

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 36-17132
Exam Date: 07/01/2024

1. Current Owner:
DONALD & BONNIE PICA TRUST 3708 VISTA GRANDE LN TWIN FALLS ID 83301
2. Accompanied by: Don Pica gave permission to visit property
Phone No: (208) 734-5259
Address: 3708 Vista Grande Ln, Twin Falls, ID 83301
Relationship to permit Holder: Permit Holder

3. SOURCE: GROUND WATER

Method of Determination: on-site inspection

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
36-4025	Donkey Springs	Domestic & Stockwater	Decree

Comments: _____

2. Other water rights with the same point-of-diversion: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
N/A			

Comments: _____

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
GROUND WATER SW¼ NW¼, Sec. 14, Twp 07S, Rge 13E, B.M. GOODING County

Method of Determination:

PLACE OF USE: WILDLIFE STORAGE

[illegible]

PLACE OF USE: AESTHETIC STORAGE

[illegible]

Method of Determination: On-site inspection

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
PODID 933850					

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
N/A						

2. Measurements: N/A

E. FLOW CALCULATIONS: N/A

Additional Computation Sheets Attached

Measured Method:

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$$

2. Volume Calculations for Other Uses: Wildlife Storage & Aesthetic Storage:

Surface area 1.9 acre X average depth 1.2 feet = 2.28 acre feet ≈ 2.3 af

Estimated evaporative loss of 2.86 afa determined by using precipitation deficit values for wetlands (see attachment 12a):

2.86 afa x 1.9 acres = 5.4 afa

2.3 af + 5.4 afa = 7.7 af

G. NARRATIVE/REMARKS/COMMENTS

On 7/1/2024 I came to work to find that this permit had been assigned to me for licensing. I called the permit holder, Don Pica, and he gave me permission to visit the site. I went out that morning to find that the pond was almost completely overgrown with cattails and bulrush.

However, this application for permit was filed after the pond had been developed. A neighbor had filed a complaint, as the pond was diverting water from an unnamed stream that the neighbor used downstream of the impoundment. On 3/12/2018, Corey Skinner and I visited the site with Mr. Pica. It was obvious that the pond was developed in a wetland and had intercepted ground water. Mr. Pica had been asked to stop diverting water from the unnamed stream and to file an application for permit with ground water as the source for the pond. Mr. Pica's consultant, Hattie Zobot from J-U-B Engineers Inc., provided the approximate size, depth and precipitation deficit data for evaporative losses. I have included her analysis with this report (Attachment 12a) and verified the precipitation deficit values provided.

I spoke with Mr. Pica after visiting the site on 7/1/2024, and he indicated that he may dredge the pond in the near future to clean out the cattails and bulrush that have overtaken the majority of the pond site.

Recommend licensing 7.7 af for Wildlife Storage and Aesthetic Storage.

Have conditions of permit approval been met? X 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		7.7 AF
AESTHETIC STORAGE	01/01 to 12/31		7.7 AF

Totals:

7.7 AF

2. Recommended Amendments

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

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

I. AUTHENTICATION

Bill Mills - Water Resource Agent, Senior

Field Examiner's Name

Date

Reviewer

Date

7-10-2024
7/19/2024



Figure 1: The pond on 3/12/2018 after applicant has ceased diverting unnamed stream into it and was now letting it fill with only the intercepted ground water



Figure 2: Inspecting a drain at the pond (3/12/2018)



Figure 3: Best view of pond and no trespassing sign I could get on 7-1-2024



Figure 4: One of several deer I encountered at the pond site, there were also lots of blackbirds

System Diagram



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Attachment 12a

Narrative for Application for Permit to Appropriate Waters of the State of Idaho Private Water Pond

The applicants seek to develop a new water right permit for a pond developed on his property for wildlife and aesthetic use. The pond is located in Townships 7S, Range 13E, Section 14 in the SWNW QQ, near Hagerman, Idaho. The pond is fully encompassed by the applicants' property. Water seeps into the ground through an agricultural drain in the pond. The pond will be less than five acres and is filled from groundwater. The IDWR inspected the applicants' property and requested that the applicant seek a permit on the pond to determine if mitigation is required for the development. The narrative of the application below describes the conditions of the area prior to development into a private pond and the conditions that prevent the appropriation of the water used in the pond to persons beyond the property.

The pond will replace persistent, large stand, wetlands. The pond was developed by closing the agricultural drain within the pond and dredging the wetland to remove the cattails. The water level of the pond was maintained to the edge of the dredged wetland. The observed water source of the pond is therefore groundwater. The property was evaluated for water sources, drains, sinks, and ditches during the development of a fish propagation water right from Donkey Springs (36-7298). The resulting map describes the historical network used to drain wetlands on the property (Appendix A).

The existing wetlands are comprised of cattails and hydric grasses that cover an area of 1.9 acres. The wetlands were excavated to allow for a shallow pond to be constructed. The pond will be maintained yearly by dredging to prevent the cattails from reclaiming the water.

Evaporation of the pond was estimated using the precipitation deficit for wetlands and shallow water near Hagerman, Idaho (Robison and Allen 2012). The estimated annual consumptive use of the 1.9 acres wetland is 6.6 afa. The annual consumptive use of the open water, shallow pond that replaced the wetland is estimated to be 5.4 afa. The summary of consumptive use before and after the pond is shown in Table 1 below. The net consumptive use is evidently decreased as a result of converting the wetland to a shallow pond.

Table 1: Consumptive Use Estimate of New Pond

Condition	Cover	Yearly Pdef (ft)	Area Affected (acres)	Consumptive Use (afa)
Pre-Pond	Wetland, Large Stand	3.47	1.9	6.6
Pond	Shallow Water	2.86	1.9	5.4
Net Decrease in Consumptive Use				1.2

The volume to fill the wetland was estimated using the average depth of 1.2 feet and the area of 1.9 acres resulting in an estimated, initial fill volume for the pond of 2.3 afa. The estimated average evaporation loss from the pond of 5.4 afa was determined using the precipitation deficit values for large stand wetlands for the growing season (Allen and Robison 2012, Appendix B). The consumptive use of the pond including evaporation and initial fill is estimated to be 7.7 afa for the first year of construction. Maintaining a full pond will reduce the annual consumptive use by the fill volume, and result in a yearly consumptive use of 5.4 afa. The pond will increase consumptive use by the difference of $(7.7-6.6=1.1)$ afa the first year, and reduce consumptive use by $(5.4-6.6= -1.2)$ afa thereafter.

A slight increase in consumptive use is estimated above during a fill year. Mitigation for the pond is proposed so that the groundwater available during operation is equivalent to pre pond conditions. The consumptive use for the low maintenance pasture grass near Hagerman, Idaho was estimated to be 2.97 ft (Allen and Robison 2012, Appendix B). The required mitigation would therefore be $1.1 \text{ afa} / 2.97 \text{ ft} = 0.4$ acres per fill year. The applicant has three water rights with a coinciding Place of Use (POU) for 28.9 acres: 36-66A, 36-66B, and 36-10169. Because the water rights are overlapping, all three will be used to mitigate for the fill year. The applicant proposes to reduce irrigation by 0.4 acres for the fill year of operation.

The consumptive use of filling the pond will use 1.1 afa more groundwater the first year of operation. Thereafter, development of the pond is expected to decrease consumptive use by 1.2 afa. The applicant proposes to mitigate for the initial fill for one year to prevent an increase of consumptive use by converting the wetland to a pond. After the fill year, the applicant will cease mitigation, unless the pond is drained or dries up and requires refilling. Refilling is proposed to be done using the same water right described below for the purpose of mitigation. Continued operation of the pond is expected to reduce consumptive use by approximately 1.2 afa and ongoing mitigation is not indicated.

REFERENCES

Allen, Richard G. and Clarence W. Robison, 2012. Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho: Supplement updating the Time Series through December 2008, Research Technical Completion Report, Kimberly Research and Extension Center, University of Idaho, Moscow, Idaho.