

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 87-10486
Exam Date: 09/01/2020

1. Current Owner:
JOHN ROY 1034 LESTER LN PRINCETON ID 83857-6000 AND/OR
JILL ROY 1034 LESTER LN PRINCETON ID 83857-6000
2. Accompanied by: John Roy
Phone No: 208-874-3036
Address: Same as above
Relationship to permit Holder: Permit Holder

3. **SOURCE:**
SURFACE RUNOFF

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
87-10969	GROUND WATER	DOMESTIC	BENEFICIAL USE

Comments: right 87-10969 is a beneficial use claim, recommended active status, which uses ground water from a well for domestic purposes that overlaps right 87-10486, but 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 SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

SURFACE RUNOFF	NE¼ SE¼, Sec. 7, Twp 41N, Rge 03W, B.M.	LATAH County	- POND 1
SURFACE RUNOFF	NE¼ SE¼, Sec. 7, Twp 41N, Rge 03W, B.M.	LATAH County	- POND 3
SURFACE RUNOFF	NW¼ SW¼, Sec. 8, Twp 41N, Rge 03W, B.M.	LATAH County	- POND 5
SURFACE RUNOFF	NW¼ SW¼, Sec. 8, Twp 41N, Rge 03W, B.M.	LATAH County	- POND 2
SURFACE RUNOFF	NW¼ SW¼, Sec. 8, Twp 41N, Rge 03W, B.M.	LATAH County	- POND 6
SURFACE RUNOFF	NE¼ SE¼, Sec. 7, Twp 41N, Rge 03W, B.M.	LATAH County	- POND 4

Method of Determination: GPD. PODs for 6 ponds with earthen dams are as follows:

Pond 1: -116°45.510, 46°54.815. Pond 2: -116°45.381, 46°54.778. Pond 3: -116°45.599, 46°54.712.
Pond 4: -116°45.432, 46°54.704. Pond 5: -116°45.273, 46°54.670. Pond 6: -116°45.259, 46°54.562.

PLACE OF USE: IRRIGATION STORAGE, STOCKWATER 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	
41N	03W	7													X				
41N	03W	8										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	
41N	03W	8										0.4							0.4

Total Acres: 0.4

PLACE OF USE: STOCKWATER 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	
41N	03W	7													X				
41N	03W	8										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
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:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.4 \text{ ac} \times 3.0 \text{ afa} = \mathbf{1.2 \text{ af}}$$
 (irrigation storage and irrigation from storage volume)

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

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 1.2 \text{ af}$$

2. Volume Calculations for Other Uses:

- See 6 each pond analysis sheets.
- Stockwater Storage and Stockwater from Storage volume = 40 head mixed stock x 12 gpd x 365 days = 175, 200 gal / 325850 gal per af = **0.5 af**, respectively for each.
- Fire Protection Storage volume = 5.6 af (6ea pond cumulative capacity) + 2.6 af (6ea pond cumulative seepage/evaporation values) = **8.2 af**

G. NARRATIVE/REMARKS/COMMENTS

Field exam conducted on 9/1/2020 with the applicant, John Roy, showed six ponds being used for multiple storage and irrigation/stockwater from storage uses. The ponds recharged annually from surface water runoff, and applicant had installed channels for overflow discharge from each pond back to their natural flow paths. The applicant used siphon techniques, along with pvc pipe to withdraw water from ponds 5 and 6 for irrigation and stockwater from storage purposes. The applicant used gravity flow from ponds 3 and 4 to route water to pond 1. The applicant used portable water transfer pumps to withdraw water from ponds 1 and 2 for irrigation and stockwater from storage purposes. There is no diversion rate applied to this license.

Using field exam notes and maps, Arcmap was used to trace out six (6) pond's surface areas, which cumulatively equaled 1.2 acres. The cumulative capacity for the 6 ponds equals 5.6 af. Listed below are the pond components for this water right:

Pond 1: surface area = 0.5 ac, maximum depth = 15 ft and average depth = 6 ft, capacity = 3.0 af, seepage and evaporation loss = 1.1, and total volume required = 4.6 af considering 0.5 af for multiple fill providing irrigation from storage and stockwater from storage usage.

Pond 2: surface area = 0.26 ac, maximum depth = 8 ft and average depth = 3.2 ft, capacity = 1.0 af, seepage and evaporation loss = 0.7, and total volume required = 2.1 af considering 0.4 af for multiple fill providing irrigation from storage and stockwater from storage usage.

Pond 3: surface area = 0.11 ac, maximum depth = 6.5 ft and average depth = 2.6 ft, capacity = 0.3 af, seepage and evaporation loss = 0.2, and total volume required = 0.6 af considering 0.1 af for multiple fill providing irrigation from storage and stockwater from storage usage.

Pond 4: surface area = 0.09 ac, maximum depth = 6.5 ft and average depth = 2.6 ft, capacity = 0.3 af, seepage and evaporation loss = 0.2, and total volume required = 0.6 af considering 0.1 af for multiple fill providing irrigation from storage and stockwater from storage usage.

Pond 5: surface area = 0.08 ac, maximum depth = 10 ft and average depth = 4.0 ft, capacity = 0.4 af, seepage and evaporation loss = 0.2, and total volume required = 0.9 af considering 0.3 af for multiple fill providing irrigation from storage and stockwater from storage usage.

Pond 6: surface area = 0.14 ac, maximum depth = 10 ft and average depth = 4.0 ft, capacity = 0.6 af, seepage and evaporation loss = 0.2, and total volume required = 1.1 af considering 0.3 af for multiple fill providing irrigation from storage and stockwater from storage usage.

Total pond components: storage of an annual total of 9.9 af, comprised of 5.6 af to be used for the initial filling of the six (6) ponds, 2.6 af for the replacement of losses due to seepage and evaporation, and up to 1.7 af for additional refills for irrigation and stockwater from storage uses. **9.9 af** will be applied as the maximum diversion volume for this license.

The applicant stated he used more water from pond 1 and 2 for irrigation from storage than the others, and based on this

the multiple fill components of each pond were distributed to reflect heavier withdrawal from those two versus the remaining 4 ponds. Applicant stated stock tanks were used to water stock as they rotated fields through the summer, and he attempted to keep the animals from drinking direct from the ponds to alleviate erosion of the pond banks.

During the field exam, irrigation was observed as the applicant flood irrigating from pond 2 to water trees around the pond to establish grass and trees in the area. Irrigation for storage primarily was used for a small orchard that surrounded a pig pen, and small gardens in the orchard area. Applicant had frost free hydrants distributed for use at each area. Irrigation from storage annual volume equals $0.4 \text{ ac} \times 3.0 \text{ afa} = 1.2 \text{ af}$, which will be applied to license.

During field exam, stock was observed on the property including 5 horses, and 35 cows. The pigs used water from the domestic well as part of the applicants beneficial use claim 87-10969, and are not accounted for in the stockwater annual volume computation equaling $40 \text{ head mixed stock} \times 12 \text{ gpd} \times 365 \text{ days} = 175,200 \text{ gal} / 325850 \text{ gal per af} = 0.5 \text{ af}$, which will be applied to license.

Fire protection storage was permitted for, and the annual volume for fire protection storage equals 5.6 af (6ea pond cumulative capacity) + 2.6 af (6ea pond cumulative seepage/evaporation values) = 8.2 af , which will be applied to license. to determine the POD, and during licensing review the location of the POD

The POD for pond 2 was permitted for the NW¼SW¼, Sec 8, Twp 41N, Rge 03W. During licensing review it was identified that Arcmap PLSS layers do not line up with the DRG layer. Due to this discrepancy, there is no amendment recommended to correct the POD for pond 2 in the NE¼SE¼, Sec 7.

Condition X02 was removed from permit at time of licensing. Condition 220 was updated to reflect the pond capacity derived from current pond analysis sheet data. Condition 259 was updated, describing pond components for the six ponds with multiple fill values included. All other conditions from permit remain on license. Water right 87-10969 is a beneficial use claim, recommended active status, which uses ground water from a well for domestic purposes that overlaps right 87-10486, but is not a concern for overlap. There are no other overlap concerns for this right.

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>
IRRIGATION STORAGE	01/01 to 12/31	1.2 AF
IRRIGATION FROM STORAGE	04/01 to 10/31	1.2 AF
STOCKWATER STORAGE	01/01 to 12/31	0.5 AF
STOCKWATER FROM STORAGE	01/01 to 12/31	0.5 AF
FIRE PROTECTION STORAGE	01/01 to 12/31	8.2 AF

Totals: 9.9 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

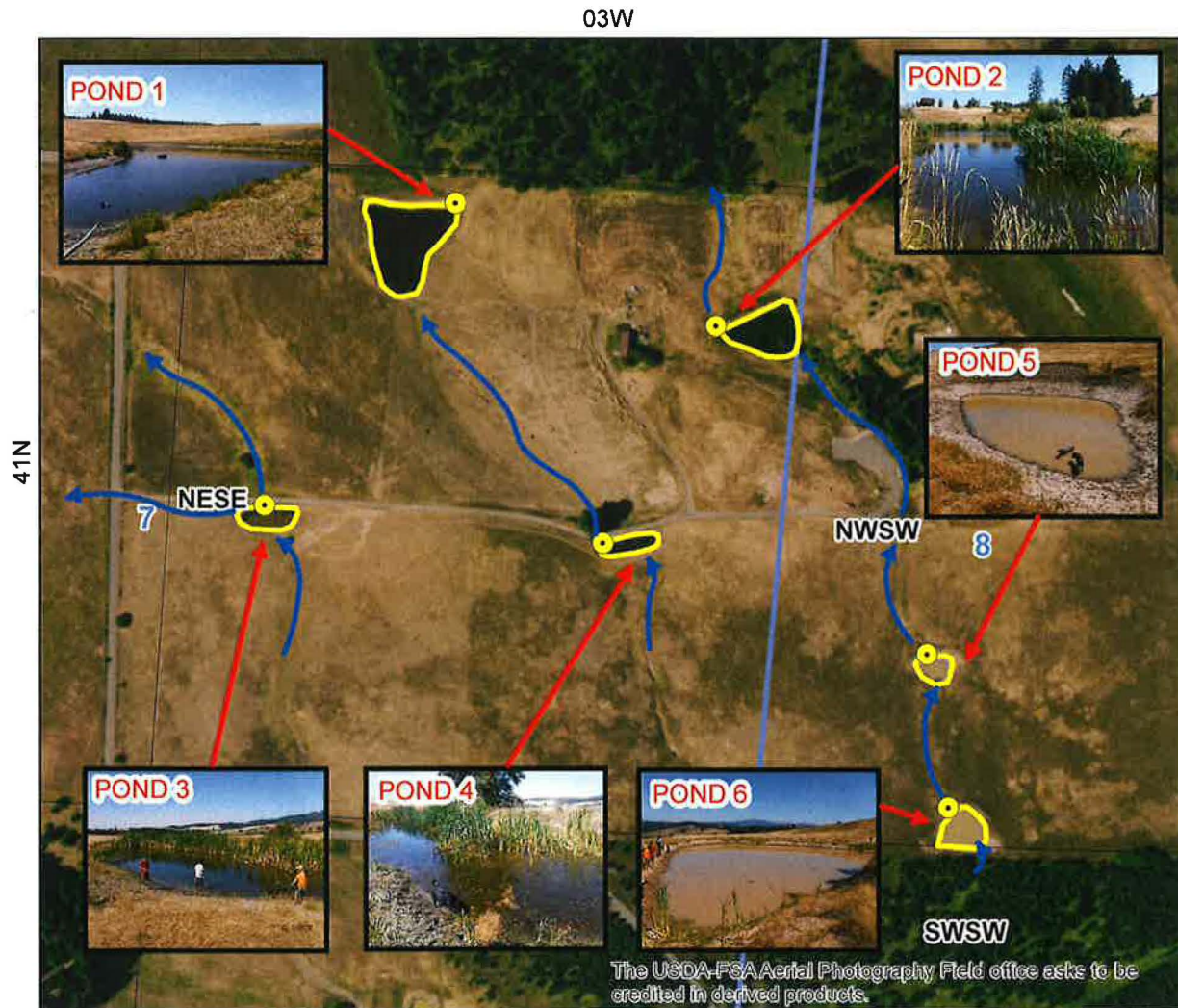
I. AUTHENTICATION Luke Bates - Water Resource Agent

Field Examiner's Name  Date 9/22/2020

Reviewer  Date 9/30/2020

State of Idaho
Department of Water Resources
Attachment to Field Exam
87-10486

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



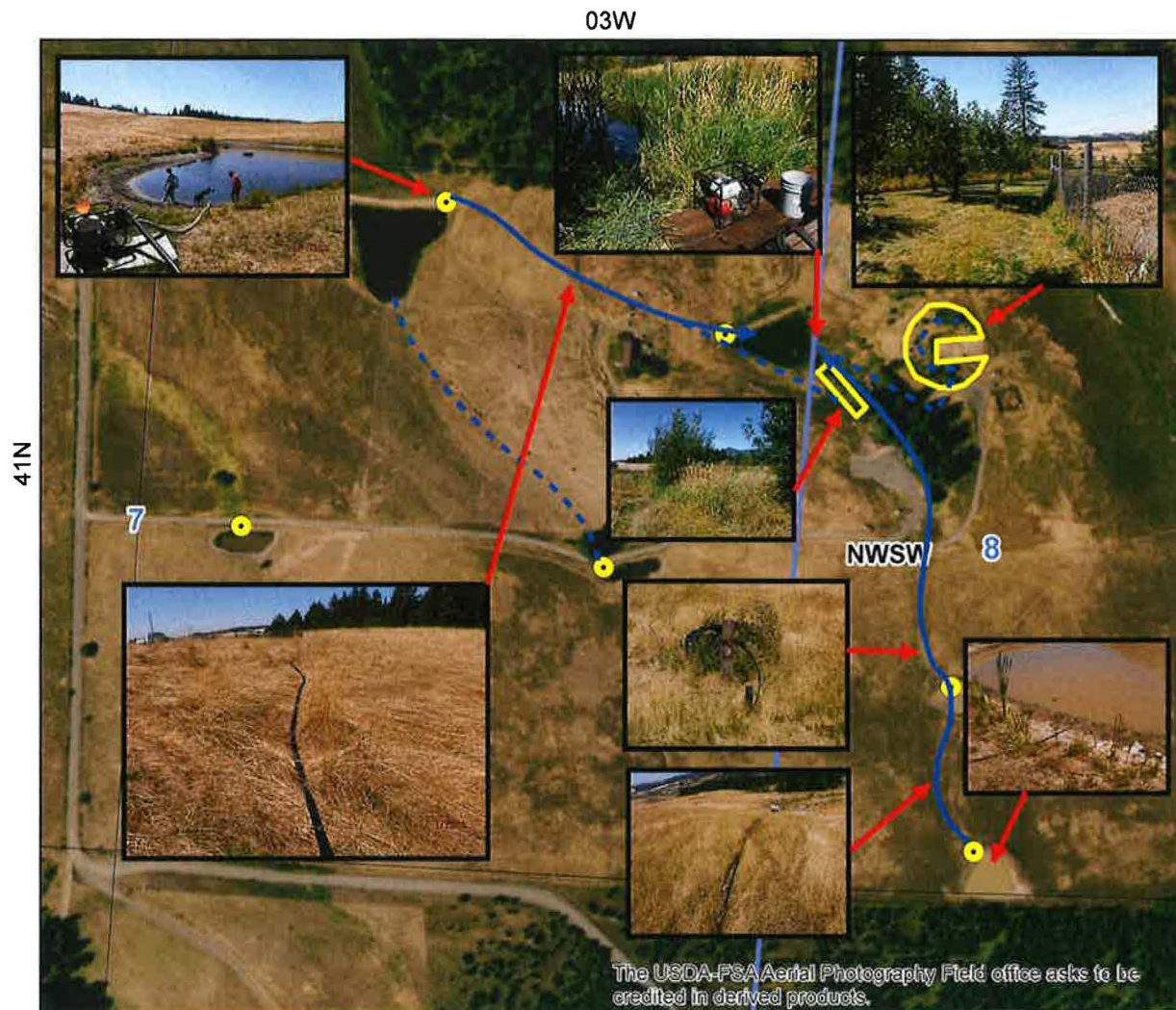
- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters

0 0.045 0.09 0.18 Miles



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Department of Water Resources
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IRRIGATION FROM STORAGE system diagram.



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

0 0.04 0.08 0.16 Miles



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Department of Water Resources
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STOCKWATER FROM STORAGE system diagram.



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

0 0.075 0.15 0.3 Miles



Total Storage Calculations

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

FILE NUMBER	87-10486
REVIEWER	Luke Bates
DATE	9/11/2020

POND 1

Surface Area (AC.)	0.5	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	6	"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)	3.0	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)	0.5	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)	0.5	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)	4.6	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.

Total Storage Calculations

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User Input
Calculated value
Formula Explanations

POND 2

Surface Area (AC.)	0.3	"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)	1.0	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)	0.4	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)	0.3	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)	2.1	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.

Total Storage Calculations

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User Input
Calculated value
Formula Explanations

POND 3

Surface Area (AC.)	0.1	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	2.6	"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)	0.1	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)	0.1	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.1	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	0.6	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.

Total Storage Calculations

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User Input
Calculated value
Formula Explanations

POND 4

Surface Area (AC.)	0.1	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	2.6	"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)	0.1	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)	0.1	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.1	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	0.6	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.

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User Input
Calculated value
Formula Explanations

POND 5

Surface Area (AC.)	0.1	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	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)	0.4	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)	0.3	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)	0.1	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.1	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.

Total Storage Calculations

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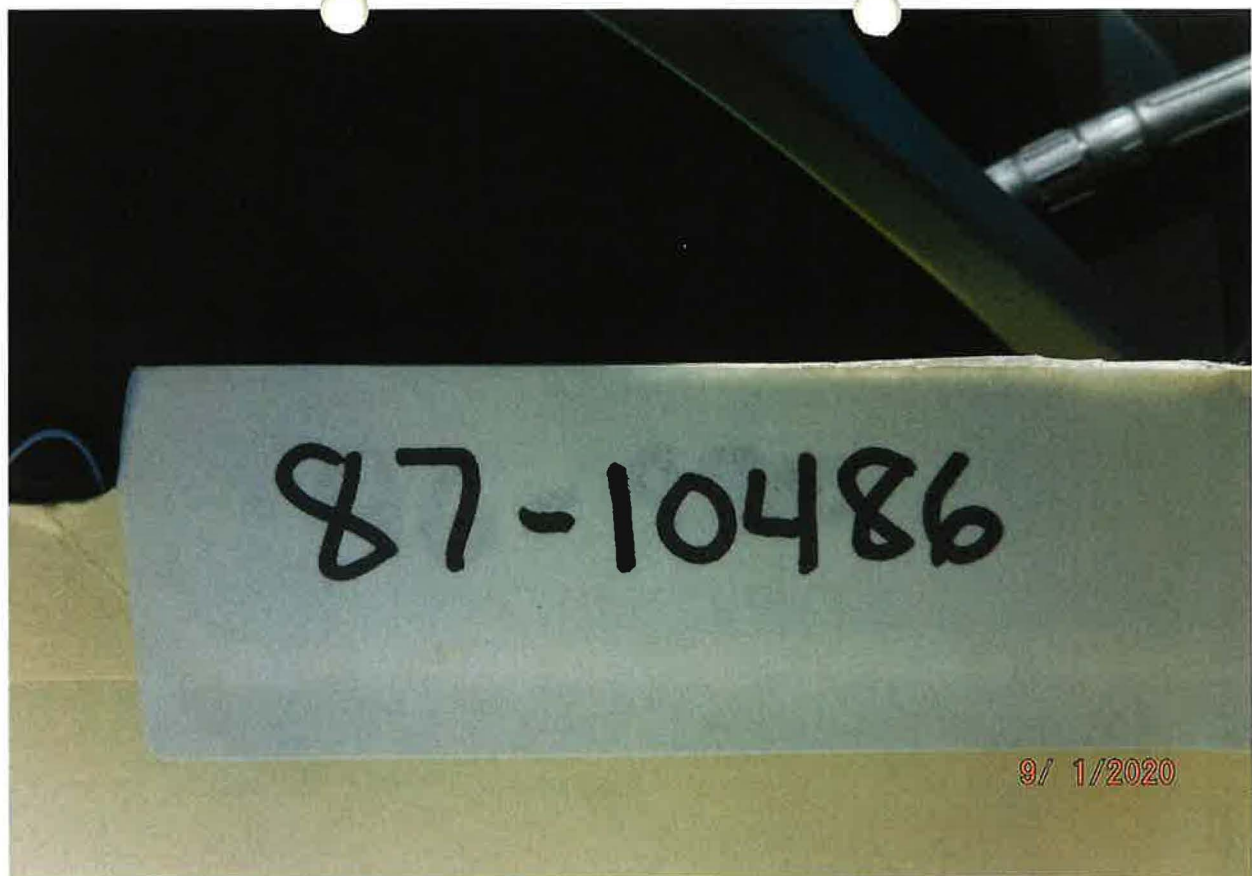
This spreadsheet has been designed by Idaho Department of Water Resources to estimate the total seepage, evaporation and fill capacity required for a pond.

User Input
Calculated value
Formula Explanations

POND 6

Surface Area (AC.)	0.14	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	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)	0.6	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)	0.3	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)	0.1	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	1.1	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 1 EARTHEN DAM



POU – POND 1 STOCKWATER STORAGE, IRRIGATION STORAGE, & FIRE PROTECTION STORAGE



POD – POND 2 EARTHEN DAM



POU – POND 2 STOCKWATER STORAGE, IRRIGATION STORAGE, & FIRE PROTECTION STORAGE



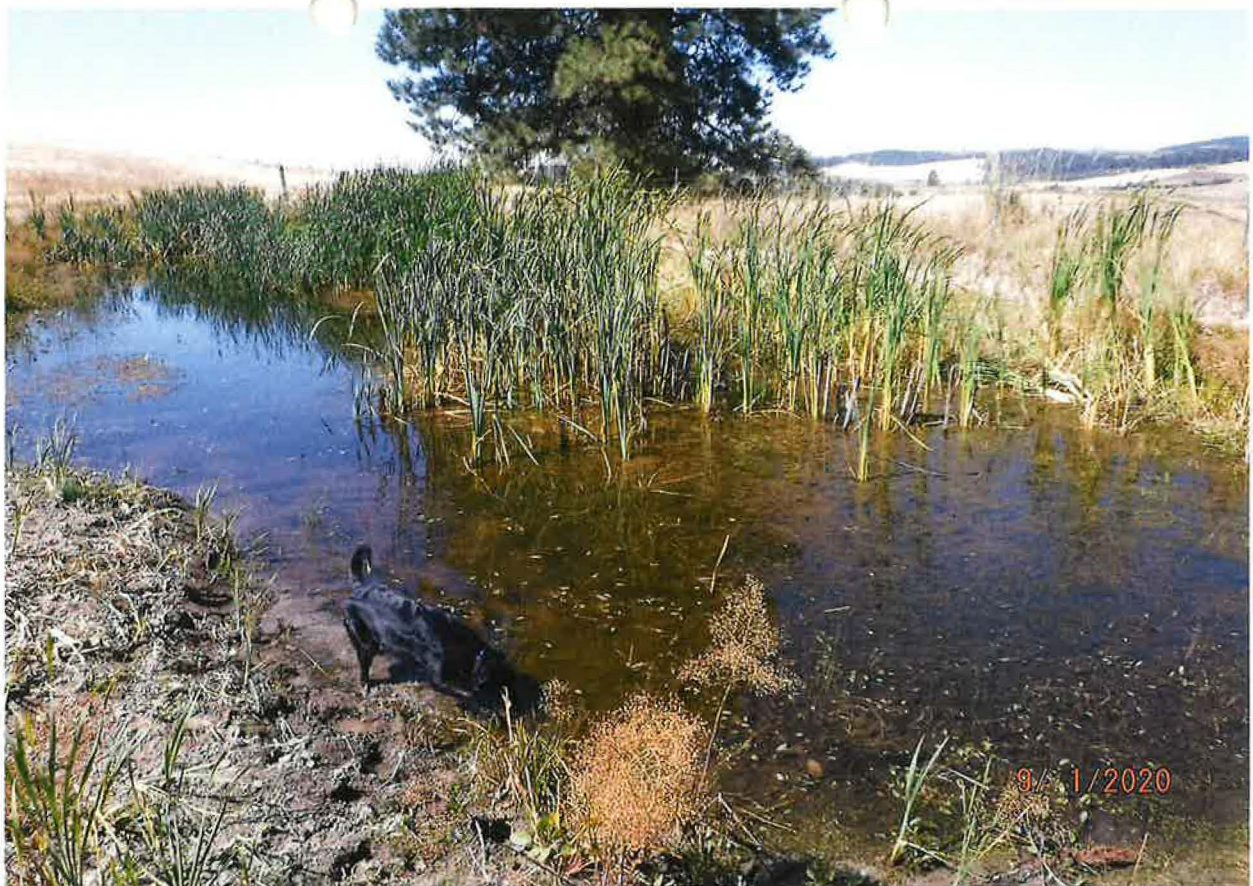
POD – POND 3 EARTHEN DAM



POU – POND 3 STOCKWATER STORAGE, IRRIGATION STORAGE, & FIRE PROTECTION STORAGE



POD – POND 4 EARTHEN DAM



POU – POND 4 STOCKWATER STORAGE, IRRIGATION STORAGE, & FIRE PROTECTION STORAGE



POD – POND 5 EARTHEN DAM



POU – POND 5 STOCKWATER STORAGE, IRRIGATION STORAGE, & FIRE PROTECTION STORAGE



POD – POND 6 EARTHEN DAM



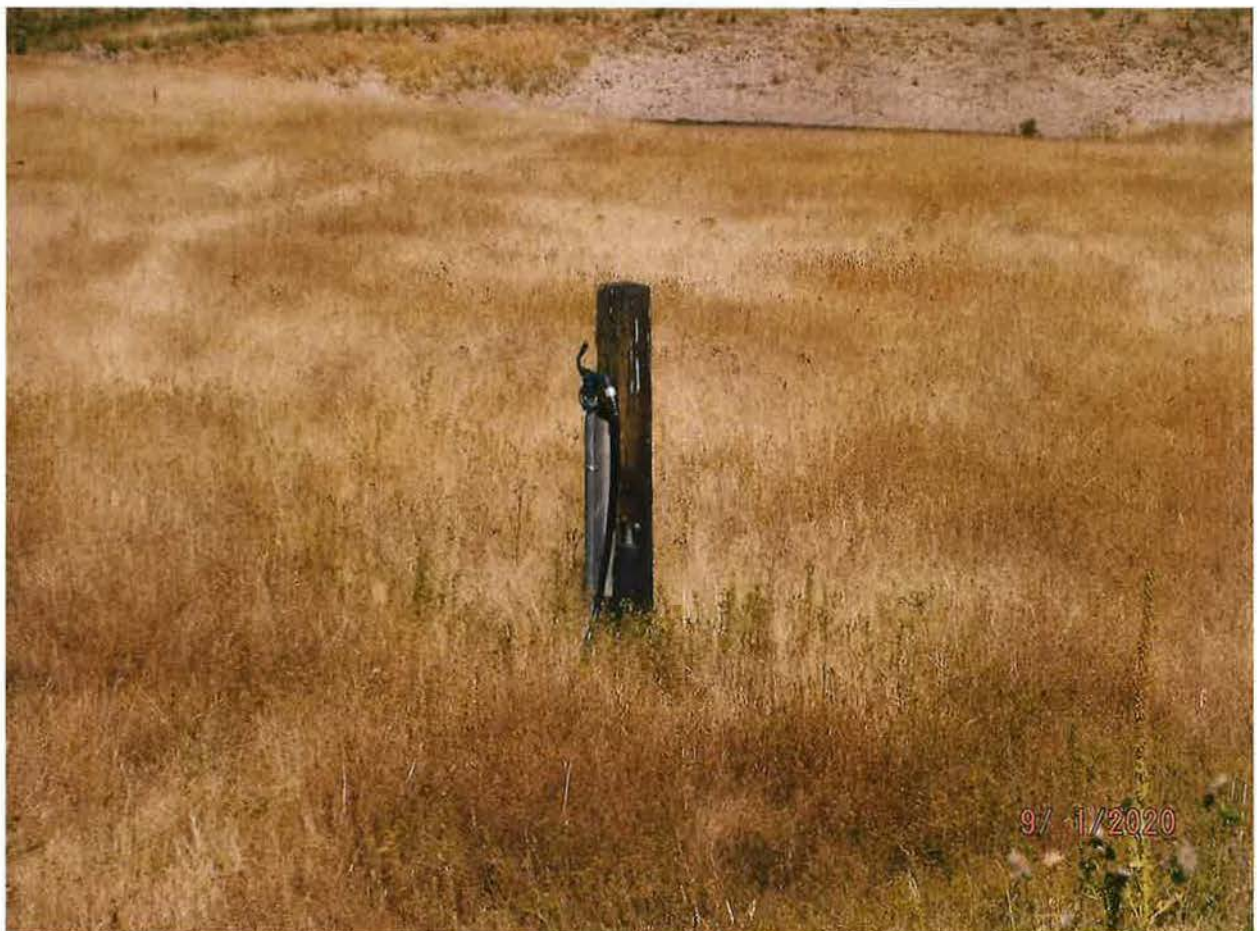
POU – POND 6 STOCKWATER STORAGE, IRRIGATION STORAGE, & FIRE PROTECTION STORAGE



FROST FREE HYDRANT – SIPHON FILL FROM POND – GRAVITY HEAD TO FROST FREE



WATER CONVEYANCE SYSTEM FOR IRRIGATION AND STOCKWATER FROM STORAGE USES





PUMP WITHDRAWAL FOR IRRIGATION AND STOCKWATER FROM STORAGE USES





STOCKWATER FROM STORAGE POU





STOCKWATER FRM STORAGE POU





STOCKWATER FROM STORAGE POU





IRRIGATION FROM STORAGE POU





IRRIGATION FROM STORAGE POU

