

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
BENEFICIAL USE FIELD REPORT

**A. GENERAL INFORMATION**

Permit No: 65-22686  
Exam Date: 07/30/2019

1. Current Owner:  
DAVID B MERRITT 28303 3RD FORK RD OLA ID 83657 AND/OR  
JEANENE URBAN 28303 3RD FORK RD OLA ID 83657
2. Accompanied by: David Merritt  
Phone No: 208-584-3557  
Address: 28303 3<sup>rd</sup> Fork Rd, Ola, ID 83657  
Relationship to permit Holder: Same

3. **SOURCE:**  
SQUAW CREEK

Tributary  
PAYETTE RIVER

**Method of Determination:** Field observation, aerial imagery, and ArcMap GIS tools.

**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
N/A	N/A	N/A	N/A

2. Other water rights with the same point-of-diversion: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
N/A	N/A	N/A	N/A

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

SQUAW CREEK SE¼ NW¼, Sec. 23, Twp 12N, Rge 01E, B.M. GEM County

Method of Determination: Field observation, Garmin handheld GPS, and ArcMap GIS tools.

**PLACE OF USE: IRRIGATION**

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
12N	01E	23								8.3	3.2								11.5

Total Acres: 11.5

Method of Determination: Field observation, aerial imagery, and ArcMap GIS tools.

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.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
N/A	John Deere	90	CH4020D181724	Berkeley	G200502

**D. FLOW MEASUREMENTS**

1.

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

2. Measurements: Portable pump system did not provide suitable circumstances to measure diversion rates.

**E. FLOW CALCULATIONS**

x Additional Computation Sheets Attached

Measured Method: A theoretical calculation was used on this permit. Additionally, specific pump curves were used to calculate flow.

Theoretical: 0.28 cfs  
 Pump Curve: 0.33 cfs  
 Permitted: 1.02 cfs  
 B.U. Limit: 0.23 cfs

**F. VOLUME CALCULATIONS**

1. Volume Calculations for irrigation: N/A for surface water source.

**G. NARRATIVE/REMARKS/COMMENTS**

Field exam was completed by agent Justin Shearer on July 30, 2019 and was accompanied by permit holder David Merritt. David Merritt is the active owner and original applicant. The application for permit was submitted on May 23, 2002 and proof of beneficial use was submitted on July 29, 2003.

The Point of Diversion (POD) was confirmed to only be one POD on Squaw Creek in the SE ¼ NW ¼ of Twp 12N, Rge 01E, Sec. 23 rather than three POD's as permitted. The water is diverted using a Berkeley B1-1/2EQL centrifugal pump mounted to a John Deere 4020 diesel engine which is fixed to a wheeled trailer allowing the whole diversion system to be portable. The pump diverts water using a 3" synthetic rubber hose and moves the hose as needed to open discharge water amongst the 11.5 acre pasture Place of Use (POU). Water right overlap did not discover any other water rights associated with the POD on Squaw Creek. No amendment required to correct the legal description of the POD.

The permit authorizes 51.0 acres for irrigation within the SE ¼ NW ¼ and NE ¼ SW ¼'s. ArcMap tools and aerial imagery were used to verify the area of irrigated lands based on where the permit holder demonstrated as the POU during the field exam and 11.5 acres of irrigated pasture across the two permitted QQ's were identified. No amendment required to correct

the legal description of the POU.

The POD is located on the perimeter of the POU that borders Squaw creek. As a result, there is at most 10 ft of head between where the water is diverted and where it is put to use on the pasture. Pump and engine information were obtained using the model and serial numbers located on their respective equipment. Using the pump curve for the Berkeley B1-1/2EQL pump and the operating specs for the John Deere 4020 diesel engine a flow rate of 0.33 cfs was calculated. Additionally, using a likely hp range of 6-10 hp, 10 ft of head, likely discharge pressure of 40-60 psi, and assuming 51% efficiency based on the pump curve, a theoretical flow rate of 0.28 cfs was calculated. However, because the permit holder has only developed 11.5 acres for irrigation use I am recommending a licensed flow rate of 0.23 cfs based upon the standard diversion rate of 0.02 cfs/acre. The rate of 0.23 cfs is capable providing ample water for the permit holder's system and needs. However, no measuring device is installed. Notice to have measuring device installed or face voiding process was made April 23, 2020.

Condition 01J was updated to R43 as per department standards. Condition 121 was updated to 103 as per department standards.

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

#### H. RECOMMENDATIONS

##### 1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	
IRRIGATION	03/15 to 10/31	0.23 CFS	
<u>Totals:</u>		0.23 CFS	

##### 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

#### I. AUTHENTICATION

Justin Shearer - Water Resource Agent, Senior

Field Examiner's Name Justin Shearer Date 10/7/20

Reviewer \_\_\_\_\_ Date \_\_\_\_\_

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 65-22686  
 Reviewer: Justin Shearer  
 Date of Review: 8/1/2019

P/D No.:	Senerio 1	Senerio 2	Senerio 3
PUMP HORSEPOWER	6	8	10
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	10	10	10
DISCHARGE PRESSURE	40	50	60
RATE OF FLOW (cfs)	0.26	0.29	0.30 0.28

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

Assumptions: %51 efficiency.  
 No Friction

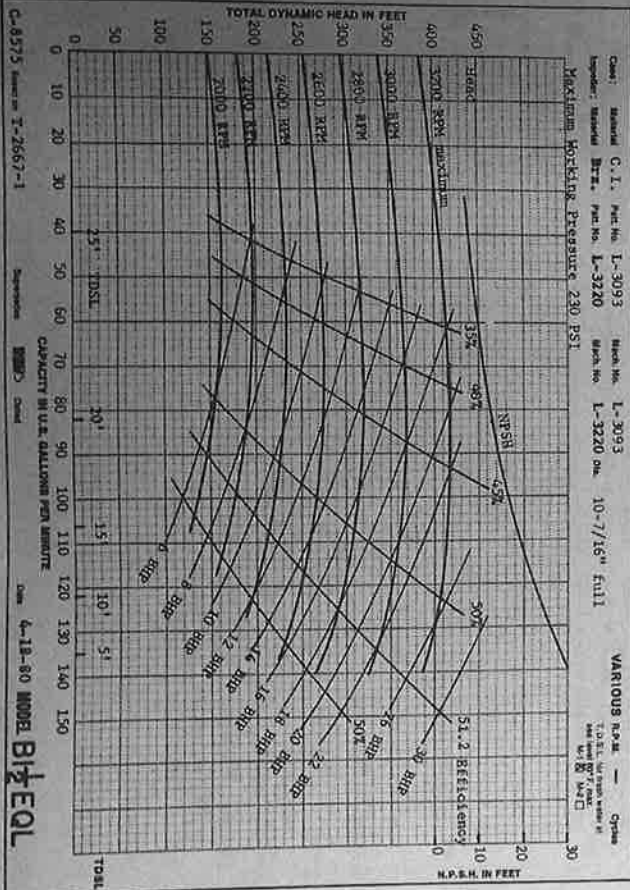
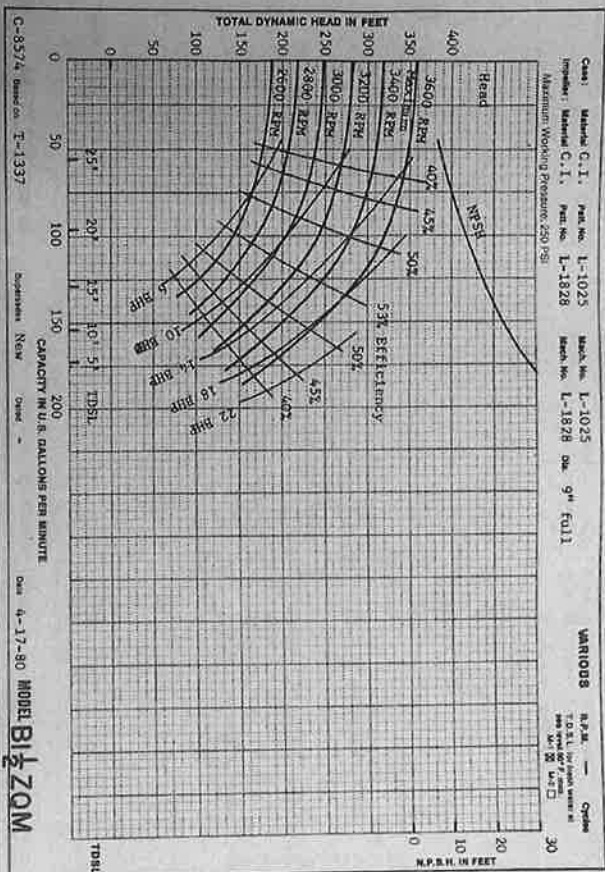
**Examiners Notes:**

A 6-10 hp pump is used for this irrigation use and the requested diversion rate is relatively small. Lift was measured using field observation and handheld gps. Topography from the POU to stream waters measure close to 10 feet. Theoretical average flow rate is 0.28 cfs.



BERKELEY PUMPS  
TYPE "B" RATING CURVES  
ENGINE DRIVE

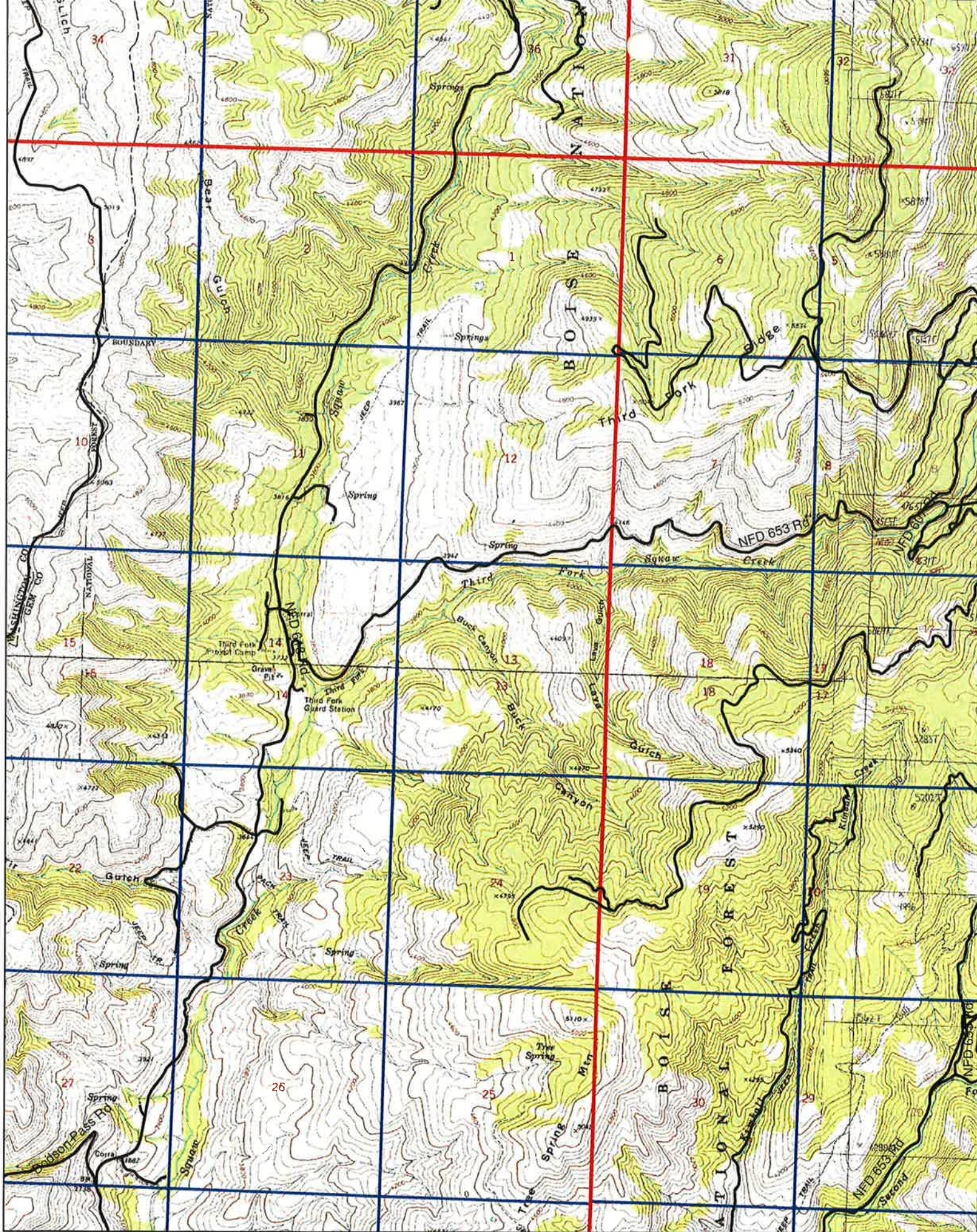
CURVE	4117
DATE	1-27-89
PAGE	0.50
SUPENSEDES	
Curve 4117	Page 0.50
Dated 8-1-88	















State of Idaho

## DEPARTMENT OF WATER RESOURCES

Western Region • 2735 W Airport Way • Boise ID 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348

Website: [idwr.idaho.gov](http://idwr.idaho.gov) • Email: [westerninfo@idwr.idaho.gov](mailto:westerninfo@idwr.idaho.gov)

BRAD LITTLE  
Governor

GARY SPACKMAN  
Director

April 25, 2019

DAVID MERRITT And/Or  
JEANENE URBAN  
28303 THIRD FORK RD  
OLA, ID 83657

**COPY**

**RE: Scheduling Field Exam for Water Right Permit No. 65-22686**

Dear Permit Holder:

We are planning to conduct water right examinations in the vicinity of the above-referenced permit **this season**. An examination is needed to verify the water use in order to issue a water right license.

The above-referenced permit authorizes **1.020 cfs** from **SQUAW CREEK** tributary to **PAYETTE RIVER** for **IRRIGATION** use. **If you have developed a beneficial use and still own the place of use property, please contact me at your earliest convenience to schedule an examination.**

If you did not develop a beneficial use of water under the permit during the beneficial use period, a license cannot be issued and the permit should be relinquished. If that use was developed, but have ceased using the water and you currently carry no interest in it, please relinquish the permit by submitting the enclosed Relinquishment of Permit form (no fee required).

If you did develop a beneficial use of water under the permit, but you no longer own the place of use property identified in the permit, please submit the enclosed Assignment of Permit form with the applicable \$25 processing fee.

**Please contact me within the next thirty (30) days at (208) 334-2190 to either schedule an examination or submit a relinquishment or assignment form. If you no longer own the place of use property and/or do not respond to this letter, the department will work with the current property owner to issue a license or void the permit.**

Sincerely,

Justin Shearer  
Water Resource Agent, Sr.

Enclosures: Relinquishment of Permit form  
Assignment of Permit form  
Water Permit Report and Map





State of Idaho

## DEPARTMENT OF WATER RESOURCES

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

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Website: [www.idwr.idaho.gov](http://www.idwr.idaho.gov)

C.L. "BUTCH" OTTER  
Governor

GARY SPACKMAN  
Director

May 1, 2018

COPY

DAVID MERRITT And/Or  
JEANENE URBAN  
28303 THIRD FORK RD  
OLA, ID 83657

**RE: Scheduling Field Exam for Water Right Permit No. 65-22686**

Dear Permit Holder:

We are planning to conduct water right examinations in the vicinity of the above-referenced permit **this season**. An examination is needed to verify the water use in order to issue a water right license.

The above-referenced permit authorizes **1.020 cfs** from **SQUAW CREEK** tributary to **PAYETTE RIVER** for **IRRIGATION** use. **If you have developed a beneficial use and still own the place of use property, please contact me at your earliest convenience to schedule an examination.**

If you did not develop a beneficial use of water under the permit during the beneficial use period, a license cannot be issued and the permit should be relinquished. If that use was developed, but have ceased using the water and you currently carry no interest in it, please relinquish the permit by submitting the enclosed Relinquishment of Permit form (no fee required).

If you did develop a beneficial use of water under the permit, but you no longer own the place of use property identified in the permit, please submit the enclosed Assignment of Permit form with the applicable \$25 processing fee.

**Please contact me within the next thirty (30) days at (208) 334-2190 to either schedule an examination or submit a relinquishment or assignment form. If you no longer own the place of use property and/or do not respond to this letter, the department will work with the current property owner to issue a license or void the permit.**

Sincerely,

Justin Shearer  
Water Resource Agent

Enclosures: Relinquishment of Permit form  
Assignment of Permit form  
Water Permit Report and Map



State of Idaho

## DEPARTMENT OF WATER RESOURCES

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

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Website: [www.idwr.idaho.gov](http://www.idwr.idaho.gov)

C.L. "BUTCH" OTTER  
Governor

GARY SPACKMAN  
Director

July 7, 2017

DAVID MERRITT  
28303 THIRD FORK RD  
OLA, ID 83657

COPY

**RE: Scheduling Field Exam for Water Right Permit No. 65-22686**

Dear Permit Holder:

We are planning to conduct water right examinations in the vicinity of the above-referenced permit **this season**. An examination is needed to verify the water use in order to issue a water right license.

The above-referenced permit authorizes **1.020 cfs** from **SQUAW CREEK** tributary to **PAYETTE RIVER** for **IRRIGATION** use. **If you have developed a beneficial use and still own the place of use property, please contact me at your earliest convenience to schedule an examination.**

If you did not develop a beneficial use of water under the permit during the beneficial use period, a license cannot be issued and the permit should be relinquished. If that use was developed, but have ceased using the water and you currently carry no interest in it, please relinquish the permit by submitting the enclosed Relinquishment of Permit form (no fee required).

If you did develop a beneficial use of water under the permit, but you no longer own the place of use property identified in the permit, please submit the enclosed Assignment of Permit form with the applicable \$25 processing fee.

**Please contact me within the next thirty (30) days at (208) 334-2190 to either schedule an examination or submit a relinquishment or assignment form. If you no longer own the place of use property and/or do not respond to this letter, the department will work with the current property owner to issue a license or void the permit.**

Sincerely,

Justin Shearer  
Water Resource Agent

Enclosures: Relinquishment of Permit form  
Assignment of Permit form  
Water Permit Report and Map





## 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](http://www.idwr.idaho.gov)

June 14, 2013

C. L. "BUTCH" OTTER  
Governor

GARY SPACKMAN  
Director

DAVID MERRITT  
28303 THIRD FORK RD  
OLA ID 83657

### RE: Scheduling Field Exam for Water Right Permit No. 65-22686

Dear Mr. Merritt:

We are planning to **conduct water right examinations** in the vicinity of the above-referenced permit **during the weeks of June 24 and July 1, 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 conditions during the examination. The permit authorizes diversion of Squaw Creek water for irrigation use.

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 June 28, 2013.** If there is a problem with scheduling or conducting the examination at this time, please call and other arrangements can be made. I appreciate your attention in this matter and I look forward to hearing from you.

Sincerely,

A handwritten signature in black ink, appearing to read 'Angela M. Grimm', is written over a horizontal line.

Angela M. Grimm, P.G.  
Water Resource Agent, Sr.