

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 96-9685
Exam Date: 09/24/2020

1. Current Owner:
PRIEST RIVER LAND CO PO BOX 220 LACLEDE ID 83841
2. Accompanied by: Ryan Fobes, Foresite Engineering
Phone No: 208-714-6866
Address: 418 E Lakeside Ave #01, Coeur D'Alene ID 83814
Relationship to permit Holder: Applicant's representative

3. **SOURCE:**
HORNBY CREEK

Tributary
PEND OREILLE RIVER

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 SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

HORNBY CREEK NE¼ NW¼, Sec. 24, Twp 57N, Rge 03W, B.M. BONNER County

Method of Determination: GPS. POD is a pond earthen dam; location -116°38.715, 48°16.658.

PLACE OF USE: WILDLIFE STORAGE, FIRE PROTECTION STORAGE, and AESTHETIC 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	
57N	03W	24					X												

Method of Determination: Drive-by and Arcmap aerial imagery.

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
N/A					

D. FLOW MEASUREMENTS

1.

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

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

An exam was conducted for this permit in conjunction with a separate field exam at the same property. Photographs were taken to license this permit, and shows a pond that impounds Hornby Creek water that flows into the pond. A follow up exam was completed to require the staff gage installed at the inflow to the creek, with photographs taken at that time. The pond was excavated to impound creek water for wildlife, fire protection, and aesthetic storage(s) purposes. There is no diversion rate applied to this water right, as the pond is an instream pond.

During the field exam the storage pond was sketched out on field maps. During licensing review, Arcmap aerial imagery coupled with field notes were used to trace out the pond's surface area, which equals 0.4 acres. The pond has a max depth of 20 feet, an average depth of 8 feet, a pond capacity of 3.2 af, and an estimated seepage and evaporation loss of 0.9 af. The pond has an earthen dam which serves as the POD. Based on pond development and current pond analysis sheet calculations, the annual volume equals 4.1 af, which will be applied as the maximum diversion volume on the license. Creek water fills the pond from the north, and the applicant has developed a rock overflow channel that allows water to discharge out of the pond to the south. A staff gage has been installed by the applicant at the inflow to the pond. 4.1 af of annual storage volume accounts for each of the three storage uses and serves as the POU for the following: wildlife storage, fire protection storage, and aesthetic storage. The annual volumes for each beneficial use are not additive toward the maximum diversion volume.

Condition 195 was waived by the Department, and removed from the permit during licensing review along with condition 26A. Condition 219 was updated to reflect post-field exam pond volume data. Condition 220 was added describing the pond's size (acres) and capacity (af). Condition 004 was added describing this right does not grant any right-of-way or easement across land of another. All other conditions on the permit will be carried forward to the license. There are no overlap concerns for this 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	4.1 AF
FIRE PROTECTION STORAGE	01/01 to 12/31	4.1 AF
AESTHETIC STORAGE	01/01 to 12/31	4.1 AF

Totals: 4.1 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

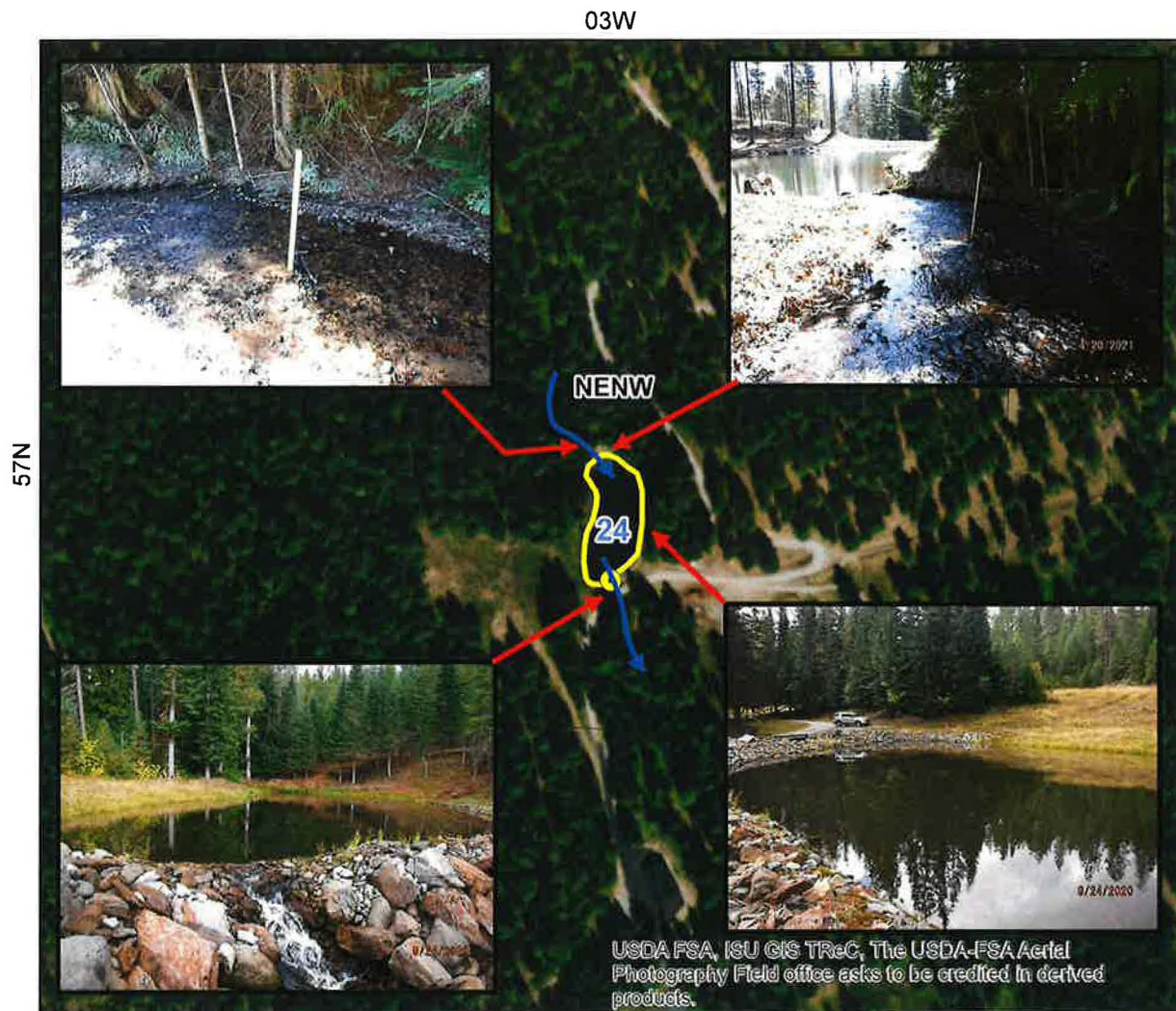
I. AUTHENTICATION Luke Bates - Water Resource Agent

Field Examiner's Name LS Bates Date 4/27/2021

Reviewer Adm Fink Date 4/27/2021

State of Idaho
Department of Water Resources
Attachment to Field Exam
96-9685

WILDLIFE STORAGE, FIRE PROTECTION STORAGE, and AESTHETIC 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	96-9685
REVIEWER	Luke Bates
DATE	2/18/2021

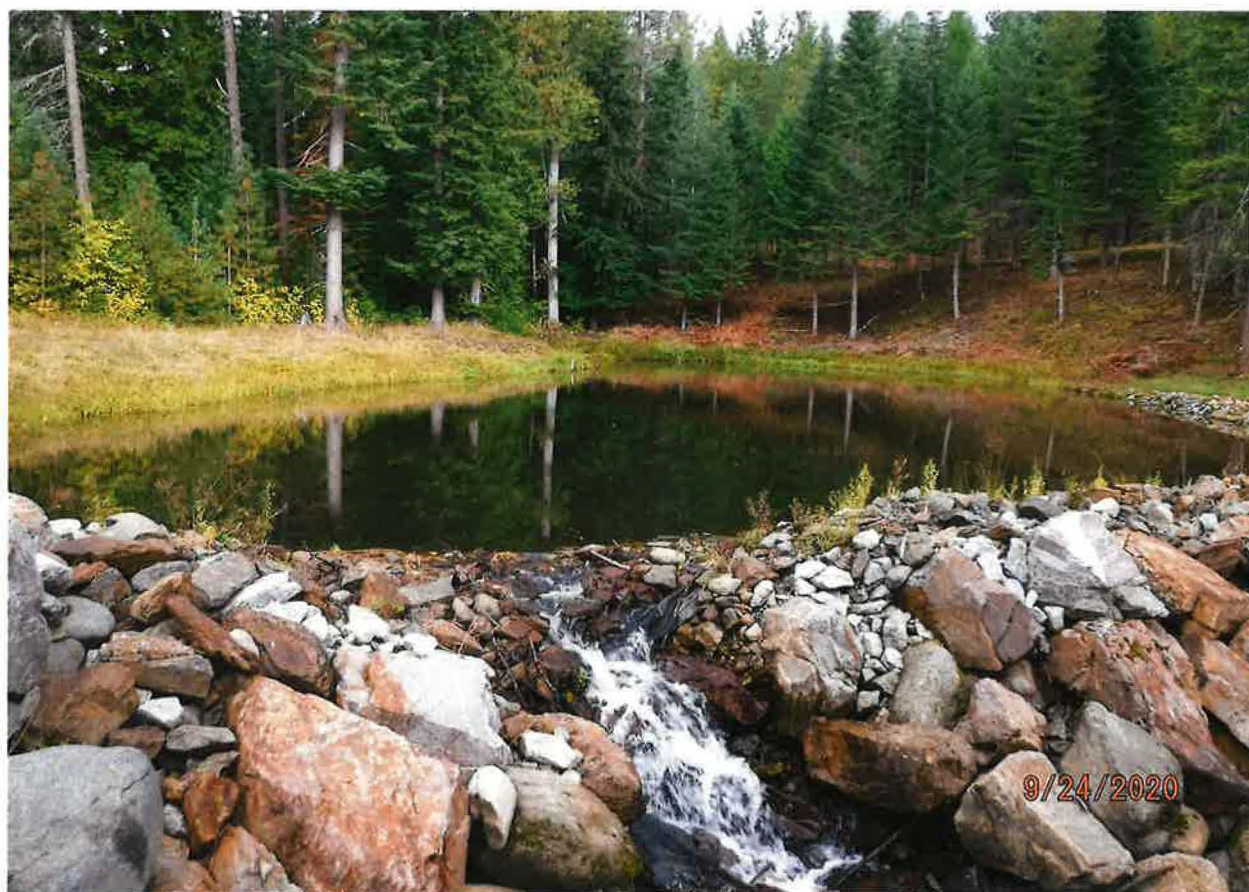
This spreadsheet has been designed by Idaho Department of Water Resources to estimate the total seepage, evaporation and fill capacity required for a pond.

User Input
Calculated value
Formula Explanations

Surface Area (AC.)	0.4	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	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)	3.2	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)	0.4	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.5	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	4.1	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.



FIELD EXAM DATE 9/24/2020



POD – EARTHEN DAM WITH ROCK DESIGNED OVERFLOW DISCHARGE CHANNEL



INFLOW TO POND FROM HORNBEY CREEK – STAFF GAGE INSTALLED





POU – WILDLIFE STORAGE, AESTHETIC STORAGE, & FIRE PROTECTION STORAGE POND





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