

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 67-14975

Exam Date: 8/23/2012

1. Current Owner: TIM FOLKE
PO BOX 100
PAYETTE ID 83661-0100
(208)642-1417
- And
- CAROLYN FOLKE
PO BOX 100
PAYETTE ID 83661
(208)642-1417
2. Accompanied by: Tim Folke
Phone No: Same
Address: Same
Relationship to Permit Holder:
3. SOURCE TRIBUTARY
GROSSEN CREEK WEISER 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 SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

GROSSEN CREEK NW1/4SW1/4 Sec. 11, Twp 16N, Rge 01W, B.M.
ADAMS County

Method of Determination: Arc Map (Aerial Photo)

2.

PLACE OF USE: STOCKWATER STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
16N	01W	11										X							

DIVERSION TO STORAGE same as STOCKWATER
STORAGE

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>
N/A	NA			N/A	N/A

*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>
Rectangular						
Weir						

2. Measurements: Rectangular Weir

$$Q = Cd(2/3)(2g)^{1/2}LH^{3/2} = (0.62)(0.67)(64.4)^{1/2}(1)(0.06)^{3/2}$$

$$(0.62)(0.67)(8.02)(1)(0.015) = 0.05 \text{ cfs}$$

$$L(\text{Crest Length}) = 1'$$

$$\text{Head (H)} = 0.06'$$

$$Cd = 0.62$$

E. FLOW CALCULATIONS☐ Additional Computation Sheets Attached

Measured Method: (Rectangular Weir Flow Equation)

$$Q = Cd(2/3)(2g)^{1/2}LH^{3/2} = (0.62)(0.67)(64.4)^{1/2}(1)(0.06)^{3/2}$$

$$= (0.62)(0.67)(8.02)(1)(0.015) = 0.05 \text{ cfs}$$

$$L(\text{Crest Length}) = 1'$$

$$\text{Head (H)} = 0.06$$

$$Cd = 0.62$$

$$Q(\text{measured}) = 0.05 \text{ cfs} > 0.04 \text{ cfs } Q(\text{permit})$$

Appears that the permit diversion rate of 0.04 cfs can be attained by the right holder's current diversion structure and conveyance system.

(Recommend beneficial use diversion rate of 0.04 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 Storage Pond)

Estimated Average Pond Depth (D) = 7'

Pond Surface Area = 0.9 acre

$$V = AD = 0.9 \text{ acre} \times 7' = 6.3 \text{ AF}$$

$$V = 6.3 \text{ AF} > 5.0 \text{ AF (Maximum Active Storage Capacity)}$$

Recommend V = 5.0 AF

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

A rock diversion dam, which is comprised of a short section of 12" pipe and a 12" slide gate, diverts water from Grossen Creek to fill a stock water storage pond. An excavated ditch conveys the water to the pond. An overflow channel controls the water surface elevation in the pond. The overflow channel discharges excess water back to Grossen Creek. The right holder indicated that Grossen Creek is usually dry by 6/15. However, minor overflow from the Eastfork Irrigation Ditch discharges to Grossen Creek, maintaining a minimal flow in the creek.

A ground water well was drilled in 2010. The well operates as a backup source of water when the flows in Grossen Creek are inadequate or are terminated by the 6/15 cutoff date. The well is used only to maintain the water levels in the stock water storage pond. The well pump, which is a Grundfos variable speed pump designed specifically for solar power, is powered by a Mitsubishi Model 115QF2 Solar Panel. The maximum discharge rate for the pump is 4 gpm. The well only operates when there is adequate sunlight to power the solar panels. The 1-inch supply pipe extends approximately 30-feet into the pond. At the end of the supply line, an elbow was installed with a vertical 2-foot pipe section. The pond depth at the discharge pipe is approximately 4-feet. A pipe extension, which includes a 'free-flow inlet device', or garden sprinkler as stated by the right holder, is attached to the end of the vertical pipe to discharge above the pond water surface. During the winter, the extension is removed and the vertical supply line section is capped.

PLACE OF USE:

The stock water storage pond, which is approximately 1-acre in size, provides water for sixteen (16) head of cattle and horses.

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

CONDITION NO. 3 (01J) – Prior to diversion of water under this right, the right holder shall install and maintain a measuring device and lockable controlling works. A rectangular weir has been installed downstream of the diversion structure to allow flow measurements by the Department or watermaster. The slide gate has a mechanism in which to install a padlock if the right holder is required to lock the slide gate. Right holder is in compliance with Condition No.3.

CONDITION NO.6 – Prior to diversion and storage of water, a completed "Application for Construction of a Small Dam" with fees must be submitted to the Department of Water Resources Dam Safety Section. On September 20, 2010, the right holder submitted an "Application for Construction of a Small Dam", with the fee of \$205.00 for a pond with a volume of 5-acre feet. Right holder is in compliance with Condition No.6.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.04	&/or	5.0
Beneficial Use Limit	0.04	&/or	N/A
System Measurement	0.05	&/or	6.3
Proof Fee Amount	0.20	&/or	20.0
Recommended Amount	0.04	&/or	5.0

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
STOCKWATER STORAGE	01/01 to 12/31		5.00 AF
DIVERSION TO STORAGE	01/01 to 12/31	0.040 CFS	
<u>Totals:</u>		0.040 CFS	5.00 AF

2. Recommended Amendments

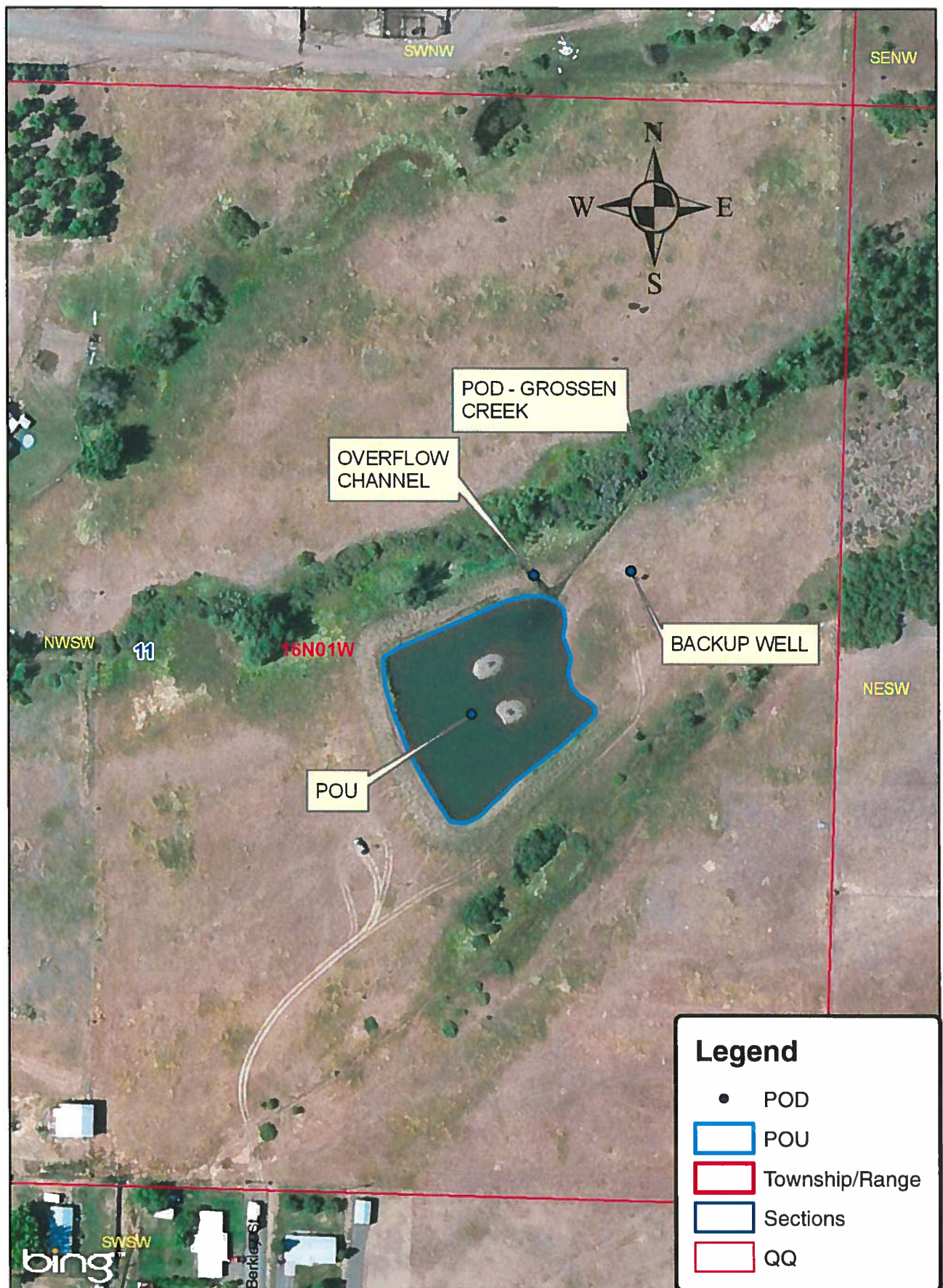
☐ Change P.D. as reflected above
 ☐ Add P.D. as reflected above
 ☒ None
☐ Change P.U. as reflected above
 ☐ Add P.U. as reflected above
 ☐ Other

I. AUTHENTICATION

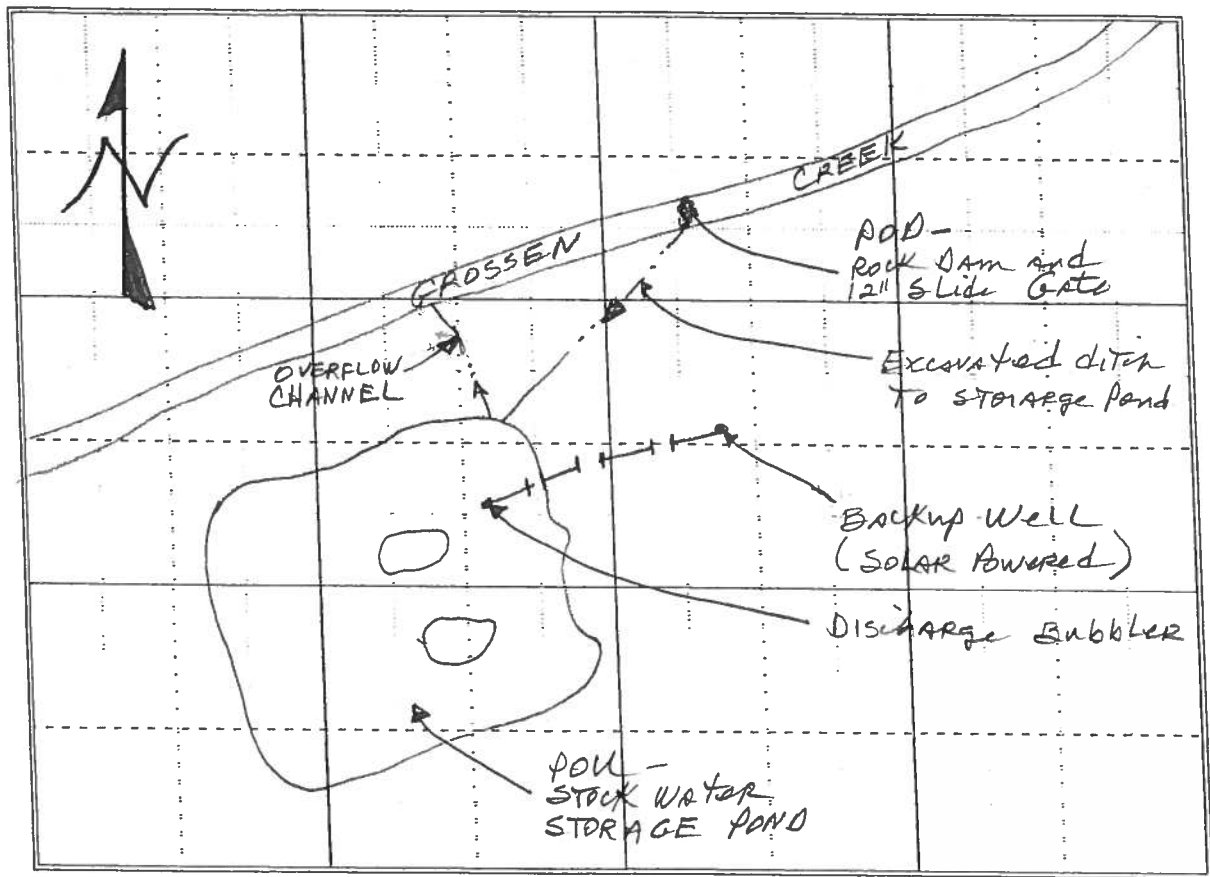
Field Examiner's Name Rick Collingwood Date 1/29/13
 Reviewer _____ Date _____

67-14975

BING AERIAL PHOTO - 2011



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

WELL DRILLER'S REPORT

859555

1. WELL TAG NO. D 0058948

Drilling Permit No. 910908-859555

Water right or injection well #

2. OWNER:

Name Tim Folke

Address P.O. Box 100

City Payette State Idaho Zip 83661

3. WELL LOCATION:

Twp. 16 North ☒ or South ☐ Rge. 1 East ☐ or West ☒

Sec. 11 1/4 NW 1/4 SW 1/4

Gov't Lot County Adams

Lat. 44 44.180 (Deg. and Decimal minutes)

Long. 116 25.750 (Deg. and Decimal minutes)

Address of Well Site TBA North end of Berkley .17 miles N

from 3rd Ave City Council

(Give at least name of road + Distance to Road or Landmark)

Lot. Blk. Sub. Name

4. USE:

☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection
☐ Other

5. TYPE OF WORK:

☒ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other

6. DRILL METHOD:

☒ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or cu ft)	Placement method/procedure
3/8 bentonite	0	48	1300	pour

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing	Liner	Threaded	Welded
6.625	1.25	100	250	steel	☒	☐	☐	☒

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 100

9. PERFORATIONS/SCREENS:

Perforations ☒ Y ☐ N Method cut off wheel

Manufactured screen ☐ Y ☒ N Type

Method of installation

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
81	99	.045	2	6.625	steel	250

Length of Headpipe Length of Tailpipe

Packer ☐ Y ☒ N Type

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method
3/8 washed	48	100	1.4 yds.3	shovel

11. FLOWING ARTESIAN:

Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG)

Describe control device

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) <10 ft. Static water level (ft) 20 ft.

Water temp. (°F) <65 Bottom hole temp. (°F) <65

Describe access port

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)
80	20	120

Test method:

Pump	Bailer	Alr	Flowing artesian
☐	☐	☒	☐

Water quality test or comments:

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water	
				Y	N
12.7	0	.7	soil		X
12.7	.7	5	clay & rocks		X
10	5	20	clay & cemented gravel	X	
10	20	41	clay		X
10	41	43	black silty clay and gravel	X	
10	43	46	gray-black clay		X
10	46	66	brown clay & lave & some gravel @		
----	----	61		X	
10	66	73	lighter gray clay		X
10	73	90	cemented gravel & clay		X
10	90	96	soft silty clay & gravel	X	
10	96	97	black sand	X	
10	97	98	black clay		X
10	98	100	black clay		X
6	100	110	black clay		X

RECEIVED

SCANNED

AUG 27 2010

AUG 27 2010

WATER RESOURCES
WESTERN REGION

Completed Depth (Measurable): 110

Date Started: 7-28-2010

Date Completed: 7-31-2010

14. DRILLER'S CERTIFICATION:

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Robert Dawson Drilling, Inc. Co. No. 589

*Principal Driller Date 8-26-2010

*Driller Date

*Operator II Date

Operator I Date

* Signature of Principal Driller and rig operator are required.

FIELD EXAM PHOTOS

Water Right Permit: 67-14975

Field Exam Date: 8-20-12

PLS: NW1/4, SW1/4 Section 11, T.16N, R.01W.

Field Examiner: RC



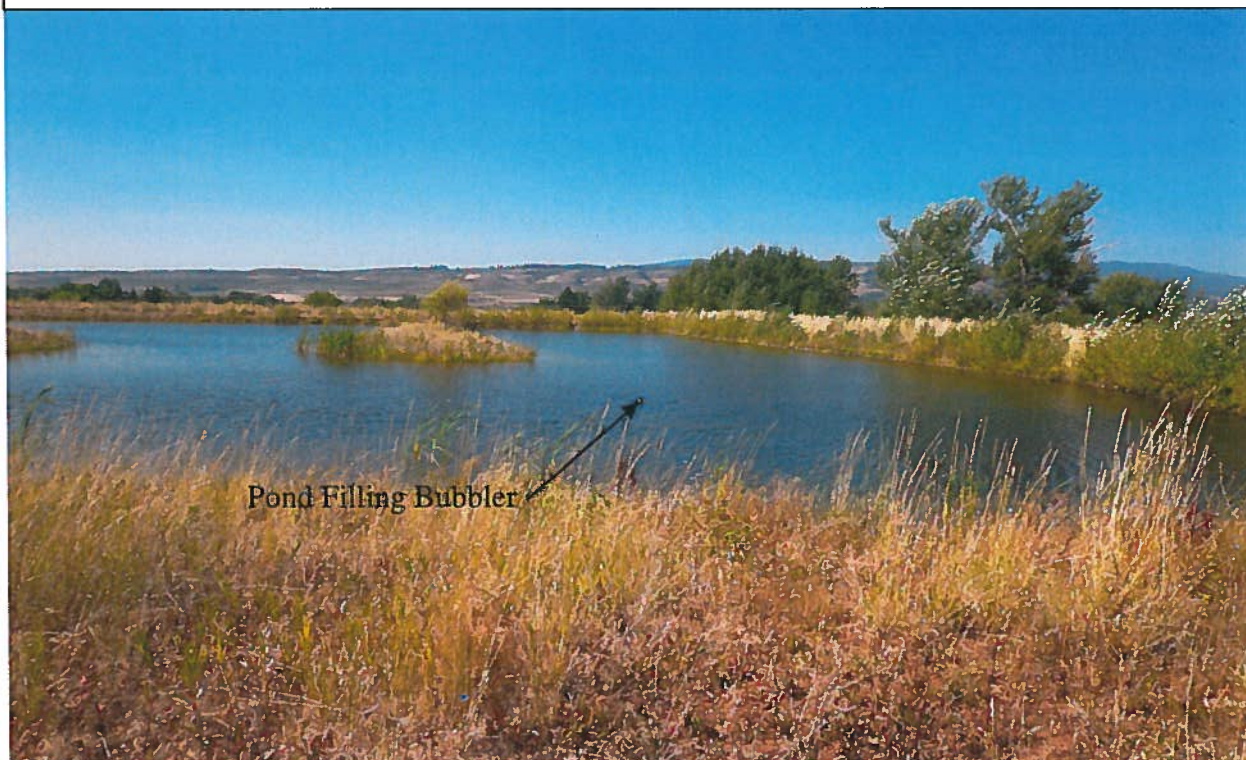
Point of Diversion: View southwesterly of rock dam diversion structure in Grossen Creek. A slide gate installed at the diversion structure is used to control the diversion rate to the pond and the downstream flows in Grossen Creek. Water is diverted in an excavated ditch to fill the stock water storage pond.



View upstream of rectangular weir in Grossen Creek.



Point of Diversion: View northeasterly of backup well and solar energy system to operate the well pump.



Place of Use: View southwesterly of stock water storage pond and pond filling bubbler. The backup well, when operating, pumps water to the pond which is discharged through a bubbler located between the pond bank and the westerly island.



View westerly of pond overflow channel to Grossen Creek.



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

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

August 13, 2012

Tim & Carolyn Folke
P.O. Box 100
Payette, ID 83661-0100

RE: Scheduling Field Exam for Water Right Permit No. 67-14975

Dear Mr. & Mrs. Folke:

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of August 20, 2012**. 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 from Grossen Creek for 5.0 AF of stock water storage for 16 head of cattle and horses.

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 August 17, 2012, to conduct the exam during the week of August 20, 2012.** 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.