

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 74-15994

Exam Date: 5/23/2012

Please Note: A field exam was done on the overlapping right 74-15608 in 2012, and I recommended that this permit be filed to cover the use not covered under 74-15608. I attained all of the necessary information for this right at the time of the earlier exam.

1. Current Owner: CITY OF SALMON
200 MAIN ST
SALMON ID 83467
(208)756-3214
2. Accompanied by: Charlie Cockrel
Phone No: (208) 940-0510
Address: Same As City of Salmon
Relationship to Permit Holder: Parks and Grounds Keeper
3. SOURCE TRIBUTARY
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 74-466
2. Other water rights with the same point of diversion: 74-15608

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

GROUND WATER SE1/4NW1/4 Sec. 9, Twp 21N, Rge 22E, B.M. LEMHI County

Method of Determination: Visual inspection and Garmin GPS

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	
21N	22E	9							.4	.8									1.2

Total Acres: 1.2

Method of Determination: Visual Inspection and GIS

3. YES Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

YES Aerial Photo Attached (required for irrigation of 10+ acres).

YES Photo of Diversion and System Attached (See Field Exam for 74-15608)

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Sacajawea Well Site Tag # D0020729	None	N/A	N/A	N/A	4" line

*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
None						

2. Measurements: The flow was calculated using a theoretical calculation. A pump curve or measurement was not available or possible on this system.

E. FLOW CALCULATIONS X Additional Computation Sheets Attached

Measured Method:

Theoretical Calculation = 0.05 cfs

Maximum per acre = 0.04 cfs (0.03 cfs/acre X 1.2 acres = 0.036 cfs)

Permit Allows = 0.05 cfs.

I am recommending that this permit be licensed for 0.04 cfs. However there will need to be an X35 condition that limits the diversion rate when water rights 74-15608 and 74-15994 are combined to 0.05 cfs, since that is the capacity of the well.

F. VOLUME CALCULATIONS**1. Volume Calculations for Irrigation:**V- I.R. = (Acres Irrigated) x (Irrigation Requirement) = 1.2 acres X 3.5 af/ac = 4.2 afV- D.R. = [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835 = 0.04 cfs X 256 days X 1.9835 = 20.3 afV = Smaller of V- I.R. and V- D.R. = 4.2 af**2. Volume Calculations for Other Uses:****G. NARRATIVE/REMARKS/COMMENTS**

I field examined permit 74-15608 in May of 2012. During that exam, I discovered that there was an area that was irrigated from this system that was not covered by the permit 74-15608. I recommended that the City of Salmon file this permit to cover the 1.2 acres that were not covered under permit 74-15608.

The water for this permit is diverted from a well located in the SENW of Section 9, Township 21 North, Range 22 East. The well is located in a grassy area across (east) of the main Sacajawea Building. The water from this diversion travels underground to a buried sprinkler system. The grassy area around the parking lot and the Amphitheater are all irrigated from this well under water right 74-15608. The ground on the eastern side of the park around the home is irrigated from this well. The ground irrigated around the Sacajawea main building and the garden area in front of the building is irrigated with City of Salmon municipal water. The municipal system and the ground water system are not connected, so the two areas can only be irrigated by their individual water sources and systems.

Water right 74-466 is used for mitigation purposes. In a telephone conversation with the watermaster in 2012, he stated that they have placed this water right into the water bank and the water is not being delivered. The mitigation requirement for this system has been complied with.

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>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/15 to 11/15	0.040 CFS	4.20 AF
	<u>Totals:</u>	0.040 CFS	4.20 AF

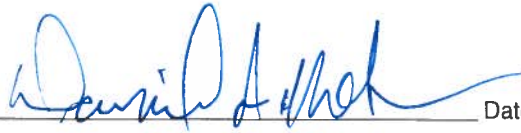
2. Recommended Amendments

___ 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 Daniel A. Nelson – Staff Hydrologist

Field Examiner's Name



Date

6-9-14

Reviewer

Date

State of Idaho
Department of Water Resources
FIELD EXAM MAP
74-15994

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.

22E



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

0 0.05 0.1 0.2 Miles





Overlap Analysis Water Rights 74-15608 and 74-15994 By Dan Nelson

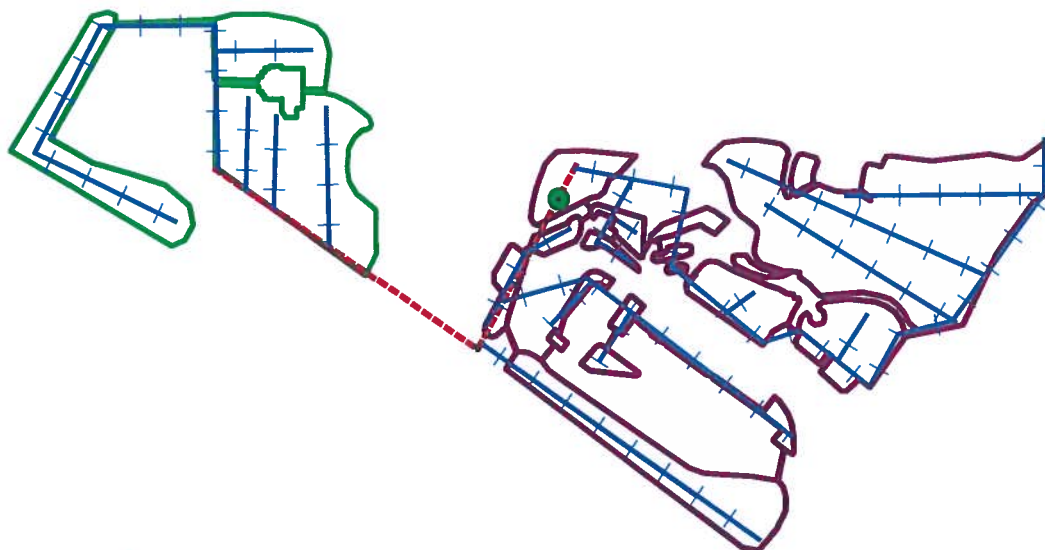
Well

Water Right 74-15608 Border

Water Right 74-15994 Border

Water rights 74-15608 and 74-15994 share the same well, but are for different places of use. Water right 74-15994 was filed to cover the water use from this system that wasn't covered under water right 74-15608.

System Diagram
Water Rights 74-15608 and 74-15994
By Dan Nelson



-  Well
-  Water Right 74-15608 Border
-  Water Right 74-15994 Border
-  Mainline
-  Sprinkler

74-15994

GROUNDWATER THEORETICAL ANALYSIS

Same well as 74-15608.

Well Measurement

Data copied

FROM Field

Exam FOR

74-15608

Don

FILE: 74-15608

DATE: 5-23-2012

BY: Don Nelson

THEORETICAL RATE OF FLOW: $Q = \frac{(8.8 \times (HP) \times (EFF.))}{TDH}$

Q = CFS

HP = Total Brake Horsepower of pumping plant (including booster)

Eff. = Pumping plant efficiency (assume 70% or 0.70)

TDH = Total dynamic head = [(LIFT) + (PSI X 2.31)]

LIFT = Depth to water in FEET from land surface to pumping water level

PSI = Pumping pressure measured in PSI near pump (if open discharge assume [0])

$Q = \frac{(8.8) \times (1 HP) \times (0.70)}{125.95} = 0.05 \text{ CFS.}$

$[(22 \text{ FT.}) + (45 \times 2.31)] = 125.95$

LIFT FROM:

Measurement ()

Owner ()

Area estimate ()

Well Logs (X)

Booster (Y) (N)

PSI FROM:

Measurement ()

Owner ()

Estimate (X)

Owner Gage ()

NOTES ON PUMP:

Motor Make, Serial or ID

Pump Make, Serial or ID, rating

REMARKS: I used the well log to determine static water level @ 12 FT and added 10 FT for draw down for a total of 22 FT. The standard sprinkler operates @ approximately 40-60 PSI, I used 45 PSI for this calculation.

The theoretical calculation matches the permitted amount, so I feel this measure ment is acceptable.

Harber Drilling Company

Post Office Box 194

Carmen ID 83462-0194

Phone: (208) 756-3531

FAX: (208) 756-3541

Email: harber@lda.net

Invoice

DATE	INVOICE #
8/9/2005	776

BILL TO
City of Salmon Sacajawea Center-Irrigation 200 Main Street Salmon ID 83467

SHIP TO

TERMS	DATE(S)	LOCATION	ID Tag #
Due on receipt	6/17/2005	Sacajawea Ctr	D0020729

QUANTITY	ITEM CODE	DESCRIPTION	PRICE EACH	AMOUNT
44	8" Drilled	8" diameter drilled	28.00	1,232.00
40	Casing 8"	8" steel casing and cap	18.00	720.00
	Miscellaneous	Sediment Control	400.00	400.00
	Mobilization	Mobilization	250.00	250.00
	Miscellaneous	Drawdown Test	400.00	400.00
	Well Sealant	Well Sealant: gravel pack , grout	525.00	525.00
	Pump Sales	Submersible Grundfos pump installation complete with control box, pipe and wire (22SQE10C-160 set on 1-1/2" PVC)	3,610.00	3,610.00
1 HP 230 V 3" MTR 1 1/2" NPT 2-wire 13.7" Pump end				

Thank you for your business. Please call with any problems or questions you may have.

Total

\$7,137.00

All bills are due upon receipt. Past due drilling accounts subject to monthly 5% interest charges as per contract. Other past due accounts subject to 2% monthly interest charges.

