

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 61-11952

Exam Date: 7/2/2014

1. Current Owner: RONALD SMITH
PO BOX 53
HAMMETT ID 83627
(208)366-7521

And/Or

DEBORAH SMITH
PO BOX 53
HAMMETT ID 83627
(208)366-7521

2. Accompanied by: Ron Smith
Phone No: 775-340-1773
Address: 619 Abarr Dr Spring Creek NV 89815
Relationship to Permit Holder:

3. SOURCE

WASTE WATER

TRIBUTARY

SNAKE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 2-7172S is an irrigation wr for the property. 61-10243 is a domestic wr for in-house use.
2. Other water rights with the same point of diversion: None.

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

WASTE WATER L5 NE1/4SW1/4 Sec. 2, Twp 06S, Rge 08E, B.M. ELMORE County

Method of Determination: PLSS data verified legal description of property compared with taxlot information.

2.

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	
06S	08E	2									2.0								2.0
											L 5								

Total Acres: 2

Method of Determination: Area measurements were taken via ArcMap and satellite imagery of the property.

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 Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Spring	Gravity flow system				

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date

2. Measurements: Water was not diverting at the time of field exam. No measurements could be taken at that time.

E. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

Measured Method:

Manning flow equation used since water was not diverted during field exam. Attached equation sheet shows that a 3" pvc pipe 240 feet long on a 0.0042 slope will divert water at a rate of 0.08 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 2.0 \times 4.0 = 8.0 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = .04 \times 246 \times 1.9835 = 19.5 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 8.0 \text{ af}$$

2. Volume Calculations for Other Uses: None.

G. NARRATIVE/REMARKS/COMMENTS

Water permit 61-11952 authorized the diversion of .04 cfs from a waste water ditch for the irrigation of 2.0 acres of land located in Hammett, ID.

Taxlot indicated that Ron Smith owns the property and PLSS data verified that legal descriptions of the POU & POD were identified correctly. POU overlap shows 2 water rights in the name of Ronald Smith associated with the property. 2-7172S is an irrigation right that grants a diversion directly from the Snake River. Mr. Smith confirmed that this system is still in place and assists with the irrigation of the land. 61-10243 is a domestic water right authorizing the diversion of groundwater on the property. Mr. Smith indicated that this is only used for in home use and does not irrigate the land.

ArcMap tools and satellite imagery was used to calculate an area currently being irrigated by Mr. Smith. I found a total of 2.0 acres being irrigated. There is a waste water ditch west of the property that transfers irrigation water from the north back into the Snake River. Mr. Smith has constructed a gravity flow system that moves water from the ditch to his property when water is available. Sometimes when water is minimal, he is forced to dam the ditch in order to pass water through his system. Mr. Smith plans on installing a headgate at the point of diversion in an effort to build a more efficient system. PVC pipe carries waste water to the 2.0 acres.

Water flows through the 240' of 3" pvc pipe to the north property boundary. It then flows into a small pond where Mr. Smith is able to pump into 9 sprinkler heads are used to irrigate the land.

Because of the existing water right 2-7172S authorizes the use of 8.0 af at a rate of 0.04 cfs, there is no additional beneficial use. I recommend licensing be approved with the combined use limit condition added to the license.

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>
IRRIGATION	03/15 to 11/15	0.040 CFS	-
<u>Totals:</u>		0.040 CFS	-

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

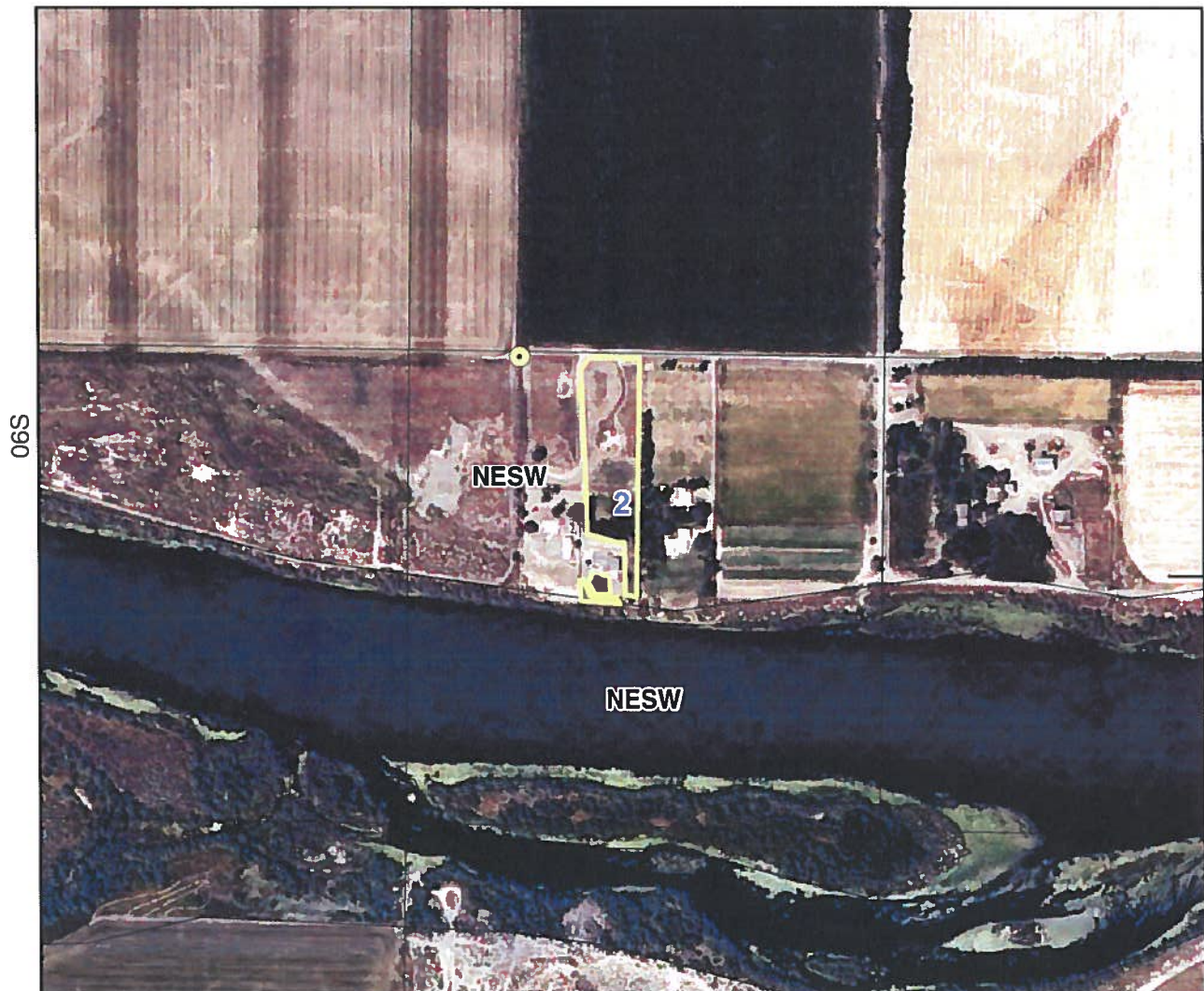
I. AUTHENTICATION

Field Examiner's Name Patricia Wiley Date 7-14-2014
 Reviewer _____ Date _____

State of Idaho
Department of Water Resources
Field Exam Map
61-11952

This map depicts the IRRIGATION 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.

08E



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

0 0.05 0.1 0.2 Miles



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

S = 0.0042 ft/ft
 n = 0.009 manning's coefficient
 d = 3.0 pipe diameter (inches)
 D = 0.25 pipe diameter (feet)
 r = 0.13 pipe radius (feet)
 A = 0.05 area (ft²)
 WP = 0.79 wetted perimeter (ft)
 R = 0.06 hydraulic radius (ft)

Q = 0.08 flow rate (CFS)

Channel Slope

Slope Options

☐ Manual Entry
 ☒ Slope Calculator

Slope Calculator

Rise = 1 feet
 Run = 240 feet
 Slope, S = 0.0042 ft/ft

Pipe Material, (n):

plastic (pvc, abs)

Pipe Diameter (inches)

3.0 inches

READ ME

Manning's Equation (1), is an empirical formula that solves for velocity (v) in a open channel under uniform flow. The continuity equation (2) when combined with equation (1) allows for the computation of the flow rate (Q) in an open channel under uniform flow.

In equations (1) and (3), η refers to Manning's Coefficient of Roughness and can be found in tabulated form for many open channel types. R is the hydraulic radius of the open channel and is equal to the area of the open channel divided by the wetted perimeter, $R = A/P$. S is the slope of the energy grade line which is often assumed to be equal to the slope of the channel.

Because Manning's Equation is empirical the units are not arbitrary. To obtain a velocity in ft/s and a flow rate in ft³/s, area must be reported in ft², hydraulic radius must be reported in ft, and S must be reported in ft/ft. Manning's Coefficient of Roughness is a

$$(1) \quad v = 1.49 \left(\frac{1}{\eta} \right) \left(R^{\frac{2}{3}} \right) \sqrt{S}$$

$$(2) \quad Q = vA$$

$$(3) \quad Q = 1.49 \left(\frac{1}{\eta} \right) (A) \left(R^{\frac{2}{3}} \right) \sqrt{S}$$

PHOTOGRAPHER PATRICK OLLY
DATE OF PHOTOS 7/9/2014

FILE NUMBER 61-11952



Waste water
ditch west of the
property. Facing
north.



Waste water in
canal at POD.



PVC pipe moves
water from ditch
to property.
Culvert under
driveway has
been
constructed.



PVC continues on to divert water to property. This is the north boundary of the property facing east.



Place of Use:
land irrigated by
waste water from
ditch. North
boundary of
property facing
south.



Sprinkler system
installed on the
land. Pump
system
connected to
Snake River
system
(2-7172S)



1 of 9 sprinklers
installed on
property used to
irrigate land.

Process	Basin Sequence	Draft	Owner	Source	POD/POU	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	Total Acres
Water Right	2-10081	N	UNITED STATES OF AMERICA ACTING	SNAKE RIVER	POD												X					0
Water Right	2-10081	N	UNITED STATES OF AMERICA ACTING	SNAKE RIVER	POU												X	X		X	X	0
Water Right	2-10253	N	THOMAS JR, CONRAD E; THOMAS, JEREMY A	SNAKE RIVER	POU											2.0						2
Water Right	2-10254	N	THOMAS, CONRAD E; THOMAS, JEREMY A	SNAKE RIVER	POD												X					0
Water Right	2-10256	N	THOMAS, CONRAD E; THOMAS, JEREMY A	SNAKE RIVER	POD												X					0
Water Right	2-10285	N	HOUSE, FRANCIS L; HOUSE, TAMZY L	SNAKE RIVER	POD													X				0
Water Right	2-10285	N	HOUSE, FRANCIS L; HOUSE, TAMZY L	SNAKE RIVER	POU													4.0				4
Water Right	2-10286	N	PEARSON, JOYCE WUNDERLICH	SNAKE RIVER	POD									X				X				0
Water Right	2-10286	N	PEARSON, JOYCE WUNDERLICH	SNAKE RIVER	POU	41.0	38.0	37.0	37.0				29.0	7.0				9.0				198
Water Right	2-10322	N	CALDWELL, CHERYL; CALDWELL, RICH	SNAKE RIVER	POD									X				X				0
Water Right	2-10322	N	CALDWELL, CHERYL; CALDWELL, RICH	SNAKE RIVER	POU													2.5				2.5
Water Right	2-10323	N	WHIPPLE, CHARLES F; WHIPPLE, PHYLLIS M	SNAKE RIVER	POD									X				X				0
Water Right	2-10323	N	WHIPPLE, CHARLES F; WHIPPLE, PHYLLIS M	SNAKE RIVER	POU													1.5				1.5
Water Right	2-10430	N	IRREVOCABLE TRUST OF RYAN L MC	SNAKE RIVER	POD										X							0
Water Right	2-10430	N	IRREVOCABLE TRUST OF RYAN L MC	SNAKE RIVER	POU							34.0										34
Water Right	2-10431	N	MC CURRY, DENNIS T; MC CURRY, PAULA D	SNAKE RIVER	POD										X							0
Water Right	2-2075	N	THOMAS JR, CONRAD E; THOMAS, JEREMY A	SNAKE RIVER	POD												X					0
Water Right	2-2075	N	THOMAS JR, CONRAD E; THOMAS, JEREMY A	SNAKE RIVER	POU											28.0						28
Water Right	2-2106	N	THOMAS JR, CONRAD E; THOMAS, JEREMY A	SNAKE RIVER	POD												X					0
Water Right	2-2106	N	THOMAS JR, CONRAD E; THOMAS, JEREMY A	SNAKE RIVER	POU											28.0						28
Water Right	2-2407	N	IRREVOCABLE TRUST OF RYAN L MC	SNAKE RIVER	POD										X							0
Water Right	2-2407	N	IRREVOCABLE TRUST OF RYAN L MC	SNAKE RIVER	POU							6.0	9.0		13.0							28
Water Right	2-7172F	N	STRALEY, JAMES; STRALEY, SHIRLEY	SNAKE RIVER	POD									X								0
Water Right	2-7172F	N	STRALEY, JAMES; STRALEY, SHIRLEY	SNAKE RIVER	POU									3.0								3
Water Right	2-7172K	N	ZITO, CHRISTY; ZITO, GORDON JOHN	SNAKE RIVER	POD													X				0
Water Right	2-7172K	N	ZITO, CHRISTY; ZITO, GORDON JOHN	SNAKE RIVER	POU													3.0				3
Water Right	2-7172L	N	STANDLEY, DOUGLAS E; STANDLEY, TAMARA S	SNAKE RIVER	POD													X				0
Water Right	2-7172L	N	STANDLEY, DOUGLAS E; STANDLEY, TAMARA S	SNAKE RIVER	POU													3.0				3

Water Right	2-7172P	N	HAMMETT PUBLIC PARK	SNAKE RIVER	POD												X			0
Water Right	2-7172P	N	HAMMETT PUBLIC PARK	SNAKE RIVER	POU												9.8			9.8
Water Right	2-7172R	N	SMITH, ELAINE	SNAKE RIVER	POD							X					X			0
Water Right	2-7172R	N	SMITH, ELAINE	SNAKE RIVER	POU							2.0								2
Water Right	2-7172S	N	SMITH, DEBORAH, SMITH,	SNAKE RIVER	POD							X					X			0
Water Right	2-7172S	N	SMITH, DEBORAH, SMITH,	SNAKE RIVER	POU							2.0								2
Water Right	37-2159S	N	KING HILL IRRIGATION DISTRICT	MALAD RIVER	POU	X	X			X	X									0
Water Right	37-4112	N	KING HILL IRRIGATION DISTRICT	MALAD RIVER	POU	X	X			X	X									0
Water Right	61-10243	N	SMITH, ELAINE C. SMITH, RONALD D	GROUND WATER	POD							X								0
Water Right	61-10243	N	SMITH, ELAINE C. SMITH, RONALD D	GROUND WATER	POU							X								0
Water Right	61-10290	N	PEARSON FARMS & RANCH	GROUND WATER	POD												X			0
Water Right	61-10290	N	PEARSON FARMS & RANCH	GROUND WATER	POU												X			0
Water Right	61-10715	N	WITHERS, GEORGE V; WITHERS, MARY E	GROUND WATER	POD					X										0
Water Right	61-10715	N	WITHERS, GEORGE V; WITHERS, MARY E	GROUND WATER	POU					X										0
Water Permit	61-11952	N	SMITH, DEBORAH, SMITH,	WASTE WATER	POD							X								0
Water Permit	61-11952	N	SMITH, DEBORAH, SMITH,	WASTE WATER	POU							2.0								2

June 4, 2014

RONALD & DEBORAH SMITH
619 ABARR DR
SPRING CREEK NV 89815

RE: Water Right No. 61-11952; Field exam request

Dear Mr. & Mrs. Smith:

On January 3, 2008 the Department of Water Resources (IDWR) received the Proof of Beneficial Use statement submitted by Ron Smith for Permit 61-11952, which authorized the diversion of water from waste water for irrigation purposes in Section 2, Township 6 South, Range 8 East, B.M., in Elmore County.

The final step in the water appropriation process is the issuance of a Water Right License. By issuing a license, IDWR recognizes that all the requirements for establishing a water right were met. Before issuing a license IDWR must conduct an examination to verify the development. You are receiving this letter because an attempt to contact you was made to schedule the field exam. However, the telephone number provided on the Proof of Beneficial Use form (208-366-7521) is no longer in service.

If you believe a water right was developed in accordance with the permit, please contact me to make arrangements for a field examination to be conducted on your property. If I do not hear from you within thirty days, I may be forced to take action to void the permit. If you receive this and no longer wish to proceed with the licensing process, you may complete the relinquishment form included with this letter and return it to the department. This will terminate the permit and void the authorized use described.

Please contact me by telephone at 208-287-4933 or by mail to schedule the field exam or answer any questions you may have.

Respectfully,

Patrick Kelly
Water Resource Agent