

[illegible]

PLACE OF USE: AESTHETIC STORAGE

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
04N 01W 13						X											
						L 3											

DIVERSION TO STORAGE same as AESTHETIC STORAGE

Method of Determination: aerals

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.

Well or Diversion

<u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No.</u>
Artesian well	Franklin	1.5	model # 2823008110	Gould	19446252 Model 25G515412
POD – shallow ground water source	----not applicable----				

*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>
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2. Measurements: none taken

E. FLOW CALCULATIONS ☐ Additional Computation Sheets Attached

Per IDWR standard pipe flows chart, the flow through a 2" pipe in a closed, low pressure system is 0.11 cfs.

Measured Method:

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: not applicable

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

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

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

2. Volume Calculations for Other Uses:

Storage: surface area of pond is approximately 0.92 acres. Depth is as deep as 35'; average depth is 30'. Used average depth and standard equation of surface area x 0.4 for sloped sides x average depth.

$$V_r = 0.92 \times 0.4 \times 30 = 11.04 \text{ af}$$

$$V_d = 0.02 \text{ cfs} \times 1.9835 \times 365 \text{ days} = 14.48 \text{ af}$$

Lesser of the calculations is 11.04 af.

G. NARRATIVE/REMARKS/COMMENTS

The permit was issued for aesthetic and recreation storage in a pond at the Old Valley Nursery, a retail and wholesale nursery. Permitted quantities are 0.02 cfs and an annual volume of 11 af. Sources are groundwater from an old artesian well of unknown age, and shallow groundwater because the pond was created by excavation. There is also inflow to the pond from wastewater from the nursery and from Ballentyne Ditch Co.

The pond surface area is about 0.92 acres according to ArcMap. The permittee states that the pond has sloped sides, a maximum depth of 35 feet, but an average depth of about 30'. Using this information, the volume calculated at 11.04 af.

The delivery system from the 2" diameter artesian well to the pond is a 2" PVC pipe. There is limited information about the well depth and there is no well log on file at IDWR. The pump and motor specs are posted in the pump house where the artesian well is located.

Water right no. 63-30485, for irrigation and commercial use in the nursery, is both a POD and POU overlap. Water is piped through the 2" pipe from the well to the nursery, and then water collects in drains and is transported to the pond via two 4" pipes. It is also comingled with surface water from the Ballentyne Ditch Co., to satisfy the mitigation condition for this permit.

The artesian well is a POD overlap for domestic use in the older of the two homes owned by the permittees and their family – water right no. 63-17846. Right nos. 63-30485 and 63-17846 are limited to a combined diversion rate of 0.17 cfs. A condition limiting these two rights with the right being licensed to 0.17 cfs will be included on 63-12459.

There are two additional rights that are plumbed to the artesian well, but not for primary uses. Right nos. 63-17848 and 63-30484 are diverted from the new well, drilled in 1988, and the uses are domestic in the two homes. Each of these rights includes a combined use condition limiting the quantity when combined with the old artesian well. These two rights should not be included in a combined use condition on the 63-17846 license because it would unnecessarily limit the domestic rights that primarily use the new well.

The pond also serves as flood control. There is a 12" PVC outlet pipe to the neighbor's pond [63-12384], where it then flows to the Middleton Mill ditch.

Because so much is unknown about the artesian well, a flow calculation is meaningless. According to IDWR reference sheet of pipe flows, a 2" pipe can transport 0.11 cfs under low pressure conditions, so certainly the well is capable of delivering the 0.02 cfs permitted here.

I recommend the license be issued as permitted, for 0.02 cfs and a volume of 11 af.

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

Right nos. 63-12459, 63-30485 and 63-17846 are limited to a diversion rate of 0.17 cfs.

H. RECOMMENDATIONS

- 1) Permit amount 0.02 cfs &/or 11 af storage
- 2) Beneficial use limit n/a cfs &/or n/a af storage
- 3) System measurement cfs &/or af storage
- 4) Proof fee amount 0.2 cfs &/or 20 af storage

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
RECREATION STORAGE	01/01 to 12/31		11.00 AF
AESTHETIC STORAGE	01/01 to 12/31		11.00 AF
DIVERSION TO STORAGE	01/01 to 12/31	0.020 CFS	
<u>Totals:</u>		0.020 CFS	11.00 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

Field Examiner's Name Wayne Chubb Date 10-2-13

Reviewer Date



63-12459 - OLD VALLEY NURSERY - 2011 BING Photography. PODs shown in green. POU - the pond - outlined in blue.



Artesian well is inside the pump house. Pressure gauge on artesian well [point of diversion] piping.



Pond – view is from the northeast.



Pond – view is from the northwest.



Inflow pipe to pond for water that drains from the nursery.



State of Idaho

DEPARTMENT OF WATER RESOURCES

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C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

August 29, 2013

KATHY ELLEN SOHN
TIMOTHY FEASE
4557 OLD VALLEY RD
EAGLE, ID 83616

Re Permit To Appropriate Water No. 63-12459

Dear Ms. Ellensohn and Mr. Fease:

The permit referenced above was issued for 11 acre-feet for recreation and aesthetic storage and diversion to storage uses from ground water. This letter is to request that you call me to schedule the field exam for this permit. A field exam is required by Idaho law before a license can be issued, at which time it becomes a water right. The license is the end product needed for continued water use.

Additionally, please have available at the exam someone familiar with the system and its construction.

Please call me as soon as possible at 208.334.2190, to set an appointment for the exam. Failure to respond to this letter request **by September 30, 2013**, may result in the permit being voided or a license issued for less than the permitted amount. Thank you.

Sincerely,

A handwritten signature in cursive script that reads "Vicky Music".

Vicky Music
Sr. Water Resource Agent