

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 86-12038
Exam Date: 07/08/2021

1. Current Owner:
AISC LLC 1311 BRUSH CREEK RD DEARY ID 83823
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: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
86-11985	Unnamed Stream	Multiple storage uses; Stockwater from storage use.	License
86-11986	Unnamed Stream	Multiple storage uses; Stockwater from storage use.	License

Comments: Licensed Rights 86-11985 & 86-11986 both have stockwater from storage beneficial use POU(s) which overlap this water right's stockwater from storage POU. Condition X35 is recommended to license this water right to assign combined use limitations for stockwater use, as the applicant uses multiple parcels to rotate the same herd for feed & water use annually.

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

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

RUNOFF SW¼ SE¼, Sec. 30, Twp 40N, Rge 01W, B.M. LATAH County

Method of Determination: GPS, POD is an earthen dam located at -116°30.3809, 46°46.5677.

PLACE OF USE: STOCKWATER STORAGE, WILDLIFE 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	30															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	30															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 attached pond analysis worksheet.
 - Stockwater storage/from storage use(s) 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.

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed unaccompanied on 7/8/2021 showed an excavated pond that impound surface runoff water for multiple storage uses and stockwater from storage use. At the POD the pond has an earthen dam with 2 each poly pipes routed from the pond to a nearby hill side. There is not an overflow discharge device installed on the pond, but a natural low point serves as the overflow channel for the pond. There is no diversion rate associated with licensing this surface water source permit.

Photographs were taken of the storage pond POU during the field exam that provide wildlife storage, stockwater storage, and fire protection storage uses. Arcmap aerial imagery was used to accurately trace out the pond(s) high water line surface area during licensing review, and a pond analysis worksheet was developed deriving pond calculations toward

licensing as follows:

- Pond – surface area = 0.5 ac, maximum depth = 15 feet, average depth = 6 feet, pond capacity = 3.0 af, seepage & evaporation loss rate = 1.3 af, stockwater from storage use multiple fill annual volume = 0.4 af, and total volume required = 4.7 af.
- Stockwater storage & stockwater from storage volume(s) equals 30 head cattle x 12 gpd x 365 days = 131,400 gal / 325,850 gal per af = **0.4 af** considering department rounding standards. This value is not additive toward the maximum diversion volume.
- Wildlife storage & fire protection storage annual volume(s) = 3.0 af (pond capacity) + 1.3 af (seepage & evaporation rates) = **4.3 af**. This value is not additive toward the maximum diversion volume.

The maximum diversion volume recommended for licensing equals 0.4 af (stockwater uses) + 4.3 af (wildlife & fire protection volume) = **4.7 af**. The applicant uses two dedicated poly pipes that daylight on a hillside with manual shutoff valves to connect fire hoses to fill stock tanks as needed. The pond was fenced indicating stock do not have year-round access to the pond, likely to prevent them from eroding the pond banks.

During the exam, the property surrounding the pond that was permit approved for irrigation from storage use was walked and no evidence of irrigation was observed. Arcmap aerial imagery was reviewed for historical years use and does not illustrate active irrigation has occurred from the pond. The irrigation storage and irrigation from storage beneficial uses have been removed during licensing review due to non-development within the permit's development period. Additionally, domestic storage & domestic from storage beneficial uses have been removed. There is a shell of a cabin located across the dirt road from the pond to the East, but at time of exam the house was still being constructed, and there are no definable water lines from the pond to the home serving as stub-ins.

Condition X02, 26A, 082, 132, R58, and a stockwater text condition were removed from the permit during licensing review. Condition 219 was replaced with 259 to describe the pond volume components and multiple fill component more accurately. Condition 220 was revised describing pond size and capacity following the field exam findings. All other conditions from the permit shall be carried to the license. Overlap concerns: licensed Rights 86-11985 & 86-11986 both have stockwater from storage beneficial use POU(s) which overlap this water right's stockwater from storage POU. Condition X35 was added during licensing review designating combined use limitations for stockwater use between the two rights & this permit, as the applicant uses multiple parcels to rotate the same herd for feed & water use annually. There are no other overlap concerns for this water right.

Have conditions of permit approval been met? ____ Yes X No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Annual Volume</u>
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	4.3 AF
FIRE PROTECTION STORAGE	01/01 to 12/31	4.3 AF

Totals: 4.7 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

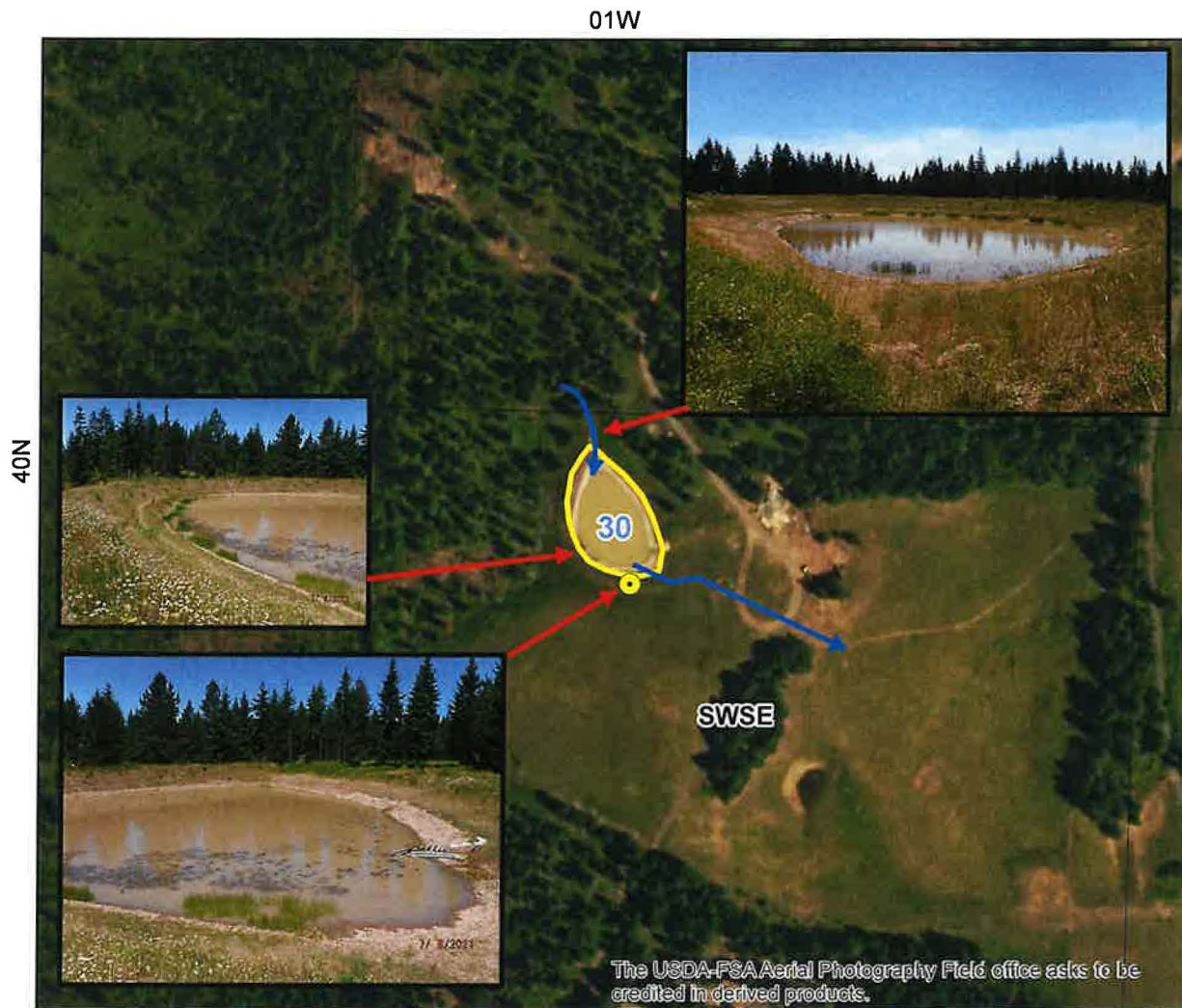
I. AUTHENTICATION Luke Bates -

Field Examiner's Name *[Signature]* Date 12/15/2021

Reviewer *[Signature]* Date 1/31/2022

State of Idaho
Department of Water Resources
Attachment to Field Exam
86-12038

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



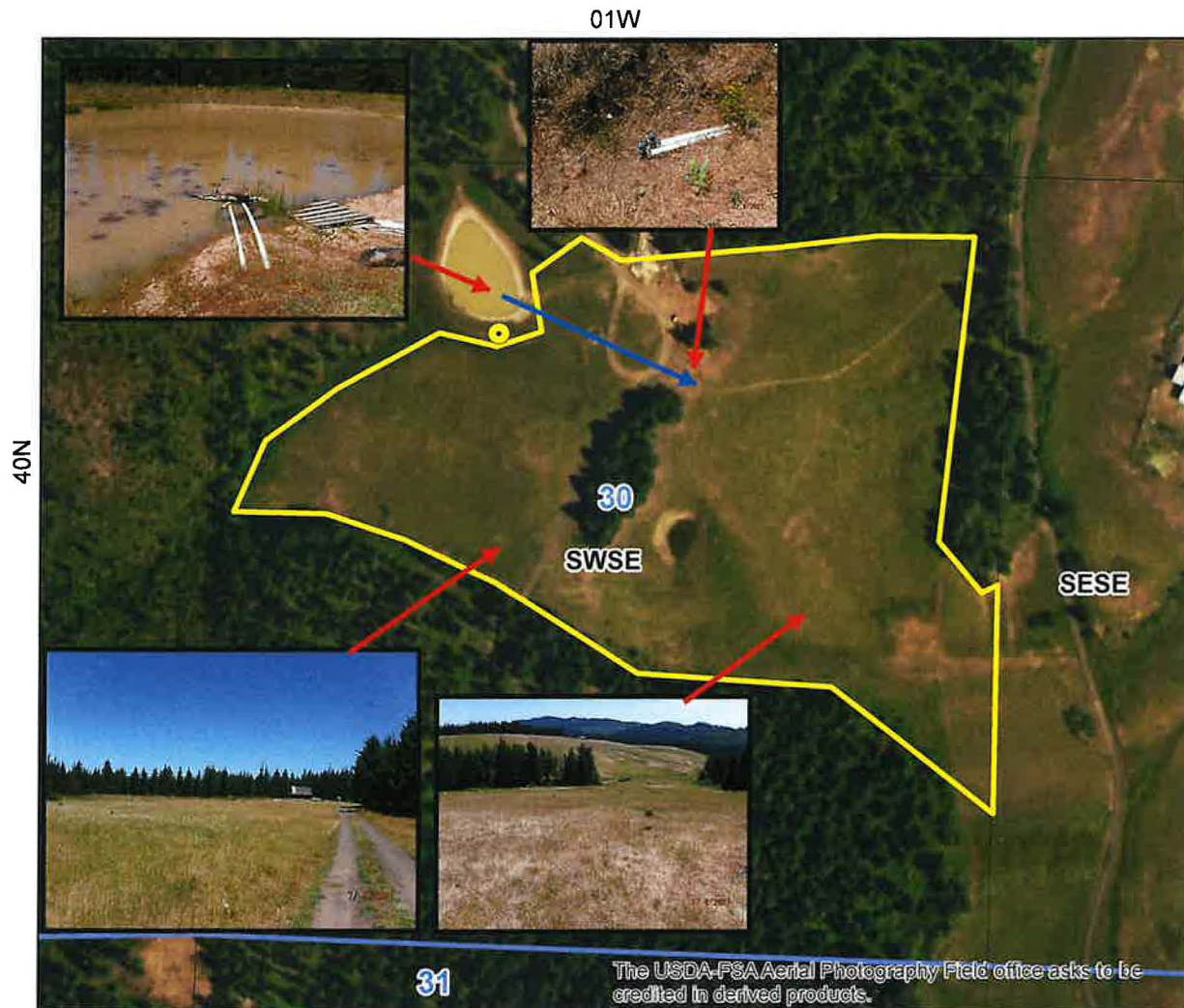
-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters

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



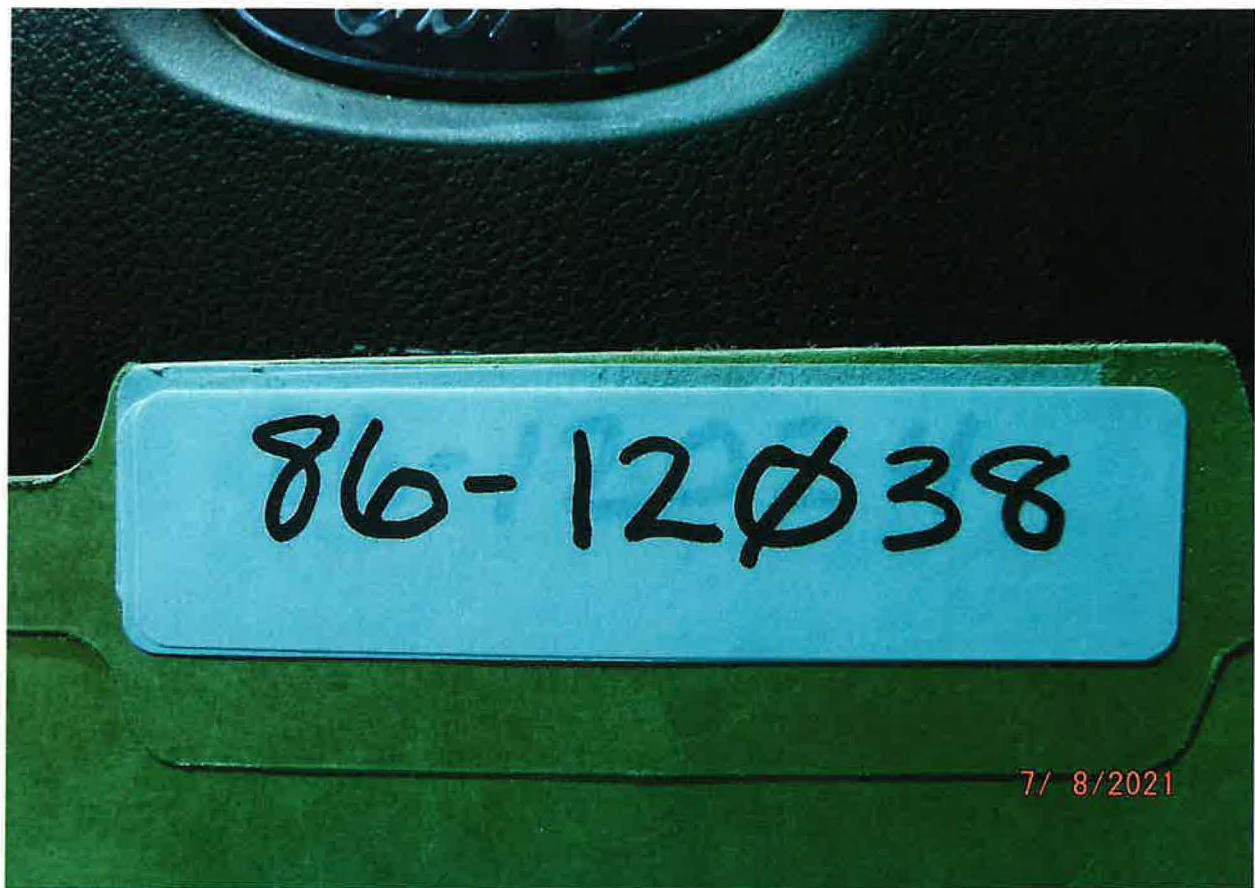
Total Storage Calculations

FILE NUMBER	86-12038
REVIEWER	LUKE BATES
DATE	7/9/2021

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

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)	0.4	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)	0.6	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.7	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	4.7	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.



FIELD EXAM DATE 7/8/2021



POD – EARTHEN POND DAM



POU – FIRE PROTECTION STORAGE, WILDLIFE STORAGE, & STOCKWATER STORAGE POND





2EA 2 INCH PVC PIPES DRAW WATER FROM POND FOR BENEFICIAL USE(S)





2EA PVC PIPES DAYLIGHT EAST OF GRAVEL ROAD WAY – ALLOW FIRE HOSE CONNECTION TO FILL PORTABLE STOCK TANK(S)





STOCKWATER FROM STORAGE POU

