

IN-OFFICE BENEFICIAL USE FIELD REPORT

Permit No: 67-15078

Examiner: A. Skinner

Date: 6/15/2017

In-office qualification (IDAPA 035.01.r):

- ☐ Irrigation ≤ 5 acres
☐ Stockwater storage ≤ 14.6 af
☒ Total diversion rate ≤ 0.24 cfs and not irrigation or storage

Current Owner Name: Howard Commers

Address: 7190 W. Baron Avenue, Boise, ID 83714

Beneficial Use Fee Paid: \$50.00

Receipt: W045357

Source: Spring

Source change? ☒ N ☐ Y Change clarifies originally intended source.
If not – void permit.

Point of Diversion			NE				NW				SW				SE			
Twp	Rge	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE
16N	02W	30														D		

Method of Determination: Aerial imagery and in-office visit with Mr. Commers.

POD change? ☒ N ☐ Y

Place of Use			NE				NW				SW				SE				Totals
Twp	Rge	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
16N	02W	30														D			

Method of Determination: Aerial imagery and in-office visit with Mr. Commers.

POU change? ☒ N ☐ Y

Purpose of Use: Domestic use for 1 home and guest living quarters.

Purpose change? ☒ N ☐ Y

Method of Determination: Aerial imagery and in-office visit with Mr. Commers.

Standard Season of Use: 01/01 - 12/31

Update required on license? ☒ N ☐ Y**Overlap Review**POD overlap? ☒ N ☐ Y WR's:Analysis Attached ☒ Comments:POU overlap? ☒ N ☐ Y WR's:

Comments:

Diversion Rate Permitted Rate: 0.04 cfs BU Standard Limit: 0.04 cfs
 BU Fee Limit: 0.20 cfs Theoretical (optional): cfs
Recommended Total Div Rate: 0.01 cfs

Annual Volume

For Irrigation: cfs x 1.9835 x days = af
 acres x af/ac (FHR) = af
 Smaller of two volumes = af

For other uses: Domestic use volume for one home was calculated through the diversion rate of the solar pump Mr. Commers has in place. The pump diverts water at 2.5 gpm. Therefore, the annual volume limit would be 1.4 AF.

$$V_{\text{p}} = 2.5 \text{ gpm} \times 60 \text{ min/hr} \times 3,081 \text{ hours of days light/yr} = 462,150 \text{ gallons. } 462,150 \text{ gallons} / 325,850 \text{ gallons/AF} = 1.4 \text{ AF}$$

$$V_{\text{p}} = 1 \text{ Home} @ 0.6 \text{ AF per Admin Memo \#22} + (\frac{1}{2} \text{ acre irrigation} \times 4.0 \text{ H.G.R.}) = 2.6 \text{ AF}$$

$$V = \text{Smaller of } V_{\text{p}} \text{ and } V_{\text{D}} = 1.4 \text{ AF}$$

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Recommended Amounts

Beneficial Use	Season of Use	Diversion Rate (cfs)	Annual Volume (af)
Domestic	01/01 - 12/31	0.01	1.4
Totals		0.01 cfs	1.4 af

Amendments Required

☐ Change P.D. ☐ Add P.D. ☒ None
☐ Change P.U. ☐ Add P.U. ☐ Other:

Conditions:

Conditions 26A and X01 were removed and forwarded to licensing. Condition R05 and 01P were forwarded to licensing. Condition 132 was added as an explanatory condition authorizing external irrigation for this right.

Have conditions of permit been met? ☒ Y ☐ N

Narrative:

Permit 67-15078 authorized the diversion rate of 0.04 cfs from spring water for domestic use purposes. Based on the small permitted diversion rate and POU, this qualifies for an in-office field exam as stated under IDAPA 37.03.02.035.01r. The exam was completed on June 15, 2017 by WRA Aaron Skinner.

System Description:

Water is diverted from the spring via an instream collection box. As the collection box fills, water is pumped through a 1/2" poly line 400' up the hill to a 1,700 gallon cistern. The pump is a variable solar pump that runs continuously as the sun shines between 12 -32 volts that draws 2.5 gpm at 2/3 capacity. Excess water not diverted to the cistern overflows at the collection box and continues down the creek and eventually dumps into Goodrich Creek. A 2" PVC pipe is attached to the cistern that gravity feeds water to a 3/4" hose spigot. Currently, a garden hose is attached to the spigot that supplies water to a trailer. When the trailer is not using water, sprinklers run continuously from the cistern to irrigate the surrounding hillside that is estimated to be a 60' X 100' area.

Diversion Rate and Volume:

The permit authorized a rate of 0.04 cfs, but Mr. Commers explained the solar pump is limited to 2.5 gpm and runs continuously as the sun shines. This would produce at rate of 0.006 cfs (2.5 gpm / 9 gpm = 0.2778 miner's inches. 0.2778 miner's inches X 0.02 cfs = 0.00556 or 0.006 cfs). The Department's minimum licensable rate is 0.01 cfs. So, 0.01 cfs will be recommended for licensing. A quick internet search suggests there is an average of 3,081 hours/year of sunshine in Boise, Idaho. This is the best guess I could obtain although the property is located in Adams County. At 2.5 gpm X 60 minutes/hour X 3,081 hours/year equals a yearly volume of 1.4 AF. **Therefore, the rate of 0.01 cfs and volume limit of 1.4 AF will be recommended for licensing.** A storage component for the cistern is not necessary as refill occurs within the 24 hour rule (2.5 gpm X 60 minutes = 150 gallons/hour; 150 gallons / 1700 gallons = 11.33 hours).

Overlap:

There are no POD or POU overlaps associated to this right.

Ownership:

The current taxlot data for Adams County shows the Commers as the parcel owner matching the permit.

Conditions:

Condition 26A was removed and not forwarded to licensing. Condition R05 was updated with "may" be regulated and forwarded to licensing. Condition 01P was forwarded to licensing. Condition X01 language was adjusted removing "and guest quarters" as there are not developed guest quarters and the condition was forwarded to licensing.

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Workflow

Exam Date Entered ☒
POU/POD shapes ☒
Combined Rights Entry ☐
Wild & Scenic Entry ☐
Draft License and Map ☒
FE Database (N: drive) ☒

Supporting Documents

Aerial Photograph ☒ Well Log ☐
POU/POD Map ☒ Diagrams ☒
LandSat ☐ Theoretical ☐
Photographs ☐ Other: ☐
Site Visit Date:

Authentication

Field Examiner's Name: Aaron Skinner Date: 6/15/17

Reviewer: Angela McGinnis Date: 6/20/17

System Diagram for Permit No. 67-15078



POD and POU for Permit No. 67-15078

NENW

NWNE

NENE

SENW

SWNE

SENE

30

NESW

16M03W

NWSE

NESE

SWSE

SESE

Legend

⊗ Point of Diversion

□ Place of Use

0 250 500 1,000 Feet

The USDA-FSA Aerial Photography Field office asks to be credited in derived products.

16N02W30

16NOZV30

Process

[illegible]