

[illegible]

Method of Determination: Place of use determined by using 2009 aerial photography, 2010 Bing Maps satellite imagery and 2009 Google Earth satellite imagery. Point of diversion appears to be in Twp 04S Rge 14E S 30 SWNE¼. See attached map.

3. ☒ 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

D. FLOW MEASUREMENTS N/A

E. FLOW CALCULATIONS N/A

F. VOLUME CALCULATIONS N/A

1. Volume Calculations for Other Uses: Stockwater Storage and Wildlife Storage:

Surface area of reservoir = 0.2 acres

Determined using 2009 aerial photography and 2010 satellite imagery in Arcmap.

Reservoir Capacity = **0.8 AF**

Determined using flat bottom reservoir equation from IDWR Field Examiners Handbook and information provided in permit application.
 (Capacity = Surface area x Maximum Depth)
 0.2 acres x 4.0 feet = 0.8 AF

Potential Stock and Wildlife Use:

((1445 range cattle x 12 gpd) + (1000 sheep x 2)) x 182 days / 325850 = 5.2 AF (Based on a potential 6 month grazing season)

30 wild ungulates x 12 gpd x 365 days / 325850 = 0.40 AF

Total: 5.2 AF + 0.40 AF = **5.6 AF**

G. NARRATIVE/REMARKS/COMMENTS

Permit 37-8926 is for stockwater storage and wildlife storage. Source is an unnamed stream and storage reservoir is referred to as Fork Reservoir.

Application for permit 37-8926 submitted by the US Dept of Interior, Bureau of Land Management was received on September 01, 2000 and proof of Beneficial Use was submitted the same day.

Fork Reservoir is located approximately 6.4 miles west and 8.5 miles north of the intersection of Hwy 26 and Hwy 46 in Gooding. Point of diversion and place of use are located in the SWSWNE¼ of Sec. 30, Twp 04S, Rge 14E. The reservoir is a small pit reservoir with a storage capacity of 0.8 acre feet that was constructed on an unnamed stream.

According to the application for permit, up to 1445 range cattle, 1000 sheep and varying numbers of wildlife use the water source. Precipitation deficit data from the University of Idaho ET website indicates a mean of 695 mm (2.28 AF) per acre for small stockwater ponds in the Magic Dam area. Based on the calculated surface area of 0.2 acres, this indicates that approximately 0.46 AF could potentially evaporate from the reservoir each year. Potential stock and wildlife use was calculated at 5.6 AF, far exceeding the 0.8 AF reservoir capacity. Calculations were based on stock numbers listed on the permit and a number of wild ungulates thought to represent the size of an average deer herd.

Overlap analysis indicates 37-18341, a BLM in-stream stockwater right is listed in the same tract, and provides stockwater directly from the stream and not the reservoir.

The application for permit requested 1.2 AF. As the reservoir has a storage capacity of 0.8 AF and a potential for evaporative loss of 0.46 AF, evaporative losses of 0.4 AF will be included in the recommended volume for a total of 1.2 AF.

Recommend permitting an annual volume of 1.2 AF.

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

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>ANNUAL VOLUME</u>
STOCKWATER STORAGE	01/01 to 12/31	1.20 AF
WILDLIFE STORAGE	01/01 to 12/31	1.20 AF
<u>Totals:</u>		1.20 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

I. AUTHENTICATION

Field Examiner's Name *Brian Mill* Date 2/8/2012

Reviewer *Chris Merin* Date 2/14/2012



Figure 1: Aerial photo of reservoir from the north looking southeast.

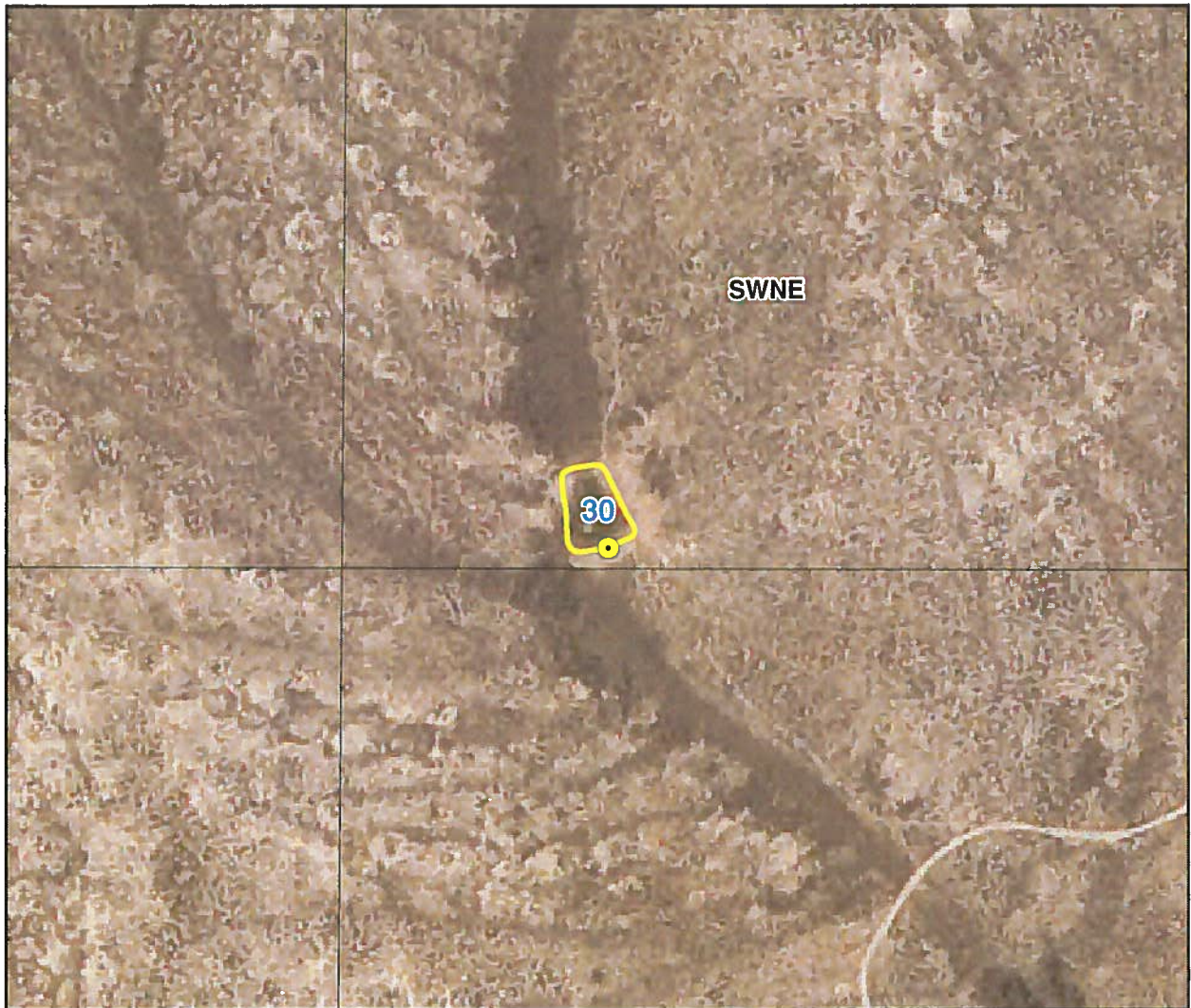
State of Idaho
Department of Water Resources
Water Right License

37-8926

Water Service Area Boundary for Us Dept Of Interior

R14E

T04S



0 0.03 0.06 0.12 Miles

● Point of Diversion

□ Place Of Use Boundary

□ Townships

□ PLS Sections

□ Quarter Quarters

