

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 96-9401

Exam Date: 5/23/2013

1. Current Owner: ROBERT R HAZELBAKER
2230 RAPID LIGHTNING RD
SANDPOINT ID 83864
(208)265-0195

And

SANDRA M HAZELBAKER
2230 RAPID LIGHTNING CREEK RD
SANDPOINT ID 83864
(208)265-0195

2. Accompanied by: Owner
Phone No: Same As Above
Address: Same As Above
Relationship to Permit Holder: Same As Above

3. SOURCE TRIBUTARY
RAPID LIGHTNING CREEK PACK RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point of diversion: None

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

RAPID LIGHTNING CREEK NE1/4NE1/4 Sec. 24, Twp 58N, Rge 01W, B.M. BONNER County

Method of Determination: GPS and Visual Inspection

2.

PLACE OF 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	
58N	01W	24	.3																.3

Total Acres: 0.3

Method of Determination: GIS and Visual Inspection

3. YES Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
YES Aerial Photo Attached (required for irrigation of 10+ acres).
YES 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
Stream Pump	WEG	1	020884598	Dayton	2P005C 0907

*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

2. Measurements: System was not operating at the time of the exam, so a theoretical calculation was done.**E. FLOW CALCULATIONS** X Additional Computation Sheets Attached

Measured Method:

Measurement = 0.11 cfs

Acres = 0.3 X 0.03 cfs/acre = 0.009 cfs or Acres rounded to 1 acre X 0.03 cfs/acre = 0.03cfs

Permit allowed = 0.05 cfs

License recommend for 0.03 cfs. (I rounded the acres to one acre, since the 0.03 cfs is pretty much the minimum amount of diversion rate diverted for a permanent system such as the one for this permit.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \underline{0.3 \text{ acres} \times 3.0 = 0.9 \text{ afa}}$$

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

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \underline{0.09 \text{ cfs}}$$

2. Volume Calculations for Other Uses:

G. NARRATIVE/REMARKS/COMMENTS

The water for this permit is diverted from a 1 Hp pump out of Rapid Lightening Creek. The pump is located in the NENE of Section 24, T58N R1W. The water is delivered through a 1 ½ inch mainline approximately 235 feet northwest of the pump to a seven station underground sprinkler system that irrigates a yard. The yard is approximately 0.3 acres.

There were no significant overlapping water rights. The owner had a exempt domestic well for the culinary use for his home, but it was not connected into the irrigation system for the yare.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS**1. Recommended Amounts**

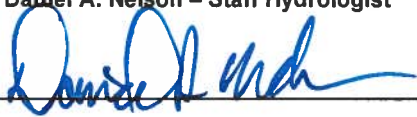
<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	04/01 to 10/31	0.030 CFS	0.90 AF
	<u>Totals:</u>	0.030 CFS	0.90 AF

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 ☐ Other

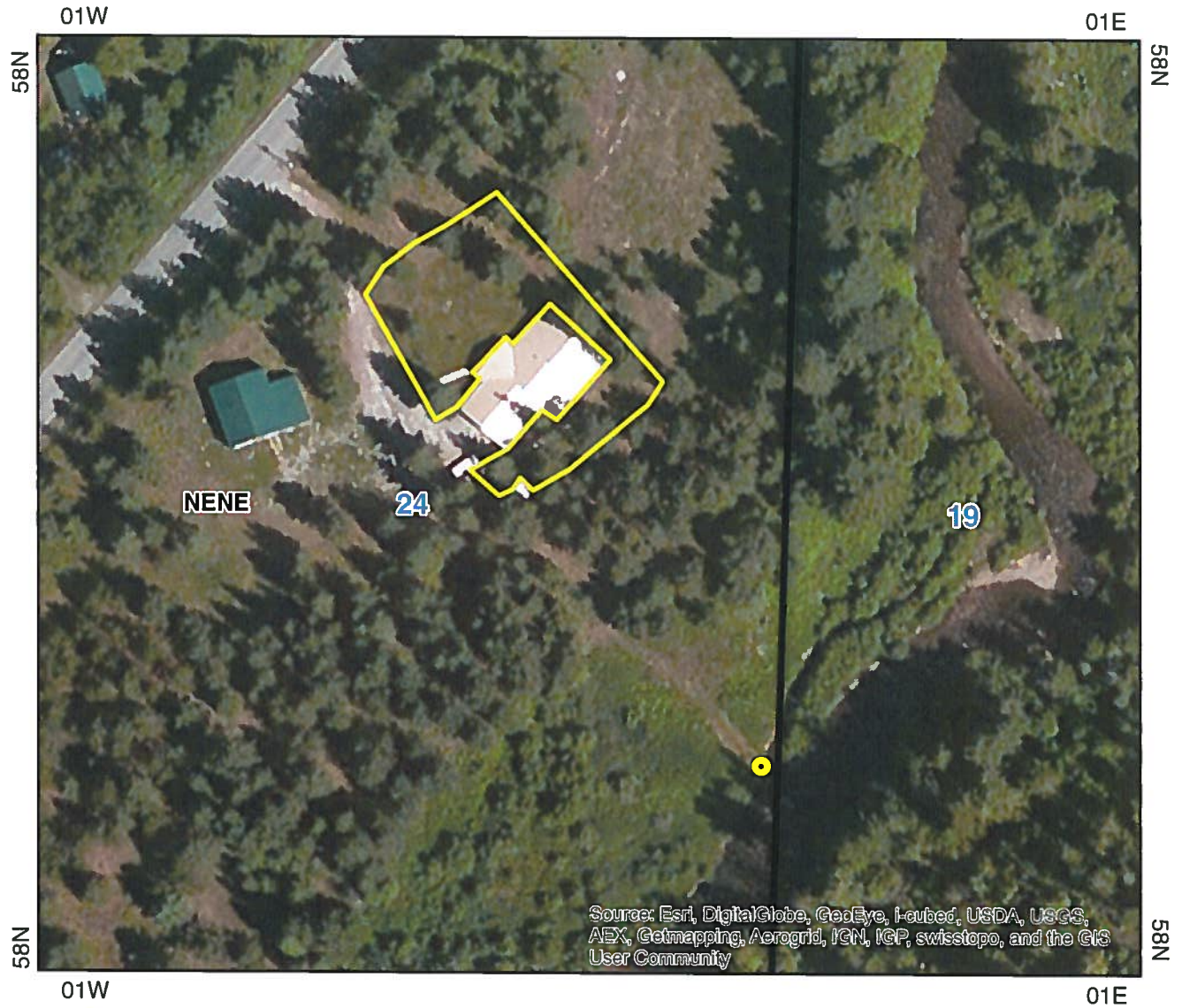
I. AUTHENTICATION Daniel A. Nelson – Staff Hydrologist

Field Examiner's Name  Date 7-30-2017

Reviewer _____ Date _____

State of Idaho
Department of Water Resources
Field Exam Map
96-9401

This map depicts the IRRIGATION place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.



-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters

0 0.0125 0.025 0.05 Miles



SESE

13

SWSW 4

18

NENE

24

NWNW 1

19

58N01W

58N01E

Field Exam Permit 96-9401
by Dan Nelson

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THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 96-9401
 Examiner: Dan Nelson
 Date of Field Exam: 5/23/2013

	Option 1	OPTION 2	OPTION 3	
P/D No.:				
PUMP HORSEPOWER	2	2	2	
BOOSTER HORSEPOWER	0	0	0	
PUMPING LEVEL	6	6	6	
DISCHARGE PRESSURE	40	45	50	
FRICITION	0	0	0	
RATE OF FLOW (cfs)	0.13	0.11	0.10	AVE
(gpm)	56.2	50.3	45.5	0.11

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.

Examiners Notes:

Lift was measured at pump site. Pressure was estimated at between 40 and 50 psi for this type of sprinkler system. This is a small pump that supplies water to an underground sprinkler system. The system was not operating at the time of the exam. Permit is for 0.05 cfs, so the permit will be limited to 0.05 cfs, since the

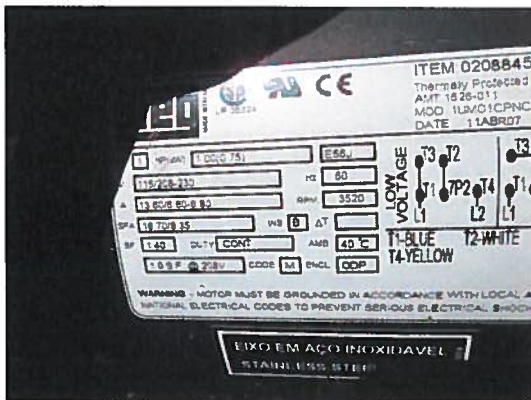
PHOTOGRAPHER AND DATE OF PHOTOS DANIEL A NELSON 5/23/2013,

FILE NUMBER 96-9401



The photo above shows the pump diverting water from Rapid Lightning Creek. This is a 2 Hp pump that diverts water through an inch ½ line to an underground sprinkler system.

The pictures below show the name plates on the pump motor and the pump.



PHOTOGRAPHER AND DATE OF PHOTOS DANIEL A NELSON 5/23/2013.

FILE NUMBER 96-9401



This photo shows the front of the home and the yard that is irrigated out of this system.



This photo shows the back of the home and that the yard ends at the tree line behind the home.



This photo shows a side view of the home and how the yard goes along the driveway and the shed.