

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 96-9660
Exam Date: 09/28/2022

1. Current Owner:
ROBERT W TYLER 44 BIRCH BEAUTY PRIEST RIVER ID 83856-6054 AND/OR
SHERYL A TYLER 44 BIRCH BEAUTY PRIEST RIVER ID 83856-6054
2. Accompanied by: Robert Tyler
Phone No: 208-255-6340
Address: Same as above
Relationship to permit Holder: Permit holder.

3. **SOURCE:**
PEND OREILLE RIVER

Tributary
COLUMBIA RIVER

Method of Determination: ArcMap & DRG.

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
96-7067B	Lake Pend Oreille	Irrigation	Claim based on License in CFPRBA
96-16797	Groundwater	Domestic	B.U. Claim filed in CFPRBA
Numerous WR Statutory Claims & Licenses with or without Notice of Claim(s) filed, Detailed below:			

Comments: two Notice of Claims have been filed by the applicant with POU's that overlap 96-9660's irrigation POU:

1. 96-7067B – existing licensed WR that uses the same surface water source as this Right (Lake Pend Oreille likely will be clarified to reflect Pend Oreille River), with Claim filed on an existing license for 2.0 acres irrigation directly overlapping this Right's POU. The claim has a diversion rate of 0.03 cfs and irrigation acreage in all but one of the QQs designated under 96-9660. Condition 928 was added during licensing review to mitigate overlap concerns if Claim 96-7067B is decreed as claimed. Further discussion between the two WRs will be added to the narrative below.
2. 96-16797 – B.U. Claim filed by the applicant for domestic use from a groundwater well located on the property. If decreed as claimed, the groundwater use is a separate system for a separate beneficial use and not a concern for overlap between rights 96-9660 & 96-16797. I did not recommend addition of condition 928 for licensing purposes.

Numerous WRs as detailed below:

- 96-4026 – Statutory Claim – source: Lake Pend Oreille – Use: Irrigation – there has been no claim filed in the CFPRBA; not associated with the applicant's property or surface water irrigation system.
- 96-4413 – Statutory Claim – source: Unnamed Stream – Use: Stockwater Storage – there has been no claim filed in the CFPRBA; not associated with the applicant's property or surface water irrigation system.
- 96-7029 – License – source: Groundwater – Use: Domestic – there has been no claim filed in the CFPRBA; not associated with the applicant's property & private well.
- 96-7067A – License – source: Lake Pend Oreille – Use: Irrigation – a claim has been filed by a separate party in the CFPRBA; a portion of this right is not associated with the applicant's property or surface water irrigation system. The applicant has filed his own claim 96-7067B for the portion of irrigation acreage department adjudication staff has identified his property and irrigation practices are appurtenant to.
- 96-7068 – License – source: Lake Pend Oreille – Use: Irrigation – there has been no claim filed in the CFPRBA; not associated with the applicant's property or surface water irrigation system.
- 96-7322 – License – source: Groundwater – Use: Domestic – a claim has been filed by a separate party in the CFPRBA; not associated with the applicant's property & private well.
- 96-7648 – License – source: Groundwater – Use: Irrigation – there has been no claim filed in the CFPRBA; not associated with the applicant's property & private well. Backfile map products for 96-7648 illustrate the POD/POU are located at the neighboring parcel to the west of the applicant's parcel.

- 96-7912 – License – source: Pend Oreille River – Use: Irrigation & Domestic – a claim has been filed by a separate party in the CFRBA; backfile information verifies this right is not associated with the applicant's property or surface water irrigation system.
- 96-8161 – License – source: Pend Oreille River – Use: Irrigation – a claim has been filed by a separate party in the CFRBA; backfile information illustrates the POU is primarily associated with a neighboring parcel but there is some acreage that could be filed on by the applicant; the applicant met with Evan Roda, Adjudication Water Right Supervisor, and elected to file a claim on 96-7067A and not pursue this right in the CFRBA. There is not concern for overlap, as the separate claim shape if decreed will not overlap this right's POU.
- 96-8185 – License – source: Unnamed Stream – Use: Stockwater Storage – there has been no claim filed in the CFRBA; backfile information validates the storage use is not associated with the applicant's parcel.

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

Water Right No.	Source	Purpose of Use	Basis
96-7067B	Pend Oreille Lake	Irrigation	Claim based on License in CFRBA

Comments: if Claim 96-7067B is decreed as claimed, the POD for 96-7067B & Permit 96-9660 shall have the same POD. I have not recommended condition F06 for licensing purposes as the claim has not been recommended yet.

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

PEND OREILLE RIVER SW¼ NW¼, Sec. 2, Twp 55N, Rge 04W, B.M. BONNER County

Method of Determination: GPS; POD is located at -116°48.1171, 48°8.7036.

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
55N	04W	2							0.2 L4	0.8 L3	0.5	0.1 L4							1.6
55N	04W	2							0.2										0.2

Total Acres: 1.8

Method of Determination: Beneficial use field examination & Arcmap aerial imagery.

3.

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

X 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

X 1:24,000 or greater.

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

X Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Part No. or Discharge Size
Water Transfer Pump	Goulds	2		Centripro	J08854N, 3450 rpm, 60 Hz

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
5-gal bucket						

2. Measurements: Three 5-gallon bucket tests were completed from the first irrigation riser with hose, with an average of three measurements resulting in a diversion rate of 15.79 gpm = 0.04 cfs, considering department rounding standards.

E. FLOW CALCULATIONS

Measured Method: 5-GAL Bucket Test = (5 gal / 19.32 sec) x 60 sec/min = 15.53 gpm
 = (5 gal / 19.10 sec) x 60 sec/min = 15.71 gpm
 = (5 gal / 18.59 sec) x 60 sec/min = 16.14 gpm

Average of 3ea 5-GAL Bucket Tests = (15.53 gpm + 15.71 gpm + 16.14) / 3 = 15.79 gpm = 0.04 cfs considering department rounding standards.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1.8 \text{ ac} \times 3.0 \text{ afa} = 5.4 \text{ af}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.04 \text{ cfs} \times 214\text{-day} \times 1.9835 = 17.0 \text{ af}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 5.4 \text{ af}$$

2. Volume Calculations for Other Uses: This right uses as surface water source and does not receive an irrigation annual diversion volume nor maximum diversion volume assigned to the face of the water right license.

G. NARRATIVE/REMARKS/COMMENTS

Beneficial use field exam conducted on 9/28/2022 with the applicant, Robert Tyler, showed Pend Oreille River water being diverted for irrigation purposes. At the POD, a screened foot valve & intake pipe routes to a small pump enclosure with a 2 Hp Goulds/Centrifugal pump. Discharge from the pump's 2" diameter orifice reduces to a 1 ½ inch poly pipe main irrigation line that route to a small outbuilding which houses a pressure tank and electric controls. The system operates at 70 psi. From the pressure tank, a 1 ½ inch black poly pipe runs to irrigation riser pipes with hose bibs attached, through a culvert across the paved roadway, and tees to an additional five irrigation risers with hose bibs. Three 5-gallon bucket tests were taken with an average of the measurements resulting in a diversion rate of 15.8 gpm = **0.04 cfs**, considering department rounding standards which is recommended for licensing.

The irrigation POU was walked with Mr. Tyler and water lines drawn out on field maps along with the active irrigated acreage on the property. The system incorporates numerous 100 ft hoses to sprinklers that are rotated throughout the POU for lawn and tree watering. A fenced garden is co-located with the primary residence which uses one of five riser pipes and hose to spray nozzle & soaker hoses to maintain raised beds. Photographs were taken and cataloged illustrating the irrigation practices. Active irrigation was taking place during my exam.

During licensing review, ArcMap aerial imagery was used to accurately trace out the irrigation POU, which consists of 1.8 acres between the river frontage & inland portion of the property. The annual volume for 1.8 ac irrigation equals 5.4 acres, but as system uses a surface water source there is no annual or maximum diversion volume applied to the face of the license. The applicant is limited to 0.03 cfs and 3.0 afa per acre for irrigation of the POU as designated by condition R66 on the license. The permit approve development in multiple QQs, one of which was 4 acres in the SW¼NW¼ of Government

Lot 4. PLSS designated both the government lot and non-government lot has irrigation acreage. During licensing review, I clarified the legal description to better represent 0.2 acres in the SW¼NW¼ Gov Lot 4 and 0.2 acres in the SW¼NW¼.

Condition 26A was removed from the permit during licensing review. Condition X60 was added to describe the POU located within a named subdivision lot. All other permit conditions are being carried forward to licensing. Overlap concerns: as discussed above, the applicant has filed a Notice of Claim 96-16797 for his private groundwater's domestic water use; this filing is a separate system & water source from this permit's irrigation usage and not a concern for overlap between rights. The applicant's parcel has numerous WRs with overlapping POUs that do not constitute a concern for overlap between rights as described above.

Overlap between this permit and Claim filed for licensed right 96-7067B serve as the only direct overlap between irrigation POUs using the same water source. I have added condition 928 during licensing review to mitigate redundancy (stacking) of water rights related to irrigation on parcel RP020200000020A. If Claim 96-7067B is decreed as claimed, the irrigation acreage below will be reduced from Right 96-9660 to avoid redundancy:

- Irrigation breakdown by QQ for each Right:

Water Right	Source	Source QQ	SWNW (ac)	SENW (ac)	NESW (ac)	NWSW (ac)	WR Total (ac)
96-7067-B	Lake Pend Oreille	SWNW	0.1 L4	0.7 L3	1.1	0.1 L4	2.0
96-9660	Pend Oreille River	SWNW	0.2 L4 0.2 non-GL	0.8 L3	0.5	0.1 L4	1.8

- Irrigation authorized by 96-9660 if Claim 96-7067-B is Decreed as claimed:

Water Right	Source	Source QQ	SWNW (ac)	SENW (ac)	NESW (ac)	NWSW (ac)	WR Total (ac)
96-7067-B	Lake Pend Oreille	SWNW	0.1 L4	0.7 L3	1.1	0.1 L4	2.0
96-9660	Pend Oreille River	SWNW	0.1 L4 0.2 non-GL	0.1 L3	0	0	0.4

There are no additional overlapping concerns for this water right.

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

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>
IRRIGATION	04/01 to 10/31	0.04 CFS

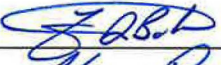
Totals: 0.04 CFS

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

I. AUTHENTICATION Luke Bates -

Field Examiner's Name  Date 11/28/2023

Reviewer  Date 5/24/24

04W



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State of Idaho
Department of Water Resources
Attachment to Field Exam
96-9660

This map depicts the IRRIGATION system diagram.

04W

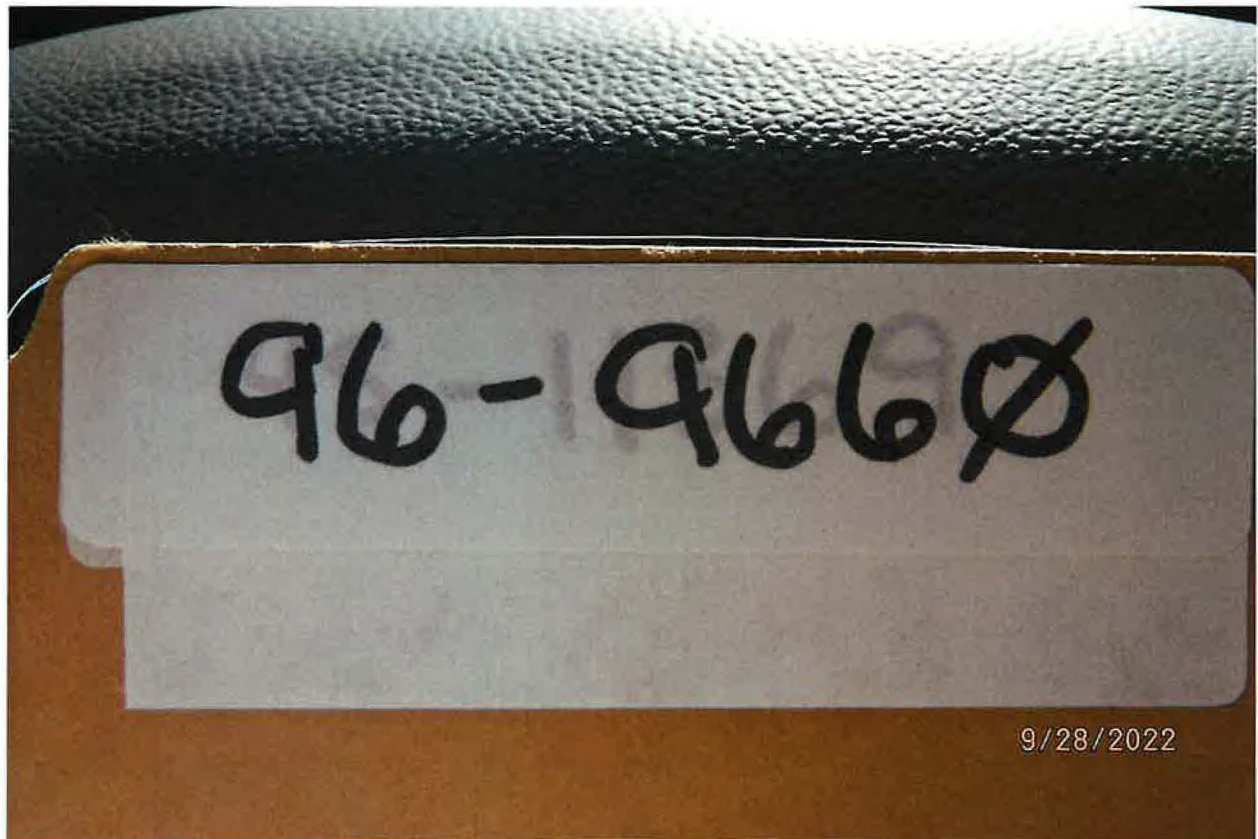
55N



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

0 0.035 0.07 0.14 Miles





BENEFICIAL USE FIELD EXAMINATION DATE 9/28/2022



POD – PUMP WITH INTAKE PIPE IN RIVER



SCREENED INTAKE PIPE WITH FOOT VALVE



2 HP CENTRIPRO CENTRIFUGAL PUMP INSTALLED IN IRRIGATION SYSTEM



2 HP CENTRIPRO PUMP



70 PSI OPERATING PRESSURE



PUMP CONTROL HOUSE WITH PRESSURE TANK





1 ½ INCH POLY PIPE FROM PUMP TO PRESSURE TANK & TO IRRIGATION RISER VALVES



IRRIGATION RISER HOSE BIBE LOCATED AT IRRIGATION AREA ALONG RIVERFRONT



IRRIGATION POU – SMALL AREA ALONG RIVERFRONT AT POD LOCATION



DIVERTING WORKS INCLUDES 1 ½ POLY LINE THAT ROUTES THROUGH CULVERT UNDER ROAD TO HOUSE SIDE IRRIGATION ACREAGE

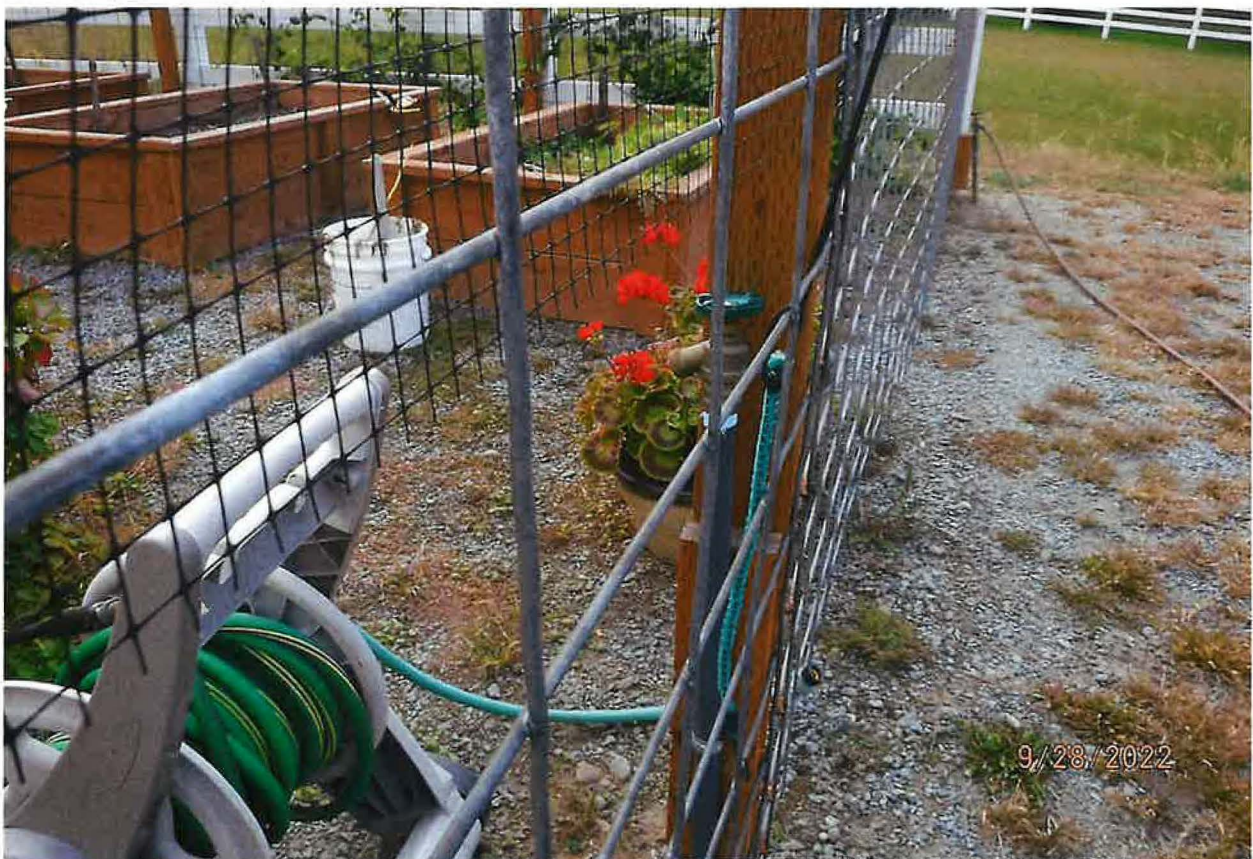


IRRIGATION POU





IRRIGATION POU – EXTENDS BEHIND HOUSE & SHOP IDENTIFIED BY GREEN-DRY GRASS LINE IN PHOTO



IRRIGATION POU – GARDEN AREA BY HOME WITH 2EA RISER PIPE TO FAUCET HOSE BIBS



IRRIGATION POU



IRRIGATION POU – ROAD FRONTAGE LAWN SPACE



IRRIGATION RISER PIPE WITH HOSE SPLITTER



IRRIGATION RISER PIPE WITH HOSE BIB



IRRIGATION POU



IRRIGATION POU



IRRIGATION POU





IRRIGATION POU – FURTHEST SOUTH EXTENT OF IRRIGATION INCLUDES TWO TREES AND AREA
BETWEEN FENCE



IRRIGATION POU