

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 96-9607

Exam Date: 04/15/2021

1. Current Owner:

ROBERT CROUSORE 7343 BOLERO ST CARLSBAD CA 92009-7103 AND/OR
MELIA CROUSORE 7343 BOLERO ST CARLSBAD CA 92009-7103

2. Accompanied by: Terry Crousore

Phone No: 208-946-9759

Address: 342 Forever Ranch Rd, Athol ID, 83801

Relationship to permit Holder: Permit holder

3. **SOURCE:**

UNNAMED STREAM

Tributary

SINKS

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 SYSTEM**1. **LOCATION OF POINT(S) OF DIVERSION:**

UNNAMED STREAM SW¼ SE¼, Sec. 10, Twp 54N, Rge 02W, B.M. BONNER County

Method of Determination: GPS; POD is an earthen dam located at -116°33.325, 48°2.084.

PLACE OF USE: WILDLIFE STORAGE, RECREATION 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	10															X		

Method of Determination: Field exam and Arcmap aerial imager.

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

X 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
NONE					

D. FLOW MEASUREMENTS

1.

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

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

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 4/15/2021 with the applicant, Terry (Robert) Crousore, showed a pond that impounds unnamed stream water and is used for wildlife, recreation, and fire protection storage(s) purposes. The POD is an excavated earthen dam situated in a small basin. A vertical overflow discharge pipe is installed in the pond, located center of the dam, allowing overflow to discharge downgrade from the dam; peak seasonal overflow water routes from the discharge pipe downgrade and sinks. There is no diversion rate associated with this permit.

Photographs were taken during the field exam to illustrate the storage pond that serves as the POU for the three beneficial uses listed above. Following the exam, Arcmap aerial imagery was used to trace out the surface area of the pond equaling 0.3 acres. The pond has a maximum depth of 7 feet, an average depth of 2.8 feet, pond capacity of 1.0 af, and a seepage & evaporation loss of 1.3 af annually. The total volume required equals 2.3 af annually for each respective beneficial use on the permit. Wildlife storage, recreation storage, and fire protection storage annual volumes are not additive, resulting in a recommended maximum diversion volume for licensing purposes of **2.3 af**.

The current pond analysis sheet produced a much larger total volume, due to the soil type in the region of the pond being designated as silty sand mixed with gravel soils. As a result, the pond analysis derived seepage volume equals 25.5 af. During licensing review, the recommendation for licensing volume of 2.3 af is limited by the permit approved volume. This is the first year the pond has filled from seasonal runoff in addition to the unnamed stream flow, which is downstream from a spring which is headwater to this right's unnamed stream water source. Future water impoundment may require a pond liner to eliminate seepage to maintain pond levels.

Conditions 26A and 082 were removed from the permit during licensing review. Condition 219 and 220 were both updated to reflect pond size and volume factors determined after the field exam. All other conditions from the permit will 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>
WILDLIFE STORAGE	01/01 to 12/31	2.3 AF
RECREATION STORAGE	01/01 to 12/31	2.3 AF
FIRE PROTECTION STORAGE	01/01 to 12/31	2.3 AF

Totals: 2.3 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



Date

4/16/2021

Reviewer



Date

4/30/2021

State of Idaho
Department of Water Resources
Attachment to Field Exam
96-9607

WILDLIFE STORAGE, RECREATION 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	96-9607
REVIEWER	LUKE BATES
DATE	4/16/2021

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.)	0.35	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	2.8	"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)	25.5	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.4	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	26.9	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 – 4/15/2021



POD – EARTHEN DAM



INFLOW FROM UNNAMED STREAM TO POND





OVERFLOW DISCHARGE PIPE



OVERFLOW WATER ROUTING DOWNGRADE BACK TO STREAM



POU – FIRE PROTECTION STORAGE, RECREATION STORAGE, AND WILDLIFE STORAGE POND

