

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 37-22570
Exam Date: 3/17/2017

1. Current Owner:
STATE OF IDAHO DEPT OF PARKS & RECREATION
PO BOX 83720 BOISE ID 83720-0065 (208)334-4199
2. Accompanied by: Eric Whittekiend & Kent Aasa (IDWR Water Resource Agent)
Phone No: 208-837-4505
Address: Thousand Springs State Park
1074 E 2350 S
Hagerman, ID 83332
Relationship to Permit Holder: Idaho State Parks & Recreation Park Ranger

3. SOURCE:
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: N/A
2. Other water rights with the same point-of-diversion: 37-21449 (Domestic; 0.04 cfs used at shop) and 37-21450 (Domestic, 0.04 cfs used at residence for park ranger and family).

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

GROUND WATER SW¼NE¼ Sec. 35, Twp 06S, Rge 13E, B.M. GOODING County

Method of Determination: GPS measurement and on-site inspection; existing POD for water rights 37-21449 and 37-21450 also diverted from this is accurate and will be utilized.

2.

PLACE OF 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	
06S	13E	35			X											X			

Method of Determination: On-site inspection; Determined that existing permit POU shape needs to be enlarged slightly but remains within the legal description as described on the permit.

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

 x Indicate weir size/pipe as applicable.

 x Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

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

 x 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
No Tag		4		Unkown	

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

D. FLOW MEASUREMENTS: No measurement required per *IDAPA 37.03.02 Beneficial Use Examination Rules* as the permitted flow rate of 0.06 cfs falls below the 0.24 cfs or greater flow rate amount requiring measurement.

1.

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

2. Measurements: N/A

E. FLOW

Additional Computation Sheets Attached

CALCULATIONS

Theoretical yield:

$$Q = \frac{8.8 \times (Hp) \times (Eff)}{H}$$

Where: Hp = 4.0 Hp

Eff = efficiency = 70% assumed

H = total head = pumping level + (2.31 x system pressure)

pumping level of 188 feet (static water level per well driller's report)

assume system pressure of 40 psi

$$H = 188 + (40 \times 2.31) = 280.4$$

$$Q = \frac{8.8 \times 4 \times .70}{280.4} = 0.066 - \text{indicating well is capable of producing the permitted flow rate of 0.06 cfs.}$$

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: None - ½ acre of irrigation allowed under a domestic filling.

2. Volume Calculations for Other Uses: 7 campsites with an average use of 50 gallons per day (per field examiners handbook; spaces are typically occupied by a single seasonal worker) = 350 gallons per day (gpd).

If the 7 spaces were filled to capacity with up to 4 seasonal workers at a usage of 50 gpd that would = 1400 gpd.

G. NARRATIVE/REMARKS/COMMENTS

On 3/17/2017, Kent Aasa (IDWR Water Resource Agent) and I visited the Malad Gorge State Park to conduct this field exam. We met with Eric Whittekiend, an Idaho State Parks & Recreation Park Ranger that works at this park and the other seven local state parks considered part of the Thousand Springs State Parks complex.

Mr. Whittekiend told us that the campground was developed for use by seasonal employees. There are currently three completely developed campsites with hydrants and sewer and electrical hookups. However, there are three additional hydrants installed at the site and there is infrastructure available to develop additional hydrants. The plan was to complete all seven campsites (including sewer and electrical hookups) as indicated on the permit prior to filing proof of beneficial use, but budget constraints have slowed the development of the additional four campsites with hookups at the campground. Since, the infrastructure necessary to develop all seven sites is in place (could be considered "stubbed-in"), and the park management fully intends to develop all seven campsites, I'm recommending the current condition on the permit recognizing the domestic use is for seven campsites be retained on the license.

Mr. Whittekiend indicated the 4 Hp pump in the well was replaced in 2010 with a new 4 Hp pump, so the system is likely capable of delivering the requested flow rate of 0.06 cfs as indicated by the theoretical yield equation. The well also provides water for 2 additional domestic water rights. Water right 37-21449 provides 0.04 cfs to the shop for restrooms, a wash sink and an exterior hydrant. Water right 37-21450 provides 0.04 cfs to a residence for park rangers just north of the campground and shop.

Based on the maximum volume calculation of 1400 gpd in Part F. 2. of this report, it is likely that the volume of water that will actually be used, is and will remain below what is authorized under a domestic water right. The IDAPA 37.03.02 Beneficial Use Examination Rules state that domestic uses as defined under Section 42-111 of Idaho Code are exempt from a volume reporting requirement. Therefore, I will not be recommending a volume for the licensing of this permit.

Condition 01P, which indicates that upon specific notification, installation of a lockable device will be required, was removed from the license. This was done because de minimus uses are not regulated by the Watermaster of Water District 130. Condition 051, (trust water review) was updated to condition 933. All other conditions on the permit were retained on the license as permitted.

Recommend licensing of 0.06 cfs for domestic use.

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

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
DOMESTIC	01/01 to 12/31	0.06 CFS	N/A
<u>Totals:</u>		0.060 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

Field Examiner's Name  Date 4-13-2017
 Reviewer _____ Date _____



Figure 1: The three developed campsites (with picnic tables) with an additional hydrant in the foreground.



Figure 2: A better view of one of the developed campsites.



Figure 3: Pump house and well.

System Diagram

