

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-18193

Exam Date: 6/22/2021

1. Current Owner:
DON HUMPHREY 3013 BENEWAH CREEK RD SAINT MARIES ID 83861
2. Accompanied by: Don Humphrey
Phone No: 208-245-3247
Address: Same as above
Relationship to permit Holder: Permit holder.

3. **SOURCE:**
UNNAMED STREAM

Tributary
SINKS

Method of Determination: Field examination, Arcmap, and DRG – clarified source from pond to unnamed stream.

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NO Overlap
2. Other water rights with the same point-of-diversion: NO Overlap

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

UNNAMED STREAM SW¼ SE¼, Sec. 22, Twp 46N, Rge 03W, B.M. BENEWAH County

Method of Determination: GPS. POD is a pond earthen dam located at -116°41.928, 47°18.853.

PLACE OF USE: STOCKWATER 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	
46N	03W	22															X		

Method of Determination: Field examination and Arcmap aerial imagery.

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 ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
NONE					

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
N/A						

2. Measurements: N/A, instream pond no diversion rate associated with this right.

E. FLOW CALCULATIONS

Measured Method: N/A

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

2. Volume Calculations for Other Uses:

- See attached pond analysis worksheet.
- Stockwater annual volume = 4 cows x 12 gpd x 365 day = 17,500 gal a year / 325,850 gal per af = 0.05 af or 0.1 af considering department rounding standards.
- Maximum diversion volume = 0.1af (stock consumption) + 0.2 af (seepage and evaporation loss rates) = **0.3 af**

G. NARRATIVE/REMARKS/COMMENTS

Admin Note: this right was split from original permit 95-16234 due to the unnamed stream source (clarified) and water system being separate from the water source designated under right 95-16234. This right accounts for a stockwater storage pond on the applicant's property.

Field exam performed on 6/22/2021 with the applicant, Don Humphrey, showed water being used from an unnamed stream for stockwater storage use. The water source applied for associated with this POD was described as "pond", and subsequently permit approved for as pond. Field exam findings found that water was being impounded from an unnamed intermittent stream approximately 350 feet down-slope from the unnamed stream's spring headwater location. The source is recommended to be clarified during licensing review to reflect - unnamed stream tributary to sinks.

At the POD, a shallow earthen dam impounds water in a small pond and has an overflow discharge channel that allows spring runoff to flow down hill and sink. This is an in-stream pond and there is no diversion rate associated with licensing this water right.

At time of field exam, the region was experiencing a very dry and low water year. The stockwater storage POU was observed with approximately half the length of the pond being nearly dry and the other half with minimal water in the pond. The applicant stated 2021 was the lowest water flow year he had seen in awhile and explained the pond typically will hold water until the latter part of summer. The pond surface area was sketched out on field maps and during licensing review Arcmap aerial imagery was used to trace out the stockwater storage POU. The pond has a surface area equal to 0.1 acres, a maximum depth of 3 feet, average depth of 1.2 feet, pond capacity of 0.1 af, and seepage & evaporation loss of 0.2 af annually. The total volume required to keep the pond full year-round equals **0.3 af**, which is recommended as the annual volume for stockwater storage use, and as the maximum diversion volume for licensing purposes.

Based on the 4 head of cattle the applicant keeps on his property, the consumptive annual volume equals 4 cows x 12 gpd x 365 day = 17,500 gal a year / 325,850 gal per af = 0.05 af or 0.1 af considering department rounding standards. This is the same value as the pond's capacity, identifying the pond should not be full at the end of late fall when recharge begins to replenish the pond's capacity.

Conditions 219 & 220 were added to the split right during licensing review describing the pond's size and volume components for licensing purposes. Condition 004 was added describing trespass elements of the water right. While the applicant's original permit 95-16234 included stockwater use as a direct flow beneficial use in addition to the stockwater storage component. When 95-16234 was split into 4 total water rights, stockwater overlap was found to not include this right's storage pond. As a result, no overlap is recommended between 95-16234, 95-18191, 95-18192, and this right 95-18193. There are no other overlap concerns for this 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	0.3 AF

Totals: 0.3 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

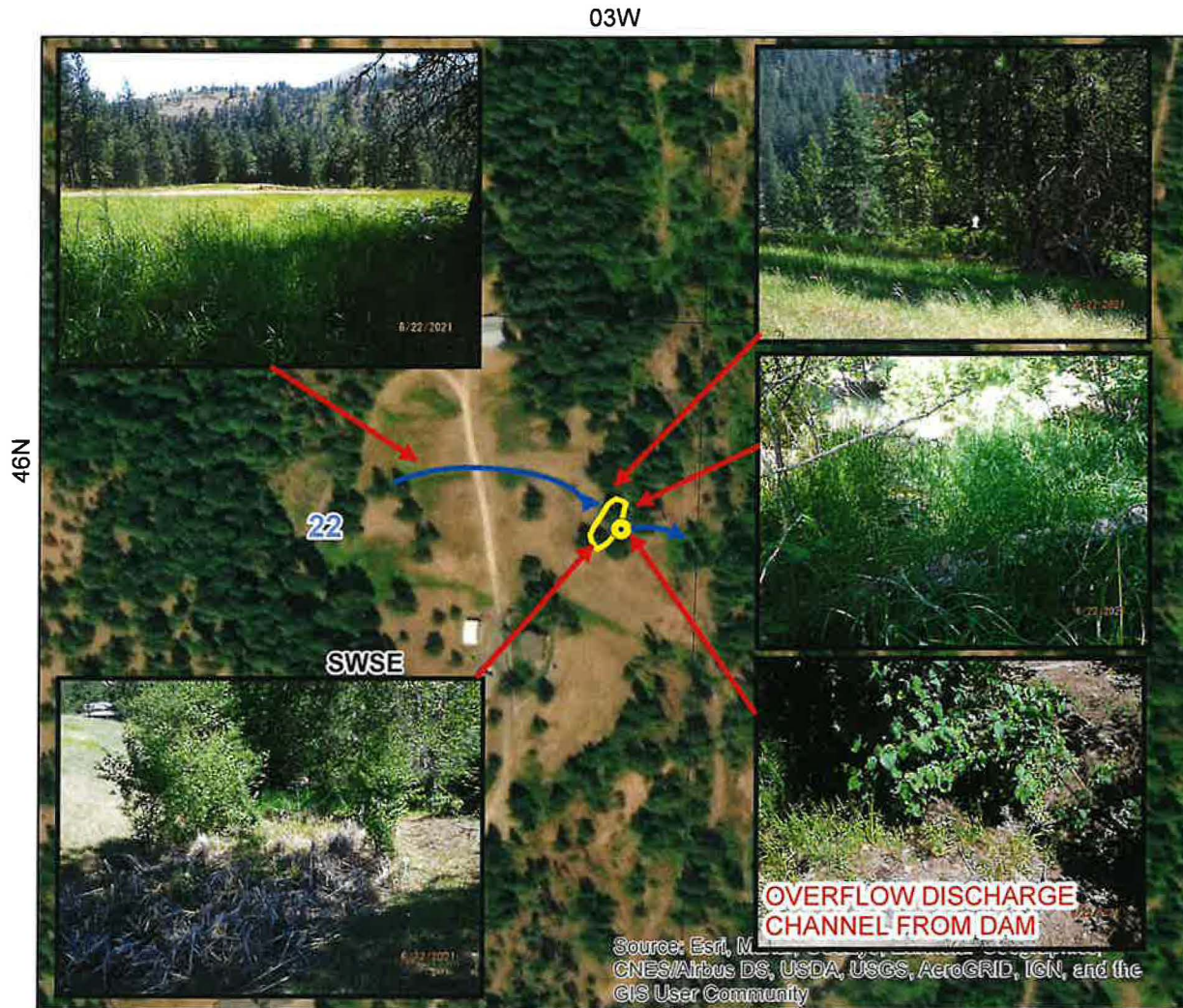
Luke Bates -

Field Examiner's Name  Date 11/15/2021

Reviewer  Date 2/14/2022

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-18193

STOCKWATER STORAGE system diagram.



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

0 0.035 0.07 0.14 Miles



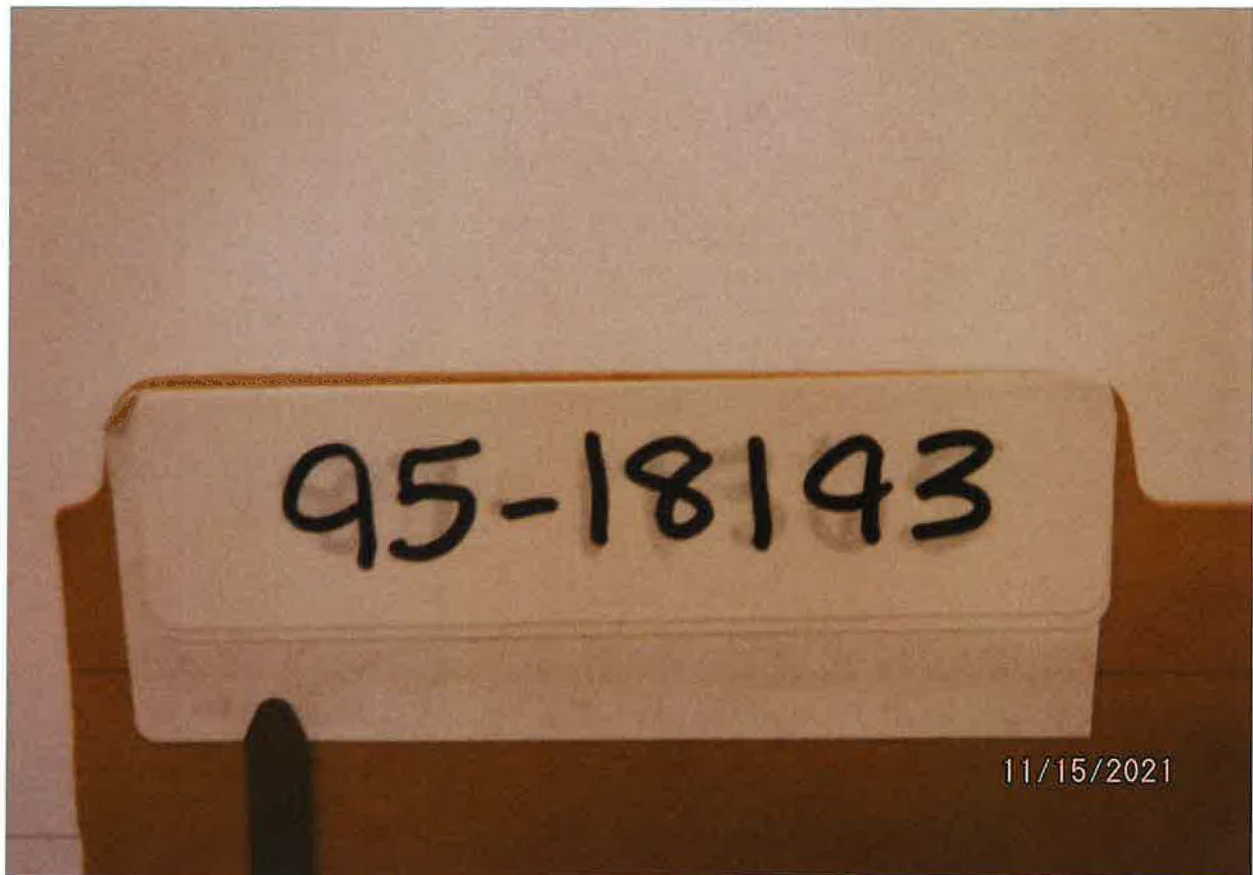
Total Storage Calculations

FILE NUMBER	95-18193
REVIEWER	LUKE BATES
DATE	11/12/2021

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.)	0.1	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	1.2	"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)	0.1	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)	0.1	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.1	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	0.3	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.



FIELD EXAM DATE 6/22/2021



UNNAMED STREAM CHANNEL THAT ROUTES DOWN HILL TO STORAGE POND



POD – EARTHEN DAM WITH OVERFLOW CHANNEL FROM SMALL POND



STOCKWATER POU – SMALL STORAGE POND (OVERGROWN WITH GRASS DURING EXAM)



STOCKWATER STORAGE POU – SMALL POND (RUNS DRY IN LATE SUMMER)



STOCK DRINK DIRECTLY FROM POND