

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 98-8024

Exam Date: 06/23/2026

1. Current Owner:

ROSS W ROBERTSON PO BOX 272 BONNERS FERRY ID 83805-0272 AND/OR
JODY D ROBERTSON PO BOX 272 BONNERS FERRY ID 83805-0272

2. Accompanied by: Ross W Robertson

Phone No: 208-597-1826

Address: Same as above

Relationship to permit Holder: Right Holder

3. **SOURCE:**

SPRING

Tributary

SINKS

Method of Determination: Arc Pro GIS and DRG Layer.

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
98-7750	Ground Water	Municipal	License

Comments: Cabinet Mountains Water District is a large municipal provider authorized by 98-7750 with a service area overlapping this Permit's POU(s). There isn't a municipal service connection on this parcel which mitigates any concern for overlapping between rights.

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

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

SPRING NE¼ SW¼ NE¼, Sec. 31, Twp 61N, Rge 01E, B.M. BOUNDARY County

Method of Determination: GPS. POD is an earthen dike dam and co-located diversion to storage pipeline at -116° 22.877, 48°35.868.

PLACE OF USE: IRRIGATION STORAGE and RECREATION 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	
61N	01E	31			X														

PLACE OF USE: IRRIGATION FROM 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	
61N	01E	31			1.5														1.5

Total Acres: 1.5

Method of Determination: Beneficial use field exam and Arc Pro GIS software

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
Earthen Dam / Spring Diversion to Storage	Unknown	Unknown	Old electric pump without data information	Unknown	1-inch Poly Pipe

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
5-Gal Bucket						

2. Measurements: The pond, excavated within an area considered a spring field, captures some water within the pond as well as spring water from just below the pond dam, which serves as the Diversion to Storage rate POD. I collected three (3) 5-gal bucket measurements from the spring pipe-to-collection tank resulting in a diversion rate of 0.01 cfs considering Department rounding standards.

E. FLOW CALCULATIONS

Measured Method: Measured Method: three 5-gal bucket measurements from Spring source pipe to collection tank as follows:

- 5-gal / 57.9 sec x 60 sec/min = 5.18 gpm
- 5-gal / 57.13 sec x 60 sec/min = 5.25 gpm
- 5-gal / 57.24 sec x 60 sec/min = 5.24 gpm with average of three measurements equaling 5.2 gpm or 0.01 cfs
- Permit authorized diversion rate: 0.20 cfs for Diversion to Storage rate
- Recommended diversion rates for licensing purposes Permit 98-8024: 0.01 cfs for Diversion to Storage beneficial use – rate based on Spring flow rate to collection tank, not the rate of transfer pump from collection tank to pond.
- Maximum diversion rate = **0.01 cfs**.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1.5 \text{ ac} \times 3.0 \text{ afa} = 4.5 \text{ af}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = \text{N/A} - \text{irrigation from storage receives volume reporting only, no diversion rate associated with irrigation beneficial use.}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = \mathbf{4.5 \text{ af}}$$

2. Volume Calculations for Other Uses: See attached Pond Analysis Worksheet.

- Maximum Diversion Volume = Recreation Storage volume (**1.5 af**) + Irrigation Storage/from Storage volume (4.5 af) = **6.0 af** for licensing purposes.

G. NARRATIVE/REMARKS/COMMENTS

I conducted a beneficial use field exam on 6/23/2026 with the Right Holder, Mr. Ross Robertson, which showed Spring water source being diverted for Recreation Storage, Irrigation Storage, and Irrigation from Storage Beneficial Use. At the POD a small pond has been excavated with an earthen dike/dam. The pond and dam have been developed in a small basin with multiple springs, or a spring field, and Diversion to Storage occurs from a small collection tank just below the pond dam using a small electric pump to re-circulate spring water to the pond. I was able to collect flow measurements from a short piece of 4-inch PVC pipe that captures recirculated spring water with a resulting diversion to storage rate of **0.01 cfs** being recommended for licensing purposes.

The collection tank is a 120 gal repurposed stock tank and the electric pump in use is capable of larger flow rates, but the system is limited by the spring pipe inflow to tank that applies to the designated diversion rate. As it was impossible to ascertain how many springs within the spring field are impounding water within the pond. The close proximity of the spring used for recirculation water is considered the same spring source as the storage pond, just with added diversion to storage use.

The Recreation Storage & Irrigation Storage POU is a small 0.3 ac pond which has a maximum depth of 8 ft, average depth of 3.2 ft, a pond capacity of 1.0 af, and incurs 0.5 af annually of seepage and evaporative loss. The Recreation Storage annual volume equals pond capacity + seepage and evaporation loss rates which = **1.5 af** as recommended for licensing purposes. Recreation Storage is for fish stocking use. The storage pond dam has a metal culvert set to allow seasonal overflow to discharge; any overflow joins the spring vein directly below the dam which is collected for recirculation back to the pond. This practice enables the Right Holder to maintain the storage pond full year-round which uses multiple fill water for irrigation watering on the parcel.

During the exam I used field maps to sketch the Irrigation from Storage POU, which consists of lawn and garden watering using spring water from the pond and recirculation system. Due to the nature of the recirculation system, I've maintained the irrigation from storage beneficial use and there is no diversion rate associated with licensing. During licensing review, I used Arc Pro GIS map software to accurately trace out the irrigation from storage acreage, which equals 1.5 acres. The permit is authorized up to 3 acres, but I've reduced the value to 1.5 acres in adhoc at time of licensing. The Irrigation Storage and Irrigation from Storage annual volume equals $1.5 \text{ ac} \times 3.0 \text{ afa} = \mathbf{4.5 \text{ af}}$.

Irrigation occurs using a portable pump from storage & the recirculation pump to hydrants and numerous hoses and assorted sprinklers for watering lawn and garden space. Tree canopy on the parcel blocks aerial view of active irrigation, but I've collected numerous photographs which illustrate irrigation from storage POU.

The Diversion to Storage rate of 0.01 cfs can impound up to 7.2 af annually, but during the irrigation season of use the pump rate is limited to 4.2 af. Based on the spring field environment it is reasonable that between spring runoff water and multiple fills from the spring field water source and water system as developed has adequate capacity to satisfy the maximum diversion volume of **6.0 af** for licensing purposes.

During licensing review, I removed condition 029, which isn't applicable to the spring water source pond development. I've revised conditions 220 and 259 to accurately describe the elements of the storage pond size and volume described on the Pond Analysis Worksheet. All other conditions on the Permit are being carried forward to licensing. There isn't any overlapping water right concerns toward licensing Permit 98-8024.

A notice of Claim will be required for this Licensed Right due to the Statement of Completion Form 42-217 Rev 6/22 being received on 9/24/2025, which is prior to the commencement of the Kootenai River Basin Adjudication (KRBA) process. The KRBA commenced on 3/6/2026. I notified Mr. Robertson during the field exam of the upcoming claim requirement to keep the water right active through the decree process. In addition to this water use the Right Holder has a deferred use of a hand-dug ground water well on the property which serves the primary residence for domestic water use. I recommended Mr. Robertson consider filing a claim for that water use as well in the KRBA process but it currently a deferrable water use authorized by Idaho Code §42-111.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
IRRIGATION STORAGE	01/01 to 12/31		4.5 AF
IRRIGATION FROM STORAGE	04/01 to 10/31		4.5 AF
RECREATION STORAGE	01/01 to 12/31		1.5 AF
DIVERSION TO STORAGE	01/01 to 12/31	0.01 CFS	

Totals: 0.01 CFS 6.0 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 – Sr Water Resource Agent

Field Examiner's Name Luke Bates Date 8/7/2026
 Reviewer [Signature] Date 8.24.2026

State of Idaho
Department of Water Resources
Attachment to Field Exam
98-8024

This map depicts the IRRIGATION STORAGE and RECREATION STORAGE system diagram. Pond constructed in a Spring field with multiple Spring source water veins infilling to pond; Spring source Diversion to Storage beneficial use serves as a recirculation system for Spring fed pond.

01E



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



0 0.04 0.09 0.14 0.18
Miles

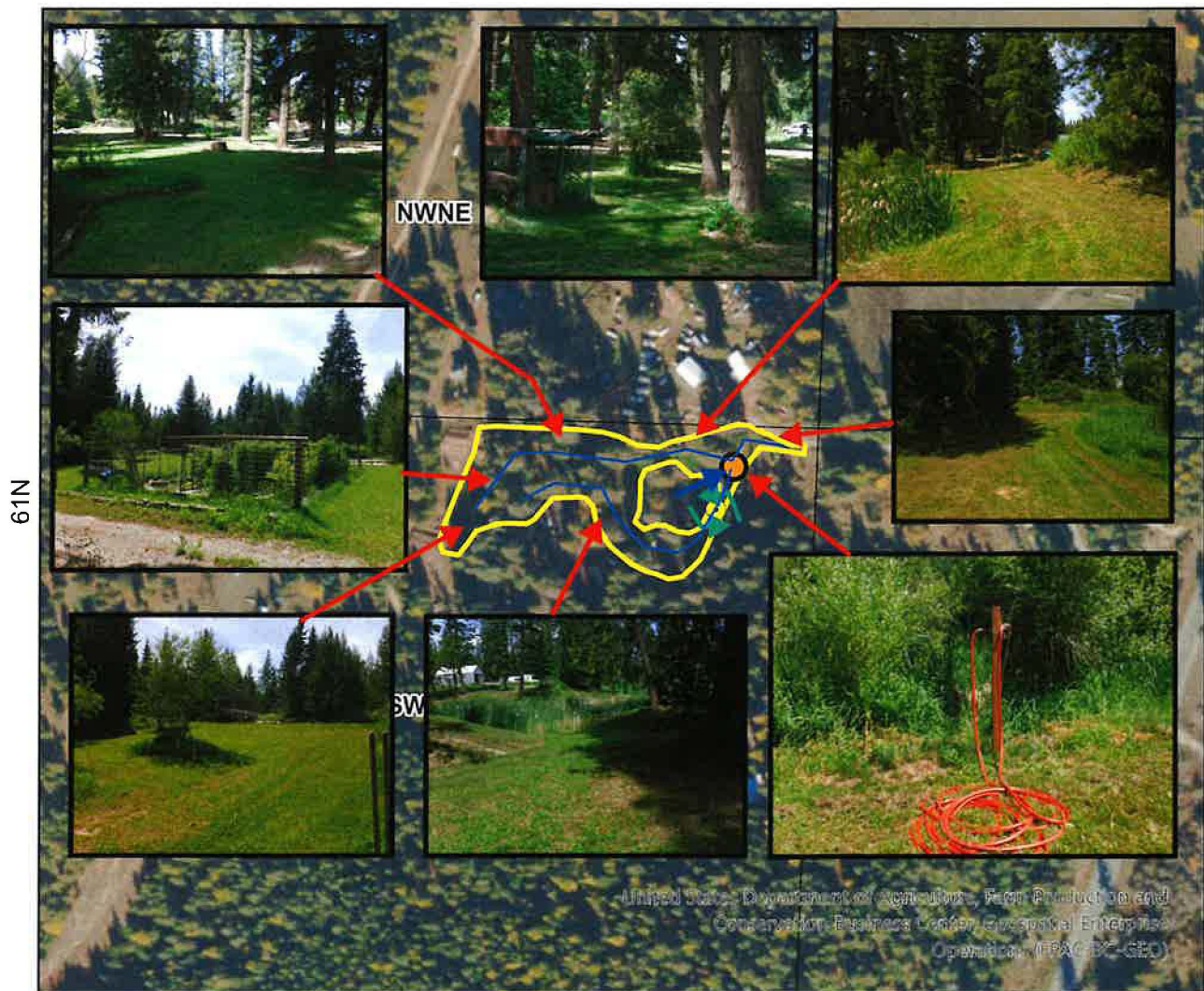


Imagery: 2023 Aerial Photography
Prepared By Bates, Luke

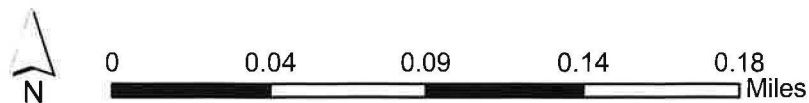
State of Idaho
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This map depicts the IRRIGATION FROM STORAGE system diagram. Portable pump to two (2) hydrants serve multiple 100 ft hose segments to portable sprinklers for lawn/garden watering.

01E



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



Imagery: 2023 Aerial Photography
Prepared By Bates, Luke

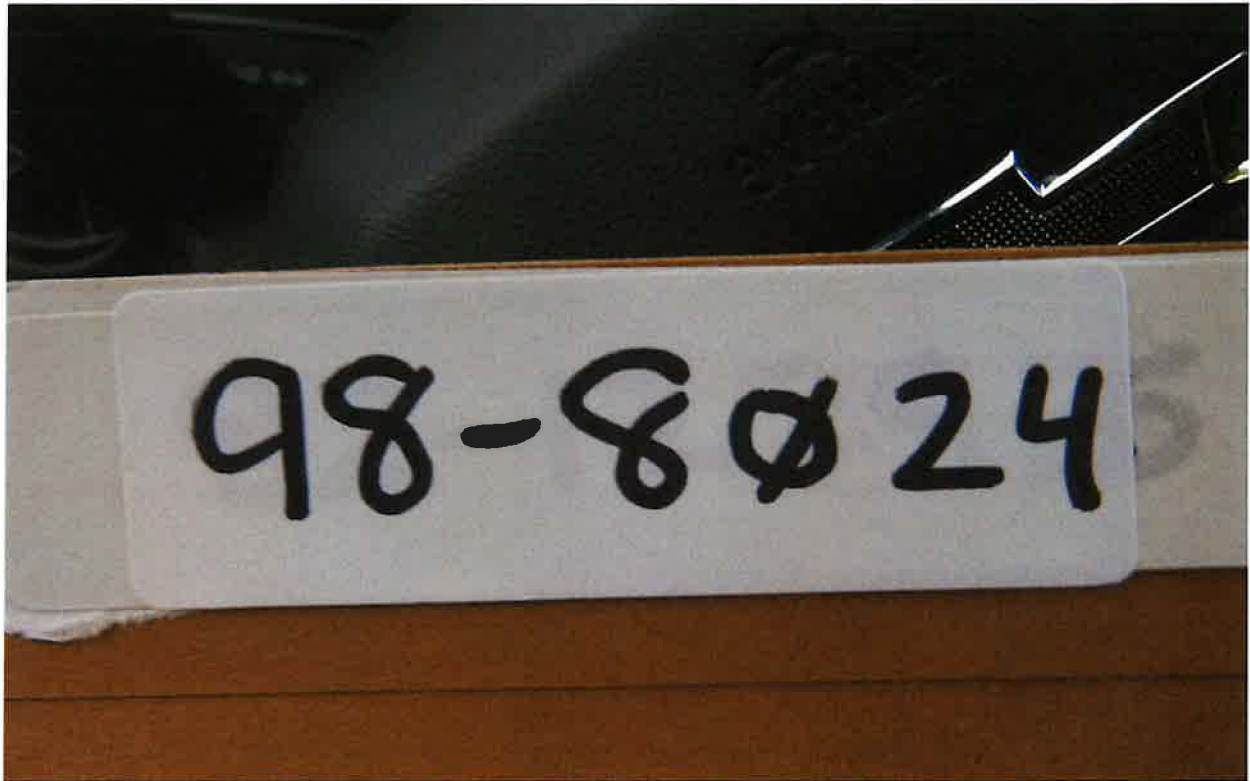
Total Storage Calculations

FILE NUMBER	98-8024
REVIEWER	L.BATES
DATE	8/7/2026

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.)	0.3	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	3.2	"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)	0.96	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)	4.5	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)	6.0	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.



BENEFICIAL USE FIELD EXAM DATE 6/23/2026



POD/POU – SPRING FILLED STORAGE POND WITH EARTHEN DIKE DAM USED FOR
IRRIGATION STORAGE, RECREATION STORAGE, AND IRRIGATION FROM
STORAGE



POD – POND EARTHEN DIKE DAM WITH CULVERT OVERFLOW DEVICE





POU – IRRIGATION STORAGE AND RECREATION STORAGE



DIVERSION TO STORAGE – SPRING WATER FROM SPRING FIELD & OVERFLOW DISCHARGE FROM STORAGE POND CAPTURED AND PUMPED BACK TO POND



IRRIGATION FROM STORAGE – STORAGE POND WATER PUMPED VIA POLY PIPE
TO IRRIGATION RISER PIPE CONNECTING HOSE AND SPRINKER FOR ROTATIONAL
IRRIGATION WATERING



IRRIGATION FROM STORAGE POU



IRRIGATION FROM STORAGE POU





IRRIGATION FROM STORAGE POU





IRRIGATION FROM STORAGE POU – TREED LOT WITH WATERING AND LAWN SPACE THROUGHOUT PARCEL





IRRIGATION FROM STORAGE POU





IRRIGATION FROM STORAGE POU – ALL MOWED AREAS ARE IRRIGATED
ROTATIONALLY THROUGHOUT SEASON OF USE





SHALLOW HAND DUG WELL USED FOR DEFERABLE DOMESTIC USE – INDICATIVE
OF HIGH-WATER TABLE IN SMALL DRAINAGE

