

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 43-7328
Exam Date: 6/10/2011

1. Current Owner: US DEPT OF INTERIOR
BUREAU OF LAND MANAGEMENT
15 E 200 S
BURLEY ID 83318
(208)677-6626

- | | |
|------------------|------------------|
| 3. <u>SOURCE</u> | <u>TRIBUTARY</u> |
| SPRING | SINKS |

B. OVERLAP REVIEW

- Other water rights with the same place of use: None
- Other water rights with the same point of diversion: None

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

SPRING NW1/4SW1/4SW1/4 Sec. 9, Twp 12S, Rge 26E, B.M.
CASSIA County

Method of Determination: Waypoints were collected with a Garmin GPS map 76S receiver and downloaded into an ArcMap shapefile that corresponds with 2009 aerial photography and verified the points of diversion to be in Twp 12S Rge 26E S 9 NWSWSW¼. See attached map.

2.

PLACE OF USE: STOCKWATER

Twp	Rge	Sec	NE				NW				SW				SE				
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
12S	26E	9								X				X					

WILDLIFE same as STOCKWATER

Method of Determination: Waypoints were collected with a Garmin GPS map 76S receiver and downloaded into an ArcMap shapefile that corresponds with 2009 aerial photography and verified the place of use to be in Twp 12S Rge 26E S 9 SWSW1/4 and SENW1/4. See attached map.

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					

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

D. FLOW MEASUREMENTS: No flow measurement possible

E. FLOW CALCULATIONS

_____Additional Computation Sheets Attached

Measured Method:

Hazen Williams Full Pipe Flow Calculation:

$$Q = 0.432 C_1 D^{2.63} S^{0.54}$$

Where:

C_1 = roughness coefficient

D = Diameter in feet

S = Slope

Using the data from the headbox to the storage tanks to calculate Q:

S = 10' elevation drop / 96' distance = 0.10

C_1 = 140 (coefficient for polyethylene)

D = 0.125' (1.5" polyethylene pipe)

Q = 0.07 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for Other Uses: Stockwater/Wildlife:

Stockwater:

875 Range Cattle at 12 gpd/head:

12 gpd/head x 875 head x 365 days / 325850 gallons/AF = 11.76 AFA

Wildlife:

30 mule deer (wildlife) at 12 gpd/mule deer:

12 gpd/head x 30 head x 365 days / 325850 gallons/AF = 0.4 AFA

G. NARRATIVE/REMARKS/COMMENTS

Permit 43-7328 is for 0.02 cfs stockwater and 0.01 cfs wildlife.

Application for permit 43-7328 submitted by US Dept of Interior/ Bureau of Land Management was filed on May 12, 2000, and proof of Beneficial Use was submitted March 29, 2001.

Existing system consists of a headbox at the spring that supplies water through a 1.5" polyethylene pipe over an approximate distance of 96' with an elevation drop of 10' to two storage tanks. The cylindrical storage tanks are both 4' in diameter x 6' tall and were filled to capacity. Water is delivered from the storage tanks to two troughs. The west trough is at a distance of approximately 41' from the tanks, with an elevation drop of 8', while the east trough is approximately 2375' (0.45 miles) from the tanks with an elevation drop of 395'. Both troughs were of similar design and dimensions (13.25' L x 2' W x 1.75' D). The water level in both troughs is regulated by a single float valve. On the day of the exam the east trough was empty, while the west trough was full. The headbox was completely overgrown by woody vegetation preventing access to potential water flow and possible flow measurement. The Hazen Williams Full Pipe Flow Calculation was utilized to obtain a potential rate of diversion.

No cattle were present at either trough on the day of the exam. I did flush several chukars at the west trough, but saw no other obvious signs of wildlife in the area. According to Jeremy Bisson, BLM Wildlife Biologist, the area is utilized by as many as 800 head of mule deer. I estimate use based on 30 deer potentially utilizing the trough on a daily basis. Steve Davis, BLM Hydrologist, stated the site is utilized by 875 range cattle.

Recommend permitting a rate of diversion of 0.02 cfs with annual volume of 11.76 afa for stockwater and 0.01 cfs with annual volume of 0.4 afa for wildlife.

Have conditions of permit approval been met? ☒ Yes ☐ N

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
WILDLIFE	1/01 to 12/31	0.010 CFS	0.4 AFA
STOCKWATER	1/01 to 12/31	0.020 CFS	11.76 AFA
<u>Totals:</u>		0.020 CFS	12.2 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

I. AUTHENTICATION

Field Examiner's Name

Date

Reviewer

Date

8/29/2011

8/30/2011



Figure 1: Headbox at spring and survey marker (field spring 8)



Figure 2: Storage Tanks and west trough



Figure 3: West trough



Figure 4: East trough

Permit 43-7328

