

MEMORANDUM

Date: November 02, 2011
To: Water Right File 29-7872
From: cpalmer
Re: Licensing Memo

The affidavit, photos, and water right verification form that was compiled by the BLM is sufficient to license this right. Note that a field examination was conducted in 1995 and recommended that this right be void. However, the additional information was submitted and IDWR reinstated the permit.

This memo will serve as a summary of information that the BLM submitted in lieu of a new field examination report.

Source: Spring/runoff that rises and sinks at the place of use. The pond is aka Clifton Pond
Beneficial use: While the permit was approved for wildlife and stockwater uses, it is clear that the intentions were to cover the new pond for stockwater and wildlife storage uses. It will not cause an enlargement to license this right as it has been intended.

PD: is located at the pond/no overlap

POU: at Clifton Pond/no overlap

Pond Size: BLM estimated the surface area of pond at 0.01 acre but I drew a shape in ArcMap and calculated the ponds area as 0.02 acre so that is the figure I will use to estimate the volume for the water right.

Diversion Rate: None

Volume: The pond has the capacity of 0.05 or 0.1 acre foot. I found that based on the following calculation

$0.02 \text{ acres} \times 2.5 \text{ (depth of pond)} = 0.05 \text{ rounded up to } 0.01 \text{ af}$

Note that I didn't factor in for the pond slope because it was really minimal.

Additionally, I calculated the annual evaporation that might be accounted for on this right but came up with 0.03 af which is negligible.

Next I calculated for seepage and estimated ~~0.07~~ ^{0.7} af/year. Between the capacity of the pond and the seepage, this right can be licensed for the full permitted volume of 0.8 afa.

No amendment is necessary as this has been developed as permitted.

FILE NUMBER 29-2872
REVIEWER C Palmer
DATE 11/2/11

Seepage Evaluation for a Pond

INPUTS

NOTES/SUGGESTED VALUES

RESULTS

POND

SURFACE AREA (SQFT) ----- 871.2

SEEPAGE RATE (FT/DAY) ----- 0.10

SUGGESTED VALUES FOR DIFFERENT SOIL TYPES: CONVERT TO GPD ----- 652 GPD

0 = NATURALLY FILLED FROM GW, OR LINED

0.5 = CLAY SOILS

1.5 = LOAMS

3.0 = GRAVELS

TOTAL Seepage Loss (AFA) -----

0.7 AFA

TOTAL = FILL RATE + EVAP + SEEPAGE + FLOW THROUGH

FORMULAS

FORMULA: $SA * SEEPAGE LOSS = POND SEEPAGE (CUFT/D)$

CONVERSION: 1 CUFT = 7.48 G

NOTE: ASSUMES CONTINUOUS REPLACEMENT RATE

Surface area calculation--the pond has a surface area of 0.02 acres based on a shape surrounding the pond, this is larger than the estimate that BLM returned on their report.
 $0.02 \text{ acres} * 43560 = 871.2$

The seepage rate was selected based on the table to the right of the Seepage Rate field. The mountainous terrain where the POU is located is typically loamy and can be more penetrable than contemplated in my analysis. However, the water table must be somewhat shallow decreasing the opportunity for seepage.

ET_{Idaho} 2009: Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho

Please send suggestions for improving this site to robison@kimberly.uidaho.edu Copyright 2010, University of Idaho.

McCammon (NWS --105716)

Statistics based on thirty

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	mm/day												mm		
Monthly ^c	1.17	0.64	0.38	1.88	2.29	3.73	4.42	3.40	2.56	1.73	0.11	0.94	539	0	539
15-Day Moving Average ^d	1.37	0.62	0.46	2.06	2.36	3.94	4.56	3.32	2.35	1.78	0.30	0.88	≈ 84.3 454.7 total (not accounting precip as credit) 1.56/acre × 0.02 acre = 0.03 afa (negligible)		
7-Day Moving Average ^e	1.23	0.62	0.42	1.97	2.33	3.80	4.48	3.37	2.46	1.72	0.19	0.93			
3-Day Moving Average ^f	1.16	0.59	0.37	1.89	2.30	3.73	4.42	3.39	2.52	1.71	0.14	0.94			
Standard Deviation	mm/day												mm		
Monthly	1.35	0.94	1.37	0.99	1.96	1.13	0.95	1.34	1.08	1.10	0.95	1.93	151	0	151
15-Day Moving Average	1.53	1.09	1.26	1.36	1.82	1.29	0.86	1.21	1.59	1.09	1.20	1.45			
7-Day Moving Average	2.01	1.62	1.61	1.82	2.38	2.00	1.28	1.57	1.93	1.60	1.61	2.01			
3-Day Moving Average	2.56	2.28	2.34	2.52	3.21	2.71	1.85	2.21	2.59	2.12	2.11	2.64			
20% Exceedance	mm/day												mm		
Monthly	0.58	0.19	1.10	2.63	3.54	4.52	4.86	4.18	3.42	2.19	0.70	0.02	675	0	675
15-Day Moving Average	0.31	0.70	2.03	3.73	4.50	5.42	5.42	4.59	4.03	3.27	1.21	0.46			
7-Day Moving Average	0.71	1.21	2.64	4.25	4.94	5.95	5.87	5.06	4.41	3.74	1.91	0.78			
3-Day Moving															

IDAHO DEPARTMENT OF WATER RESOURCES
Water Right Report 29-7872

WATER RIGHT NUMBER: 29-7872

DRAFT

<u>Owner Type</u>	<u>Name and Address</u>
Current Owner	UNITED STATES OF AMERICA ACTING THROUGH USDI BUREAU OF LAND MANAGEMENT IDAHO STATE OFFICE 1387 S VINNELL WY BOISE, ID 83709-1657 (208)373-4000

Priority Date: 08/31/1989

Basis: License

Status: Active DRAFT

see comments.
kw

<u>Source</u>	<u>Tributary</u>
SPRING	SINKS

<u>Beneficial Use</u>	<u>From</u> <u>To</u>	<u>Diversion Rate</u>	<u>Annual Volume</u>
STOCKWATER	6/15 to 10/15		0.70 AF
WILDLIFE	1/01 to 12/31		0.10 AF
	<u>Total Diversion:</u>		0.80 AF

Location of Point(s) of Diversion

SPRING	SE1/4NE1/4SE1/4	Sec. 21, Twp 08S, Rge 34E, B.M.
POWER County		

Place of Use

WILDLIFE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
08S	34E	21													X				

STOCKWATER same as WILDLIFEConditions of Approval:

1. A01 THIS RIGHT IS CONDITIONED UPON COMPLETION OF THE APPROPRIATION IN ACCORDANCE WITH THE STATUTORY PROCEDURE FOR APPROPRIATION OF WATER RIGHTS. THIS RIGHT REMAINS SUBJECT TO ALL CONDITIONS SET FORTH IN THE PERMIT UPON WHICH THIS RIGHT IS BASED, AND WILL BE SUBJECT TO ALL CONDITIONS SET FORTH IN THE LICENSE ISSUED BY IDWR UPON COMPLETION OF THE STATUTORY APPROPRIATION PROCESS.
2. N11 THE QUANTITY OF WATER DECREED FOR THIS WATER RIGHT IS NOT A DETERMINATION OF HISTORICAL BENEFICIAL USE.
3. N13 THE QUANTITY OF WATER UNDER THIS RIGHT SHALL NOT EXCEED 13,000 GALLONS PER DAY.

Remarks:

IDAHO DEPARTMENT OF WATER RESOURCES

Water Right Report 29-7872

1. Explanatory BLM RECORD ID = 2903788157 50 RANGE CATTLE, DEER, ELK, MOOSE, GROUSE

Comments:

1. kwalker 3/1/2004 Partial Decree

Comment: This permit was partially decreed in the SRBA. The decree does contain condition A01 which specifies that the license process must be completed. Field exam pending so we can complete license.

Dates and Other Information:

Licensed Date:

Decreed Date: 6/22/1998

Water Supply Bank Enrollment Accepted:

Water Supply Bank Enrollment Removed:

Enlargement Use Priority Date:

Enlargement Statute Priority Date:

State or Federal: S

Owner Name Connector:

Water District Number:

Generic Max Rate Per Acre:

Generic Max Volume Per Acre:

Decree Defendant:

Decree Plaintiff:

Civil Case Number: 39576

Judicial District: FIFTH

Swan Falls Trust or Nontrust:

Swan Falls Dismissed:

DLE Act Number:

Carey Act Number:

Mitigation Plan: False

Combined Use Limits:

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE
STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA)
Case No. 39576)

PARTIAL DECREE PURSUANT TO
I.R.C.P. 54(b) FOR
Water Right 29-07872

RECEIVED

JUN 26 1998

Department of Water Resources
Adjudication Bureau

NAME AND ADDRESS: USDI BLM
IDAHO STATE OFFICE
1387 S VINNELL WAY
BOISE, ID 83709-1657

SOURCE: SPRING TRIBUTARY: SINKS

QUANTITY: 0.80 AFY

THE QUANTITY OF WATER UNDER THIS RIGHT SHALL NOT EXCEED 13,000
GALLONS PER DAY.

PRIORITY DATE: 08/31/1989

POINT OF DIVERSION: T08S R34E S21 SENESE Within Power County

PURPOSE AND PERIOD OF USE:	PURPOSE OF USE	PERIOD OF USE	QUANTITY
	Stockwater	06-15 TO 10-15	0.70 AFY
	Wildlife	01-01 TO 12-31	0.10 AFY

PLACE OF USE: Wildlife Within Power County
T08S R34E S21 NESE

Stockwater Same as Other Use
OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

THIS RIGHT IS CONDITIONED UPON COMPLETION OF THE APPROPRIATION
IN ACCORDANCE WITH THE STATUTORY PROCEDURE FOR APPROPRIATION
OF WATER RIGHTS. THIS RIGHT REMAINS SUBJECT TO ALL CONDITIONS
SET FORTH IN THE PERMIT UPON WHICH THIS RIGHT IS BASED, AND WILL
BE SUBJECT TO ALL CONDITIONS SET FORTH IN THE LICENSE ISSUED BY
IDWR UPON COMPLETION OF THE STATUTORY APPROPRIATION PROCESS.

THE QUANTITY OF WATER DECREED FOR THIS WATER RIGHT IS NOT A
DETERMINATION OF HISTORICAL BENEFICIAL USE.

RULE 54(b) CERTIFICATE

With respect to the issues determined by the above judgment or order, it is hereby CERTIFIED, in accordance
with Rule 54(b), I.R.C.P., that the court has determined that there is no just reason for delay of the entry of a
final judgment and that the court has and does hereby direct that the above judgment or order shall be a final
judgment upon which execution may issue and an appeal may be taken as provided by the Idaho Appellate Rules.



Daniel C. Hurlbutt, JR.
Presiding Judge
Snake River Basin Adjudication

Partial Decree