

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 96-15908
Exam Date: 05/14/2024

1. Current Owner:
PD HARPER TRUST 9098 SAGLE RD SAGLE ID 83860-6033
2. Accompanied by: Paul Harper
Phone No: 208-602-3481
Address: Same as above
Relationship to permit Holder: Permit Holder

3. **SOURCE:**
GROUND WATER

Tributary
SINKS

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 SE¼ NE¼, Sec. 10, Twp 56N, Rge 01W, B.M. BONNER County

Method of Determination: Beneficial use exam and GPS; in-pond groundwater filled at -116° 25.088, 48° 13.022.

PLACE OF USE: RECREATION 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	
56N	01W	10				X													

Method of Determination: Beneficial use field exam 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
In Pond GW Source – Earthen pond dam	N/a	N/A	N/A	N/A	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 – this Permit has developed and in-pond ground water source for storage related beneficial use. There is no diversion rate associated with licensing Permit 96-15908.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

2. Volume Calculations for Other Uses: reference Pond Analysis Worksheet – Each of three (3) beneficial use components have 3.0 af annual volume which is not additive toward the Maximum Diversion Volume of **3.0 af** recommended for licensing.

G. NARRATIVE/REMARKS/COMMENTS

I conducted a Beneficial Use Field Examination (Exam) on 5/14/2024 with the Right Holder's Trustee, Paul Harper, which showed ground water being impounded in a storage pond for Recreation, Aesthetic, and Fire Protection Storage(s) purposes. The application contemplated surface runoff water in addition to ground water; both sources were authorized by permit approval. During the field exam I observed grass channels which do allow seasonal surface runoff, primarily snowmelt during early spring runoff periods to add to the storage volume, but overflow pipes built into the storage pond allow any excess water to overflow and sink naturally on the property away from the pond.

The pond maintains its water level year-round which identifies the shallow groundwater table is sufficient to sustain pond depths during periods where surface runoff events are absent. I acknowledge that the storage pond benefits from surface runoff during peak runoff periods but due to overflow pipes this water is considered flood water and ancillary to the actual impoundment which occurs primarily from the shallow groundwater table in the local area. Based on this information, I've recommended removal of the surface runoff source and the license shall reflect impoundment of an in-pond ground water source.

POU – the impoundment pond, which was excavated to conform with NHL hockey rink standard dimensions, serves as the Recreation Storage (ice skating), Aesthetic, and Fire Protection Storage POU. The primary season of use is wintertime for the right holder, with emphasis on recreational use for ice skating, but summer aesthetic and fire protection storage uses have been considered for the year-round season of use for licensing purposes. The pond was excavated as an in-set pond with earthen banks and two 10-inch corrugated overflow pipes set at elevation to maintain a 4-ft pond depth. The pond banks are stepped steeply to maintain the consisted 4 ft depth necessary to gain a solid freeze for winter month uses. Overflow pipes allow excess to flow out and slightly downgrade where water sinks back to ground on the right holder's property.

- Surface area = 0.6 af. Maximum depth = 4 ft and average depth = 4 ft (I set the average depth of 4 ft on the pond analysis worksheet). The pond capacity = 2.4 af. Due to the in-pond groundwater filling there is no seepage loss factored into the pond analysis worksheet but due to the shallow depth in relation to surface area there is a 0.6 af evaporation loss rate. The total volume to fill and maintain the pond full year-round = 3.0 af.
- Annual Volume for each of three beneficial uses = 3.0 af and the Maximum Diversion Volume is the same **3.0 af** for licensing purposes.

The right holder has a GW well with corresponding Notice of Claim filed in the Clark Fork Pend Oreille Basin Adjudication for home and lawn watering, but there isn't any overlapping water right concerns toward licensing Permit 96-15908.

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Annual Volume</u>
RECREATION STORAGE	01/01 to 12/31	3.0 AF
FIRE PROTECTION STORAGE	01/01 to 12/31	3.0 AF
AESTHETIC STORAGE	01/01 to 12/31	3.0 AF

2. Recommended Amendments

 Change P.U. as reflected above Add P.U. as reflected above X None

Luke Bates – Sr Water Resource Agent

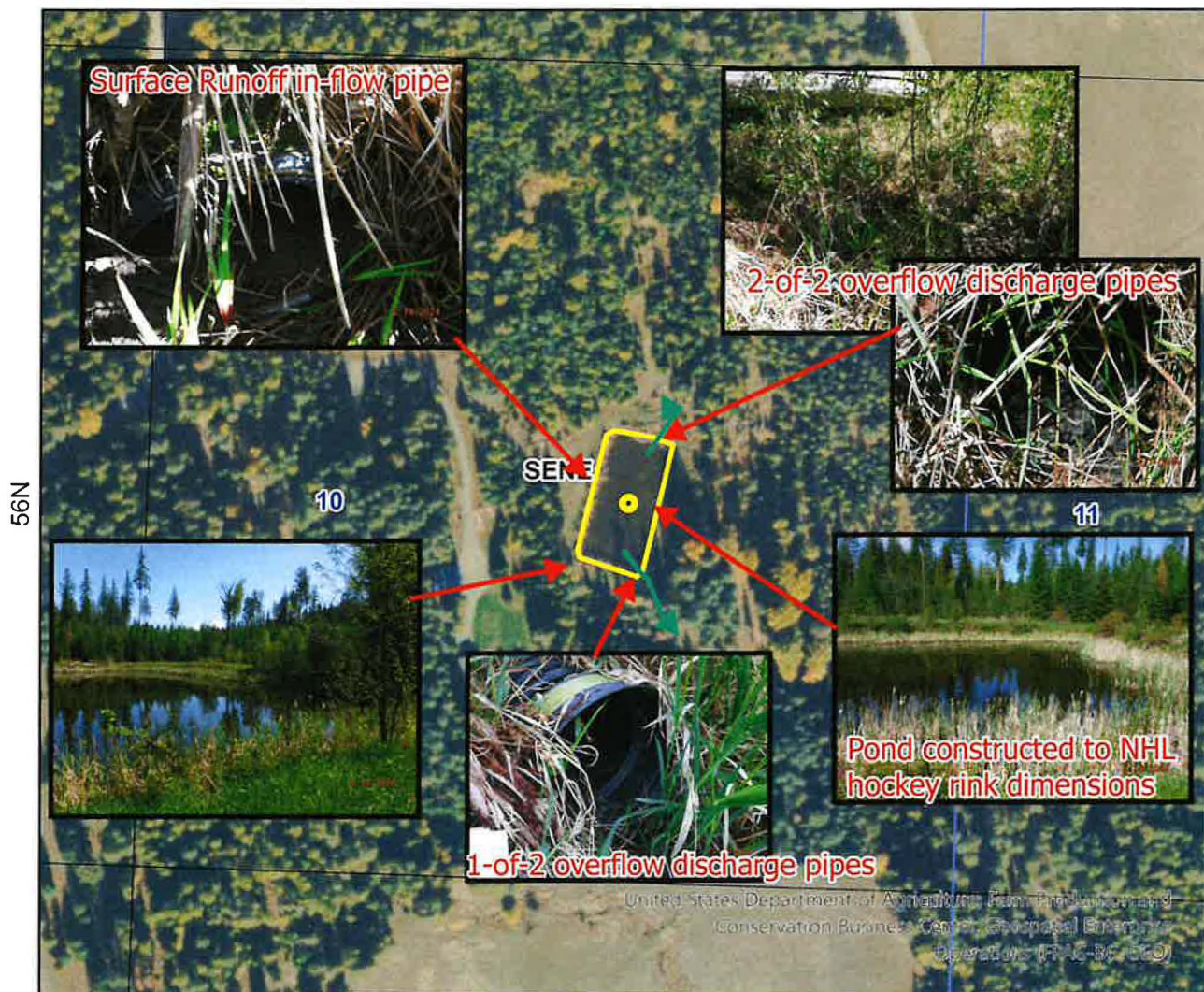
6/8/2026

6/30/2020

State of Idaho
Department of Water Resources
Attachment to Field Exam
96-15908

This map depicts the RECREATION STORAGE, FIRE PROTECTION STORAGE, and AESTHETIC STORAGE system diagram.

01W



- 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	96-15908
REVIEWER	Luke Bates
DATE	5/15/2024

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.)	0.6	"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)	2.4	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)	0.6	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	3.0	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 EXAMINATION DATE 5/14/2024



POD – IN-POND GROUNDWATER SOURCE



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





POU – MULTIPLE STORAGE USE POND; EXCAVATED IN SIZE COMPARABLE TO A REGULATION HOCKEY RING. NORMALLY USED FOR ICE SKATING IN WINTER MONTHS.



SINGLE 10 INCH BLACK CORRUGATED POLY PIPE ALLOWS SURFACE RUNOFF WATER TO ENTER POND FROM THE WESTERN BANK DURING SEASONAL RUNOFF EVENTS



ONE OF TWO OVERFLOW DISCHARGE PIPES - 10 INCH CORRUGATED POLY PIPE SET IN ELEVATION TO MAINTAIN A 4-FT POND DEPTH AT ALL TIMES OF YEAR TO MAINTAIN ICE SKATING FREEZE DEPTH IN WINTER. OVERFLOW DISCHARGE FLOWS OUT OF THE SOUTHEAST CORNER OF POND.



SECONDARY OVERFLOW DISCHARGE PIPE SET TO SAME ELEVATION AS FIRST; LOCATED AT THE NORTHEASTERN CORNER OF THE STORAGE POND.



SINGLE 10-INCH CORRUGATED POLY PIPE LOCATED ON WESTERN BANK OF STORAGE POND. ALLOWS INFLOW OF SURFACE RUNOFF DURING SEASONAL RUNOFF EVENTS TO ENTER STORAGE POND.



SURFACE RUNOFF INFLOW PIPE SET HIGH IN ELEVATION ON POND BANK, WELL ABOVE THE NORMAL 4-FT POND DEPTH MAINTAINED BY CONSTRUCTION DESIGN.