

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 75-7656

Exam Date: 8/6/2012

1. Current Owner: ANTHONY J MELEO
10 SALMON LANE
SALMON ID 83467-5229
(208)756-6950
2. Accompanied by:
Phone No: Anthony Meleo
Address: 10 Salmon Lane, Salmon, Idaho, 83467
Relationship to Permit Holder: permit holder

3. **SOURCE** **TRIBUTARY**
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: none
2. Other water rights with the same point of diversion: ~~75-4101F~~ none

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER L4 SW1/4NE1/4 Sec. 25, Twp 20N, Rge 21E, B.M. LEMHI County

Method of Determination: GPS and Visual Inspection

2.

<u>PLACE OF USE:</u>			RECREATION and RECREATION STORAGE																
Twp	Rge	Sec	NE				NW				SW				SE				
			<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>	<u>Totals</u>
20N	21E	25			X														0.17
					L 4														

<u>PLACE OF USE:</u>			DIVERSION TO STORAGE																
Twp	Rge	Sec	NE				NW				SW				SE				
			<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>	<u>Totals</u>
20N	21E	25			X														
					L 4														

Well or Diversion**Pump Serial No. or Discharge****ID No.*****Motor Make****Hp****Motor Serial No.****Pump Make****Size**

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Pond Pump Site Tag # A0017590	Grand Foster	1	25510-7	Submersible	
Lawn pump	Franklin	5	Unknown	Submersible	

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

D. FLOW MEASUREMENTS

1. None
2. Measurements: none

E. FLOW CALCULATIONS

Measured Method:

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: none
2. Volume Calculations for Other Uses:

Theoretical Analysis: 0.13 cfs

(see attached sheet)

Permit rate: 1.0 cfsTotal recommended rate of diversion: 0.13

Recreation:

 $(0.17) \times (365) \times (1.9835) = 123 \text{ AFA}$

Recreation Storage:

 $13 \text{ feet deep} \times 0.17 = 2.21 \text{ AF}$

Evaporation Loss Calculation: 0.27 AFA

(see attached sheet)

 $2.21 \text{ (pond volume)} + 0.27 \text{ (evaporation loss)} = 2.48 \text{ AF}$

No permit volume was listed

Total recommended acre feet for recreation storage: 2.48 AF**G. NARRATIVE/REMARKS/COMMENTS**

The pond on the Meleo property was put in 1996. The owner indicated that they dug the pond and hit water at 15 feet deep. According to the owner, water from the well is only used to keep the pond fresh and that the level of the pond does not change even when the well is not on. This would indicate that much of the water supplied to the pond is from groundwater.

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>
Recreation	1/01 to 12/31	0.13 CFS	123 AF
Recreation Storage			2.5 AF
Diversion to Storage		0.13 CFS	
	<u>Totals:</u>	0.13 CFS	125.5 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 Samuel Ben DMD Date 12/3/2012

Reviewer Gregory L. Smith Date 4/20/13

Precipitation Loss Calculation

Date: November 8, 2012
Prepared by: Sandra Thiel
Water Right No: 75-7656

P = Precipitation
ET = Evapotranspiration
 P_d = Precipitation deficit
 P_d = P - ET

P_d

Found at: <http://www.kimberly.uidaho.edu/ETIdaho/>

P_d = convert to AFA: (mm/yr) / (convert to feet) x # acres =
483 / 304.8 x 0.17
(From ET Idaho)

P_d = 0.27 AFA

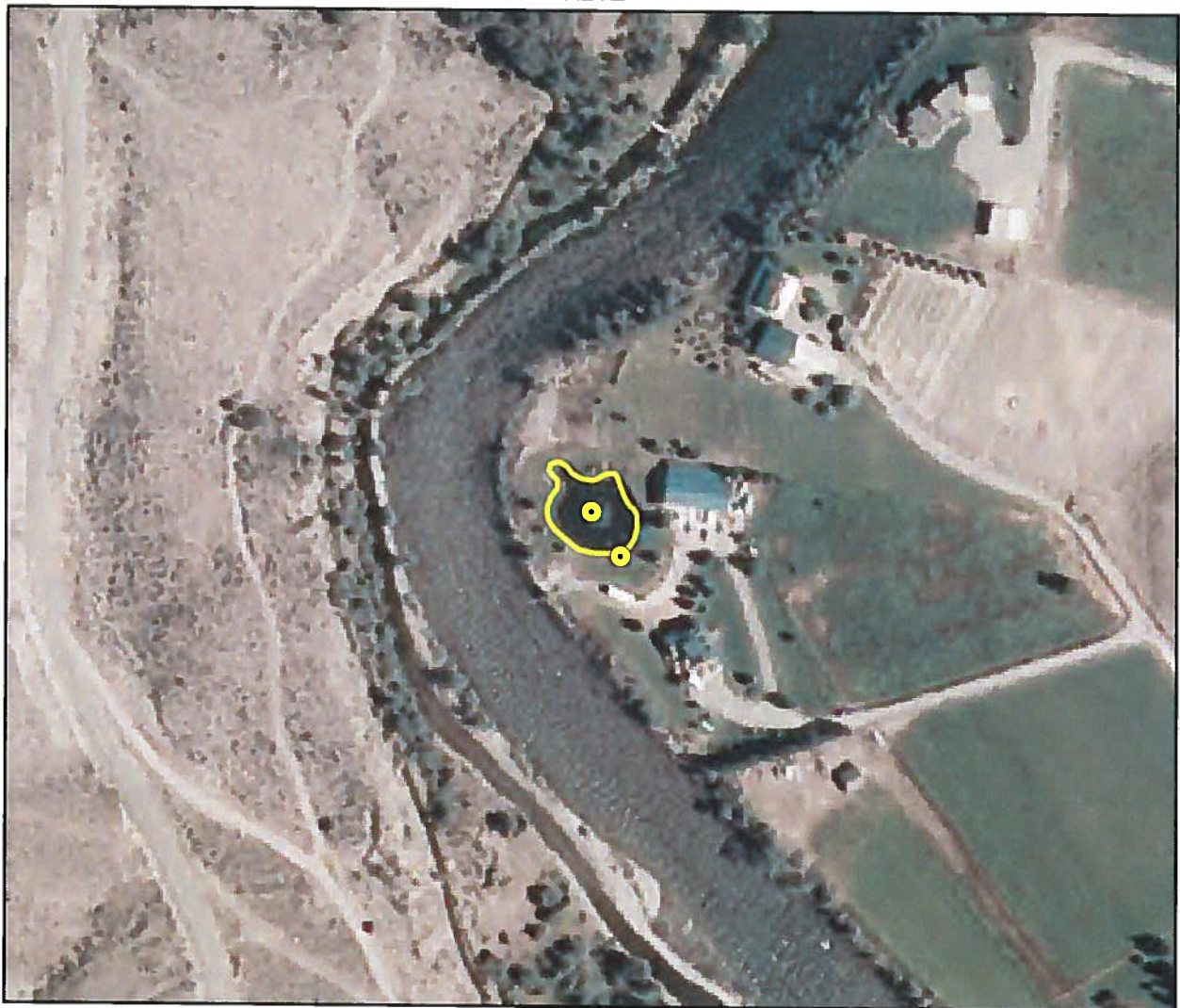
* Use the Precipitation Deficit for 'P' value

State of Idaho
Department of Water Resources
Water Right License
75-7656

This map depicts the RECREATION place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.

R21E

T20N



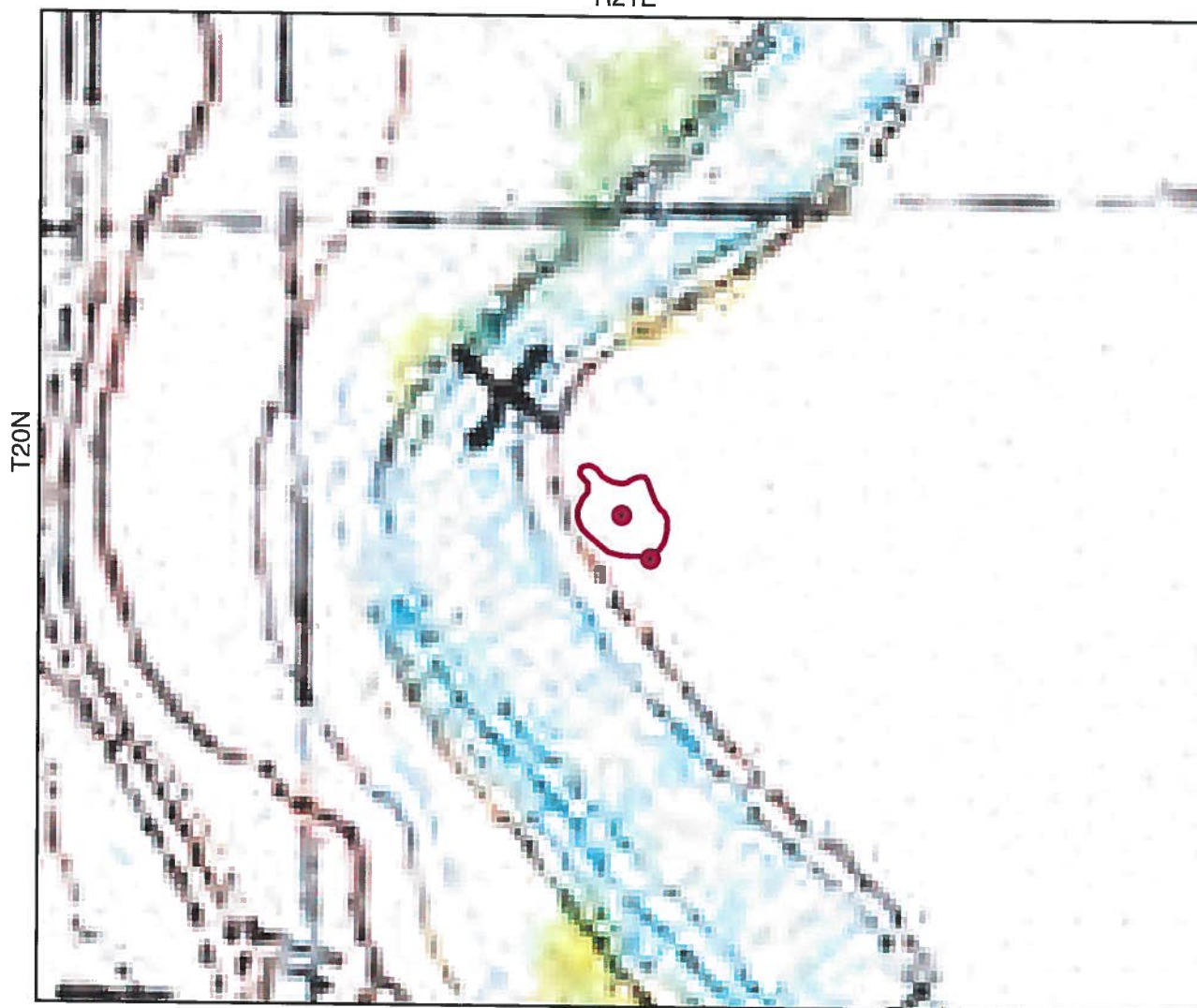
-  Point of Diversion
-  Place Of Use Boundary

0  Miles
0.125

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R21E



- Point of Diversion
- Place Of Use Boundary

0 Miles
0.125

Water Distribution System Water Right 75-7656



The pond in T20N R21E Section 25, SWNE Lot 4, was excavated 1996. During the process they hit water at 15 feet. The well shown above as a green dot is only used to keep the pond fresh. The level of the pond does not change in relation to the operation of the well. This would indicate that much of the water supplied to the pond is from groundwater. When there is sufficient water in the pond, a small channel, shown as a red line on the western side of the pond, drains into the Salmon River. There is a headgate roughly 10 feet downstream in the channel from the pond that allows for control of the water level within the pond.

GROUNDWATER THEORETICAL ANALYSIS

FILE: 75-7656

DATE: November 5, 2012

BY: Sandy Thiel and Dan Nelson

THEORETICAL RATE OF FLOW: $Q = \frac{(8.8 \times (HP) \times (EFF.))}{TDH}$

Q = CFS

HP = Total Brake Horsepower of pumping plant (including booster)

Eff. = Pumping plant efficiency (assume 70% or 0.70)

TDH = Total dynamic head = [(LIFT) + (PSI X 2.31)]

LIFT = Depth to water in FEET from land surface to pumping water level

PSI = Pumping pressure measured in PSI near pump (if open discharge assume [0])

$$(8.8) \times (1) \times (0.70) = 6.16$$

$$Q = \frac{6.16}{46.1} = 0.13 \text{ cfs}$$

$$[(23) + (10 \times 2.31)] = 46.1$$

LIFT FROM:

Measurement ()

Owner (X)

Area estimate ()

Well Logs ()

PSI FROM:

Measurement ()

Owner ()

Estimate (X)

Owner Gage ()

Booster (Y) (N)

NOTES ON PUMP:

Motor Make, Serial or ID

Grand Foster Serial Number 25510-7

Pump Make, Serial or ID, rating

Submersible (same as above)

REMARKS: PSI Estimation

PHOTOGRAPHER AND DATE OF PHOTOS: Sandy Thiel, August 6, 2012
FILE NUMBER 75-7656



This photo shows the pond looking south. The pump house is shown to the right as a small brow building in front of the trailer. The pond outlet is on the far left.



Water leaves the pond on the west side. The headgate in the foreground controls the flow from the pond.



Headgate and channel looking
downstream from the pond toward the
Salmon River



Channel to the Salmon River,
looking west



Well casing on the west side of the pump house, facing the pond



Inside of the pump house