

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-23060

Exam Date: 10/3/2012

1. Current Owner: ALLAN R MARION
25 RIVER RD
GARDEN VALLEY ID 83622
(208)462-5058

And/Or

PATRICIA P MARION
25 RIVER RD
GARDEN VALLEY ID 83622
(208)462-5058

2. Accompanied by: Allan & Patricia Marion
Phone No: Same
Address: Same
Relationship to Permit Holder:

3. **SOURCE**

MIDDLE FORK PAYETTE RIVER

TRIBUTARY

PAYETTE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 65-13027
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 NE1/4NE1/4
BOISE County

Sec. 34, Twp 10N, Rge 04E, B.M.

Method of Determination: Arc Map (Aerial Photo).

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
10N	04E	34	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	0.7

Total Acres: 0.7

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 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 Size</u>
N/A		1.5		Sta-Rite	(1 1/2")

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

D. FLOW MEASUREMENTS

1.

<u>Measurement 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 was too small for the Hunter pop-up sprinkler head nozzles. Measured operating pressure of 35 psi with leakage. Assumed an operating pressure of 40 psi.

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 1.5/10 + (2.31 \times 40) = 9.24/102.4 = 0.09 \text{ cfs}$$

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

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

$$P = 40 \text{ psi (Assumed)}$$

$$HP = 1.5$$

Appears that the current pumping system is capable of attaining the permit diversion rate of 0.02 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.7 \times 3.5 = 2.5 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.02 \times 246 \times 1.9835 = 9.8 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 2.5 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A

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

A 1.5-hp centrifugal pump diverts water from the Middle Fork of the Payette River for irrigation of 0.70 acres of lawn and landscaping on Lot 13 of the Pine Tree Ranch Subdivision No.11. Water is diverted through a screened intake section attached to a 2" flexible hose, and discharged to the 1 ½" PVC irrigation main lines.

IRRIGATION SYSTEM:

Lawn and landscaping is irrigated by a pressurized irrigation system with Hunter pop-up sprinkler heads. The pressurized irrigation system is comprised of five (5) stations. The number of sprinkler heads assigned to each station varies between 5 and 10.

OVERLAP ANALYSIS:

Place of Use: Water Right Permit No. 65-13027, which is assigned to Pine Tree Ranch, Inc., provides ground water to the 26 residential lots in the Pine Tree Ranch Subdivision No.11 for domestic use and irrigation. The right holder's use the water for domestic use, but not for irrigation.

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

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	0.09 (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	03/15 to 10/31	0.020 CFS	2.5 AFA
<u>Totals:</u>		0.020 CFS	2.5 AFA

2. Recommended Amendments

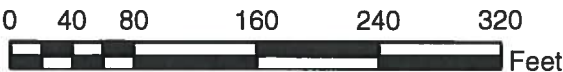
___ Change P.D. as reflected above ___ Add P.D. as reflected above X None

___ Change P.U. as reflected above ___ Add P.U. as reflected above ___ Other

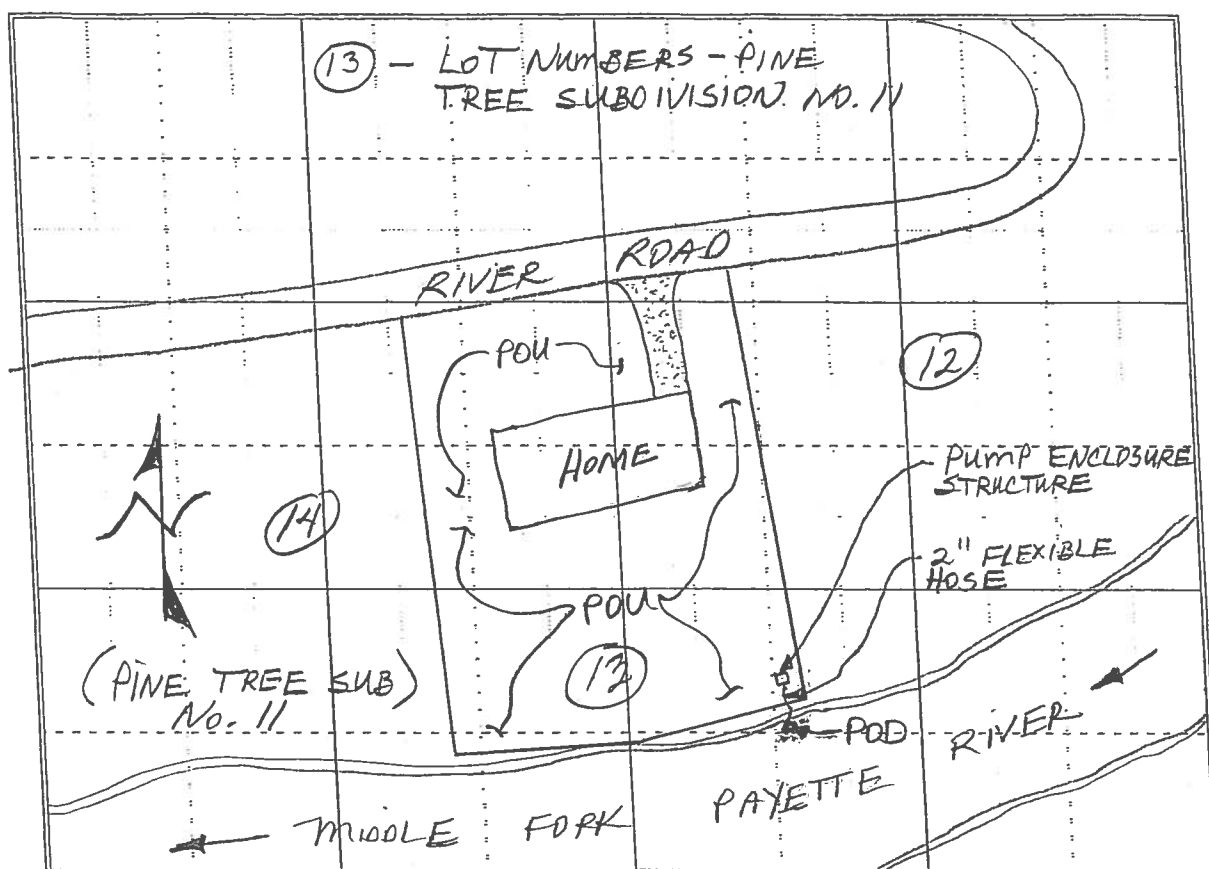
I. AUTHENTICATION

Field Examiner's Name Rick Collingsworth Date 2/27/13

Reviewer _____ Date _____



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: 65-23060
PLS: NE1/4, NE1/4 Section 34, T.10N, R.04E.
Field Examiner: RC

Field Exam Date: 10-3-12



Point of Diversion: View southerly of the 2" flexible hose suction line. The 20' section of 2" flexible hose is connected to a 1 1/2 hp centrifugal pump located in a small wooden pump enclosure structure on the bank of the Middle Fork of the Payette River.



View northeasterly of the 1 1/2 hp centrifugal pump and pump enclosure structure. The irrigation discharge main line is 1 1/2" PVC pipe.



View behind the pump enclosure structure of the irrigation main line filter and a solenoid valve controlled drain line for flushing the filter.



Place of Use: View southwesterly of the pressurized irrigation system in operation irrigating the lawn and landscaping between the home and the Middle Fork of the Payette River.



State of Idaho

DEPARTMENT OF WATER RESOURCES

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

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C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

September 13, 2012

Allan R. & Patricia P. Marion
25 River Road
Garden Valley, ID 83622

RE: Scheduling Field Exam for Water Right Permit No. 65-23060

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of September 24, 2012**. 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 from the Middle Fork of the Payette River for irrigation of 1.0 acre.

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 September 21, 2012, to conduct the exam during the week of September 24, 2012.** 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 black ink that reads "Rick Collingwood". The signature is fluid and cursive, with the first name "Rick" and last name "Collingwood" clearly legible.

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