

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-13942

Exam Date: 6/26/2013

1. Current Owner: JOHN E GOUGH
893 E TWIN WILLOW CT
BOISE ID 83706
(208)336-5769
2. Accompanied by: Barbara Gough
Phone No: Same
Address: Same
Relationship to Permit Holder: Wife

3. SOURCE TRIBUTARY
MIDDLE FORK PAYETTE RIVER PAYETTE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point of diversion: None

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

MIDDLE FORK PAYETTE RIVER NE1/4SW1/4 Sec. 23, Twp 10N, Rge 04E, B.M.
BOISE County

Method of Determination: Arc Map (Aerial Photo)

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
10N	04E	23									.5								.5

Total Acres: 0.5

Method of Determination: Arc Map (Aerial Photo); Tax Lots

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.

<u>Well or Diversion</u> <u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge</u> <u>Size</u>
N/A	G.E.	2	Unknown	Myers	98604 2"

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

D. FLOW MEASUREMENTS

1.

<u>Measurement</u> <u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
Pitot Tube						

2. Measurements: Pitot Tube pressure measurement of 40 psi. However, due to leakage, assume on operating pressure of 50 psi. Station No.2 – 10 Rainbird sprinklers with 9/64" nozzles @ 50 psi = 4.18 gpm/sprinkler.
 $Q = 10 \times 4.18 \text{ gpm} = 41.8 \text{ gpm} \sim 0.09 \text{ cfs}$.

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 2/10 + (2.31 \times 50) = 12.32/125.50 = 0.10 \text{ cfs}$$

$$Q(\text{sprinklers}) = 10 \times 4.18 \text{ gpm} = 41.8 \text{ gpm} (0.09 \text{ cfs})$$

$$HP = 2$$

$$Z = 10' \text{ (Estimated)}$$

$$P = 50 \text{ psi (Assumed)}$$

$$Q(\text{theoretical}) = 0.10 \text{ cfs} > 0.09 \text{ cfs } Q(\text{sprinklers}) > 0.02 \text{ cfs } Q(\text{permit})$$

Appears that the current pumping system can attain the permit diversion rate of 0.02 cfs.

Recommend the permit diversion rate of 0.02 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.5 \times 1.8 = 0.90 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.02 \times 231 \times 1.9835 = 9.2 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 0.90 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS**WATER SUPPLY SYSTEM:**

A 2-hp centrifugal pump diverts water from the Middle Fork of the Payette River through a 2" PVC suction line. The pump discharges water to the pressurized irrigation system through 2" PVC main line.

IRRIGATION SYSTEM:

The pressurized irrigation system irrigates approximately 0.50 acres of lawn and landscaping, and is comprised of two (2) stations. Station No.1, which irrigates the lawn and landscaping adjacent to the home, contains eight (8) Rainbird Maxi Paw pop-up sprinklers. Station No.2, which irrigates the lawn and landscaping at the eastern portion of the right holder's property, contains ten (10) Rainbird sprinklers. All sprinklers have 9/64" nozzles.

OVERLAP ANALYSIS:

Point of Diversion: There are no point of diversion overlaps for Water Right Permit No. 65-13942.

Place of Use: There are no place of use overlaps for Water Right Permit No. 65-13942.

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

CONDITION NO.4 (01H) – Prior to diversion of water under this right, the right holder shall install a lockable device. The wooden box enclosure for the pump and control/junction box has a locking hasp for locking the box. The fuse box and irrigation control box are located in a locked garage. Right holder has complied with Condition No.4.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.02	&/or	N/A
Beneficial Use Limit	0.02	&/or	N/A
System Measurement	0.10(theoretical)	&/or	N/A
Proof Fee Amount	0.20	&/or	N/A
Recommended Amount	0.02	&/or	N/A

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	3/15 to 10/31	0.020 CFS	0.90 AFA
<u>Totals:</u>		0.020 CFS	0.90 AFA

2. Recommended Amendments

___Change P.D. as reflected above ___Add P.D. as reflected above XNone

___Change P.U. as reflected above ___Add P.U. as reflected above ___Other

I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 11/15/13

Reviewer _____ Date _____

MEMORANDUM

TO: Files 65-13942 & 65-13904

FROM: Kay Walker 

RE: Volume Recommendations

Date: November 20, 2013

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When examiner reviewed permit to write up field exam he used the volume limiter in conditions of approval to propose volume for the licenses. The volume limiter in conditions was used on permits that were issued for less than 1 acre in size. In case of 65-13942, IDWR issued permit for 0.5 acres – limited to 1.8 afa at field headgate. $0.5 \text{ ac} \times 3.5 \text{ afa} = 1.75$ rounds to 1.8 afa. In case of 65-13904, IDWR issued permit for 0.7 acres – limited to 2.5 afa at the field headgate. $0.7 \text{ ac} \times 3.5 \text{ afa} = 2.45$ afa rounds to 2.5 afa.

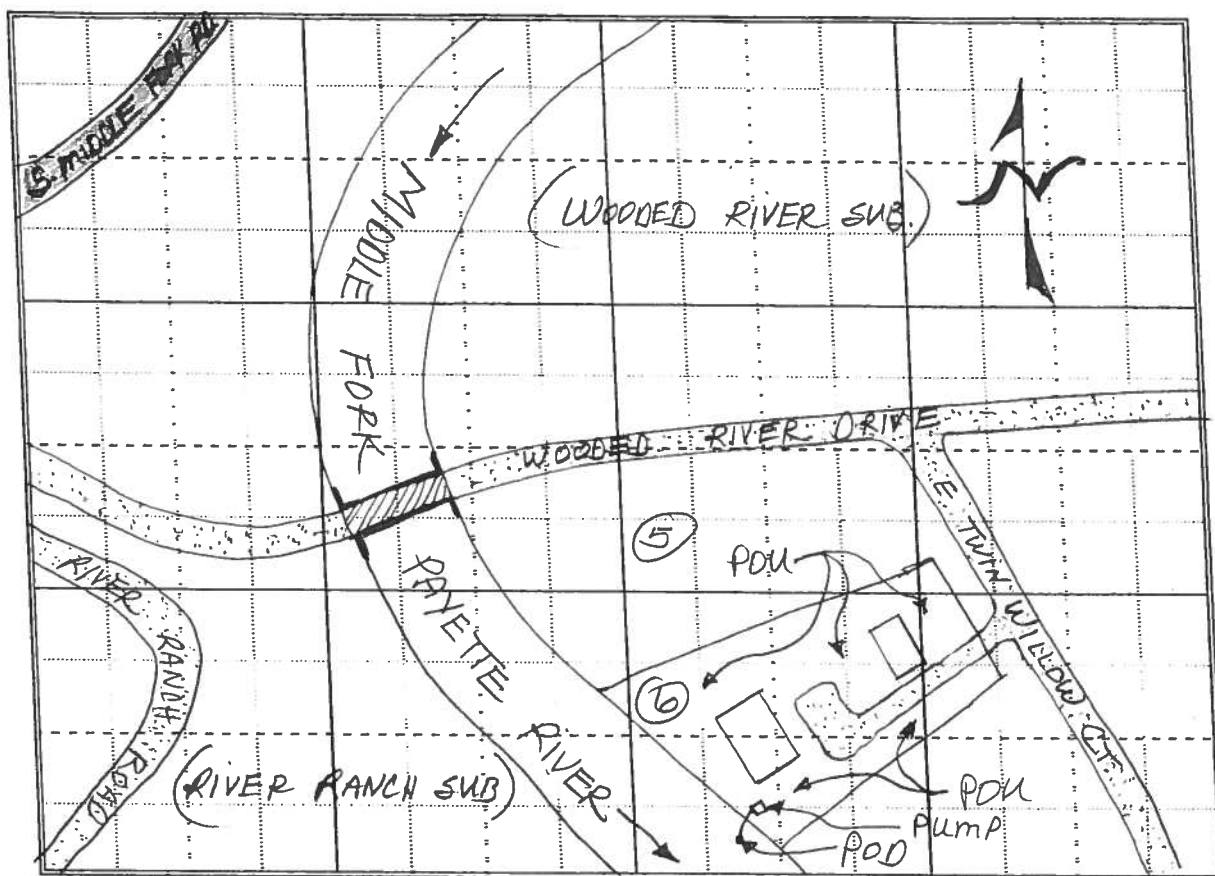
Discussed the use of condition X31 with examiner so he could watch for these oddities in the future.

65-13942

ESRI AERIAL PHOTO - 2012



3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached.



Scale: 1" = NTS

- ☐ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)
☒ Aerial photo attached (required for irrigation of 10+ acres)
☒ Photo of diversion and system attached

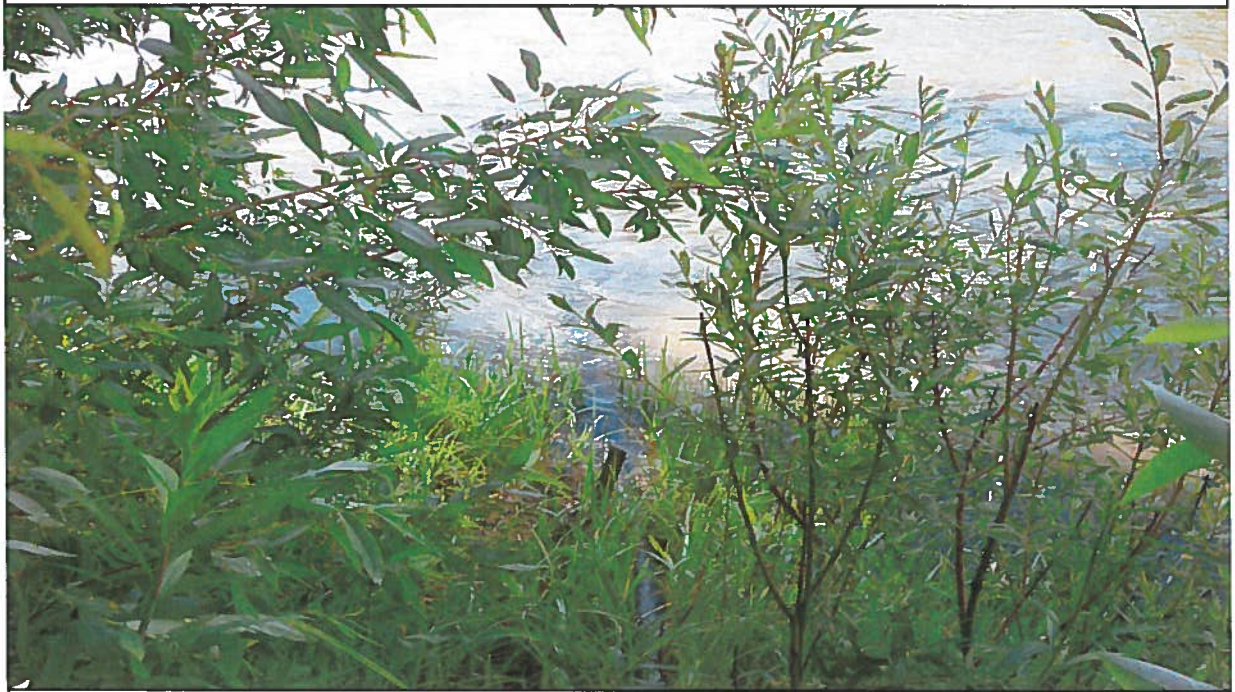
FIELD EXAM PHOTOS

Water Right Permit: 65-13942

Field Exam Date: 6-26-13

PLS: NE1/4, SW1/4 Section 23, T.10N, R.04E.

Field Examiner: RC



Point of Diversion: View southwesterly from the easterly river bank of a 2" PVC suction line with a screened intake.



View westerly of the 2-hp centrifugal pump, 2" PVC suction line from the river, and two 2" PVC discharge lines to the right holder's pressurized irrigation system. The pump, solenoid valves, and junction box are located in a locked wooden enclosure.



Place of Use: View northwesterly of the lawn area located between the home and the Middle Fork of the Payette River.



Place of Use: View northeasterly of a landscaped area easterly of the home being irrigated by Station No. 2, which is comprised of 10 Rainbird sprinklers.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

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June 12, 2013

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

John E. Gough
893 E. Twin Willow Ct.
Boise, ID 83706

RE: Scheduling Field Exam for Water Right Permit No. 65-13942

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of June 24, 2013**. An examination is needed to verify your water use in order to issue a water right license.

Please be advised that you will need to operate your system under normal operating conditions during the examination. The permit authorizes the diversion of 0.02 cfs of surface water from the Middle Fork of the Payette River for irrigation of 0.5 acres.

In order to conduct your exam as efficiently as possible, we ask that you call this office to schedule a day and time convenient for you. **Please call me at 208-334-2190 by June 21, 2013, to conduct the exam during the week of June 24, 2013.** If there is a problem with scheduling or conducting the examination at this time, please let me know so we can reschedule or make other arrangements.

I appreciate your attention to this matter and I look forward to hearing from you.

Sincerely,

A handwritten signature in cursive script that reads "Rick Collingwood". The signature is written in dark ink and is positioned above the printed name and title.

Rick Collingwood, P.E.
Water Resource Agent, Sr.