

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

A. GENERAL INFORMATIONExam Date: 03/29/20241. Does this qualify for an in-office field exam (IDAPA 37.03.02.035.01.r)? X Y ___ N

- a. X 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: **ROBERT & MICHELLE OAKLEY**

Owner of Record Correct? ___ N

Address of Record Correct? ___ N

If No Explain:

3. Beneficial Use Fees have been paid: X Y ___ N Receipt No: C117943

4. Source: Tributary:

PEND OREILLE RIVER**COLUMBIA RIVER**Method of Determination: Bonner County Maps, GIS, and Tax Lot Data.Change in Source: ___ Y X 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
96-13078	PEND OREILLE RIVER	IRRIGATION	LICENSE

Comments: The adjacent parcel to the west of the permit place of use (POU) is irrigated by right 96-13078. The irrigation POU shapefile for right 96-13078 overlaps the permit POU. However, the imagery projection appears to be offset from the parcel lines on GIS. The irrigation POU for the recommended license is shifted slightly to the southeast. There are no rights overlapping the recommended license irrigation POU.

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

Water Right No.	Source	Purpose of Use	Basis
NONE	NA	NA	NA

Comments: There are no rights sharing the permit point of diversion (POD).**C. DIVERSION AND DELIVERY SYSTEM**

1. Location of Point(s) of Diversion:

Source	Govt. Lot	1/4	1/4	1/4	Sec.	Twp.	Rge.		County
Screened Inlet in River	2		NW	NE	34	57N	03W	B.M.	BONNER

Method of Determination: GIS and Tax lot data.Change in POD? ___ Y X N Amendment Required? ___ Y X N

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	
57N	03W	34		0.2														0.2	
		Lot #		2															
																	Total Acres =	0.2	

Method of Determination: Bonner County Maps, GIS, and Tax Lot Data.

Change in POU? Y X N Amendment Required? Y X N Delivery System Diagram Attached (required). Indicate all major components and distances between components.

Indicate weir size/pipe as applicable:

 X Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be

1:24,000 or greater.

 X Aerial Photo Attached (required for irrigation of 10+ acres). Photo of Diversion and System Attached

3. Diversion Id No.*	Motor Make	HP	Pump Model	Pump Make	Pump Serial No. or Discharge Size
Screened inlet in River	Unknown	Unknown	Unknown	Unknown	Unknown

*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	NA	NA	NA	NA	NA	NA

2. Measurement Comments: The permit holder stated in a phone call that the system uses a ¾ Hp pump, so a theoretical calculation was used to find a reasonable rate of diversion within the POU. A maximum head of about 20 ft was estimated to the licensed POU using the DRG map.

E. FLOW CALCULATIONS Additional Computation Sheets Attached

Measured Method:

A theoretical calculation and Administrative Memo #17 were used to determine a reasonable rate of diversion.

$$Q = (3/4 \text{ Hp})(8.8)(0.80 \text{ efficiency})/(20 \text{ ft lift}) + (2.31)*(45 \text{ psi}) = 0.04\text{cfs}$$

Theoretical Calculation= 0.04cfs

Permit allowed = 0.03cfs

Recommendation= 0.01cfs

Comments:

Approximately 0.2-acre of irrigation was measured via GIS aerial imagery. A phone call was made to permit holder Robert Oakley, March 29, 2024, to confirm the property line locations and request system information including the technical data on the pump. The permit holder stated that the pump is ¾ Hp. The irrigation POU was based on imagery and a theoretical rate calculation was made for a 3/4 Hp pump, and the GIS measured lift of 20 ft.

The theoretical calculation determined approximately 0.04cfs is possible with a 3/4 Hp pump. According to Administrative memo #17 up to 0.03cfs per acre is standard for the irrigation of up to 5 acres. The confirmed irrigated POU is approximately 0.2 acres. I am recommending a diversion rate of 0.01cfs for the license, as per current guidance.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{\text{I.R.}} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \underline{0.2\text{-acre} \times 3.0 \text{ AF} = 0.6 \text{ AF}}$$

$$V_{\text{D.R.}} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = \underline{0.01\text{cfs} \times 214 \text{ days} \times 1.9835 = 4.3 \text{ AF}}$$

$$V = \text{Smaller of } V_{\text{I.R.}} \text{ and } V_{\text{D.R.}} = \underline{0.6 \text{ AF}}$$

Comments:

This permit was issued for irrigation use from a natural stream/river source. According to the IDAPA Beneficial Use Examination Rules 37.03.02.35. 01j.viii a diversion volume is not required for irrigation if water is diverted from a natural flowing stream/river or spring. However, as the POU is less than 1 acre condition X31 will be carried on the license stating an annual volume 0.6 AF for the irrigation of 0.2-acre.

G. PURPOSE OF USEIrrigation X Y N # Stock NA Domestic # of Homes NA Change in Purpose of Use? Y X NMethod of Determination: Bonner County Maps, GIS, and Tax lot Data

H. NARRATIVE/REMARKS/COMMENTS

This permit for the irrigation of 0.2-acre qualifies for an in-office examination for license. The permit holder submitted the Proof of Beneficial Use, received by IDWR on March 14, 2024, stating in section #3 that the beneficial use was developed for 0.03cfs of irrigation (no area was stated). I was able to confirm approximately 0.2-acre of irrigation was developed using aerial imagery (see figures 1 & 2). The permit holder stated in section #6 of the proof of beneficial that a fish screen was installed at the intake.

The permit holder stated in a voicemail that the pump used in the system is ¾ Hp. A theoretical calculation confirmed that the pump could deliver the rate on the permit. The irrigation area recommended for the license is approximately 0.2-acre. I am recommending the license be issued for a rate of 0.01cfs, as per Administrative Memos #17 and #6. The volume will not be reported on the license as the diversion is from streamflow (per IDAPA Rules 37.03.02.35. 01j.viii).

I am recommending the license be issued with conditions X31, X60, and 004. Condition 029 was removed at licensing as the permit holder confirmed there is a screen installed at the intake on the statement of completion (section 6) and no comments were received from IDFG regarding the permit.

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

I. RECOMMENDATIONS

1. Recommended Amounts:

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>
IRRIGATION	04/01 TO 10/31	0.01 CFS
	<u>Totals:</u>	0.01 CFS

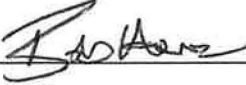
2. Recommended Amendments:

☐ 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- Bob Howe- Water Resource Agent

Field Examiner's  Date 4/16/24

Reviewer  Date 4/16/24

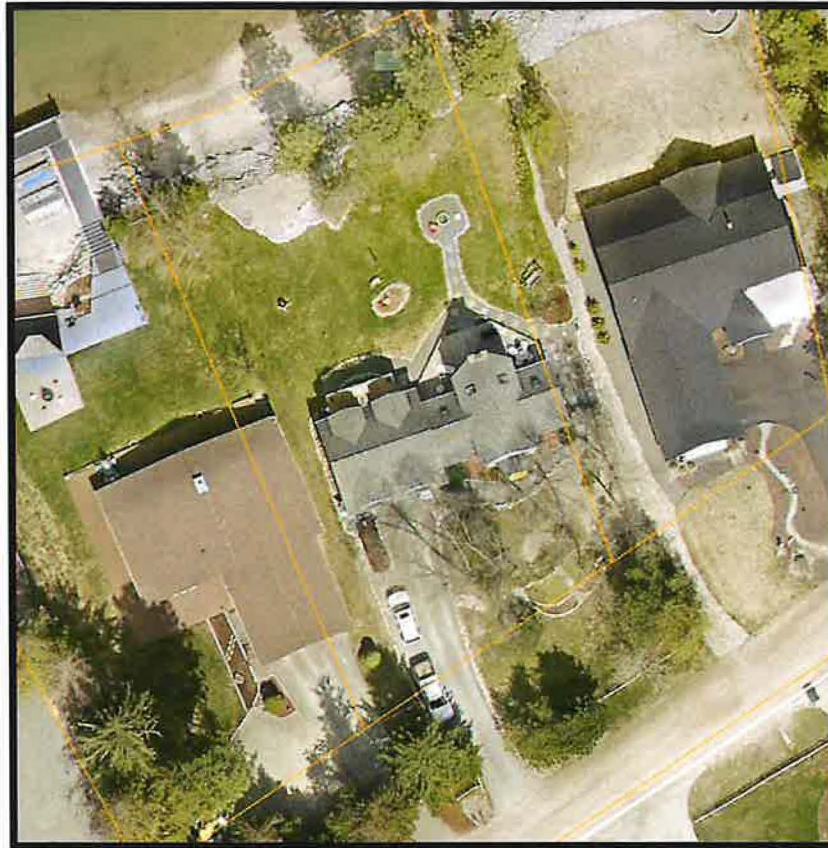


Figure 1- Bonner County GIS- imagery of the parcel appurtenant to the permit POU.



Figure 2-GIS- imagery- The irrigation POU is outlined in yellow. The POD is indicated by a blue point. The adjacent right (96-13078) irrigation POU is outlined in blue. The imagery projection appears offset to the green parcel boundaries.