlot data has been updated.

There was some confusion when outlining the place of use for irrigation based on aerial imagery. A conversation with Norman Rueth confirmed that the place of use does not irrigate land outside of his property boundary. It is possible that the taxlot data layer is in error at this location since the majority of land irrigated is outside his taxlot boundary. I am moving forward with the combined ownership space as place of use. In the phone conversation, he also confirmed the placement of a fish screen properly secured around the pump.

There is a domestic water right 78-10080 for the in home use on the property. Conditions of irrigation are not identified by the water right which limits the quantity of water to not exceed 13,000 gallons per day.

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

I. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
Irrigation	04/01 – 10/31	0.02	1.2
<u>Totals</u>		0.02 CFS	1.2 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

Other: < >

J. AUTHENTICATION

Field Examiner's Name Patricia Kelly Date 02-18-14

Reviewer Daniel A. Mohr Date 2-19-14

State of Idaho
Department of Water Resources
Field Exam Map
78-12402

This map depicts the IRRIGATION place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.

01E



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

0 0.0075 0.015 0.03 Miles



THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 78-12402
 Reviewer: Patrick Kelly
 Date of Review: 1/13/2014

P/D No.:	Senerio 1	Senerio 2	Senerio 3
PUMP HORSEPOWER	3	3	3
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	20	20	20
DISCHARGE PRESSURE	40	50	60
RATE OF FLOW (cfs)	0.16	0.14	0.12 0.14

The above calculates the formula =

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

Assumptions: %70 efficiency.
 No Friction

Examiners Notes:

Used 40-60 pressure using standard turn on shut off limits for domestic pressure tanks.
 Average rate of flow is 0.14 cfs. This states that the recommended 0.02 cfs is capable of being supplied.