

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 94-08542
Exam Date: 7/10/2017

1. Current Owner:

CAROLYN L COLLINS 36C GORGE GULCH RD WALLACE ID 83873 (208) 753-6202

Or

STEPHAN W COLLINS 36C GORGE GULCH RD WALLACE ID 83873 (208) 753-6202

2. Accompanied by: Stephan & Carolyn Collins

3. **SOURCE:**

GORGE GULCH CREEK

TRIBUTARY:

CANYON CREEK

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 SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

GORGE GULCH CREEK NE¼NW¼ Sec. 10, Twp 48N, Rge 05E, B.M. SHOSHONE County

GORGE GULCH CREEK SW¼NW¼ Sec. 10, Twp 48N, Rge 05E, B.M. SHOSHONE County

Method of Determination: Maps and GPS. POD's located at

Gravity System: -115° 48.539, 47° 31.663

Pump System: -115° 48.595, 47° 31.465

2.

PLACE OF 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	
48N	05E	10							X	X	X								

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	
48N	05E	10							0.1	0.1	0.1								.3

Total Acres: 0.3

Method of Determination: Google Earth, Arcmap, and Shoshone County taxlot mapping tool.

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

X Indicate weir size/pipe as applicable.X Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.X Aerial Photo Attached (required for irrigation of 10+ acres).X Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Pump	Water Ace	3/4			

*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
5 Gallon Bucket						

2. Measurements: 5 gallon bucket test performed on both POD's

Gravity flow system: 5 gallon filled in 32 seconds
 $5 \text{ gal} / 32 \text{ sec} \times 60 \text{ sec} = 9 \text{ gpm}$ or 0.02 cfsPump system: 5 gallon filled in 15.4 seconds
 $5 \text{ gal} / 15.4 \text{ sec} \times 60 \text{ sec} = 19.5 \text{ gpm}$ or 0.04 cfs**E. FLOW CALCULATIONS**

Measured Method: N/A

_____ Additional Computation Sheets Attached

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.3 \text{ AC} \times 3.0 \text{ AF} = 0.9 \text{ AF}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.01 \text{ CFS} \times 200 \text{ DAYS} \times 1.9835 = 4.0 \text{ AF}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 0.9 \text{ AF}$$

2. Volume Calculations for Other Uses: Indoor domestic use for 2 homes = 1.2 AF (0.6 AF x 2 homes)

G. NARRATIVE/REMARKS/COMMENTS

Field exam with applicants, Carolyn and Stephan Collins, showed two points of diversions from Gorge Gulch Creek. There appeared to be some confusion on the original application because there is a map where the 2nd POD is identified but then an X was written over it. They then moved the POD to the location where a pump was located. Applicant had a gravity point of diversion about 1,300 feet up the creek from their home. They had a 2nd point of diversion next to the home using a 3/4hp pump. They said they would use the gravity system as long there was enough pressure which was most of the year except a few months during the summer. When pressure would drop too low, they would switch system over to the pump. An amendment of permit will be done at time licensing to authorize both points of diversions.

Applicant had system setup with a control valve that would turn water on from gravity system, pump system, or both together. Mr. Collins said he rarely used water from both systems but had in the past when the demand required it. Measurements were possible using a 5 gallon bucket test. The gravity flow diversion was measured in 32 seconds which is equal to 9 gpm or 0.02 cfs. The pump diversion was measured in 15.4 seconds which is equal to 19.5 gpm or 0.04 cfs.

The applicants had applied for domestic use for 2 homes with 1 acre of irrigation. They had only applied for a diversion rate of 0.04 cfs for both homes. As measured the system was capable of producing enough water and then some. During license review, the actual irrigated acreage only measured 0.3 acres. Irrigation standards will limit the diversion rate to 0.01 cfs for the irrigation of 0.3 acres. License will be issued for a diversion rate of 0.05 cfs because both systems can be used together. The license will not have an overall annual volume, but domestic use for 2 homes will have a limit of 1.2 acre-feet. All conditions on permit will remain except condition 26A which will be removed. Applicant said they had permission for the gravity system and condition 004 will be left on for any future trespass concerns.

Have conditions of permit approval been met? X Yes No

H. 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	0.04 CFS	1.2 AF
IRRIGATION	04/15 to 10/31	0.01 CFS	
<u>Totals:</u>		0.050 CFS	

2. Recommended Amendments

 Change P.D. as reflected above Add P.D. as reflected above X None

 Change P.U. as reflected above Add P.U. as reflected above X None

I. AUTHENTICATION

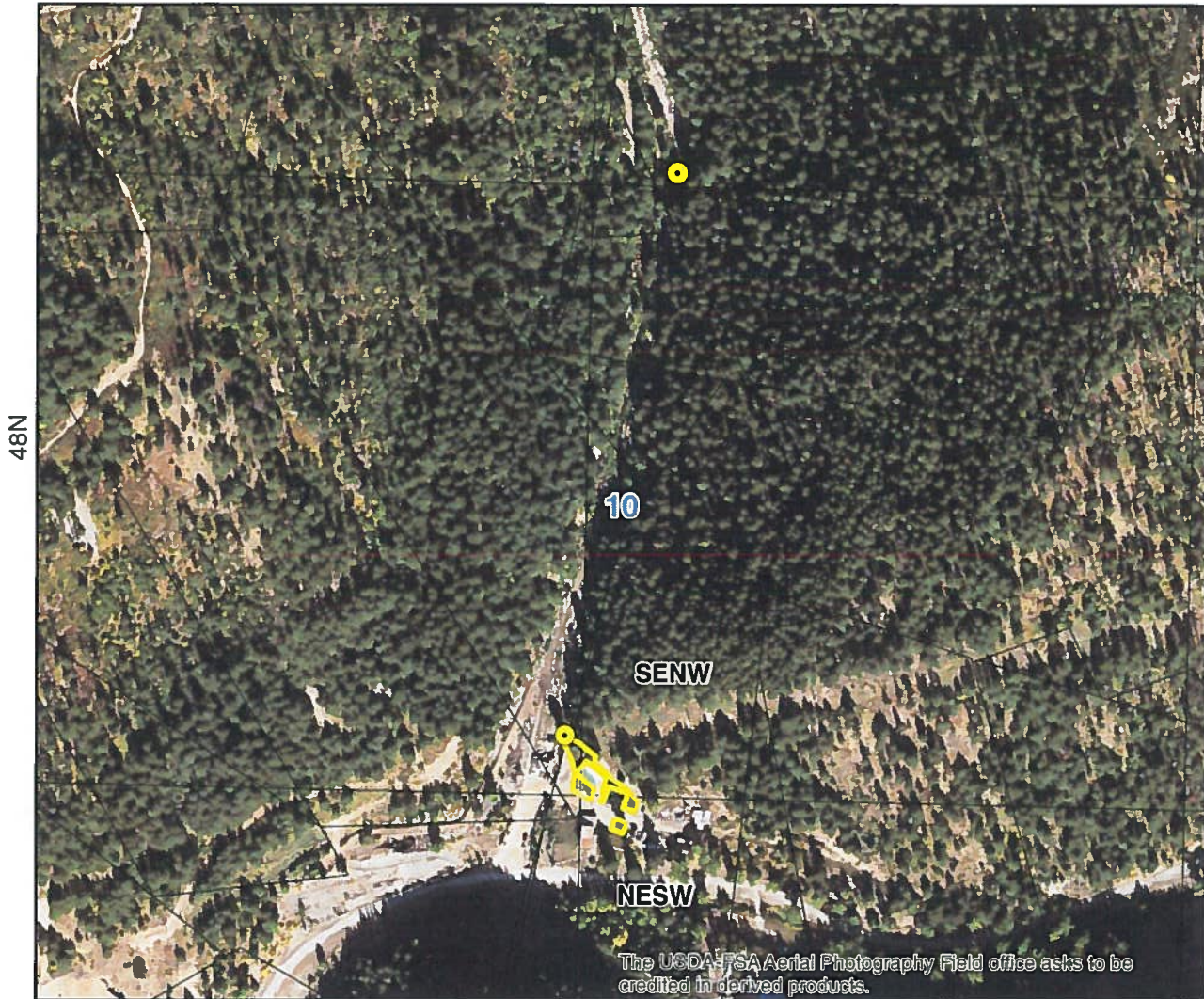
Field Examiner's Name Adrian F. Smith Date 2/12/2018

Reviewer Douglas Jones P.E. Date 2/28/18

State of Idaho
Department of Water Resources
Attachment to Field Exam
94-8542

IRRIGATION

05E



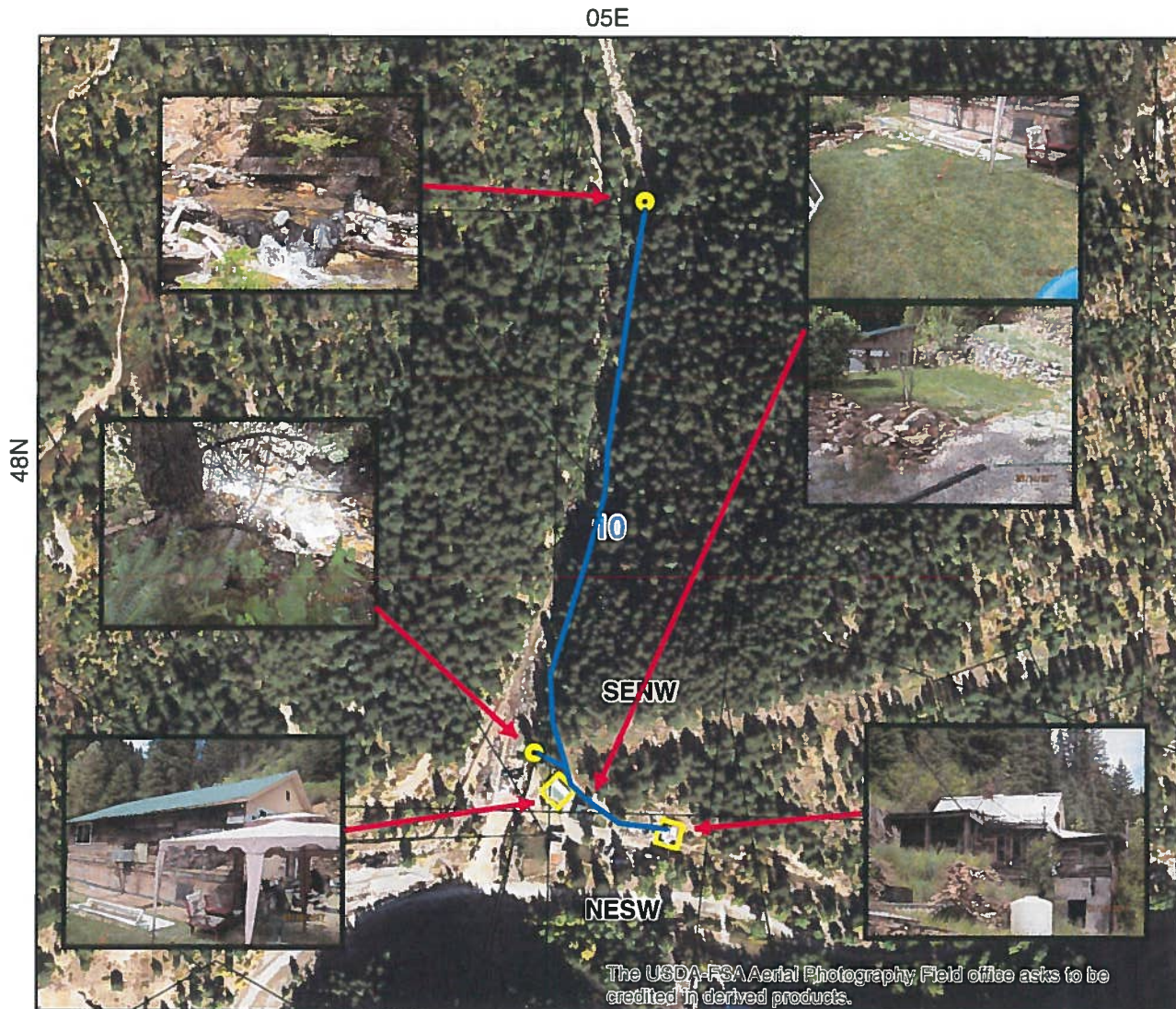
- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections

0 0.05 0.1 0.2 Miles



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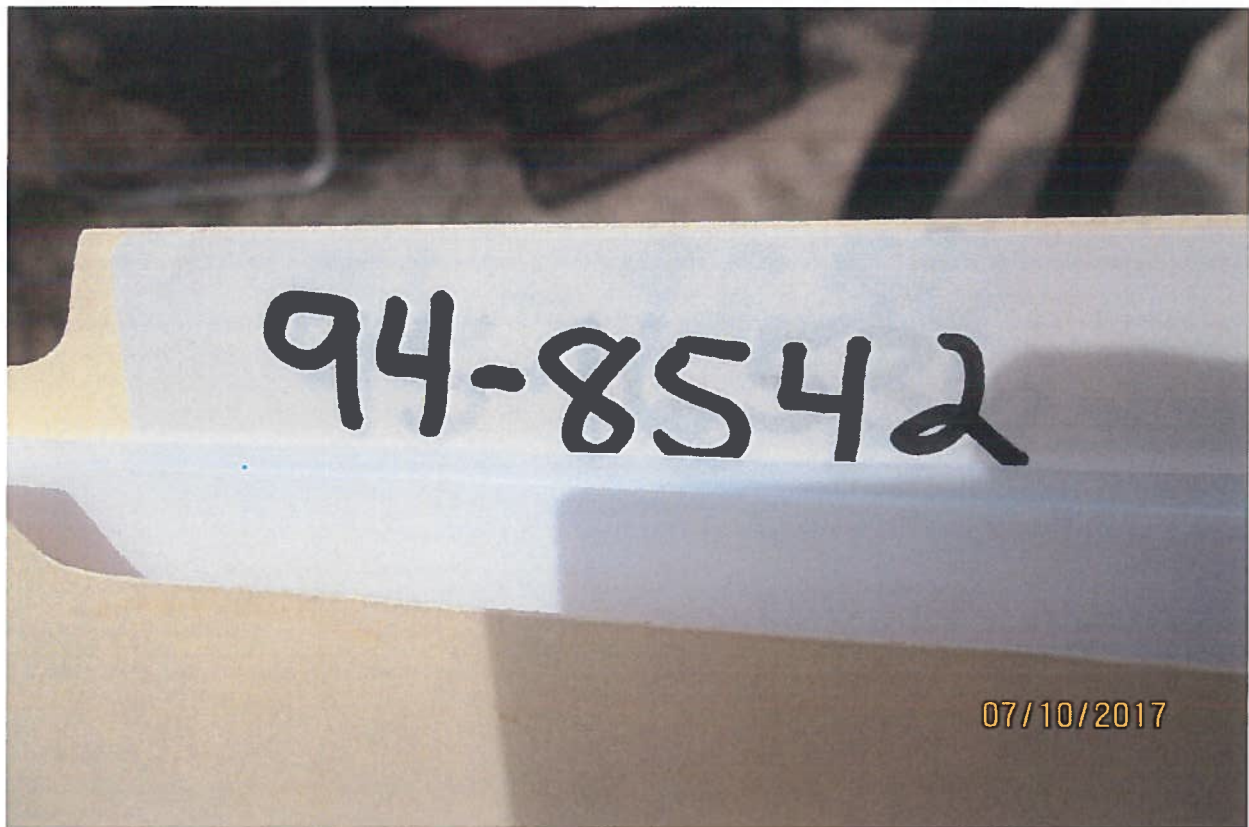
DOMESTIC / SYSTEM DIAGRAM



0 0.05 0.1 0.2 Miles

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





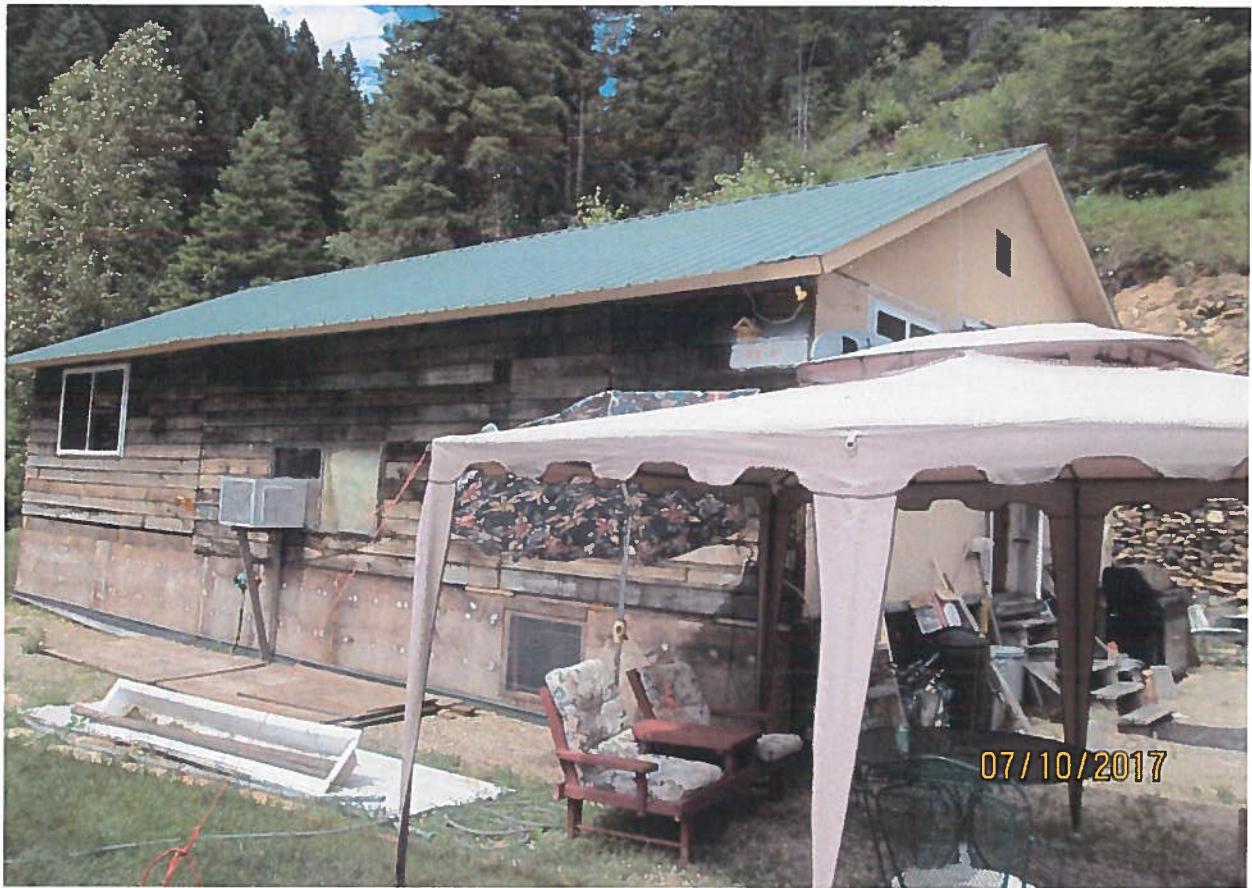
Upper POD for gravity fed system. Applicant had installed 1,300 feet of piping.



2nd POD adjacent to house using a 3/4hp pump.



3/4hp pump in pump house. Measured flow from pump was 19gpm.



Home 1.



Home 2.



Irrigation.





Irrigation.





5 gallon bucket test performed from both sources.