

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-22942

Exam Date: 9/20/2012

1. Current Owner: DONALD F BASSO
56 DEER TRAIL
GARDEN VALLEY ID 83622
(208) 462-4286

And/Or

PATRICIA A BASSO
56 DEER TRAIL
GARDEN VALLEY ID 83622
(208) 462-4286

2. Accompanied by: Donald Basso
Phone No: Same
Address: Same
Relationship to Permit Holder:

3. **SOURCE**

UNNAMED STREAM

TRIBUTARY

WARM SPRINGS 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: 65-13951

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

UNNAMED STREAM

NE1/4SE1/4

Sec. 32, Twp 10N, Rge 04E, B.M.

BOISE County

Method of Determination: Arc Map (Aerial Photo)

2.

PLACE OF USE: IRRIGATION STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
10N	04E	32													X				

PLACE OF USE: IRRIGATION FROM STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
10N	04E	32	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	1.0
																			1.0

Total Acres: 1

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
10N	04E	32	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	1.0
																			1.0

Total Acres: 1

DIVERSION TO STORAGE same as IRRIGATION

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</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>
<u>N/A</u>	<u>A.O. Smith</u>	<u>1.5</u>	<u>C48L2EC11C3</u>	<u>Simer</u>	<u>(1 1/2")</u>

*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>
<u>N/A</u>						

2. Measurements: No field measurement. Due to the low water level in the unnamed stream, right holder was unable to operate the irrigation system. Also, the right holder is not allowed to divert water to operate the irrigation system after the June 15th District 65 cutoff date.

E. FLOW CALCULATIONS

_____Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 1.5/30 + (2.31 \times 40) = 9.24/122.4 = 0.08 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.08 \text{ cfs} > 0.03 \text{ cfs } Q(\text{permit})$$

$$HP = 1.5$$

$$P = 40 \text{ psi (Assumed)}$$

$$Z = 30' \text{ (Estimated)}$$

Appears that the current pumping system is capable of attaining the permit diversion rate of 0.03 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1.0 \times 3.5 = 3.5 \text{ AFA}$$

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

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 3.5 \text{ AFA}$$

2. Volume Calculations for Other Uses: Irrigation Storage (2 – 2,000 Gallon Fiberglass Water Storage Tanks)

$$V = 4,000 \text{ gallons}/325,850 \text{ gallons/AF} = 0.01 \text{ AFA (Use Department Minimum Storage Volume of 0.10 AFA)}$$

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

A 1 ½-hp pump, located in a small pump enclosure near an unnamed stream, diverts water from the stream to irrigate approximately 1.0 acre of lawn, landscaping, and gardens. A 2' diameter sump located upstream from a rock dam, collects water for pumping to the irrigation system. The pump diverts water from the sump through a short section of 2" flexible hose. The pump discharges water through 1 ½" PVC pipe to an irrigation system concrete block distribution vault located next to the home.

IRRIGATION SYSTEM:

The lawn, landscaping, and garden areas are irrigated by a pressurized irrigation system with pop-up and rotary sprinkler heads. Solenoid valves located in the distribution vault controls the irrigation water distribution application throughout the entire parcel. Diversion of water from the unnamed stream is terminated on June 15th. Prior to the June 15th cutoff date for diverting water from the unnamed stream, the right holder diverts water to two (2) 2,000 gallon fiberglass water storage tanks. A ½-hp recirculation pump located in the distribution vault is used to recirculate the water between the storage tanks and the irrigation system. The water stored in the two storage tanks allows the right holder a minimal amount of water in which to irrigate beyond the June 15th cutoff date.

OVERLAP ANALYSIS:

Point of Diversion: Water Right Permit No. 65-22942 and Water Right Permit No. 65-13951 use the same point of diversion.

Place of Use: Although the irrigation place of use for Water Right Permit No. 65-22942 and Water Right Permit No. 65-13951 are within the same parcel, the 1.0 acre of irrigation associated with Water Right Permit No. 65-22942 and the 0.1 acre of irrigation associated with Water Right Permit No. 65-13951 are located in separate areas of the parcel.

Note: This right when combined with Water Right Permit No. 65-13951 will not exceed 1.1 acres of irrigation.

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

CONDITION NO.7 (01J) – Prior to diversion of water, the right holder shall install and maintain a measuring device and lockable controlling works. The right holder has installed a lockable mechanism on the small pump enclosure. Inside the concrete block distribution vault, the right holder has installed a volumetric flow meter to measure discharge volume from the unnamed stream. The right holder is in compliance with Condition No.7.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.03	&/or	0.50
Beneficial Use Limit	0.03	&/or	N/A
System Measurement	0.08(theoretical)	&/or	0.01
Proof Fee Amount	0.20	&/or	20.0
Recommended Amount	0.03	&/or	0.10

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION STORAGE	01/01 to 12/31		0.10 AFA
IRRIGATION FROM STORAGE	04/01 to 10/31		0.10 AFA
IRRIGATION	04/01 to 06/15	0.030 CFS	3.50 AFA *
DIVERSION TO STORAGE	11/01 to 06/15	0.030 CFS	
<u>Totals:</u>		0.030 CFS	3.60 AFA

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

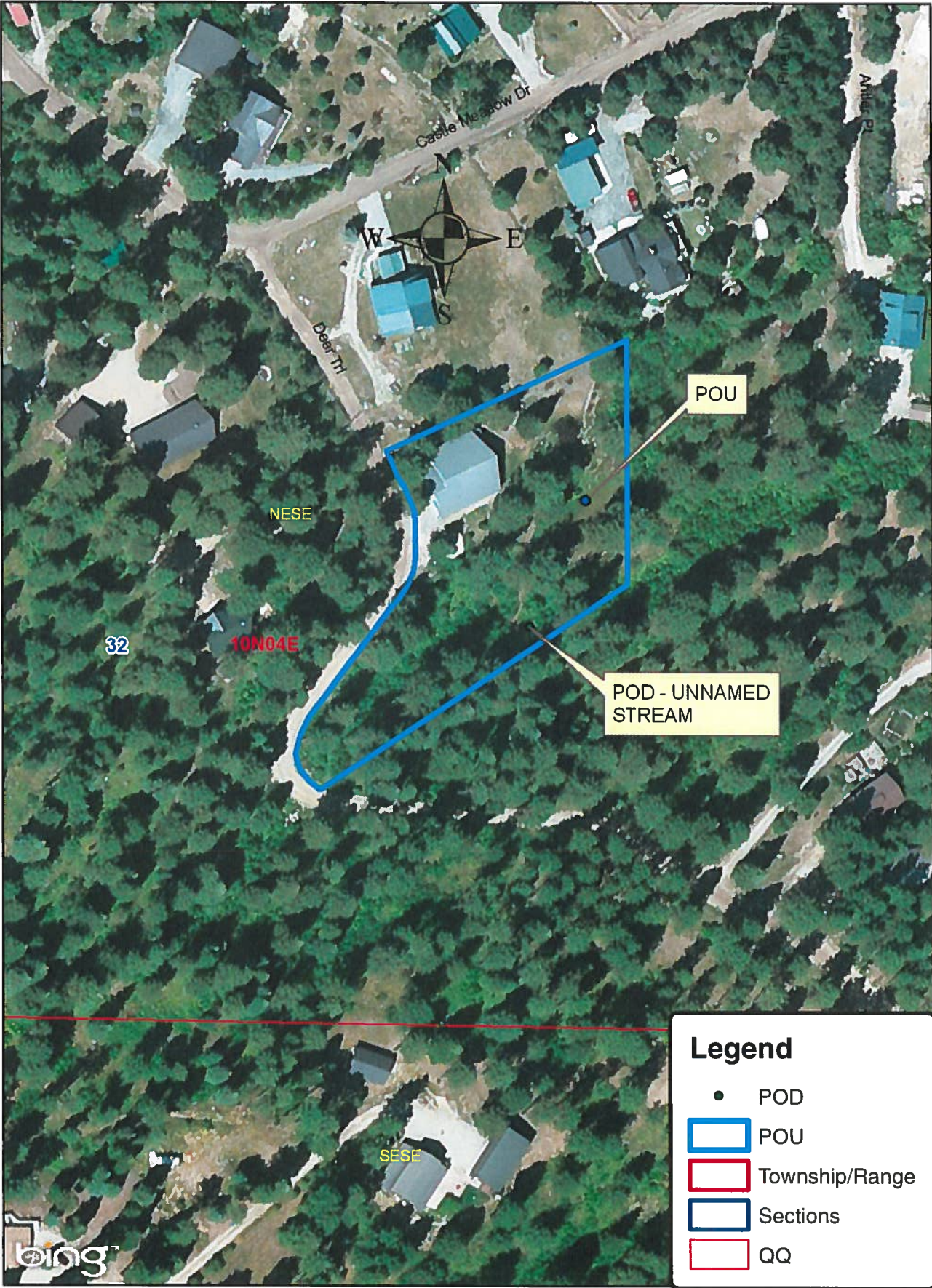
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

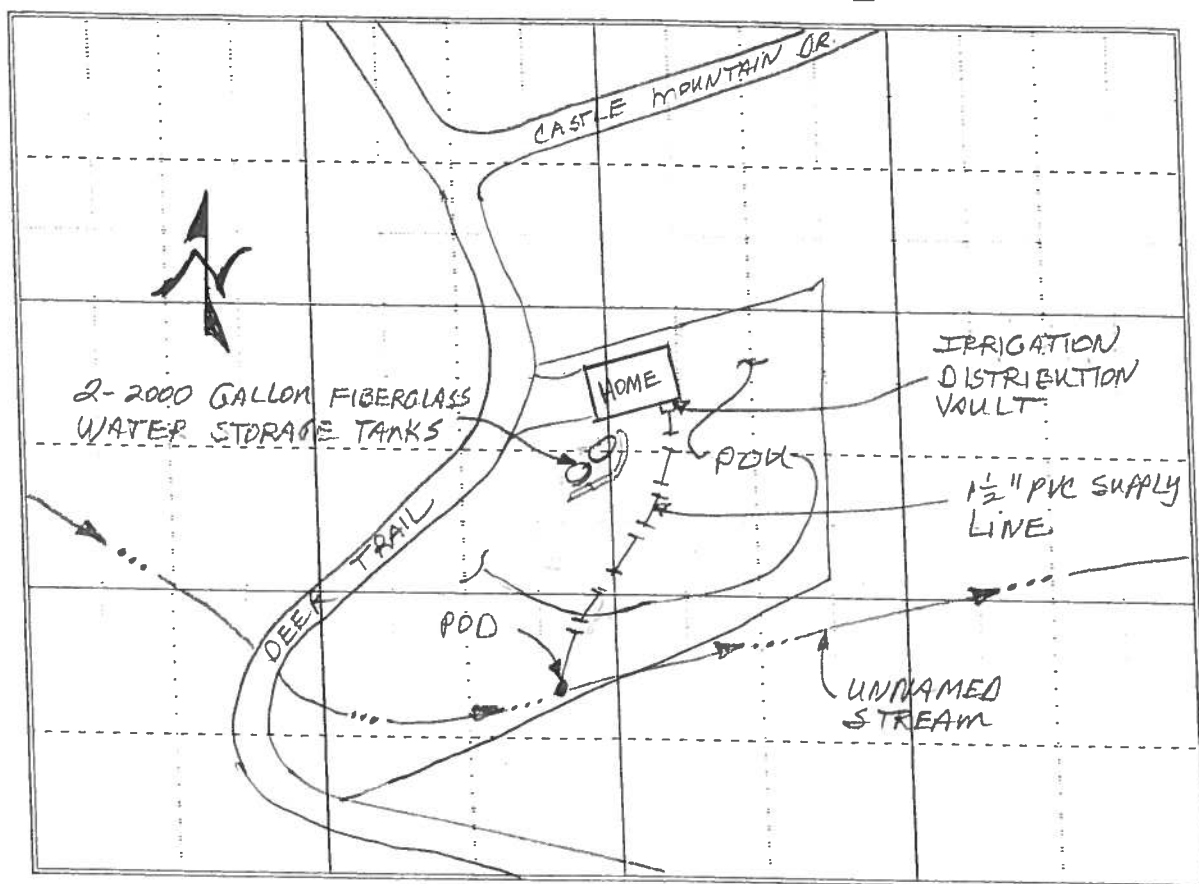
Field Examiner's Name Rick Collingwood Date 2/19/13

Reviewer _____ Date _____

* Suggested should use 100 volume (3.5) although not required.
makes a less confusing license for future reference/questions.
-JL



- 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: 65-22942

Field Exam Date: 9-20-12

PLS: NE1/4, SE1/4 Section 32, T.10N, R.04E.

Field Examiner: RC



Point of Diversion: View westerly of 2" flexible suction pipe extending from pump enclosure box to 24" diameter PVC cistern or sump in unnamed stream.



Point of Diversion: View into 24" diameter PVC cistern or sump of the 2" screened flexible suction pipe.



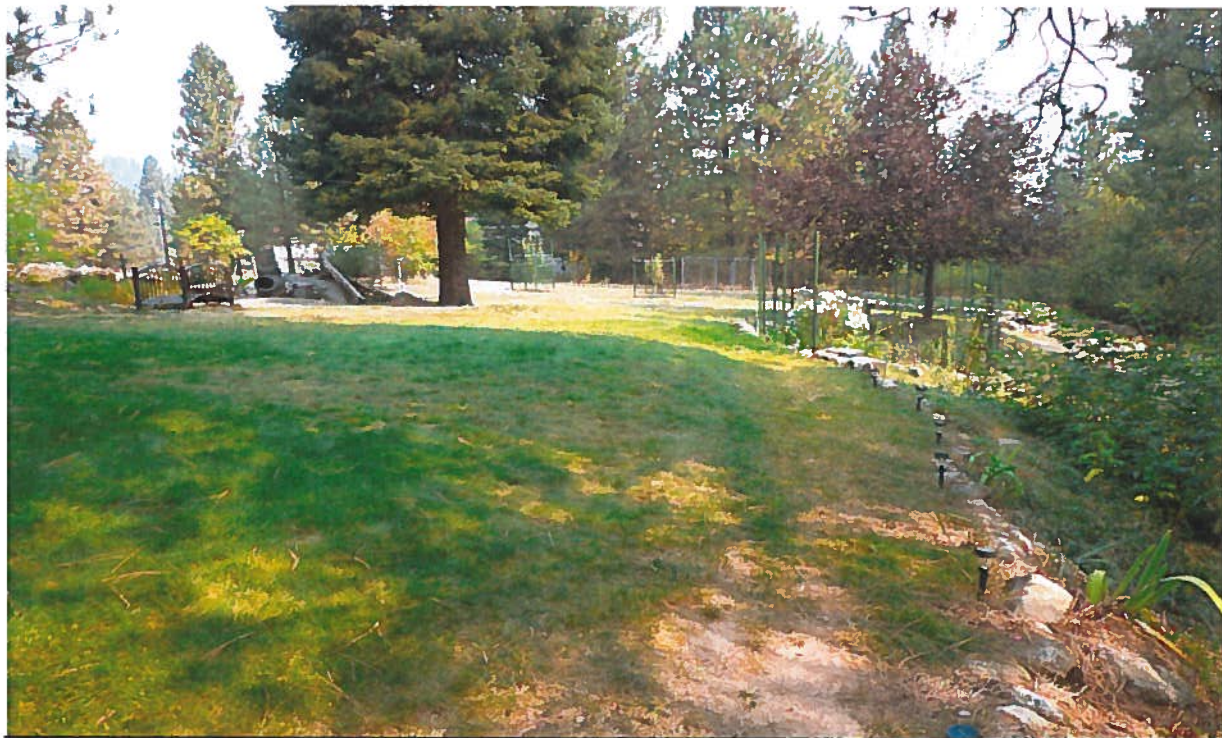
View inside of pump enclosure of the 2" flexible suction line from the unnamed stream and the 1 1/2 - hp pump and 1 1/2" PVC discharge line.



View of 1" PVC irrigation distribution main lines in a concrete block distribution vault next to the home. The 1/2-hp pump in the vault pumps water to two 2,000 gallon fiberglass water storage tanks (Water Right Permit No. 65-22942).



View southerly of two (2) 2,000 gallon fiberglass irrigation water storage tanks.



Place of Use: View northwesterly of the lawn and landscaping irrigated from the unnamed stream.

MEMORANDUM

TO: File

FROM: Rick Collingwood *RC*

DATE: 2-6-13

RE: Water Right Permit No. 65-22942 – Irrigation Storage in Water Tanks

Irrigation Storage – Water Storage Tanks

Two of the applicant's proposed beneficial uses include irrigation storage and irrigation from storage. The applicant's irrigation storage is comprised of two (2) 2,000 gallon fiberglass water storage tanks. However, current Department policy typically does not include irrigation storage in tanks.

The permit is located in Basin 65, which is under the jurisdiction of the District 65 Watermaster. New consumptive permits get condition #185, which states typically that the new user leases rental pool (storage water) from the Watermaster. Ron Shurtleff, District 65 Watermaster, sends the right holder an annual lease with a bill. This permit is located in the Garden Valley/Crouch area, with the source from an unnamed stream tributary to Warm Springs Creek¹. Water appropriations from Warm Springs Creek have been a problem for some time, with limited or no water available for junior water rights. Senior water right holders continue to struggle to attain their full appropriation from Warm Springs Creek.

The Department, permit holder, and the protestant's apparently came to a successful conclusion to allow the permit holder to obtain an irrigation storage beneficial use. Although the storage capacity of the two (2) 2,000 gallon fiberglass water storage tanks is only 0.01 AFA, the Department's minimum storage allowance is 0.10 AFA.

Even though actual storage is within the 24-hour fill concept, storage should remain on license to reflect the controversial history of this right. The same is true for Condition No. 6, which states that the irrigable area associated with this right, when combined with Water Right 65-13951, shall not exceed 1.1 acres.

¹ Warm Springs Creek is inactive in Water District 65L. Water rights that are junior to 10/18/77 are subject to Water District 65 oversight. This requirement was originated in the Payette River Decrees and resulted in condition C20 in the Snake River Basin Adjudication.



State of Idaho

DEPARTMENT OF WATER RESOURCES

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

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C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

September 13, 2012

Donald F. & Patricia A. Basso
56 Deer Trail
Garden Valley, ID 83622

RE: Scheduling Field Exam for Water Right Permit No. 65-22942

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of September 24, 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 0.03 cfs from an Unnamed Stream for irrigation of 1.0 acres and irrigation storage of 0.50 AF.

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 September 21, 2012, to conduct the exam during the week of September 24, 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,

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