

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 67-8010

Exam Date: 5/9/2013

1. Current Owner: LACEY RANCH
3165 GOODRICH RD
CAMBRIDGE ID 83610
(208)880-0789
2. Accompanied by: Art & Patty Lacey
Phone No: Same
Address: Same
Relationship to Permit Holder:

3. **SOURCE****TRIBUTARY**

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 67-7376
2. Other water rights with the same point of diversion: None

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

GROUND WATER

L4 NW1/4NW1/4

Sec. 4, Twp 14N, Rge 02W, B.M.

WASHINGTON County

Method of Determination: Arc Map (Aerial Photo); GPS – Latitude N.44°35.106', Longitude W.116°35.680'; Datum – NAVD83.

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	
14N	02W	4						20.0											20.0
								L 4											
14N	02W	5	13.2	0.6		27.2													41.0
			L1	L2															

Total Acres: 61

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>
D0000425	G.E.	50	Unknown	Unknown	60075743 ; 6"

*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>
N/A						

2. Measurements: No field measurement. McCrometer Flow Meter – 200 gpm when operating the wheel line with 27 sprinklers with 5/32" nozzles. Operating pressure (gauge) of 62 psi. Sprinkler discharge = 27 x 5.6 gpm = 153.0 gpm ~ 0.34 cfs.

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 50/200 + (2.31 \times 62) = 308.0/343.2 = 0.90 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.90 \text{ cfs} < 1.60 \text{ cfs } Q(\text{permit})$$

$$HP = 50$$

$$Z = 200' \text{ (Estimated)}$$

$$P = 62 \text{ psi}$$

Appears that the current pumping system cannot attain the permit diversion rate of 1.60 cfs. Even though only 61 acres is being irrigated, not 80 acres as indicated on the permit, the current pumping system is not capable of attaining a diversion rate of 1.22 cfs (61 acres x 0.02 cfs). Recommend the current pumping system capacity of ~~0.90~~ cfs.

0.90
RC
9/18/13

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 61.0 \times 4.0 = 244.0 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.90 \times 214 \times 1.9835 = 382.0 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 244.0 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A

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

A 50-hp vertical turbine pump diverts water from a ground water well to irrigate approximately 61.0 acres of crop land. Water is discharged through a 6" steel supply line to operate a wheel line and pivot irrigation systems. The 6" steel supply line increases to 8" to operate the pivot irrigation system. The ground water well provides supplemental irrigation water for irrigation of the 61.0 acres.

The primary source of irrigation water is surface water from the Cambridge Ditch Company. Surface water is diverted to a bubbler located south of Goodrich Road, and is pumped to the pivot and wheel line irrigation systems. The surface water is conveyed through an 8" steel supply line.

OVERLAP ANALYSIS:

Point of Diversion: There are no point of diversion overlaps.

Place of Use: Water Right Permit No. 67-8010 and Cambridge Ditch Company Water Right 67-7376 irrigate the same 61.0 acres, thus have overlapping places of use.

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

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	1.60	&/or	N/A
Beneficial Use Limit	1.22	&/or	N/A
System Measurement	0.90 (theoretical)	&/or	N/A
Proof Fee Amount	2.0	&/or	N/A
RECOMMENDED AMOUNT	0.90	&/or	N/A

H. RECOMMENDATIONS**1. Recommended Amounts**

BENEFICIAL USE	PERIOD OF USE	DIVERSION RATE	ANNUAL VOLUME
IRRIGATION	4/01 to 10/31	0.90 CFS	244.0 AFA
<u>Totals:</u>		0.90 CFS	244.0 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

PC 9/19/13

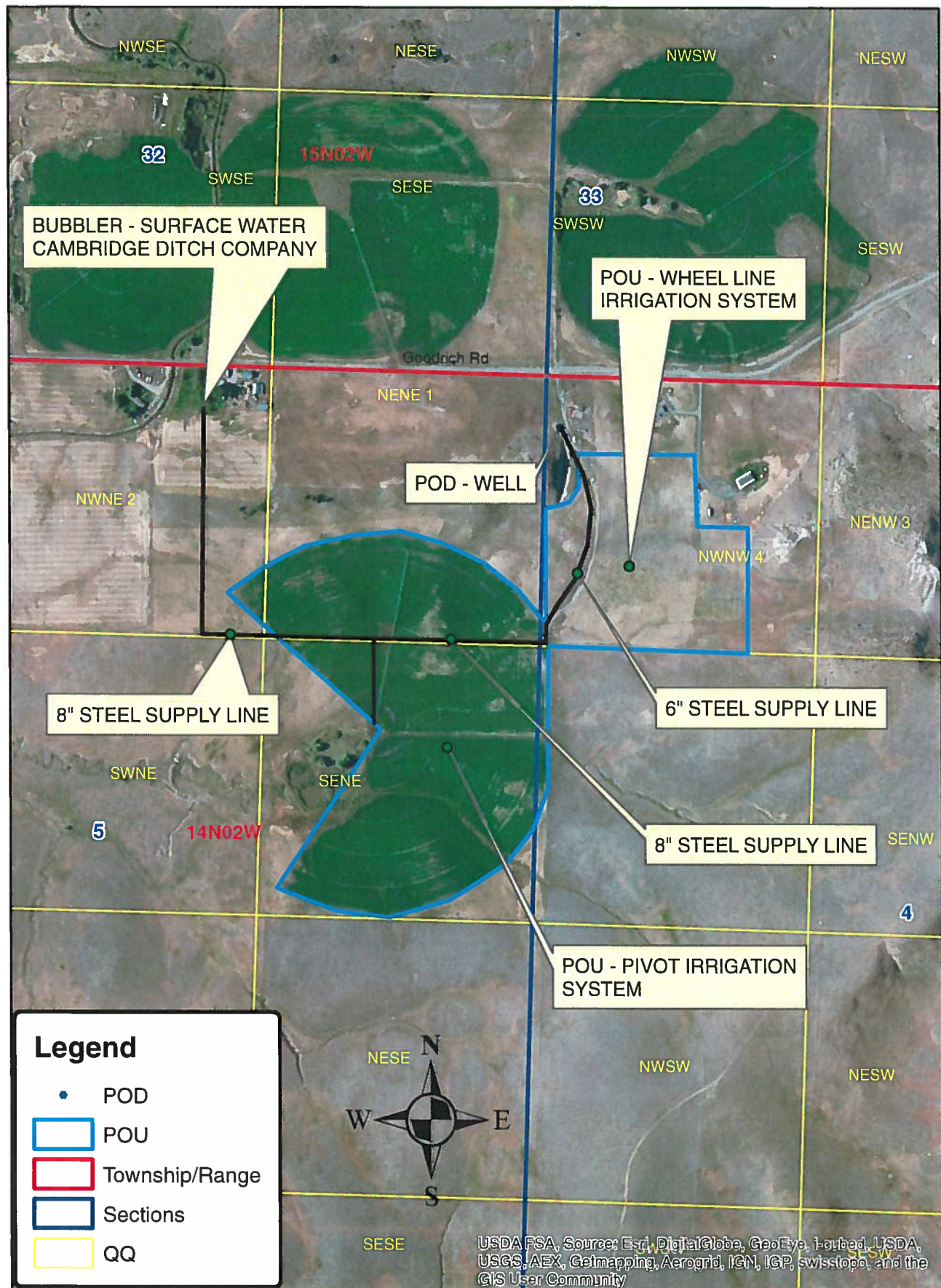
I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 9/10/13

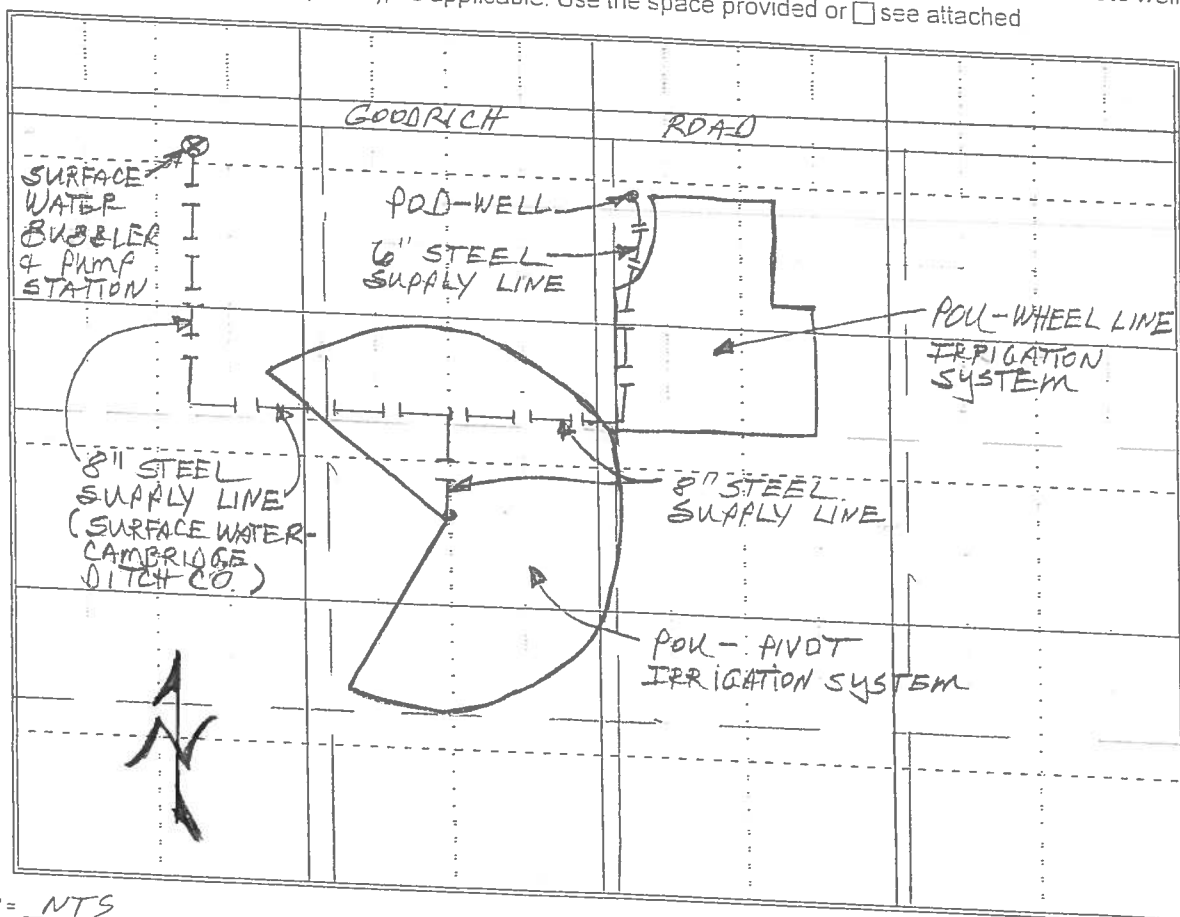
Reviewer _____ Date _____

67-8010
GOV'T. LOTS 1, 2, & 4

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

WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

94540

Office Use Only			
Inspected by _____			
Twp. _____	Rge. _____	Sec. _____	
_____ 1/4 _____ 1/4 _____ 1/4			
Lat: _____	_____	Long: _____	_____

1. DRILLING PERMIT NO. D.O.O.O.O. 425
Other IDWR No. 67-97-W-0077-0002. OWNER: Lacey Ranch & Construction
Name _____
Address 3167 Goodrich Rd
City Cambridge State Id Zip 83610

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

N		Twp. <u>14</u>		North ☒ or South ☐	
E		Rge. <u>92</u>		East ☐ or West ☒	
S		Sec. <u>4</u>		SE 1/4 NW 1/4 NW 1/4	
W		Gov't Lot _____		County <u>Cassia</u>	
		Lat: _____		Long: _____	
		Address of Well Site <u>1 1/2 miles E of F</u>		City <u>Cambridge</u>	
		Front <u>Pdwr Goodrich Rd</u>			
		(Give at least name of road + Distance to Road or Landmark)			

Lt. _____ Blk. _____ Sub. Name _____

4. USE:

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

5. TYPE OF WORK check all that apply (Replacement etc.)

☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD

☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK		AMOUNT		METHOD
Material	From	To	Sacks or Pounds	
Bentonite	0	66+	62 SKS	pour
Gravel	66+	80+	10 SKS	pour
Clay	80+	146		

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 146Was drive shoe seal tested? ☐ Y ☒ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
12.75	3	146	250	Steel	☒	☐	☒	☐
10.75	146.5	227.5	250	Steel	☐	☒	☒	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

☒ Perforations Method torch
☐ Screens Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
147	227.5	1/2" x 1/4"	1000	12.75	Steel	☐	☒
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

14 ft. below ground Artesian pressure _____ lb.

Depth flow encountered _____ ft. Describe access port or control devices: _____

11. WELL TESTS:

☐ Pump ☐ Bailor ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
400?	114	200	weeks

Water Temp. 65.2 Bottom hole temp. 65.2Water Quality test or comments: AGGRESSIVEDepth first Water Encountered 147

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
17	0	44	Hard Baker Clay		X
15	44	128	CLAY		X
15	128	140	Hard Baker Clay-Shale		X
14	140	146	Hard Baker Clay-Shale		X
11.68	146	147	Hard Baker Clay-Shale		X
	147	148	Broken Basalt	X	
	148	151	Hard Basalt		X
11.68	151	153	Broken Basalt	X	
	153	157	Hard Basalt		X
11.68	157	166	Broken Basalt	X	
	166	171	Hard Basalt		X
	171	177	Broken Basalt	X	
	177	179	Hard Basalt		X
11.68	179	188	Broken Basalt	X	
	188	195	Hard Basalt		X
	195	218	Broken Basalt	X	
11.68	218	227.5	Firm Basalt		X

C/R Concentric Shave on
Bottom of 10" Liner

RECEIVED

RECEIVED

FEB 04 1999

FEB 03 1999

MICROFILM

Department of Water Resources

WATER RESOURCES
WESTERN REGION

MAR 08 1999

Completed Depth 227.5 (Measurable)Date: Started July-August 98 Completed 1-24-99

13. DRILLER'S CERTIFICATION

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

Firm Name PDD, Inc Firm No. 589Firm Official Pat Damm Date 1-29-99

and _____

Supervisor or Operator _____ Date _____

(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

FIELD EXAM PHOTOS

Water Right Permit: 67-8010

Field Exam Date: 5-9-13

PLS: NW1/4, NW1/4 Section 4, T.14N, R.02W.

Field Examiner: RC



Point of Diversion: View westerly of the ground water irrigation well, 50-hp vertical turbine pump, and 6" steel supply line. The 6" steel supply line extends southerly to operate a pivot irrigation system and wheel line irrigation system.



View southerly of the 6" steel supply line extending over a small hill to the wheel line and pivot irrigation systems located at the southern end of the right holder's property.



Place of Use: View easterly of a wheel line irrigation system which is comprised of 27 Rainbird sprinklers with 5/32" nozzles. The wheel line irrigates a field located easterly of the 6" steel supply line.



Place of Use: View southwesterly of the pivot irrigation system and the field irrigated by the pivot system. The 6" steel supply line expands to 8" steel supply line to the pivot system.



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

September 19, 2013

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

LACEY RANCH
3165 GOODRICH RD
CAMBRIDGE ID 83610

RE: Water Right Permit No. 67-08010

Dear Permit Holders:

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,

A handwritten signature in black ink that reads "Kay Walker". The signature is written in a cursive, flowing style with a large loop at the end of the last name.

KAY WALKER
Sr. Water Resource Agent

Enclosures: Amendment Application & Layout



State of Idaho

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C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

April 10, 2013

Lacey Ranch
3167 Goodrich Road
Cambridge, ID 83610

RE: Scheduling Field Exam for Water Right Permit No. 67-8010

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of May 6, 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 1.60 cfs of ground water for irrigation of 80.0 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 3, 2013, to conduct the exam during the week of May 6, 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,

Rick Collingwood, P.E.
Water Resource Agent, Sr.