

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 98-8147
Exam Date: 08/19/2025

1. Current Owner:
WILLIAM P DIEHL IV 354 RED CLOUD RD BONNERS FERRY ID 83805-5730
2. Accompanied by: Unaccompanied – prior permission from Permit Holder granted.
Phone No: 540-454-1848
Address: Same as above.
Relationship to permit Holder: Permit Holder – granted access prior to field exam.

3. **SOURCE:**
GROUND WATER
GROUND WATER

Method of Determination: Arc Pro GIS and DRG Layer.

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:**

GROUND WATER NE¼ SW¼, Sec. 12, Twp 61N, Rge 01E, B.M. BOUNDARY County
GROUND WATER NE¼ SW¼, Sec. 12, Twp 61N, Rge 01E, B.M. BOUNDARY County

Method of Determination: Beneficial use exam and GPS –Eastern in-pond Groundwater source approximately: -116° 16.8364, 48° 38.9529; Western in-pond Groundwater source approximately: -116° 16.8847, 48° 38.9383.

PLACE OF USE: 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	12									X								

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

3.
 - X Delivery System Diagram Attached (required). Indicate all major components and distances between components. 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
TWO IN-POND GW SOURCES					No overflow devices related to pond(s) development

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NONE						

2. Measurements: N/A – two small ponds impound ground water from a shallow ground water table, and each pond doesn't have any overflow device(s).

E. FLOW CALCULATIONS

Measured Method: N/A

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

2. Volume Calculations for Other Uses: see two Pond Analysis Worksheets, maximum diversion volume equals sum of two ponds storage volume with evaporative loss rates which equals 1.5 af.

G. NARRATIVE/REMARKS/COMMENTS

I conducted a beneficial use field examination (exam) on 8/19/2025, unaccompanied with permission from Permit Holder, which showed a shallow ground water table being impounded for Recreation Storage beneficial use. As a result of my exam an Application for Amendment of Permit (for licensing purposes) is required – detailed below in this report under section H.2. – Recommended Amendments. I observed two small storage ponds excavated to impound ground water. The POD for each pond is designated as an in-pond source, as ground water fills from within the pond(s) embankment. The pond(s) reaches equilibrium with the shallow ground water table and there aren't any overflow devices as the pond high water line doesn't reach top of the sub-terrain pond(s) embankment. There isn't a diversion rate associated with this water right.

During the exam I collected photographs of the Recreation Storage POU and during licensing review I used Arc Pro GIS aerial imagery to accurately trace out the ponds' surface area(s) assigning the POU. PODs were designated based on in-pond approximate ground water sources. The two pond's size and volume elements are designated below:

- The Eastern Pond has a surface area of 0.1 acres considering Department rounding standards, a maximum depth

equaling 8 ft, an average depth of 3.2 ft, a pond capacity equal to 0.32 af, and 0.1 af of loss due to evaporation. No seepage was factored due to the ground water source filling from within the high-water line of the pond. The total volume requirement to maintain the pond full annually equals 0.4 af.

- The Western Pond has a surface area of 0.2 acres considering Department rounding standards, a maximum depth equaling 10 ft, an average depth of 4ft, a pond capacity equal to 0.8 af, and 0.3 af of loss due to evaporation. No seepage was factored due to the ground water source filling from within the high-water line of the pond. The total volume requirement to maintain the pond full annually equals 1.1 af. I excluded a small surface area related to a small island feature within the pond; the pond resulted in a deep portion of the pond coupled with shallow depths around a large portion of the island.
- The Recreation Storage annual volume is equivalent to the total storage volume for two ponds = **1.5 af** annually.

The Permit approval authorized 4.0 af for recreation storage. The Application for Amendment was developed with the original 4.0 af recreation storage volume. The license recommendation reduces the 4.0 af to reflect 1.5 af based on two pond analysis worksheets based on exam observations.

During licensing review, I removed condition 220 based on verbal directive from Deputy Director – Shelley Keen. I revised condition 219 to reflect post-exam pond analysis volumetric values. All other Permit conditions of approval shall be carried forward to licensing. There isn't any overlapping water right concerns toward licensing Permit 98-8147.

It's worth noting that this Permit's Statement of Completion form was received on 7/7/2025, which predates commencement of the Kootenai River Basin Adjudication (KRBA) – 3/6/2026. As a result, **the Right Holder shall be required to file a Notice of Claim based on License in the KRBA** process to keep the water right current and moving toward a court Decreed 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>
RECREATION 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

The permit authorized Recreation Storage using a ground water source with a maximum diversion volume = 4.0 af. The permit contemplated a single storage pond, but beneficial use field exam found that two small ponds had been constructed in close proximity to each other. I determined that due to proximity the shallow groundwater table is the same water source and the total volume evaluated during licensing review doesn't exceed the authorized diversion volume.

I recommended the Permit Holder complete an Application for Amendment (For Licensing Purposes) to add the second storage pond POD, which falls within the same PLSS described QQ/Q. The 2nd storage pond is located within the same QQ/Q so there isn't an amendment requirement for the Recreation Storage POU. I mailed the amendment documents to the Permit Holder on 4/6/2026 and the signed amendment form with \$100.00 fee was received on 4/15/2026, receipt N045960.

I. AUTHENTICATION

Luke Bates – Sr Water Resource Agent

Field Examiner's Name



Date

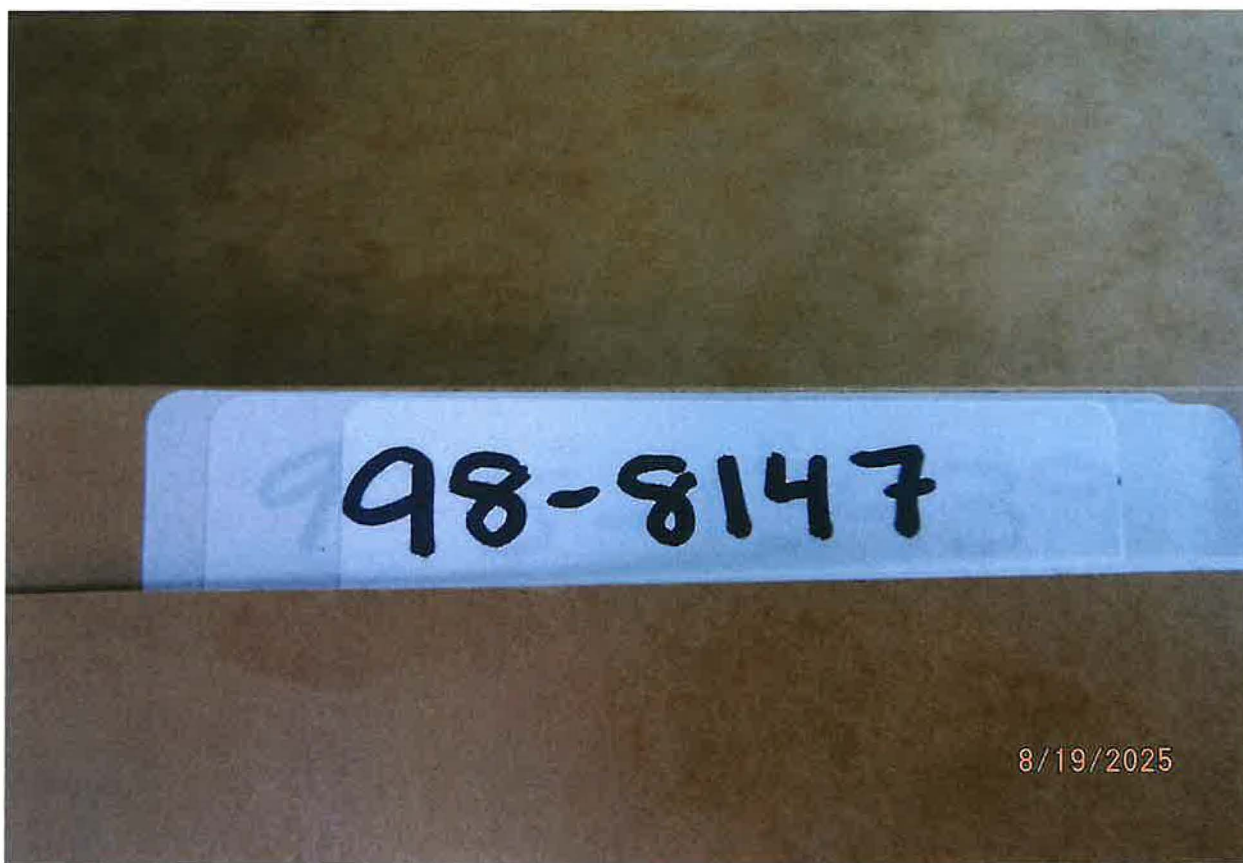
4/20/2026

Reviewer



Date

8/7/2026



BENEFICIAL USE FIELD EXAM DATE 8/19/2025



POD & POU – 1 OF 2 GROUNDWATER FILLED PONDS WITH RECREATION STORAGE BENEFICIAL USE



POD & POU – STORAGE POND 1; SMALLER POND RECREATION STORAGE



POD & POU – GROUNDWATER FILLED 2 OF 2 STORAGE PONDS WITH RECREATION STORAGE BENEFICIAL USE



POU – LARGER STORAGE POND 2 – RECREATION STORAGE





RECREATION STORAGE POND 2 – SMALL ISLAND IN POND



State of Idaho
Department of Water Resources
Attachment to Field Exam
98-8147

This map depicts the RECREATION STORAGE system diagram. Two storage ponds which impound from in-pond ground water source(s). There are no overflow devices related to storage pond(s) development.

01E



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



0 0.04 0.09 0.14 0.18 Miles



Imagery: 2023 Aerial Photography

Total Storage Calculations

FILE NUMBER	98-8147
REVIEWER	L.BATES
DATE	8/19/2025

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	"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)	0.8	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	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)	0.0	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)	1.1	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.

Total Storage Calculations

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User Input
Calculated value
Formula Explanations

Surface Area (AC.)	0.1	"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)	0.32	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. <i>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.</i>
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). <i>Note: You must have a "From Storage" component exceeding the initial fill on the permit to include a volume in this space.</i>
Estimated Seepage Loss (AF)	0.0	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.1	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	0.4	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.