

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 79-14237

Exam Date: 8/29/2012

1. Current Owner: CHARLES R FULMORE
PO BOX 395
LUCILE ID 83542
(208) 628-3939

DONA M FULMORE
P.O. BOX 395
LUCILE, ID 83542
(208) 628-3939
2. Accompanied by: Reggie Rice & Dona Fulmore
Phone No: Same
Address: Same
Relationship to Permit Holder:

3. SOURCE

TRIBUTARY

ELFERS CREEK
SPRING

SALMON RIVER
ELFERS CREEK

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 79-14238
2. Other water rights with the same point of diversion: 79-14238

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

SPRING	SE1/4NW1/4NE1/4	Sec. 10,	Twp 25N,	Rge 01E, B.M.
IDAHO County				
ELFERS CREEK	SE1/4NW1/4NE1/4	Sec. 10,	Twp 25N,	Rge 01E, B.M.
IDAHO County				

Method of Determination: Arc Map (Aerial Photo); GPS – Spring Box - Latitude N.45°31.552', Longitude W.116°19.097'; Datum – NAD83.

2.

PLACE OF USE: DOMESTIC

[illegible]

Method of Determination: Arc Map (Aerial Photo); Tax Lots.

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

4.

<u>Well or Diversion ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
N/A	N/A			N/A	(1 1/2")

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

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
Pitot Tube						

2. Measurements: Pitot Tube. Sprinkler irrigation operating pressure of 16 psi. Nine (9) 5/32" Rainbird sprinkler Heads @ 16 psi ~ 3 gpm per head.

$Q = 9 \text{ sprinkler heads} \times 3 \text{ gpm} = 27 \text{ gpm} (0.06 \text{ cfs}).$

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method: (Continuity Equation – Pipe ($Q = VA$)):

Spring:

$$V = 1.49/nR^{2/3}S^{1/2} = (1.49/0.013)(0.031)^{2/3}(0.16)^{1/2}$$

$$V = (114.62)(0.098)(0.40) = 4.5 \text{ ft/sec}$$

$$Q = VA = 4.5 \text{ ft/sec} \times 0.012 \text{ ft}^2 = 0.05 \text{ cfs}$$

$$Q(\text{Pipe Capacity}) = 0.07 \text{ cfs} @ V = 5 \text{ ft/sec}$$

Elfer's Creek:

$$V = (114.62)(0.098)(0.42) = 4.7 \text{ ft/sec}$$

$$Q = VA = 4.7 \text{ ft/sec} \times 0.012 \text{ ft}^2 = 0.06 \text{ cfs}$$

$$D(\text{Pipe diameter}) = 1 \frac{1}{2}"$$

$$n = 0.013$$

$$R = D/4 = 0.125/4 = 0.031'$$

$$A = 0.012 \text{ ft}^2$$

$$\Delta E = 80' \text{ (Estimated)}$$

$$S = 80'/500' = 0.16 \text{ ft/ft (Spring)}$$

$$S = 80'/460' = 0.17 \text{ ft/ft (Elfer's Creek)}$$

Appears that both water supply systems can attain the permit diversion rate of 0.04 cfs. Recommend the permit diversion rate of 0.04 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: N/A

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

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

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

2. Volume Calculations for Other Uses: Domestic (Internal) for 1 Home.

$$V = \frac{1.2}{0.6} \text{ AFA}$$

G. NARRATIVE/REMARKS/COMMENTS**WATER SUPPLY SYSTEMS:**

Two water sources provide water to the right holder for domestic use.

SPRING:

Spring water is diverted by a section of 2" perforated PVC pipe extended into a bank/hillside. The 2" perforated PVC pipe discharges the spring water into a spring box. Water is discharged from the spring box by a short section of 2" PVC pipe. After a short distance, the 2" PVC pipe is reduced to 1 1/2" polypipe. A 2" valve is located at the end of the 2" PVC pipe for flow control. Based on the right holder's described pipe alignment, approximately 500 lineal feet of 2" PVC pipe and 1 1/2" polypipe conveys the spring water to a buried 1,000 gallon water storage tank located at the toe of slope below the right holder's home. Water is pumped to the right holder's home by a 1/2 hp pump in the water storage tank.

ELFER'S CREEK:

The right holder, along with his neighbor, constructed a dam in Elfer's Creek to divert water for domestic use. Based on the right holder's described pipe alignment, approximately 460 lineal feet of 1 1/2" polypipe is used to convey water from Elfer's Creek to a buried 1,400 gallon water storage tank. The primary use of the water is for irrigation of a shared garden area between the right holder and their neighbor. However, if for some reason the spring is not producing adequate water for domestic internal use for the home, the water from the 1,400 gallon water storage tank can be used as a backup source for the home. The garden area is less than 1/2 acre in size and is the only area currently being irrigated, and is therefore in compliance with the domestic beneficial use. A 1-hp pump diverts water from the 1,400 gallon water storage tank and conveys the water through 1" PVC pipe to nine (9) irrigation risers. The garden area is sprinkled by Rainbird 5/32" sprinkler heads operating at a measured pressure of 16 psi.

OVERLAP ANALYSIS:

Point of Diversion: Water Right Permit No. 79-14237 and Water Right Permit No. 79-14238 use the same point of diversions for the spring and Elfer's Creek. The only difference between the two permits is that Water Right Permit No. 79-14237 diverts spring water from a spring box, and Water Right Permit No. 79-14238 diverts water directly from the spring in the hillside/bank.

Place of Use: Water Right Permit No. 79-14237 and Water Right Permit No. 79-14238 use the same place of use for water diverted from Elfer's Creek for irrigation of the garden area, which is located within both parcels.

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

CONDITION NO. 5 (029) – Prior to the diversion and use of water under this approval, the right holder shall comply with all fish screening and/or fish passage for the Elfer's Creek diversion. Right holder has installed an approved 1/4" mesh fish screen over the 1 1/2" intake in Elfer's Creek.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.04	&/or	N/A
Beneficial Use Limit	0.04	&/or	N/A
System Measurement	0.06	&/or	N/A
Proof Fee Amount	0.20	&/or	N/A
Recommended Amount	0.04	&/or	N/A

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	0.040 CFS	~~1.2~~ 0.6 AFA <i>RC</i>
<u>Totals:</u>		0.040 CFS	0.6 AFA 1.2 <i>RC</i>

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

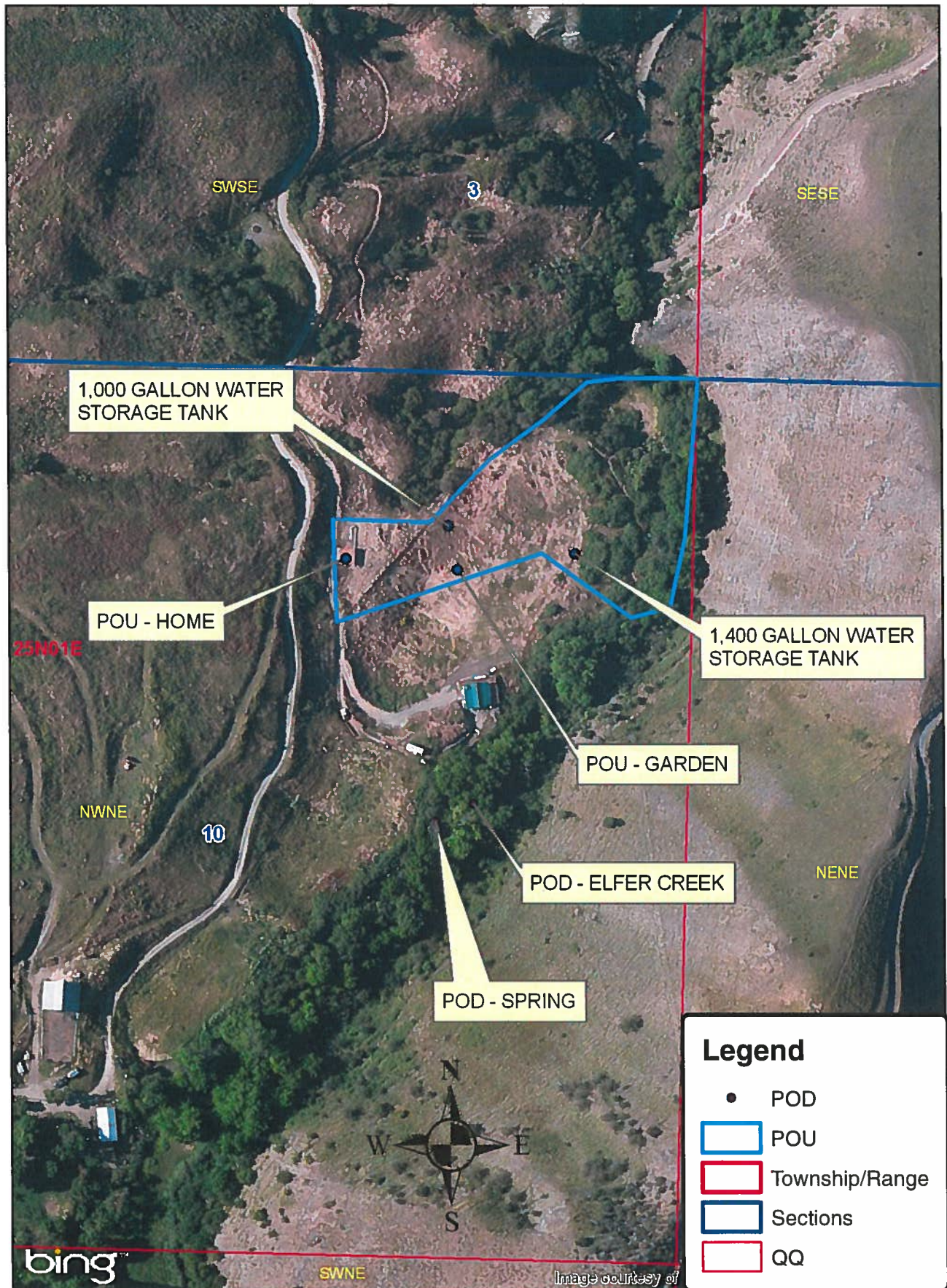
I. AUTHENTICATION

Field Examiner's Name *Rick Collingwood* Date *1/8/13*

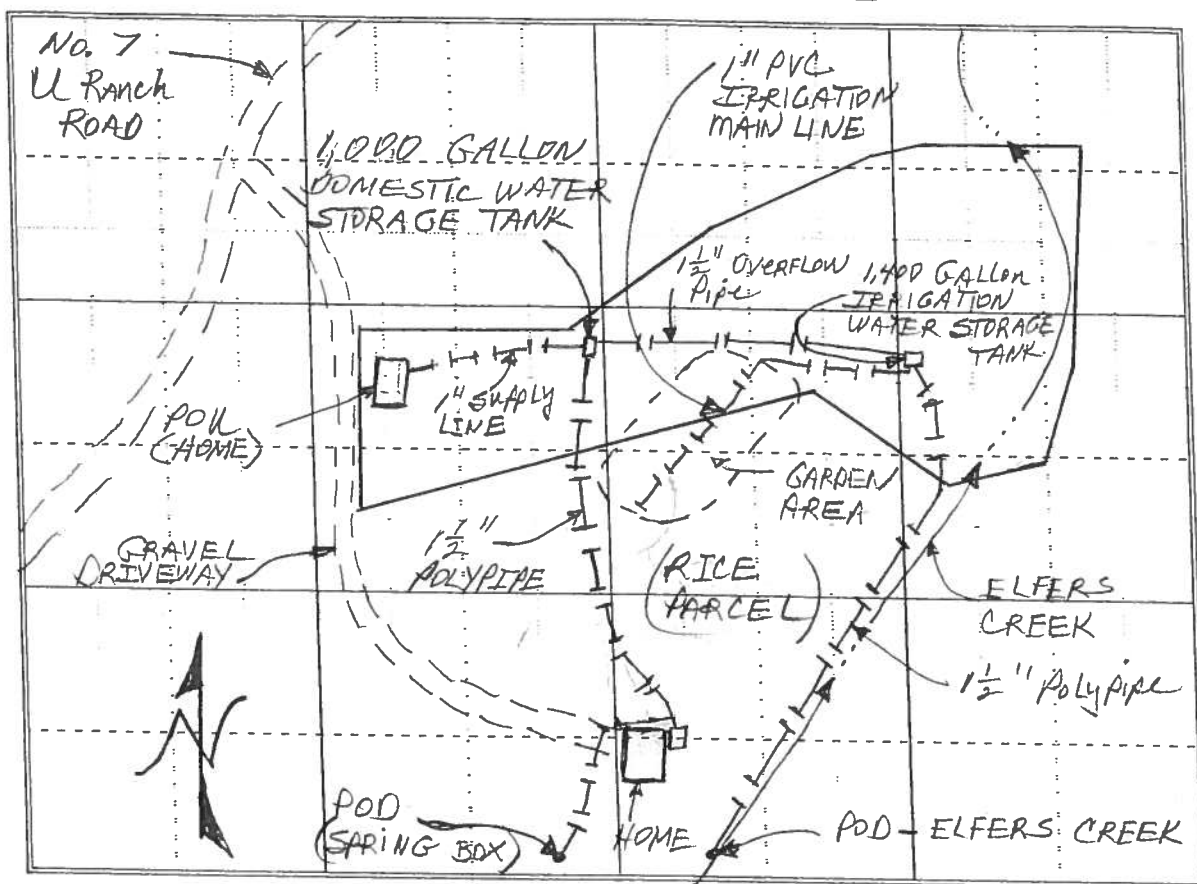
Reviewer _____ Date _____

79-14237

BING AERIAL PHOTO - 2011



3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached.



Scale: 1" = NTS

- ☐ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)
- ☒ Aerial photo attached (required for irrigation of 10+ acres)
- ☒ Photo of diversion and system attached

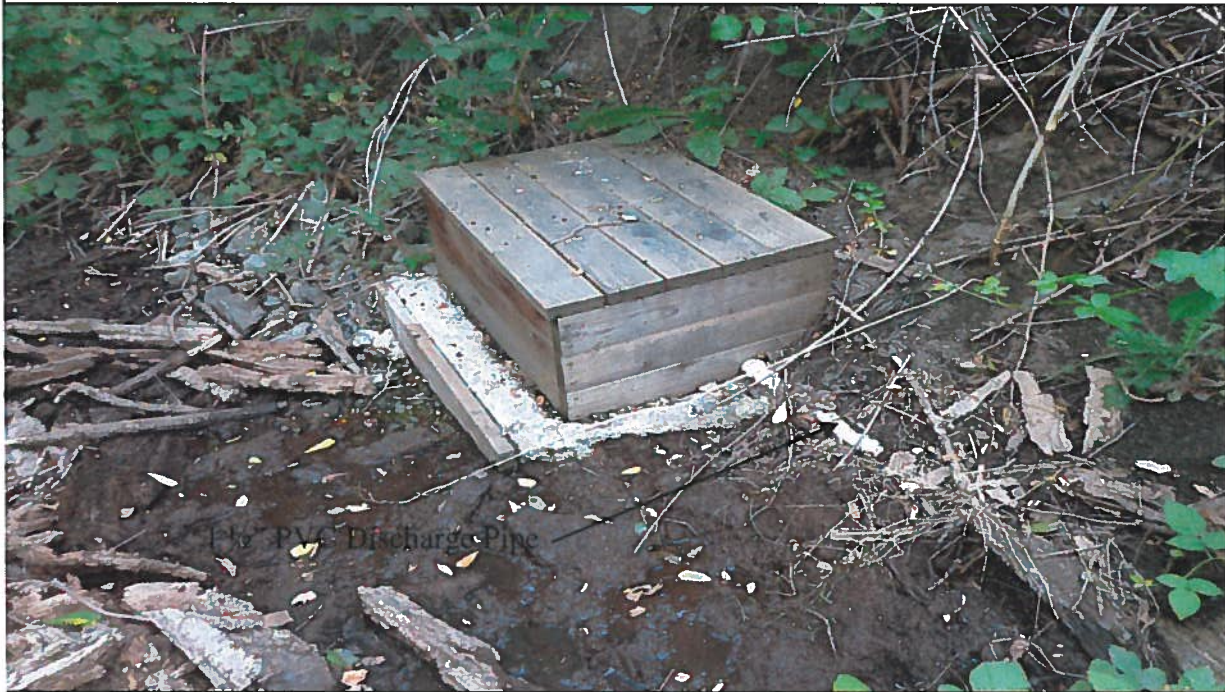
FIELD EXAM PHOTOS

Water Right Permit: 79-14237

Field Exam Date: 8-29-12

PLS: NW1/4, NE1/4 Section 10, T.25N, R.01E.

Field Examiner: RC



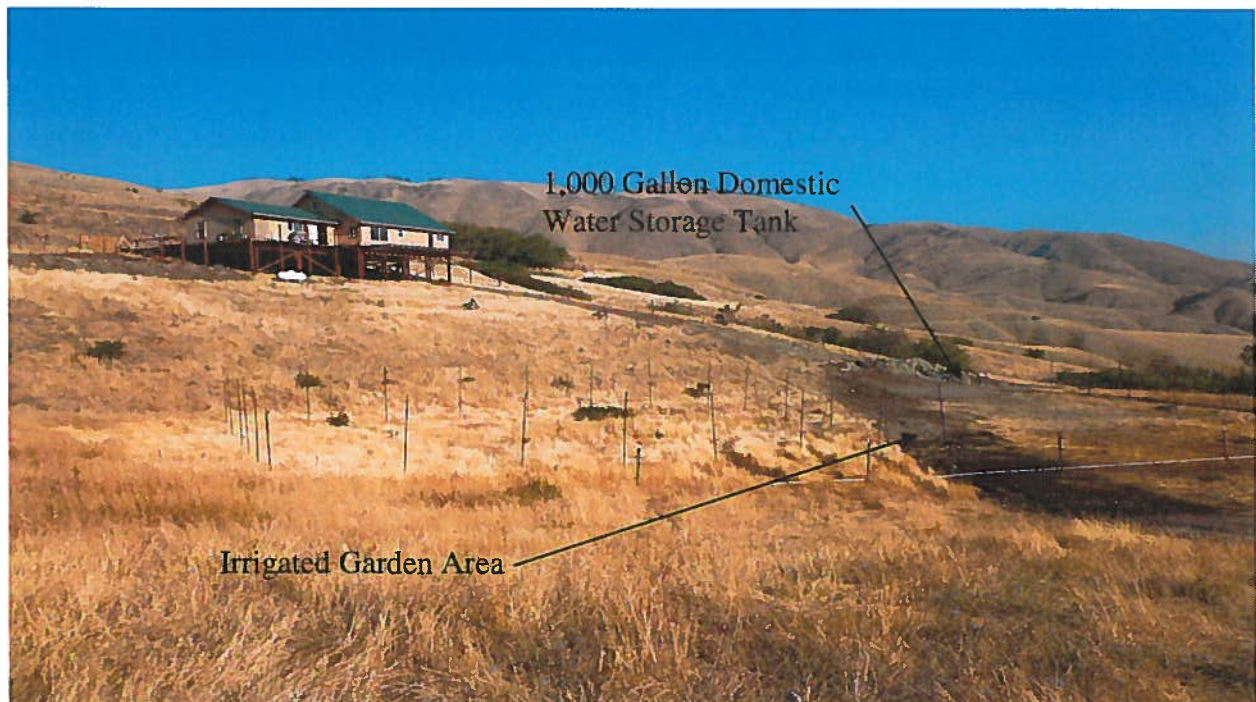
Point of Diversion: View westerly of spring box located northwesterly of Elfers Creek. A 2" PVC perforated pipe installed into the hill/bank north of the spring box captures and conveys the spring water to the spring box. Water is conveyed by approximately xxxx feet of 1" polypipe from the spring box to a 1,000 gallon domestic water storage tank.



View westerly of the 1 1/2" PVC discharge pipe and isolation valve to control flows to the 1,000 gallon domestic water storage tank. The discharge pipe reduces to 1" polypipe at the isolation valve.



Place of Use: View northerly of the buried 1,000 gallon domestic water storage tank located at the toe of slope below the Fullmore's home. A ½ hp pump delivers water up the slope to the Fullmore's home for domestic use.



Place of Use: View northerly of the Fullmore's home and the irrigated garden area. The location of the 1,000 gallon water storage tank is near the excavated rock pile between the home and the irrigated garden area.



Point of Diversion: View southerly of 2 foot high dam constructed of concrete, rocks, and landscape blocks. The two 4 inch diameter PVC pipe sections are used to convey/flush water downstream of dam and to prevent overtopping of dam. The black pipe is 1 1/2" polypipe used to convey water to the 1,400 gallon irrigation water storage tank.



Point of Diversion: View of the intake screening for the 1 1/2" polypipe.



View easterly of the pumping platform over the buried 1,400 gallon irrigation water storage tank filled by the 1 1/2" polypipe in Elfers Creek. A 1 hp pump diverts water through 1" PVC mainline to the garden area irrigation sprinkler system.



Place of Use: View northerly of the irrigated garden area located westerly of the 1,400 gallon irrigation water storage tank. Currently, the irrigation system is comprised of a 1" PVC mainline and nine (9) 5/32" Rainbird sprinkler heads.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

August 6, 2012

Charles R. Fulmore
P.O. Box 395
Lucile, ID 83542

RE: Scheduling Field Exam for Water Right Permit No. 79-14237

Dear Mr. Fulmore:

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **on August 29, 30, & 31, 2012**. An examination is needed to verify your water use in order to issue a water right license.

Please be advised that you will need to operate your system under normal operating conditions during the examination. The permit authorizes the diversion of 0.04 cfs of surface water from Elfers Creek and a spring for domestic use for one home.

In order to conduct your exam as efficiently as possible, we ask that you call this office to schedule a day and time convenient for you. **Please call me at 208-334-2190 by August 14, 2012, to conduct the exam on August 29, 30, or 31, 2012.** If there is a problem with scheduling or conducting the examination at this time, please let me know so we can reschedule or make other arrangements.

I appreciate your attention to this matter and I look forward to hearing from you.

Sincerely,

A handwritten signature in black ink that reads "Rick Collingwood". The signature is written in a cursive, flowing style.

Rick Collingwood, P.E.
Water Resource Agent, Sr.



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Interim Director

August 6, 2012

Dona M. Fulmore
4031 Forni Road
Placerville, CA 95667

RE: Scheduling Field Exam for Water Right Permit No. 79-14237

Dear Ms. Fulmore:

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **on August 29, 30, & 31, 2012**. An examination is needed to verify your water use in order to issue a water right license.

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