

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 67-14321

Exam Date: 9/5/2012

1. Current Owner: JACK WRIGHT
PO BOX 3
COUNCIL ID 83612
(208)253-6427
- And/Or
- LYNETTE WRIGHT
PO BOX 3
COUNCIL ID 83612
(208)253-6427
2. Accompanied by: Lynette Wright
Phone No: Same
Address: Same
Relationship to Permit Holder:

3. **SOURCE**

FALL CREEK

TRIBUTARY

MIDDLE FORK WEISER 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:**

FALL CREEK

SW1/4SW1/4

Sec. 8, Twp 15N, Rge 01E, B.M.

ADAMS County

Method of Determination: Arc Map (Aerial Photo); GPS Latitude N.44°38.610', Longitude W.116°22.206'; Datum – NAD83.

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
15N	01E	7																0.7	0.7
15N	01E	8											1.3						1.3

Total Acres: 2

Method of Determination: Arc Map (Aerial Photo)

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	N/A			N/A	(6")

*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>
5-gallon bucket						

2. Measurements: 5-gallon bucket. Measured flow of approximately 3 gpm at one of four irrigation risers. At time of the field exam, the water level in Fall Creek was low, so it is assumed that the 6" conveyance pipe was not full and therefore the irrigation system was likely not operating at system capacity.

E. FLOW CALCULATIONS

Measured Method: (5-gallon bucket & Pipe Flow Calculation)

5-gallon bucket: Q = 3 gpm

Manning's Equation: $V = 1.49/nR^{2/3}S^{1/2}$ $V = 1.49/0.015 (0.125)^{2/3}(0.05)^{1/2} = (99.33)(0.2483)(0.2236) = 5.52 \text{ ft/sec}$ $Q = VA = 5.52 \times 0.20 \text{ ft}^2 = 1.1 \text{ cfs}$

Appears system is capable of attaining the permit diversion rate of 0.10 cfs

 Additional Computation Sheets Attached

Manning's Equation (Assuming Full Pipe)

L = 1000' (Appx. Pipe Length)

n = 0.015 (Resistance coefficient)

D = 6" (0.5'-Pipe Diameter)

R = D/4 = 0.5/4 = 0.125'

Δ Elev. = 50' (Estimated)

S = Δ Elev/L = 50'/1000' = 5%

A = 0.20 ft²

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 2.0 \times 4.0 = 8.0 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.06 \times 214 \times 1.9835 = 25.5 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 8.0 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A

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

A diversion structure in Fall Creek, constructed of rock and visqueen, diverts water to a screened concrete headgate structure. A 6" slide gate controls the flow to the 6" PVC conveyance pipe. The slide gate remains open during the irrigation season.

IRRIGATION SYSTEM:

Approximately 1000 lineal feet of 6" PVC gravity pipe conveys the water from the east end of the right holder's property to the west end of the property near Fall Creek. A 6" valve, located at the terminus of the 6" PVC conveyance pipe, controls the flow through the pipe. The 6" valve remains closed during the irrigation season to provide adequate static pressure in which to irrigate. Based on a topographic map, it is estimated that there is approximately 50 feet of elevation drop from the point of diversion to the terminus of the pipe. At the end of the irrigation season, the 6" valve is opened to drain the system for the winter. A concrete pad has been constructed below the pipe terminus to dissipate the water velocity when draining the conveyance pipe. The water sheets off the concrete pad and discharges back to Fall Creek.

Lawn and garden irrigation is accomplished by four irrigation risers for hose attachments. Lawn and garden areas are irrigated by hose and lawn sprinklers.

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

CONDITION NO. 5 (01J) – Prior to diversion of water, the right holder shall install a measuring device and lockable controlling works. Right holder has installed a lockable device on the 6" slide gate. On, September 23, 2005, Bosco Bosler, Watermaster for District 67, issued a letter stating that it would be difficult for the right holder to divert the requested appropriation of 0.10 cfs. Therefore, he believes that a measuring device for this diversion structure is not necessary.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.10	&/or	N/A
Beneficial Use Limit	0.10	&/or	N/A
System Measurement	0.01	&/or	N/A
Proof Fee Amount	0.20	&/or	20.0
Recommended Amount	0.06	&/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	04/01 to 10/31	0.06 CFS	8.0 AFA
<u>Totals:</u>		0.06 CFS	8.0 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

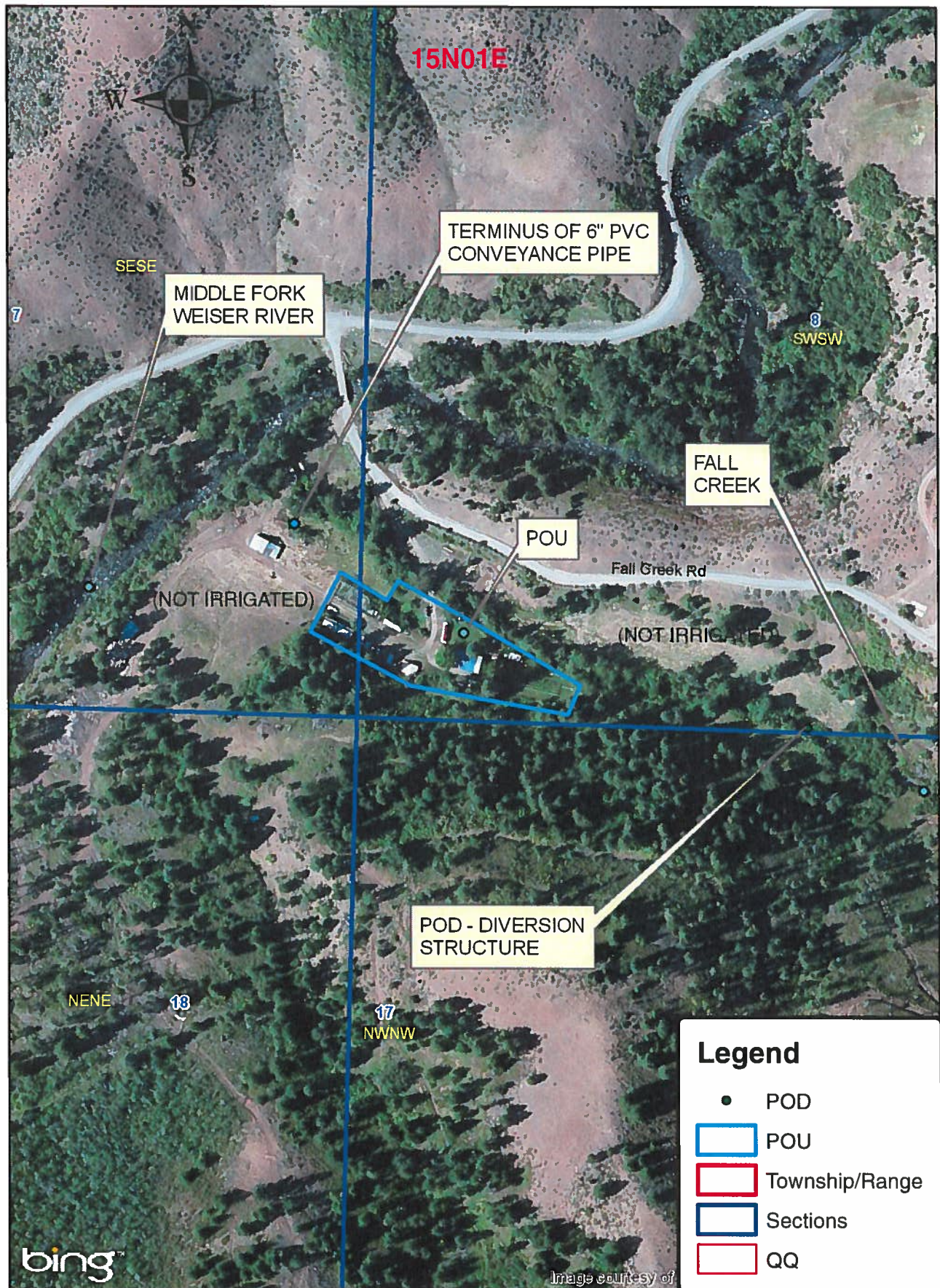
I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 11/13/12

Reviewer _____ Date _____

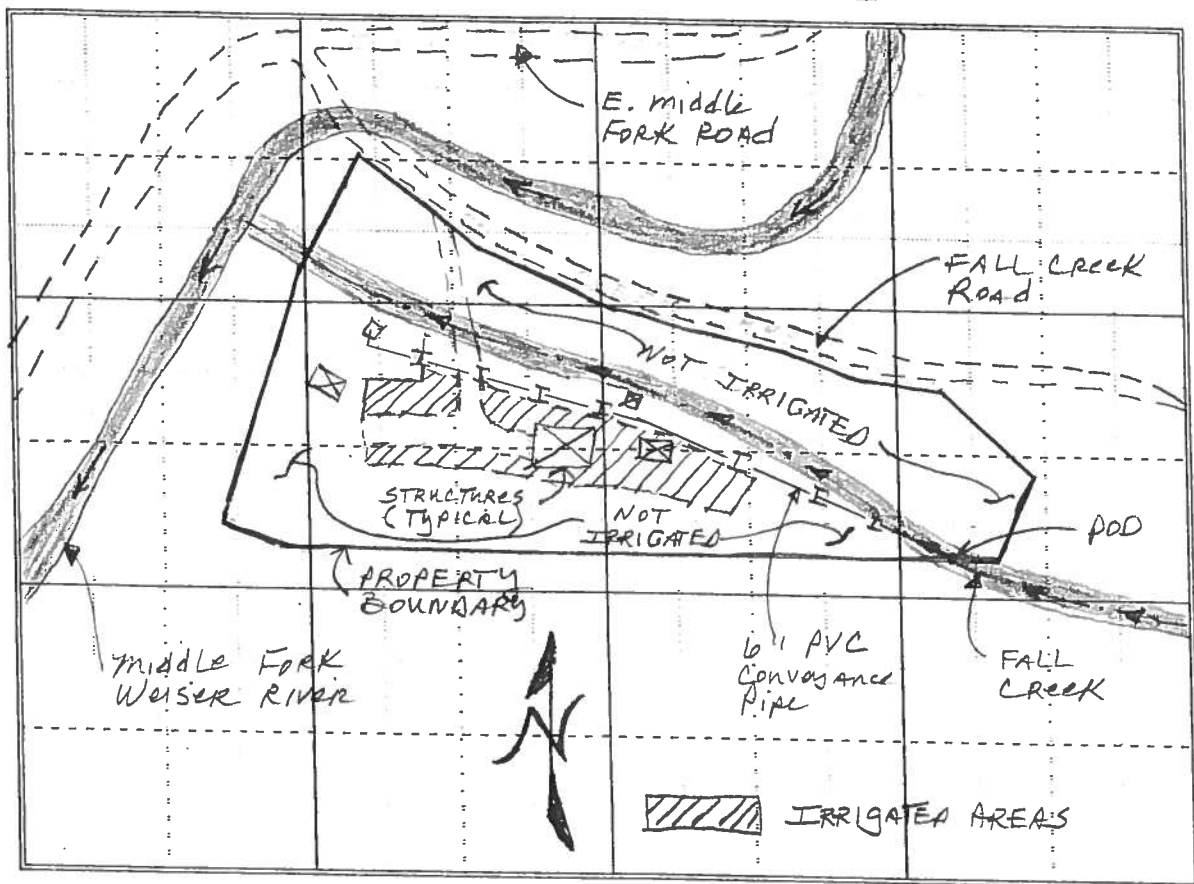
67-14321

BING AERIAL PHOTO - 2011



0 80 160 320 480 640
Feet

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: 67-14321

Field Exam Date: 9-5-12

PLS: SW1/4, SW1/4 Section 8, T.15N, R.01E.

Field Examiner: RC



Point of Diversion: View westerly of concrete headgate structure on Fall Creek. Surface water is diverted to the 6" PVC conveyance pipe for sprinkler irrigation of lawn, landscaping, and gardens. The 6" PVC conveyance pipe continues through the right holder's property and discharges downstream back to Fall Creek.



Point of Diversion: View easterly of the diversion structure in Fall Creek which extends upstream from the concrete headgate structure.



Place of Use: View northerly of lawn area and sprinkler irrigation. Sprinkler hoses are attached to risers spaced along the 6" PVC conveyance pipe.



View southwesterly of the terminus of the 6" PVC conveyance pipe. The 6" valve remains closed during the irrigation season to maintain pressure head in the pipe for irrigation. At the end of the irrigation season, the 6" valve is opened to drain the pipe onto the concrete slab. The water sheets off the concrete slab and discharges back to Fall Creek.



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

August 13, 2012

Jack & Lynette Wright
P.O. Box 3
Council, ID 83612

RE: Scheduling Field Exam for Water Right Permit No. 67-14321

Dear Mr. & Mrs. Wright:

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of August 20, 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 0.10 cfs from Fall Creek for irrigation of 5.0 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 August 17, 2012, to conduct the exam during the week of August 20, 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,

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