

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-13914

Exam Date: 10/9/2012

1. Current Owner: MIKE NUZZO
23 SMITHS FERRY DR
CASCADE ID 83611
(208)382-3204
2. Accompanied by: Mike Nuzzo
Phone No: Same
Address: Same
Relationship to Permit Holder: Same

3. SOURCE

NORTH FORK PAYETTE RIVER

TRIBUTARY

PAYETTE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Unrecorded internal domestic ground water (well) use for home. No other water rights/uses on property.
2. Other water rights with the same point of diversion: None.

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

NORTH FORK PAYETTE RIVER

L5 (NW1/4SE1/4)

Sec. 10, Twp 11N, Rge 03E, B.M.

VALLEY County

Method of Determination: GPS Location N44° 18.009' W116° 5.082' Garmin model GPSmap 76 Datum NAD 83

2. PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
11N	03E	10			1.5											0.5			2.0
					L 4											L 5			

Total Acres: 2.0

Method of Determination: Bing (2011) Aerial Photography w/ field verification.

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

<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 Size</u>
13245374 -	General Electric	1	Unknown	Unknown - jet pump	5KC38SN2959AX -
WR Accounting Site ID					1.5 in Discharge

D. FLOW MEASUREMENTS1. **Measurement**

<u>Equipment</u>	<u>Type</u>	<u>Make/Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
No physical measurement @ exam	N/A	N/A	N/A	N/A	N/A

See Flow Calculations Section below for Sprinkler System & Pipe Dia Flow Estimations.

2. Measurements: Sprinkler nozzle measured using drill bit = 3/16 in
 Lines frozen at time of inspection, could not turn system on during exam. Piping from river not suitable (insufficient straight/solid pipe length and diameter) for polysonic measurement.

E. FLOW CALCULATIONS

_____Additional Computation Sheets Attached

Measured Method: Sprinkler System Estimation:

of sprinkler heads @ one time = 2 to 3 (3 max at 1 time)

Type of sprinklers = Gilmour

Nozzle size = 3/16" rated for 8.12 gpm @ 60 psi (Per Appendix A Exhibit 9 Field Exam handbook)

$Q = \# \text{ sprinklers} \times \text{gpm} = 3 \times 8.12 \text{ gpm} = 24.36 \text{ gpm} = \mathbf{0.05 \text{ cfs}}$ est. discharge from sprinklers

Measured Method: Pipe Diameter Flow Estimation:

Discharge Pipe Dia = 1.5 in = 0.125 ft

$A = \pi r^2 = 3.14 \times (1/2 \text{ Dia})^2 = \pi \times (0.0625)^2 \text{ ft}^2 \approx 0.0123 \text{ ft}^2$

$V = 5 \text{ ft/sec}$ (est. for well designed closed pipe system)

$Q = AV = 0.0123 \text{ ft}^2 \times 5 \text{ ft/sec} = \mathbf{0.06 \text{ cfs}}$ est. flow through discharge pipe

Diversion rate based on sprinkler type @ 60 psi = **0.05 cfs**

Pipe diameter flow estimation = **0.06 cfs**

Permitted Rate = **0.35 cfs**

Beneficial Use Limit = 2.0 ac $\times$ 0.03 cfs/ac = **0.06 cfs**

Proof of Beneficial Use fee paid = \$50.00 = up to **0.20 cfs**

Recommend Beneficial Use Limit Rate = 0.06 cfs

Highest rate allowable based on beneficial use limit 0.06 cfs recommended. Pipe diameter flow and sprinkler estimations within 75% of beneficial use limit allowable. Seems reasonable to allow maximum beneficial use limit here for small (2.0 acres of lawn irrigation) water use.

F. VOLUME CALCULATIONS

- Volume Calculations for Irrigation: **N/A for surface water irrigation from stream**
- Volume Calculations for Other Uses: **N/A no other uses permitted**

G. NARRATIVE/REMARKS/COMMENTS**SYSTEM DESCRIPTION:**

System consists of a 1 hp pump with a 1.5 in discharge line piped to a pump house (adjacent to river) piped to multiple (3) 1 in lines. The 1 in mainline "Ts" next to the house into 2 lines to which sprinkler heads are attached for lawn irrigation around house. Near center of the 1.5" mainline (between the river and the house), a third 1 in line is connected to the system.

IRRIGATION PRACTICES:

The lawn around the house is irrigated with 2 Gilmour oscillating sprinklers with 3/16 in nozzles. Typically Mr. Nuzzo irrigates the lawn from June or July through September. In August each year the owner uses the 3rd 1 in line (with

G. NARRATIVE/REMARKS/COMMENTS CONTINUED

another Gilmour oscillating sprinkler) to irrigate the area where sheep are grazed south of the house/east of the pump house. System will run all lines/sprinklers at same time.

COMPLIANCE WITH PERMIT CONDITIONS:

Permit conditioned that a lockable controlling works is to be maintained on the diverting works. No lockable device is currently in place on the diversion itself. However, the pump has a dedicated power source at which point the diversion could be regulated should it become necessary. Mr. Nuzzo has discussed the rental pool with the watermaster and is aware of the procedures. Mr. Nuzzo stated he reports his diversions each year to the watermaster and pays to rent water from the rental pool for his diversion. Department Water Right Accounting data confirms Mr. Nuzzo's statement.

Permit conditioned that the diversion works are to be aesthetically screened from view from the river and highway. I believe the intent of this condition has been fulfilled by installation of the pump house. This condition was put in place on the permit as part of the resolution for Idaho Rivers United's protest. Most of the diversion system (pump house, electrical, etc.) has been in place since 2005. The diversion is located on a highly visible, well traveled reach of the river. If Idaho Rivers United were aggrieved by the diversion works in anyway, it is very likely a complaint would've been filed with the Department within the last few years. No such complaint has been received. To the best of my knowledge, owner has complied with all other permit conditions.

Have conditions of permit approval been met? X Yes ___ No

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	N/A
<u>Totals:</u>		0.06 CFS	N/A

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 Angela M. Quinn Date 10/22/2012

Reviewer _____ Date _____

State of Idaho
Department of Water Resources

Beneficial Use Field Report System Diagram & Map

65-13914

R03E



0 0.015 0.03 0.06 Miles

Bing (2011) Aerial Photo

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



65-13914 Beneficial Use Field Report Photos



65-13914 Exam 10/9/2012: P/D pump house and 1.5 in discharge line facing south.



65-13914 Exam 10/9/2012: P/U facing south/southeast. Portion of lawn around house with sprinkler on left side of photo.