

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 97-7559

Exam Date: 08/08/2024

1. Current Owner:
CHRISTINA DAVIDSON 1733 BUCKMAN SPRINGS RD CAMPO CA 91906-2007
2. Accompanied by: DAN LARSON, PE
Phone No: (208) 263-0623
Address: 414 CHURCH ST, SUITE 203, SANDPOINT, ID 83864
Relationship to permit Holder: POND ENGINEER

3. SOURCE:GROUND WATER
UNNAMED STREAM**Tributary**

MOORES CREEK

Method of Determination: ARCMAP, GIS, & BENEFICIAL USE FIELD EXAM**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:**GROUND WATER SE¼ SW¼, Sec. 34, Twp 58N, Rge 05W, B.M. BONNER County
UNNAMED STREAM SE¼ SW¼, Sec. 34, Twp 58N, Rge 05W, B.M. BONNER County**Method of Determination:** ARCMAP & GIS with POD located at 48 19.861, -116 58.443**PLACE OF USE: 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	
58N	05W	34												X					

PLACE OF USE: 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	
58N	05W	34												X					

Method of Determination: Beneficial use field examination and 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
5 GALLON BUCKET						

2. Measurements: Three 5-gallon bucket tests were completed from the inlet of the stream with an average of three measurements resulting in a diversion rate of 16.7 gpm = 0.04 cfs, considering department rounding standards.

E. FLOW CALCULATIONS

Measured Method: 5-GAL Bucket Test = (5 gal / 2.94 sec) x 60 sec/min = 102.04 gpm
 = (5 gal / 3.02 sec) x 60 sec/min = 99.33 gpm
 = (5 gal / 2.62 sec) x 60 sec/min = 114.50 gpm

Average of 3ea 5-GAL Bucket Tests = (102 gpm + 99.33 gpm + 114.5 gpm) / 3 = 105.28 gpm = 0.23 cfs considering department rounding standards. There is no diversion to storage so no diversion rate is required. The inlet and outflow were both flowing at approximately the same rate. No concerns on the flow trough component of this water right.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A
2. Volume Calculations for Other Uses:

SEE POND CALCULATION SHEET

G. NARRATIVE/REMARKS/COMMENTS

Field exam was performed on 8/8/2024 with the engineer Dan Larson from 7B Engineering. The applicant lives out of state and could not be there, so she authorized the engineer who installed the pond to be there. The application and Permit are for an instream pond from both groundwater and an unnamed stream. The uses for the pond are Fire Protection Storage and Wildlife Storage. At the POD, the pond flows back into the stream channel. The pond also has a large island in the middle with an earthen dam which impounds unnamed stream water and ground water.

A second field exam was performed with staff to confirm whether this was an off-stream pond, which would require an amendment, or an in-stream pond as permitted. This exam was performed on May 19, 2025, and the applicant Christina Davidson was present. Upon further review, there is evidence that the channel has shifted over time and the pond is an instream pond as permitted. The area that appears to be a stream on ArcMap was dry and shallow. The inlet channel was natural and deeper. A 5-gallon bucket test was performed by staff and the flow rate averaged 105 gpm even though a diversion rate is not being assigned to the water right. The outflow was flowing at a similar rate connecting to the stream and flowing off the property in the channel that ArcMap showed.

The property showed signs of being a wetland environment, but the applicant's property is not a designated wetland. When the pond level rises, the water overflows into the wetland areas. Photographs were taken that illustrate the pond and the outflow into the stream channel. This pond was already used for one fire a couple years ago.

During licensing review, ArcMap aerial imagery coupled with field exam notes were used to trace out the pond's surface area, which rounds up to 1.5 acres considering department rounding standards. The pond has an average depth of 5 ft, a pond capacity of 7.5 af, and an estimated seepage/evaporation loss of 1.5 af. Based on pond development and current pond analysis worksheet calculations, each beneficial use annual volume equals 9 af, which is not additive toward the maximum diversion volume of 9 af recommended for licensing this right.

All 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>Rate of Diversion</u>	<u>Annual Volume</u>
WILDLIFE STORAGE	01/01 to 12/31		9.0 AF
FIRE PROTECTION STORAGE	01/01 to 12/31		9.0 AF

Totals:

9.0 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

Tammy Alleman - Water Resource Agent

Field Examiner's Name Tammy Alle Date 5/19/25

Reviewer Michelle Richman Date 6/30/2026

Total Storage Calculations

FILE NUMBER	97-7559
REVIEWER	Tammy Alleman
DATE	5/19/2025

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.)	1.5	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	5	"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)	7.5	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)	1.5	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	9.0	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.

97-7559



Flow into Pond



Stream Channel to Pond



Original Stream Channel approx. 1 foot higher than the current Stream Channel



Pond



Pond



Pond Overview



Point of Diversion: Latitude 48 19.861, Longitude -116 58.443



Earthen Dam



Outflow into Stream Channel





Overflow Areas from Pond to the Wetland Areas

