

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

A. GENERAL INFORMATIONPermit No: 96-9755Exam Date: 4/21/2020

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: Michael Mooney, and Andrew, Beverly, and Nancy Kee.
Owner of Record Correct? X Y N
Address of Record Correct? Y N
If No: Address

The Department's tax parcel data shows Lot 2 of Patience is Kee Subdivision is owned by Beverly Ann and Andrew T. Kee, and Lot 1 of Patience is Kee, Block 8, Lot 13A and Block 8, Lot 12A are owned by Michael L. Mooney and Nancy J. Kee. Therefore, the properties are all owned by the owners of permit.

3. Beneficial Use Fees have been paid: X Y N Receipt No: C108618

4. SOURCE**TRIBUTARY**

Lake Pend Oreille

Pend Oreille 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: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
96-7113	Murphy Creek	Domestic	License
96-8812	Ground Water	Municipal	License

Comments: Water rights 96-7113 and 96-8812 are owned by Southside Water & Sewer District and provide the in-house use for this permit. According to the application for permit, these water rights also provide the irrigation use for these properties prior to June 1 and after September 30. I am assuming that from June 1 to September 30, the vacation homes are being occupied, and there isn't suitable water to supply the irrigation needs of the full time residents. Therefore there is need to use the water from the lake. Water right 96-9073 is in this 40 acre tract, but it is on the other side of the highway or west of this point of diversion.

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

Water Right No.	Source	Purpose of Use	Basis

Comments: There are no other rights that use this point of diversion. Water right 96-9073 is diverted from another point of diversion on the west side of the highway.

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
Lake Pump	3		SE	SW	35	57N	2W	B.M.	BONNER
								B.M.	
								B.M.	

Method of Determination: GIS, and 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	2W	35												0.9					0.9
		Lot #												3					
Total Acres =																			0.9

Method of Determination: GIS and 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
Lake Pump	Unknown	2			

*Code to correspond with No. on map and aerial photo

PLEASE NOTE: The horsepower for the pump was taken from the application for permit.**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 application for permit stated that a 2 Hp pump is used to pump the water from the spring to the two properties. The contours for this area show the lift should be close to 40 feet. Therefore, I did a theoretical calculation to determine what the lift and pressure would be to attain 0.03 cfs for the 0.9 acres of irrigation. The theoretical suggests that the pressure would need to be in excess of 150 psi, which is more than is reasonable for this system. Therefore, the system can easily supply the diversion rate that can be authorized for 0.9 acres. Administrative Processing Memo #17 states that we should allow 0.03 cfs per acre.

$$(8.8 \times 1 \text{ Hp} \times 0.70) / [40 \text{ ft lift} + (150 \text{ psi} \times 2.31)] = 0.03 \text{ cfs or } 14 \text{ gpm}$$

Administrative Memo #17 = 0.9 acres X 0.03 cfs/acre = 0.027 cfs rounded to 0.03 cfs

Permit allowed = 0.06 cfs

I am recommending 0.03 cfs since the permit limitation was based on 1.9 acres, and only 0.9 acres were actually developed. Following Administrative Processing Memorandum #17, the maximum that can be recommended is 0.03 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.9 \text{ acres} \times 3.0 \text{ af per acre} = 2.7 \text{ af}$$

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

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 2.7 \text{ af}$$

2. Volume Calculations for Other Uses:

N/A

G. PURPOSE OF USEIrrigation X Y ___ N # Stock _____ Domestic # of Homes _____

Other: < >

Change in Purpose of Use? ___ Y ___ N

Method of Determination: Taxlot data and conversations with owner.

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

H. NARRATIVE/REMARKS/COMMENTS

This permit qualifies for an in-house examination. This permit was filed to cover the irrigation use from June 1 to September 30. There is no reason for the need to cover the irrigation use by the permit holder, but it is safe to assume that the Southside Water and Sewer District either doesn't have enough water supply to cover the irrigation or they raise their rates during the summer months. However, these dates could change if the status of the homes go from vacation homes to full time residences. Therefore, I recommend that we keep the standard irrigation season of use, since it doesn't appear as though there are issues with the Southside Water and Sewer District's ability to supply the water for irrigation uses.

The permit included the fish screen condition X15. The proof of beneficial use form states that the permit holder did install the fish screen on this system.

I did change the location of the point of diversion from what was shown in the permit. The application stated that the point of diversion was on the parcel line off of the dock. Therefore, I placed the point of diversion at the point where the parcel line crossed over the dock.

Conditions 004, X15, and X60 should be carried forward to licensing. Condition R66 should be changed to condition X31, since the place of use is below an acre of irrigation. Condition X15 should be altered to state the fish scree shall be maintained, since it has already been installed.

Have conditions of permit approval been met? ☒ 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	2.7 AFA
<u>Totals:</u>		0.03 CFS	2.7 AFA

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ None

Other: < >

J. AUTHENTICATION – DANIEL A. NELSON – WATER RIGHT ANALYST 3

Field Examiner's Name _____ Date _____

Reviewer Angela M. Gunn Date 4/29/2020

Field Exam Map:

The yellow border shows the place of use for the 4 parcels associated with this permit and the yellow dot shows the shared lake pump. The green lines show the parcels associated with this permit. The northwest parcel is owned by Beverly Ann and Andrew T. Kee, and the other three parcels are owned by Michael L. Mooney and Nancy J. Kee.

