

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-22818

Exam Date: 6/4/2013

1. Current Owner: BRENT BALDWIN
8100 WESTRIDGE LN
EMMETT ID 83617
(208)584-3223

And

SHARON BALDWIN
8100 WESTRIDGE LN
EMMETT ID 83617
(208)584-3223

2. Accompanied by: Brent Baldwin
Phone No: Same
Address: Same
Relationship to Permit Holder:

3. SOURCE
SQUAW CREEK

TRIBUTARY
PAYETTE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 65-23380
2. Other water rights with the same point of diversion: None

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

SQUAW CREEK SE1/4SE1/4
GEM County

Sec. 8, Twp 07N, Rge 01E, B.M.

Method of Determination: Arc Map (Aerial Photo)

2.

PLACE OF 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	
07N	01E	16						5.0											5.0
07N	01E	17	10.0																10.0

Total Acres: 15

Method of Determination: Arc Map (Aerial Photo); Tax Lots.

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.

<u>Well or Diversion ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
N/A	Leeson	15	100038	Jacuzzi	4"

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

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
N/A						

2. Measurements: No field measurement. Sprinklers are Komet Twin Max Gun with a 0.63" diameter nozzle. Based on manufacturing specifications, assume an operating pressure of 80 psi. $Q = 109 \text{ gpm} \sim 0.24 \text{ cfs} @ 80 \text{ psi}$. Gauge pressure was 122 psi, but the manufacturer specifications maximum operating pressure is 80 psi. If the gauge pressure was accurate, it is assumed that the sprinkler discharge would likely be higher, but no way to verify.

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 15/100 + (2.31 \times 80) = 92.4/284.8 = 0.32 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.32 \text{ cfs} > 0.30 \text{ cfs } Q(\text{permit})$$

$$HP = 15$$

$$Z = 100' \text{ (Estimated)}$$

$$P = 80 \text{ psi (Mfg. Table)}$$

Appears that the current pumping and conveyance system can attain the permit diversion rate of 0.30 cfs.

Recommend the permit diversion rate of 0.30 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 15 \times 4.5 = 67.5 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.30 \times 260 \times 1.9835 = 154.7 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 67.5 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS**WATER SUPPLY SYSTEM:**

A 15-hp centrifugal pump diverts water from Squaw Creek through a 4" flexible hose. The pump discharges water through a 4" PVC main line which extends southerly and runs the entire length of the property. The 4" PVC main line is comprised of several 3" risers to allow connection by the 3" hoses to operate the irrigation system.

IRRIGATION SYSTEM:

The irrigation system is comprised of four (4) Komet Twin Max Gun Sprinklers. Each Komet sprinkler is mounted on a portable wheel frame with a 3" hose attachment. The hoses are attached to the 3" risers on the 4" PVC main line. The 3" risers and the portable wheel frame allows the right holder's to move the Komet Twin Max Gun Sprinklers to irrigate the entire 15.0 acres of pasture and crops.

OVERLAP ANALYSIS:

Point of Diversion: There are no point of diversion overlaps for Water Right Permit No. 65-22818.

Place of Use: Water Right Permit No. 65-22818 and Water Right 65-23380 have an overlapping place of use.

However, the owner for Water Right 65-23380 no longer owns the property associated with Water Right Permit No. 65-22818.

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

CONDITION NO.1 (01J) – Prior to diversion of water under this right, the right holder shall install and maintain a measuring device and lockable controlling works. The power control junction box has a locking hasp attachment for locking with a padlock. On September 3, 2008, the right holder submitted a request to the Department to omit the requirement for a measuring device. The watermaster for Basin 65A, Eric Herr, approved the right holder's request. A letter from the watermaster was included with the right holder's submittal to the Department.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.30	&/or	N/A
Beneficial Use Limit	0.30	&/or	N/A
System Measurement	0.32(theoretical)	&/or	N/A
Proof Fee Amount	1.00	&/or	N/A
Recommended Amount	0.30	&/or	N/A

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/01 to 11/15	0.300 CFS	67.5 AFA
<u>Totals:</u>		0.300 CFS	67.5 AFA

2. Recommended Amendments

___ Change P.D. as reflected above ___ Add P.D. as reflected above X ___ None

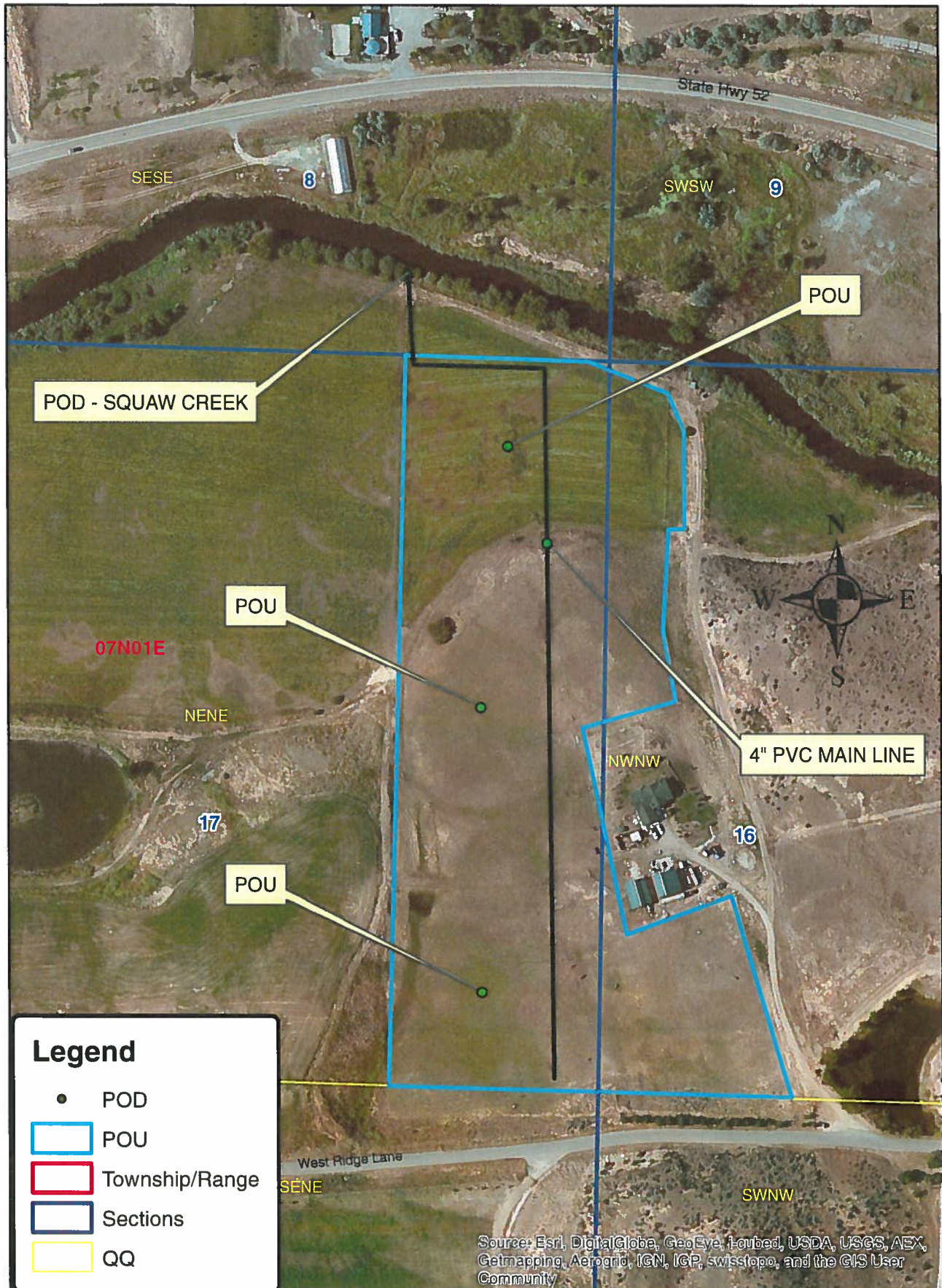
___ Change P.U. as reflected above ___ Add P.U. as reflected above ___ Other

I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 10/31/13
 Reviewer _____ Date _____

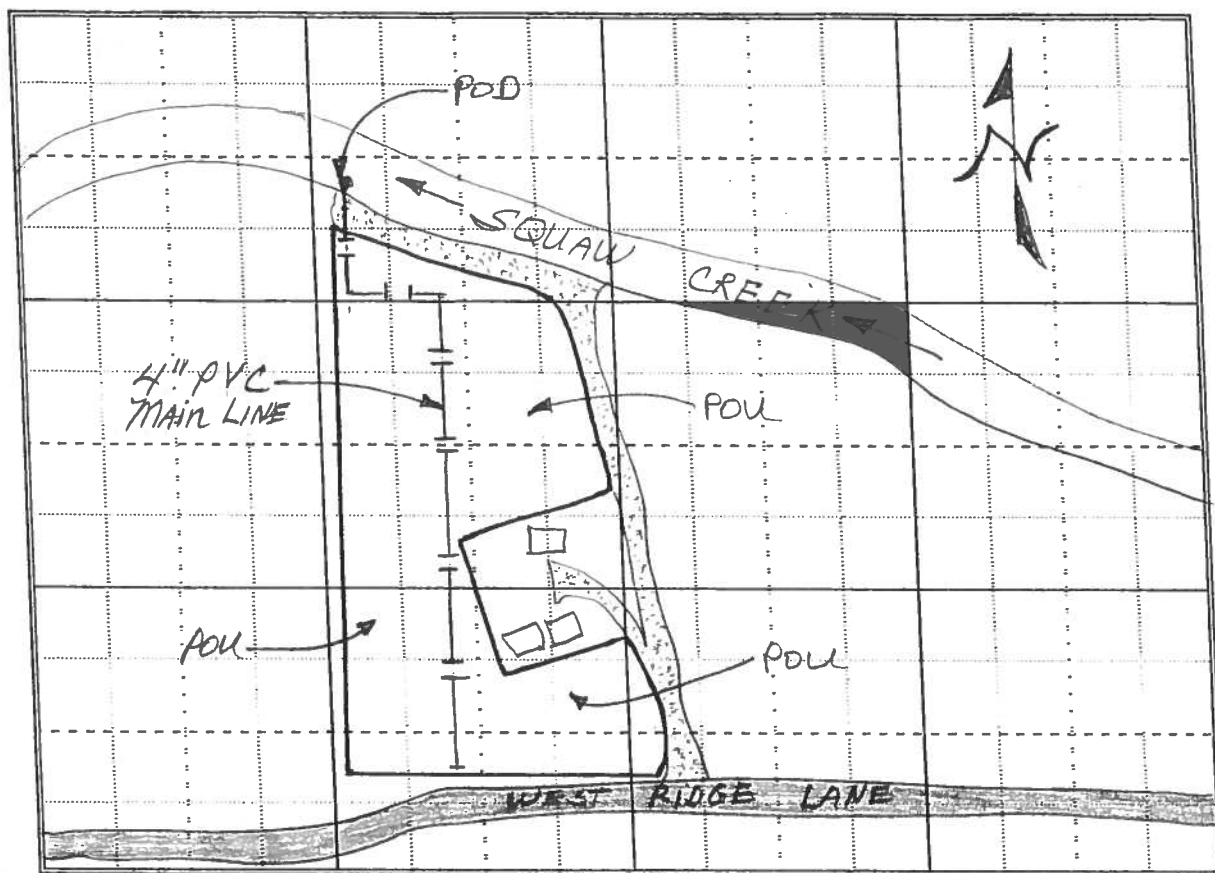
65-22818

ESRI AERIAL PHOTO - 2012



0 80 160 320 480 640 Feet

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached.



Scale: 1" = NTS

- ☐ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)
- ☒ Aerial photo attached (required for irrigation of 10+ acres)
- ☒ Photo of diversion and system attached

FIELD EXAM PHOTOS

Water Right Permit: 65-22818

Field Exam Date: 6-4-13

PLS: NW1/4, NW1/4 Section 16, T.07N, R.01E.

Field Examiner: RC



Point of Diversion: View northwesterly of plastic 55-gallon drum in Squaw Creek. The 55-gallon drum is used as a float for a submerged screened section of pipe to collect water from Squaw Creek. A 4" flexible hose suction line is attached to the bottom of the pipe.



View easterly of the centrifugal pump, 4" flexible hose suction line, pump, discharge pipe, and system appurtenances.



View of a typical mobile 'Big Gun' sprinkler. The right holder uses four of the mobile 'Big Guns' to sprinkler irrigate pastures and crops. The 3" hoses are connected to 3" risers from the 4" steel main line which runs from north to south near the center of the right holder's property.



Place of Use: View southerly from the pump location of the pastures and crops. One of the right holder's mobile 'Big Gun' sprinklers is shown irrigating a pasture atop a hill. The 4" steel main line is located near the toe of the slope.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

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C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

May 23, 2013

Brent & Sharon Baldwin
8100 Westridge Lane
Emmett, ID 83617

RE: Scheduling Field Exam for Water Right Permit No. 65-22818

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of June 3, 2013**. An examination is needed to verify your water use in order to issue a water right license.

Please be advised that you will need to operate your system under normal operating conditions during the examination. The permit authorizes the diversion of 0.30 cfs of surface water from Squaw Creek for irrigation of 15.0 acres.

In order to conduct your exam as efficiently as possible, we ask that you call this office to schedule a day and time convenient for you. **Please call me at 208-334-2190 by May 31, 2013, to conduct the exam during the week of June 3, 2013.** If there is a problem with scheduling or conducting the examination at this time, please let me know so we can reschedule or make other arrangements.

I appreciate your attention to this matter and I look forward to hearing from you.

Sincerely,

A handwritten signature in black ink that reads "Rick Collingwood". The signature is written in a cursive, flowing style.

Rick Collingwood, P.E.
Water Resource Agent, Sr.