

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-17157

Exam Date: 06/02/2020

1. Current Owner:

DARLA FLETCHER 720 RAVEN LN CAREYWOOD ID 83809-8001 AND/OR
THOMAS FLETCHER 720 RAVEN LN CAREYWOOD ID 83809-8001

2. Accompanied by: Unnacompanied, Thomas Fletcher gave permission to conduct without representative present.

Phone No: 512-771-6783

Address: Same as above

Relationship to permit Holder: Permit Holder

3. **SOURCE:**

UNNAMED STREAM

Tributary

THREE SISTERS CREEK

Method of Determination: DRG and Arcmap

B. OVERLAP REVIEW

1. Other water rights with the same place of use:

NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

2. Other water rights with the same point-of-diversion:

NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

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

UNNAMED STREAM SW¼ NE¼, Sec. 8, Twp 54N, Rge 02W, B.M. BONNER County

Method of Determination: Arcmap and GPS. POD is an earthen dam located at -116°35.731, 48°02.626.

PLACE OF USE: STOCKWATER STORAGE and FIRE PROTECTION STORAGE

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
54N	02W	8			X														

Method of Determination: Field Exam and Arcmap

3.

X Delivery System Diagram Attached (required). Indicate all major components and distances between components. 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
N/A					

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NONE						

2. Measurements: N/A

E. FLOW CALCULATIONS

Measured Method: N/A

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

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

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} =$$

2. Volume Calculations for Other Uses:

See attached pond analysis sheet

STOCKWATER equals 12 cows x 12 gpd x 365 days = 52,560 gallons / 325,850 gal per af = 0.16 af; rounded up to 0.20 af to account for department significant figures admin memo, application processing No.6.

G. NARRATIVE/REMARKS/COMMENTS

Field exam was conducted on 6/2/2020 without applicant Thomas Fletcher, who gave permission to conduct the exam without a representative present, and showed a pond being used for stockwater storage and fire protection storage. The pond had an earthen dam, with overflow diverted downstream into the natural creek drainage. The source of pond is an unnamed stream. There is no diversion rate applied to this water right license.

During a phone conversation with applicant, Thomas Fletcher, it was identified that at time of proof of beneficial use no water was being used for irrigation storage or irrigation from storage; as a result, both irrigation components were removed at time of licensing. Applicant stated that the only stockwater use was from 12 head of cows drinking

directly from pond, and that he didn't draw water from pond for stock tank use; as a result, the Stockwater from Storage component was removed at time of licensing.

The pond area was identified during field exam, and traced out using arcmap during licensing review. The pond had a surface area of 0.2 af, a maximum depth of 12.5 ft, an average depth of 5 ft, pond capacity of 1.0 af, and estimated evaporation loss of 0.3 af annually. The total volume required equals 1.3 af annually. The source of pond is an unnamed stream, and the pond is an instream pond with natural wetting of the surrounding area, resulting in minimal loss from seepage being applied when creating the department's pond analysis sheet.

Both Stockwater Storage and Fire Protection Storage annual volume equal the pond capacity of 1.0 af + the estimated evaporation loss of 0.3 af = **1.3 af** total volume required, which will be applied at time of licensing as the Maximum Diversion Volume. Applicant was permitted for 1.5 af of stockwater storage, but is limited by the constructed size of the pond plus seepage/evaporation factored losses, resulting in stockwater storage equaling 1.3 af.

Conditions 082, 26A, and R58 were removed from license. Condition 219 and 220 were adapted to describe pond components derived from pond analysis sheet (see above). All other conditions remain on license. There are no overlap concerns for this water right.

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

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Annual Volume</u>
STOCKWATER STORAGE	01/01 to 12/31	1.3 AF
FIRE PROTECTION STORAGE	01/01 to 12/31	1.3 AF

Totals: 1.3 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

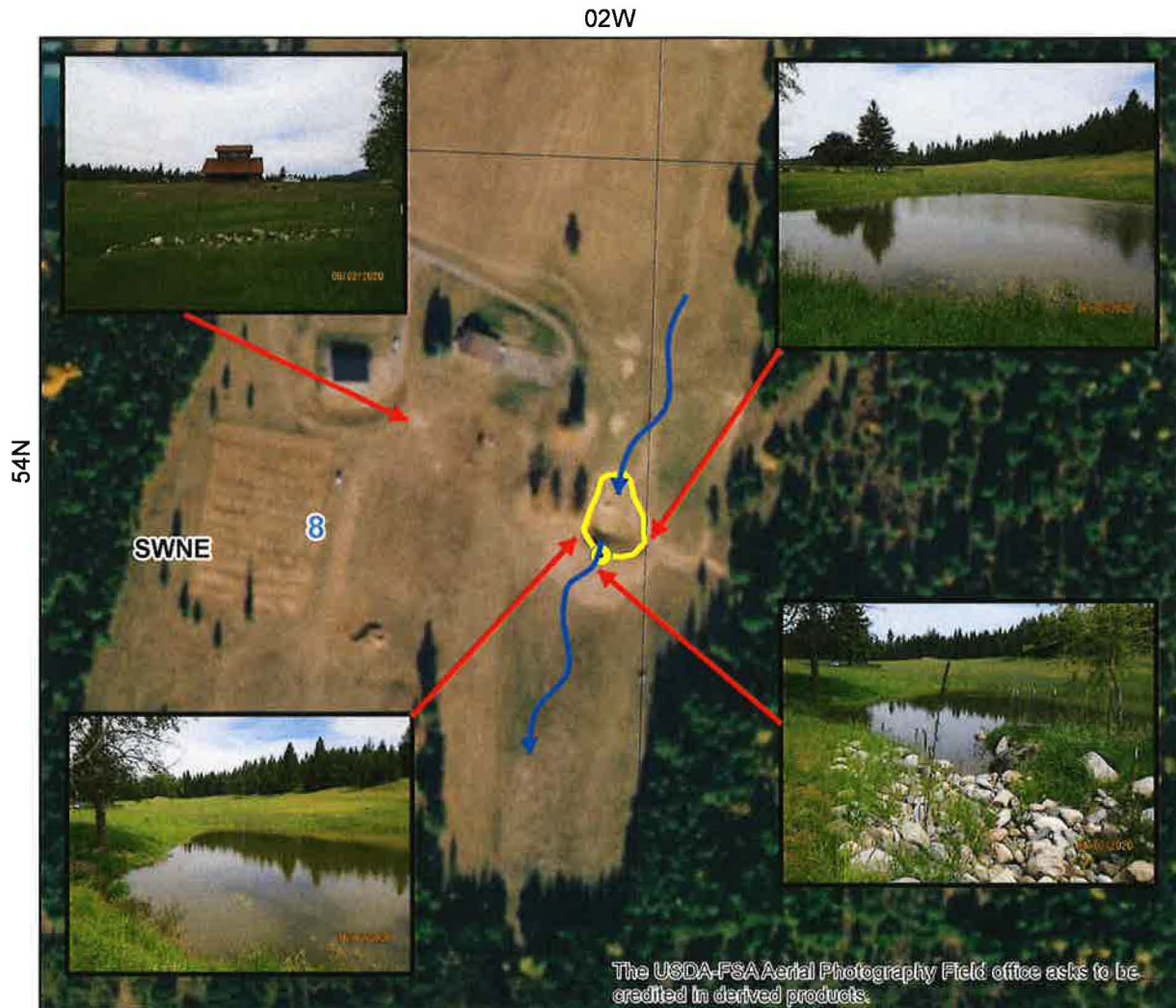
I. AUTHENTICATION

Luke Bates - Water Resource Agent

Field Examiner's Name JD Bates Date 6/9/2020
 Reviewer Adam Fink Date 6/11/2020

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-17157

STOCKWATER STORAGE and FIRE PROTECTION STORAGE system diagram.



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

0 0.035 0.07 0.14 Miles



Total Storage Calculations

FILE NUMBER	95-17157
REVIEWER	Luke Bates
DATE	6/9/2020

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.)	0.2	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	5	"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)	1.0	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 " <u>From Storage</u> " component exceeding the initial fill on the permit to include a volume in this space.
Estimated Seepage Loss (AF)	0.0	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.3	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	1.3	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.



STOCKWATER STORAGE / FIRE PROTECTION STORAGE POU – POND



STOCKWATER STORAGE / FIRE PROTECTION STORAGE POU – POND



INFLOW FROM HILLSIDE UNNAMED STREAM



OUTFLOW FROM POND





STOCK ON PROPERTY

