

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-16979
Exam Date: 06/15/2020

1. Current Owner:
JOHN AND SJOUKJE BUNGEN FAMILY TRUST 23148 N RIMROCK RD HAYDEN ID 83835
2. Accompanied by: John Bungen
Phone No: 208-762-7272
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 with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
95-4613	SPRINGS	DOMESTIC	STATUTORY CLAIM

Comments: WR-95-4613 uses water from a spring for domestic uses, but on the eastern 20 acres of the 40 acre tract the applicant's property is on, but not associated with the applicant's parcel or water right. There is not a concern for overlap.

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

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

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

UNNAMED STREAM L1 (NW¼ NW¼), Sec. 9, Twp 52N, Rge 03W, B.M. KOOTENAI County
UNNAMED STREAM L1 (NW¼ NW¼), Sec. 9, Twp 52N, Rge 03W, B.M. KOOTENAI County

Method of Determination: GPS. PODs are pond dams located at -116°43.265, 47°52.479, and -116°43.107, 47°52.376.

PLACE OF USE: WILDLIFE STORAGE, RECREATION STORAGE, AND FIRE PROTECTION 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	
52N	03W	9						X											
								L1											

Method of Determination: Field exam and Arcmap aerial imagery.

- 3.
- ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. 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.
- ☒ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☒ 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: N/A

E. FLOW CALCULATIONS

Measured Method: N/A

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$$

2. Volume Calculations for Other Uses:

SEE POND ANALYSIS SHEETS (2EA)

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 6/12/2020 with John Bungen, the permit holder, showed two ponds that were being fed by an unnamed stream and seasonal runn-off.

The original application listed two separate unnamed stream PODs, a ground water POD, and a spring POD as water sources. The groundwater and spring sources were removed from license as there was no evidence of groundwater feeding the pond, and the applicant did not utilize the spring as a POD.

Pond 1 has a surface area of 0.1 acres with a maximum depth of 8 feet, average depth of 3.2 feet, pond capacity of 0.3 af, an estimated evaporation of 0.2 af, and total volume required of 0.5 af. Pond 2 has a surface area of 0.2 acres with a maximum depth of 6 feet, average depth of 2.4 feet, pond capacity of 0.5 af, an estimated evaporation of 0.2 af, and total

volume required of 0.7 af. Both ponds have islands which were traced out for subtraction from overall acre size of each pond, but surface area was minimal and didn't conflict with the rounding requirements for pond analysis sheet. Both ponds were excavated for use by applicant to route water and reduce erosional processes on his parcel. Pond analysis tool was used to determine the annual volume for both ponds. The area around each pond was very saturated, and seepage was not considered as a factor for the pond analysis sheets.

The volume is less than what was applied for because the pond analysis tool is more accurate than previous methods of determination, and several beneficial use components were removed from permit during licensing review as follows: Irrigation storage and irrigation from storage was removed, applicant stated he does not irrigate with water from ponds; stockwater storage was removed, applicant stated he did not have stock on property to use water; diversion to storage was removed, applicant stated he did not utilize water from spring source, only directed overland flow into unnamed stream to flow into two ponds. The overall license will be issued with an annual volume of **1.2 af** for Wildlife storage, Recreation storage, and Fire Protection storage.

Condition 082 and 26A were removed from license. A text condition for stockwater use was removed from license. Condition 219 and 220 were updated to reflect pond analysis values for 2ea ponds. WR-95-4613 uses water from a spring for domestic uses, but on the eastern 20 acres of the 40 acre tract the applicant's property is on, but not associated with the applicant's parcel or water right. There is not a concern for overlap.

Have conditions of permit approval been met? X Yes No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Annual Volume</u>
WILDLIFE STORAGE	01/01 to 12/31	1.2 AF
RECREATION STORAGE	01/01 to 12/31	1.2 AF
FIRE PROTECTION STORAGE	01/01 to 12/31	1.2 AF

Totals: 1.2 AF

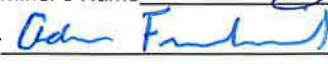
2. Recommended Amendments

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

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

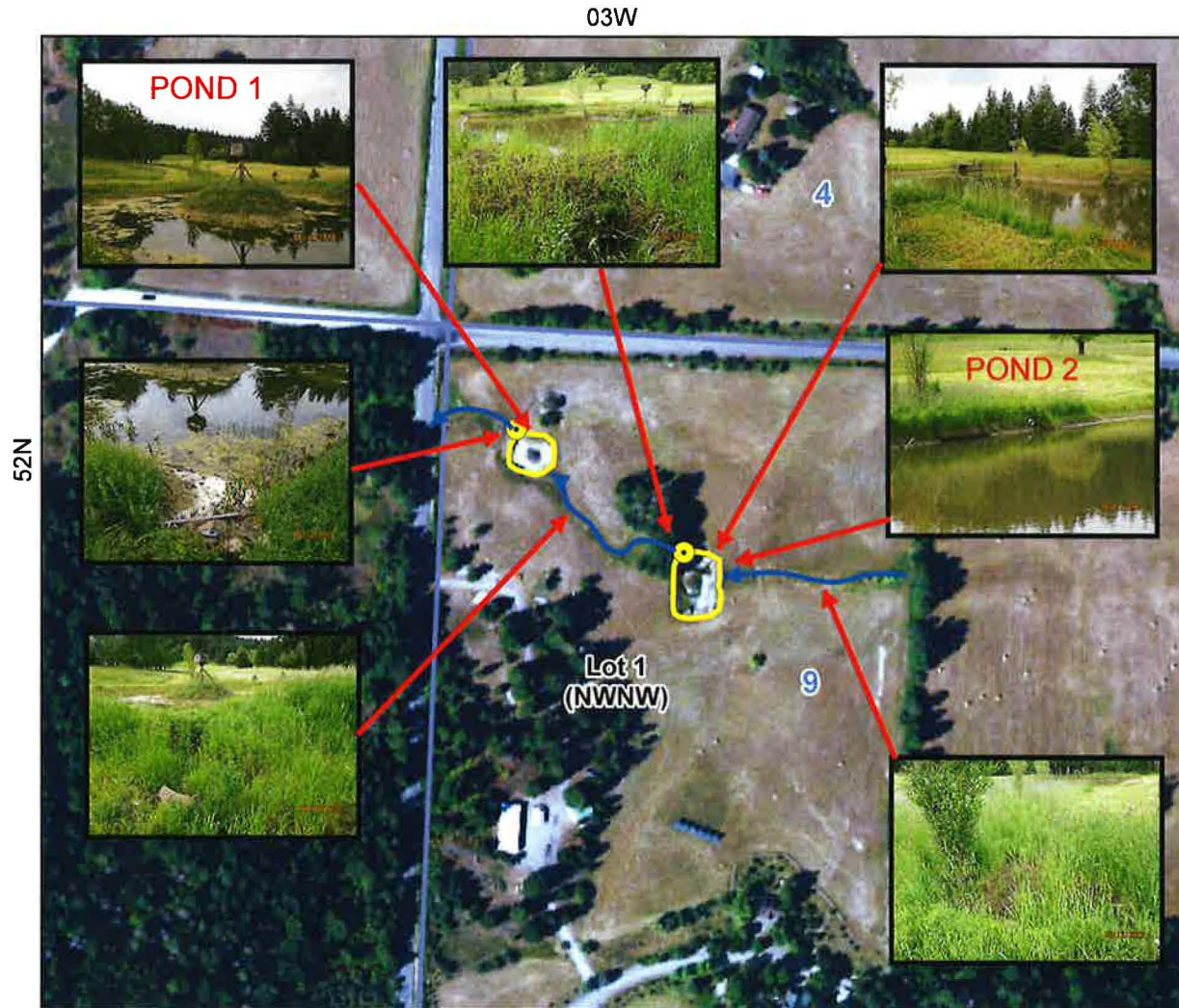
I. AUTHENTICATION Luke Bates - Water Resource Agent

Field Examiner's Name  Date 6/16/2020

Reviewer  Date 6/18/2020

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-16979

WILDLIFE STORAGE, RECREATION STORAGE, and FIRE PROTECTION 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	95-16979
REVIEWER	Luke Bates
DATE	6/16/2020

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

POND 1		
Surface Area (AC.)	0.1	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	3.2	"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)	0.3	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)	0.0	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)	0.5	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.

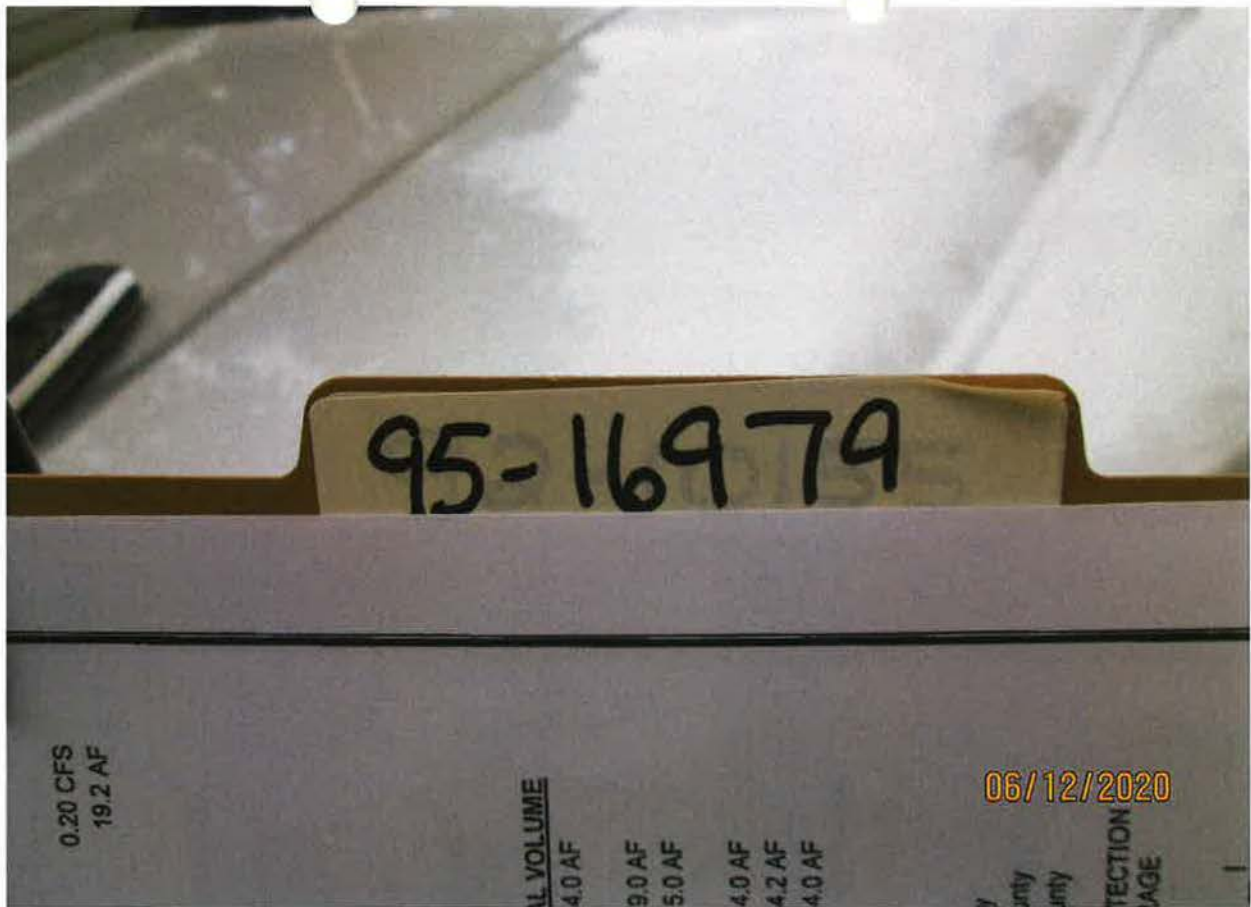
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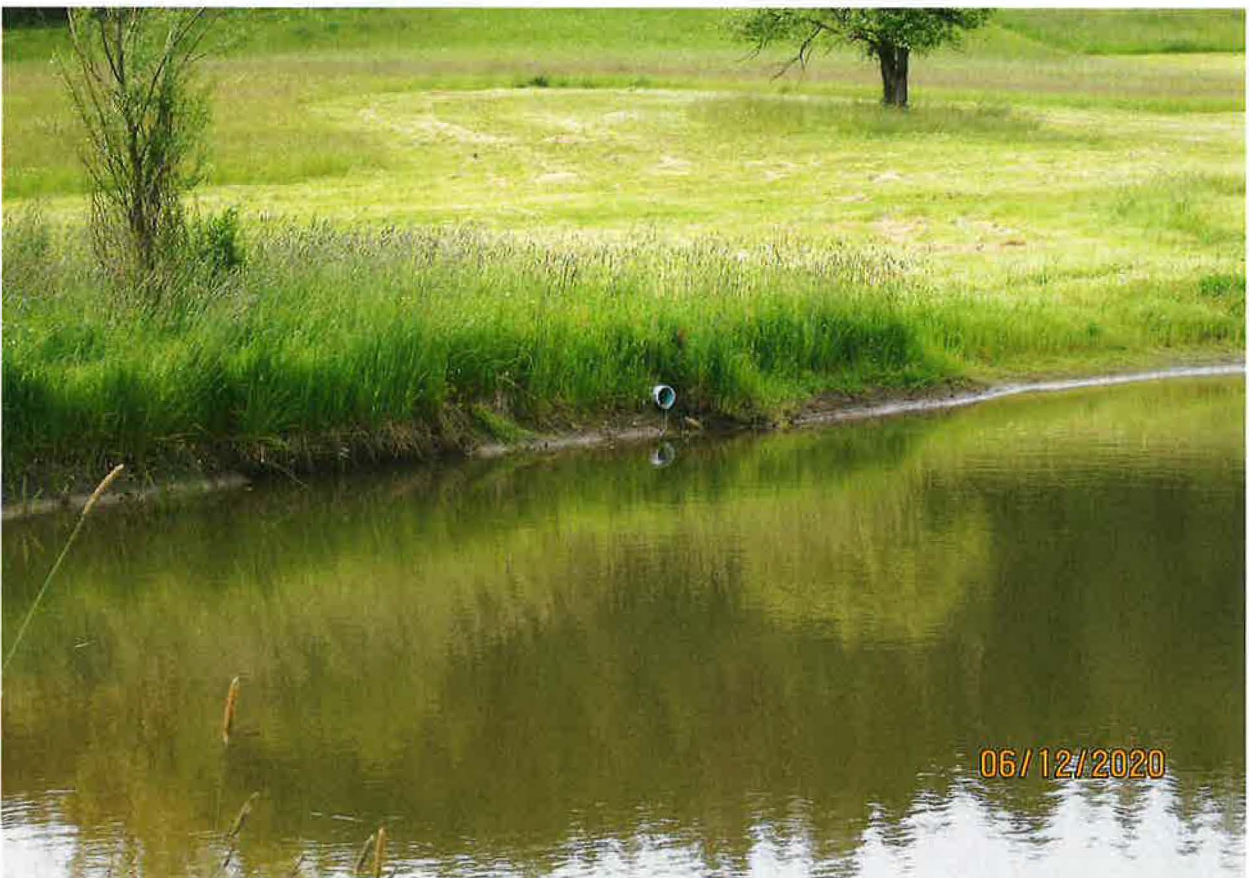
POND 2		
Surface Area (AC.)	0.2	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	2.4	"Average Pond Depth" depicts the actual depth of the pond either measured or estimated. Note: If you know the maximum depth and not the average depth, the Field Examiner's 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 <u>"From Storage"</u> component exceeding the initial fill on the permit to include a volume in this space.
Estimated Seepage Loss (AF)	0.0	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)	0.7	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.



UNNAMED STREAM LOOKING TOWARD POND 2



POD – POND 2 DAM



INLET PIPE FROM UNNAMED STREAM TO POND 2



RECREATION, WILDLIFE, FIRE PROTECTION STORAGE POU – POND 2





POD – POND 1 DAM



UNNAMED STREAM PATH BETWEEN PONDS



RECREATION, WILDLIFE, FIRE PROTECTION STORAGE POU – POND 1

