Permit No 97-7367

STATE OF IDAHO DEPARTMENT OF WATER RESOURCES BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

- 1. Current Owner: BRIAN L DOCKINS PO BOX 1577 OLDTOWN ID 83822-1577 AND CINDY L DOCKINS PO BOX 1577 OLDTOWN ID 83822-1577
- 2. Accompanied by: Brian Dockins Phone No: 208-437-2145 Address: Same as above Relationship to permit Holder: Permit Holder

3. SOURCE: UNNAMED STREAM Tributary SINKS

Method of Determination: Arcmap and DRG

B. OVERLAP REVIEW

1. Other water rights v	vith the same place of use:	YES Overlap		
Water Right No.	Source	Purpose of Use	Basis	
97-7384	UNNAMED STREAM	RECREATION STORAGE	LICENSE	

Comments: WR 97-7384 uses water from same unnamed stream, for same applicant, for recreation use; WR 07-7384 covers the storage component for a small pond that applicant has applied for stockwater and irrigation use, conforming to the 24-HR Impoundment rule.

2. Other water rights v	vith the same point-of-diversion:	<u>NO</u> Overlap		
Water Right No.	Source	Purpose of Use	Basis	

Comments:

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

UNNAMED STREAM L3 (NW1/4 SW1/4), Sec. 17, Twp 56N, Rge 05W, B.M. BONNER County

Method of Determination: Arcmap and GPS. POD located at -116º59.944, 48º11.996.

PLACE OF USE: IRRIGATION

Tun Dog		Con l	NE			NW		SW			SE			Totals					
1 wp	ing	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
56N 0	5W	17										1.4 L3	0.1 L4						1.5

Total Acres: 1.5

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PLACE OF USE: STOCKWATER

Tum	Dea	See		N	IE			N\	NW SW			SE				Totals			
Iwp	Ring	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
56N	05W	17										X 13							

Method of Determination: Arcmap and Field Exam.

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 1:24,000 or greater.

X Aerial Photo Attached (required for irrigation of 10+ acres).

X Photo of Diversion and System Attached

Well or Diversion ID No.*	Motor Make	Нр	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
PUMP FROM POND		3/4			

D. FLOW MEASUREMENTS

1.

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

2. Measurements: Unable to perform flow measurements, as pipe drawing water from small impoundment pond was to small to measure and ran directly into pressure tank.

E. FLOW CALCULATIONS

X Additional Computation Sheets Attached

Measured Method:

Field Exam conducted on 9/7/1999 identified flow calculations using the following theoretical equation: 8.8 x 0.75 hp pump x 0.7) / [6 + (2.31 x 45)] = 0.045 cfs = **0.05 cfs**.

Field exam conducted on 8/28/2018 showed a ½ HP pump. Theoretical pumping equation estimates flow at 0.05 cfs. See attached theoretical pumping equation worksheet.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

 V_{LR} = (Acres Irrigated) x (Irrigation Requirement) = 1.5 ac x 3.0 afa = 4.5 af V_{DR} = [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835 = 0.05 cfs x 214 x 1.9835 = 21.2 V = Smaller of V_{LR} and V_{DR} = 4.5 af

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2. Volume Calculations for Other Uses:

STOCKWATER = 4 horses x 12 gpd x 365 days = 17,520 gal / 325,850 gal/af = 0. 05 af = 0.1 af (Admin Memo, App Processing No. 6, Significant Figures for Numeric Values).

As this is a surface water source, no there will be no volume applied to irrigation. The annual volume applied to stockwater is associated with diversion rate from irrigation, resulting in no Maximum Diversion Volume applied to license.

G. NARRATIVE/REMARKS/COMMENTS

Field exam completed on 8/28/2018 with applicant, Brian Dockins, showed water from an unnamed stream flowing into a small impoundment pond being used for Irrigation and Stockwater use. This water right does not have a diversion to storage rate, and is strictly a water flow right. The applicant has another water right, WR 97-7384, which accounts for 0.1 af for Recreation Storage use. Applicant used a 1/2HP pump to draw water from the impoundment pond. Flow measurements were unattainable due to small size of pipe that ran directly to pressure tank. A field exam conducted by IDWR staff on 9/7/1999 identified flow calculations using the following theoretical equation: 8.8 x 0.75HP pump x 0.7) / [(6 + (2.31 x 45)] = 0.045 cfs = 0.05 cfs. During a follow on field exam conducted on 8/28/2018, showed applicant using a ½ HP pump located in a pump house. Theoretical pumping equation estimates pump height from position in pond up to pump house pump lifting feet of 8 ft a system pressure of 30 psi, and a diversion rate of 0.05 cfs. See attached theoretical pumping equation worksheet. This value is further supported by calculating irrigated acreage by the department standard diversion rate of 0.03 cfs, equaling 1.5 ac x 0.03 cfs = 0.045 cfs, which is rounded up to 0.05 cfs (Admin Memo, App Processing No. 6, Significant Figures for Numeric Values) for the irrigation component of this water right The irrigation component plus the department standard diversion rate for stockwater component of 4 horses and equals 0.05 cfs + 0.02 cfs = 0.07 cfs, but applicant is limited to the diversion rate the system pump can produce equal to 0.05 cfs, which will be carried forward to license as the Maximum Diversion Rate.

The domestic component was removed from this license, as it is covered under WR 97-7351.

Applicant applied for 1.5 acres of irrigation, and during field exam the irrigated area was sketched out. During licensing review, irrigated acreage was traced out using arcmap aerial imagery equaling 1.5 acres. The annual volume for the irrigation component equals 1.5 ac x 3.0 afa = 4.5 af, but as this is a surface water source, no volume is applied to the license.

The applicant was permitted for 15 head of stock for stockwater use, but at time of field exam applicant was using stockwater for 4 horses. The horses used a stable, nearby fields, and drank directly from the pond. The annual volume associated with stockwater equals 4 horses x 12 gpd x 365 days = 17,520 gal / 325,850 gal/af = 0. 05 af = **0.1 af** (Admin Memo, App Processing No. 6, Significant Figures for Numeric Values). The stockwater annual volume is diverted from same POD and water system as the irrigation component, which does not have an annual volume applied to license, and as such there will not be a Maximum Diversion Volume applied to license.

At time of licensing, the permitted POU for irrigation component, and the irrigation Period of Use were found to be inaccurate, see below:

POU: authorized on permit	= 56N05W17L4SWSW.
POU: verified at time of licensing	= 56N05W17L 3NWSW
POU: authorized on permit POU: verified at time of licensing	 Irrigation and Stockwater 56N05W17L4SWSW. Irrigation 56N05W17L3NWSW and 56N05W17L4SWSW Stockwater 56N05W17L3NWSW

= 04/01 to 11/01 (for Irrigation component). Season of Use: verified at time of licensing = 04/01 to 10/31 (corrected to standard use for irrigation component).

An Application for Amendment was initiated, and mailed with cover letter to applicant on 21 May 2020.

Condition 26A and 057 were removed from license. Condition X02 was changed to reflect stockwater use for 4 horses. Condition R66 was added describing irrigation of no more than .03 cfs per acre nor more than 3.0 afa per acre at POU. WR 97-7384 uses water from same unnamed stream, for same applicant, for recreation use; WR 07-7384 covers the storage component for a small pond that applicant has applied for stockwater and irrigation use, conforming to the 24-HR Impoundment rule, and is not a concern for overlap.

Have conditions of permit approval been met? X Yes No

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use	Rate of Diversion	Annual Volume
IRRIGATION	4/01 to 10/31	0.05 CFS	
STOCKWATER	1/01 to 12/31	0.02 CFS	0.1 AF

Totals:

0.05 CFS

2. Recommended Amendments

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

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

١.	AUTHENTICATION	Luke Bates - Water Resource Agent				
	Field Examiner's Name	ad Frank	Date_	6/1	12020	
	Reviewer	FOR	Date_	61	1/2020	





- PLS Sections
- Quarter Quarters

N

THEORETICAL PUMPING EQUATION FOR WR# 97-7367

Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to be at 8 ft, and running at 30 psi.

	PUMP EQUATIONS										
	WATER RIGHT No. 97-7367										
		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI					
Q =	HP*8.8*Eff/H	0.5	77.38776	0.8	8	30					
Q =	0.046	cfs	20.4	gpm							





POD - 1/2 HP PUMP FROM SMALL POND



POD FROM POND



DISCHARGE FROM POND TO UNNAMED STREAM



IRRIGATION POU – FROST FREE HYDRANT



IRRIGATION POU



IRRIGATION POU



STOCKWATER POU



STOCKWATER POU