

[illegible]

## Method of Determination:

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 – Storage occurs in the natural channel**

**E. FLOW CALCULATIONS: N/A – Storage occurs in the natural channel**

**F. VOLUME CALCULATIONS**

1. Volume Calculations for Other Uses:

Surface Area of Reservoir = 0.2 acres      Determined using a Garmin 76S GPS & verified on 2011 aerial photography.

Reservoir Capacity = 0.4 AF      Determined using flat bottom reservoir equation from IDWR Field Examiners Handbook and measurements made in the field (Capacity = S. Area x Max Depth) => 0.2 acres x 2 feet = 0.4 AF.

Potential Stock and Wildlife Use:

(673 cattle x 12 gpd) x 182 days/ 325850 = 4.51 AF (Based on a potential 6 month grazing season)

Typical wildlife usage @ 30 head x 12 gpd x 365 days/ 325850 = 0.40 AF

Total: 4.51 AF + 0.40 AF = 4.91 AF

**G. NARRATIVE/REMARKS/COMMENTS**

Permit 45-13493 is for stockwater storage and wildlife storage. Source is an unnamed stream tributary to West Fork of Dry Creek in Cassia County.

Application for permit 45-13493 was submitted by the US Dept of Interior, Bureau of Land Management and was received on July 3, 2002. Proof of Beneficial Use was submitted on October 21, 2003. Due to a departmental error, a lapse notice was sent and ultimately the permit was reinstated by order on January 15, 2004.

Point of diversion and place of use are located in the NENENW of Sec.33, Twp 12S, Rge 19E. The impoundment is built within the natural channel of an Unnamed Stream, tributary to the West Fork of Dry Creek and has a capacity of 0.4 AF.

According to the application for permit, up to 673 range cattle and an unspecified number wildlife utilize the impoundment. Precipitation deficit data from the University of Idaho ET website indicates a mean of 682 mm (2.24 AF) per acre for shallow open water in the Oakley area. Based on the calculated surface area of 0.2 acres, this indicates that approximately 0.45 AF could potentially evaporate from the reservoir each year. Potential stock and wildlife use was calculated at 4.91 AF, far exceeding the 0.4 AF reservoir capacity. Calculations were based on stock numbers listed on the permit and a number of wildlife thought to represent the size of an average wildlife herd. Range cattle were present at the time of the field exam and evidence that wildlife had been utilizing the impoundment was sufficient (tracks, droppings, sheds).

Due to the nature and location of the impoundment, except in times of extreme high flow, it is unlikely that flow from this unnamed stream would affect downstream deliveries in the Dry Creek drainage. Because of this, it is recommended that water district conditions be omitted from the license.

Recommend permitting an annual volume of 0.4 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> |
|-----------------------|----------------------|----------------------|
| WILDLIFE              | 01/01 to 12/31       | 0.40 AF              |
| STOCKWATER            | 01/01 to 12/3        | 0.40 AF              |
| <u>Totals:</u>        |                      | 0.40 AF              |

**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 2/24/2012

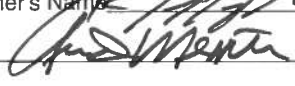
Reviewer  Date 2/24/2012



**Figure 1.** View of impoundment from the east (6/22/2011).



**Figure 2.** Close view of impoundment facing NW (6/22/2011).



**Figure 3.** View of impoundment from the west, evidence of use by range cattle (6/22/2011).



**Figure 4.** Evidence of wildlife usage found near the impoundment (6/22/2011).

State of Idaho  
Department of Water Resources  
**Water Right License**  
45-13493  
Water Service Area Boundary for USDI - BLM



0 0.02 0.04 0.08 Miles

-  Point of Diversion
-  Wildlife & Stockwater Storage
-  Townships
-  PLS Sections
-  Quarter Quarters

