

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 87-12256
Exam Date: 06/30/2021

1. Current Owner:
JAMES O DONNELL PO BOX 2019 REDMOND WA 98073-2019
2. Accompanied by: Jana Newman
Phone No: 530-306-5245 (JBNEWMANS@GMAIL.COM)
Address: 2897 San Jose Ct, Minden NV 89423
Relationship to permit Holder: Permit holder's daughter

3. **SOURCE:**
SURFACE RUNOFF

Tributary
PALOUSE RIVER

Method of Determination: Arcmap and DRG.

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:**

SURFACE RUNOFF SW¼ NE¼, Sec. 9, Twp 41N, Rge 03W, B.M. LATAH County

Method of Determination: GPS; POD is an earthen pond dam located at -116°43.1916, 46°34.9012.

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	
41N	03W	9			X														

Method of Determination: Field exam and Arcmap aerial imagery.

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

2. Volume Calculations for Other Uses: See attached pond analysis worksheet.

- Stockwater storage volume = 50 head cattle x 12 gpd x 365 days per year = 219,000 gpy / 325,850 gal per af = **0.7 af**, considering department rounding standards.

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 6/30/2021 with the applicant's daughter, Jana Newman, showed a pond impounding surface runoff water which is used for stockwater storage and fire protection storage purposes. An earthen dam serves as the POD, and a basalt rock overflow discharge channel is installed to allow seasonal overflow to continue downstream. There is no diversion rate associated with the licensing of this permit.

Photographs were taken of the storage pond POU during the field exam, and Arcmap aerial imagery year 2020 was used to trace out the pond's surface area, equaling 0.2 acres. The pond has a maximum depth of 12 feet, an average depth of 4.8 feet, a pond capacity of 1.0 af, and an estimated seepage & evaporation loss of 0.5 af. The total volume required to keep the pond full year round equals **1.5 af**, which is recommended as the fire protection storage annual volume & maximum diversion volume for licensing purposes.

The stockwater storage beneficial use is for 50 head of cattle, and the annual volume associated equals 50 head x 12 gpd x 365 days per year = 219,000 gallons, or **0.7 af** considering department rounding standards. Due to the applicant only applying for a maximum diversion volume of 1.5 af, the permit is limited to the recommended maximum diversion volume of **1.5 af**, as the pond's volume can't be enlarged once the permit is approved. As a result, the pond can be filled by seasonal runoff each spring, and once the stockwater volume is depleted each summer, the pond will only achieve approximately ½ full level (0.8 af) for the remainder of the year toward fire protection storage. Stock are able to drink directly from the pond, and a fence is in place to keep stock from eroding the pond dam. The applicant's cattle were located in a different pasture at time of field exam, but Mrs. Newman was able to drive me to the other pasture to collect a few photographs of the stock which use the pond on an annual basis.

Conditions X02 and 029 were removed from the permit during licensing review. All other conditions on the permit shall be carried forward to the 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	0.7 AF
FIRE PROTECTION STORAGE	01/01 to 12/31	1.5 AF

Totals: 1.5 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 ☒ None

I. AUTHENTICATION Luke Bates - Water Resource Agent

Field Examiner's Name  Date 8/19/2021

Reviewer  Date 10/29/2021

Total Storage Calculations

FILE NUMBER	87-12256
REVIEWER	LUKE BATES
DATE	8/19/2021

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

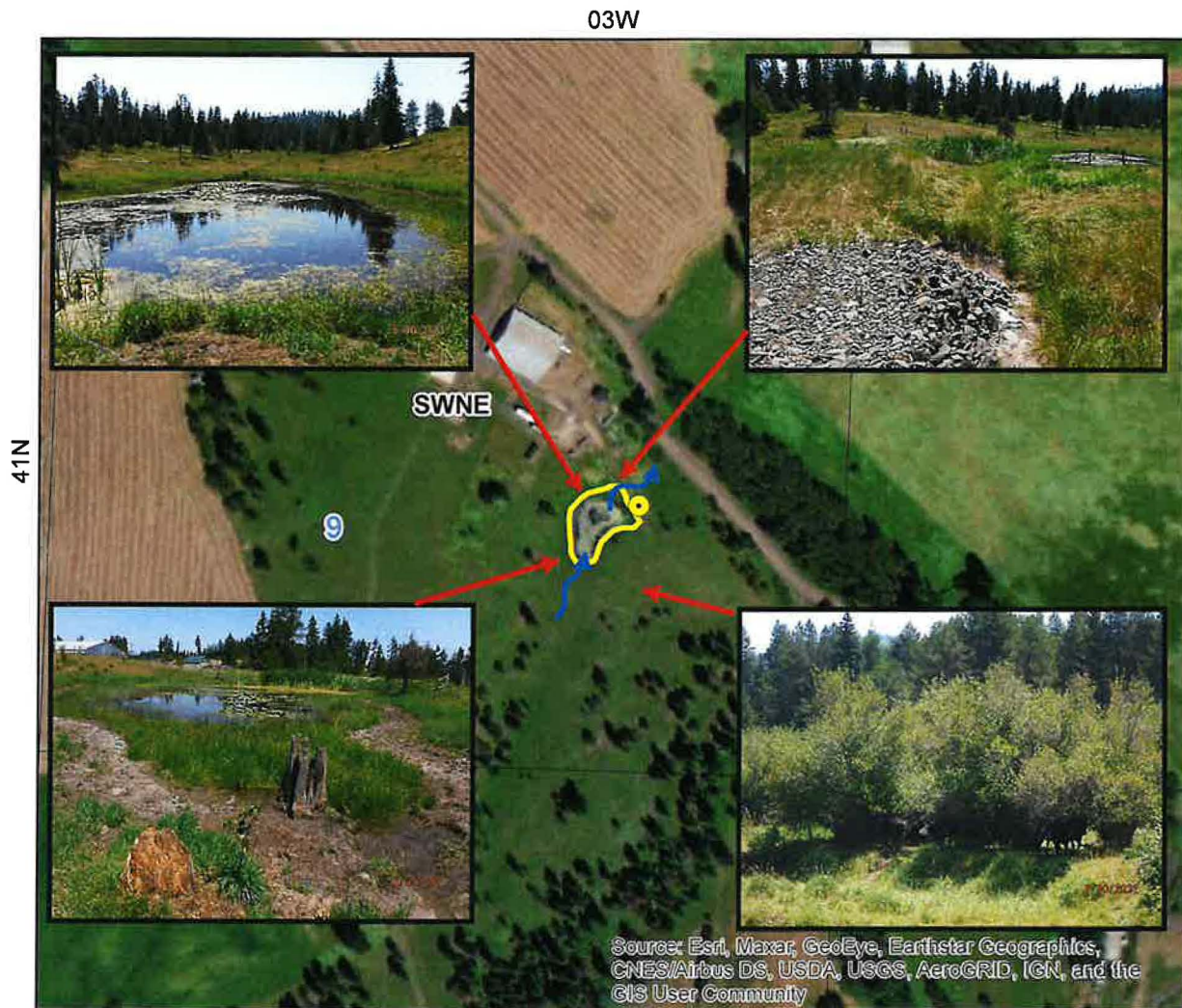
User Input
Calculated value
Formula Explanations

Surface Area (AC.)	0.2	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	4.8	"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 "From Storage" component exceeding the initial fill on the permit to include a volume in this space.
Estimated Seepage Loss (AF)	0.2	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)	1.5	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
87-12256

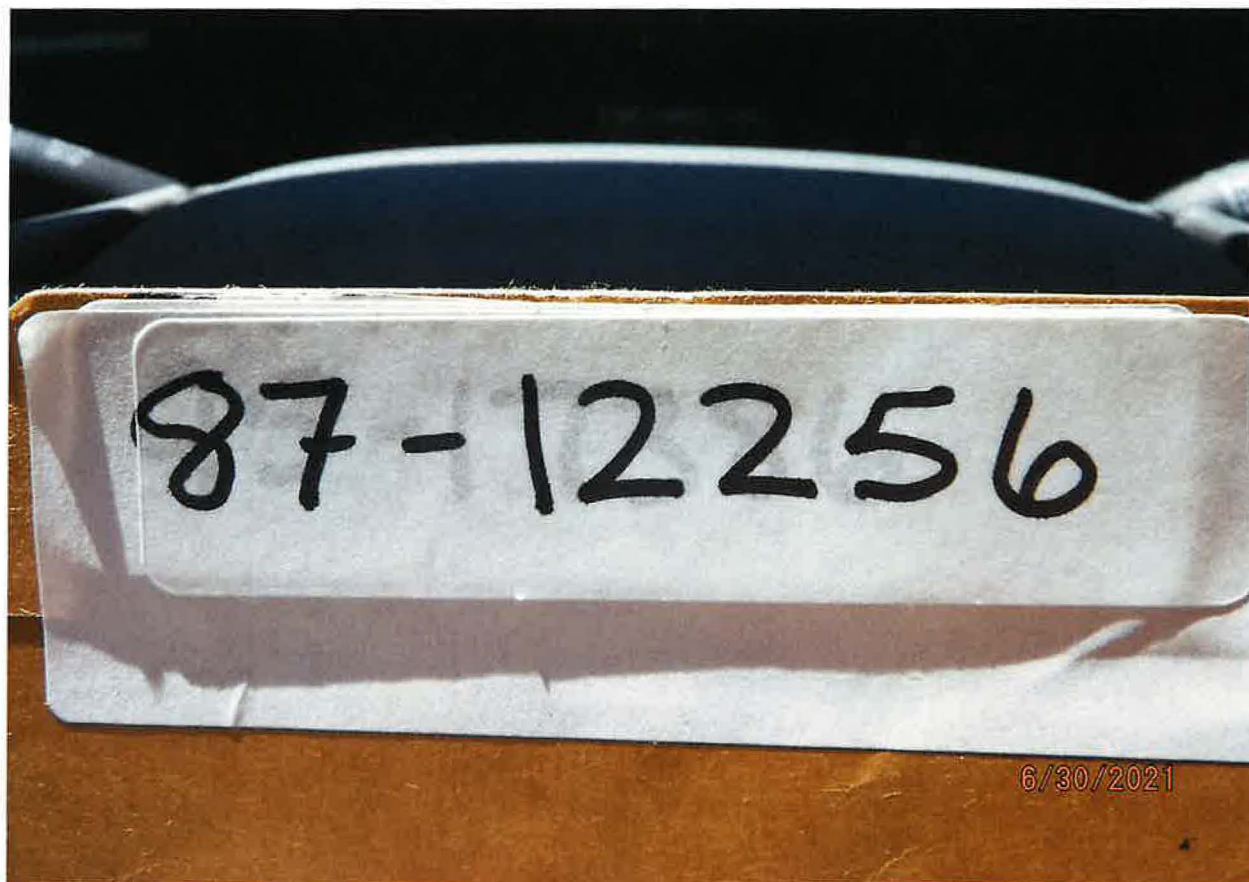
STOCKWATER STORAGE and FIRE PROTECTION STORAGE system diagram.



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

0 0.035 0.07 0.14 Miles





FIELD EXAM DATE 6/30/2021



POD – POND DAM (SERVES AS DIRT ROADWAY TO GATE IN PHOTO ABOVE)



BASALT ROCKED OVERFLOW CHANNEL (POND SIDE OF DAM VIEW)



ROCKED OVERFLOW CHANNEL (DOWN STREAM SIDE OF DAM VIEW)



POU - STOCKWATER & FIREPROTECTION STORAGE POND





POU - STOCKWATER & FIREPROTECTION STORAGE POND



FENCE INSTALLED TO PREVENT STOCK FROM DETERIORATING POND DAM/ROADWAY



STOCK THAT USE POND, ROTATED FROM PASTURE TO PASTURE ON THE PROPERTY

