

[illegible]

PLACE OF USE: DIVERSION TO STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
28N	01E	20	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
				X															

Method of Determination:

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>
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A0016695	Spring	(gravity flow	via 4 inch buried PVC to 1200 gallon storage tank, with a 1 Hp sump pump, 4' lift, 1 inch discharge to frost free hydrant; storage tank also has a 4 inch overflow that discharges to 4 inch Buried PVC that open discharges to the pond.)		
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*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS**1. Measurements:**

At the time of the field exam, the power was off, so a measurement could not be taken from the frost-free hydrant, so a 5-gallon bucket measurement was taken from the overflow discharge pipe at the pond.

5 gallon Bucket Measurement *****(possible low flow at the time of the field exam, since there are wear markings on the 4 inch overflow pipe that discharges into the pond, indicating there are routinely higher flows)

5 gal X 60 sec/25 seconds = 12 gpm X 0.00223 = 0.026 = **0.03 cfs**

Pipe Conversion for a 4 inch pipe:

$Q = 5(3.1416) \times (0.027777778) = 0.44 \text{ cfs}$ (maximum capacity for a 4" pipe, if high rate of flow from the spring, for the pipe going from the spring to the storage tank, and the overflow pipe to the pond)

Pipe Conversion for a 1 inch pipe (this would be for the 1 inch discharge to 1 inch pipe going to the frost-free hydrant for domestic and wildlife use, if the pipe were full) = **0.03 cfs maximum capacity**

Recommend as permitted:

Wildlife 0.02 cfs, Domestic 0.02 cfs, Diversion to Storage 0.02 cfs

Total Diversion Rate: 0.02 cfs

E. VOLUME CALCULATIONS

1. **Pond:** (measured in 2 segments) = $[(20' \times 28')/43560 + (84' \times 34')/43560] \times 2 \text{ ft deep} = 0.156 = 0.2 \text{ af}$
 Area was also checked with ArcMap, and calculations are correct.

Recommend :

Domestic from Storage 0.2 af, Domestic Storage 0.2 af, Wildlife 0.2 af, Wildlife Storage 0.2 af,
 Domestic 0.2 af, Domestic 0.2 af

Total Annual Volume: 0.2 af

F. NARRATIVE/REMARKS/COMMENTS

A field exam conducted 8/25/2011 found the following: a developed spring (buried gravel to collect the water into a 4 inch buried PVC pipe to a 1200 gallon storage tank with a 1 Hp sump pump and 1 inch discharge to 1 inch ABS to a Frost free hydrant that a hose can be hooked on to with various sprinklers for watering the fruit trees, lawn and area around the house. There is a 4 inch overflow from the 1200 gallon storage tank that discharges to 4 inch buried PVC and open discharges to pond (filled with large gold fish). There also is some natural seepage to the west side of the driveway that seeps/drains to the pond. There is no outlet to the pond, but rather it sinks. The pond was formed naturally with the surrounding terrain. The other frost-free hydrant is for the well.

Wildlife is for deer, goats, gold fish in the pond, and various birds.

Domestic internal use: groundwater/well source, located by a large pine tree NW of the house.

The spring system was last used on 8/20/2011, when Mr. Desa was at the residence on vacation.

Domestic external use: fruit trees, grapes, grass surrounding the house (hook hose and sprinkler up to frost-free hydrant).

Domestic from Storage and Domestic Storage: Nothing is pumped from the pond for domestic use. If anything is pumped from the pond, it would be for fire protection (removed these uses from License).

Directions to Location: North on Hwy 95, take the Hammer Ck turn off (Old Hwy 95), Lt. Domecqu Rd (go across the bridge), Lt. on Gregory Ck. Rd., Lt. at the intersection of Gregory Ck/Bucks Blvd., Rt Shuck Ck. Rd., and look for #199 on a pine tree on the right side.

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

Condition 029 only applies if the source is a stream. This source is a developed spring, and would not require fish screening. Therefore this condition will not be included on the License. A clarification Memo is in the file.

G. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
WILDLIFE	08/31 to 03/01	0.020 CFS	0.20 AF
WILDLIFE STORAGE	01/01 to 12/31		0.20 AF
DOMESTIC	08/31 to 11/30	0.020 CFS	0.20 AF
DIVERSION TO STORAGE	08/31 to 03/01	0.020 CFS	
	<u>Totals:</u>	0.020 CFS	0.20 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

H. AUTHENTICATION

Field Examiner's Name

Judy Hemmway

Date

9/13/2011

DESA, DON DMYERS, DAVID G

Shack Creek

DESA, DON D

DAVIS, DOYLE G TRUSTEE

RUSSO, SANDRA E

DAVIS, DOYLE G TRUSTEE

BROWN, CHRISTINE LYNNETTE

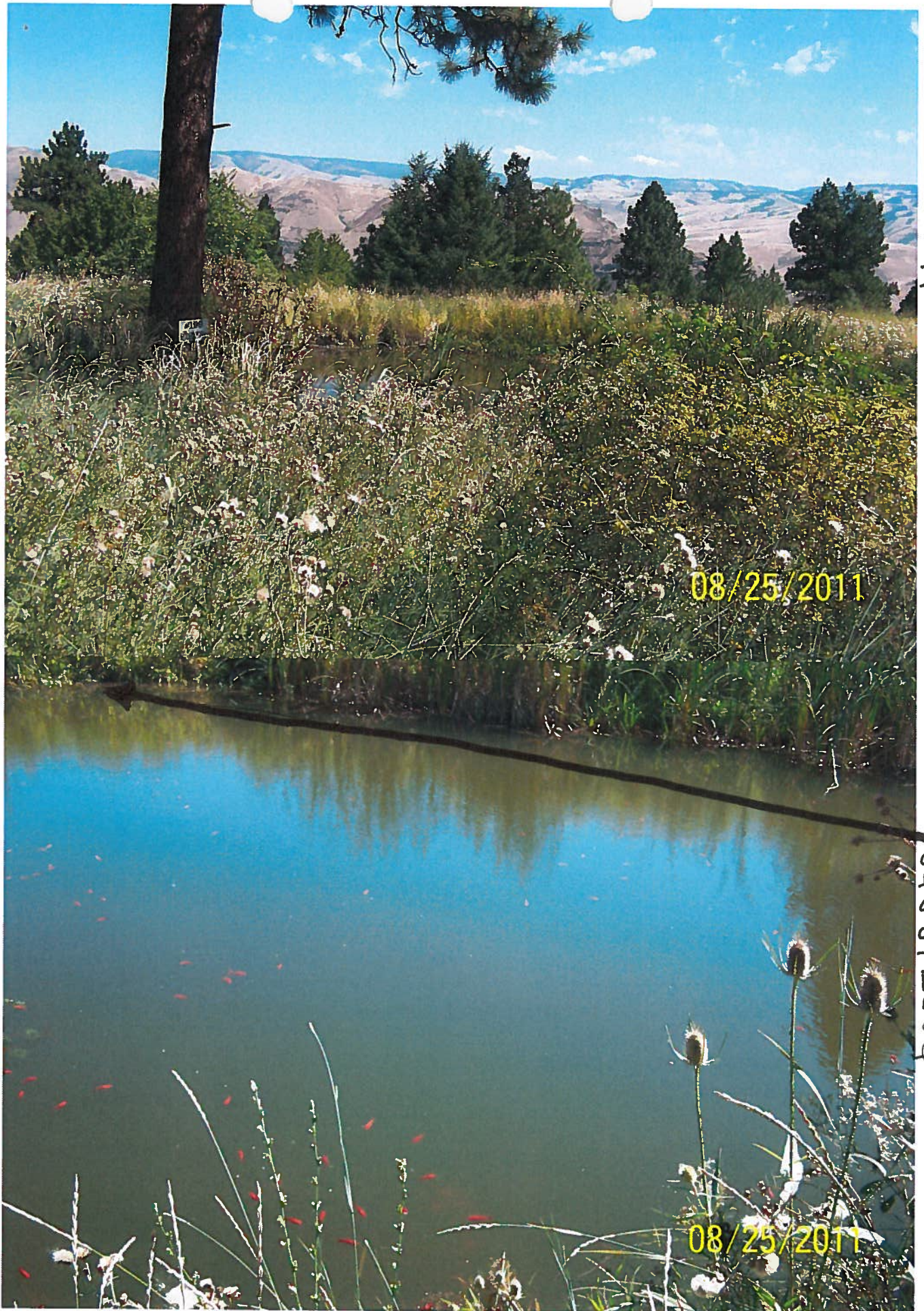
TATE, ROBERT B

URBAHN, JOHN R

HATCH, JAMES B

PHOENIX LIVING TRUST





Pou

Pond

4" PVC
over-
flow,
open
discharge
to
pond
with
gold
fish

79-7262 Desa

S. Hemenway



4" PVC
overflow
open
discharge
to
pond

08/25/2011



1200 gal
storage
tank &
frost-
free
hydrant
+
plum
trees

08/25/2011



POD
spring
located
by
tall
cherry
tree -
NW of
well



POU

79-7262 Desa

S. Hemenway