

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

A. GENERAL INFORMATION

Permit No: 95-9292

Exam Date: 10/29/2015

1. Does this qualify for an in-office field exam (IDAPA 035.02.r)? ☒ Yes ☐ No
- 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: Robert A Finkenhagen
and Hazel J Martin
- Owner-of-Record Correct? ☒ Yes ☐ No
- Address-of-Record Correct? ☒ Yes ☐ No
- If No: <Address>

According to Kootenai County taxlot information Mr. Finkenhagen is listed as the owner of the taxlot.
Mr. Finkenhagen and Ms. Martin no longer have a residence in California.

Delivery of the 2005 ownership change for water right 95-7567 failed. That property/POU is located in SENE and doesn't overlap this use. However, now that IDWR knows the correct address, an acknowledgement of that change could be sent to Mr. Finkenhagen and Ms. Martin.

3. Beneficial Use Fees have been paid: ☒ Yes ☐ No Receipt No: N031490

4. SOURCE TRIBUTARY
- Right Fork Hauser Creek Hauser Creek
- Method of Determination: Applicant submitted a map that outlined POD & POU.
- Change in Source: ☐ Yes ☒ No

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Overlap? ☒ Yes ☐ No

Water Right No.	Source	Purpose of Use	Basis
95-16520	Spring	Domestic	License

Comments: The place-of-use shape associated with right 95-16520 covers more than ½ acre.

2. Other water rights with the same point of diversion: Overlap? ☐ Yes ☒ No

Water Right No.	Source	Purpose of Use	Basis

Comments:

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

Source	Govt. Lot	¼	¼	¼	Sec.	TWP	RGE		County
RIGHT FORK HAUSER CREEK			NE	NE	30	52N	05W	B.M.	KOOTENAI

Method of Determination: The Legal Description in the permit is validated by PLS data and USGS map aerial photograph.

Change in POD? ☐ Yes ☒ No

Amendment Required? ☐ Yes ☒ No

2. **LOCATION OF PLACE(S) OF USE:** Use: IRRIGATION and FIRE PROTECTION

TWP	RGE	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
52N	05W	30	2.0, F																2.0

Method of Determination: Aerial photography and USGS topo map.

Change in POU? ☐ Yes ☒ NoAmendment Required? ☐ Yes ☒ No

3.

☐ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

Delivery system is unknown.

☒ 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
Unknown.		1 Hp		Red Devil	Unknown

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

The pump diverts the water from the creek and pushes it 40 feet up to the irrigation level. The permit holder uses rain-bird or soaker sprinklers for irrigation.

D. FLOW MEASUREMENTS

1. Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date

2. Measurements: In-office field exam. No measurements taken**E. FLOW CALCULATIONS**☒ Additional Computation Sheets Attached

0.02 cfs = 1 inch per acre (IDWR standard) 2.0 acres x (0.02 cfs) = 0.04 cfs

Per App. Processing Memo #17, up to 0.03 cfs/acre for irrigation of up to 5 acres is acceptable. 2.0 acres x (0.03 cfs) = 0.06 cfs

Calculated standard = 0.06cfs**Permit allowed = 0.06 cfs****License recommended for 0.06 cfs.****F. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 2 \times 3 = 6 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.06 \times 246 \times 1.9835 = 29.3 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 6 \text{ af}$$

Volume Calculations for Other Uses: Fire protection

The permit holder stated that he has two 12000 gal storage tanks which fill using the same pump system as he uses for irrigation. When the water is not needed for irrigation, he changes a valve setting and fills the storage tanks. It would take 8 hours to fill at 0.06 cfs (~25 gpm) to fill one of the tanks. (12000 gal / 25 gpm = 8 hours.) Together the two tanks store less than 24-hours worth of flow. Therefore, no storage component is required for the water right.

G. PURPOSE OF USEIrrigation ☒ Yes ☐ No # Stock _____ Domestic # of Homes 1 home & shop

Other: < >

Change in Purpose of Use? ☐ Yes ☒ No

Method of Determination: Information in the water right file is consistent with aerial photography of the property.

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

H. NARRATIVE/REMARKS/COMMENTS

Permit 92-10951 authorized the diversion from Right Fork Hauser Creek of 0.06 cfs for irrigation and 0.06 cfs for fire protection purposes. Based on the small permitted diversion rates, this permit qualifies for an in-office field exam.

A topo map identifying the POU and POD was submitted with the application. The scale of the map made it difficult to confirm the location of the POD and POU.

The legal description of the POU was used to locate the property. Available taxlot information shows that the owner is Robert A Finkenhagen. The physical address of the property is 17462 N Right Fork Rd Hauser ID and this is the address-of-record for Mr. Finkenhagen and Ms Martin.

I created the POU shape based on available taxlot, and DRG layers and 2015 Google Earth imagery of the area.

I confirmed the pump size and lift through a phone call with Mr. Finkenhagen.

Overlap review showed license 95-16520 for domestic use is likely to share a portion of place-of-use. A combined use condition on this license recognizes the overlapping irrigation.

Right Fork Hauser Creek crosses the west side of the POU. I copied the permit POD shape for the license POD.

The permit authorized the standard rate for irrigation use less than 5 acres and I am recommending that rate for the license. Because this is a diversion out of a creek, no volume is required for the license pursuant to BU Exam Rule 35 j.

Aerial photography was used to confirm the POU. A house and shops are clearly visible in imagery.

I confirmed that the POU not located within Hauser ID city limits and therefore is vulnerable to fires.

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	03/15-11/15	0.06 cfs	6.0 af
Fire Protection	01/01-12/31	0.06 cfs	
	<u>Totals</u>	0.06 cfs	

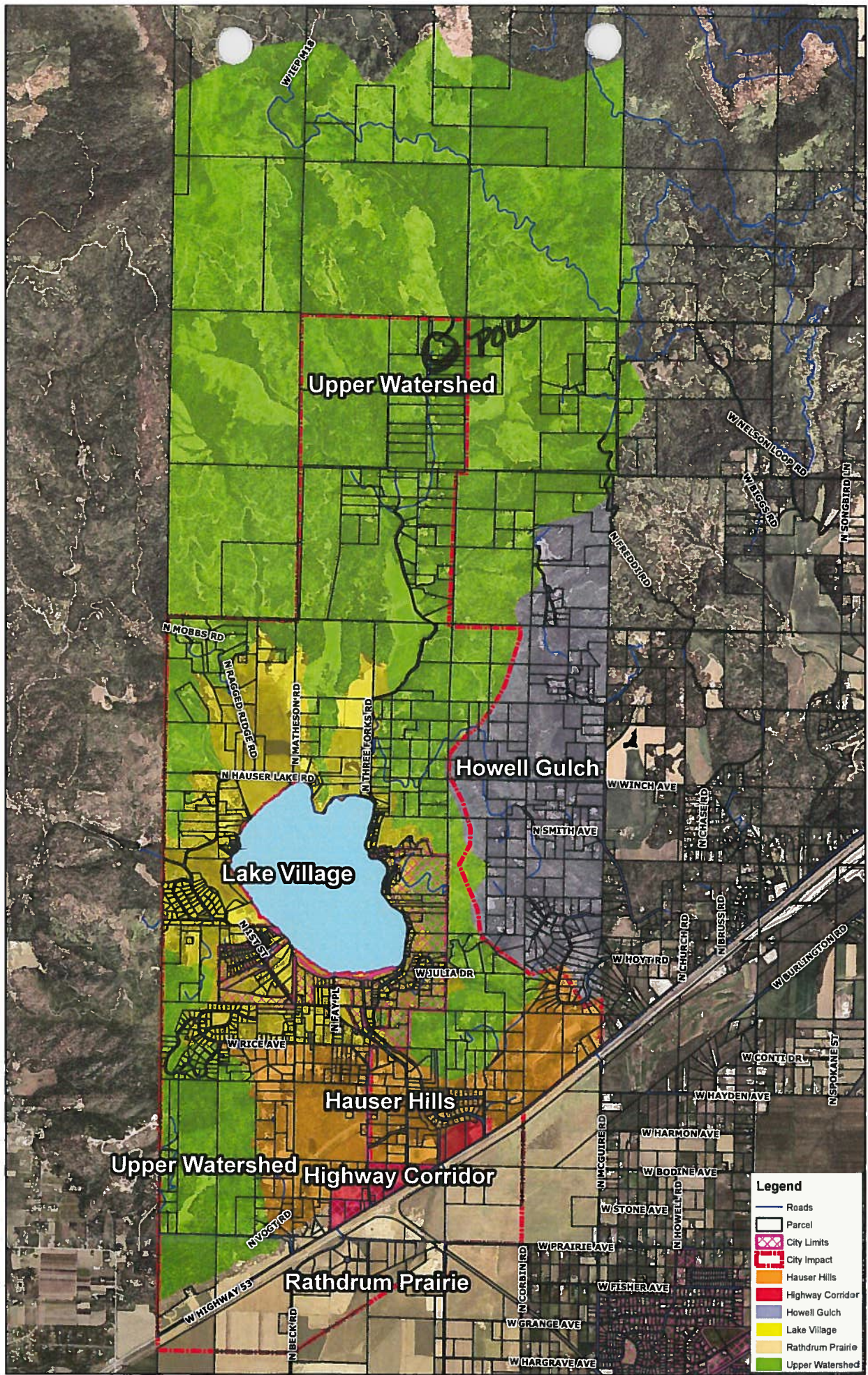
2. Recommended Amendments

☐ 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 ☐ Other

Other: < >

I. AUTHENTICATIONField Examiner's Name Michele Edl Date October 30, 2015Reviewer *Samuel Skaggs* Date 11-1-2015





Google earth



imagery date 4/2015
WB# 95-9292

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 95-9292
 Reviewer: Michele Edl
 Date of Review: 10/30/2015

P/D No.:	Senerio 1	Senerio 2	Senerio 3
PUMP HORSEPOWER	1	1	1
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	40.0	40.0	40.0
DISCHARGE PRESSURE	30	35	40
RATE OF FLOW (cfs)	0.06	0.05	0.05 0.05

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:

Horsepower was given by the applicant. Lift was estimated by the applicant and is from the pump location in the creek to the irrigation level of the property. Discharge pressure ranges from 30-40 psi to account for expected sprinkler system in use.