

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-12628
Exam Date: 07/23/2020

1. Current Owner:
STEVEN M LISS 14121 S HWY 97 HARRISON ID 83833 AND/OR
KIM M LISS 14121 S HWY 97 HARRISON ID 83833
2. Accompanied by: Steven Liss
Phone No: 208-691-1446
Address: Same as above
Relationship to permit Holder: Permit Holder

3. **SOURCE:**
SPRING

Tributary
SINKS

Method of Determination: Arcmap and DRG.

B. OVERLAP REVIEW

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

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

SPRING NE¼ NE¼ NW¼, Sec. 10, Twp 49N, Rge 03W, B.M. KOOTENAI County
SPRING SE¼ NE¼ NW¼, Sec. 10, Twp 49N, Rge 03W, B.M. KOOTENAI County

Method of Determination: GPS. POD is a pond earthen dam located at -116°42.728, 47°36.641, and POD is a spring box with buried pipeline located at -116°42.795, 47°36.681.

PLACE OF USE: RECREATION STORAGE and FISH HABITAT 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	
49N	03W	10					X												

Method of Determination: Field Exam and Arcmap aerial imagery.

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

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
N/A					

D. FLOW MEASUREMENTS

1.

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

2. Measurements: the spring flow into the pond from the 4 inch PVC pipe is minimal, producing less than 5 gpm. No flow measurement was captured as the trickle of water was nearly at the pond water level, with no way to capture flow. I am recommending 0.01 cfs for licensing Diversion to Storage, as the spring does divert water to the pond, it is just a very low producing spring.

E. FLOW CALCULATIONS

Measured Method: Spring flow into pond was observed to be negligible, recommending **0.01 cfs**, the Department's minimal diversion rate.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

2. Volume Calculations for Other Uses: See attached pond analysis worksheet.

G. NARRATIVE/REMARKS/COMMENTS

This water right was split into 4 separate rights, including 95-18104, 95-18105, & 95-18106 due to no interconnection between the spring source(s) associated with each storage pond. Following the field exam, 6ea spring source PODs and 1 ea unnamed stream POD(s) were removed from the permit during licensing review; none of the 7ea removed PODs had been developed by the applicant. During licensing review, the Irrigation and Recreation direct flow beneficial use(s) were removed from the permit, as the applicant had not developed these uses.

Field exam performed on 7/23/2020 with the applicant, Steven Liss, showed a small pond that had been excavated to capture spring water daylighting at the edge of the pond. A second POD from a spring source located uphill from the pond has been developed and incorporates a vertical perforated PVC pipe with spring box, connected to a PVC drain pipe that routes downhill to the pond's edge. A flow rate was unable to be taken during the initial exam, and a follow-up visit was conducted the following year (3/4/2021) to obtain a flow measurement. During that time, following a week of rain, the spring flow into the pond from the 4 inch PVC pipe was minimal, producing less than 5 gpm. No flow measurement was captured as the trickle of water was nearly at the pond water level, with no way to capture flow. I am recommending 0.01 cfs for licensing Diversion to Storage, as the spring does divert water to the pond, it is just a very low producing spring. Mr. Liss stated the spring generally flows better after rainfall events, indicating the spring is shallow and dependent on seasonal recharge to supply water.

The Recreation storage and Fish Habitat Storage POU was identified as a small pond Mr. Liss excavated on his property. The pond was sketched out on field maps during the exam, and Arcmap aerial imagery was used to accurately trace out the pond's surface area equal to 0.2 acres during licensing review. The pond has a 3 foot earthen dam, and a discharge pipe allows overflow to route downhill from the pond. The pond has a maximum capacity of 0.5 af, a maximum depth of 6 feet,

an average depth of 2.4 feet, and estimated seepage and evaporation loss of 0.4 af. The total volume required for the pond equals **0.9 af**, which is recommended as the maximum diversion volume for licensing purposes. Mr. Liss stated this is the only pond that he has developed for fish habitat, and that fish do reside in the pond.

An amendment of permit has been initiated for permit 95-12628 at time of licensing to account for the development two small ponds in quarter-quarter(s) not permit approved for Recreation Storage use. The amendment was mailed to the applicant for Change in POU on 6/3/2021. Both small ponds associated with the amendment have been split from this right, and are accounted for under rights 95-18104 & 95-18105.

Conditions 029, 082, 123, 26A, and R62 were removed from the permit during licensing review. Condition 219 was edited to reflect the pond volume data for the pond linked to this split right. Condition 220 was added describing the pond's size and volume capacity. All other conditions on the permit will be carried forward to licensing. There are no overlap concerns with this water right.

Have conditions of permit approval been met? ☒ 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>
RECREATION STORAGE	01/01 to 12/31		0.9 AF
DIVERSION TO STORAGE	01/01 to 12/31	0.01 CFS	
FISH HABITAT STORAGE	01/01 to 12/31		0.9 AF
<u>Totals:</u>		0.01 CFS	0.9 AF

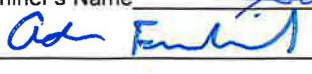
2. Recommended Amendments

☐ 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

I. AUTHENTICATION Luke Bates - Water Resource Agent

Field Examiner's Name  Date 6/3/2021

Reviewer  Date 6/11/2021

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-12628

RECREATION STORAGE and FISH HABITAT STORAGE system diagram.



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

0 0.035 0.07 0.14 Miles



Total Storage Calculations

FILE NUMBER	95-12628
REVIEWER	Luke Bates
DATE	3/3/2021

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

POND 2

Surface Area (AC.)	0.2	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	2.4	"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)	0.5	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.
Multiple Fill Volume Above Initial Fill to Fulfill From Storage Needs- "Multiple Fills" (AF)	0	The "Multiple Fill Volume Above Initial Fill" is the acre-feet of water required to meet a <i>from storage</i> 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)	0.2	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.2	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	0.9	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 – SPRING WITH BURIED SPRING BOX (PIPE ROUTES TO POND No.2)

45-12628

FOR OFFICE USE ONLY	
Am't. of Fee \$	50 ⁻
Receipt No.	C108879
Received By	Ku
Date Received	6-11-2020

that development of a water right
bed below. This form must be
d Report prepared by a certified
of the permit has changed, contact
permit form. If you wish to relinquish
for an extension, please notify the

5/9/1446

7/23/2020

FIELD EXAM DATE 7/23/2020



POD – FOLLOW UP EXAM IN SPRING TO CAPTURE FLOW MEASUREMENT FROM SPRING



PVC PIPE FROM SPRING BOX ENTERING POND 2 – MINIMAL FLOW < 0.01 CFS OBSERVED

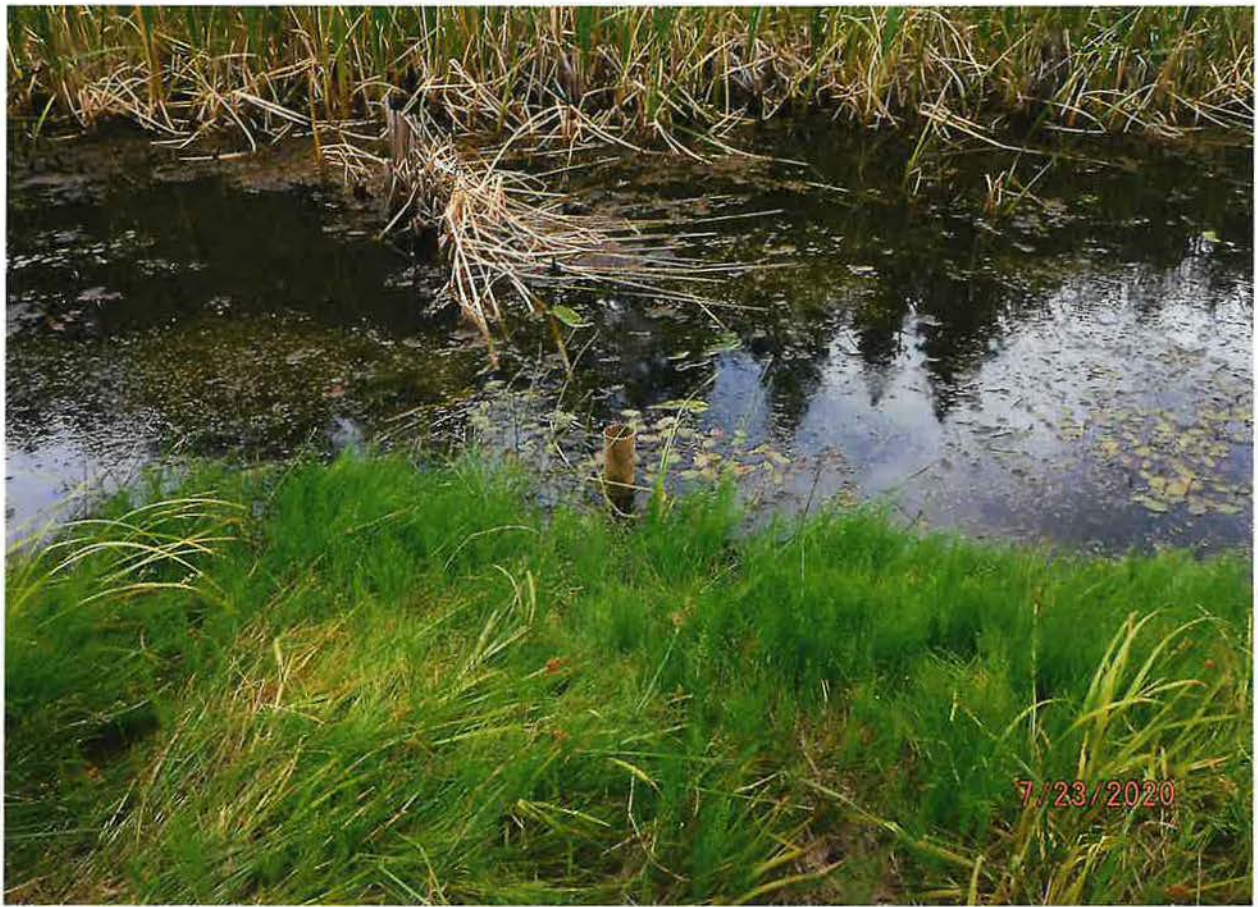


POD – SPRING SOURCE WITHIN EXCAVATED POND HIGH WATER LEVEL

AND

POU – FISH HABITAT STORAGE & RECREATION STORAGE POND 2





OVERFLOW PIPE POND 2