

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 75-7354

Exam Date: 10/3/2012

1. Current Owner: ROY BOSSERT
23 BOSSERT RD
SALMON ID 83467
(208)756-2875
2. Accompanied by: n/a
Phone No:
Address:
Relationship to Permit Holder:

3. SOURCE

SPRING

TRIBUTARY

SINKS

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 75-7088
2. Other water rights with the same point of diversion: none

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

SPRING L5 NE1/4SW1/4NW1/4 Sec. 9, Twp 20N, Rge 22E, B.M. LEMHI County

Method of Determination: GPS and site inspection

2.

PLACE OF USE: DOMESTIC

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
20N	22E	9							X L 5										

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
20N	22E	9						0.8 L 4	2.1 L 5										2.9

Total Acres: 2.9

Method of Determination: GPS, aerial photography and field exam

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 ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
None					

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
none						

2. Measurements:

X Additional Computation Sheets Attached

Measured Method:

Irrigation:

A theoretical calculation found 0.09 cfs

2.9 acres X 0.03 = 0.09 cfs for irrigation

Recommended Rate 0.09 cfs

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 2.9 \times 3.5 = 10.1$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.09 \times 214 \times 1.9835 = 38.2$$

$$V = \text{Smaller of } V_{LB} \text{ and } V_{DB} = 10.1 \text{ AF for irrigation}$$

2. Volume Calculations for Other Uses: na

G. NARRATIVE/REMARKS/COMMENTS

A spring located in T20N R22E Section 9 SWNW Lot 5 provides irrigation for 2.5 acres in the NWNW (L4) and SWNW (L5) of section 9. The spring sits on a hill near the upper irrigated yard. From the spring box a 2 inch pipe carries water approximately 22 feet downhill to the lower yard. Sprinklers and open discharge pipe irrigate the land surrounding the house.

See attached memo

Have conditions of permit approval been met? X Yes No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>
IRRIGATION	04/01 to 10/31	0.09 CFS
DOMESTIC	01/01 to 12/31	0.02 CFS

Totals: 0.090 CFS

2. Recommended Amendments

X 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 - add domestic use

I. AUTHENTICATION

Field Examiner's Name Shirley M. Hall Date 10/25/2016

Reviewer _____ Date _____

State of Idaho
Department of Water Resources
Water Right License
75-7354

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



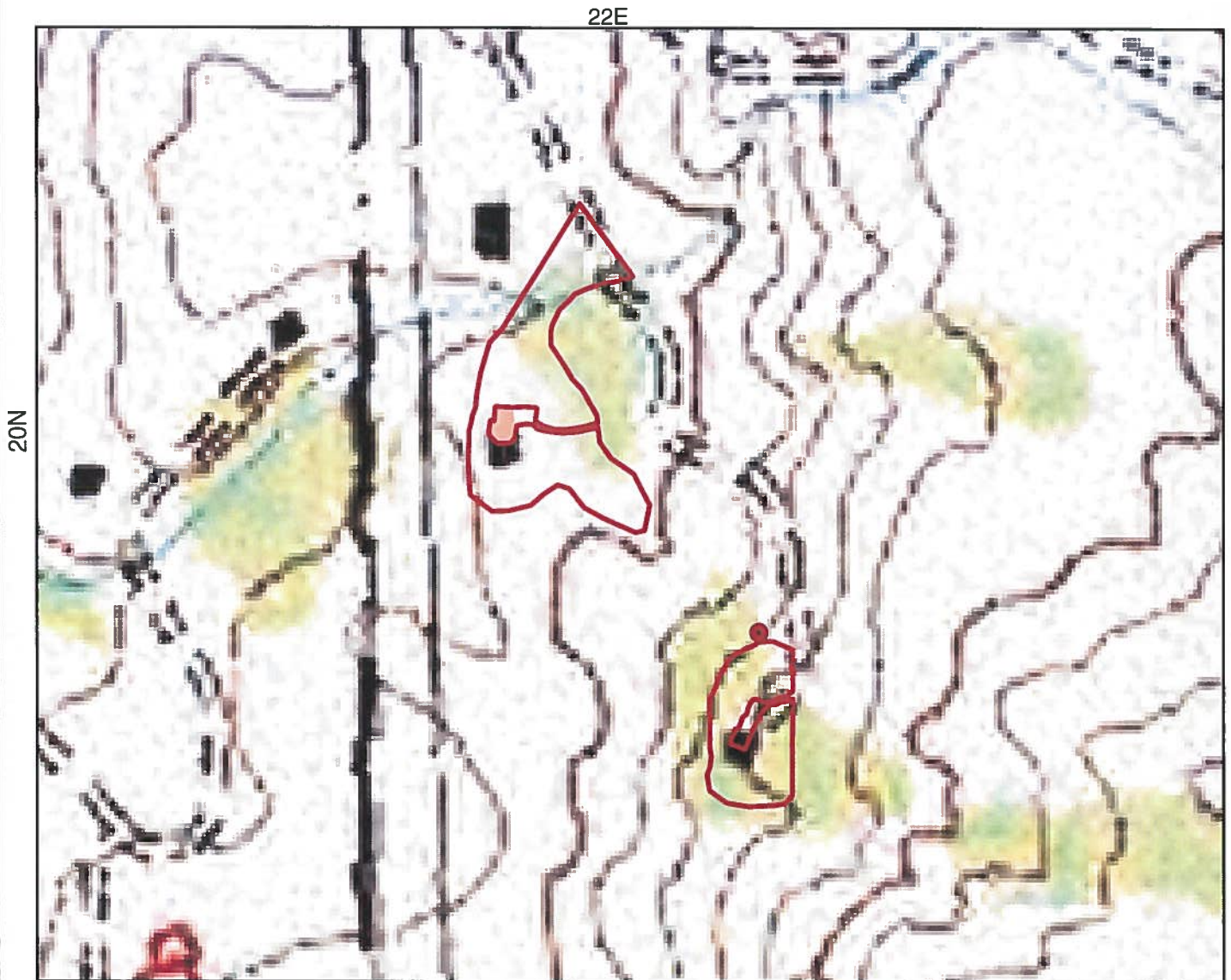
- Point of Diversion
- Irrigation Place of Use Boundary
- Domestic Place Of Use



0 500 1,000 Feet

State of Idaho
Department of Water Resources
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75-7354

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



-  Point of Diversion
-  Irrigation Place of Use Boundary
-  Domestic Place Of Use



0 500 1,000 Feet

System Diagram for Water Right 75-7354



A spring located in T20N R22E Section 9 SWNW Lot 5 (shown above as a green dot) provides irrigation for 2.9 acres (shaded above in red) in the NWNW (L4) and SWNW (L5) of section 9. The spring sits on a hill. From the spring box a 2 inch pipe carries water approximately 22 feet downhill to the lower yard. A gate valve controls the Sprinklers and open discharge pipe irrigate the land surrounding both the upper and lower houses.

MEMORANDUM

TO: Water Right Files 75-7354
FROM: Sandra Thiel
DATE: May 4, 2016
SUBJECT: Options for adding domestic beneficial use to a permit

Roy Bossert submitted proof of beneficial use for permit 75-7354 in May 1988. The permit was for 6 acres of irrigation. However, on the statement of proof he included domestic use for one house. During a field exam on October 10, 2012 I found evidence of irrigation but I was unable to determine the full extent of beneficial use.

On September 16, 2013 I sent Mr. Bossert a letter requesting information about the land irrigated from the spring. I spoke to him on October 1, 2013. During that conversation he told me that they had not used his well for several years. The well is only 15 feet deep and they had used it exclusively for in-house domestic use. During the years that they didn't use the well they used spring water under permit 75-7354 for in-house use. A few years before our conversation they started using the well again. However, during the summer of 2013 it ran dry and they again used spring water from right 75-7354 for domestic and irrigation.

The beneficial use for permit 75-7354 only includes irrigation. The Bosserts irrigate 2.8 acres with the spring right. The addition of 0.02 cfs and 0.6 acre feet, for in-house domestic use falls within the 0.12 cfs allowed on the permit. It appears they have used the spring for domestic purposes for over 25 years. During that time there is no record of complaints as a result of the use of the water for domestic purposes. Based on this I recommend amending the license to add domestic use.

Permit: 0.12 cfs 6 acres Surface water so no volume on the permit
 $6.5 \text{ acres} * 3.5 = 21 \text{ af}$

As developed:
 $2.8 \text{ acres irrigation} * 3.5 = 9.8 \text{ af}$
 $21 \text{ af} - 9.8 \text{ af} = 11.2 \text{ af}$
11.2 af available for domestic use
0.6 af required for domestic use
Recommend adding domestic use

$2.8 \text{ acres} * 0.03 = 0.08 \text{ cfs}$
0.02 cfs allowed for in house only
 $0.08 + 0.02 = 0.1 \text{ cfs}$ (limit to system capacity of 0.09 cfs)
 $0.1 < 1.2$ allowed on permit
Recommend adding domestic use

-  Water Right Permit
-  Taxlots

RECEIVED
OCT 03 2013
DEPT OF WATER RESOURCES

BOSSERT, ROY

BOSSERT, ROY CARL

BOSSERT, ROY C

BOSSERT, ROY CARL

BOSSERT, ROY CARL

BOSSERT, ROY CARL

SCANNED
OCT 03 2013

Source: Esri, DigitalGlobe, GeoEye, IGN, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

JUN 03 2016

Process	Basin Sequence	Draft	Owner	Source	POD/ POU	NWNW	SWNW	Total Acres
Water Right	75-7088	N	BOSSERT, JUDY;	SPRINGS	POU	X	X	0
Water Right	75-7113	N	DRNJEVIC, FRANKLIN N	HYDE CREEK	POD	X		0
Water Right	75-7113	N	DRNJEVIC, FRANKLIN N	HYDE CREEK	POU	X		0
Water Permit	75-7354	N	BOSSERT, ROY	SPRING	POD	X		0
Water Permit	75-7354	N	BOSSERT, ROY	SPRING	POU	5.0	1.0	6
Water Right	75-7354	Y	BOSSERT, ROY	SPRING	POD		X	0
Water Right	75-7354	Y	BOSSERT, ROY	SPRING	POU		X	0
Water Right	75-7354	Y	BOSSERT, ROY	SPRING	POU	0.6	2.1	2.7

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Manning's Equation Calculator for Flow Rate in a Circular Conduit Flowing Full

READ ME

S = 0.0449 ft/ft
n = 0.009 manning's coefficient
d = 2.0 pipe diameter (inches)
D = 0.17 pipe diameter (feet)
r = 0.08 pipe radius (feet)
A = 0.02 area (ft²)
WP = 0.52 wetted perimeter (ft)
R = 0.04 hydraulic radius (ft)

Q = 0.09 flow rate (CFS)

Channel Slope

Slope Options

☐ Manual Entry ☒ Slope Calculator

Slope Calculator

Rise = 21.4 feet

Run = 476.9 feet

Slope, S = 0.0449 ft/ft

Pipe Material, (n):

plastic (pvc, abs)

Pipe Diameter (inches)

2.0 inches

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PHOTOGRAPHER AND DATE OF PHOTOS Sandy Thiel, September 13, 2012

FILE NUMBER 75-7354

Spring Box



Location of Tag A0019124 in relation to the spring box

A pipe leaves the spring box and flows downhill to the house

The hill is on the other side of the tree

Spring box



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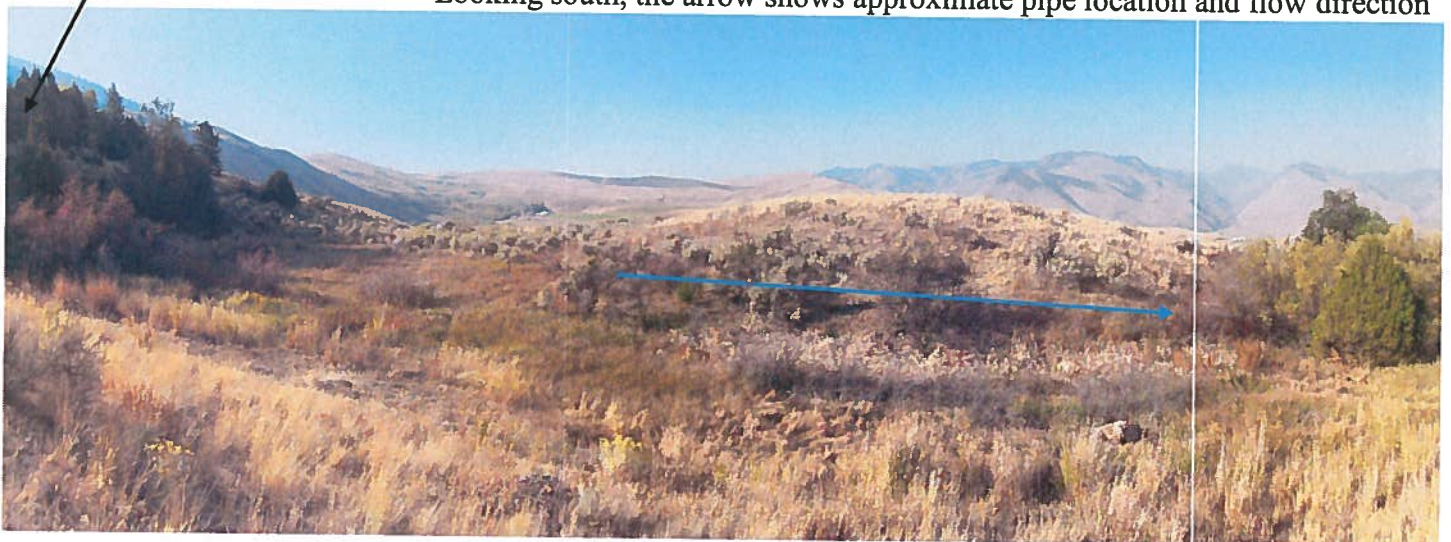


Spring location looking up hill

Pipe from spring

Spring location

Looking south, the arrow shows approximate pipe location and flow direction



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Pipe end

Irrigated land



House

Irrigated
land
around
house

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JUN 03 2015



Irrigated land east of the house and north west of the spring



House, looking west,
showing irrigation in
the foreground

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