

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 82-12293
Exam Date: 04/04/2024

1. Current Owner:
STEPHEN W HACKNEY 309 FARRENS CREEK LN GRANGEVILLE ID 83530
2. Accompanied by: Stephen Hackney
Phone No: 208-494-1180
Address: Same as above
Relationship to permit Holder: Permit Holder.

3. **SOURCE:**
SPRING

Tributary
SINKS

Method of Determination: GPS, Arcmap, & 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:**

SPRING NE¼ SE¼ SE¼, Sec. 11, Twp 29N, Rge 03E, B.M. IDAHO County

Method of Determination: GPS. POD is a spring with pond excavated around the source located at -116°02.295, 45°51.753.

PLACE OF USE: WILDLIFE 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	
29N	03E	11																X	

PLACE OF USE: FIRE PROTECTION 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	
29N	03E	11																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
SPRING					

D. FLOW MEASUREMENTS

1.

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

2. Measurements: NONE, pond excavated around spring source to capture spring water. Serves as an instream pond with no diversion rate applied to water right.

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

Beneficial use field examination performed on 4/4/2024 showed a pond excavated around a spring source used by the applicant for wildlife storage, fire protection storage, & fire protection from storage uses. The DRG layer shows there is not a historic stream channel located near the pond and Mr. Hackney has asserted on the application for permit that he has excavated around a spring source to impound water. The small basin in which the pond is located, and the other spring sources located in close proximity to the pond add merit to the source of water being a spring vice groundwater. At the POD there is no overflow device, and the pond was constructed with adequate freeboard that allows water to seep/evaporate prior to overfilling the pond.

During licensing review, Arcmap aerial imagery coupled with field notes were used to trace out the pond's surface area which equals 0.1 acres considering department rounding standards. The maximum depth of the pond equals 15 ft, average depth equals 6 ft, the pond capacity equals 0.6 af, and an estimated seepage & evaporation loss equals 0.2 af. Based on the pond's development and current pond analysis sheet calculations, each of the three (3) beneficial uses has an annual volume equal to **0.8 af** respectively. This volume is not additive per beneficial use when calculating the maximum diversion volume.

The applicant asserts that during pond construction, approximately 1,000 feet of 2-inch poly pipe was installed to gravity flow from the pond to a manual shutoff valve and fire hose attachment fitting located near the main residence on the property for fire protection from storage use. I used ArcMap aerial imagery to trace a small POU polygon representing the location of the fire hose valve. Photographs were taken during the exam that provide evidence of the fire protection system as constructed by Mr. Hackney. The pond associated with this permit doesn't interact with other pond(s) located on the applicant's property and there are no concerns for overlap between water rights toward licensing this permit.

Condition 220 was removed from the permit during licensing review in accordance with Deputy Director Shelly Keen's guidance. I have revised condition 219 to reflect accurate pond analysis volumetric data determined post-field exam. All other conditions on the permit shall be carried forward to licensing.

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	0.8 AF
FIRE PROTECTION STORAGE	01/01 to 12/31	0.8 AF
FIRE PROTECTION FROM STORAGE	01/01 to 12/31	0.8 AF

Totals: 0.8 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

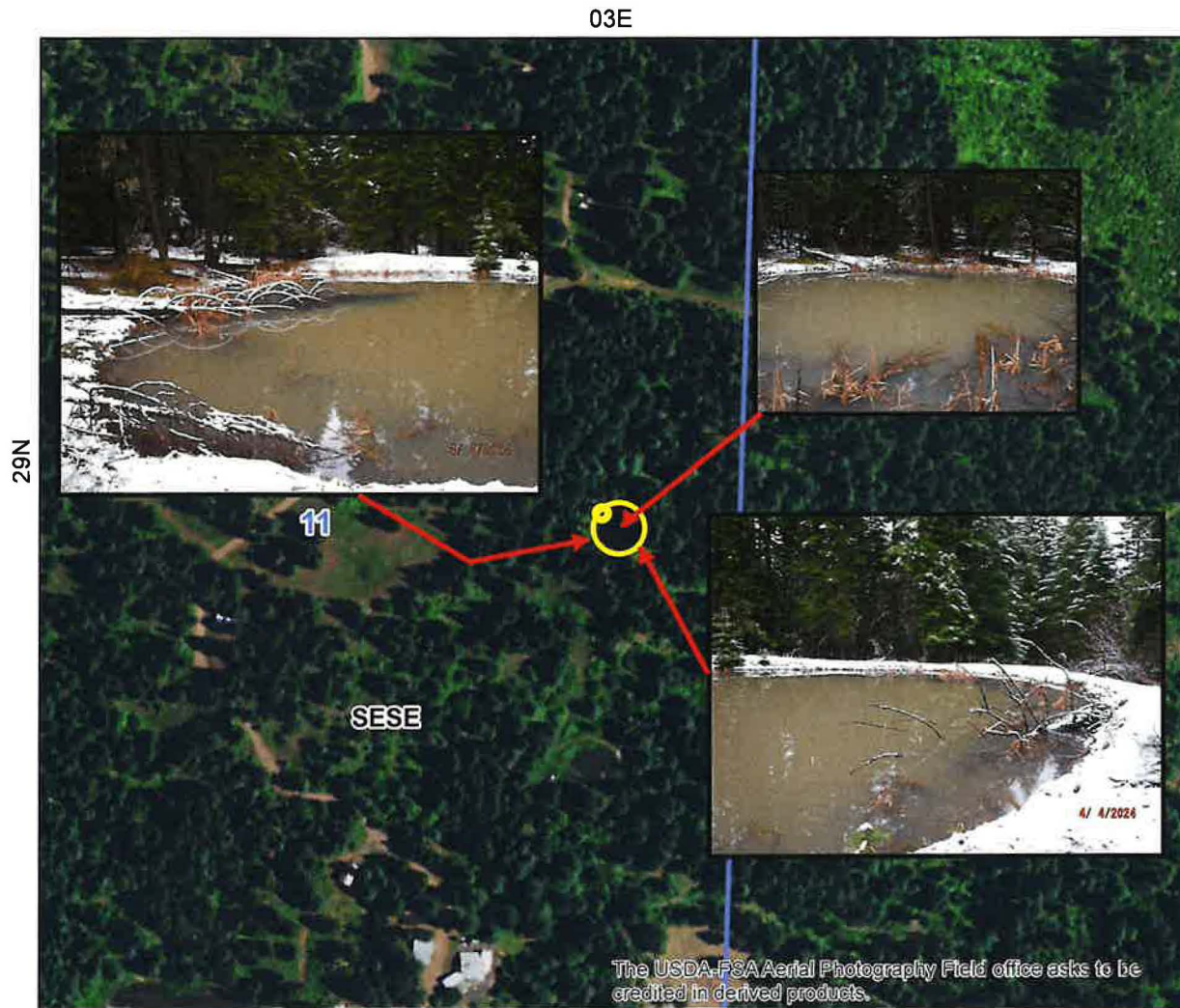
I. AUTHENTICATION Luke Bates – Sr. Water Resource Agent

Field Examiner's Name  Date 4/8/2024

Reviewer  Date 2/4/2025

State of Idaho
Department of Water Resources
Attachment to Field Exam
82-12293

This map depicts the WILDLIFE STORAGE & FIRE PROTECTION STORAGE system diagram.



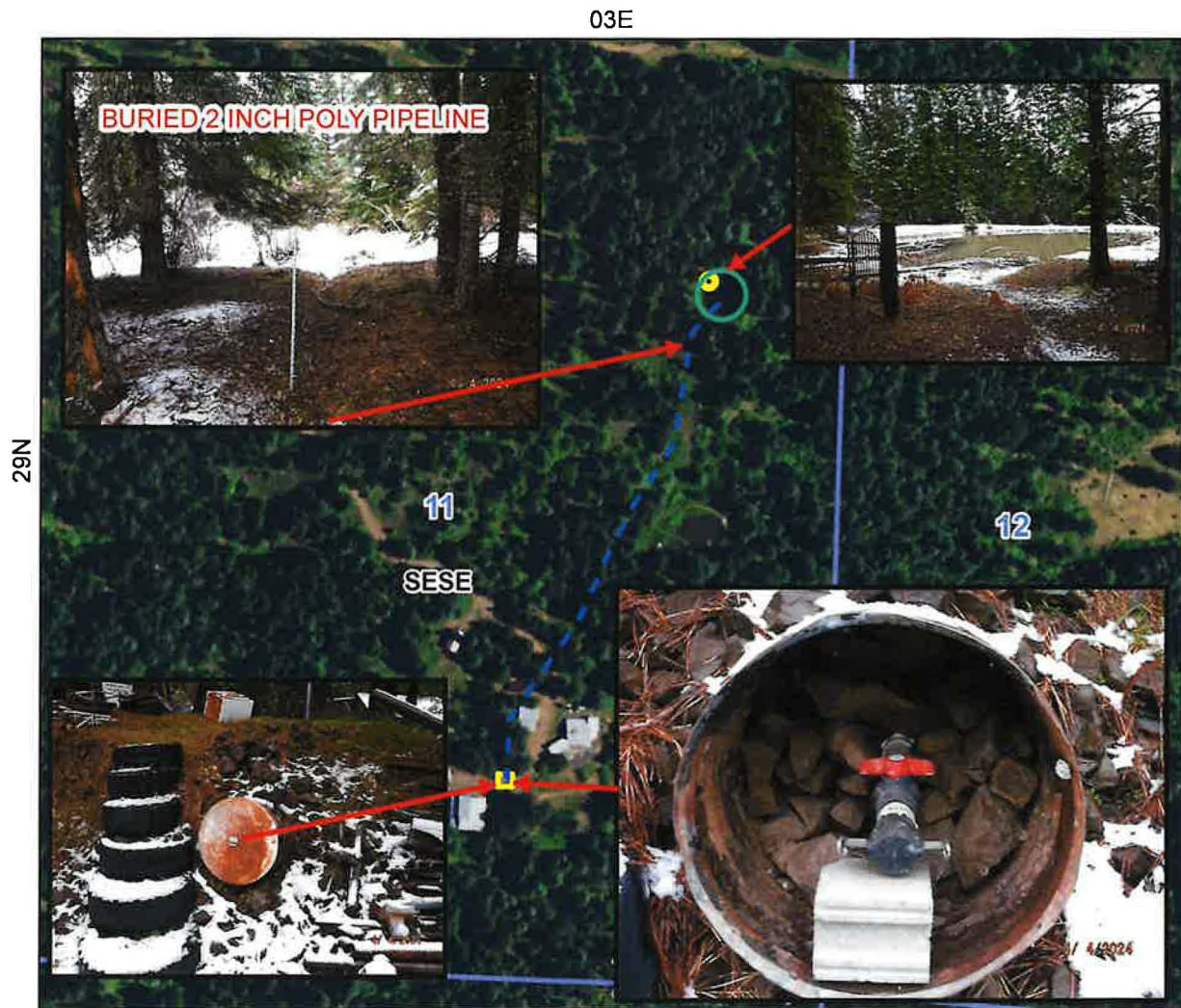
0 0.035 0.07 0.14 Miles

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



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This map depicts the FIRE PROTECTION FROM STORAGE system diagram.



0 0.035 0.07 0.14 Miles

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



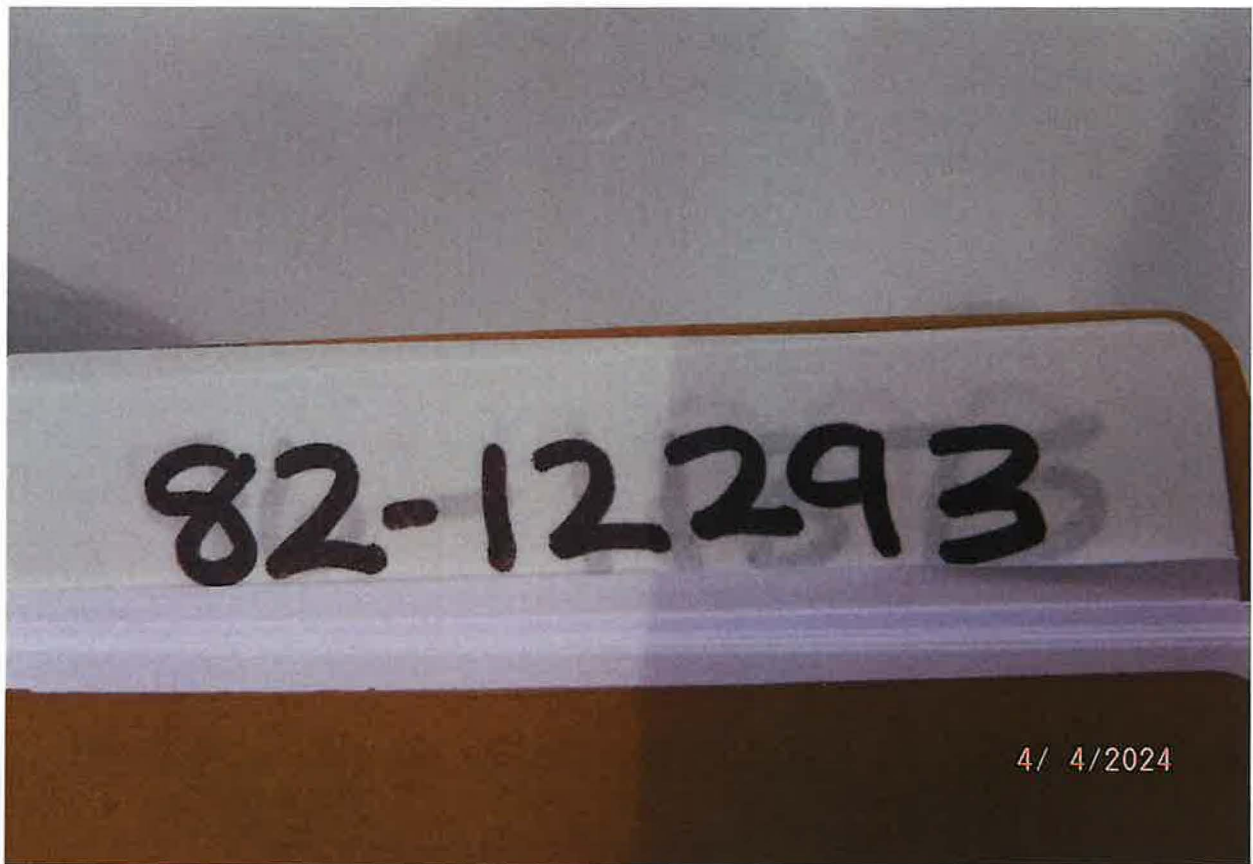
Total Storage Calculations

FILE NUMBER	82-12293
REVIEWER	Luke Bates
DATE	4/5/2024

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.)	0.1	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	6	"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)	0.6	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)	0.1	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)	0.8	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 4/4/2024



POD & POU – STORAGE POND EXCAVATED AROUND A SPRING SOURCE IN A SMALL DRAW



POU – WILDLIFE STORAGE & FIRE PROTECTION STORAGE POND





POU – STORAGE POND WITH EARTHEN DAM; NO OVERFLOW DEVICES CONSTRUCTED FOR SMALL POND



FIRE PROTECTION FROM STORAGE – BURIED 2 INCH POLY PIPELINE ROUTED 1,000 FT FROM POND TO VALVE; SLIGHT DEPRESSION IN PHOTO SHOWS EXCAVATION TRENCH LINE WITH SETTLED SOILS



EXAMPLE OF POLYPIPE USED FOR PROJECT – THIS IS A LEFT-OVER PIECE NOT NEEDED ONCE BURIED
PIPELINE WAS COMPLETED FROM POND TO FROM STORAGE USE



FIRE PROTECTION FROM STORAGE FIRE HOSE CONNECTION VALVE WITH MANUAL SHUTOFF VAVLE



FIRE PROTECTION FROM STORAGE DAYLIGHTS BETWEEN RESIDENCE AND SHOP LOCATED ALONG A
ROCKED EMBANKMENT