

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
IN-OFFICE REVIEW/BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 94-9348

Exam Date: 11/2/2015

1. Does this qualify for an in-office field exam (IDAPA 035.02.r)? ☒ Yes ☐ No
- a. Irrigation of 5 acres or less
- b. Storage of up to 14.6 AF for stockwater purposes only
- c. Any use other than irrigation or storage, if the combined diversion rate is 0.24 cfs or less
- d. ☒ Other – DOMESTIC

2. Current Owner: Name: Phil J Walker
- Owner-of-Record Correct? ☒ Yes ☐ No
- Address-of-Record Correct? ☒ Yes ☐ No
- If No: <Address>

3. Beneficial Use Fees have been paid: ☒ Yes ☐ No Receipt No: C101074

4. SOURCE**TRIBUTARY**

Spring

Sinks

Method of Determination: Applicant submitted photos of system going to residence along with aerial photography.

Change in Source: ☐ Yes ☒ No**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: Overlap? ☐ Yes ☒ No

Water Right No.	Source	Purpose of Use	Basis

Comments: No other water rights with same place of use. Water right 94-4070 is for domestic and 10 acres of irrigation in the QQ to the west (SWNW). 94-4070 has a 40 acre shapefile associated with the water right and overlaps slightly into this permits' QQ (SENW) but is not overlapping this permits' place of use.

2. Other water rights with the same point of diversion: Overlap? ☐ Yes ☒ No

Water Right No.	Source	Purpose of Use	Basis

Comments: No other water rights overlap this point of diversion.

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

Source	Govt. Lot	¼	¼	¼	Sec.	TWP	RGE		County
Spring		NW	SE	NW	33	48N	06E	B.M	Shoshone

Method of Determination: The legal description in the permit is validated by PLS data and aerial photography. In a conversation with Phil Walker on 11/02/2015, he confirmed the spring was located to the west of his house on his property.

Change in POD? ☐ Yes ☒ NoAmendment Required? ☐ Yes ☒ No

2. **LOCATION OF PLACE(S) OF USE:** Use: Domestic

TWP	RGE	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
48N	06E	33								D									

Method of Determination: The legal description in the permit is validated by PLS data and aerial photography.

Change in POU? ☐ Yes ☒ No

Amendment Required? ☐ Yes ☒ No

3.

☐ Delivery System Diagram Attached (required). Indicate all major components and distances between components.
Indicate weir size/pipe as applicable.

☒ Aerial Photo Attached (required for irrigation of 10+ acres).

☒ Photo of Diversion and System Attached

4. Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
		¾ HP (info from permit holder)			

*Code to correspond with No. on map and aerial photo

The Ellis operate a pump which diverts water from the river for an irrigation system.

D. **FLOW MEASUREMENTS**

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

2. Measurements: In-office field exam. No measurements taken

E. **FLOW CALCULATIONS**

☒ Additional Computation Sheets Attached

Standard = 0.04 cfs

Theoretical calculation 0.05 cfs

Permit allowed = 0.04 cfs

License recommended for 0.04 cfs.

F. **VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \underline{\quad} \times 3.0 = \underline{\quad} \text{ af}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = \underline{\quad} \times 200 \times 1.9835 = \underline{\quad}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = \underline{\quad}$$

Volume Calculations for Other Uses: N/A

This is a domestic use. According to processing memo #22, Domestic use for in house and yard irrigation can have up to 1.2 acre feet of annual water use. **I am recommending 1.2 af for this permit.**

G. PURPOSE OF USEIrrigation ☐ Yes ☒ No # Stock _____Domestic # of Homes 1 home

Other: < >

Change in Purpose of Use? ☐ Yes ☒ No

Method of Determination: Information in the water right file is consistent with aerial photography of the property.

If Yes: From Use _____ To Use _____ Amount _____ CFS _____ AFA _____

H. NARRATIVE/REMARKS/COMMENTS

Permit 94-9348 authorizes a diversion from a spring for domestic purposes including up to ½ acre of irrigation for the house. Due to the small amount of water being diverted, this permit qualifies for an in-office field exam.

A phone conversation with Phil Walker on 10/30/2015 and again on 11/02/2015 confirmed the details of this permit along with another permit (94-9345) that Mr. Walker submitted proof of beneficial use for. Mr. Walker submitted photos of the diversion and delivery system being constructed through completion at the place of use associated with this permit.

The diversion system is an excavated hole in the path of the spring with a corrugated pipe catching the spring water. A ¾ HP pump suspended in the corrugated pipe pumps the water approximately 150' east to the residence. A series of power options are available to run the pump along with drains to drain the system when needed.

Conditions- All three conditions (X01, 187, & 004) should be carried over to licensing.

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

I. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
Domestic	01/01-12/31	0.04 cfs	1.2 AF
	<u>Totals</u>	0.04 cfs	1.2 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

Other: < >

I. AUTHENTICATION – Steven Visosky, Water Resource Agent

Field Examiner's Name At V. [Signature] Date 11/02/2015

Reviewer Samela Skayff Date 11-03-2015

Attachment to in-house field exam report

94-9348

Map created by Steven Visosky
November 2, 2015

06E



-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters
-  Taxlots

0 0.0125 0.025 0.05 Miles



THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 95-9348
 Reviewer: Steven Visosky
 Date of Review: 10/30/2015

P/D No.:

PUMP HORSEPOWER
 BOOSTER HORSEPOWER

PUMPING LEVEL

DISCHARGE PRESSURE

RATE OF FLOW (cfs)

Well #1
0.75
0
5
30
0.06
28

Well #2
0.75
0
5
40
0.05
21

Well #3
0.75
0
5
50
0.04
17

0.05
22.13

The above calculates the formula =

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

Assumptions: %70 efficiency.
 No Friction

Examiners Notes:

Mr. Walker stated that his pump is a 3/4 HP pump with a lift of approximately five feet from the water level to the pump inside the corrugated pipe. Assuming average discharge pressures listed above for domestic use, a 3/4" HP pump could supply the 0.04cfs associated with this permit.