

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

A. GENERAL INFORMATION

Permit No: 29-13961

Exam Date: 11/2/2015

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: Nicholas Tsakrios and Tacia M Tsakrios Revocable Trust

Owner-of-Record Correct? ☒ Yes ☐ NoAddress-of-Record Correct? ☒ Yes ☐ No

If No: <Address>

Tacia Tsakrios stated that she had signed an assignment of this permit to Greg Suttner the new owner of the property. As of the date of this report, the assignment has not been received.

3. Beneficial Use Fees have been paid: ☒ Yes ☐ No Receipt No: C100973**4. SOURCE****TRIBUTARY**

Moonlight Creek

North Fork Rapid Creek

Method of Determination: Applicant submitted an aerial photo map that 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

Comments: The property contains a decades-old cabin which does not have internal water. According Tacia Tsakrios, there isn't a domestic well located on the property and the cabin is not habitable.

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	%	%	%	Sec.	TWP	RGE		County
Moonlight Creek			NE	NE	29	6S	36E	B.M	BANNOCK

Method of Determination: The legal description in the permit is validated by PLS data and aerial photography.

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	
6S	36E	29	D								D								

Method of Determination: The legal description in the permit is validated by PLS data and aerial photography.

Change in POU? ☐ Yes ☒ No

Amendment Required? ☐ Yes ☒ No

3.

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

Pump discharge reduces to 3/4 inch for delivery through a 5/8 inch hose.

☒ 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.		3.5		Unknown	3/4 inch

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

The Tsakrios operate a pump which diverts water from the creek for an irrigation system.

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) 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 standard = 0.015 cfs

Permit allowed = 0.04 cfs

License recommended for 0.04 cfs.

F. **VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.5 \times 4.0 = 2.0 \text{ af}$

$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \times 214 \times 1.9835 = 12.7 \text{ af}$

$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 2.0 \text{ af}$

Volume Calculations for Other Uses: N/A

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

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 29-13961 authorized a diversion from the Moonlight Creek 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 Nicholas A & Tacia Tsakrios Revocable Trust is owner of the property containing both the POU and POD. I used the Permit POU & POD shapes as templates for the Water Right License POD & POU shapes.

A gas powered pump diverts water from Moonlight Creek to supply the sprinkler system on the Tsakrios property. The irrigation is for less than ½ acre. The use qualifies as domestic under §42-111 (1)b. and will be limited to 13,000 gpd.

Overlap review found no other water rights appurtenant to the property.

The Proof of Beneficial Use states that the use has been regulated by watermaster Marshall Wheatley. I reviewed recent records from WD 29D - Lower Portneuf River & Trib but did not find a reference to this diversion. The WD 29D watermaster is Randy Smith, not Marshall Wheatley so it's unclear who would have been overseeing this diversion.

The permit authorized the standard rate for a domestic use. I am recommending that same standard rate for the license. Because this right is conditioned with a 13,000 gpd limit, a license volume is not required.

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 November 2, 2015Reviewer *Bernie Skaggs* Date 11-12-2015

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 29-13961
 Reviewer: Michele Edl
 Date of Review: 10/22/2015

P/D No.:	Senerio 1	Senerio 2	Senerio 3
PUMP HORSEPOWER	3.5	3.5	3.5
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	3.0	3.0	3.0
DISCHARGE PRESSURE	35	45	55
RATE OF FLOW (cfs)	0.11	0.09	0.07
			0.09 150 gpm max = 0.3

The above calculates the formula = $Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$

Assumptions: % 30 efficiency for gas pump
 No Friction

Examiners Notes:

Horsepower was given by the applicant. Lift was estimated by this reviewer and is from the surface of the creek to the irrigation level of the property. Discharge pressure ranges from 35-55 psi to account for expected sprinkler system in use.

