

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 98-7973

Exam Date: 08/27/2020

1. Current Owner:

JAMES R HUNTLEY 1146 CHRISTMAS LN NAPLES ID 83847-6009 AND/OR
CAROLINE HUNTLEY 1146 CHRISTMAS LN NAPLES ID 83847-6009

2. Accompanied by: James Huntley

Phone No: 208-946-7547

Address: Same as above

Relationship to permit Holder: Permit holder

3. **SOURCE:**

UNNAMED STREAM

Tributary

DEEP CREEK

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
98-7921	UNNAMED STREAM	Irrigation, Fire Protection, Stockwater	PERMIT, in development period

Comments: right 98-7921 is permitted to the same applicant as this right, and uses water from an unnamed stream down channel from the pond associated with this right; beneficial uses include irrigation, fire protection, and stockwater – all direct flow components that overlap this rights POU. Condition X35 was removed from this right (98-7973), as permit 98-7921 is still in a development period causing uncertainty in the extent of each beneficial use with regard to potential overlap for his right's POU. As such, permit 98-7921 is not viewed as a cause for concern at time of licensing for this right, and overlap will be accounted for at such time as 98-7921 is licensed.

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 SW¼ SW¼, Sec. 33, Twp 60N, Rge 01W, B.M. BOUNDARY County

Method of Determination: GPS. POD is pond dam with headgate located at -116°28.964, 48°30.267.

PLACE OF USE: IRRIGATION STORAGE, STOCKWATER STORAGE, 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	
60N	01W	33											X						

PLACE OF USE: IRRIGATION FROM 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	
60N	01W	33											0.2						0.2

Total Acres: 0.2

PLACE OF USE: STOCKWATER FROM 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	
60N	01W	33											X						

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
NONE					

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	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:**

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.2 \text{ acres} \times 3.0 \text{ afa} = 0.6 \text{ af}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = \text{N/A, there is no diversion rate applied to this license.}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 0.6 \text{ af} - \text{irrigation storage \& irrigation from storage beneficial uses.}$$

2. Volume Calculations for Other Uses:

See attached pond analysis sheet

Stockwater storage and stockwater from storage volume(s) = (20 goats x 2 gpd x 365 days) + (10 chickens x 1 gpd x 365 days) = 14,600 gallons (goats) + 3,650 gallons (chickens) = 18,250 gal / 325,850 gal per af = 0.056 af = **0.1 af** considering department rounding standards.

$$\text{Wildlife storage, recreation storage, \& fire protection storage volume(s)} = 1.3 \text{ af (pond capacity)} + 0.6 \text{ af (evap loss)} = \mathbf{1.9 \text{ af}}$$

$$\text{Maximum diversion volume} = 0.6 \text{ af (irrigation from storage)} + 0.1 \text{ af (stockwater from storage)} + 1.9 \text{ af (multiple pond storage)} = \mathbf{2.6 \text{ af}}$$

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 8/27/2020 with the applicant, James Huntley, showed a pond being used for multiple storage components, as well as irrigation & stockwater from storage use(s). There is no diversion rate applied to this water right. The applicant's pond had a constructed dam that had been washed out from this year's spring runoff season. Mr. Huntley and his wife had been living outside of McCall ID the entire year leading up to the field exam, and had just returned the week prior to resume full time residence on the property. As a result, the current findings as of the field exam date are not 100% reflective of water usage from within the permit's development period 11/21/2016 – 5/3/2020.

During the field exam, the water used for irrigation from storage and stockwater from storage use(s) is withdrawn from the pond using an electric water transfer pump-to-hose, which was then used to irrigate by bucket and above ground sprinklers in addition to filling stock tanks by buckets and hoses. The irrigation area was walked during the field exam, and consists of a narrow road/pathway that the applicant irrigates to keep green, a small lawn area that was overgrown at time of field exam due to the applicant's absence for this year's irrigation season, and a small fenced garden area. Existing development of the garden area and lawn area support that irrigation had occurred during the development period. The irrigated area was sketched out on field maps, and during licensing review Arcmap aerial imagery was used to trace out the irrigation from storage POU, which equals 0.2 acres. The diversion volume applied to license for the irrigation storage and irrigation from storage beneficial use(s) equals 0.2 acres x 3.0 afa = **0.6 af**.

The applicant had stock enclosures that housed 20 goats and 10 chickens. The applicant used the goats to eat down the forest area throughout the year and for dairy products. The stockwater from storage POU was identified based on the areas within the applicant's parcel Mr. Huntley identified he rotated the goats through during the year. The diversion volume applied to license for the stockwater storage and stockwater from storage beneficial use(s) equals (20 goats x 2 gpd x 365 days) + (10 chickens x 1 gpd x 365 days) = 14,600 gallons (goats) + 3,650 gallons (chickens) = 18,250 gal / 325,850 gal per af = 0.056 af = **0.1 af** considering department rounding standards.

The pond had a surface area of 0.4 acres, a maximum depth of 15 feet, average depth of 6 feet, a pond capacity of 1.3 af, and an estimated evaporation loss of 0.6 feet. The pond has a combined multiple fill volume for irrigation and stockwater storage use(s) equal to 0.7 af. The total volume required on an annual basis equals **2.6 af**, which will be applied as the

maximum diversion volume applied to license. The diversion volume(s) applied to wildlife storage, recreation storage, and fire protection storage beneficial use(s) equals 1.3 af (pond capacity) + 0.6 af (evaporation loss) = **1.9 af**. The storage pond is the established POU for the multiple storage components for licensing purposes. The area around the pond was very wet for mid-August, indicating a lack of seepage infiltrating the ground; as such, no seepage loss was applied when developing the pond analysis worksheet.

The permit was approved for a maximum diversion volume of 16.1 af, which is significantly larger than the 2.6 af recommended for licensing. Factors that influence the difference include: 1) applicant's development plan identified 0.9 acres of pond surface area, whereas the actual developed surface area equals 0.4 acres; 2) applicant was permit approved for 3.0 acres of irrigation, but at time of field exam minimal irrigation area had been developed by the applicant as identified above. These factors directly relate to the reduction in volume between permit approval and licensing review following the field exam performed in August.

Conditions 029, 082, 26A, and a "text" stockwater condition were removed from the permit during licensing review. Condition 219 was replaced with 259 to account for multiple fill requirements related to pond volume metrics. Condition 220 was updated to reflect pond components found during field exam, and using Arcmap aerial imagery during licensing review. Condition R58 was replaced with X31 to describe less than 1 acre of irrigation at the field headgate. Condition X35 was removed, as there is inadequate information to make conclusive recommendations with regard to overlap between 98-7921 and 98-7973 (see below). All other conditions on permit will remain on the license.

Right 98-7921 is permitted to the same applicant as this right, and uses water from an unnamed stream down channel from the pond associated with this right; beneficial uses include irrigation, fire protection, and stockwater – all direct flow components that overlap this rights POU. Condition X35 was removed from this right (98-7973), as permit 98-7921 is still in a development period causing uncertainty in the extent of each beneficial use with regard to potential overlap for his right's POU. As such, permit 98-7921 is not viewed as a cause for concern at time of licensing for this right, and overlap will be accounted for at such time as 98-7921 is licensed. There are no other overlap concerns for this water right.

Have conditions of permit approval been met? X Yes No

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use	Annual Volume
IRRIGATION STORAGE	01/01 to 12/31	0.6 AF
IRRIGATION FROM STORAGE	04/01 to 10/31	0.6 AF
STOCKWATER STORAGE	01/01 to 12/31	0.1 AF
STOCKWATER FROM STORAGE	01/01 to 12/31	0.1 AF
WILDLIFE STORAGE	01/01 to 12/31	1.9 AF
RECREATION STORAGE	01/01 to 12/31	1.9 AF
FIRE PROTECTION STORAGE	01/01 to 12/31	1.9 AF

Totals: 2.6 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

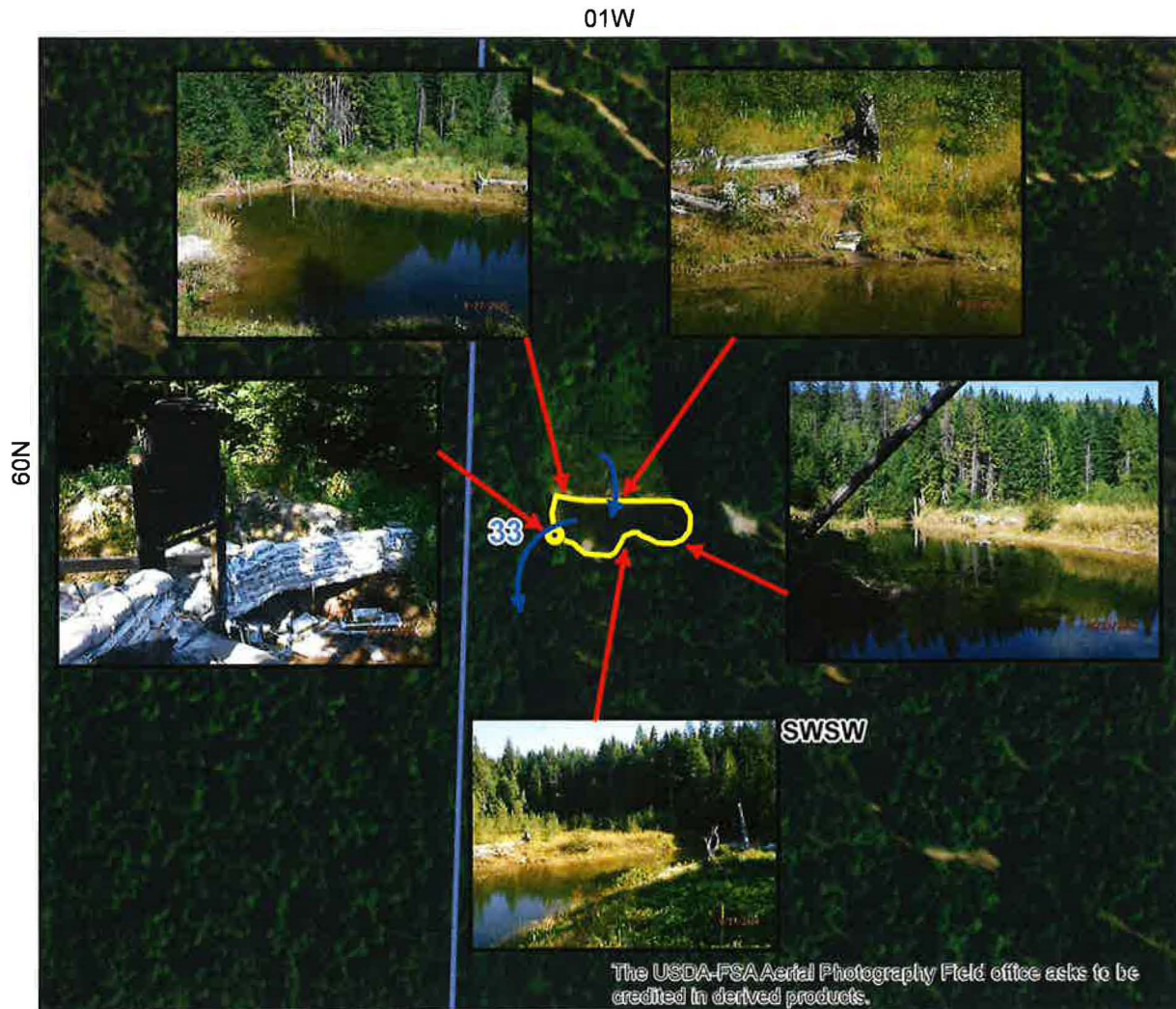
I. AUTHENTICATION Luke Bates - Water Resource Agent

Field Examiner's Name  Date 11/4/2020

Reviewer  Date 11/27/2020

State of Idaho
Department of Water Resources
Attachment to Field Exam
98-7973

IRRIGATION STORAGE, STOCKWATER STORAGE, WILDLIFE STORAGE,
RECREATION STORAGE, and FIRE PROTECTION STORAGE system diagram.



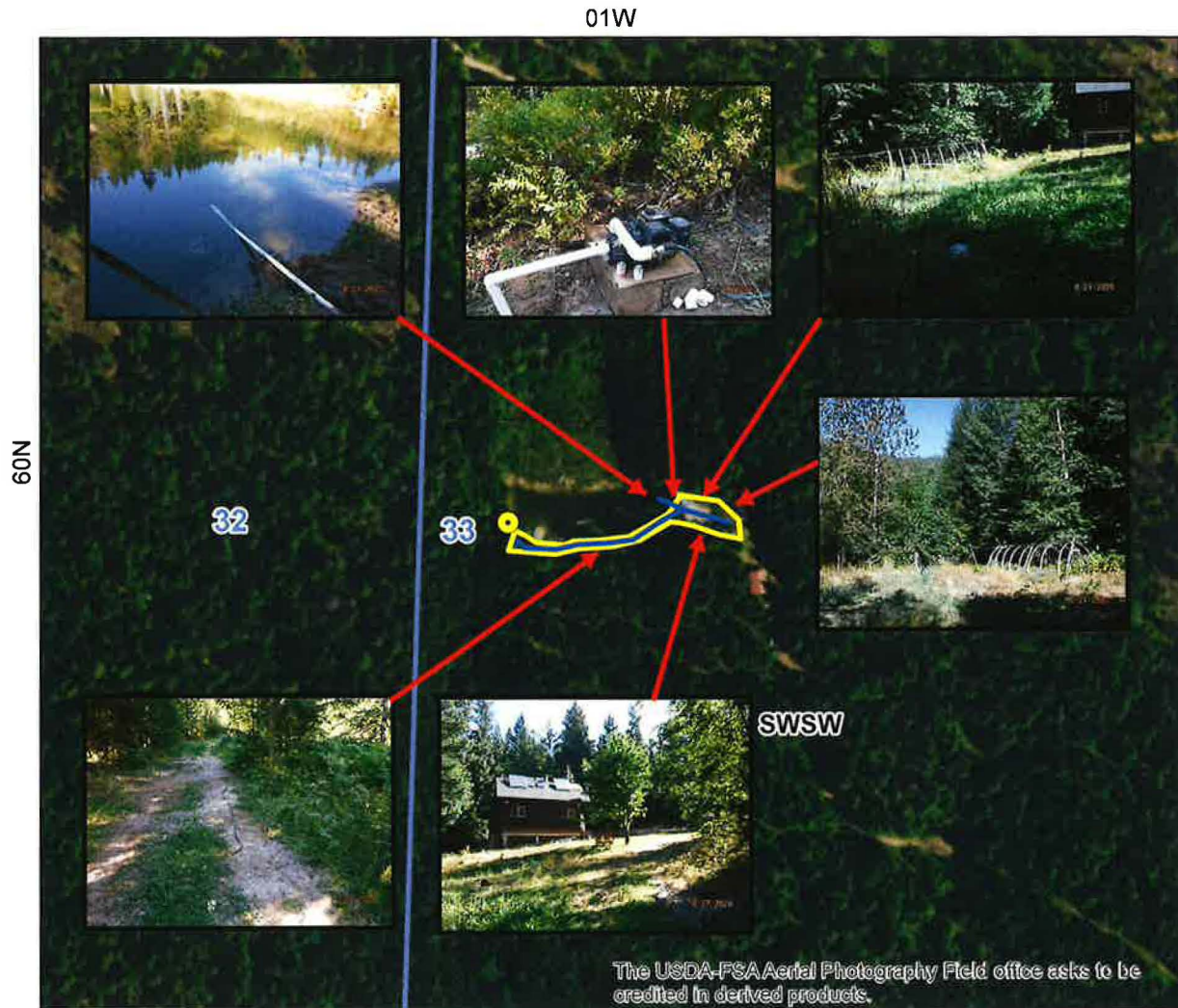
- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters

0 0.035 0.07 0.14 Miles



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IRRIGATION FROM STORAGE system diagram.



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

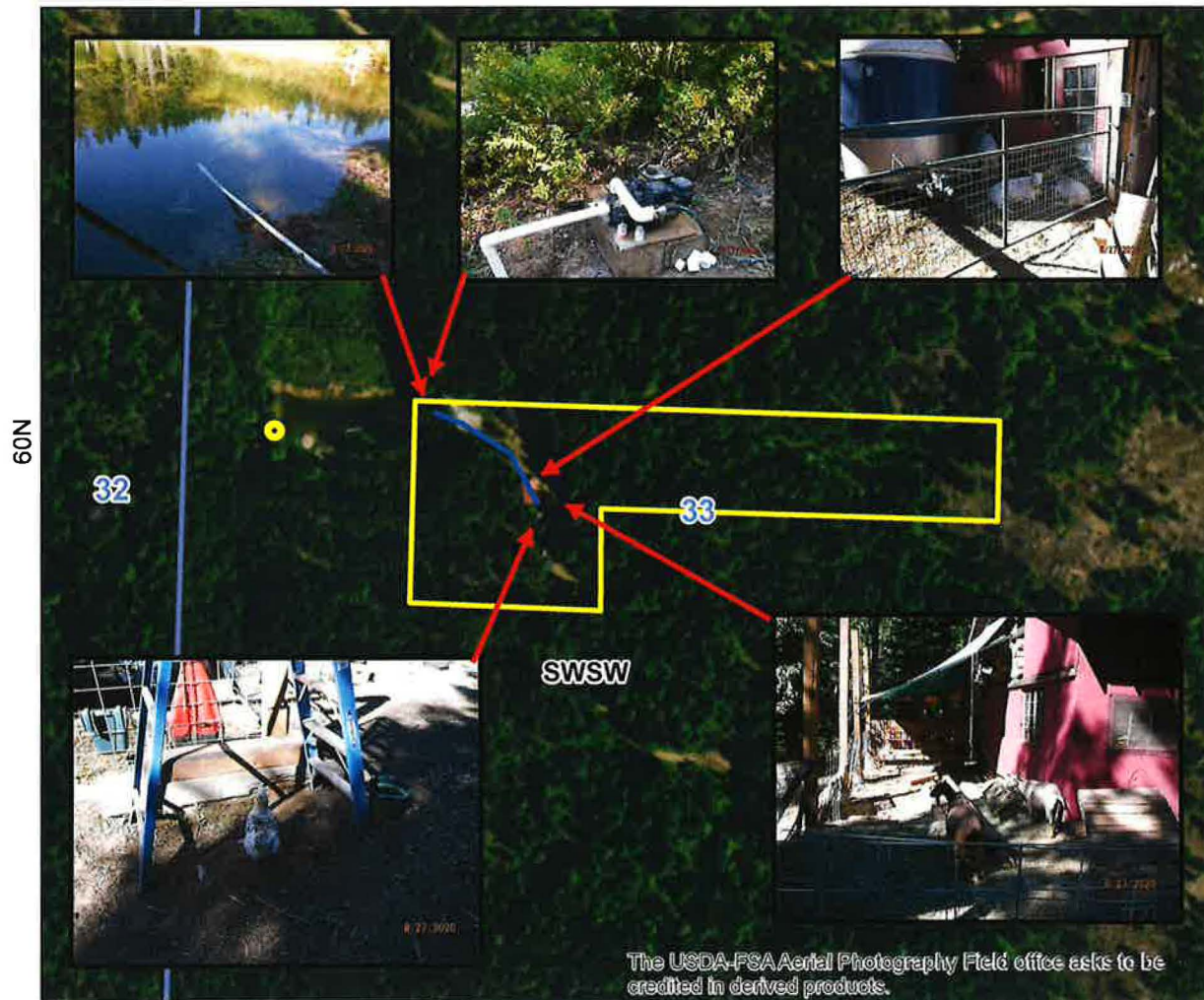
0 0.035 0.07 0.14 Miles



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STOCKWATER FROM STORAGE system diagram.

01W



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

0 0.035 0.07 0.14 Miles



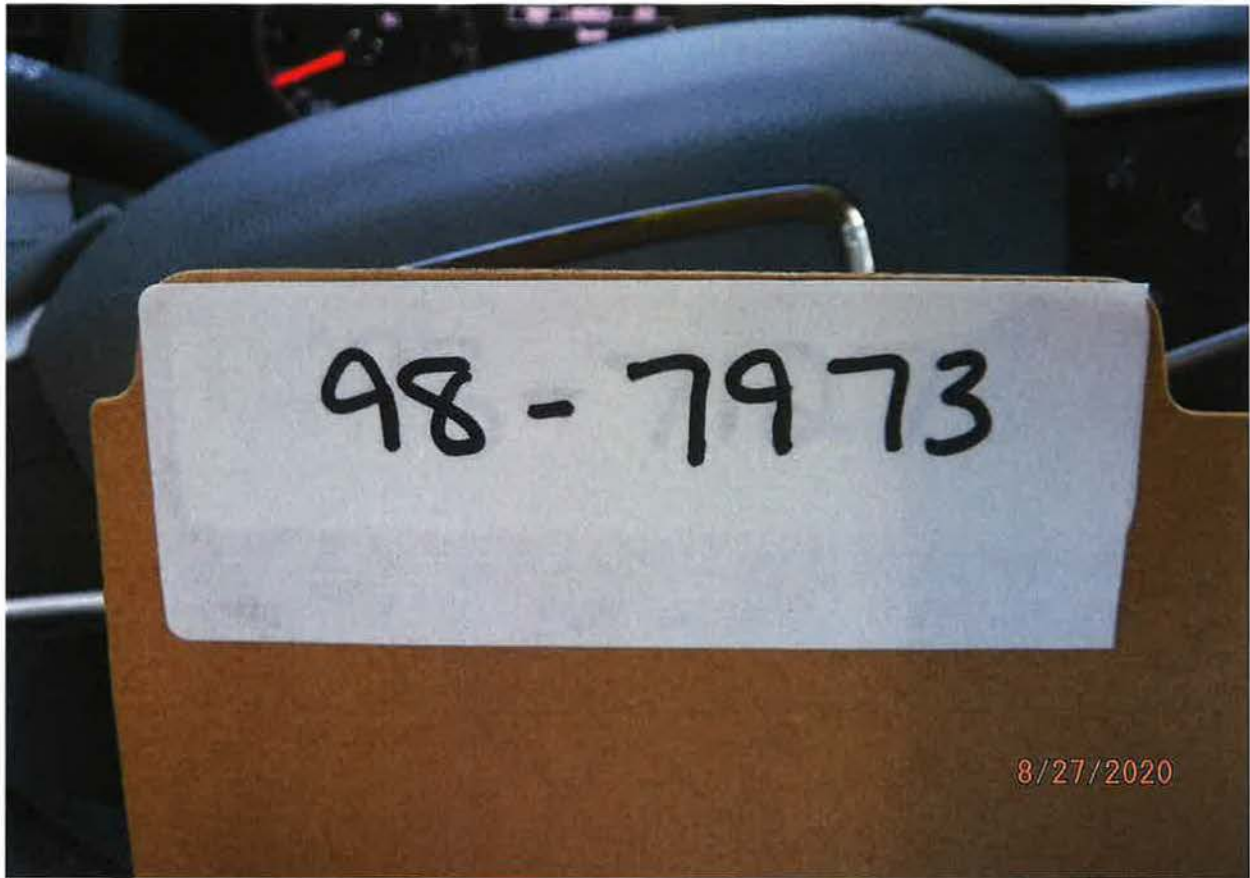
Total Storage Calculations

FILE NUMBER	98-7973
REVIEWER	Luke Bates
DATE	11/3/2020

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.)	0.4	"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)	1.3	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)	0.7	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)	0.6	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	2.6	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 INLET TO STORAGE POND



POD - DAM WITH HEADGATE (BEING REPAIRED FROM SPRING BLOW-OUT)





STOCKWATER, IRRIGATION, FIRE PROTECTION, RECREATION, AND WILDLIFE STORAGE POU





MULTIPLE FROM STORAGE COMPONENT WITHDRAWAL POINT – WATER TRANSFER PUMP





IRRIGATION FROM STORAGE POU





IRRIGATION FROM STORAGE POU





STOCKWATER FROM STORAGE POU





STOCKWATER FROM STORAGE POU

