

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

A. GENERAL INFORMATIONPermit No: 63-34879 & 2-10636

Exam Date: 5/4/2022

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

2. Current Owner: Name: Paxton Pembroke
Owner of Record Correct? X Y N
Address of Record Correct? Y N
If No: Address

Tax parcel data shows Pembroke Paxton R. Family Trust as the owner of the property. I don't see any issues with the ownership of the property.

3. Beneficial Use Fees have been paid: X Y N Receipt No: C112590

4. **SOURCE** TRIBUTARY
Snake River Columbia River
Method of Determination: GIS and Tax Parcel Data
Change in Source: Y X N

B. OVERLAP REVIEW

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

Water Right No.	Source	Purpose of Use	Basis
Wilder Irrigation District	Various	Irrigation	Decrees and licenses
63-22177	Ground Water	Domestic and Stockwater	Decree

Comments: The application for permit states that the permit holder owns shares in Wilder Irrigation District. This permit was filed to provide supplemental type of water to the Wilder Irrigation District water rights. Condition W59 should be added to the licensing of this permit. Water right 63-22177 covers the place of use for this permit, but the domestic portion of this permit is for the home located at 25151 Marina Court. Therefore, I shouldn't be an issue for this permit.

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

Water Right No.	Source	Purpose of Use	Basis
NONE			

Comments: There are no other water rights that appear to be diverting from this point of diversion. A well was drilled for this property in January of 2020 (Well Driller's Report attached). There are no ground water rights associated with this property, so it is assumed that the in-house use from the well is relying on the exemption provided in Idaho Code §42-227 and §42-111.

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
River Diversion			NE	NW	14	3N	5W	B.M.	Canyon
								B.M.	
								B.M.	

Method of Determination: GIS and Tax Lot Parcel

PLEASE NOTE: The shape file for the point of diversion for this permit and point shown on the application for permit and permit map all show the point of diversion in the river channel south of the Lot #1 line. Therefore, the point of diversion should be described as NENW and not Government Lot 1. No amendment is necessary, since Government Lot 1 is in the NENW.

Change in POD? X Y 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	
3N	5W	36					1.2 Lt 1												1.2
3N	5W	36					0.2												0.2
Total Acres =																			1.4

Method of Determination: GIS and Tax Parcel DataChange in POU? X Y N Amendment Required? Y X N

Please Note: The place of use was listed on the permit as totally being in Lot 1 (NENW). The place of use is partially in the old river bed, so a portion of the property is actually partially in Government Lot 1 (NENW) and a portion of the property is in the NENW outside of the Government Lot boundary.

 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		1.5	Unknown		1.5 inch line to sprinkler

*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 CALCULATIONS

_____ Additional Computation Sheets Attached

Measured Method:

The Permit Holder stated in the application for permit and proof of beneficial use forms that the pump was a 1½ Hp pump to a sprinkler system with a 1½ inch pipeline. According to the topographical maps there is approximately 10 feet of elevation difference (2230 ft – 2220 ft = 10 feet elevation divergence). Therefore, I estimated the pumping capacity of this system using 10 feet of lift and 50 psi of system pressure. Administrative Processing Memorandum #60, does limit irrigation use for small irrigation uses to 0.03 cfs per acre, so there should be limitation based on this standard.

Theoretical = $(1.5 \times 8.8 \times 0.700 / [10 \text{ feet} + (50 \text{ psi} \times 2.31)]) = 0.074 \text{ cfs or } 33 \text{ gpm}$

Administrative Processing Memorandum #60 = $1.4 \text{ acres} \times 0.03 \text{ cfs/acre} = 0.042 \text{ cfs or } 19 \text{ gpm}$

Permit allowed = 0.03 cfs

I am recommending a diversion rate of 0.03 cfs, since that appears the permit limitation is less than the diversion rate that the pumping system was designed for per the records sent in with the Proof, and the 0.03 cfs per acre standard for acreages under 5 acres.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1.4 \text{ acres} \times 4.5 \text{ acre feet per acre} = 6.3 \text{ acre-feet}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \text{ cfs} \times 260 \text{ days} \times 1.9835 = 15.5 \text{ acre-feet}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 6.3 \text{ acre-feet}$$

2. Volume Calculations for Other Uses:

G. PURPOSE OF USE

Irrigation X Y N # Stock Domestic # of Homes

Other:

Change in Purpose of Use? Y N

Method of Determination: Tax data, GIS, and Well Driller's Report.

If Yes: From Use To Use Amount CFS AFA

H. NARRATIVE/REMARKS/COMMENTS

This permit is qualifies for an in-house exam. There are several issues that need to be addressed in this permit.

The first issue with this permit is that the permit was issued as a Basin 63 water right. This permit is diverted out of the Snake River. The application for permit and the approved permit both clearly state that the water source is the Snake River. All water rights diverted from the Snake River are considered in Basin 2 instead of any other basin. Therefore, this permit was renumbered from water right number 63-34879 to water right number 02-10636.

This permit is supplemental to Wilder Irrigation District water, but it is a surface water right also. Therefore, there shouldn't be any need for supplemental conditions. There should be conditions that confirms that this permit is used in conjunction with Wilder Irrigation District water rights.

A portion of this property is in the old Snake River channel southwest of Government Lot 1 (NENW). The point of diversion and approximately 0.2 acres of the irrigated acreage are all in the old river channel. Since this land is in the old river channel it is no longer in Government Lot 1, but it is still within the NENW 40-acre tract. An amendment is not needed to adjust the acres into the proper legal descriptions, since Government Lot 1 is within the border of the NENW 40-acre tract.

This permit was issued for 0.03 cfs or 0.02 cfs per acre (0.02 cfs per acre X 1.5 acres = 0.03 cfs). According to Administrative Processing Memorandum # 60, this permit could have been authorized for up to 0.05 cfs (0.03 cfs per acre X 1.5 acres = 0.045 cfs). The system was constructed to provide approximately 0.07 cfs or 33 gpm. I had to limit this permit based on the permit, but the permit holder could possibly file a second permit to increase the diversion rate based on the Department's standards if they wish.

Conditions R69 and X59 should be carried forward to licensing. Typically, we have two conditions X59 and X60, but in this case they combined both conditions into the X59 conditions, and I will carry that same combined condition forward to licensing. Condition 121 will be changed to condition 103 as is standard. I will also add condition W59, which will make the connection that this water right is used in conjunction with Wilder Irrigation District water rights. I also added condition 004 to ensure that the permit holder is aware that this water right doesn't grant an easement or conditional use permit from the Idaho Department of Lands. A combined limitation condition shouldn't be used, because it could appear as though this right would be limiting the Wilder Irrigation District water rights. I also didn't include any requirement that they maintain the Wilder Irrigation District shares, because there isn't a standard condition for supplemental surface water rights.

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>
Irrigation	03/01 to 11/15	0.03 CFS	6.3 AF
<u>Totals:</u>		0.03 CFS	6.3 AF

2. Recommended Amendments

 Change P.D. as reflected above Add P.D. as reflected above J None

 Change P.U. as reflected above Add P.U. as reflected above J None

Other: < >

J. AUTHENTICATION – DANIEL A. NELSON – Analyst 3

Field Examiner's Name  Date 5-4-22

Reviewer  Date 5/5/22

Field Exam Map:

The 2021 NAIP aerial imagery below shows the place of use in the yellow border and the point of diversion at the yellow dot. The green border shows the parcel owned by Paxton R. Pembroke Family Trust. The darker area southwest of the parcel is the Snake River. You can clearly see the Government Lot line in red goes through the middle of the irrigated place of use and that the point of diversion is clearly south of the Government Lot line in the old Snake River channel. Therefore, the point of diversion and approximately 0.2 acres are not in Government Lot 1, but they are in the NENW of Section 14.



