

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

A. GENERAL INFORMATIONPermit No: 86-12032

Exam Date: 10-28-2015

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: Edward B. Koopman
 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 DataChange 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
None			

Comments: Water right 86-10575 appears to overlap this permit, but it is for the property to east of the place of use for this permit. It appears as though the previous owner of 86-10576 owned the land associated with this permit, but the land appears to have been split in around 2000. The tax lot data shows that the address for 86-10575 is 29169 Cherry Lane Road, and water right 86-10575 also shows the same address. Aerial photos shows the home associated with this permit did not exist in the 1992 aerial photos. Water right 86-10575 has a priority date of 1970, and the property to the east of this permit has had a home on it since 1973 according to tax lot data and a home is shown in 1987 aerial photos. Therefore, I am convinced that water right 86-10575 is not on this property. The well log supplied with the permit does have the address and owner's name of described in water right 86-10575, but the well was drilled in 2000, so I am assuming the original owner drilled a well for the property after the property was split, and this well belongs to the owner of this permit and not 86-10575.

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

Water Right No.	Source	Purpose of Use	Basis
NONE			

Comments: Water right 86-10575 appears to overlap this permit, but it is for the property to east of the place of use for this permit. It appears as though the previous owner of 86-10576 owned the land associated with this permit, but the land appears to have been split in around 2000. The tax lot data shows that the address for 86-10575 is 29169 Cherry Lane Road, and water right 86-10575 also shows the same address. Aerial photos shows the home associated with this permit did not exist in the 1992 aerial photos. Water right 86-10575 has a priority date of 1970, and the property to the east of this permit has had a home on it since 1973 according to tax lot data and a home is shown in 1987 aerial photos. Therefore, I am convinced that water right 86-10575 is not on this property. The well log supplied with the permit does have the address and owner's name of described in water right 86-10575, but the well was drilled in 2000, so I am assuming the original owner drilled a well for the property after the property was split, and this well belongs to the owner of this permit and not 86-10575.

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
Well	2		NW	SE	26	37N	3W	B.M.	Nez Perce
								B.M.	
								B.M.	

Method of Determination: GIS and the permit were used to determine the location of the well. The well log had a different legal description, which was common during the time period. The permit shows the well right next to the home, which seems to be the most reasonable placement of a well for a domestic use. Therefore, I went with the location supplied on the permit, since the well had already been constructed prior to the permit being filed.

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	
37N	3W	26														D			
		Lot #														2			
Total Acres =																			

Method of Determination: GIS and Tax Lot data.

Change 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
Well Pump	Unknown	0.75			

*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 CALCULATIONSYES Additional Computation Sheets Attached

Measured Method:

A theoretical analysis shows that a diversion rate of 0.02 cfs is possible with a 3/4 Hp pump. The owner claimed on the application for permit that the pump was ¾ hp, 10 gpm, pump, so I feel it is necessary to reduce the diversion rate to 10 gpm (0.02 cfs).

Measurement = 0.02 cfs

Owner Statement in Application for permit = 0.02 cfs

Permit allowed = 0.04 cfs

I recommend that this permit be limited to a diversion rate of 0.02 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

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

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

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

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. I am recommending 1.2 af for this permit.

G. PURPOSE OF USEIrrigation X Y N # Stock Domestic # of Homes 1

Other: < >

Change in Purpose of Use? Y NMethod of Determination: Taxlot data and conversations with owner.If Yes: From Use To Use Amount CFS AFA **H. NARRATIVE/REMARKS/COMMENTS**

This permit is qualifies for an in-house exam. Tax Lot records shows that Edward B. Koopman is the owner of the property. The aerial photos also that very little yard irrigation has been done on this property. There does appear to be some irrigation of trees around the borders of the property. The tax lot records state that the home on this property was built in 2004, and aerial photos confirm that a home has been on this property since 2004. Please note the overlapping water rights discussion above for overlapping water right issues with neighboring lots.

I am going to leave the conditions X01 and 187 on the license, but I am going to remove condition 004, since the owner confirmed that the well is on his property and does not cross the lands of another. Condition 046 will be removed as is standard.

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	0.02 CFS	1.2 AF
<u>Totals:</u>		0.02 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 – Staff Hydrologist

Field Examiner's Name



Date

10-28-15

Reviewer

Date

NENW

NWNE

NENE

SENW

SWNE

SENE

Edward B. Koopman Tax Lot -
Address - 18658 Blossom Lane.
Home Built in 2004.

Field Exam Map
Permit 86-12032
By Dan Nelson

Edward B. Koopman Tax Lot -
Address - 18658 Blossom Lane.
Home Built in 2004.

The well location was taken from the
application for permit map, since the well
log included with the application for permit
had a different legal description. The well
was drilled prior to the application, so I am
confident that the owner's are aware of the
location of the well.

26

37N03W

NESW 3

NWSE 2

NESE 1

NWSE

NESW

NESL

NWSE 8

NESE 8

NESW 8

SWSE 8

NWSE

SESW

SESW 8

SWSE 8

SESE 8

SWSE

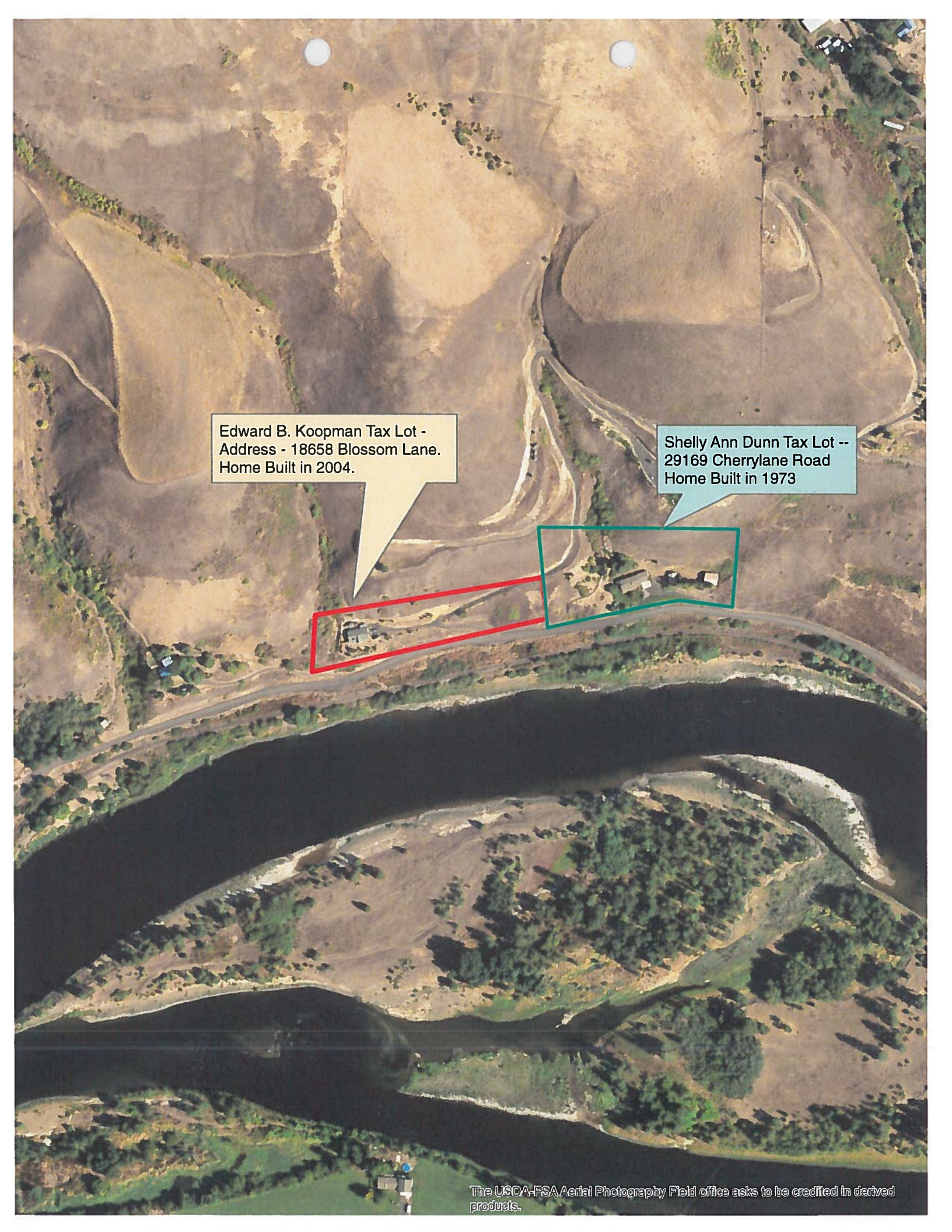
SESW

SESE

SWSE 6

SESW 5

The USDA-FSA Aerial Photography Field office asks to be credited in derived products.

An aerial photograph showing a wide river in the foreground, with a road and several buildings along its banks. Two specific areas are highlighted with colored rectangles: a red rectangle on the left and a teal rectangle on the right. Callout boxes provide details for each. The background consists of large, dry, brownish fields.

Edward B. Koopman Tax Lot -
Address - 18658 Blossom Lane.
Home Built in 2004.

Shelly Ann Dunn Tax Lot --
29169 Cherrylane Road
Home Built in 1973

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 86-12032
 Reviewer: Dan Nelson
 Date of Review: 10/28/2015

P/D No.:

	Scenario 1	Scenario 2	Scenario 3	
PUMP HORSEPOWER	0.75	0.75	0.75	
BOOSTER HORSEPOWER	0	0	0	
PUMPING LEVEL	140	140	140	
DISCHARGE PRESSURE	40	50	60	
RATE OF FLOW (cfs)	0.02	0.02	0.02	Average
	9	8	7	0.02
				8.16

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 owner stated in the permit "150' well with 3/4 gp 10 gpm pump to bring ground water to surface. The theoretical calculations above support that claim. I used the 140 foot lift from the well log supplied by the owner , and the 3/4 Hp pump the owner stated he used. I used the standard pressure tank turn/off pressures of 40 to 60 psi . Taking this information into account, I recommend limiting the permit to the 0.02 cfs that can be supplied by this system.