

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-18029
Exam Date: 06/30/2015

1. Current Owner:
BENNIE LOWRY 640 RENLOW RD PLUMMER ID 83851-9634 AND/OR
ROBERT N LOWRY 640 RENLOW RD PLUMMER ID 83851-9634
2. Accompanied by: Robert Lowry
Phone No: 208-686-1197
Address: Same as above
Relationship to permit Holder: Permit holder

3. **SOURCE:**
SPRING

Tributary
PLUMMER CREEK

Method of Determination: Arcmap and DRG.

B. OVERLAP REVIEW

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

Water Right No.	Source	Purpose of Use	Basis
95-4665	GROUNDWATER	DOMESTIC	DECREED
95-10082	UNNAMED STREAM	IRRIGATION FROM STORAGE	PERMIT SPLIT FROM, IN PROCESS FOR LICENSING

Comments: 95-4665 is a decreed right that uses groundwater for domestic purposes that overlap the irrigation from storage POU of this right. Condition X35 was added to this right to mitigate the overlap concern between rights 95-4665, 95-10082, and this right irrigating the same 1.1 acres at the irrigation from storage POU for this right.

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

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

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

SPRING NW¼ NE¼ SW¼, Sec. 10, Twp 46N, Rge 04W, B.M. BENEWAH County

Method of Determination: GPS; POD is a spring located at -116°49.472, 47°20.657.

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	
46N	04W	10			0.6	0.5													1.1

Total Acres: 1.1

Method of Determination: Field exam and Arcmap aerial imagery

3. Delivery System Diagram Attached (required). Indicate all major components and distances between components.
☒ X 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
☒ X 1:24,000 or greater.
☒ X Aerial Photo Attached (required for irrigation of 10+ acres).
☒ X 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
SUMP PUMP		1/6			

D. FLOW MEASUREMENTS

1.

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

2. Measurements: Vehicle that transports applicant's diversion system was broke down at time of field exam, and I was unable to perform a flow measurement.

E. FLOW CALCULATIONS

Measured Method: During the development period of the permit, applicant used a 1/6 hp sump pump, powered by a portable generator, to draw water to a 200 gallon storage tank loaded on the back of his truck. Internet research for a 1/6 hp sump pump provides performance data establishing a maximum flow rate of approximately 25 gpm = 0.06 cfs. Applicant is limited to an authorized diversion rate equal to the irrigated acreage = 1.1 acres = **0.04 cfs**.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1.1 \text{ acre} \times 3.0 \text{ afa} = 3.3 \text{ af}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.04 \text{ cfs} \times 214 \text{ days} \times 1.9835 = 17.0 \text{ af}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = \mathbf{3.3 \text{ af}}$$

2. Volume Calculations for Other Uses:

This is a surface source right, and no volume metrics will be applied to the license.

G. NARRATIVE/REMARKS/COMMENTS

Administrative note: permit 95-10082 was approved with a spring source POD and unnamed stream POD; during field exam, the two sources were identified as not interconnected, and the water conveyance systems were separate. This right was split from 95-10082, and accounting for the spring source and irrigation as direct flow beneficial use.

A prior field exam was performed by department staff on 6/30/2015, but the documentation collected did not adequately describe the applicant's water source interaction nor usage required to license the permit. During the time lapse between field exams, the applicant, Robert Lowry, has worked through some serious illnesses and knee surgeries that have since limited his mobility and current irrigation practices. At the time of licensing review, the permit development period of 3/24/2009 to 3/17/2014 will primarily be used when identifying credit for irrigation toward licensing this right.

A follow-up field exam was conducted on 7/13/2020 with the applicant, Mr. Lowry, which showed a spring used for irrigation purposes by the applicant. At the POD, a shallow 6ft containment had previously been excavated to capture spring water prior to use. The applicant transported his generator and portable 1/6 hp sump pump and 200 gal storage tank on the back of a truck, from his home to the spring for diversion. At time of field exam, the applicant's truck was broke down, and I was unable to complete flow measurements. Internet research of 1/6 hp sump pumps results in a max flow rate of approximately 25 gpm = 0.06 cfs. This rate is higher than the irrigated acreage, and a diversion rate of **0.04 cfs** is recommended for licensing based on 1.1 acres of irrigation.

Mr. Lowry stated that during the irrigation season, he would fill the tank 3-4 times a week max to supplement water diverted from his pond (95-10082) in order to water the lawn around his home. Mr. Lowry stated he actively irrigated by this method during the permit development period, and leading up to a recent knee injury that has made mobility difficult for him. As a result, the applicant had not actively irrigated from the spring in 2020. Due to the lapse of time between initial field exam and current field exam, credit for irrigation of 1.1 acres is recommended on the license. Mr. Lowry stated the farmer he leases his land to for haying had slightly plowed in the spring, and needed to come dig it back out prior to next year's season.

At the irrigation POU, the applicant would position his truck on the uphill side of his lawn on both sides of his driveway, and then irrigate from the 200 gallon storage tank by flood irrigation. During field exam, the irrigated acreage was sketched on field maps. During licensing review, Arcmap aerial imagery and field notes were used to trace out the irrigation from storage POU equaling 1.1 af. The annual volume for the irrigated acreage equals $1.1 \text{ ac} \times 3.0 \text{ afa} = 3.3 \text{ af}$, but as this is a surface source right there is no volume applied to the license.

Condition 26A was removed from the permit during licensing review. Condition X35 was added to describe the limitations for irrigation of 1.1 acres between this right, 95-4665, and 95-10082 (read below). All other conditions on permit shall remain on the license.

POU Overlap Concerns:

- 95-4665 is a decreed right that uses groundwater for domestic purposes that overlap the irrigation from storage POU of this right.
- Condition X35 was added to this right to mitigate the overlap concern between rights 95-4665, 95-10082, and this right irrigating the same 1.1 acres at the irrigation from storage POU for this right.

There are no additional overlap concerns for this right.

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>
IRRIGATION	04/01 to 10/31	0.04 CFS

Totals: 0.04 CFS

2. Recommended Amendments

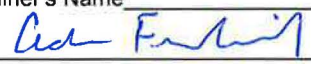
☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ None

I. AUTHENTICATION

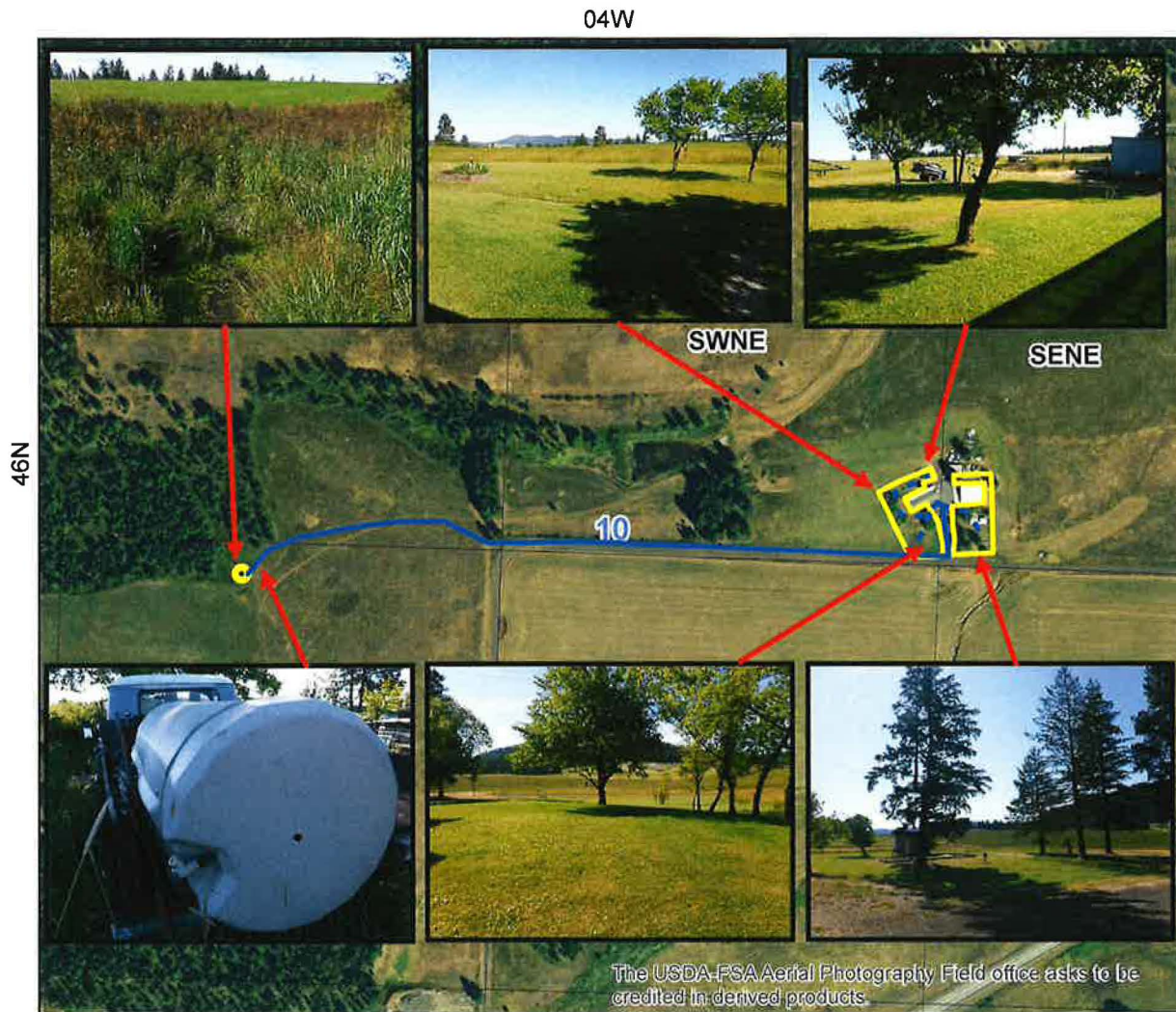
Luke Bates - Water Resource Agent

Field Examiner's Name  Date 12/15/2020

Reviewer  Date 12/15/2020

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-18029

IRRIGATION system diagram.



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

0 0.05 0.1 0.2 Miles





Flotec Tempest™ Water Removal Utility Pump 1/6 HP, 1470 GPH

Item #: WBB2224970

Not Yet Rated

Ships Same Day. ?

Enter [zip code](#) for delivery date estimate

Flotec Tempest™ Water Removal Utility Pump 1/6 HP, 1470 GPH

The Tempest™ is a multi-purpose pump for a variety of household dewatering tasks including sump draining, emptying ponds and aquariums.

Key Features:

- Multipurpose pump for emergency basement and sump draining, emptying ponds, appliances, wash down and roof dewatering
- Draws water down to 3/16"
- Corrosion-resistant, continuous duty submersible pump
- Switch for automatic operation sold separately

Product Specifications

BRAND	Flotec
MANUFACTURERS PART NUMBER	FP0S1300X-08
TYPE	Utility Pump
LENGTH INCHES	6.5
WIDTH INCHES	6.5
HEIGHT INCHES	9.875
WEIGHT LBS	10
COLOR FINISH	Black
CONSTRUCTION	Thermoplastic
SHAFT SEAL CONSTRUCTION	Silicone Carbide
AMPS	15
HERTZ	60
PHASE	1
VOLTAGE	115
HORSEPOWER	1/6
GALLONS PER HOUR	1470
GALLONS PER MINUTE	25
SUCTION/DRAW HEAD FEET	22
CORD LENGTH FEET	8

95-18429

10/22/2020



POD - SPRING



POD – SPRING





WATER CONVEYANCE SYSTEM – TRUCK WITH WATER TANK FILLED AND DELIVERED TO POU



IRRIGATION POU



IRRIGATION POU





IRRIGATION POU

