

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 37-8569
Exam Date: 6/21/2012

1. Current Owner: AUBREY SPRING RANCH LLC

~~8836 N HESS ST STE B~~
~~HAYDEN ID 83333~~
~~(208) 762-5584~~

2. Accompanied by: Stephen Barnard

Phone No: (650) 644-9516

Address: 130 Treasure Lane, Hailey ID 83333

Relationship to Permit Holder: Current Owner

3. SOURCE

UNNAMED DRAIN

TRIBUTARY

LOVING CREEK

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 37-349; 37-348; 37-350; 37-1071A; 37-1093; and 37-8571.
2. Other water rights with the same point of diversion: None

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

UNNAMED DRAIN	SE1/4NE1/4SE1/4	Sec. 14, Twp 01S, Rge 19E, B.M.
BLAINE County		
UNNAMED DRAIN	NE1/4NE1/4SE1/4	Sec. 14, Twp 01S, Rge 19E, B.M.
BLAINE County		

Method of Determination: Waypoints were collected with a Garmin GPSmap 60CSx receiver and downloaded into an ArcMap shapefile that corresponds with 2009 and 2011 aerial photography and verified the points of diversion are located as recorded. See attached map.

2.

PLACE OF USE: WILDLIFE STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
01S	19E	13										X							
01S	19E	14				X									X				

Method of Determination: Tracks were collected with a Garmin GPSmap 60CSx receiver and downloaded into an ArcMap shapefile that corresponds with 2009 and 2011 aerial photography and verified the place of use is located as recorded. See attached map.

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.

<u>Well or Diversion</u> <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</u> <u>Size</u>
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N/A

D. FLOW MEASUREMENTS N/A**E. FLOW CALCULATIONS N/A**

_____ Additional Computation Sheets Attached

Measured Method:

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$$

2. Volume Calculations for Other Uses: Wildlife:

Surface area of ponds = **1.1 acres**Determined using 2009 and 2011 aerial photography
And 2010 satellite imagery in Arcmap.Capacity of ponds = **6.6 AF**Determined using flat bottom reservoir equation from
IDWR Field Examiners Handbook and information
provided in permit application.
(Capacity = Surface area x Maximum Depth)
1.1 acres x 6 feet = 6.6 AF**G. NARRATIVE/REMARKS/COMMENTS**

Application for permit was submitted by William A. McMahan on 10/12/1989 and proof of beneficial use was submitted 9/28/1993. Permit was assigned to Aubrey Spring Ranch LLC on October 16, 1996.

This permit was originally filed for 2.0 cfs of water from an unnamed drain source. After reviewing the application material it was clear that the intent was to create on stream pond storage to provide habitat for non-commercial fish propagation and habitat for waterfowl and other wildlife. The permit was amended to change it to wildlife storage with a volume component. This can be accomplished without potential for enlargement because changing it from a flow rate to a volume reduces the volume of water licensed for this storage system. Licensing this permit at the requested flow rate of 2.0 cfs would have provided a yearly volume of 1447.9 AFA. Licensing the ponds with a storage volume instead of a flow rate provides for storage in the ponds and evaporative losses which was determined to be approximately 8.2 AFA.

In the time that has elapsed since the original application for permit was filed, irrigation practices on the Aubrey Spring Ranch have changed. The drains that were constructed to remove the shallow surface water have been completely filled in except for

the ponds. A well was constructed and ground water has been diverted from that source, under permit 37-8571, to provide flow through the ponds.

Although the well provides flow through the ponds, the majority of storage water in this system is still likely due to the same source, shallow surface water. During this year's irrigation season the owner excavated a pit approximately 50' north of the ponds to allow access to buried irrigation pipes and the water level in the pit rose to within 18" of the ground level. Regardless, this system was originally developed with the unnamed drain as its source and should be licensed as developed.

It was determined during the field exam that the average depth of the ponds was 6' and surface area was calculated at 1.1 acres using aerial and satellite imagery in ArcMap, yielding a total volume of 6.6 AF. Precipitation deficit data from the University of Idaho ET website indicates a mean of 443 mm (1.45 AF) per acre for small stockwater ponds in the Picabo area. Based on the calculated surface area of 1.1 acres, this indicates that approximately 1.6 AF could potentially evaporate from the ponds each year. Combining 6.6 AF storage and 1.6 AF for evaporative losses yields a volume of 8.2 AFA.

This permit overlaps with permit 37-8571, wildlife that provides 5.0 cfs flow to ponds, and will be forwarded for licensing with this permit. The following rights appear to be historical irrigation rights that overlap with the place of use, research indicates none were renumbered or split and/or were claimed in the SRBA: 37-349; 37-348; 37-350; 37-1071A; and 37-1093.

Recommend licensing Wildlife Storage with a volume of 8.2 AFA.

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

H. RECOMMENDATIONS

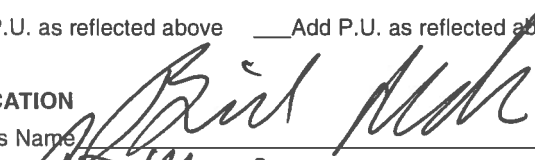
1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
WILDLIFE STORAGE	01/01 to 12/31		8.20 AF
<u>Totals:</u>			8.20 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  Date 10/22/12
 Reviewer  Date 10/26/12

Attachment 1: System Diagram:

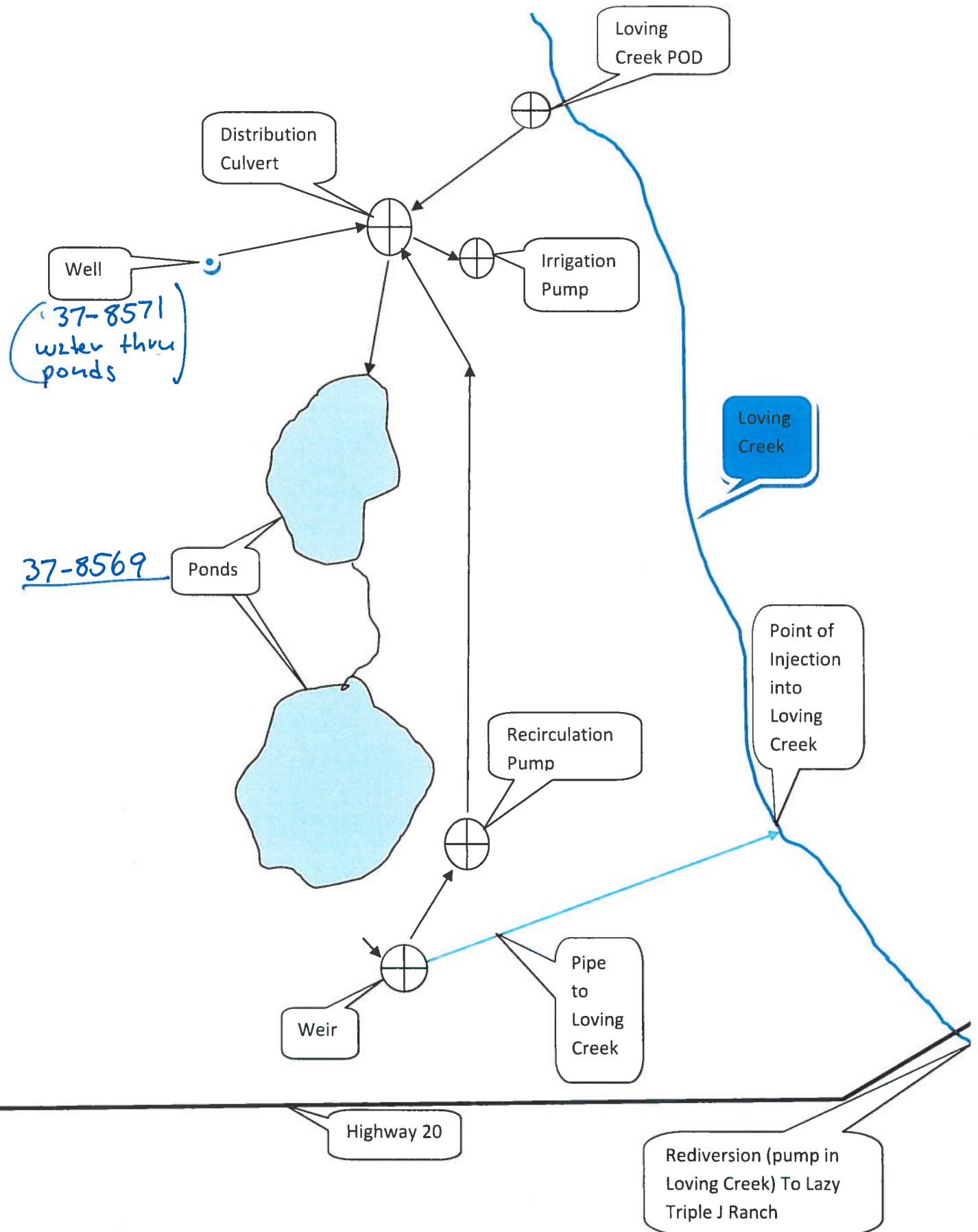




Figure 1: North pond from the northwest



Figure 2: South pond from the southeast

State of Idaho
Department of Water Resources

Attachment To Water Right License

37-8569

This map depicts the WILDLIFE STORAGE 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.

R19E



0 0.05 0.1 0.2 Miles

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

