

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

A. GENERAL INFORMATIONPermit No: 95-17212

Exam Date: 11/5/2017

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: Garry and Bonnie Mohr and Idaho Department of lands
Owner of Record Correct? X Y N
Address of Record Correct? Y N
If No: Address

Tax parcel data shows that Garry and Bonnie Mohr own the home for this tax parcel and that the Idaho Department of Lands own the land associated with this tax parcel. I was able to find that the Lease R100069 is still active on the Idaho Department of Lands website.

3. Beneficial Use Fees have been paid: X Y N Receipt No: C104176
4. SOURCE TRIBUTARY
Coeur D Alene Lake Spokane 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

Comments: There are no overlapping water rights in this government lot, but there are 8 claims and recommendations in the government lot. None of those claims and recommendations directly overlap the place of use or point of diversion. They are for different parcels in the government lot.

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

Water Right No.	Source	Purpose of Use	Basis

Comments: There are no overlapping water rights in this government lot, but there are 8 claims and recommendations in the government lot. None of those claims and recommendations directly overlap the place of use or point of diversion. They are for different parcels in the government lot.

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

Source	Govt. Lot	¼	¼	¼	Sec.	Twp.	Rge.		County
Coeur D Alene Lake	1		SE	NE	11	48N	4W	B.M.	KOOTENAI
								B.M.	
								B.M.	

Method of Determination: County Legal Description of Parcel, GIS, and Tax parcel DataChange 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	
48N	4W	11				D													
		Lot #				1													
Total Acres =																			

Method of Determination: County Legal Description of Parcel, 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
Lake Pump	Unknown	¾			

*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 CALCULATIONSYES Additional Computation Sheets

Attached

Measured Method:

The application for permit stated that the pump being used was a ¾ Hp pump. I ran this horse power through the theoretical calculations and found that 0.04 cfs was possible with a 15 foot lift. This seems reasonable for this area. Application Processing Memorandum #22 allows up to 0.04 cfs, therefore, it seems reasonable to allow the permitted diversion rate of 0.04 cfs.

Theoretical Calculation at 15 ft. lift = 0.04 cfs
Administrative Processing Memo #22 = 0.04 cfs
Permit allowed = 0.04 cfs

A diversion rate of 0.04 cfs seems reasonable for this permit. Therefore, I am recommending 0.04 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \underline{\hspace{2cm}}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = \underline{\hspace{2cm}}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \underline{\hspace{2cm}}$$

Please Note: This is a surface water right, so no volume will be included on the water right license.

2. Volume Calculations for Other Uses:

Application Processing Administrative Memorandum allows up to 1.2 af for domestic use for in-house use and up to ½ acre of yard irrigation. I cannot see through the trees to determine if any ground is being irrigated, but I would assume that some yard irrigation is taking place. Therefore, I am recommending a volume of 1.2 af for the domestic use.

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

This permit qualifies for in-house licensing. The property is actually owned by the Idaho Department of Lands, but the home is owned by the Mohrs. The Mohrs have a lease with the State of Idaho to live on the property, so there should be no issue with ownership.

The point of diversion for this permit was placed at the location of the pump in the lake and not at the point where the water is diverted out of the lake. The point of diversion should be located at the point where the water is actually diverted or leaves the lake. Therefore, I moved the point of diversion to the shore. This also place the point of diversion within the tax parcel and actually in the Government Lot 1. The location in the lake wasn't actually in the Government Lot. The Government lot ends at the lake shore. Please see below for additional information on location of the Government lot.

When the permit was issued, the Public Land Survey (PLS) information in our mapping program showed that the property was located in the Government Lot 1 (SWNE) in Section 11, Township 48 North, Range 4 West. Government Lot 1 includes the SWNE and the SENE of Section 11 according to the Bureau of Land Management survey maps. At the time the permit was issued, the PLS for Department maps described Government Lot 1 as being totally in the SWNE. This is the way the place of use was described on the permit. In February of 2017 the PLS lines were corrected by the Department's GIS staff, and they show the tax parcel associated with this permit as being in the SENE outside the Government 1 boundary. This raised concern on whether or not an amendment would be needed, since the legal description issued on the permit was no longer correct, even though the tax parcel hadn't actually moved. We contacted Kootenai County to attain a copy of the official legal description for this property, and it states that the property is a part of Government Lot 1. The county survey is the official record, so the property is within the Government Lot 1, and the PLS lines on the Department's maps are incorrect. This still leaves the issue of whether or not the sub legal description of the SWNE is correct, and the answer is no. The correct legal description should be Government Lot 1 (SENE). No amendment is necessary, since the true legal description is Government Lot 1. The legal description in the parenthesis is for Department use only, so an amendment isn't required.

The permit required a fish screen, and the permit holder stated on the proof of beneficial use form that they had installed the fish screen.

All of the conditions shown on the permit proof report should be carried forward to licensing.

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>
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 A. NELSON – WATER RIGHT ANALYST 3

Field Examiner's Name  Date 11-6-17

Reviewer _____ Date _____

Permit 95-17212 – Field maps and Pictures



The photo above was taken off of Google Earth that shows the home associated with this permit. The aerial photo below shows the place of use. Please see narrative for discussion on Government Lot.



TAX NO. 14655 PAGE 1 OF 1

INSTRUMENT REFERENCE W.D.

RECORDATION INFO: INSTR. NO. 1201380

DATE 11-16-90

A part of Government Lot 1, Section 11, Township 48 North, Range 4 W.B.M., Kootenai County, Idaho, more particularly described as follows:

Commencing at the East quarter section corner of said Section 11, monumented with an iron rod, 5/8 inch diameter, set by Fred Meckel in 1971;

thence North 56°45'32" West, 1348.01 feet to a point on the Northerly right-of-way line of State Highway 97;

thence Northeasterly along said right-of-way line on a line of record as North 30°51'14" East, 89.46 feet;

thence Northeasterly along said right-of-way on the arc of a curve right, said curve having a chord bearing North 41°43'36" East, 82.60 feet to the Point of Beginning;

thence Northeasterly along said right-of-way on the arc of a curve right, said curve having a chord bearing North 56°51'06" East, 75.40 feet;

thence North 25°34'57" West, 124.38 feet to a point on the shore of Lake Coeur d'Alene;

thence along the shore of Lake Coeur d'Alene, the meander of which is South 50°25'49" West, 120.00 feet;

thence South 47°11'07" East, 113.26 feet to the Point of Beginning.

DEPUTY INITIALS V.C.

DATE # ASSIGNED 11-29-90

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 95-17212
 Reviewer: Dan Nelson
 Date of Review: 11/6/2017

P/D No.:

PUMP HORSEPOWER
 BOOSTER HORSEPOWER

PUMPING LEVEL

DISCHARGE PRESSURE

RATE OF FLOW (cfs)

Scenario 1
0.75
0
15
50
0.04
16

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.
 No Friction

Examiners Notes:

The permit holder stated that they used a 3/4 Hp pump in this system. Standard household pressure averages approximately 50 psi with a 40 to 60 psi regulation switch. The contour lines show the water level is at 2160 feet of elevation and the next contour line is near the road, and has an elevation of 2200 feet. The home sits closer to the lake than to the road, so I feel a 15 ft lift is reasonable.