

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

A. GENERAL INFORMATION

Permit No: 91-7812

Exam Date: 10/27/2015

1. Does this qualify for an in-office field exam (IDAPA 035.02.r)? ☒ Yes ☐ No
- 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: Steven Hanson and/or Donna Henson
Owner-of-Record Correct? ☒ Yes ☐ No
Address-of-Record Correct? ☒ Yes ☐ No
If No: <Address>

3. Beneficial Use Fees have been paid: ☒ Yes ☐ No Receipt No: C100985

4. SOURCE**TRIBUTARY**

St Joe River

Coeur D'Alene Lake

Method of Determination: Applicant submitted an aerial photo image of the 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
91-7080	GW	Municipal	Recommendation
91-7080	GW	Domestic & Irrigation	License

Comments: Water for in-house domestic use would be accessible through right 91-7080.

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
St Joe River			NE	SW	17	46N	02W	B.M	BENEWAH

Method of Determination: The legal description in the permit is validated by PLS data and aerial photography. The POD is located within the river channel, not in a gov't lot.

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

2. **LOCATION OF PLACE(S) OF USE:** Use: Domestic

TWP	RGE	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
46N	02W	17									D								
											L8								

Method of Determination: See the sketch provided by the applicant.

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.

The pipe size 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.		1.5		Unknown	Unknown

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

The Hensons operate a pump which diverts water from the river for an irrigation system which is divided into 8 stations.

D. **FLOW MEASUREMENTS**

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

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

0.02 cfs = 1 inch per acre (IDWR standard) 0.5 acres x (0.02 cfs) = 0.01 cfs

Per App. Processing Memo #17, up to 0.03 cfs/acre for irrigation of up to 5 acres is acceptable. 0.5 acres x (0.03 cfs) = 0.015 cfs

Calculated = 0.015 cfs**Standard = 0.04 cfs****Permit allowed = 0.04 cfs****License recommended for 0.04 cfs.**F. **VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

V_{I.R.} = (Acres Irrigated) x (Irrigation Requirement) = 0.5 x 3.0 = 1.5 afV_{D.R.} = [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835 = 0.04 x 231 x 1.9835 = 18.3 afV = Smaller of V_{I.R.} and V_{D.R.} = 1.5 afVolume Calculations for Other Uses: N/A

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

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 91-7812 authorized a diversion from the St Joe River of 0.04 cfs for domestic purposes in the form of irrigation of a ½ acre. Based on the small permitted diversion rates, this permit qualifies for an in-office field exam.

Legal descriptions of the POU and POD were used to locate the property. Available taxlot information shows that the S & D Henson Revocable Trust is owner of Lot 29 B and Lot 30 A of Cottonwood Point 1st Addition. The taxlot layer isn't well rectified with the aerial photography in this area. So the POU appears to be located on Lot 30 A, Lot 30 B and Lot 29 B of Cottonwood Point 1st Addition. A map identifying the POU was submitted with the application.

The POD does appear to be located in the river channel lot not in any government lot. It appears nearest to Lot 30 B of Cottonwood Point 1st Addition. At the time of this review, Lot 30 B is owned by Mitchell V Santos. I confirmed the POU and POD locations with the Hensons via phone or email. An amendment is not needed to remove a government lot from the legal description.

A small pump diverts water from the river to supply a pressurized sprinkler system on the Henson property. Donna Henson stated that the irrigation system had 8 stations and that they irrigate: the riverfront side, both side yards and the square garden seen on the street side of the house. I created the POU shape based on aerial photography.

The irrigation is for less than ½ acre. The use qualifies as domestic under §42-111 (1)b.

Overlap review showed that license 91-7080 in the name of Cottonwood Point Water & Sewer Assn for domestic and irrigation use from groundwater exists and overlaps the POU. That license has been recommended in the CdA adjudication with the same number, but for Municipal use instead of domestic and irrigation.

The permit authorized the standard rate for a small external irrigation (domestic) use. I am recommending that rate for the use. Because this is a diversion out of a river, no volume is required for the license pursuant to BU Exam Rule 35 j.

I assumed that pump intake had appropriate fish screening.

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	01/01-12/31	0.04 cfs	N/A
	<u>Totals</u>	0.04 cfs	N/A

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 27, 2015Reviewer *Camille A Skaggs* Date 10-27-2015



Edl, Michele

From: Steve Henson [Steve.Henson@potlatchcorp.com]
Sent: Tuesday, October 27, 2015 3:18 PM
To: Edl, Michele
Cc: donnahenson7@gmail.com
Subject: RE: pump station location

You have identified the location of the pumping station correctly. Thanks!!!

Steven Henson
Complex Manager
Potlatch Corp.
St. Maries Idaho
208-245-7535 (Direct)
208-568-1701 (Cell)

"We Manufacture Quality Wood Products-Safely"

From: Edl, Michele [<mailto:Michele.Edl@idwr.idaho.gov>]
Sent: Tuesday, October 27, 2015 2:06 PM
To: Steve Henson
Subject: pump station location

Steve Henson
Sorry to bother you at work.
Would you please confirm for me the location of your pumping station. I put the location on the shore where google earth aerial photography shows a feature. (see attached screen shot)
I am seeing a white colored object in an extension line from the drive which is shared by you and your neighbor to the north.
Michele Edl



Google earth



THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 91-7812
 Reviewer: Michele Edl
 Date of Review: 10/21/2015

P/D No.:	Senerio 1	Senerio 2	Senerio 3
PUMP HORSEPOWER	1.5	1.5	1.5
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	5	5	5
DISCHARGE PRESSURE	35	45	55
RATE OF FLOW (cfs)	0.11	0.08	0.07 0.09

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 surface of the shore to the irrigation level of the property. Discharge pressure ranges from 35-55 psi to account for expected sprinkler system in use.

Edl, Michele

From: Steve Henson [Steve.Henson@potlatchcorp.com]
Sent: Thursday, October 22, 2015 4:18 PM
To: Edl, Michele
Attachments: IMG_0637.JPG; ATT00001.txt

Michele-My wife asked me to send you this

