

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-11813
Exam Date: 02/06/2019
& 06/15/2023

1. Current Owner:
STATE OF IDAHO DEPT OF FISH AND GAME
PO BOX 25 BOISE ID 83707-0025
2. Accompanied by: **Brett Amdor (IDFG)**
Relationship to permit Holder: Employee at Wildlife Refuge

3. **SOURCE:**

Tributary

UNNAMED DRAIN

SNAKE RIVER

Method of Determination: **ArcMap and Field Exam Observation**

B. OVERLAP REVIEW

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

Water Right No.	Source	Purpose of Use	Basis
63-4261B	Unnamed Drain	Irrigation	Decreed
63-11812	Sand Hollow Creek	Wildlife/storage	companion permit/license

Comments: Water right 63-4261B, owned by IDFG, may need POU transfer

2. Other water rights with the same point-of-diversion: **None**

C. DIVERSION AND DELIVERY SYSTEM

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

UNNAMED DRAIN SE¼ NW¼ SW¼, Sec. 25, Twp 06N, Rge 06W, B.M. CANYON County

Method of Determination: **ArcMap and Field Exam Observation**

PLACE OF USE: WILDLIFE

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
06N	06W	25										X	X						

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	
06N	06W	25										X	X						

Method of Determination: **ArcMap and Field Exam Observation**

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

X 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

X 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
944184		10			

D. FLOW CALCULATIONS

Measured Method: Flow rate of 0.55 cfs measured during IDWR Field Exam on 02-06-2019.

E. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: None

2. Volume Calculations for Other Uses:

Pond volume: 13.6 acre surface area X 1.0 ft depth = 13.6 AF

ETIdaho Precipitation Deficit (Open water-shallow systems) = 11.4 AF

Wildlife: 0.55 cfs X 1.9835 X 365 days = 398.187 AF or 398.2 AF

Total Volume = **423.2 AF**

F. NARRATIVE/REMARKS/COMMENT

On June 15, 2023 I conducted a field exam for permit 63-11813 owned by the Idaho Department of Fish and Game (IDFG). Permit 63-11813 (0.20 cfs 25.0 AF) was approved to divert surface water into a pond for Wildlife, Wildlife Storage, and Diversion to Storage uses on an IDFG wildlife management area. Brett Amdor, IDFG employee, was present and showed me the developed system.

The POD uses a 10-horsepower pump to divert surface water from an unnamed stream to fill the wildlife pond. On February 06, 2019 a Beneficial Use Field Exam was conducted by the Idaho Department of Water Resources and a flow rate of 0.55 cfs was recorded. Tyler Archibald (IDFG) manager of the wildlife management area indicated the recorded flow rate of 0.55 cfs was adequate so I did not duplicate the flow measurement. IDFG also owns 63-11812 (2.0 cfs, 1483 AF for Wildlife use and Wildlife Storage use) that covers an adjacent pond to the south and overlaps this pond. A headgate that connects both ponds allows water diverted under 63-11812 to naturally flow from the adjacent south pond to this pond. Water can continuously flow through both ponds by keeping the south pond inlet headgate, the connecting headgate, and a check structure for this pond open.

The wildlife pond was constructed, and is maintained, by the IDFG. The pond has a 13.6-acre surface area and Mr. Amdor indicated that the pond is maintained at a depth of 12 inches (1 ft). The pond is drained and refilled once a year for maintenance activities. The pond is drained through the above-mentioned check structure on the east side of the pond and water returns to the unnamed drain that flows north into the nearby Snake River.

A pond storage volume is established as follows: The pond at 1 ft. depth and 13.6 acres equals 13.6 AF of actual water volume. Evaporative loss data from the University of Idaho ET Idaho Parma Station (open water-shallow systems) indicate an annual Precipitation Deficit of 631mm (2.06 ft) per acre of pond surface area. That equates to a total of up to 28.0 AF per year of evaporative losses for a 13.6-acre pond. As mentioned in the first paragraph, permit 63-11813 was permitted for a storage volume of 25.0 AF. The actual water volume of 13.6 AF plus 11.4 AF of Precipitation Deficit equals a storage volume of 25.0 AF. Permit 63-11813 will be licensed for 25.0 AF for Wildlife Storage use.

Additional water for Wildlife use is also diverted and allowed to flow through the pond throughout the year. The additional water flow, during winter months, is used to minimize ice build-up so waterfowl have access to open water. During non-winter months, the additional water flow maintains wetland vegetation and supports wildlife habitat. A volume of 398.2 AF will be licensed for Wildlife use ($0.55 \text{ cfs} \times 365 \text{ days} = 398.2 \text{ AF}$).

Conditions on the permit have been complied with and I recommend licensing permit 63-11813 for the following:

- A diversion rate 0.55 cfs.
- 25 AF for Wildlife Storage (13.6 ac/1-ft depth = 13.6 AF plus 11.4 AF of evaporative losses).
- 398.2 AF for Wildlife.
- 423.2 AF total volume

Have conditions of permit approval been met? ☒ Yes ☐ No

G. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
WILDLIFE	1/01 to 12/31	0.55 CFS	398.2 AF
WILDLIFE STORAGE	1/01 to 12/31		25.0 AF
DIVERSION TO STORAGE	1/01 to 12/31	0.55 CFS	

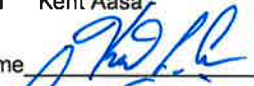
Totals: **0.55 CFS** **423.2 AF**

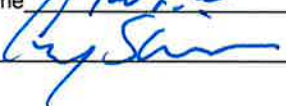
2. Recommended Amendments

☐ 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

H. AUTHENTICATION Kent Aasa

Field Examiner's Name  Date 10-17-2023

Reviewer  Date 12/28/2023



State of Idaho
Department of Water Resources

Water Right

63-11813

06W



0 0.035 0.07 0.14 Miles

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





University of Idaho

Kimberly Research
and Extension Center

Water Resources Program

ETI_{daho} 2017

Evapotranspiration and Consumptive
Irrigation Water Requirements
for Idaho

Please send suggestions for improving this
site to robison at uidaho dot edu

2023-09-29 10:08

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Parma (PN-AM -- PMAI)

Statistics based on thirty year normal spans 1990 to 2016 years

For a different land cover or crop click on the above link.

You can highlight this table and copy via the clipboard to a Microsoft Excel or OpenOffice spreadsheet to plot or otherwise work with this data.

Open water - shallow systems (ponds/streams) Precipitation Deficit (Click here for a graph)															
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Growing Season ^a	Non Growing Season ^b	Annual
Mean ⁱ	mm/day												mm		
Monthly ^c	-0.45	0.36	1.32	2.08	2.72	3.51	4.27	3.79	2.58	1.05	0.05	-0.62	631	0	631
15-Day Moving Average ^d	-0.50	0.33	1.29	2.13	2.73	3.50	4.28	3.75	2.60	1.05	0.08	-0.59			
7-Day Moving Average ^e	-0.48	0.34	1.29	2.11	2.75	3.51	4.28	3.76	2.60	1.05	0.05	-0.61			
3-Day Moving Average ^f	-0.45	0.35	1.30	2.10	2.72	3.50	4.27	3.79	2.58	1.05	0.05	-0.60			
Standard Deviation ^k	mm/day												mm		
Monthly ^c	0.70	0.48	1.09	0.61	1.68	0.83	0.78	0.67	0.51	0.87	0.43	1.00	107	0	107

63-11813

Water rights #63-11812 and #63-11813 field exam summary

Met with Aaron Skinner from IDWR on 2/6/19. Measured flows from Redhead Pond into Feedlot Pond: 12" pipe flowing from RH to Feedlot; Aaron calculated flow at 0.42 cfs.

Also measured output from HQ N pump (Parma lifter pump). Aaron calculated flow at 0.55 cfs. 

Since both water rights are for 2.0 cfs, and IDFG is underutilizing current water rights, there may need to be an adjustment of the water right to more accurately reflect the amount of water used. The new wetland enhancement project will have flow measuring devices as part of the upgrade, so Aaron agreed it would be best to do another field exam after those gauges are in place. Below is the email from Aaron Skinner (2/13/19):

Tyler,

The department is okay with holding off until next summer to re-exam the wildlife use. I will write a memo to the file and set a reminder on my calendar. Please keep me in the loop of the new measuring devices and when work is complete. Thanks for your help.

Best,

*Aaron Skinner
Idaho Department of Water Resources
Water Resource Agent, Sr.
(208) 334-2190
aaron.skinner@idwr.idaho.gov*

63-11813

63-11813 POD



63-11813 POU



63-11813 Pond Outlet Control Structure



Field Exam 63-11813