

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-17388

Exam Date: 3/30/2018

1. Current Owner:

BARBARA SCOTT 14150 W POND VIEW RD RATHDRUM ID 83858 (208) 687-1236

2. Accompanied by: Barbara Scott

3. **SOURCE:**

UNNAMED STREAM

TRIBUTARY:

HOWELL GULCH 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: None

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

UNNAMED STREAM SE¼NW¼ Sec. 4, Twp 51N, Rge 05W, B.M. KOOTENAI County

Method of Determination: Maps and GPS. POD located at -116° 58.496, 47° 47.831

2.

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	
51N	05W	4							X	X									

PLACE OF USE: FIRE PROTECTION 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	
51N	05W	4							X	X									

PLACE OF USE: STOCKWATER 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	
51N	05W	4							X	X									

Method of Determination: Google Earth and Arcmap.

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

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

4.

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

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

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date

2. Measurements: N/A

E. FLOW CALCULATIONS

Measured Method: N/A

____ Additional Computation Sheets Attached

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: See attached pond analysis sheet.

G. NARRATIVE/REMARKS/COMMENTS

Field exam with applicant, Barbara Scott, showed a pond on an unnamed stream. The dam height was around 8-9 feet tall with a 2-3 foot overflow culvert returning flow back to stream. The pond average depth was 6 feet with deeper areas near the dam and shallower areas near the inflow or top of pond. During licensing, the shape of the pond was reduced slightly to show a surface area of 0.3 acres. The total capacity of the pond was reduced by 0.1 acre-feet. This change brought down the total storage from 2.7 acre-feet to 2.6 acre-feet. Applicant had 3 horses on the property that were still in barn until summer months when they would use the pond for water.

License will be issued for 2.6 acre-feet for aesthetic, fire protection, and stockwater purposes. All conditions will remain on license except the one describing the stockwater use. There are adjacent adjudication recommendations 95-4697 & 95-14701 from springs and a well for domestic use and stockwater use. There is no overlap with this right and the stockwater component of this right because it is for using water directly in the pond and not pumping to another location.

Have conditions of permit approval been met? ☒ Yes ☐ No**H. RECOMMENDATIONS****1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
AESTHETIC STORAGE	01/01 to 12/31		2.6 AF
FIRE PROTECTION STORAGE	01/01 to 12/31		2.6 AF
STOCKWATER STORAGE	01/01 to 12/31		2.6 AF
<u>Totals:</u>			2.60 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 ☒ None

I. AUTHENTICATIONField Examiner's Name Adam Franklin Date 4/5/2018Reviewer Douglas Jones P.E. Date 6/13/18

Total Storage Calculations

FILE NUMBER	95-17388
REVIEWER	Adam Frederick
DATE	4/5/2018

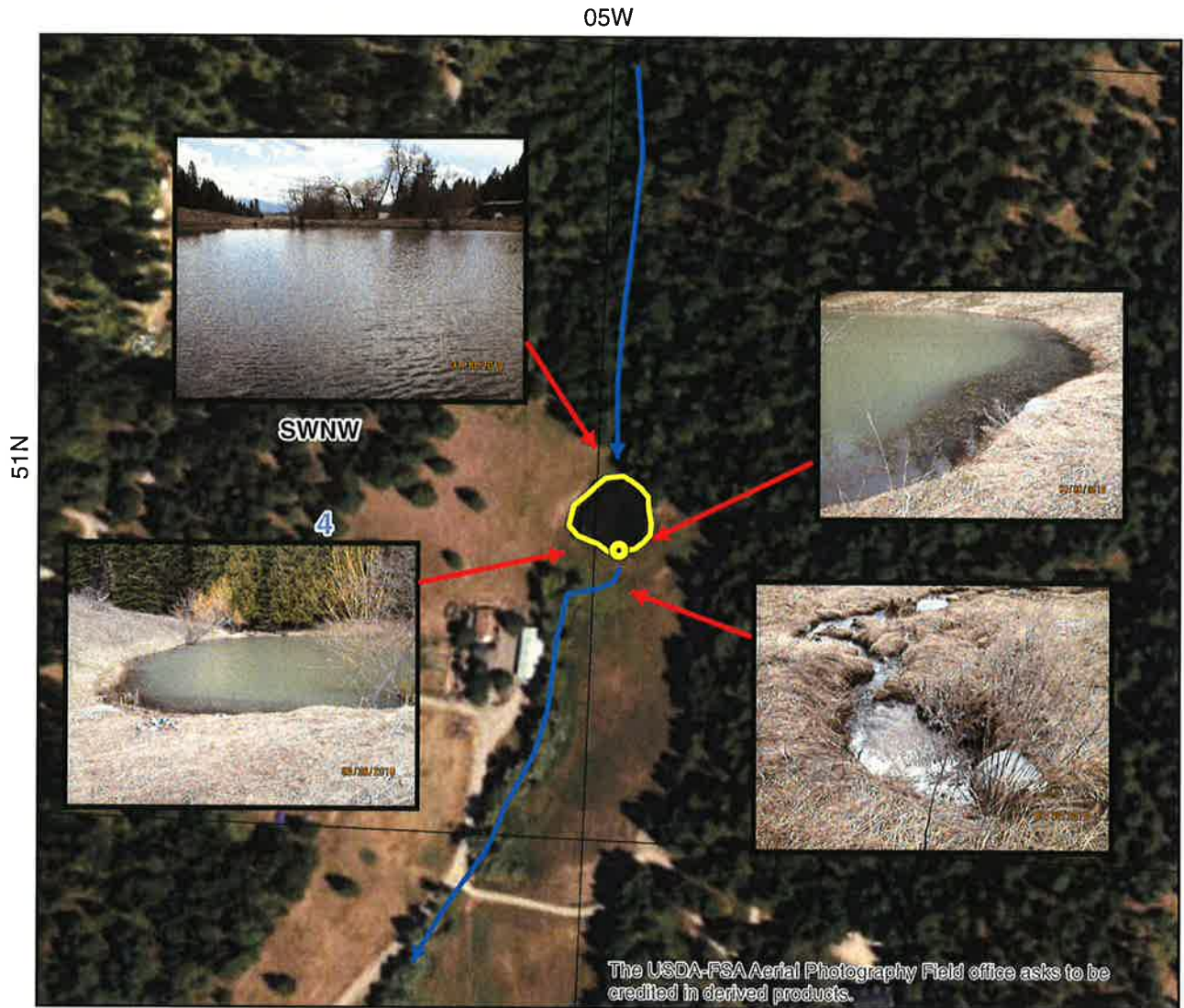
This spreadsheet has been designed by Idaho Department of Water Resources to estimate the total seepage, evaporation and fill capacity required for a pond.

User Input
Calculated value
Formula Explanations

Surface Area (AC.)	0.3	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	6	"Average Pond Depth" depicts the actual depth of the pond either measured or estimated. Note: If you know the maximum depth and not the average depth, the Field Examiner's Handbook suggests multiplying the maximum depth by 0.4 to get the average depth, or you can use any method that seems reasonable to attain average depth.
Pond Capacity (AF)	1.8	Pond Capacity is calculated by multiplying the Pond Surface Area by the Average Pond Depth. If you know the capacity, divide the capacity by surface area and enter the average pond depth in the space above. Note: If pond capacity is determined using a method shown on the "Pond Capacity" sheet, the user may need to modify the value of "Pond Capacity" (cell B9) manually. Note that if the value is modified manually, the formula will be altered for future use.
Multiple Fill Volume Above Initial Fill to Fulfill From Storage Needs- "Multiple Fills" (AF)	0	The "Multiple Fill Volume Above Initial Fill" is the acre-feet of water required to meet a <i>from storage</i> component if the <i>from storage</i> component exceeds a one time fill. This section should not include the amount of water needed to fill the pond initially or the amount of water needed to maintain the pond level due to evaporation or seepage. For example: if a pond has a capacity of 5 acre feet and 2.5 acre feet of seepage and evaporation, but the pond is used for irrigation that requires 10 acre feet of from storage for the irrigation use, then you would insert 5 acre feet into this location (10 acre feet needed - 5 acre feet from the initial fill = 5 acre feet of additional storage needed). Note: You must have a "From Storage" component exceeding the initial fill on the permit to include a volume in this space.
Estimated Seepage Loss (AF)	0.3	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.4	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	2.6	The "Total Volume Required" is calculated by adding the Pond Capacity, Multiple Fills, Seepage Loss, and Evaporation Loss amounts to determine the total amount of storage required.

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-17388

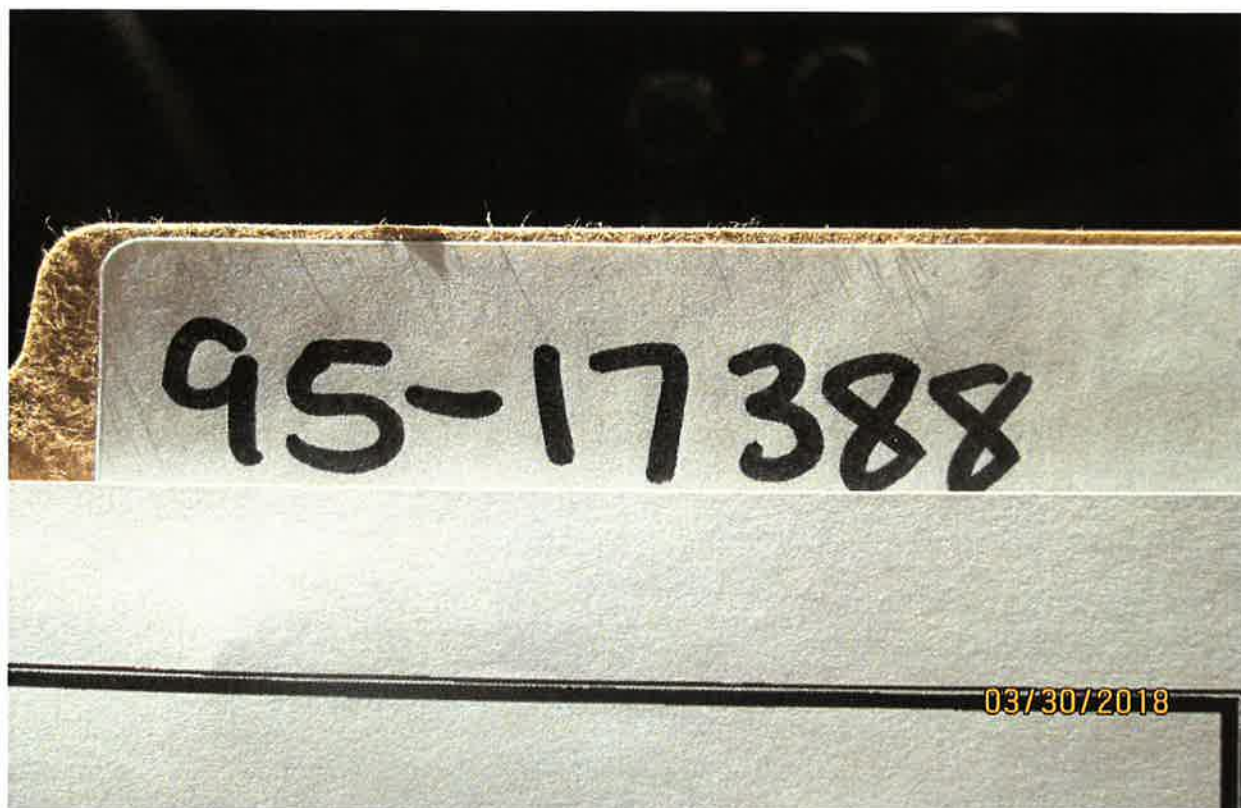
AESTHETIC STORAGE, FIRE PROTECTION STORAGE, and STOCKWATER STORAGE / SYSTEM DIAGRAM



- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections

0 0.035 0.07 0.14 Miles





Pond.



Pond.



Looking at overflow culvert.



Overflow culvert.



Outflow from culvert looking downstream.



Looking downstream from pond.



Upstream from pond.



Pond taken from upstream edge looking at culvert and dam.



Mini horse that would drink from pond during summer.