

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 2-10573
Exam Date: 06/10/2020

1. Current Owner:
MICHAEL FAUTT 25121 MARINA CT WILDER ID 83676 AND/OR
MARY BETH FAUTT 25121 MARINA CT WILDER ID 83676
2. Accompanied by: Michael Fautt
Phone No: 208-600-2000
Address: 25121 Marina Ct, Wilder, ID 83676
Relationship to permit Holder: Same

3. **SOURCE:**
SNAKE RIVER

Tributary
COLUMBIA RIVER

Method of Determination: Field observation, aerial imagery, and ArcMap GIS Tools

B. OVERLAP REVIEW

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

Water Right No.	Source	Purpose of Use	Basis
Wilder Irr District	Snake River	Irrigation	Decree

Comments: Primary irrigation water for the POU is delivered by Wilder Irrigation District.

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

Water Right No.	Source	Purpose of Use	Basis
N/A	N/A	N/A	N/A

Comments: No POD Overlap.

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

SNAKE RIVER L2 (SE¼ NE¼), Sec. 14, Twp 03N, Rge 05W, B.M. CANYON County

Method of Determination: Handheld GPS, Field Observation, PLSS Maps

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	
03N	05W	14	4.6 L2			2.2 L2													6.8

Total Acres: 6.8

Method of Determination: Field Observation, Aerial Imagery, and ArcMap GIS tools.

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
N/A	Hitachi	7.5	N/A	Goulds	4"

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Electromagnetic Flow Meter	Mag-Meter	McCrometer Dura Mag	DM04-2101	DM18-0953	4"	10/25/19

2. Measurements: Took a total of 10 meter readings over a time span of 5 minutes and averaged readings.

E. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Measured Method: McCrometer Dura Mag meter

Measured Rate: 126.8 gpm/ 448.83 gpm/cfs = 0.28 cfs

Recommended Rate: 0.02 cfs/acre x 6.8 acres = 0.14 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = (6.8 \text{ acres irrigated}) \times (4.5 \text{ af}) = 30.6 \text{ af}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = [0.14 \text{ (cfs)}] \times (260 \text{ days}) = 72.2 \text{ af}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 30.6 \text{ af}$$

G. NARRATIVE/REMARKS/COMMENTS

Field exam was conducted on June 10, 2020 by agent Justin Shearer. He was accompanied by permit holder Michael Fautt. Ownership of the permit is in the name of Michael and/or Mary Beth Fautt. Current Canyon County taxlot data represents Michael and Mary Beth Fautt own the land pertinent to the place of use (POU) and point of diversion (POD). No ownership change is required.

Water is diverted from the Snake River using a submersible pump system installed in 2019. At the time of the exam a 7.5 hp submersible Hitachi motor and Goulds submersible pump were providing water to 9 risers with 1 1/2" couplers to 1 1/2" PVC

hose that connect to a total of 5 Lumo 23S high pressure sprinkler heads on Strongway wheeled sprinkler carts. Fautt explained during the exam that he rotates the 5 sprinkler carts around the property to the 9 risers as needed to irrigate and typically runs 3 sprinkler guns at a time. At the POD Fautt has a McCrometer Dura Mag electromagnetic flow meter installed. This meter make and model meets IDWR standards for use in closed conduit measurement applications. Additionally, the meter was installed consistent with manufacturer specifications and IDWR installation requirements with the meter grounded properly, required upstream and downstream pipe diameter distances met, and the sensor positioned correctly. Subsequently, accurate flow measurements were able to be obtained from the installed flow meter.

For flow measurement, ten readings were observed and recorded over a 5 minute period and averaged. At the time of exam, a flow rate of 0.28 cfs was measured. The measured rate indicates that the permit holder is diverting more than their permitted rate of 0.16 cfs. Ratings for the Lumo 23S high pressure sprinkler heads were unobtainable so a theoretical diversion rate to compare with the measured flow rate was unable to be calculated. However, the system was operating as normal during the flow measurement so any large disparities would be unlikely.

Overlap review found Wilder Irrigation District rights pertinent to the POU which Fautt receives irrigation water from. POD analysis found no overlap. Aerial imagery, ArcMap GIS tools, and Climate Engine remote sensing data confirmed that only 6.8 acres out of the permitted 9.2 acres were developed. Fautt explained during the field exam that 2 acres 03N 05W NE ¼ NE ¼ Lot 2 were parceled, sold, and never developed. Aerial imagery and taxlot data confirms this. Thus, I am recommending a total diversion rate of 0.14 cfs based upon the department standard of 0.02 cfs/ac.

Condition 26A was removed as per department standards. Condition 121 was updated to 103. Conditions R61 and 943 kept as part of the stipulated withdrawal agreement. Condition WB7 was revised to correlate the volume respective to the developed acreage.

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	03/01 to 11/15	0.14 CFS	

Totals: 0.14 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

Justin Shearer - Water Resource Agent, Senior

Field Examiner's Name Justin Shearer Date 6/18/20

Reviewer Paul M. Moly Date 6-24-20

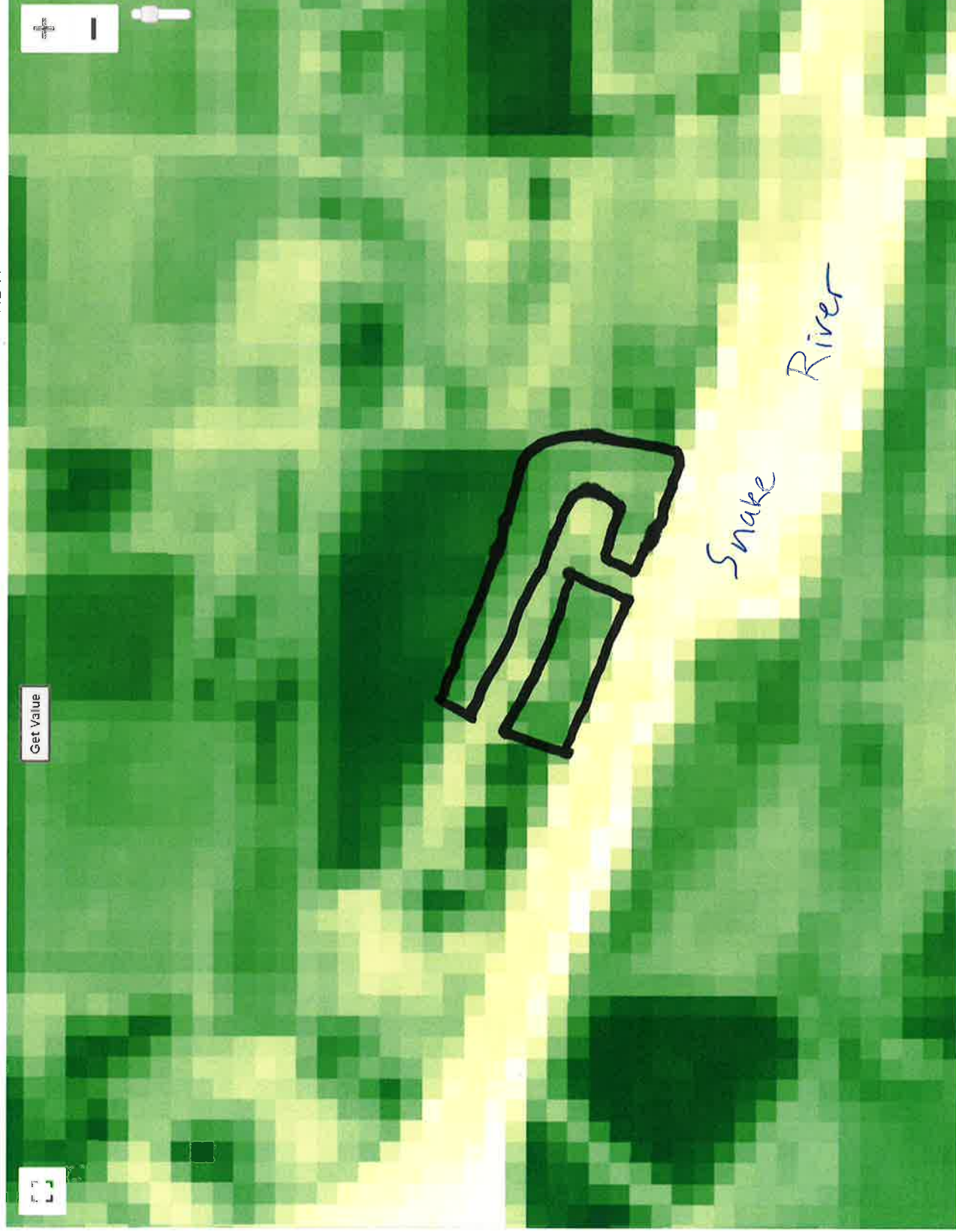
2-10573 System Diagram



Climate Engine Remote Sensing

NDVI (Landsat 4/5/7/8 SR)

2019-04-01 to 2019-10-31, Mean



Pou



Pic of POD on Snake River, showing measuring device installed to standards.



Close up pic of McCrometer Dura Mag flow meter.



Pic of 1/9 risers on Fautt's property used to send water to sprinkler carts.



Close up pic of 1 1/2 inch PVC hose coupled to riser. Hose feeds water to sprinkler carts.



Close up pic of one of the Lumo 23S high pressure sprinkler heads on a Strongway wheeled sprinkler cart.



Pic of POU looking to the East just North of the POD.



Pic of POU North
of Marina Ct
looking to the NE.



Pic of a riser in the
middle of POU
north of Marina Ct
looking to the
West.



Pic of POU East of
House looking
North.



Pic of POU East of
house looking to
the West.