

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 86-12039
Exam Date: 07/08/2021

1. Current Owner:
FRENCH CATTLE LLC 1311 BRUSH CREEK RD DEARY ID 83823-9761
2. Accompanied by: Unaccompanied – prior authorization given by property owner – Edward French
Phone No: 208-877-1600
Address: Same as above
Relationship to permit Holder: Permit holder

3. **SOURCE:**
RUNOFF

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:**

RUNOFF NE¼ NW¼, Sec. 28, Twp 40N, Rge 01W, B.M. LATAH County
RUNOFF NE¼ NW¼, Sec. 28, Twp 40N, Rge 01W, B.M. LATAH County

Method of Determination: GPS, two PODs are pond earthen dam(s) located at -116°28.0674, 46°47.2603 and -116°28.1660, 46°47.2308.

PLACE OF USE: STOCKWATER STORAGE, WILDLIFE STORAGE, DOMESTIC 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	
40N	01W	28					X												

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	
40N	01W	28					X												

PLACE OF USE: DOMESTIC 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	
40N	01W	28					X												

Method of Determination: Field examination 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

- Volume Calculations for irrigation: N/A
- Volume Calculations for Other Uses:
 - See 2ea attached pond analysis worksheets.
 - Stockwater storage/from storage uses annual volume = 30 head x 12 gpd x 365 days = 131,400 gal per year / 325,805 gal per af = 0.4 af considering department rounding standards.
 - Domestic storage/from storage annual volume = 1 home = 0.6 af.

G. NARRATIVE/REMARKS/COMMENTS

This permit has been split during licensing review adding Right 86-12123 due to the unnamed stream source and associated pond in the southern extent of the applicant's property being a separate water source & system than the two runoff ponds that are located in the northern extent of the property. This permit will account for 2ea ponds that receive surface runoff water.

Field exam performed unaccompanied (prior permission granted) on 7/8/2021 showed two ponds that impound surface runoff water for multiple storage and from storage uses. At the POD(s), Pond 1 & Pond 2 have excavated earthen dams with overflow devices developed. There is no diversion rate associated with licensing this permit. Photographs were taken

of the storage pond(s) POU during the field exam that provide wildlife storage, stockwater storage, domestic storage, and fire protection storage uses. Arcmap aerial imagery was used to accurately trace out the pond(s) surface area during licensing review, and pond analysis worksheets were developed deriving pond(s) calculations toward licensing as follows:

- Pond 1 – surface area = 0.3 ac, maximum depth = 10 feet, average depth = 4 feet, pond capacity = 1.2 af, seepage & evaporation loss rate = 0.7 af, and total volume required = 1.9 af
- Pond 2 – surface area = 0.1 ac, maximum depth = 8 feet, average depth = 3.2 feet, pond capacity = 0.3 af, seepage & evaporation loss rate = 0.4 af, and total volume required = 1.7 af
- The two ponds have a multiple fill volume which equals 0.4 af (stockwater from storage) & 0.6 af (domestic from storage) = 1.0 af annually.

For licensing purposes, the two ponds combined annual volume for stockwater storage & stockwater from storage = 30 head x 12 gpd x 365 days = 131,400 gal per year / 325,805 gal per af = **0.4 af** considering department rounding standards. The pond(s) combined annual volume for domestic storage & domestic from storage = **0.6 af**. The pond(s) combined annual volume for wildlife storage and fire protection storage consist of the pond(s) capacity & seepage/evaporation loss volumes which = 1.9 af (pond 1) + 0.7 af (pond 2) = **2.6 af**. The maximum diversion volume recommended for licensing purposes equals 0.4 af (stockwater use) + 0.6 af (domestic use) + 2.6 af (wildlife & fire protection storage use) = **3.6 af**.

During the exam the stockwater from storage POU was identified as the areas below each of the two ponds, where the applicant drafts water from the ponds to fill portable stock tanks during periods cattle are rotated into the pastureland corresponding with the two ponds. At time of exam, all stock was on a different pasture, but evidence of stock use was evident throughout the pastureland, and along the pond banks. Arcmap aerial imagery was used to trace out rectangular POU shapes that are in the area where stockwater is drafted from the pond for usage but does not encompass the entirety of the applicant's property as stock watering occurs close to the two ponds.

Prior to the exam, the applicant had unearthed a PVC pipeline that serves as the domestic from storage service line. Gravity flow from Pond 2 and a connection point to pump in water from Pond 1 serve as diverting works for the domestic from storage use. The PVC pipe routes across the field to frost-free hydrants and is connected to a storage tank for home use and water for a shop. Arcmap aerial imagery was used to trace out the home and shop that serve as the domestic POU for licensing purposes.

Conditions X02, 26A, and 082 were removed from the permit during licensing review. Condition 219 was replaced with 259 to better describe the two ponds volume limitations with multiple fill volumes for stockwater and domestic uses. Condition 220 was updated to reflect the two pond(s) volume capacity and size limitations following the field exam. Condition X35 was added to describe the combined stockwater use volume limitations between Rights 86-12039 & 86-12123 due to the split of water rights. All other conditions on the permit shall be carried to licensing. Aside from the combined stockwater use mitigated by including condition X35, there are no 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
STOCKWATER STORAGE	01/01 to 12/31	0.4 AF
STOCKWATER FROM STORAGE	01/01 to 12/31	0.4 AF
WILDLIFE STORAGE	01/01 to 12/31	2.6 AF
DOMESTIC STORAGE	01/01 to 12/31	0.6 AF
DOMESTIC FROM STORAGE	01/01 to 12/31	0.6 AF
FIRE PROTECTION STORAGE	01/01 to 12/31	2.6 AF

Totals: 3.6 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

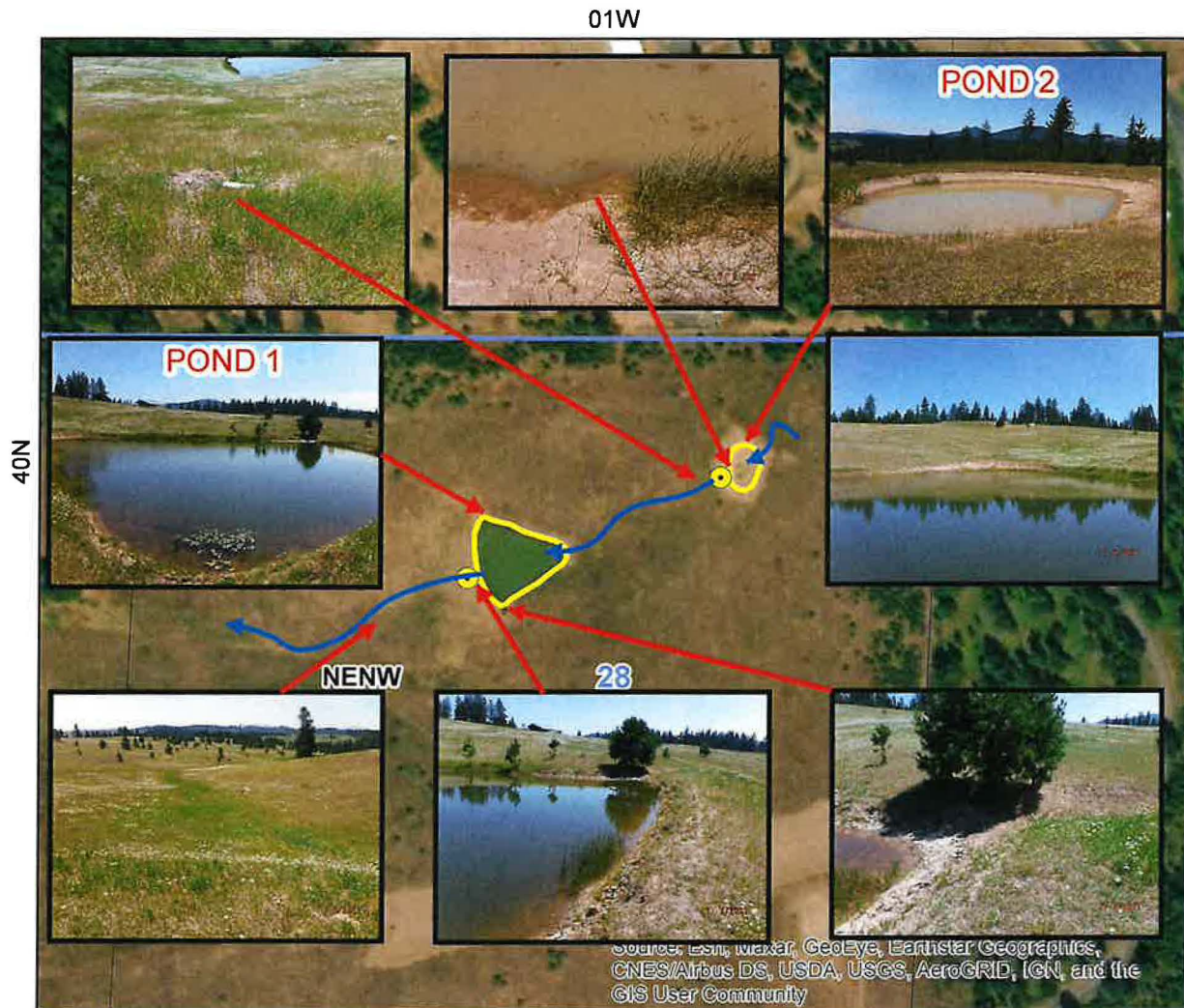
I. AUTHENTICATION Luke Bates -

Field Examiner's Name *Luke Bates* Date 12/1/2021

Reviewer *Alan Fink* Date 1/31/2022

State of Idaho
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Attachment to Field Exam
86-12039

STOCKWATER STORAGE, WILDLIFE STORAGE, DOMESTIC STORAGE,
and FIRE PROTECTION STORAGE system diagram.



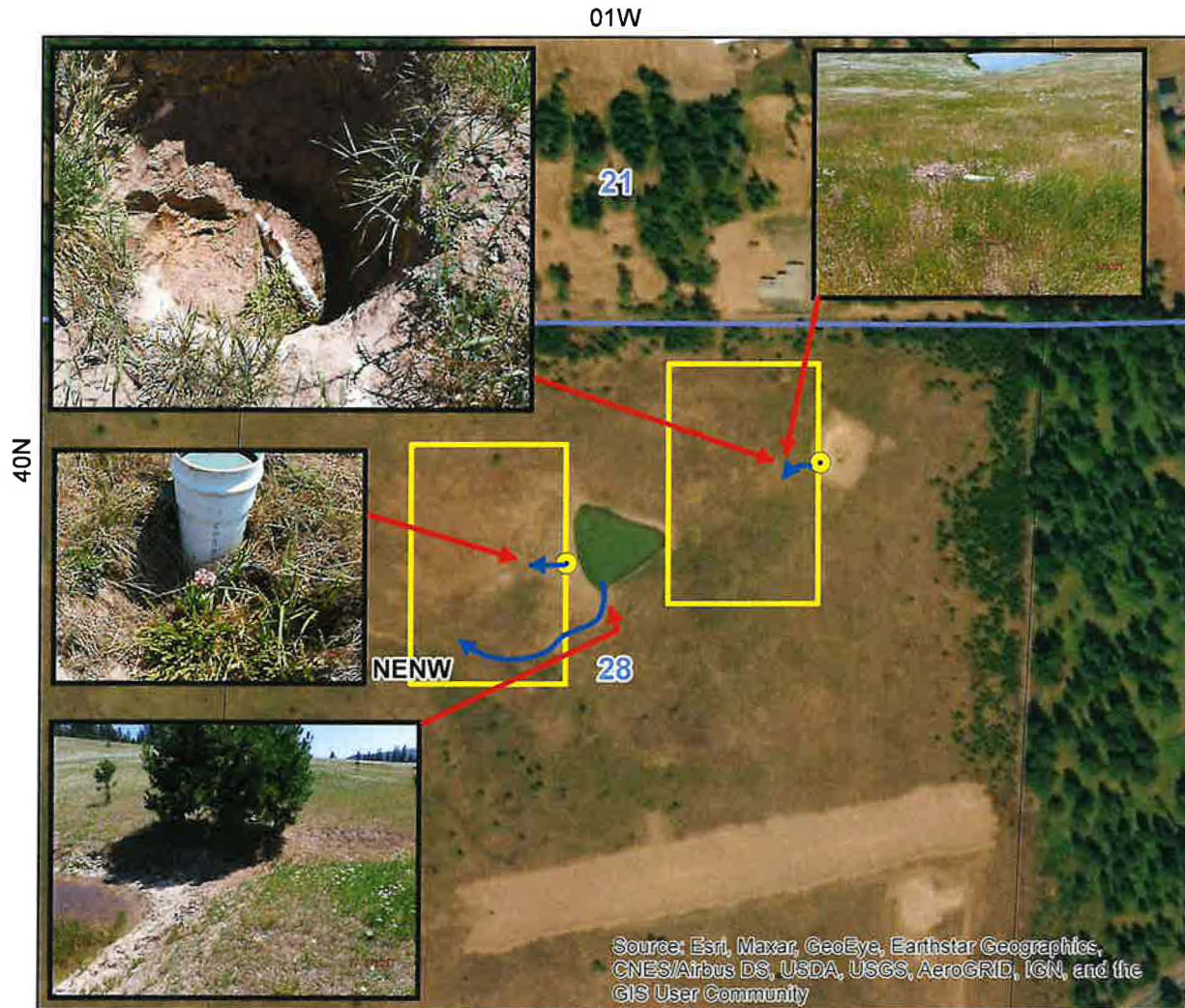
-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters

0 0.035 0.07 0.14 Miles



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STOCKWATER FROM STORAGE system diagram.



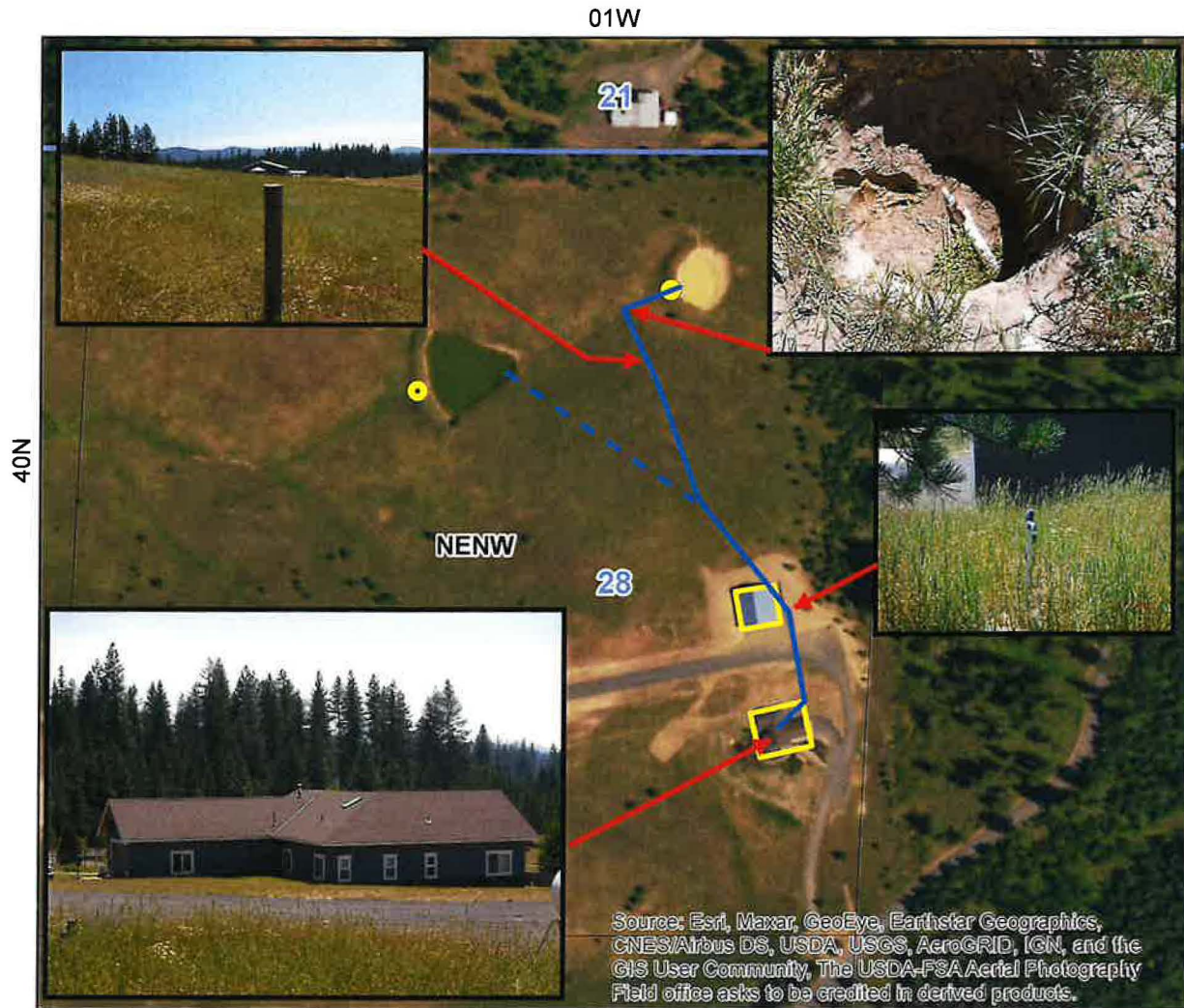
- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters

0 0.035 0.07 0.14 Miles



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DOMESTIC FROM 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	86-12039
REVIEWER	LUKE BATES
DATE	11/24/2021

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 1

Surface Area (AC.)	0.3	"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)	1.2	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)	0.3	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)	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.

Total Storage Calculations

FILE NUMBER	86-12039
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DATE	11/24/2021

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User Input
Calculated value
Formula Explanations

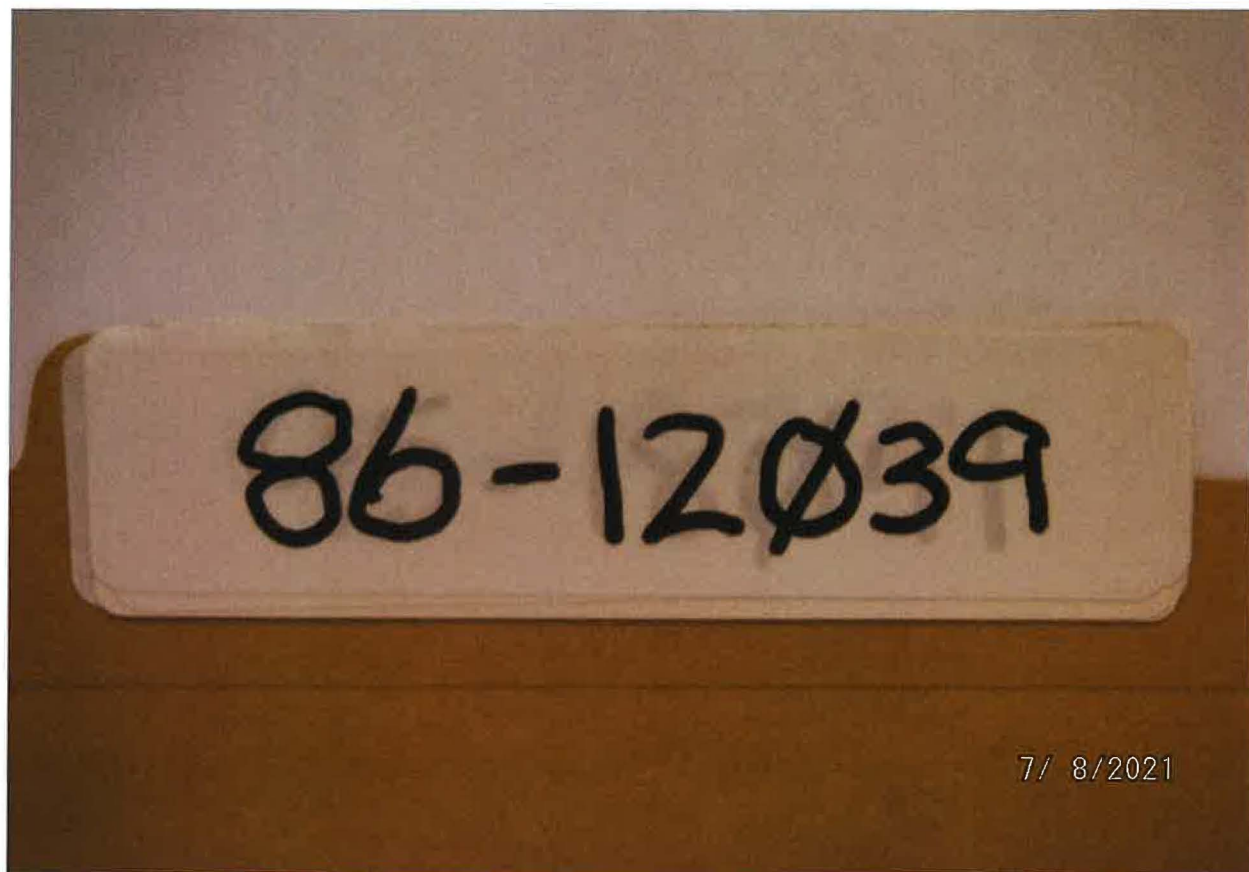
POND 2

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)	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 <u>"From Storage"</u> 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)	1.7	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.

* multiple fill equals

0.4af Stockwater Storage Pond 1 and Pond 2
0.6af Domestic Storage Pond 1 and Pond 2



FIELD EXAM DATE 7/8/2021



POND 1 POD = EARTHEN DAM; POU = STOCKWATER STORAGE, WILDLIFE STORAGE, DOMESTIC STORAGE,
& FIRE PROTECTION STORAGE



POND 1 OVERFLOW CHANNEL



POND 1 FROM STORAGE DIVERTING DEVICE



POND 2 POD = EARTHEN DAM; POU = STOCKWATER STORAGE, WILDLIFE STORAGE, DOMESTIC STORAGE,
& FIRE PROTECTION STORAGE



POND 2 FROM STORAGE USE PIPE INSTALLED



DOMESTIC FROM STORAGE & STOCKWATER FROM STORAGE PIPE LOCATION





POND 1 – MULTIPLE STORAGE USE(S) POU



POND 2 – MULTIPLE STORAGE USE(S) POU



EXAMPLE – STOCKWATER FROM STORAGE POU, PASTURELAND



DOMESTIC FROM STORAGE POU