Permit No 98-7830

Α.

STATE OF IDAHO DEPARTMENT OF WATER RESOURCES **BENEFICIAL USE FIELD REPORT**

	GENERAL INFORMATION				Permit No: Exam Date:	98-
1.	Current Owner: DAVID RONNIGER HCR 62 BOX 332-A	MOYIE SPRINGS	ID	83845		0.57

2. Accompanied by: David Ronniger Phone No: 208-267-1477 Address: Same as above Relationship to permit Holder: Permit Holder

3. SOURCE: UNNAMED STREAM

Tributary SAND CREEK

Method of Determination: Arcmap and DRG

B. OVERLAP REVIEW

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

Water Right No.	Source	Purpose of Use	Basis
98-7497	UNNAMED STREAM	STOCKWATER	LICENSE
98-7019	CURLEY CREEK	DOMESTIC	LICENSE
98-7217	CURLEY CREEK	IRRIGATION	LICENSE
98-7903	GROUND WATER	MUNICIPAL	LICENSE

Comments: WR 98-7497 is for same applicant and is for stockwater use on the same property. WRs 98-7019 and 98-7217 are for Curley Creek Water ASSN, for domestic and irrigation uses respectively; both water rights 98-7019 and 98-7217 are from Curley creek up-stream from applicants parcel and not a concern for overlap. WR 98-7903 is also for Curley Creek Water ASSN, but from groundwater and for municipal usage not related to applicants property.

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

Comments:

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

UNNAMED STREAM NW¼ NE¼, Sec. 21, Twp 62N, Rge 03E, B.M. BOUNDARY County

Method of Determination: Arcmap DRG, and GPS. Unnamed stream runs into pond and diverts out at location -116º04.647, 48º42.872.

PLACE OF USE: IRRIGATION STORAGE, WILDLIFE STORAGE, and RECREATION STORAGE

Twp	Rng	Sec	NE NE		NW		SW			SE			Totals						
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
62N	03E	21		Х						_							1	1	

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PLACE OF USE: IRRIGATION FROM STORAGE

Two	Dog	See	NE		NW		SW			SE			Totals						
Twp	Ring	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
62N	03E	21		3.0	1.8														4.8
Т	ALA		4.0					-											

Total Acres: 4.8

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

4.

Well or Diversion ID No.*	Motor Make	Нр	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
N/A					

D. FLOW MEASUREMENTS

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

2. Measurements: N/A

E. FLOW CALCULATIONS

Measured Method: N/A

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

V_{LR} = (Acres Irrigated) x (Irrigation Requirement) = 4.8 acres x 3 af = 14.4 af

V_{D,R} = [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835 = N/A, there is no diversion rate applied.

V = Smaller of V_{LR} and $V_{D.R}$ = 14.4

2. Volume Calculations for Other Uses:

See pond analysis worksheet.

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G. NARRATIVE/REMARKS/COMMENTS

The field exam was performed on 9/23/2016 with the applicant's son, Simon Ronniger, and showed one pond that was being fed by an unnamed stream. The pond was being used for Irrigation Storage, Wildlife Storage, Recreation Storage, and Irrigation from Storage purposes. Water was diverted from the pond using a portable generator driven pump, and was used to irrigate applicant's nearby fields and garden. At field exam, no livestock use was noted, and there was no stockwater from storage element proven for beneficial use. As such, both Stockwater Storage and Stockwater from Storage components were removed from license.

Due to the maximum diversion volume of 0.9 af permitted for, the applicant is limited to water usage being carried forward to license. Two separate PODs from the unnamed stream feeding other ponds were removed, as well as the two ponds as storage components for this license, as they would cause to enlarge the 0.9 af annual volume applied for by applicant.

Due to applicant being limited to 0.9 af for the irrigation from storage component, the following pond analysis data is for reference only, and does not reflect appropriated values applied to license. The pond has a surface area of 0.4 acres, has a maximum depth of 7 feet, an average depth of 2.8 feet, a capacity of 1.1 af, and estimated seepage and evaporation of 0.8 af. The pond's total volume required equals 1.9 af. Although the pond is capable of providing more than 0.9 af, the applicant is limited by the diversion volume permitted for, and thus the Maximum diversion volume for this water right will be licensed at 0.9 af. There is no diversion rate applied to license.

During licensing review, irrigation area was documented on a map, and at time of licensing review arcmap was used to trace out irrigated acreage equaling 4.8 acres. Applicant drew water from the pond using a portable generator to irrigate his acreage. Although 4.8 acres x 3 afa = 14.4 af that would be the department standard authorized for annual volume, the applicant is restricted to an annual volume of 0.9 af for irrigation from storage component, which was authorized at time of permitting. Applicant stated during a phone call on 5/18/2020, that they use a lot of their irrigated acreage for cover crop, and do not irrigate each field yearly. Additionally the applicant stated they currently use a drip line irrigation, which is more efficient and uses less water than their previous irrigation system.

Conditions 26A and X02 were removed at time of licensing. Condition 220 was added to describe pond surface area and capacity limitations. Condition 259 was added to describe annual storage and irrigation from storage components for license. Condition R58 was added, limiting the applicant to 3af per acre for irrigation use. The applicant has an overlapping water license, WR 98-7497, for stockwater usage out of the unnamed stream, but is not a concern for overlap. Curley Creek Water ASSN has multiple overlapping water licenses, WRs 98-7019/98-7217/98-7903, from which water is used from Curley Creek and ground water for domestic, irrigation, and municipal purposes respectively. None of Curley Creek Water ASSN water rights are associated with the applicant's property, and are not a cause of concern for overlap.

Have conditions of permit approval been met? X Yes No

1. Recommended Amounts

Beneficial Use	Period of Use	Annual Volume	
IRRIGATION STORAGE	04/01 to 10/31	0.9 AF	
IRRIGATION FROM STORAGE	04/01 to 10/31	0.9 AF	
WILDLIFE STORAGE	01/01 to 12/31	0.9 AF	
RECREATION STORAGE	01/01 to 12/31	0.9 AF	

Totals:

0.9 AF

2. Recommended Amendments

Change P.D. as reflected above	Add P.D. as reflected above	<u> </u>	None
Change P.U. as reflected above	Add P.U. as reflected above	_X_	None

I.	AUTHENTICATION Luke E	Bates - Water Resource Agent	
	Field Examiner's Name_ ad- 1	Finded Date_	5/19/2020
	Reviewer	> Date	5/18/2020





Total Storage Calculations

FILE NUMBER	98-7830
REVIEWER	Luke Bates
DATE	5/8/2020

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.)	0.04	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	2.8	"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)	1,1	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.
		The MAGulaine Fill Malume Alexy to Male Fill in the new fact of under convinced to much of the statement
Multiple Fill Volume Above Initial Fill to Fulfill From Storage Needs- "Multiple Fills" (AF)	0	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)	0.4	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.4	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	1.9	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.



POD POND



IRRIGATION STORAGE, WILDLIFE STORAGE, AND RECREATION STORAGE POU





IRRIGATION STORAGE, WILDLIFE STORAGE, AND RECREATION STORAGE POU



IRRIGATION FROM STORAGE POU



IRRIGATION FROM STORAGE POU





IRRIGATION FROM STORAGE POU

