

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 86-12056
Exam Date: 06/10/2021

1. Current Owner:
WAYNE O OLESEN 1011 WALLY RD TROY ID 83871-9624
2. Accompanied by: Wayne Olesen
Phone No: 208-835-6491
Address: Same as above
Relationship to permit Holder: Permit holder.

3. **SOURCE:**
UNNAMED STREAM

Tributary
DRY CREEK

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:

UNNAMED STREAM NW¼ NW¼, Sec. 35, Twp 40N, Rge 03W, B.M. LATAH County

Method of Determination: GPS; POD is an earthen dam located at -116°40.9454, 46°46.3011.

PLACE OF USE: STOCKWATER STORAGE and WILDLIFE 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	
40N	03W	35					X	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.
- 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

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

Stockwater Storage Annual Volume = 30 head cattle x 12 GPD x 365 DPY = 131,400 GPY / 325,850 gallons per
AF = **0.4 AF**, considering Department rounding standards.

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 6/10/2021 with the applicant, Wayne Olesen, showed an in-stream pond that impounds unnamed stream water for stockwater storage and wildlife storage uses. The POD is an excavated earthen dam, with an overflow discharge pipe as well as an earthen overflow channel installed to allow overflow to discharge downstream from the pond. There is no diversion rate associated with this permit. One of the two PODs that were permit approved for was removed from the permit during licensing review. Review of Arcmap aerial imagery show very small swales from which unnamed stream water contributes to pond impoundment, which has an earthen dam that shall serve as the single POD recommended for licensing this permit.

Photographs were taken during the field exam to illustrate the storage pond that serves as the POU for stockwater & wildlife storage use(s). Following the exam, Arcmap aerial imagery was used to trace out the surface area of the pond equaling 0.5 acres. The pond has a maximum depth of 14 feet, an average depth of 5.6 feet, pond capacity of 2.8 af, a seepage & evaporation loss of 1.3 af, and a stockwater storage volume equal to 0.4 af. The total annual volume required equals **4.5 af**, which is recommended as the maximum diversion volume for licensing purposes.

The stockwater storage annual volume was derived as 30 head cattle x 12 GPD x 365 DPY = 131,400 GPY / 325,850 gallons per acre-foot = **0.4 af**, considering department rounding standards. The wildlife storage annual volume is derived as the sum of the pond capacity (2.8 af) + pond seepage & evaporation rates (1.3 af) = **4.1 af**. The applicant was permit approved to develop stockwater from storage use, but had not developed this at time of field exam; the stockwater from storage use was removed from the permit during licensing review. Mr. Olesen had developed a basalt rock access ramp for the livestock and wildlife to drink directly from the pond, while mitigating bank erosion by keeping the rest of the pond's bank fenced off from animals. The pond's wildlife storage annual volume coupled with seepage & evaporation volume will enable the applicant to keep the pond full year round, if water from the intermittent unnamed stream(s) are available.

26A and X02 were removed from the permit during licensing review. Condition 259 was replaced with 219 following removal of the stockwater from storage component, and storage volumes were updated to reflect post-field exam pond analysis sheet values. Condition 220 was updated to reflect post-field exam pond analysis sheet values associated with the excavated pond that was developed. All other conditions on the permit shall remain on 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	0.4 AF
WILDLIFE STORAGE	01/01 to 12/31	4.1 AF

Totals: 4.5 AF

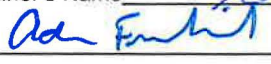
2. Recommended Amendments

☐ 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

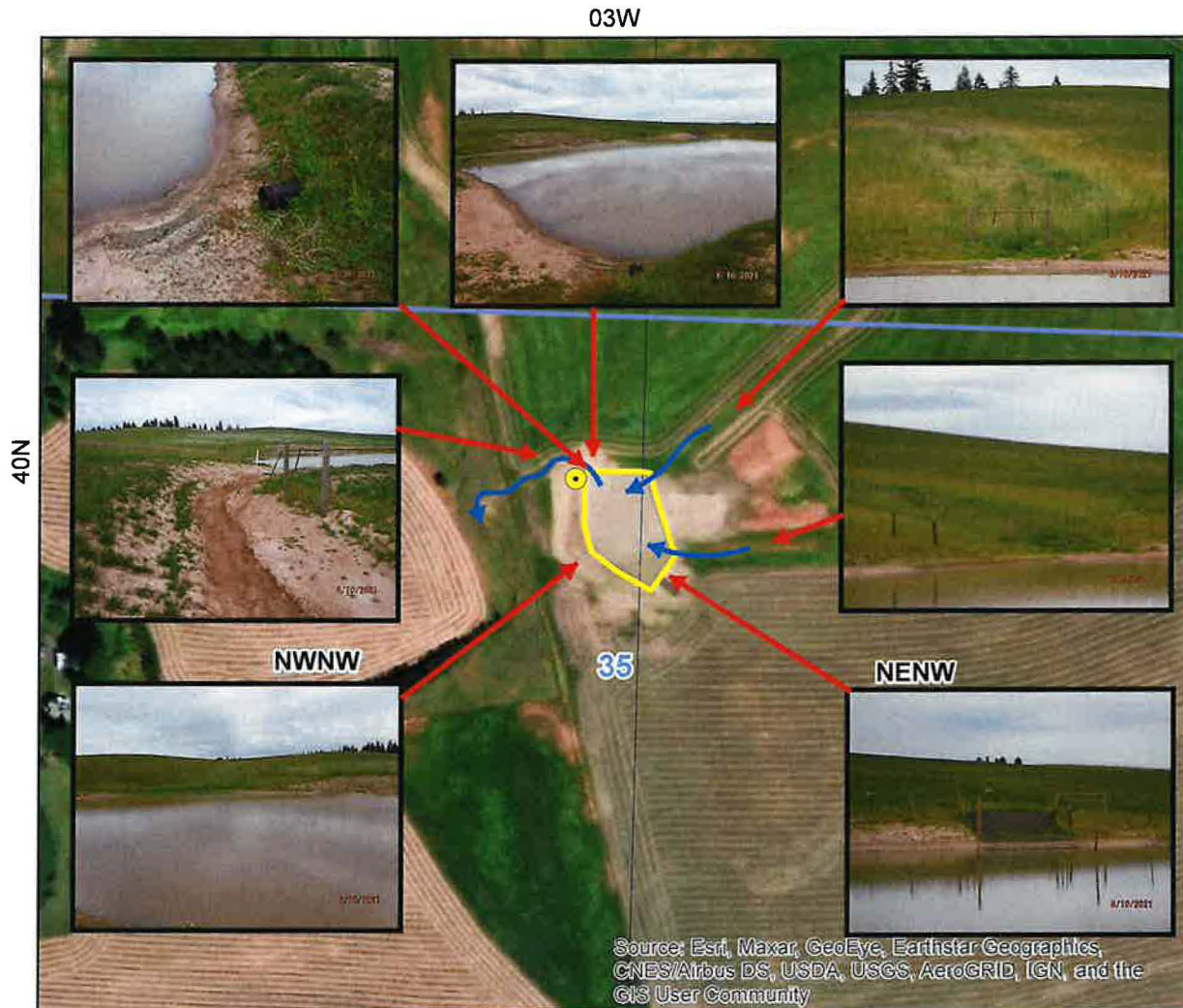
I. AUTHENTICATION Luke Bates - Water Resource Agent

Field Examiner's Name  Date 8/26/2021

Reviewer  Date 10/29/2021

State of Idaho
Department of Water Resources
Attachment to Field Exam
86-12056

STOCKWATER STORAGE and WILDLIFE STORAGE system diagram.



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

0 0.035 0.07 0.14 Miles



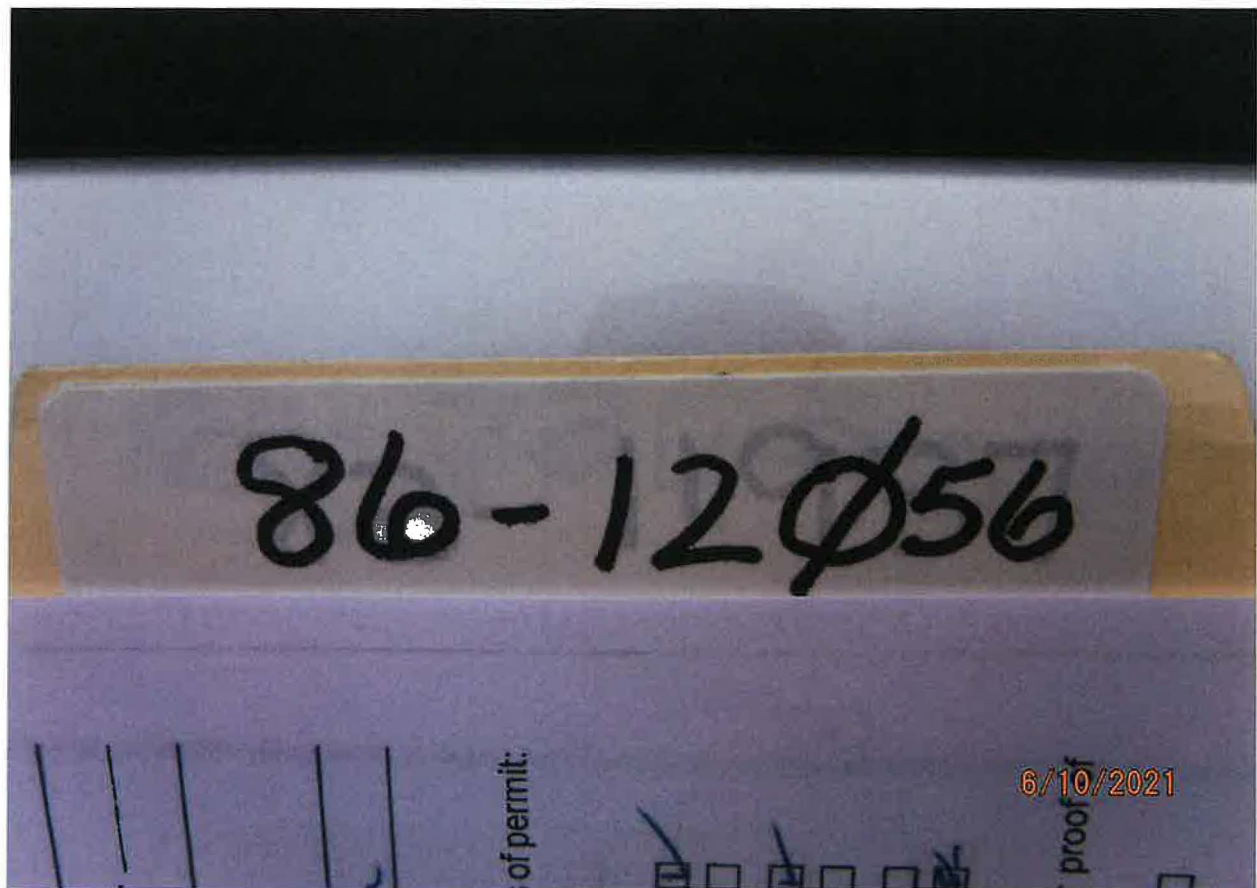
Total Storage Calculations

FILE NUMBER	86-12056
REVIEWER	LUKE BATES
DATE	8/25/2021

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.)	0.5	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	5.6	"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)	2.8	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)	0.4	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)	0.7	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.6	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	4.5	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.



FIELD EXAM 6/10/2021



POD – POND EARTHEN DAM IMPOUNDS WATER FROM 2EA UNNMAED STREAMS



UNNAMED STREAM FLOW PATH TO POND (NE CORNER OF POND)



UNNAMED STREAM FLOW PATH TO POND (EASTERN EDGE OF POND)



PRIMARY OVERFLOW DEVICE (NW CORNER OF POND)



SECONDARY OVERFLOW CHANNEL (NW CORNER OF POND)



WILDLIFE STORAGE & STOCKWATER STORAGE POU – POND





FENCED AND ROCKED STOCKWATER ACCESS TO POND – REST OF POND FENCED OFF TO PROTECT POND BANKS FROM STOCK