

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

A. GENERAL INFORMATIONExam Date: 03/28/2024

1. 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: **RODERICK & ROBERTA STANFORD**Owner of Record Correct? X YAddress of Record Correct? X Y

If No Explain:

3. Beneficial Use Fees have been paid: X Y ___ N Receipt No: C117999

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
96-9025	PEND OREILLE RIVER	IRRIGATION	LICENSE
96-7758	PEND OREILLE RIVER	DOMESTIC	LICENSE
96-7616	PEND OREILLE RIVER	INDUSTRIAL	LICENSE

Comments: Right 96-9025 is a surface water right for the irrigation of 0.5-acre. However, there are no parcels within the SWNW listing the same current owner as the right holder on record. Additionally, irrigation use for the permit and the recommended license for right 96-13203 is limited to the combined use allowed by Administrative Memo #17 and the field headgate standard as stated in condition X31. The GIS shapefiles for domestic right 96-7758 and industrial use right 96-7616 overlap the permitted irrigation POU. However, there are concerns as the rights are for different beneficial uses, have different current right holders listed, and use is limited by the conditions carried on the permit and recommended license. There are no concerns regarding irrigation rights overlapping the permit 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	¼	¼	¼	Sec.	Twp.	Rge.		County
Screened Inlet in River	2		SW	NW	29	56N	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	
56N	03W	29							0.5										0.5
		Lot #							2										
Total Acres =																			0.5

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	1	Unknown	FRANKLIN	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 on the statement of completion that the system operates on a 1 Hp submersible Franklin pump. A maximum head of about 50 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.

$$Q = (1 \text{ Hp})(8.8)(0.80 \text{ efficiency})/(50 \text{ ft lift}) + (2.31)(45 \text{ psi}) = 0.05\text{cfs}$$

Theoretical Calculation= 0.05cfs

Permit allowed = 0.03cfs

Recommendation= 0.02cfs

Comments:

Approximately 0.5-acre of irrigation was measured via GIS aerial imagery. A phone call was made to permit holder Roderick Stanford, March 28, 2024, confirming the irrigated areas and that a fish screen was installed on the end of the submersible pump in the river. The system was described by the permit holder as a submersible 1 Hp pump, which conveys water via hoses to the movable sprinklers. The pump and the system are removed and installed seasonally.

The theoretical calculation determined approximately 0.05cfs is possible with a 1 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 0.5 acres. I am recommending a diversion rate of 0.02cfs for the license, as per current guidance.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \underline{0.5\text{-acre} \times 3.0 \text{ AF} = 1.5 \text{ AF}}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = \underline{0.02\text{cfs} \times 214 \text{ days} \times 1.9835 = 8.5 \text{ AF}}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \underline{1.5 \text{ AF}}$$

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 1.5 AF for the irrigation of 0.5-acre.

G. PURPOSE OF USE

Irrigation X Y N # Stock NA Domestic # of Homes NA

Change in Purpose of Use? Y X N

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

H. NARRATIVE/REMARKS/COMMENTS

This permit for the irrigation of 0.8-acre qualifies for an in-office examination for license. The permit holder submitted the Proof of Beneficial Use, received by IDWR on March 18, 2024, stating in section #3 that the beneficial use was developed for 0.8-acre of irrigation. I was able to confirm approximately 0.5-acre of irrigation was developed using aerial imagery (see figures 1 & 2). The permit holder did not indicate in section #6 of the proof of beneficial that a fish screen was installed at the intake, so I called the permit holder on March 28, 2024, to discuss the documentation submitted. The permit holder Roderick Stanford reviewed the areas irrigated and confirmed that 0.5-acre of irrigation was a reasonable assessment for the POU. The permit holder stated that the treed area adjacent to the road in the north is not irrigated and a fish screen is on the end of the submersible pump intake in the river.

A theoretical calculation confirmed that the pump could deliver the rate on the permit. The irrigation area confirmed for the license is approximately 0.5-acre. I am recommending the license be issued for a rate of 0.02cfs, 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 and X60. Condition 029 was removed at licensing as the permit holder confirmed there is a screen installed at the intake and no comments were received from IDFG regarding the permit.

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>
IRRIGATION	04/01 TO 10/31	0.02 CFS
	<u>Totals:</u>	0.02 CFS

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 X None

Other: < >

J. AUTHENTICATION- Bob Howe- Water Resource Agent

Field Examiner's Bob Howe Date 4/16/24

Reviewer ALHume Date 4/16/24



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



Figure 2- GIS 2023- imagery- The irrigation POU is outlined in blue. The POD is indicated by a blue point. The permit holder confirmed that the treed area adjacent to the road in the north is not irrigated; only the grass is irrigated.