

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

A. GENERAL INFORMATIONExam Date: 4/9/20241. 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: WW LLCOwner of Record Correct? NAddress of Record Correct? NIf No Explain: N/A3. Beneficial Use Fees have been paid: X Y N Receipt No: C118038

4. Source: Tributary:
Pend Oreille River Columbia River

Method of Determination: GIS, Tax Parcel Data, and the permit holders Statement of Completion for Proof of Beneficial Use.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
N/A			

Comments: N/A2. Other water rights with the same point of diversion: X No Overlap

Water Right No.	Source	Purpose of Use	Basis
N/A			

Comments: N/A**C. DIVERSION AND DELIVERY SYSTEM**

1. Location of Point(s) of Diversion:

Source	Govt. Lot	¼	¼	¼	Sec.	Twp.	Rge.		County
Pend Oreille River	4		SE	NE	9	56N	03W	B.M.	Bonner

Method of Determination: GIS and Tax Parcel Data and documents provided with the permit holders Statement of Completion for Proof of Beneficial Use.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	4			0.1	1.0													1.1
		Lot #			4	4													
Total Acres =																			1.1

Method of Determination: GIS, Tax Parcel Data, and 2023 Bonner County Aerial Imagery.Change in POU? Y X N Amendment Required? Y X NY Delivery System Diagram Attached (required). Indicate all major components and distances between components.X Aerial Imagery indicating the location of the POD and POU.X Aerial Photo Attached (required for irrigation of 10+ acres).Y Photo of Diversion and System Attached

3. Diversion Id No.*	Motor Make	HP	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
		3			

*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
N/A						

2. Measurement Comments: The permit holder provided a pump horsepower of 3 and a total lift of 25ft. Therefore, a diversion rate calculation is possible.

E. FLOW CALCULATIONS

X Additional Computation Sheets Attached

Measured Method: Since the permit holder provided a pump horsepower of 3 and a lift of 25ft a diversion rate calculation was possible. The diversion rate calculation determined the system can handle 0.13 cfs with a 50-psi discharge pressure. According to Administrative Processing Memo #17 the standard rate/acre for the irrigation of 5 acres or less is 0.03 cfs/acre. I am recommending a 0.03 cfs diversion rate.

$$Q = (3 \text{ hp}) * (8.8) * (70\% \text{ efficiency}) / (25\text{ft of lift}) + (2.31) * (50 \text{ psi discharge pressure}) = 0.13 \text{ cfs}$$

$$(1.1 \text{ acres}) * (0.03 \text{ cfs/acre}) = 0.033 \text{ cfs or } 0.03 \text{ cfs rounded}$$

Diversion Rate Calculation = 0.13 cfs

Administrative Processing Memo #17 Calculation = 0.03 cfs

Permit allowed = 0.06 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V = (\text{Acres Irrigated}) * (\text{Irrigation Requirement}) = \text{N/A (See Comment)}$$

I.R.

$$V = [\text{Diversion Rate (cfs)}] * (\text{Days in Irrigation season}) * 1.9835 = \text{N/A}$$

D.R.

$$V = \text{Smaller of } V_{\text{I.R.}} \text{ and } V_{\text{D.R.}} = \text{N/A}$$

I.R.

D.R.

Comments: The permit authorized irrigation diverting from a natural flowing stream/river. If a permit authorized irrigation diverting from a natural flowing stream/river or spring a volume is not required at licensing according to the IDAPA Beneficial Use Examination Rule 37.03.02.035.01j, viii.

G. PURPOSE OF USEIrrigation X Y N # Stock N/A Domestic # of Homes N/AChange in Purpose of Use? Y X NMethod of Determination: GIS, Tax Parcel Data, 2023 Bonner County Aerial Imagery, and the permit holders Statement of Completion for Proof of Beneficial Use.**H. NARRATIVE/REMARKS/COMMENTS**

This permit qualifies for an in-office examination. According to Tax Parcel Data the property was developed in 1990. The permit authorized the irrigation of 2.1 acres diverting from the Pend Oreille River. According to 2023 Bonner County Aerial Imagery 1.1 acres of irrigation occurred within the development period. The permit authorized two points of diversion, both within the SENE Quarter/Quarter. However, the permit holder indicated on their Statement of Completion for Proof of Beneficial Use only one POD was developed within the same Q/Q. I recommend one POD on the permit be removed from the license. According to a condition on the permit the permit holder is required to install a fish screen meeting the fish screening and passage requirements of the Idaho Department of Fish and Game. They confirmed a fish screen was installed on their Proof Statement.

Since the permit holder provided a pump horsepower of 3 and lift of 25ft a diversion rate calculation was possible. According to the calculation the system can handle 0.13 cfs with a 50-psi discharge pressure. The standards set in Administrative Processing Memo #17 were used to determine a diversion rate recommendation. Since the permit authorized irrigation diverting from a natural flowing stream/river or spring a volume is not required at licensing according to the IDAPA Beneficial Use Examination Rule 37.03.02.035.01j, viii. All the conditions have been met and development of the permitted beneficial use was confirmed within authorization on the permit. Therefore, I am recommending a 0.03 cfs diversion rate.

Conditions X60, R66, and 004 should remain on the license. Condition 029 should be removed because the permit holder confirmed they installed a fish screen meeting the fish screening and passage requirements of the Idaho Department of Fish and Game.

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	04/01-10/31	0.03 CFS
<u>Totals:</u>		0.03 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**J. AUTHENTICATION**Field Examiner: **Skyler Cheever – Water Resource Agent**

Field Examiner's



Date

4/9/2024

Reviewer

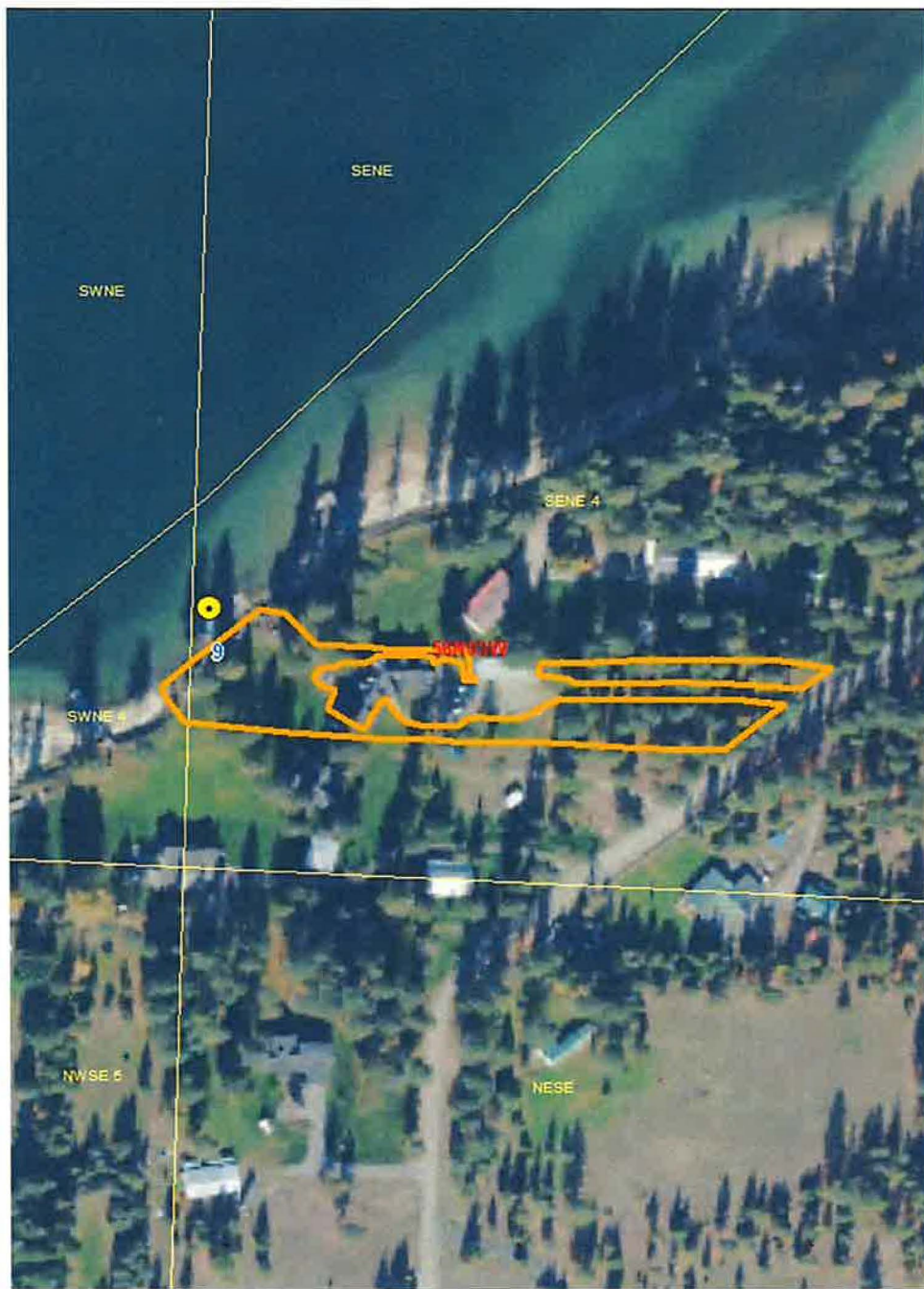


Date

4/19/24

Field Exam Map

Map showing the authorized point of diversion (yellow point) and irrigated place of use (orange outline).



2023 Bonner County Aerial Imagery

Imagery indicated 1.1 acres of irrigation occurred within the development period.

96-12830 2023 Aerial Imagery



THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 96-12830

Examiner: Skyler C.

Date of Field Exam: 4/8/2024

Option 1

P/D No.:

PUMP HORSEPOWER 3
BOOSTER HORSEPOWER 0

PUMPING LEVEL 25

DISCHARGE PRESSURE 50

FRICTION 0

RATE OF FLOW (cfs) 0.13
(gpm) 59.0

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.

Examiners Notes:

Lift and Hp was provided by the permit holder with their Statement of Completion for Proof of Beneficial Use. A standard psi of 40 to 60 psi was used to estimate the pressure against the pump.