

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
IN-OFFICE REVIEW/BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATIONPermit No: 91-7902

Exam Date: 10/4/18

1. Does this qualify for an in-office field exam (IDAPA 035.02.r)? X Y ___ N
- Irrigation of 5 acres or less
 - Storage of up to 14.6 AF for stockwater purposes only
 - Any use other than irrigation or storage, if the combined diversion rate is 0.24 cfs or less
 - Other < >

2. Current Owner: Name: Jeff and Kim Scoggins
 Owner of Record Correct? Y Y ___ N
 Address of Record Correct? X Y ___ N
 If No: Address

The tax parcel shows Jeff Scoggins and the owner of the parcel – Lot 2 St Joe Riverside Tracts.

3. Beneficial Use Fees have been paid: X Y ___ N Receipt No: C0

4. **SOURCE** TRIBUTARY
 St Joe River Coeur D Alene Lake
 Method of Determination: Tax Parcels and GIS
 Change in Source: ___ Y ___ N

B. OVERLAP REVIEW

1. Other water rights with the same place of use: X NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: There are no overlapping rights in this 40 acre tract.

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

Water Right No.	Source	Purpose of Use	Basis

Comments: There are no overlapping water rights in this 40 acre tract.

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

Source	Govt. Lot	¼	¼	¼	Sec.	Twp.	Rge.		County
St Joe River	5		NE	SW	14	46N	1W	B.M.	Benewah
								B.M.	
								B.M.	

Method of Determination: Tax Parcel and GIS

Change in POD? X ___ N Amendment Required? X ___ N

2. PLACE OF USE: Use: Domestic

TWP	RGE	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
46N	1W	14									D				D				
		Lot #									5				5				
Total Acres =																			

Method of Determination: Tax parcel and GIS. **Please Note: We included the SESW in the place of use description because the tax parcel is in both 40 acre tracts, and both tracts are in Government Lot 5. Therefore no amendment is necessary.**

Change in POU? X N Amendment Required? N

 Delivery System Diagram Attached (required). Indicate all major components and distances between components.

Indicate weir size/pipe as applicable.

 Aerial Photo Attached (required for irrigation of 10+ acres).

 Photo of Diversion and System Attached

4. Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
River Pump	Unknown	0.25	Unknown	Unknown	Unknown

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

Please Note: Hp was attained from the application for permit form.

D. FLOW MEASUREMENTS

1. Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date

2. Measurements: No measurement is required on an In-House field exam.

E. FLOW CALCULATIONS

 X Additional Computation Sheets Attached

Measured Method:

Please see attached theoretical sheet based on the ¼ Hp pump described in the application for permit. Administrative Memorandum allows up to 0.04 cfs for domestic uses, but the pump described in the permit cannot provide that amount of water.

Administrative Processing Memo #22 allows = 0.04 cfs.

Measurement = 0.03 cfs

Permit allowed = 0.04 cfs

License recommend for 0.03 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \underline{\hspace{2cm}}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = \underline{\hspace{2cm}}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \underline{\hspace{2cm}}$$

2. Volume Calculations for Other Uses:

Administrative Processing Memorandum #22 allows 0.6 af for in-house use and 0.6 af for yard irrigation. The main use for this permit is yard irrigation, but the pump is used for back up for the home. A diversion rate of 0.03 cfs can supply more volume than the limit allowed by Administrative Memorandum #22 (0.03 cfs X 1.9835 X 365 = 21.7 af)

I recommend that this permit be licensed for 1.2 af annually.

G. PURPOSE OF USE

Irrigation Y N # Stock Domestic # of Homes 1

Other: < >

Change in Purpose of Use? Y N

Method of Determination: Aerial photography and tax records.

If Yes: From Use To Use Amount CFS AFA

H. NARRATIVE/REMARKS/COMMENT

This permit is an in-house permit for domestic use. The domestic use is mainly used for the watering of a yard with ¼ Hp pump and emergency backup water supply for buildings and trailer per the Application for Permit form. The parcel data in ArcMap show that the property has been built on in 1999. The aerial photos confirm that there are several buildings on this property. There is nothing in the file or overlapping water rights to provide what the normal supply of water is for the home. We can only assume the permit holder is using a well under the 42-111 exemption to supply water to the home.

The standard diversion rate was allocated for this permit, but the pump listed on the application for permit simply can't supply that amount of water. Therefore, we reduced the diversion rate to 0.03 cfs, since there is no way a ¼ pump can supply more than that amount of water.

This permit has a fish screen requirement. The proof of beneficial use form confirms that the owner has installed the fish screen, so no additional review is necessary.

Have conditions of permit approval been met? X Yes No

I. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
Domestic	01/01 to 12/31	0.03 CFS	1.2 AF
<u>Totals:</u>		0.03 CFS	1.2 AF

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

Other: < >

J. AUTHENTICATION – Daniel A. Nelson, Analyst 3 and Rosemary DeMond

Field Examiner's Name Rosemary DeMond Date 10/4/18
Reviewer Daniel A. Nelson Date 10-11-18

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 96-9004

Reviewer: Dan Nelson and Rosemary DeMond

Date of Review: 10/4/2018

P/D No.:

PUMP HORSEPOWER
BOOSTER HORSEPOWER

PUMPING LEVEL

DISCHARGE PRESSURE

RATE OF FLOW (cfs)

Scenario #1
0.25
0
2
25
0.03
12

Scenario #2
0.25
0
5
30
0.02
9

Scenario #3
1.4
0
5
60
0.06
27
0.04
15.94

The above calculates the formula =

$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency,
No Friction

Examiners Notes:

The application for permit states that the pump is a 1/4 or 1.4 Hp pump. Since there is no 1.4 Hp pump on the market, I am assuming that the pump is a 1/4 Hp pump. The area around the permit is very flat and could be considered to be flood ground. I estimated a lift of between 2 and 5 feet. The pressure would range depending on the sprinkler used. Most sprinklers operate between 25 and 45 psi. Most pop-up type sprinklers can operate at a low pressure of 25 to 30 psi. Most irrigation zones for homes are set up on a 12 gpm sprinkler zone per Steven Visoski, our former yard irrigation specialist. I

Permit 91-7902 – Field Exam Map.

The yellow border below shows the place of use and the yellow dot shows the point of diversion.

Please Note: A portion of the tax parcel goes into Government Lot 6 (NWSE) and the NWSE, but it is such a small portion that it wasn't work attaining an amendment to include such a small area.

