



State of Idaho

DEPARTMENT OF WATER RESOURCES

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

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

November 21, 2013

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

RITA BALDERSON
2605 UPPER DALE
COUNCIL ID 83612

RE: Water Right Permit No. 67-14671

Dear Permit Holder:

The Department of Water Resources is reviewing the permit referenced above prior to issuing a water right license. By issuing a license, the Department confirms the extent of development that has been established in compliance with the terms of the permit. The examiner who verified your water use reported that certain elements of the permit have been developed differently than described on your permit. Changes that do not increase the authorized use of water under the permit can be requested and approved in accordance with Section 42-211, Idaho Code. Before a license can be issued, your permit must be amended to depict your water use as it was actually developed.

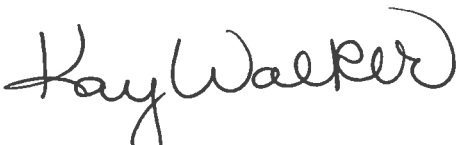
Based on the examiner's report, the following elements were developed differently than described on your permit:

 Place of Use

The enclosed Application for Amendment form depicts the elements of the water right as they will appear on the license when it is issued. Please review the amendment form carefully. If you concur with the information presented, please sign the form and return it with the \$100.00 filing fee within 14 days.

If you have any questions, please call me at (208)334-2190.

Sincerely,



KAY WALKER
Sr. Water Resource Agent

Enclosures: Amendment Application & Layout

A. GENERAL INFORMATION

Exam Date: 7/15/2013

- SPRING

HORNET CREEK

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

1. LOCATION OF POINT(S) OF DIVERSION:

SPRING L1 SE1/4NE1/4NE1/4 Sec. 8, Twp 17N, Rge 02W, B.M.
ADAMS County

Method of Determination: Arc Map (Aerial Photo); GPS – Latitude N.44°49.692', Longitude W.116°35.837'; Datum – NVD83.

2.

PLACE OF USE: STOCKWATER

[illegible]

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</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>
N/A	N/A		N/A	N/A	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>
5-Gallon Bucket						

2. Measurements: 5-Gallon Bucket at Water Trough – 1.2 gpm. Flow is valve controlled so full flow capacity not available for flow measurement. (See Flow Calculations in Section E for theoretical flow capacity of the 2" steel main line from the spring box to the water storage tank)

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method: (Manning's Equation – Open Channel)

$$Q = 1.49/nAR^{2/3}S^{1/2} = (1.49/0.012)(0.02)(0.04)^{2/3}(0.10)^{1/2}$$

$$Q = (124.17)(0.02)(0.12)(0.32) = 0.10 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.10 \text{ cfs} > 0.04 \text{ cfs } Q(\text{permit})$$

$$n = 0.012$$

$$A = 0.02 \text{ ft}^2$$

$$R = D/4 = 0.04$$

$$S = 0.10 \text{ ft/ft (Estimated)}$$

Appears that the capacity of the current water delivery system can attain the permit diversion rate of 0.04 cfs. However, since the Department's standard allocation for 100 head of cattle and horses is 0.03 cfs, recommend the Department's standard allocation diversion rate of 0.03 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: N/A

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

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

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

2. Volume Calculations for Other Uses: Stock Water – 100 Head of Cattle & Horses

$$V_r = (100 \times 12 \text{ gpd} \times 365 \text{ days}) / 325,850 \text{ gallons/AF} = 1.34 \text{ AFA}$$

$$V_d = 0.03 \times 365 \times 1.9835 = 21.7 \text{ AFA}$$

$$V_r < V_d \quad \text{Recommend volume of 1.34 AFA}$$

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

A section of 4" PVC perforated pipe collects and diverts spring water from a spring to a 3' diameter concrete spring box. Spring water is conveyed from the spring box to a buried 500-gallon fiberglass water storage tank. The water storage tank has a 3" steel overflow pipe to a drainage area east of the water storage tank.

Spring water is discharged through 2" steel pipe to a watering trough in a corral east of Upper Dale Road. The watering trough provides drinking water for up to 100 head of cattle and horses.

OVERLAP ANALYSIS:

Point of Diversion: There are no point of diversion overlaps for Water Right Permit No. 67-14671.

Place of Use: There are no place of use overlaps for Water Right Permit No. 67-14671.

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

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.04	&/or	N/A
Beneficial Use Limit	0.03	&/or	N/A
System Measurement	0.10(theoretical)	&/or	N/A
Proof Fee Amount	0.20	&/or	N/A
Recommended Amount	0.03	&/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>
STOCKWATER	01/01 to 12/31	0.030 CFS	1.34 AFA
<u>Totals:</u>		0.030 CFS	1.34 AFA

2. Recommended Amendments

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

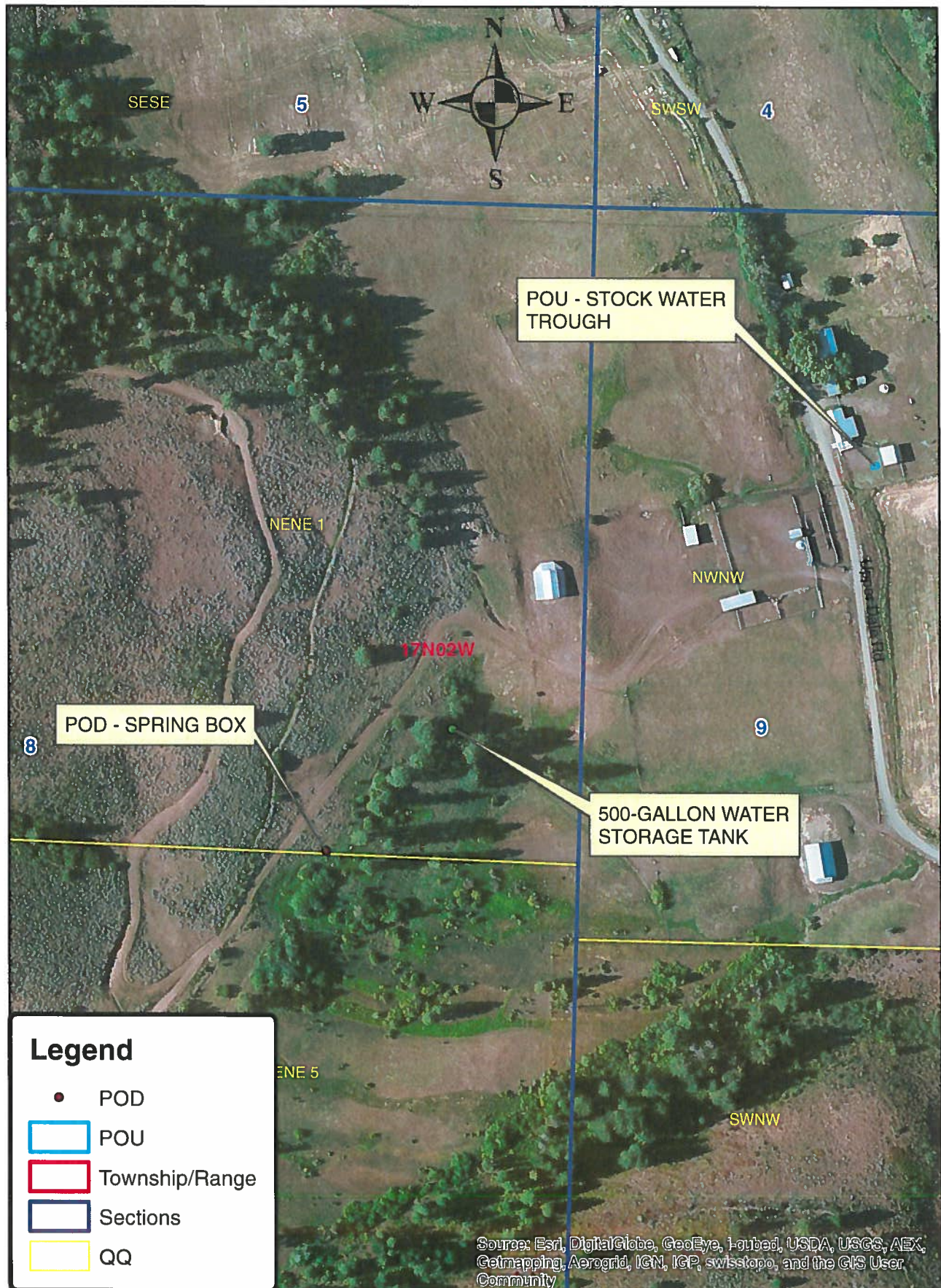
☒ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 11/18/13
 Reviewer _____ Date _____

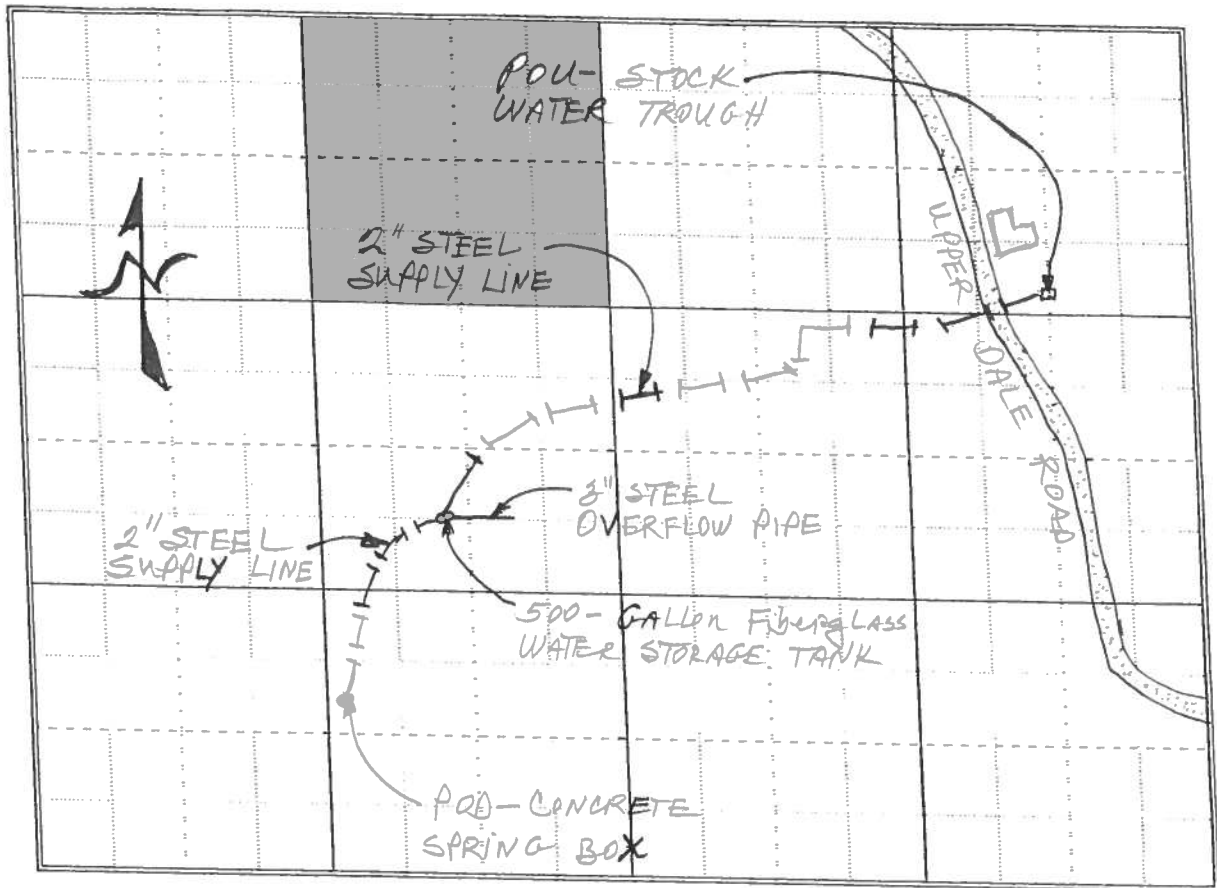
67-14671
GOV'T. LOT 1

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: 67-14671

Field Exam Date: 7-15-13

PLS: NE1/4, NE1/4 Section 8, T.17N, R.02W.

Field Examiner: RC



Point of Diversion: View southwesterly of the 3' diameter concrete spring box and the 4" PVC perforated pipe supply line in a spring. Spring water is discharged through 2" steel pipe to a 500-gallon fiberglass buried water storage tank.



View westerly of the buried 500-gallon fiberglass storage tank. Spring water is discharged through 2" steel pipe to a watering trough located within a corral. The 500-gallon water storage tank contains a 3" steel overflow pipe which daylights to a drainage swale east of the water storage tank.



Place of Use: View southeasterly of the spring water discharging to a stock water trough located within a corral. The watering trough provides drinking water for approximately 100 head of cattle and horses.



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C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

June 21, 2013

Rita Balderson
2605 Upper Dale
Council, ID 83612

RE: Scheduling Field Exam for Water Right Permit No. 67-14671

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of July 15, 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 0.04 cfs of spring water for stock water for 100 head of mixed stock.

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 July 12, 2013, to conduct the exam during the week of July 15, 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.