

[illegible]

Method of Determination: Aerial Photography Analysis

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

D./E. FLOW MEASUREMENTS/CALCULATIONSHazen-Williams Formula

$$V = 1.318 \times C_h \times R^{0.63} \times S^{0.54}$$

V = Velocity (ft/s)

C_h = Hazen-Williams Friction Coefficient

R = Hydraulic Radius = Cross Sectional Area / Wetted Perimeter

S = h/L = Slope of Energy Grade Line

For 1.25" old/plastic pipe: C_h = 130; For Delivery System: S = 0.06 w/ R = 0.05; => V = 5.39 ft/s & Q = 0.18 cfs**F. VOLUME CALCULATIONS**

Not required for 42-111 type domestic uses per new Beneficial Use Examination Rules implemented 3/29/2012. Stockwater use can be considered a "part a" domestic use (up to 13,000 gpd).

G. NARRATIVE/REMARKS/COMMENTS

Application for Permit 72-16623 was filed on April 22, 2002 by Alan Bittner on behalf of the Bureau of Land Management (BLM-USDI) to appropriate 0.02 CFS from Spring Gulch, tributary to Sinks, for Stockwater/Wildlife use within Custer County. The permit was approved on September 25, 2002 and Proof of Beneficial Use was filed on August 30, 2004. On September 11, 2012, while in the area, Corey Skinner (IDWR) and I visited the site to conduct a licensing exam for the permit.

A trough (approximate elev. 4919 ft) makes up the place of use (POU) and is located approximately 7.4 miles SE of Ellis, along HWY93, then north 0.7 miles on an unimproved road. The trough is served a culvert headbox (approximate elev. 4957 ft), within the stream channel, connected via approximately 665 ft of 1.25 in polyethylene pipeline. The pipe appeared to be full and flowing at the time of the field exam. Field measurements weren't possible or practical, so a theoretical flow measurement was substituted. Based on the theoretical calculations, it is recommended that the flow rate for this license be based on what was authorized under the permit (0.02 CFS).

Development occurred to facilitate use by current and future grazing allotment holders and provide water to surrounding wildlife. While visiting the site, both range cattle and big horn sheep were observed.

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>
STOCKWATER	01/01 to 12/31	0.020 CFS	
WILDLIFE	01/01 to 12/31	0.020 CFS	
<u>Totals:</u>		0.020 CFS	

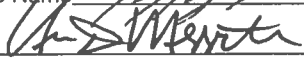
2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ X_None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name  Date 6/10/2014

Reviewer  Date 6/17/14

Photos of Diversion/POU



Figure 1. Point of Diversion (Culvert/Headbox) in Spring Gulch Creek Channel



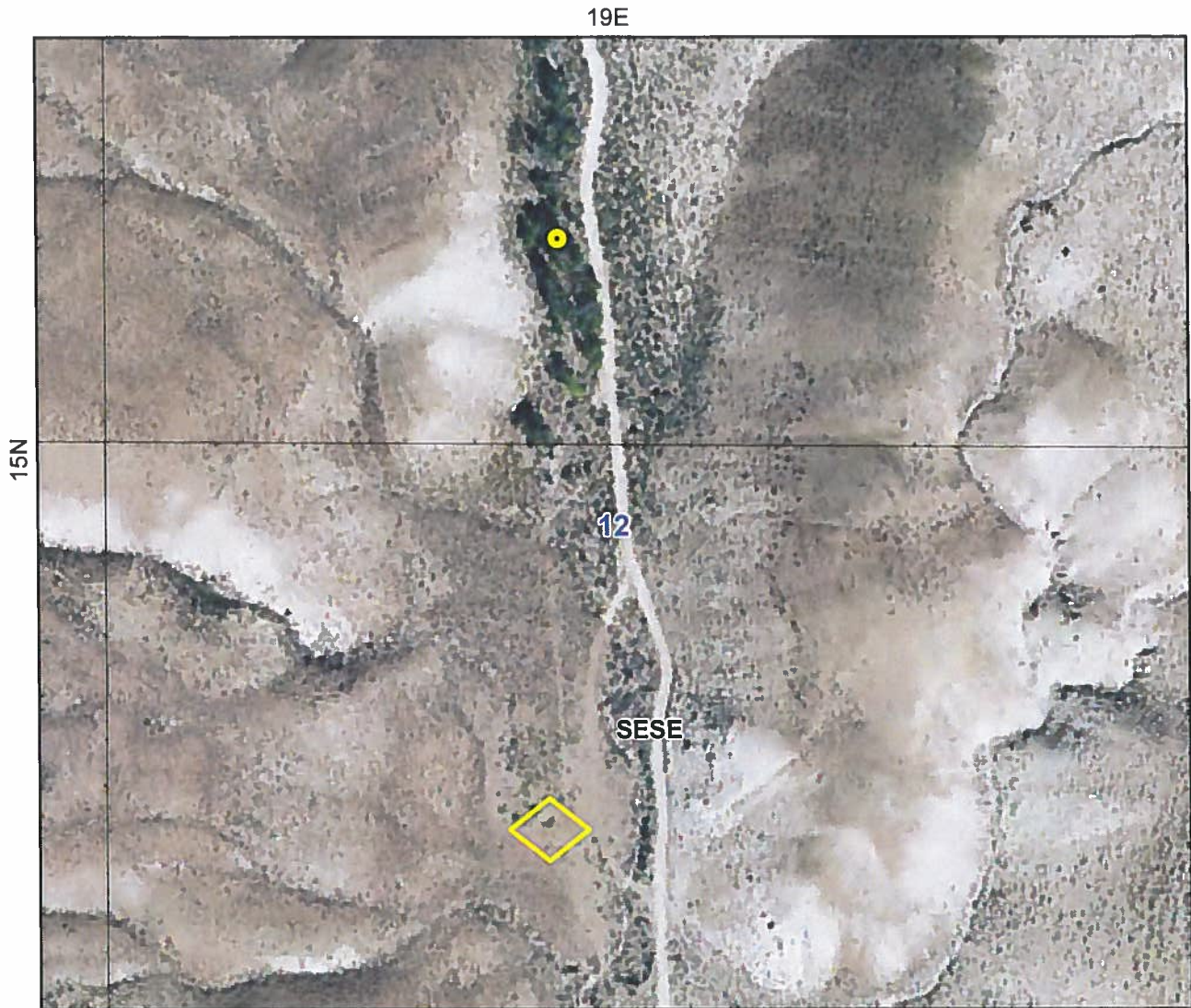
Figure 2. Place of Use: Trough

State of Idaho
Department of Water Resources

Attachment To Water Right License

72-16623

This map depicts the STOCKWATER and WILDLIFE place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.



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

0 0.025 0.05 0.1 Miles

A horizontal scale bar with tick marks at 0, 0.025, 0.05, and 0.1 miles.

