

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-15274
Exam Date: 06/30/2015

1. Current Owner:
STEVEN CUVALA PO BOX 146 SAINT MARIES ID 83861-0146 AND/OR
PEGGY CUVALA PO BOX 146 SAINT MARIES ID 83861
2. Accompanied by: Steven Cuvala
Phone No: 208-245-2367
Address: Same as above
Relationship to permit Holder: Permit holder

3. **SOURCE:**
UNNAMED STREAM

Tributary
BENEWAH 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 SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 9, Twp 45N, Rge 03W, B.M. BENEWAH County
UNNAMED STREAM SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 9, Twp 45N, Rge 03W, B.M. BENEWAH County

Method of Determination: GPS. POD for 2ea stream sources is an earthen dam located at -116° 44.049, 47° 15.286.

PLACE OF USE: STOCKWATER STORAGE, WILDLIFE STORAGE, RECREATION STORAGE, & 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	
45N	03W	9											X						

Method of Determination: beneficial use field examination & 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
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

- Volume Calculations for irrigation: N/A
- Volume Calculations for Other Uses: See attached pond analysis worksheet
 - Stockwater Storage volume = 20 head mixed stock x 12 GPD x 365-days = 87,600 gal per year / 325,850 gal per acre-foot = 0.27 af = **0.3 af** considering department rounding standards.

G. NARRATIVE/REMARKS/COMMENTS

A field exam was performed by department staff on 6/30/2015, but insufficient data was collected to finalize this permit for licensing purposes. A follow-up field exam was conducted on 5/19/2022 with the applicant, Steven Cuvala, which showed a multiple use storage pond impounding unnamed stream water from two separate intermittent streams. At the POD the applicant has developed an earthen dam & incorporates a grated vertical pipe which routes overflow discharge down stream below the pond dam. The pond was constructed with a secondary overflow channel on the SE corner of the pond. Additionally, Mr. Cuvala has a 2-inch PVC drainpipe with manual shutoff valve built in to allow full draining of the pond as required for maintenance, the drainpipe daylights just down grade from the primary overflow culvert. A single POD was designated for licensing purposes which accounts for 2ea stream source POD(s).

This is an instream pond & there is no diversion rate applied to this water right. The Permit was approved with a stockwater from storage component, but during the field exam it was validated this use was not developed and has been removed from the Permit during licensing review. Mr. Cuvala asserts that during the development period of the permit & periodically his land is leased to a neighbor who runs 20 head of cattle on the property which use the pond for stockwater.

During licensing review, Arcmap aerial imagery coupled with field notes was used to trace out the pond's surface area, which equals 0.5 acres. The pond has a max depth of 10 feet, an average depth of 4 feet, a pond capacity of 2.0 af, and an estimated seepage and evaporation loss of 1.1 af. Based on pond development and current pond analysis sheet calculations, the wildlife, recreation, & fire protection storage(s) annual volume(s) equal 2.0 af (capacity) + 1.1 af (seepage/evaporation loss) = **3.1 af** respectively. This volume is not additive per beneficial use when calculating the maximum diversion volume.

The pond was used during the development period for stock watering of 20 head mixed stock. The annual volume associated with stockwater storage equals 20 head mixed stock x 12 GPD x 365-days = 87,600 gal per year / 325,850 gal per acre-foot = 0.27 af = **0.3 af** considering department rounding standards. The maximum diversion volume equals 3.1 af (wildlife/recreation/fire protection storage) + 0.3 af (stockwater storage) = **3.4 af**.

Condition X02 & 082 were removed from the permit during licensing review. Condition 219 & 220 were revised to assign accurate pond size, volume, and capacity values during licensing review. All other conditions on the permit shall be carried to licensing. 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	0.3 AF
WILDLIFE STORAGE	01/01 to 12/31	3.1 AF
RECREATION STORAGE	01/01 to 12/31	3.1 AF
FIRE PROTECTION STORAGE	01/01 to 12/31	3.1 AF

Totals: 3.4 AF

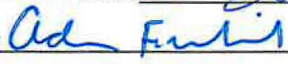
2. Recommended Amendments

☐ 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

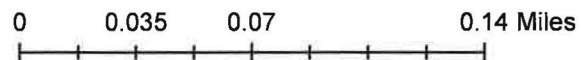
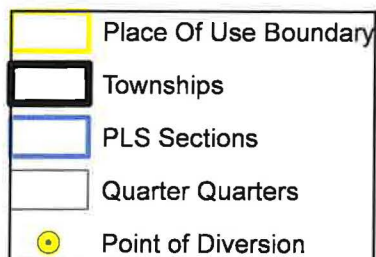
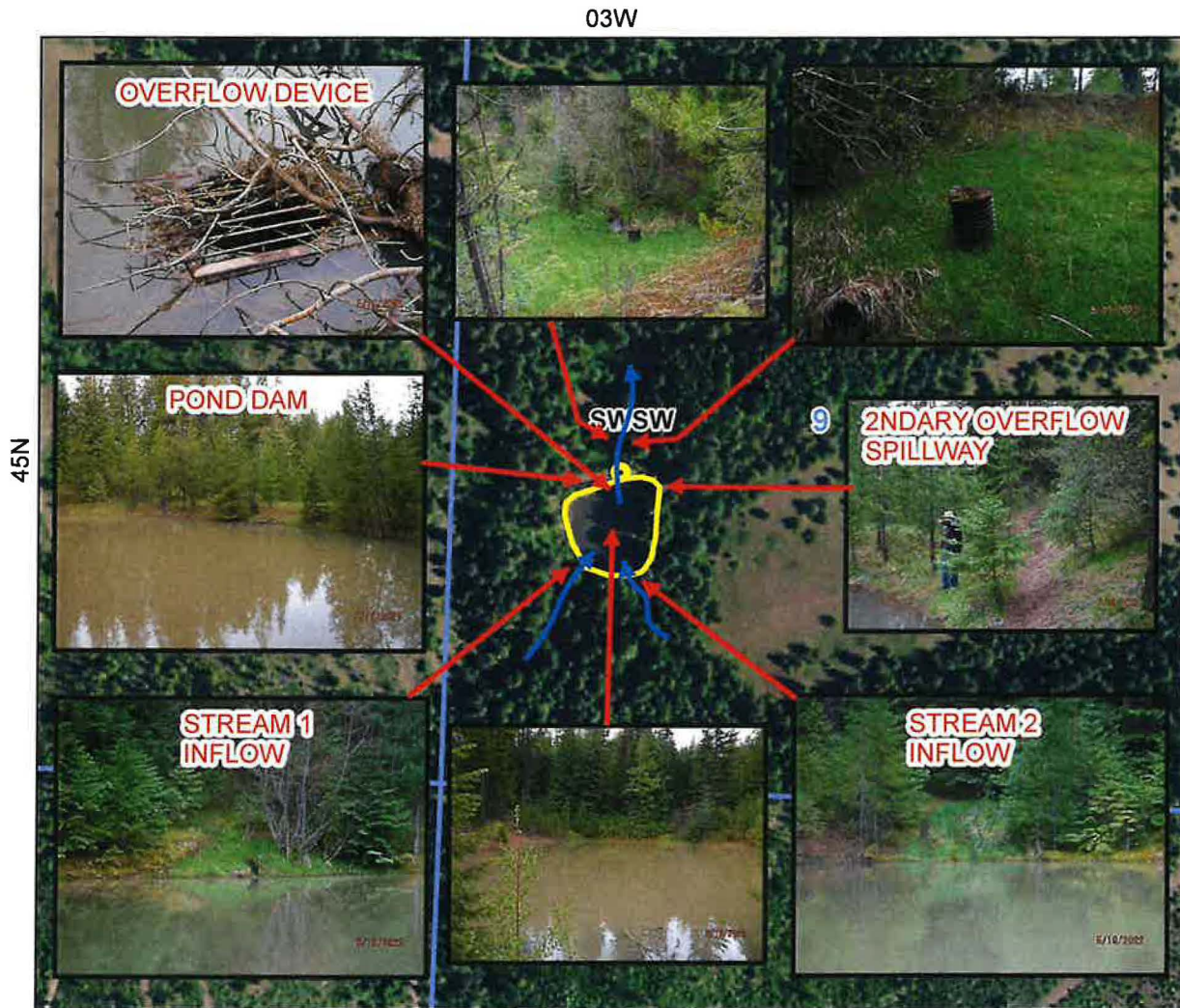
Luke Bates -

Field Examiner's Name  Date 6/1/2022

Reviewer  Date 7/21/2022

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-15274

STOCKWATER STORAGE, WILDLIFE STORAGE, RECREATION STORAGE,
& FIRE PROTECTION STORAGE system diagram.



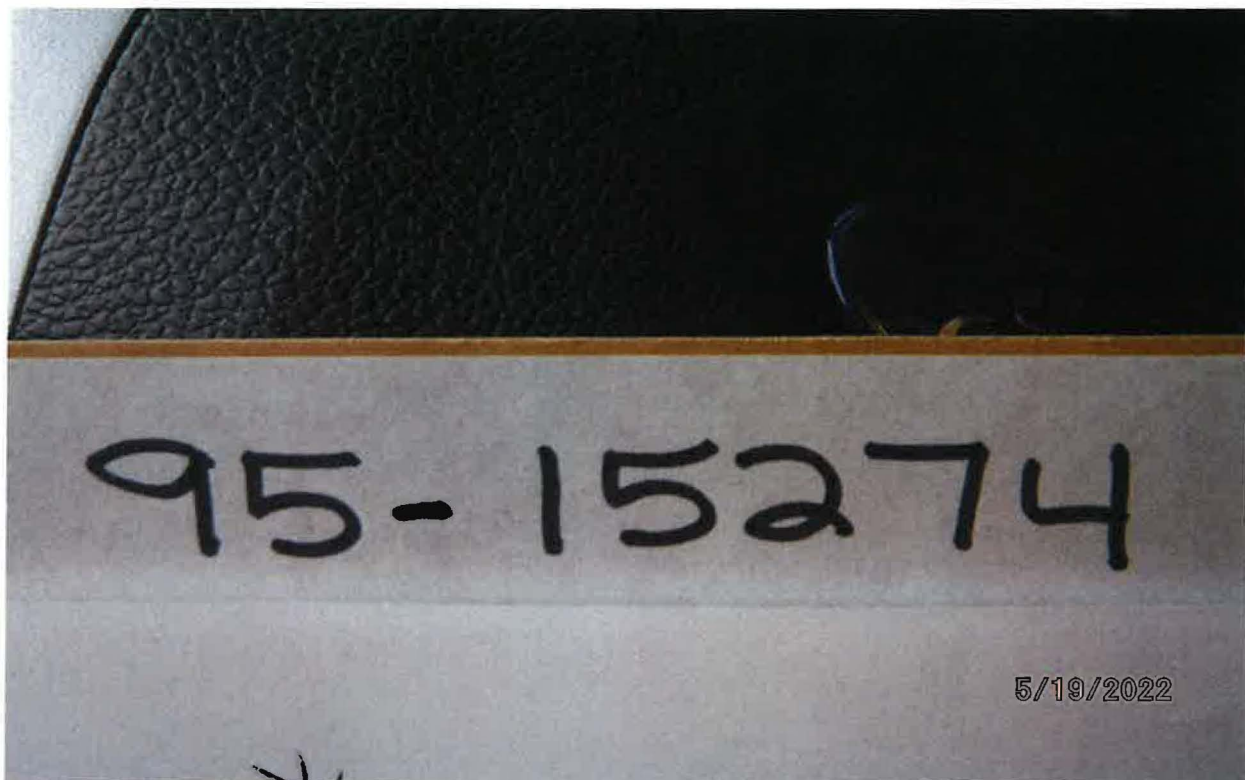
Total Storage Calculations

FILE NUMBER	95-15274
REVIEWER	LUKE BATES
DATE	5/19/2022

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.)	4	"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)	2.0	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)	0.5	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)	3.1	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.



INITIAL FIELD EXAM ON 6/30/2015, FOLLOW-UP SITE VISIT ON 5/19/2022



POD – POND EARTHEN DAM



POND OVERFLOW DEVICE



POND OVERFLOW DEVICE ROUTES WATER DOWNSTREAM



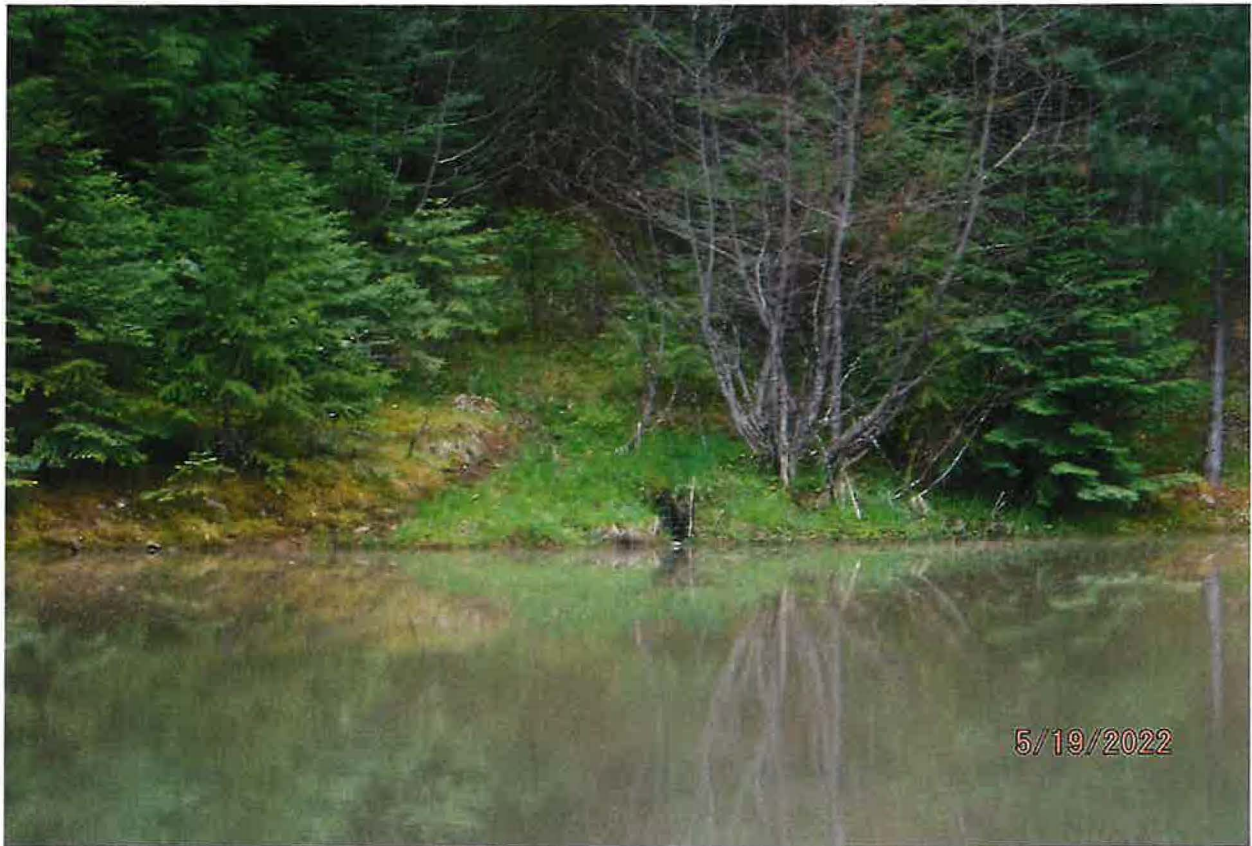
MANUAL SHUTOFF VALVE – PVC PIPE CAN BE USED TO DRAIN POND ENTIRELY FOR MAINTENANCE



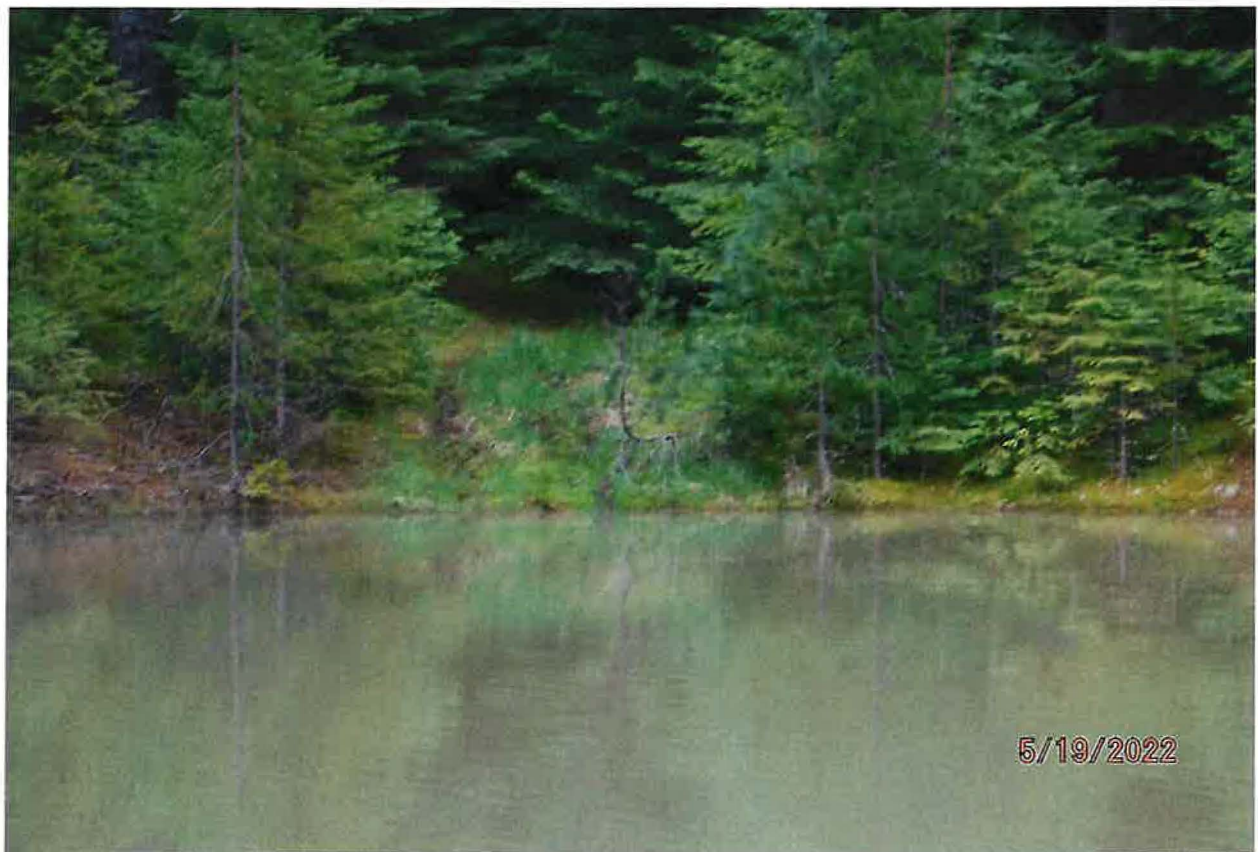


POU – STOCKWATER STORAGE, WILDLIFE STORAGE, RECREATION STORAGE, & FIRE PROTECTION STORAGE





INTERMITTENT STREAM (No. 1) SOURCE TO POND



INTERMITTENT STREAM (No. 2) SOURCE TO POND



DOWNSTREAM VIEW FROM POND DAM