

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-22894

Exam Date: 7/24/2012

1. Current Owner: NANCY KAY HARTZELL
8501 N HWY 52
EMMETT ID 83617
(208)365-1774
2. Accompanied by: Nancy Hartzell
Phone No:
Address:
Relationship to Permit Holder:

3. **SOURCE**

SQUAW CREEK

TRIBUTARY

PAYETTE RIVER

B. OVERLAP REVIEW

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

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

SQUAW CREEK

NE1/4NW1/4

Sec. 16, Twp 07N, Rge 01E, B.M.

GEM County

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					2.0												2.0

Total Acres: 2

Method of Determination: Arc Map (Aerial Photo)

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</u> <u>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</u> <u>Size</u>
		3		Berkley	7956039 (1 1/2")

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

D. FLOW MEASUREMENTS

1.

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

2. Measurements: No field measurement. Pump would not start on day of field exam.

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method: (Theoretical)

HP = 3
 Z = 10'
 P = 50 psi (Assumed)
 S = 10 @ 5/32" (Number & size of
 sprinkler heads with Q @ 50 psi)

$$Q(\text{theoretical}) = 8.8 \times 0.7 \times 3/10 + (2.31 \times 50) = 18.5/125.5 = 0.15 \text{ cfs}$$

$$Q(\text{sprinkler heads}) = 10 \times 5.5 \text{ gpm} = 55 \text{ gpm} (0.11 \text{ cfs})$$

$$Q(\text{theoretical}) = 0.15 \text{ cfs} > 0.08 \text{ Q(permit)}$$

$$Q(\text{sprinkler nozzle}) = 0.11 \text{ cfs} > 0.08 \text{ Q(permit)}$$

Appears pumping and distribution system is capable of attaining the permitted diversion rate of 0.08 cfs. However, since only 2 acres of pasture land is being irrigated, can only recommend a diversion rate of 0.06 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 2.0 \times 4.5 = 9.0 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.06 \times 260 \times 1.9835 = 30.9 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 9.0 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS**PUMPING SYSTEM:**

A 3 hp Berkley self-priming pump diverts water from Squaw Creek through a 20 foot section of 3" steel pipe and a 10 foot section of 2" flexible hose. Water is discharged through approximately 30 lineal feet of 1 1/2" PVC pipe to a 3" hand line sprinkler irrigation system.

IRRIGATION SYSTEM:

Approximately 2.0 acres of pasture is irrigated by 3" hand lines. The hand lines contain ten (10) 5/32" rainbird sprinkler heads.

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

CONDITION NO.7 (01H) – Water Right holder shall install a lockable device. Contacted Eric Herr, Watermaster for District 65A – Squaw Creek, to discuss the Departments requirement for a lockable device. Since the pump is a portable pump, and due to the inaccessible location of the pump, Eric indicated that he is okay with the Department removing or waiving this requirement.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.08	&/or	N/A
Beneficial Use Limit	0.06	&/or	N/A
System Measurement	0.15 (theoretical) 0.11(sprinkler nozzle discharge table)	&/or	N/A
Proof Fee Amount	0.20	&/or	N/A
Recommended Amount	0.06	&/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	0.060 CFS	9.0 AFA
<u>Totals:</u>		0.060 CFS	9.0 AFA

2. Recommended Amendments

☐ Change P.D. as reflected above
 ☐ Add P.D. as reflected above
 ☒ None

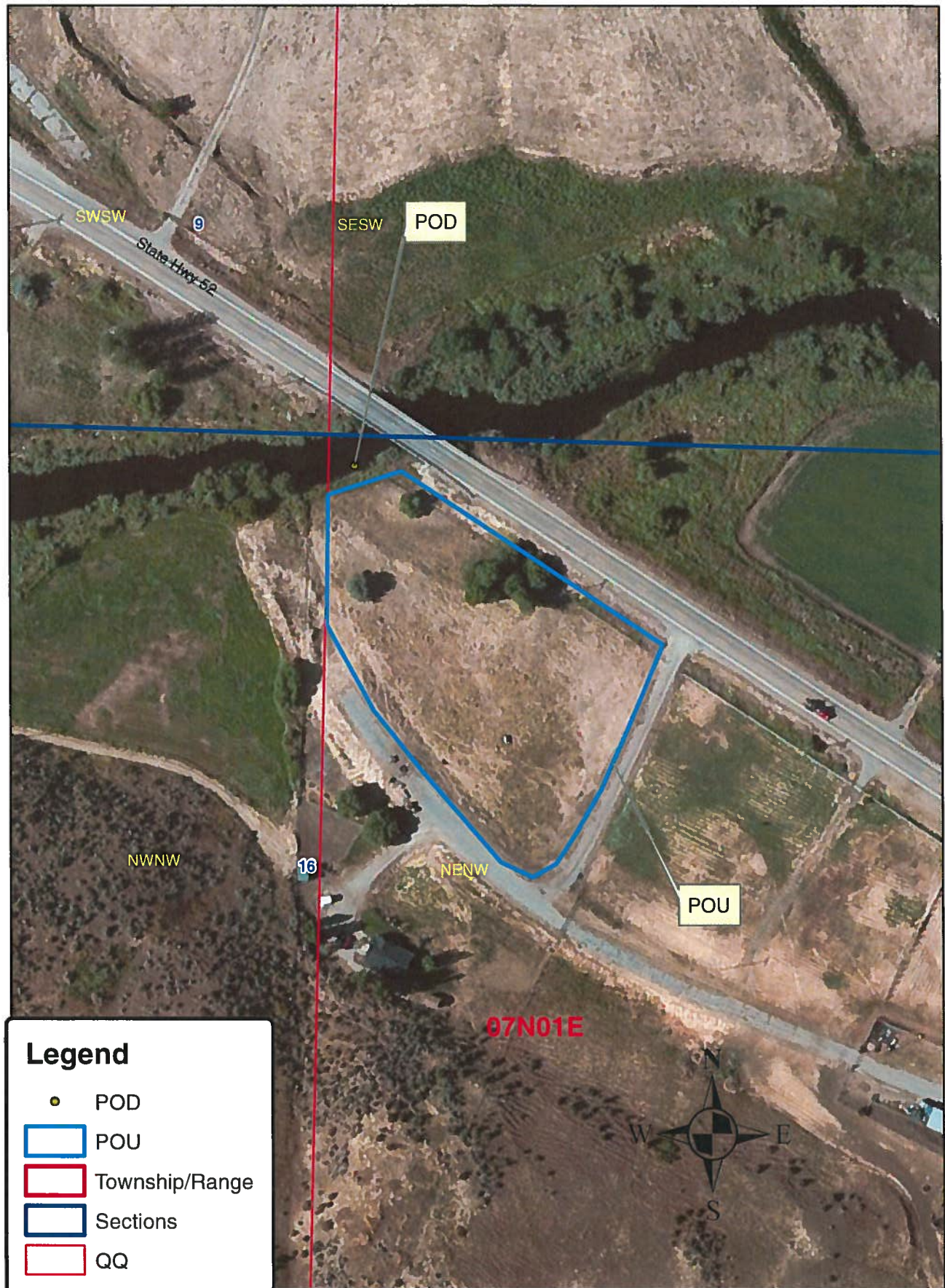
☐ Change P.U. as reflected above
 ☐ Add P.U. as reflected above
 ☐ Other

I. AUTHENTICATION

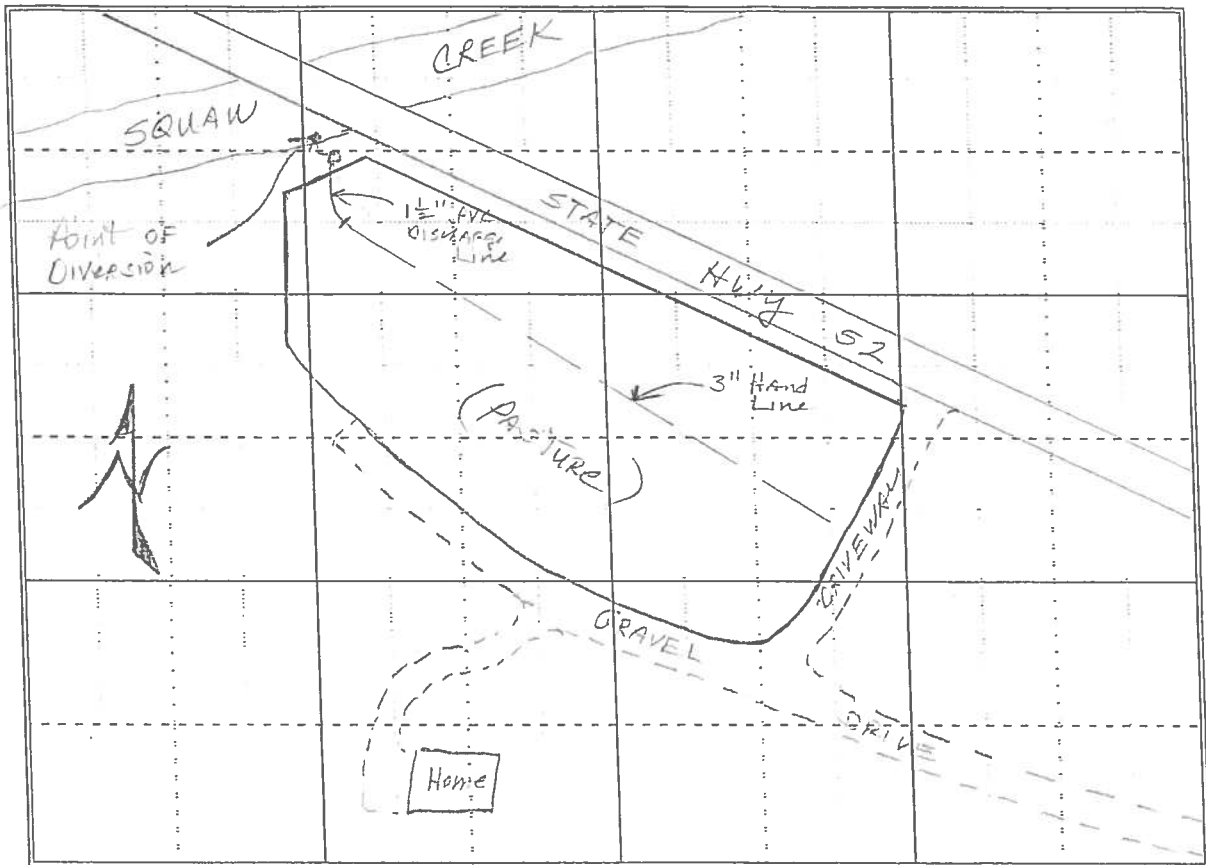
Field Examiner's Name Rick Collingwood Date 10-4-12

Reviewer _____ Date _____

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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: 65-22894

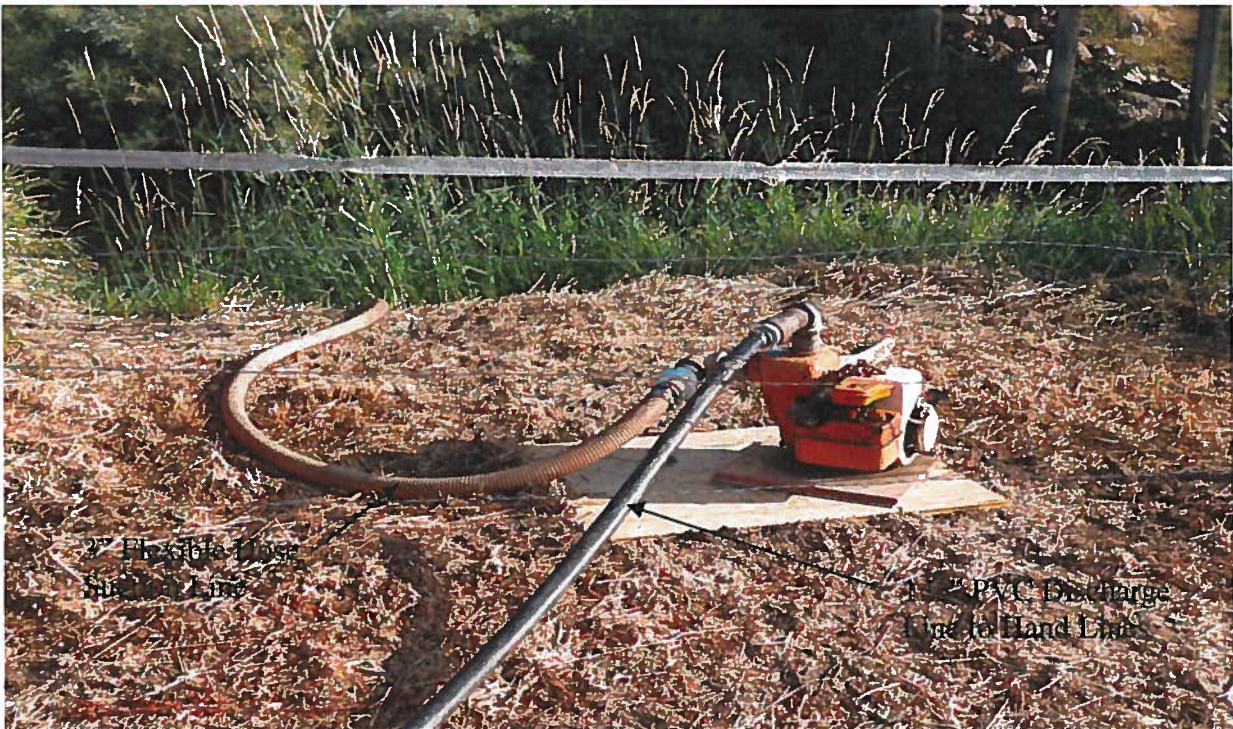
Field Exam Date: 7-24-12

PLS: NE1/4, NW1/4 Section 16, T.07N, R.01E.

Field Examiner: RC



Point of Diversion: View northwesterly of 3" steel pump suction line in Squaw Creek. Approximately 30 lineal feet of 3" suction line from pump to Squaw Creek with 10 feet of lift to pump location on bank of creek. The 30 lineal feet of suction line consists of 20 lineal feet of 3" steel pipe and 10 lineal feet of 3" flexible hose.



Point of Diversion: View northerly of portable Berkley self-priming pump used to divert water from Squaw Creek and irrigation of 2 acres of pasture by 3" diameter hand lines.



Place of Use: View easterly of 3" hand line and pasture.