

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

A. GENERAL INFORMATIONPermit No: 96-9613

Exam Date: 2/14/2018

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

2. Current Owner: Name: Robert H. and Jerie L. Mc Queen
- Owner of Record Correct? X Y N
- Address of Record Correct? Y N
- If No: Address

Tax lot data shows Robert H. and Jerie L. Mc Queen as the owners of the property.

3. Beneficial Use Fees have been paid: X Y N Receipt No: C104642

4. **SOURCE** **TRIBUTARY**

Pend Oreille River

Columbia River

Method of Determination: GIS and Tax Parcel DataChange in Source: Y X N**B. OVERLAP REVIEW**

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

Water Right No.	Source	Purpose of Use	Basis

Comments: There are several water rights in the same Government Lot, but none of those rights are associated with the property described in this right.

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

Water Right No.	Source	Purpose of Use	Basis

Comments: There are several water rights in the same Government Lot, but none of those rights are associated with the property described in this right.

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

Source	Govt. Lot	¼	¼	¼	Sec.	Twp.	Rge.		County
River Diversion	3		SW	NE	29	56N	5W	B.M.	BONNER
								B.M.	
								B.M.	

Method of Determination: GIS and Tax Lot data.Change in POD? X N Amendment Required? X N**2. PLACE OF USE:** 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	
56N	5W	29			D					D									
		Lot #			3					3									
Total Acres =																			

Method of Determination: GIS and Tax Lot DataChange in POU? X N Amendment Required? X N Delivery System Diagram Attached (required). Indicate all major components and distances between components.

Indicate weir size/pipe as applicable.

 X 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	3/4			1.25 inch line to a pressure tank. (per application for permit)

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

D. FLOW MEASUREMENTS

1.Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NONE						

2. Measurements: No measurement is required for an in-house exam.

E. FLOW CALCULATIONSYES Additional Computation Sheets

Attached

Measured Method:

There was very little information in the file describing the pumping system for this permit, so a theoretical calculation using several assumptions to see if the flow rate seemed reasonable. The application for permit does state that the pump being used is a ¾ Hp pump. I did have to assume a lift and a system pressure. Administrative Processing Memorandum does allow up to 0.04 cfs and that sounds reasonable for this size of pump in this area.

Theoretical Calculation 0.04 cfs**Administrative Memo #22 = 0.04 cfs****Permit allowed = 0.04 cfs**

I am recommending a diversion rate of 0.04 cfs, since the estimated pump capacity seems to match Administrative Processing Memorandum #22 and the permit limitation.

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 provides for an annual volume of 1.2 af for in-house use and up to ½ acre of irrigation.

G. PURPOSE OF USEIrrigation X Y N # Stock Domestic # of Homes 1

Other: < >

Change in Purpose of Use? Y NMethod of Determination: Taxlot data and conversations with owner.If Yes: From Use To Use Amount CFS AFA **H. NARRATIVE/REMARKS/COMMENTS**

This permit does qualify for an in-house field examination. The water is diverted from the Pend Oreille River to a mobile home and yard irrigation. The tax parcel information states that a mobile home is on this property.

The point of diversion and place of use are described in the permit as being in Government Lot 3 (NW1/4, SE1/4). However, the Public Land Survey (PLS) in the Department's mapping program shows that the point of diversion is actually in Government Lot 3 (SW1/4, NE1/4) and the place of use is in Government Lot 3 (SW1/4, NE1/4 and NW1/4, SE1/4). This can be corrected at licensing, since the formal legal description of Government Lot 3 was listed on the permit. However, it should be corrected on the license.

The permit required a fish screen, and the permit holder stated on the proof of beneficial use form that they had installed the fish screen.

Conditions 1 (004), 3 (X15), 5 (187) and 6 (X60) will be carried forward to licensing. Condition 1 (X15) will be modified to state that the fish screen shall be maintained. Condition X59 should not be added to the license, since it appears as though the point of diversion is outside of the tax parcel. There is an easement that allows diversion from the river from the Idaho Department of Lands.

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	0.04 CFS	1.2 AF
<u>Totals:</u>		0.04 CFS	1.2 AF

Please Note: This is a surface water right, so no volume will be included on the water right license.

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: < >

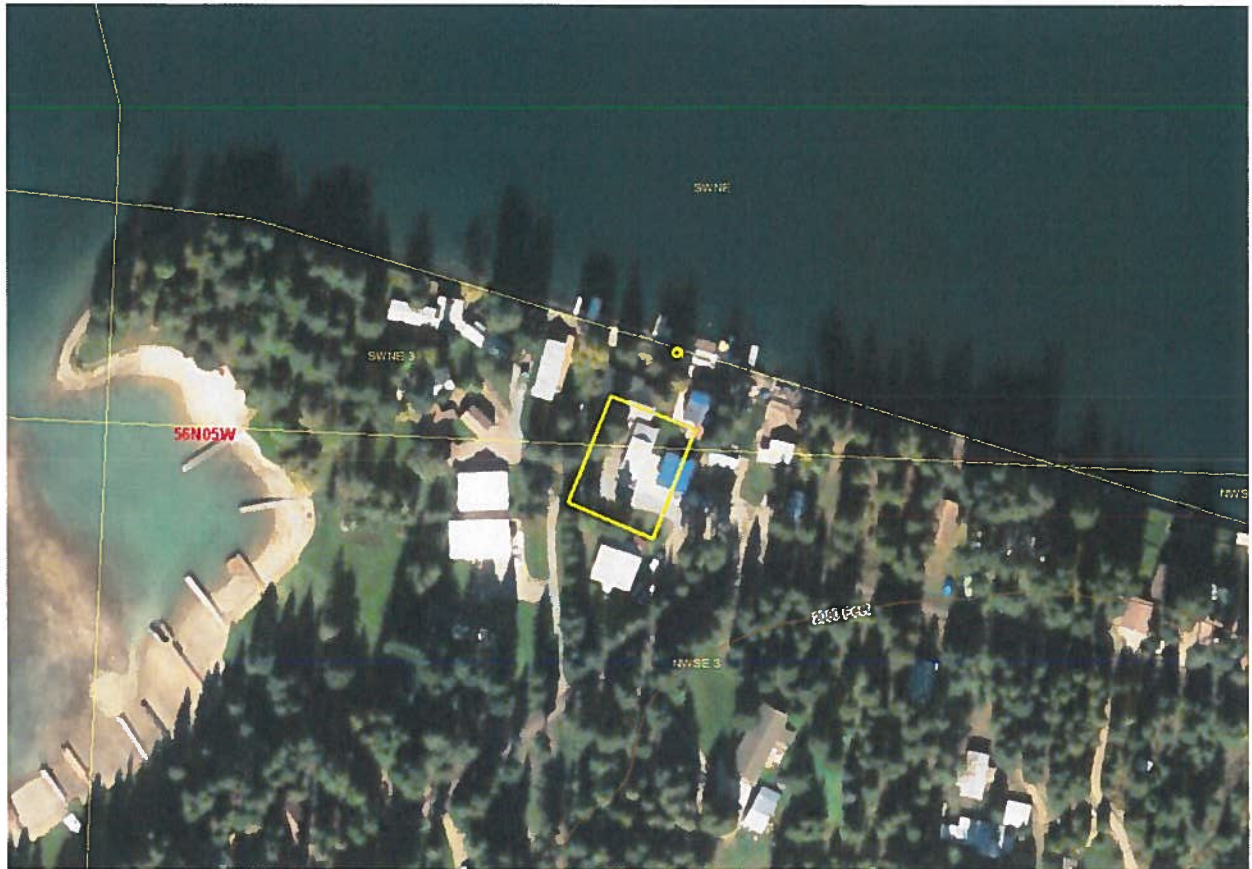
J. AUTHENTICATION – DANIEL A. NELSON – WATER RIGHT ANALYST 3

Field Examiner's Name  Date 2-14-18

Reviewer _____ Date _____

Permit 96-9613 License Review Map.

The following 2013 aerial photo shows the parcel associated with this permit. Please note that the point of diversion is actually outside the actual tax parcel. The yellow border shows the tax parcel and the yellow dot shows the point of diversion.



THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 96-9613
 Reviewer: Dan Nelson
 Date of Review: 2/14/2018

P/D No.:

PUMP HORSEPOWER
 BOOSTER HORSEPOWER

PUMPING LEVEL

DISCHARGE PRESSURE

RATE OF FLOW (cfs)

Scenario 1
0.75
0
10
40
0.05
20

Scenario 2
0.75
0
10
50
0.04
17

Scenario 2
0.75
0
10
60
0.03
14

Average
 0.04
 18.39

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:

There was very little information on this system. The mapping of this area suggests that this parcel is actually on accretion land, so I used a 10 foot lift. The pump was described in the application for permit as a 3/4 Hp pump. The application for permit then states that the water is sent to a pressure tank, so I used the standard domestic pressure regulation of 40 to 60 psi. The average diversion rate does match the permitted amount.