

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 37-8904

Exam Date: 10/22/2010

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

3. SOURCE

UNNAMED STREAM

TRIBUTARY

SINKS

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point of diversion: None

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

UNNAMED STREAM

NE1/4SW1/4SW1/4

Sec. 11, Twp 02S, Rge 17E, B.M.

CAMAS County

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 pond to be in Twp 02S Rge 17E S 11 NESWSW ¼. See attached map.

2.

PLACE OF USE: STOCKWATER STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
02S	17E	11											X						

WILDLIFE STORAGE same as STOCKWATER STORAGE

Method of Determination:

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.

Well or Diversion N/A

<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 Size</u>
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D. FLOW MEASUREMENTS N/A

Measurements: N/A

E. FLOW CALCULATIONS N/A

Measured Method: N/A

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: **N/A**
2. Volume Calculations for Other Uses: Stockwater/Wildlife storage

Surface area of reservoir = 0.1 acres

Determined by downloading tracks into ArcMap shapefile and utilizing calculate acres tool

Reservoir Capacity = 0.17 AF

Determined using v-shaped reservoir equation from IDWR Field Examiners Handbook
 (Capacity = Surface Area x Maximum Depth X 0.4)
 Maximum Depth determined to be 4.16 ft using elevation survey.
 $0.1 \times 4.13 \times 0.4 = 0.1652$ AF

G. NARRATIVE/REMARKS/COMMENTS

Permit 37-8904 is for stockwater/wildlife storage from unnamed stream and reservoir referred to as Prairie Reservoir #2.

Application for permit 37-8904 submitted by the US Dept of Interior, Bureau of Land Management was received May 16, 2000 and proof of Beneficial Use was submitted June 26, 2000.

The reservoir is located approximately 0.51 miles south of the West Shore Subdivision at Magic Reservoir. Point of Diversion and place of use is located in the NESWSW ¼ of Sec. 11, Twp 02S, Rge 17E. Small stream from spring runoff flows south to north approximately 20 ft into a natural depression that contains a 4.8 ft embankment on the north side to retain the runoff. Spillway located on NW side approximately 4.1 ft above lowest point in holding reservoir. Reservoir capacity measures 0.17 AF per v-shaped reservoir equation ($C = \text{Surface Area} \times \text{Maximum Depth} \times 0.4$). Surface area determined by

loading tracks taken from a Garmin GPS Map 76S receiver into an ArcMap shapefile and using calculate acres tool. An elevation survey revealed pond depth from spillway to lowest point to be 4.13 ft. See Figure 3 for graphical representation of survey. Direct measurement of flow was not feasible as stream and reservoir were dry on the exam date. I have dropped the stockwater from storage and wildlife from storage components from the application, as there are no diversions from the reservoir.

According to Clare Josaitis, Rangeland Management Specialist, BLM Shoshone Field Office, there are between 300 – 400 cattle that range on that "pasture". Using an average of 350 cattle and assuming that each cow will consume approximately 12 gallons per day over 365 days, yields a potential stockwater requirement of 4.7 AF. 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 0.1 acres, indicating approximately 0.23 AF could potentially evaporate from the pond each year.

The pond indicated extensive use by cattle as hoof prints were clearly visible over the entire surface of the dry pond and channel as well as ample droppings present in the area.

Recommend the permitted amount 0.2 AF for stockwater/wildlife storage.

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 STORAGE	1/01 to 12/31		0.2 AF
WILDLIFE STORAGE	1/01 to 12/31		0.2 AF
<u>Totals:</u>			0.2 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: *Mark E. Mill* Date: 11/29/2010

Reviewer: *John M. Miller* Date: 11/29/2010

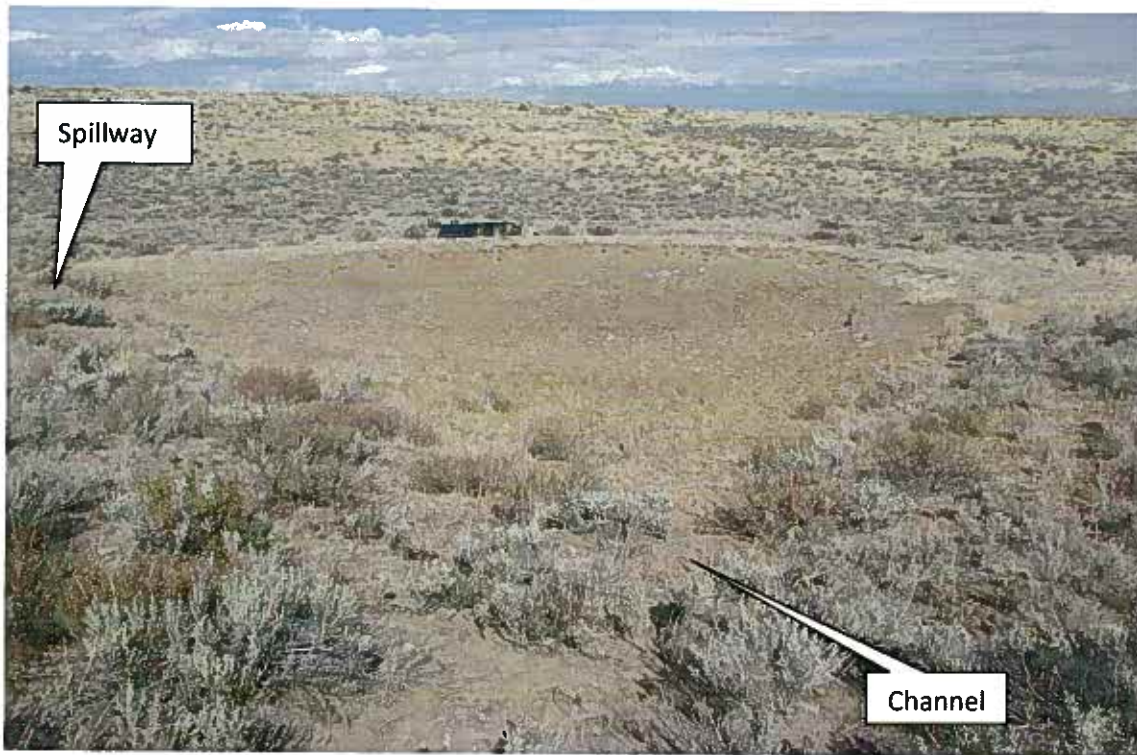


Figure 1: Prairie Reservoir #2. Photo from south side, above stream facing embankment on north side.



Figure 2: Picture of Spillway from south side. Arrows demonstrate path of flow.

Prairie Reservoir #2

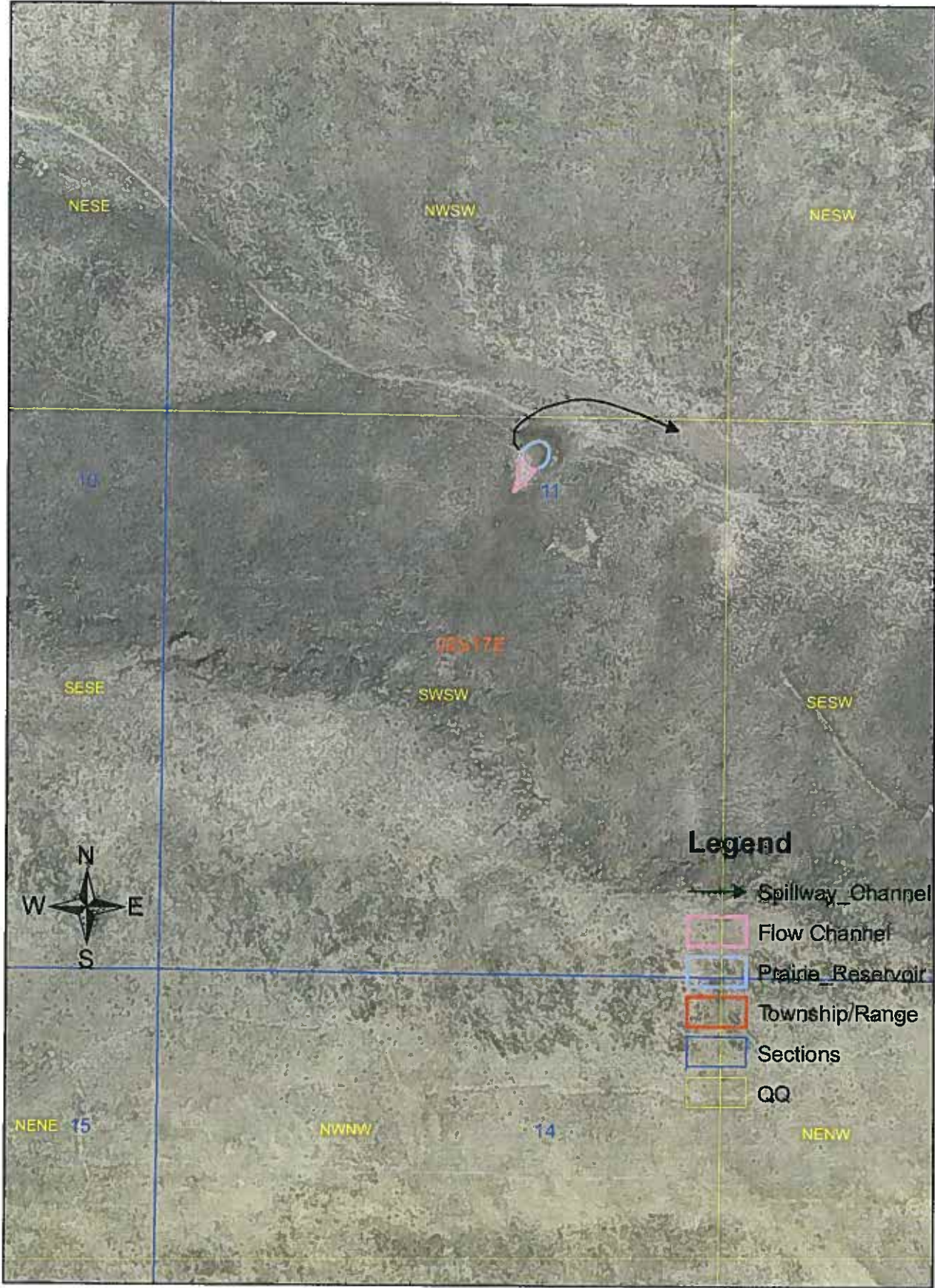


Figure 3:
Prairie Reservoir #2 (37-8904)

