

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 74-16207
Exam Date: 06/13/2024

1. Current Owner:
BOYD E STOKES 646 LEMHI RD SALMON ID 83467-5145 AND/OR
BARBARA A STOKES 646 LEMHI RD SALMON ID 83467-5145
2. Accompanied by: Boyd Stokes
Phone No: (208)303-0440 cell phone
Address: Same as above
Relationship to permit Holder: Permit Holder

3. **SOURCE:**
WASTE WATER

Tributary
LEMHI RIVER

Method of Determination: GIS, Garmin GPS, Lemhi County Tax Parcel Data

Payment Received: Yes

Receipt # C109391

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
74-16160	LEMHI RIVER (L-8A)	IRRIGATION	DECREED
74-178A	BOHANNAN CREEK	IRRIGATION	DECREED
74-179A&B	BOHANNAN CREEK	IRRIGATION	DECREED
74-180A	BOHANNAN CREEK	IRRIGATION	DECREED
74-2047D	LEMHI RIVER	IRRIGATION	DECREED

Comments: All 5 rights listed above overlap the permit place of use (POU). However, the permit and rights carry condition X35 limiting the combined use to the irrigation of 260.8 acres, none of the rights have a wastewater source, and all the rights are owned by the permit holder.

2. Other water rights with the same point-of-diversion: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
NONE	NA	NA	NA

Comments: There are no irrigation rights sharing the wastewater point of diversion (POD).

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION: GPS Coordinates: N45°07.703 W113°46.704**

WASTE WATER SW¼ SE¼, Sec. 19, Twp 21N, Rge 23E, B.M. LEMHI County

Method of Determination: Garmin Trek 20 GPS and GIS

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
21N	23E	30		6.0			2.0												8.0
21N	23E	19												8.0		2.0	38.0	7.0	55.0

Total Acres: 63.0

Method of Determination: GIS, Lemhi County Tax Parcel Data, and field observations.

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
Pivot Pump	GE	25	8LFT045S007	Unknown	8" Discharge line
Submersible Pump	Unknown	6	Unknown	Unknown	1-1/2" Discharge line

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
2ft Cipoletti Weir	Trapezoidal	NA	NA	NA	2ft wide	NA

2. Measurements: Record of weir head observed at 0.32ft (Photos 1 & 2). According to the SCS National Engineering Handbook measurement table 9.11 (see figure A, below) a rate of approximately 1.21cfs was observed.

Table 9-11.--Discharge values for trapezoidal or Cipoletti weirs with complete contractions

Head, H:		Discharge, Q, for crest length, L, of—							
		1 foot	1.5 feet	2 feet	3 feet	4 feet	5 feet	8 feet	10 feet
Feet	Inches	Second-feet	Second-feet	Second-feet	Second-feet	Second-feet	Second-feet	Second-feet	Second-feet
0.10	1 1/8	0.11	0.16	0.23	0.33	0.44	0.64	0.85	1.06
.11	1 1/8	.12	.18	.28	.38	.50	.74	.98	1.23
.12	1 1/8	.14	.21	.32	.43	.57	.84	1.12	1.40
.13	1 1/8	.16	.24	.36	.48	.64	.95	1.26	1.58
.14	1 1/8	.17	.26	.38	.54	.71	1.06	1.41	1.73
.15	1 1/8	.19	.29	.43	.59	.79	1.17	1.58	1.96
.16	1 1/8	.21	.32	.47	.65	.87	1.29	1.72	2.15
.17	2 1/8	.23	.36	.51	.71	.96	1.41	1.89	2.35
.18	2 1/8	.25	.39	.56	.77	1.04	1.54	2.06	2.57
.19	2 1/8	.28	.42	.58	.83	1.12	1.67	2.23	2.79
.20	2 1/8	.30	.45	.63	.87	1.20	1.81	2.41	3.01
.21	2 1/8	.32	.48	.66	.97	1.29	1.94	2.59	3.24
.22	2 1/8	.35	.52	.70	1.04	1.38	2.08	2.78	3.47
.23	2 1/8	.37	.55	.74	1.11	1.47	2.23	2.97	3.71
.24	2 1/8	.39	.59	.79	1.18	1.57	2.38	3.17	3.96
.25	3	.42	.63	.84	1.25	1.67	2.53	3.37	4.21
.26	3 1/8	.45	.67	.89	1.35	1.77	2.68	3.57	4.46
.27	3 1/8	.47	.70	.94	1.40	1.87	2.83	3.78	4.72
.28	3 1/8	.50	.74	.99	1.48	1.97	2.99	3.99	4.99
.29	3 1/8	.53	.79	1.04	1.56	2.08	3.15	4.21	5.26
.30	3 1/8	.56	.83	1.10	1.64	2.19	3.32	4.43	5.53
.31	3 1/8	.59	.87	1.15	1.73	2.30	3.49	4.65	5.81
.32	3 1/8	.61	.91	1.21	1.80	2.41	3.66	4.88	6.09
.33	3 1/8	.64	.95	1.27	1.89	2.52	3.83	5.11	6.38
.34	4 1/8	.67	1.00	1.32	1.98	2.64	4.00	5.34	6.67

Figure A- SCS National Engineering Handbook- Cipoletti Weir Measurement Table.

E. FLOW CALCULATIONS

Additional Computation Sheets Attached

Measured Method: The observed staff gauge reading was recorded, and a theoretical calculation was made using the pump information (see Photos 3, 4, & 6). GIS head measurements (based on the DRG) were used to determine a reasonable rate for the irrigation of the POU.

Half Pivot:

$$Q = (25 \text{ Hp})(8.8)(0.80 \text{ efficiency}) / (45 \text{ ft lift}) + (2.31) * (40 \text{ psi}) = 1.28 \text{ cfs}$$

Irripods (6 units):

$$Q = (6 \text{ Hp})(8.8)(0.80 \text{ efficiency}) / (35 \text{ ft lift}) + (2.31) * (45 \text{ psi}) = 0.30 \text{ cfs}$$

Theoretical Calculation= 1.58cfs

Permit allowed = 1.00cfs

Weir measurement= 1.21cfs

BU limited Rate = 1.26

Recommendation= 1.00cfs

Comments: The measurements recorded at the wastewater point of injection and theoretical calculations based on the pump and system information both indicate that the system can exceed the full permitted rate. However, I recommend the license be issued for 1.00cfs, as use developed by way of this permit may not exceed the full permitted rate.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 63 \text{ acres} \times 3.5 \text{ AF/acre} = 221 \text{ AF}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 1.00 \times 246 \text{ Days} \times 1.9835 = 487.9 \text{ AF}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 221 \text{ AF}$$

2. Volume Calculations for Other Uses: NA

Comments: I recommend the license be issued with a maximum annual volume of 220.5AF, as per the standard headgate calculation above.

G. NARRATIVE/REMARKS/COMMENTS

The Proof of Beneficial Use for the irrigation use developed under permit 74-16207 was received by IDWR on October 23, 2020, stating in section #5 that the extent of beneficial use was developed for the irrigation of 63 acres. During the field examination on June 13, 2024, GIS coordinates for the weir at the wastewater point of discharge into the L-9 Ditch were recorded, and photos were taken documenting the irrigation use (photos 1-8). GIS measurement of the observed irrigation area was approximately 63 acres. The areas irrigated with wastewater include a ½ pivot servicing approximately 57.5 Acres, and a string of 6 Irripods for irrigating approximately 5.5 acres (Figure1-System Diagram). The pivot has a 25Hp pump which is part of a system shared with other irrigation rights owned by the permit holder overlapping the permitted POU. A 6Hp submersible pump delivers water to the Irripod system. The Irripods are moved throughout the place of use (POU) intersecting the ditch at the submerged pump.

The reading observed at the measuring weir and a theoretical calculation found that the system could exceed the rate allowed on the permit. However, the system and place of use is shared with other rights, is limited to the permitted rate of 1.00cfs for the irrigation of 63 acres, by condition to the quantity of water entering the L-9 Ditch at the measuring weir (wastewater, and a total combined use within the POU of 0.02cfs per acre and 3.5 AF per acre.

As per current guidance the water right would carry condition X-35 combined limit with rights 74-16160, 74-178A, 74-179A & B, 74-180A, and 74-2047D for the irrigation of 260.8 Acres, as stated on the permit. I recommend the license be issued with the full permitted rate of 1.00cfs and an annual volume of 221 AF based on the headgate calculation in section F of this report.

I recommend the license be issued with conditions R05, R02, R43, R63, X35, 215, 176, 198, 004, 020, and text conditions 5 & 6 of the permit to ensure compliance with the L-9 Ditch protest resolution. Condition 01H was replaced with R02 at licensing, as per current guidance. After discussions with James Cefalo, and correspondence with the Watermaster Lacey French condition 215 was replaced with R43, as a data logger would not aid in administration of the right and condition 198 requires that the permit holder may be required to provide the same information upon request. Condition 029 was removed as no correspondence was received from Idaho Fish and Game regarding fish screening requirements.

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

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
IRRIGATION	03/15 to 11/15	1.00 CFS	221 AF

Totals: 1.00 CFS 221 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 ☒ None

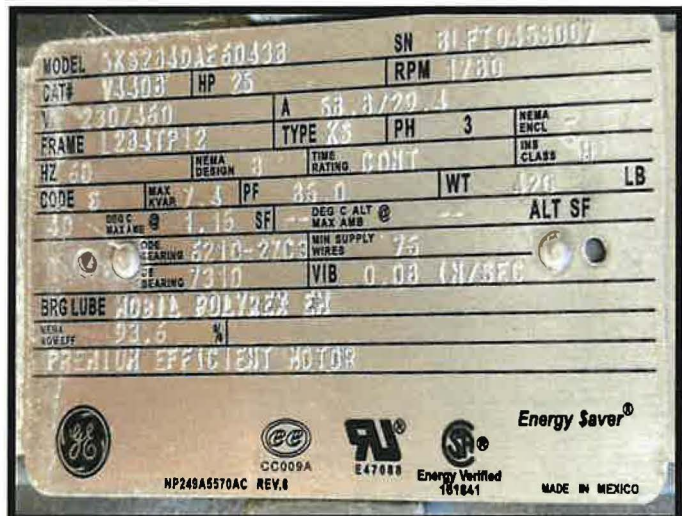
I. AUTHENTICATION Bob Howe - Water Resource Agent

Field Examiner's Name Bob Howe Date 8/30/24

Reviewer Scott King Date April 29, 2026



Photos 1 & 2- Left to right respectively. (1) Photo taken from wastewater culvert facing southwest. Cipoletti Weir (2' wide) measurement taken using staff gauge. (2) Photo taken facing northwest from confluence with L-9 Ditch. Weir is installed plumb and level.



Photos 3 & 4- Left to right respectively. (1) Pivot pumphouse located southeast of the measuring weir, on the L-9 ditch (visible in the background). (2) Pivot pump motor specifications plate. **Photo 5-** (below) Flow meter installed on pivot, not running. Also visible in the foreground of photo 3 above in the foreground.





Photo 6- Standing near the pivot pump facing northeast. Irripods are irrigating the easternmost extent of the permit POU.



Photo 7-Taken near the confluence of the wastewater ditch with the L-9 ditch facing southeast. Irripods are running behind the pivot tower.



Photo 8- Standing beside the measuring weir facing southwest along the L-9 Ditch. The pivot has seven sections with 8 sprinkler heads each.

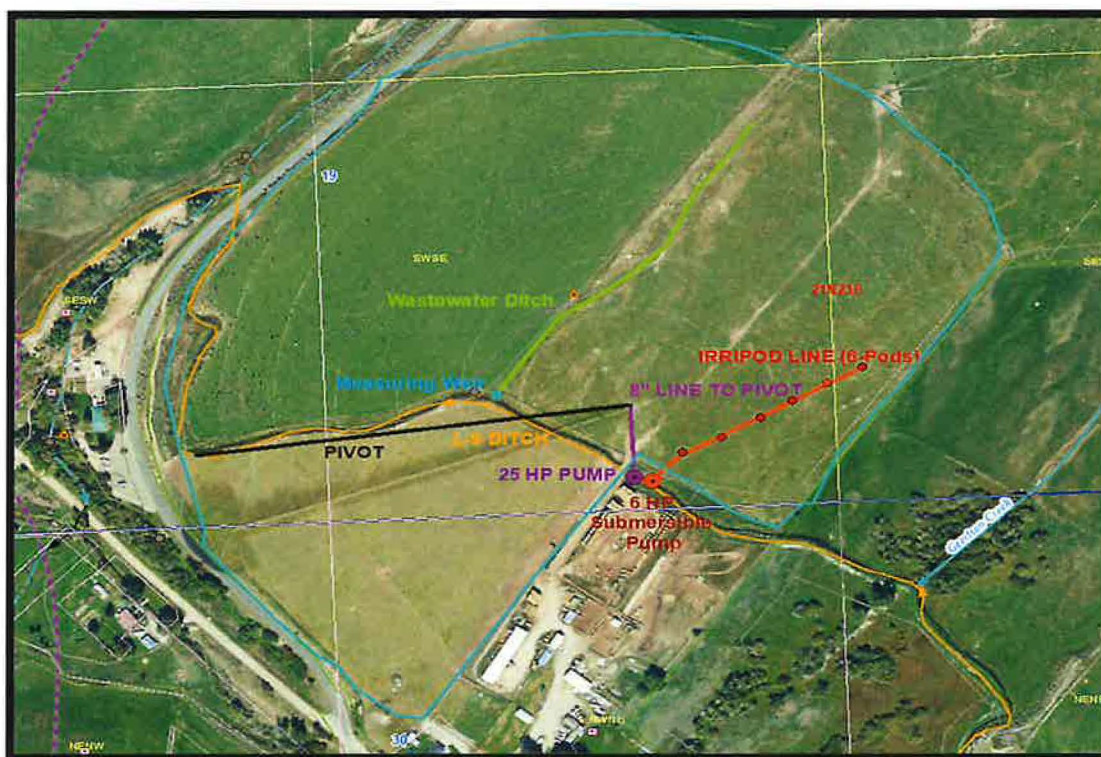


Figure 1- System Diagram- Place of Use, outlined in blue. The wastewater ditch runs to a measuring weir then empties into the L-9 Ditch.



IDAHO DEPARTMENT OF
WATER RESOURCES

322 E Front Street, Suite 648, Boise ID 83702 • PO Box 83720, Boise ID 83720-0098
Phone: 208-287-4800 • Fax: 208-287-6700 • Email: idwrinfo@idwr.idaho.gov • Website: idwr.idaho.gov

Governor Brad Little

Director Mathew Weaver

May 2, 2024

BOYD & BARBARA STOKES
646 LEMHI RD
SALMON, ID 83467-5145

RE: Scheduling Field Exam for Water Right Permit No. 74-16207

Dear Permit Holder:

We are planning to conduct water right examinations in the vicinity of the above-referenced permit **on the week of June 10 to June 14, 2024**. An examination is needed to verify the water use in order to issue a water right license.

The above-referenced permit authorizes **1.0 CFS from Wastewater, tributary to the Lemhi River** for **Irrigation** use. **If you have developed a beneficial use and still own the place of use property, please contact me at your earliest convenience to schedule an examination.**

If you did not develop a beneficial use of water under the permit during the beneficial use period, a license cannot be issued and the permit should be relinquished. If that use was developed, but have ceased using the water and you currently carry no interest in it, please relinquish the permit by submitting the enclosed Relinquishment of Permit form (no fee required).

If you did develop a beneficial use of water under the permit, but you no longer own the place of use property identified in the permit, please submit the enclosed Ownership Change form with the applicable \$25 processing fee.

Please contact me within the next thirty (30) days at (208) 287-4847 to either schedule an examination or submit a relinquishment or assignment form. If you no longer own the place of use property and/or do not respond to this letter, the department will work with the current property owner to issue a license or void the permit.

Sincerely,



IDAHO DEPARTMENT OF
WATER RESOURCES

Bob Howe | Water Resource Agent
322 E Front St, PO Box 83720, Boise, ID 83720
(208) 287-4800 | www.idwr.idaho.gov

Enclosures: Relinquishment of Permit form
Change of Ownership form
Water Permit Report and Map