

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

A. GENERAL INFORMATIONPermit No: 95-11063

Exam Date: 1/6/2015

1. Does this qualify for an in-office field exam (IDAPA 035.02.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: Thomas and Lisa Cunningham
 Owner of Record Correct? X Y ___ N
 Address of Record Correct? Y ___ N
 If No: Address

3. Beneficial Use Fees have been paid: X Y ___ N Receipt No: C0

4. SOURCE TRIBUTARY
 Couer D Alene Lake Spokane River

Method of Determination: GIS and Taxlot 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
95-624	Hayden Lake	Domestic	Decree

Comments: There are several water rights that appear to overlap this place of use. Water rights 95-37, 95-38, 95-397, and 95-8854 are for lots north of the property associated with this permit. Water right 95-624 is a direct overlap of this permit. It appears as though they use the same point of diversion and service the same place of use.

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

Water Right No.	Source	Purpose of Use	Basis
NONE			

Comments: Water right 95-624 directly overlap the place of use for this permit

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

Source	Govt. Lot	¼	¼	¼	Sec.	Twp.	Rge.		County
Lake Pump	5		NE	SE	4	51N	3W	B.M.	Kootenai
								B.M.	
								B.M.	

Method of Determination: GIS and Taxlot 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	
51N	3W	4													D				
		Lot #													5				
Total Acres =																			

Method of Determination: GISChange 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	Grundfos	0.5	10S05	Grundfos	10s05

*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, but a theoretical calculation was used to determine if the diversion rate is reasonable.**E. FLOW CALCULATIONS** Additional Computation Sheets Attached

Measured Method:

A theoretical analysis shows that a diversion rate of 0.04 cfs is possible with a 1 Hp pump. The owner didn't know the size of pump that they had, so I will recommend a diversion rate of 0.04 cfs, which is what was requested on their application for permit.

$$Q = (0.5 \text{ Hp})(8.8)(0.70)/10 \text{ ft lift} + (30\text{psi} \times 2.31) = 0.04 \text{ cfs}$$

Measurement = 0.04 cfs

Permit allowed = 0.04 cfs

License recommended for 0.04 cfs. Water right adjudication claim 95-624 directly overlaps this water right. Therefore, condition 928 will be needed to ensure this permit doesn't allow more water than what was developed.

Please Note: I used a small pressure, because I could not verify the actual pressure or lift for this system. A diversion rate of 0.04 cfs is possible, but a diversion rate of 0.03 is more likely the rate of diversion for this system.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \underline{\quad} \times 3.5 = \underline{\quad}$$

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

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \underline{\quad}$$

2. Volume Calculations for Other Uses:

This is a domestic use. According to processing memo #22, and Domestic use for in-house and yard irrigation can have up to 1.2 acre feet of annual water use. Water right adjudication claim 95-624 directly overlaps this water right. Therefore, condition 928 will be needed to ensure this permit doesn't allow more water than what was developed.

G. PURPOSE OF USE

Irrigation X Y N # Stock Domestic # of Homes 1

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

I spoke with the owner for this permit and confirmed three things. First the well is a ½ Hp pump and a 5 millimeter or 2/10ths of an inch screen is used. I also verified that this property only has one home and one pump diverting from the lake. This is important because this property already has an existing water right (95-624) that was filed in the NIA, for 0.02 cfs and 0.5 af for domestic use. Therefore we are going to need to determine the amount of flow that can be diverted. I have spoken with administration and we have decided that the rates and volumes below are reasonable for this water right.

Condition 928 will be needed to ensure that the Coeur d'Alene and Spokane River adjudication claim 95-624 when combined with this water right doesn't exceed the amount of use developed. The use developed was a single pump from Hayden Lake delivering approximately 0.04 cfs and 1.2 af of water to a single home with less than ½ acre of irrigation. Condition 26A will be removed, but the remainder of the conditions will be carried forward to licensing.

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>
Domestic	01/01 to 12/31	0.04 CFS	1.2 AF
<u>Totals:</u>		0.04 CFS	1.2 AF

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 Nelson – Staff Hydrologist

Field Examiner's Name  Date 1-8-15

Reviewer _____ Date _____

State of Idaho
Department of Water Resources
Field Exam Map
95-11063

This map depicts the DOMESTIC place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.



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

0 0.075 0.15 0.3 Miles

