

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-13795

Exam Date: 9/9/2013

1. Current Owner: BRUCE C MEYER
PO BOX 108
SWEET ID 83670
(208)584-3000

And

MALEA MEYER
PO BOX 108
SWEET ID 83670
(208)584-3000

2. Accompanied by: Bruce Meyer

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: 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

NW1/4NW1/4

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						5.0											5.0

Total Acres: 5

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	G.E.	10	Unknown	Ingersol-Rand	04535688; 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>
Pitot Tube						

2. Measurements: Pitot Tube measurement of 50 psi (with leakage). Gauge pressure of 50 psi. Sprinklers – 12 with 5/32" nozzles (5.15 gpm @ 50 psi). $Q = 12 \times 5.15 \text{ gpm} = 61.8 \text{ gpm} \sim 0.14 \text{ cfs}$.

E. FLOW CALCULATIONS

Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 10/100 + (2.31 \times 50) = 61.6/215.5 = 0.29 \text{ cfs}$$

$$Q(\text{sprinklers}) = 12 \times 5.15 \text{ gpm} = 61.8 \text{ gpm} \sim 0.14 \text{ cfs}$$

$$HP = 10$$

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

$$P = 50 \text{ psi}$$

$$Q(\text{theoretical}) = 0.29 \text{ cfs} > 0.14 \text{ cfs } Q(\text{sprinklers}) < 0.50 \text{ cfs } Q(\text{permit})$$

Appears that the current pumping system cannot attain the permit diversion rate of 0.50 cfs. However, since only 5-acres is currently being irrigated, not 25-acres as indicated on the permit, the right holder's current pumping system can attain a diversion rate of 0.10 cfs to irrigate 5-acres. Recommend a diversion rate of 0.10 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 5.0 \times 4.5 = 22.5 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.10 \times 246 \times 1.9835 = 48.8 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 22.5 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A

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

A 10-hp pump diverts water from Squaw Creek for irrigation of 5.0 acres of grass fields. Water is conveyed through a 4" PVC supply line which extends southerly from Squaw Creek to a storage pond located in the southwest corner of the right holder's property.

IRRIGATION SYSTEM:

The right holder irrigates two fields adjacent to Squaw Creek, and another field near the right holder's home and storage pond. The fields are sprinkler irrigated with 3" hand lines. The hand lines contain Rainbird sprinklers with 5/32" nozzles. Risers are spaced along the 4" PVC supply line to attach the 3" hand lines. The right holder can operate up to twelve (12) sprinklers per set. Due to the elevation rise of the field near the home and storage pond, the hand line will only operate six (6) sprinklers per set.

Note: The right holder is diverting water from Squaw Creek to fill a storage pond. Currently, it appears that the storage pond is for aesthetics. However, the right holder has not filed an Application for Permit to beneficially use the water from Squaw Creek to fill the storage pond. When licensure for Water Right Permit No. 65-13795 is issued to the right holder's, a letter of notification should be attached which states that a water right is required for the storage pond.

OVERLAP ANALYSIS:

Point of Diversion: There are no point of diversion overlaps for Water Right Permit No. 65-13795.

Place of Use: There are no place of use overlaps for Water Right Permit No. 65-13795.

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 right holder has installed lockable controlling works and a flow meter measuring device. Right holder has complied with Condition No.1.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.50	&/or	N/A
Beneficial Use Limit	0.50	&/or	N/A
System Measurement	0.29(theoretical)	&/or	N/A
Proof Fee Amount	1.0	&/or	N/A
Recommended Amount	0.10	&/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	3/15 to 11/15	0.100 CFS	22.5 AFA
<u>Totals:</u>		0.100 CFS	22.5 AFA

2. Recommended Amendments

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

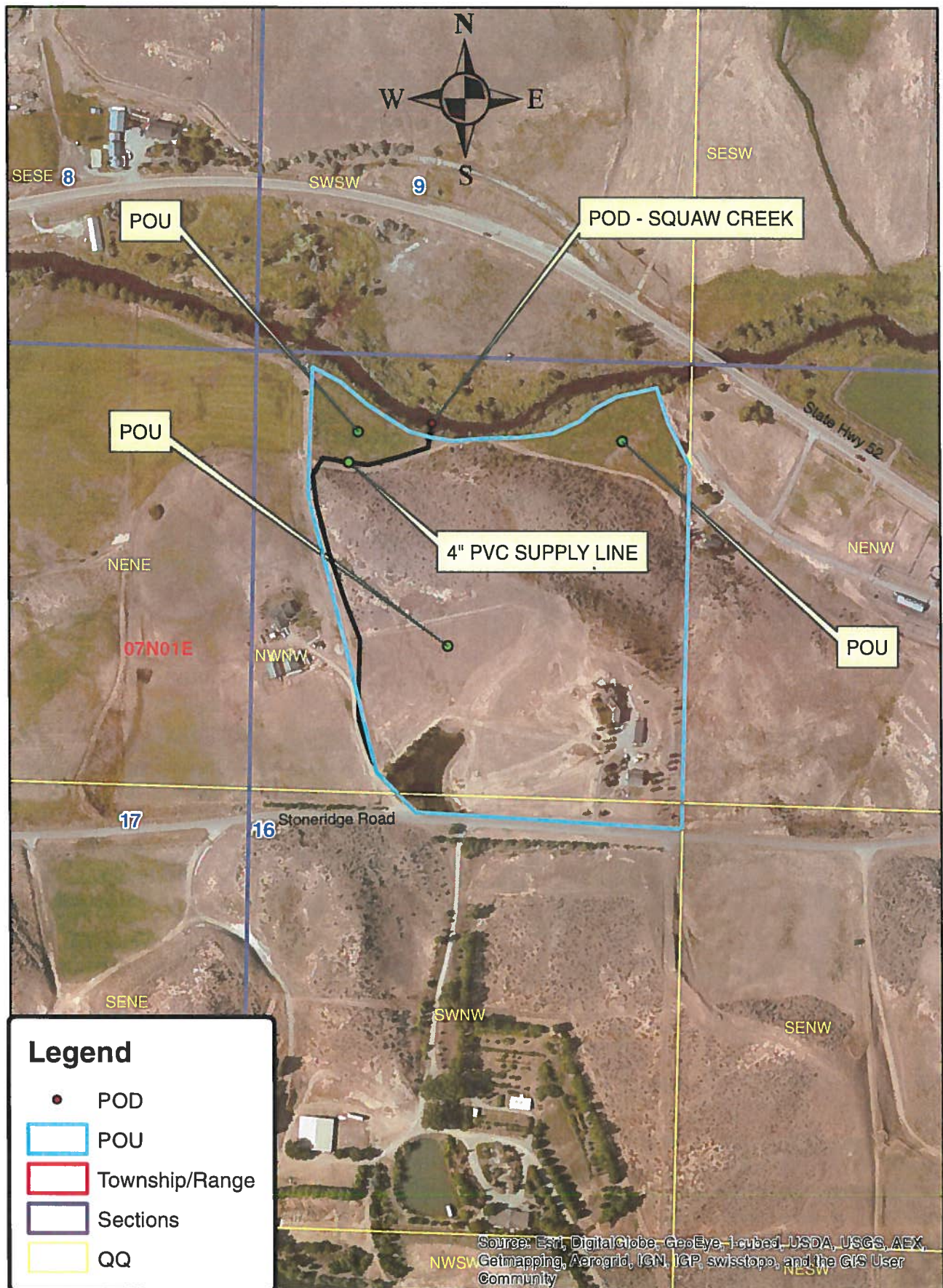
☒ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

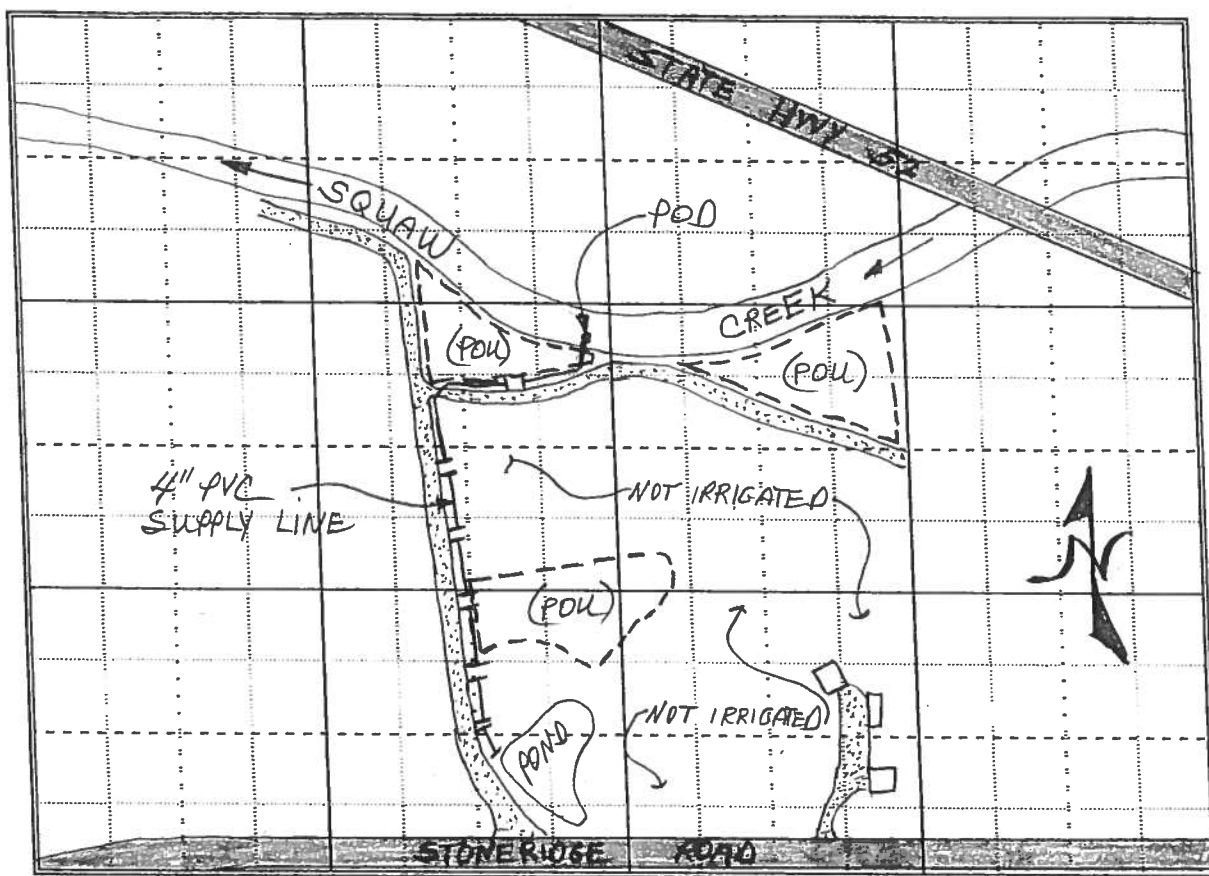
Field Examiner's Name Rick Collingwood Date 2/19/14
 Reviewer _____ Date _____

65-13795

ESRI AERIAL PHOTO - 2012



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



Idaho Department of Water Resources

Water Right
65-13795
(IRRIGATION)

● Point of Diversion



Place of Use



State Outline



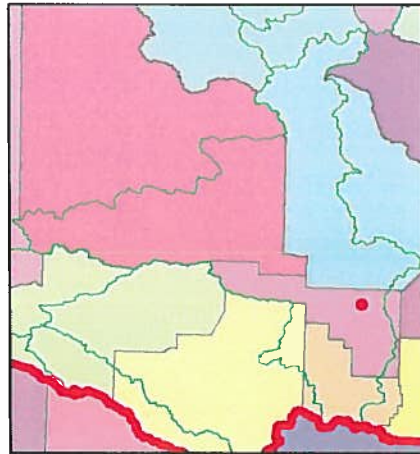
Townships



PLS Sections



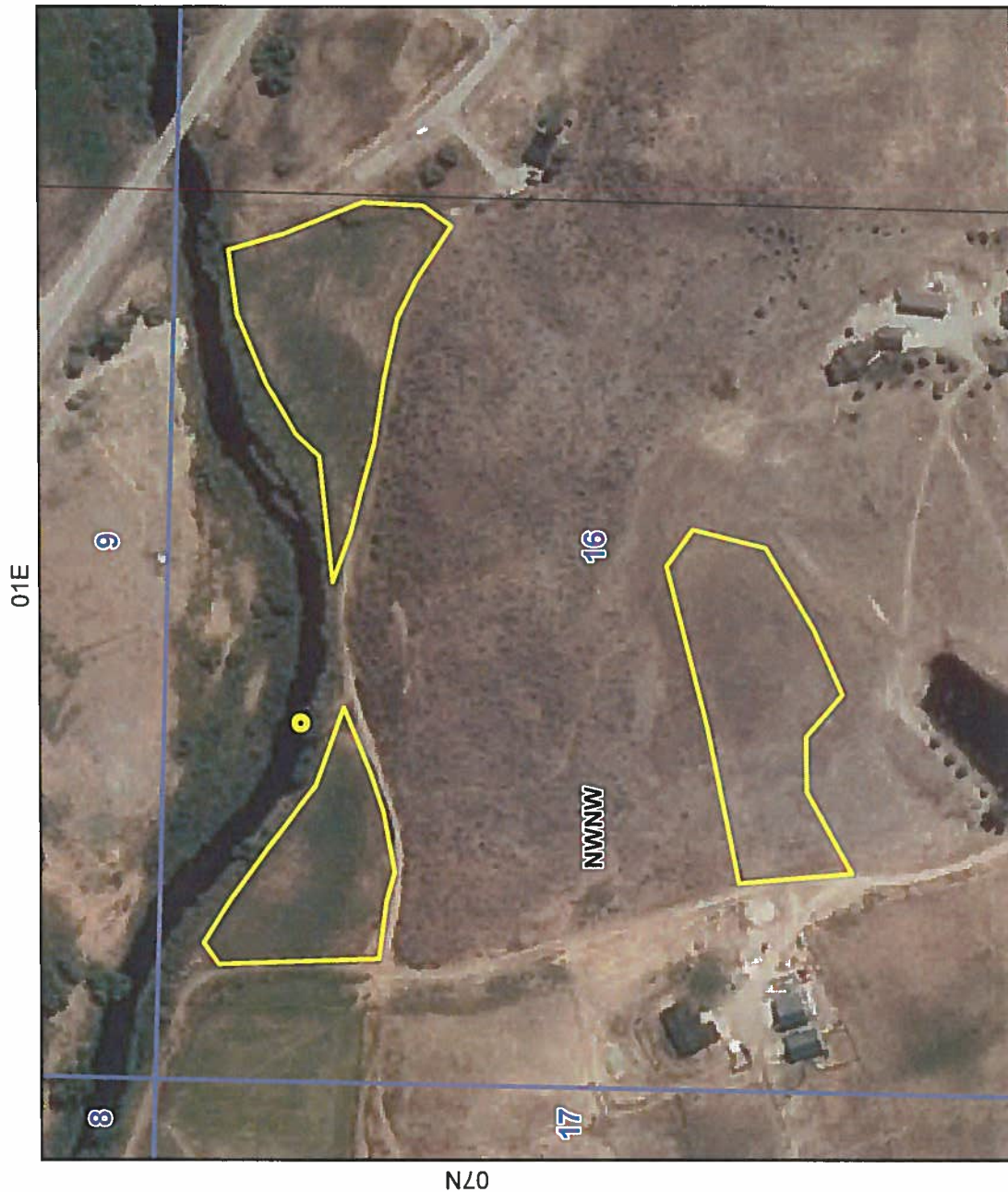
Quarter Quarters



Gem County
IDWR Basin 65

Prepared by Walker, Kay

2009 Aerial Photography



(per field exam notes & area of P/U)

FIELD EXAM PHOTOS

Water Right Permit: 65-13795

Field Exam Date: 9-9-13

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

Field Examiner: RC



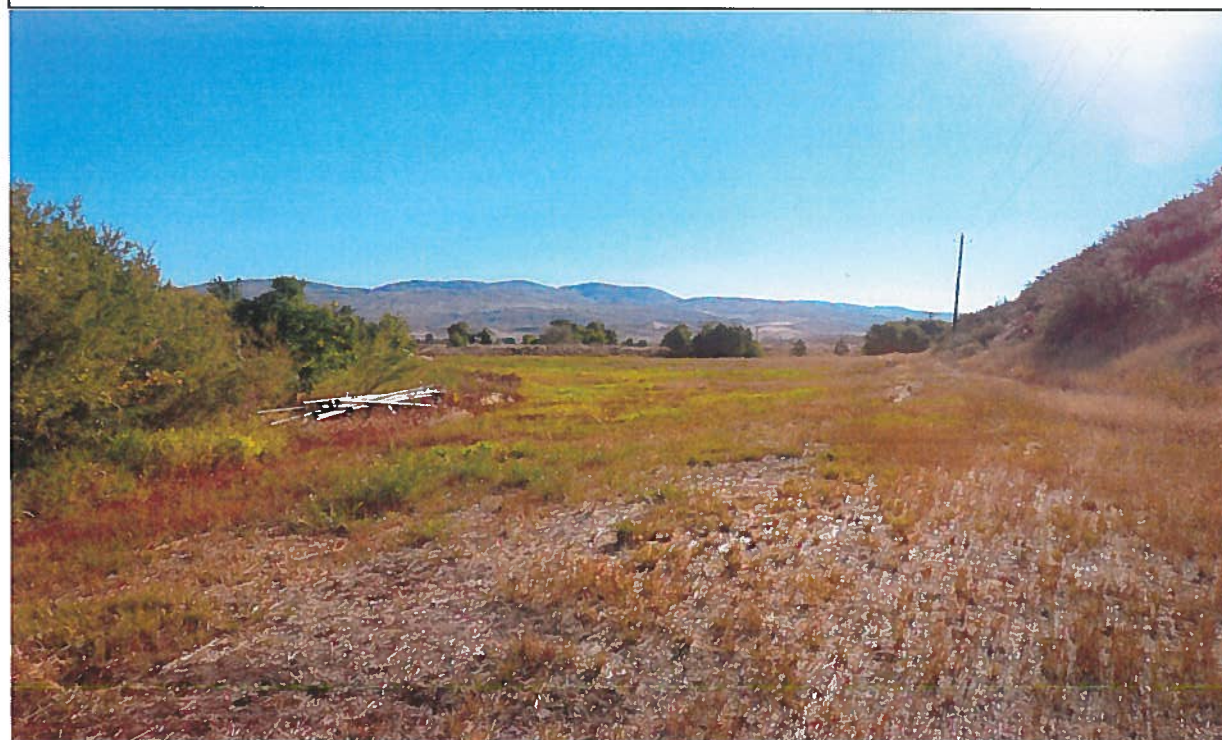
Point of Diversion: View northerly of the 4" flexible suction line in Squaw Creek. A large flotation device is attached to the 4" suction line to suspend the 4" intake off the bottom of Squaw Creek.



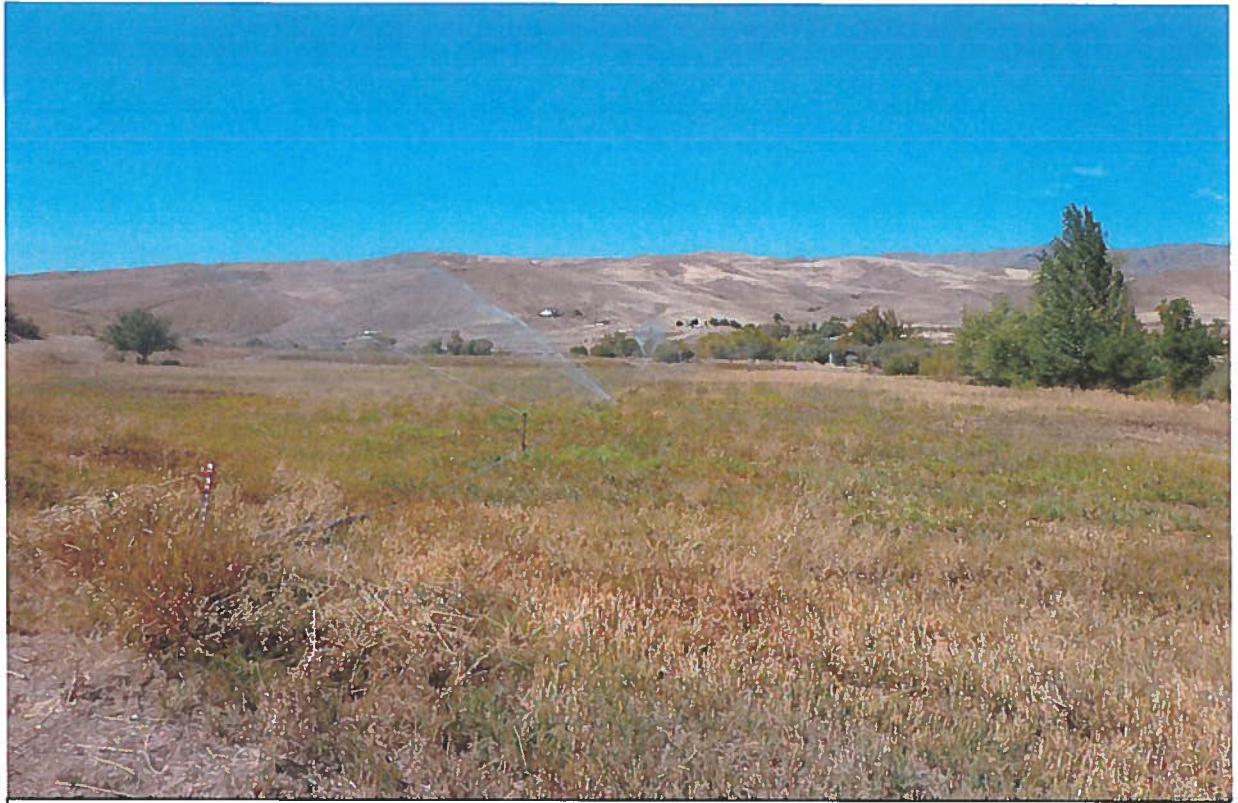
View of the 4' diameter x 10' deep CMP pumping sump. The 4" flexible hose suction line from Squaw Creek is shown to the left of the CMP pumping sump. A 10-hp pump diverts water from the CMP pumping sump sprinkler irrigation of fields.



View of the pump and motor and the 4" PVC discharge line. Due to the low depth of Squaw Creek, the right holder is diverting water through the 4" flexible suction line to the pump, not from the 4' diameter CMP pumping sump.



Place of Use: View easterly of a field east of the point of diversion and adjacent to Squaw Creek.



Place of Use: View westerly of a handline sprinkler irrigating a field west of the point of diversion and adjacent to Squaw Creek.

February 24, 2014

To: File 65-13795

From: Kay Walker 

RE: Pond

In review of the field exam for this permit it was noticed that the pond found in the southern part of the property was in existence since the permit was issued. At time of application review, the pond was in place as a storage-retention pond (see item 8e of the application form). However, the storage of water in the pond was not a part of the application or permit approval. Examiner found that water was being diverted to the pond to keep it full and recommended we advise right holder that he must have a water right to divert water to the pond. Since that was not done during application review it seems contradictory to make him do it now.

In Application Processing Memo No. 67 (Permitting Requirements for Ponds) dated February 28, 2003 (after this permit had been issued), direction provided intended to clarify the policy regarding ponds constructed or proposed to be constructed, after the date of the memo and to changes in use of existing ponds that occur after the date of the memo. This memo, however, did not direct us to investigate or take regulatory action for ponds existing prior to the memo.

Our examiner stated that he had informed permit holder of the need to file a water right for the pond when conducting the field exam so permit holder has been informed of this requirement. The pond will not be a part of this license because it serves no beneficial use to the system as developed.



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

Bruce C. & Malea Meyer
P.O. Box 108
Sweet, ID 83670

RE: Scheduling Field Exam for Water Right Permit No. 65-13795

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 0.50 cfs of surface water from Squaw Creek for irrigation of 25.0 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.