

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

A. GENERAL INFORMATIONPermit No: 96-9795Exam Date: 9/9/2022

1. Does this qualify for an in-office field exam (IDAPA 37.03.02.035.01.r)? X Y N
- a. 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: Name: Peter and Fiona Hicks
Owner of Record Correct? X Y N
Address of Record Correct? Y N
If No: Address

The Department's parcel data shows Peter T. and Fiona E. Hicks as the owners 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: C113885

4. SOURCE**TRIBUTARY**

Carr Creek

Pend Oreille River

Method of Determination: GIS and Tax Parcel DataChange in Source: Y X N**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: Water Right 96-2124 from Carr Creek is downstream (south) of this permit, but it looks as though the land associated with 96-2124 has been subdivided. I couldn't find the owner of this 7-acre irrigation right with a priority date of 12/11/1929 on any of the parcel data in the area, so it could be abandoned.

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

Water Right No.	Source	Purpose of Use	Basis
35-14661	Ground water	Domestic	Permit- Pending licensing

Comments: Water Right 96-2124 from Carr Creek is downstream (south) of this permit, but it looks as though the land associated with 96-2124 has been subdivided. I couldn't find the owner of this 7-acre irrigation right with a priority date of 12/11/1929 on any of the parcel data in the area, so it could be abandoned.

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

Source	Govt. Lot	¼	¼	¼	Sec.	Twp.	Rge.		County
River Pump			NE	NW	26	57N	3W	B.M.	Bonner
								B.M.	
								B.M.	

Method of Determination: GIS and Tax Parcel Data.Change in POD? X 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	
57N	3W	26					0.5												0.5
		Lot #																	
Total Acres =																			0.5

Method of Determination: GIS and Tax Parcel DataChange in POU? X N Amendment Required? X N 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	Unknown	1			

*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 was approved with a higher diversion rate than the standard of 0.03 cfs per acre. This is based on the standard buried sprinkler system design used for most homes of 12 gpm or 0.0267 cfs per zone, the Department allowed a 0.03 cfs diversion rate for 0.5 acres in the permit approval. Administrative Processing Memo #17 authorizes 0.03 cfs/acre for irrigation of 5 acres or less. The acres irrigated are 0.5 acres. The permit holder stated in the *Statement of Completion for Submitting Proof of Beneficial Use* ("Proof") that this system used a 1 Hp stream pump. Based on mapping contours, this system would have a lift of approximately 120 feet and I used a standard pressure for irrigation sprinklers of 45 psi to determine the diversion rate. I calculated the estimated system capacity below using the theoretical calculation.

Theoretical = $(1 \text{ Hp} \times 8.8 \times 0.70) / [120 \text{ ft} + (45 \text{ psi} \times 2.31)] = 0.028 \text{ cfs (12 gpm) rounded to 0.03 cfs}$

Administrative Memo #17 = $0.03 \text{ cfs/ac} \times 0.5 \text{ acres} = 0.015 \text{ cfs}$

Permit allowed = 0.03 cfs

Since the permit authorized a 0.03 cfs diversion rate for 0.5 acres of irrigation, and the system installed appears to have an estimated diversion capacity of 0.03 cfs as well. Therefore, I am recommending a diversion rate for this permit of 0.03 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

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

$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \text{ cfs} \times 214 \text{ days} \times 1.9835 = 12.7 \text{ acre-feet}$

$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 1.5 \text{ acre-feet}$

2. Volume Calculations for Other Uses:

N/A

G. PURPOSE OF USE

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

Other: < >

Change in Purpose of Use? Y N

Method of Determination: Tax parcel data, GIS, and Owner Photos with the Proof.

If Yes: From Use _____ To Use _____ Amount _____ CFS _____ AFA _____

H. NARRATIVE/REMARKS/COMMENTS

This permit qualifies for an in-house examination. This permit was field to supply water to approximately 1/2 acre of irrigation from Carr Creek. Using the Google Earth and Google Maps 2022 imagery, I was able to find what appears to be 1/2 acre of irrigation. The permit holder supplied photos of the pump, pressure tank, garden, and fruit trees being irrigated with the Proof. The permit holder also supplied a diagram with the Proof showing the system's infrastructure. I don't see anything that would prevent licensing of this permit from the information submitted and found on the internet.

This permit requires that a fish screen be installed. The Proof form shows the fish screen was installed and the photos submitted with the Proof show a foot valve with a screen on the pump intake hose.

Condition 004 should be carried forward to licensing. Condition X31 limiting the diversion rate to 0.03 cfs and 1.5 acre-feet should replace condition R66. Condition 029 should be removed at licensing, since there is evidence that the screen was installed. No further conditions are required for the licensing of this 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>	<u>ANNUAL VOLUME</u>
Irrigation	04/01 to 10/31	0.03 CFS	1.5 AFA
<u>Totals:</u>		0.03 CFS	1.5 AFA

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 – DANIEL A. NELSON – WATER RIGHT ANALYST 3

Field Examiner's Name  Date 9-9-22

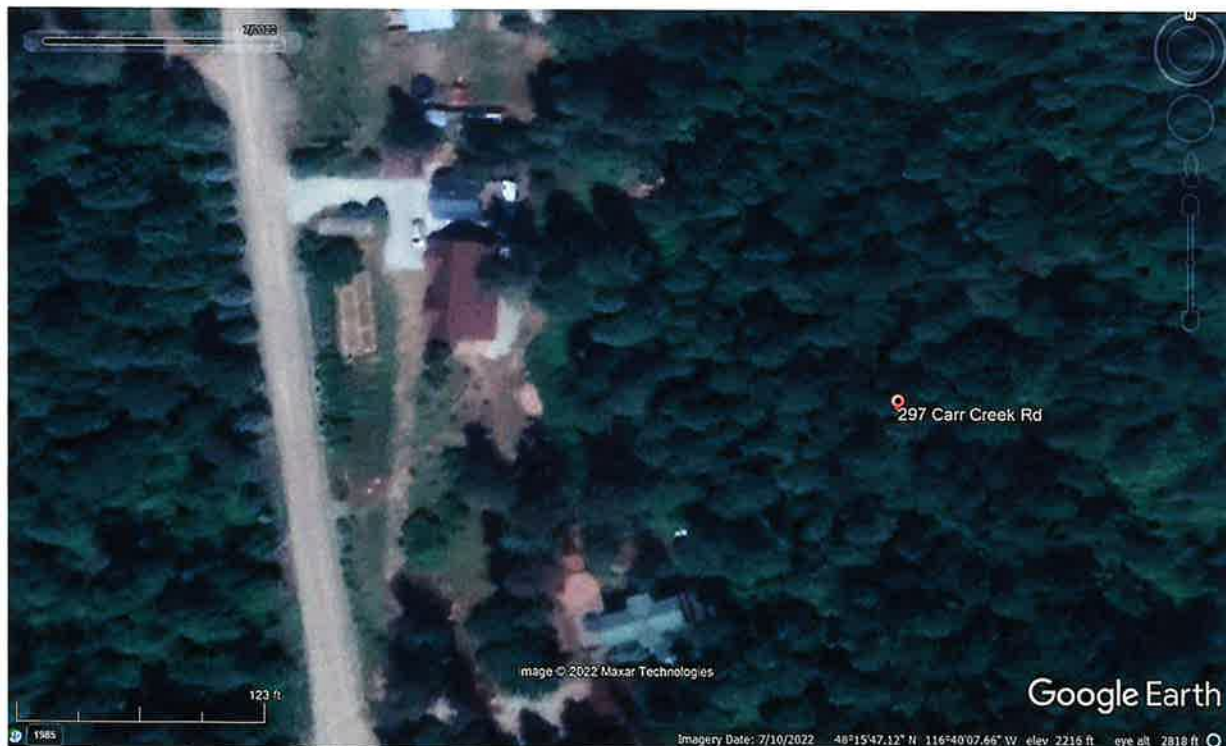
Reviewer  Date 9/1/22

Field Exam Map:

The yellow border shows the place of use and the yellow point shows the point of diversion.



The photo below shows the Google Earth 2022 imagery with the house constructed and better idea of the irrigated area.



These are street view photos from Google Maps. You can clearly see irrigation of the yard area up front, the garden, and the small area where the canoe is located has been irrigated.

