

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 37-8929

Exam Date: 12/23/2011

1. Current Owner: US DEPT OF INTERIOR
BUREAU OF LAND MANAGEMENT
400 WEST F ST
SHOSHONE ID 83352
(208)732-7200

2. **SOURCE**

UNNAMED STREAM

TRIBUTARY

THORN CREEK

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 37-18853; in-stream stockwater claim and recommendation.
2. Other water rights with the same point of diversion: None

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

UNNAMED STREAM

L3 SW1/4NW1/4SW1/4

Sec. 18, Twp 04S, Rge 16E, B.M.

GOODING 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 point of diversion to be in Twp 04S Rge 16E S 18 SWNWSW¼. See attached map.

2.

PLACE OF USE: WILDLIFE STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
04S	16E	18	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
												X							
												L 3							

PLACE OF USE: STOCKWATER STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
04S	16E	18	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
												X							
												L 3							

Method of Determination: Tracks 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 04S Rge 16E S 18 NWSW¼. 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

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

Surface area of reservoir = 0.24 acres

Determined using 2009 aerial photography and 2010 satellite imagery in Arcmap, and dimensions provided by the BLM in permit application.

Reservoir Capacity = 0.6 AF

Determined using flat bottom reservoir equation from IDWR Field Examiners Handbook and information provided in permit application.
(Capacity = Surface area x Maximum Depth)
0.24 acres x 2.5 feet = 0.6 AF

Potential Stock and Wildlife Use:

(720 cattle x 12 gpd) x 275 days/ 325850 = 7.3 AF (Based on a potential 9 month grazing season)

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

Total: 7.3 AF + 0.40 AF = 7.7 AF

G. NARRATIVE/REMARKS/COMMENTS

Permit 37-8929 is for stockwater storage and wildlife storage. Source is an unnamed stream and storage reservoir is referred to as Good Luck Reservoir.

Application for permit 37-8929 submitted by the US Dept of Interior, Bureau of Land Management was received on September 20, 2000 and proof of Beneficial Use was submitted on February 23, 2001.

Good Luck Reservoir is located approximately 8.7 miles north and 5.1 miles east of Gooding. Point of diversion and place of use are located in the SWNWSW¼ of Sec. 18, Twp 04S, Rge 16E. Ephemeral runoff flows/seeps from an unnamed stream and collects in a small basin with a manmade embankment to capture the run off. Reservoir capacity is estimated to be 0.6 acre feet.

According to Clare Josaitis, BLM Rangeland Management Specialist, up to 720 cattle and varying numbers of wildlife use the water source. As this is a small desert reservoir that captures ephemeral flows from spring snow melt and runoff from storms, water is likely to be present in reservoir from spring into midsummer and after major rain events. 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 0.24 acres, this indicates that approximately 0.55 AF could potentially evaporate from the reservoir each year. Where the permit for this reservoir is for wildlife and stockwater storage with no measurable flow rate, it should suffice to indicate that beneficial use is established by livestock and wildlife use, regardless of numbers and potential consumption rates. However, I did

calculate numbers using those provided by the BLM and an assumed average of 30 ungulates for wildlife. Based on those numbers, the potential for water consumption by livestock and wildlife was estimated to be 7.7 AF, which exceeds the reservoirs capacity. There was evidence of use by range cattle and deer at the reservoir on the date of the field exam.

The application for permit requested 1.49 AF which was based on a much larger reservoir with a surface area of 0.60 acres rather than the actual constructed reservoir with a surface area of 0.24 acres at maximum capacity. Evaporative losses of 0.55 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>
WILDLIFE STORAGE	01/01 to 12/31	1.2 AF
STOCKWATER STORAGE	01/01 to 12/31	1.2 AF
<u>Totals:</u>		1.2 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

Date

Reviewer

Date

12/30/2011

1/6/2012



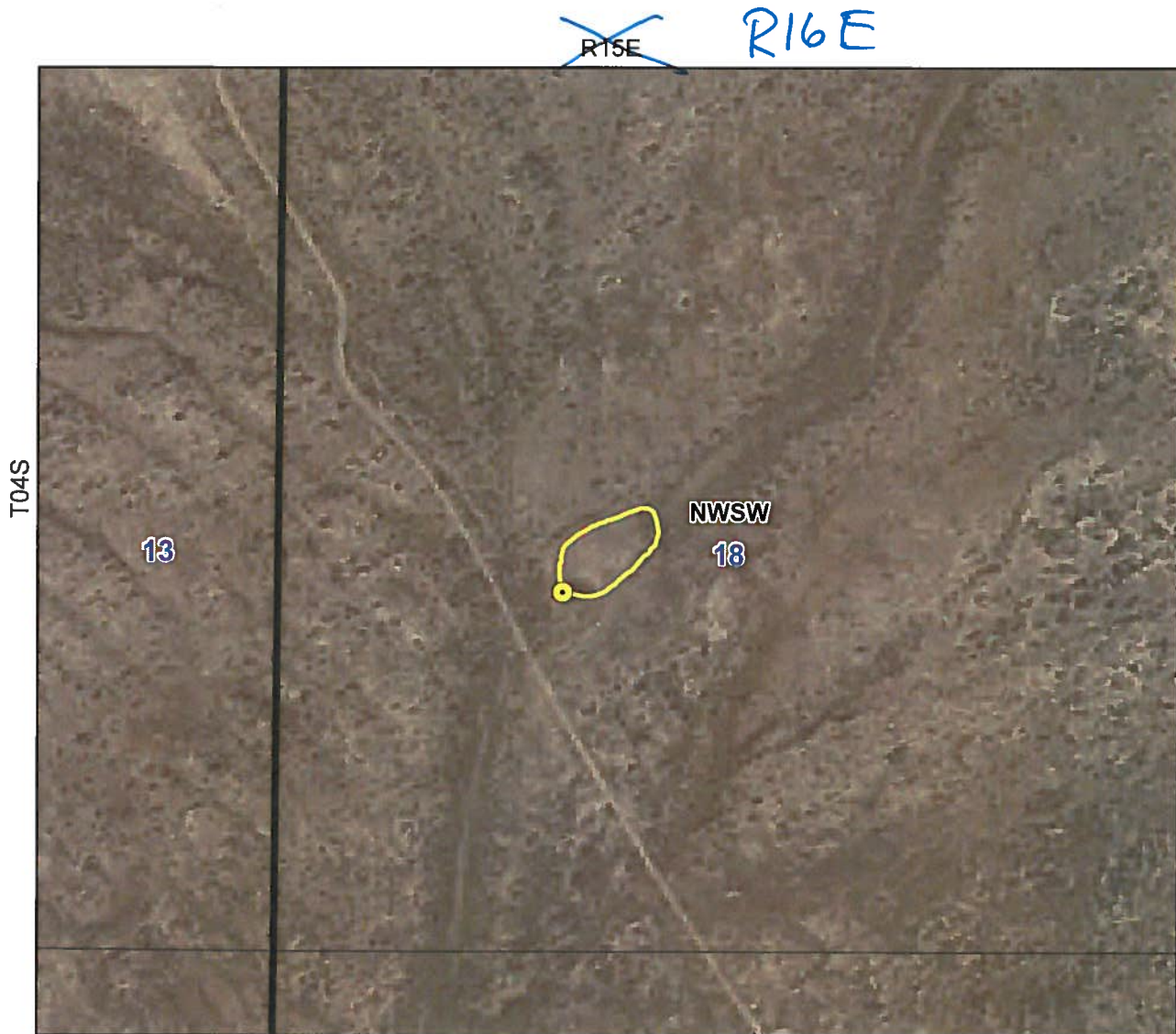
Figure 1: Good Luck Reservoir view from southeast.



Figure 2: View of Good Luck from the east while standing in the wash.

State of Idaho
Department of Water Resources
Water Right License
37-8929

Water Service Area Boundary for Us Dept Of Interior



0 0.03 0.06 0.12 Miles

● Point of Diversion

□ Place Of Use Boundary

□ Townships

□ PLS Sections

□ Quarter Quarters





MICROFILMED
APR 11 2001

Good Luck Reservoir