

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 93-07262
Exam Date: 5/5/2017

1. Current Owner:
MICHAEL E HENRY 1281 MC CLELLAN RD PLUMMER ID 83851 (208) 273-2102
And/Or
MARIANNE HENRY 1281 MC CLELLAN RD PLUMMER ID 83851 (208) 273-2102

2. Accompanied by: Michael Henry

3. **SOURCE:**
UNNAMED STREAM

TRIBUTARY:
LITTLE HANGMAN CREEK

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point-of-diversion: None

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

UNNAMED STREAM SE¼NE¼ Sec. 19, Twp 46N, Rge 05W, B.M. BENEWAH County

Method of Determination: Maps and GPS. POD location at 47° 19.037, 117° 00.230

2.

PLACE OF USE: FIRE PROTECTION STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
46N	05W	19				X													

PLACE OF USE: WILDLIFE STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
46N	05W	19				X													

PLACE OF USE: STOCKWATER STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
46N	05W	19				X													

Method of Determination: Google Earth and Arc map.

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

X

Indicate weir size/pipe as applicable.

X

Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

X

Aerial Photo Attached (required for irrigation of 10+ acres).

X

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					

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date

2. Measurements: N/A

E. FLOW CALCULATIONS

Measured Method: N/A

____ Additional Computation Sheets Attached

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: N/A

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

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

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

2. Volume Calculations for Other Uses: SEE ATTACHED POND ANALYSIS SHEET

G. NARRATIVE/REMARKS/COMMENTS

Field exam with Michael Henry showed a pond where the dam had failed during the spring runoff. Applicant said he would rebuild the dam each year and the dam would form a hole the following spring. Prior to exam, I had found all possible aerial images to try to verify if a pond had been built. Images showed no storage at time of photo, but you could make out the dam and a less grassy area where the pond is located at. I do believe the applicant, which he is a poor dam maker and it blows out each spring. At time of exam, the area that stored water was still very muddy and only a few small pieces of grass had started growing. If the pond had not been present, I believe the pond area would have been as grassy as everything around it. Because water was stored in the pond, we will proceed in licensing the permit.

Pond was located on an unnamed stream tributary to Little Hangman Creek. Permit was issued with the tributary to Hangman Creek. Review during licensing showed the tributary is Little Hangman Creek and will be corrected. Dam height was between 10 to 15 feet high with a 12 inch overflow pipe. Pond had a surface area of 0.11 acres with an average depth of 5 feet. Overall storage with seepage and evaporation was equal to 0.8 acre-feet. Applicant did not have stockwater from storage and will not be licensed. Applicant did run cattle, but they were not present at time of exam because he was letting the hay grow. License will be issued stockwater, wildlife, and fire protection storage for 0.8 acre-feet.

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>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
STOCKWATER STORAGE	01/01 to 12/31		0.8 AF
WILDLIFE STORAGE	01/01 to 12/31		0.8 AF
FIRE PROTECTION STORAGE	01/01 to 12/31		0.8 AF
<u>Totals:</u>			0.80 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

Field Examiner's Name Adam F. Smith Date 5-31-2017
 Reviewer Morgan Case Date 6/12/2017

State of Idaho
Department of Water Resources
Attachment to Field Exam
93-7262

FIRE PROTECTION STORAGE, WILDLIFE STORAGE, and STOCKWATER STORAGE



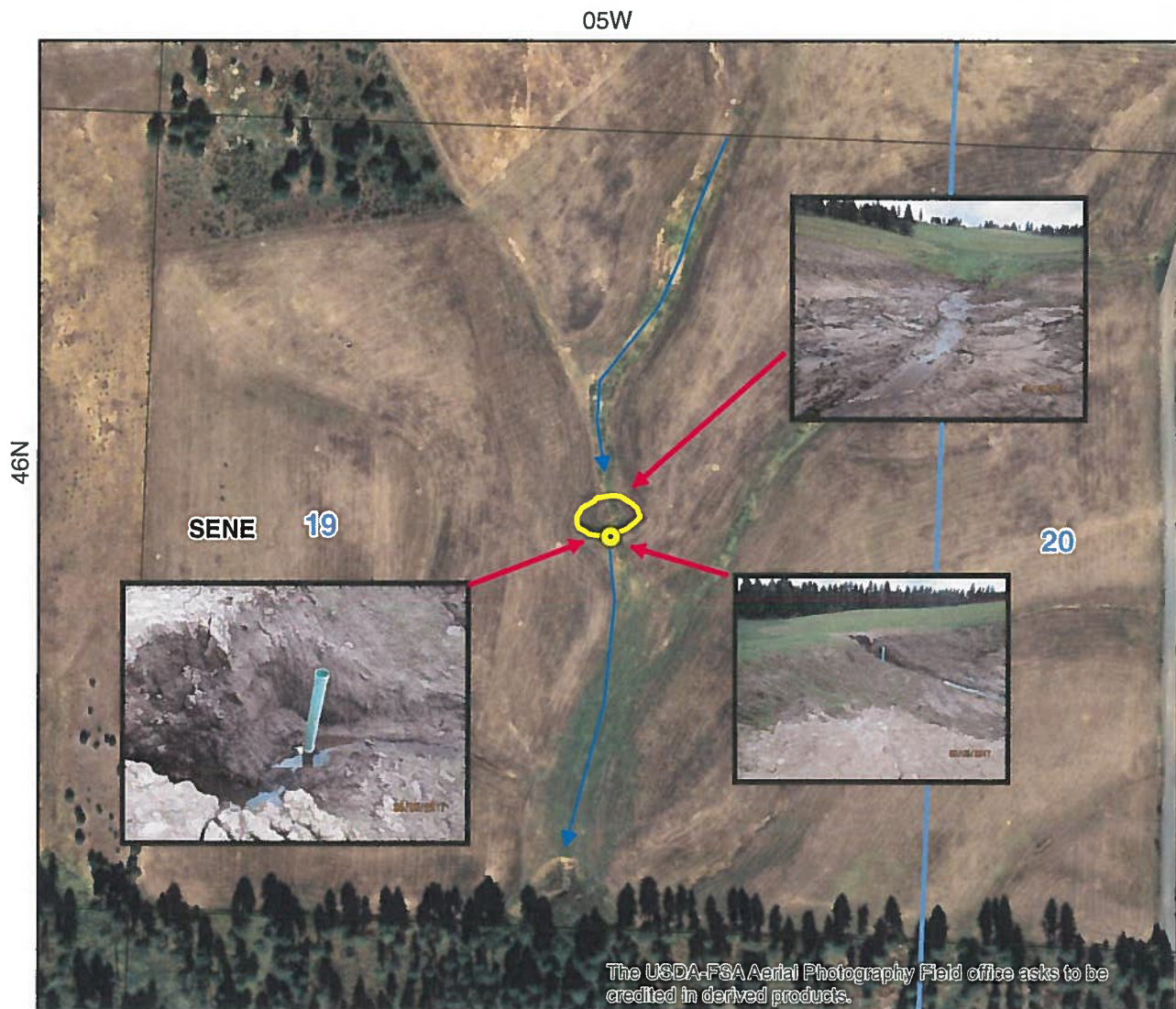
-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections

0 0.035 0.07 0.14 Miles



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SYSTEM DIAGRAM



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

0 0.035 0.07 0.14 Miles



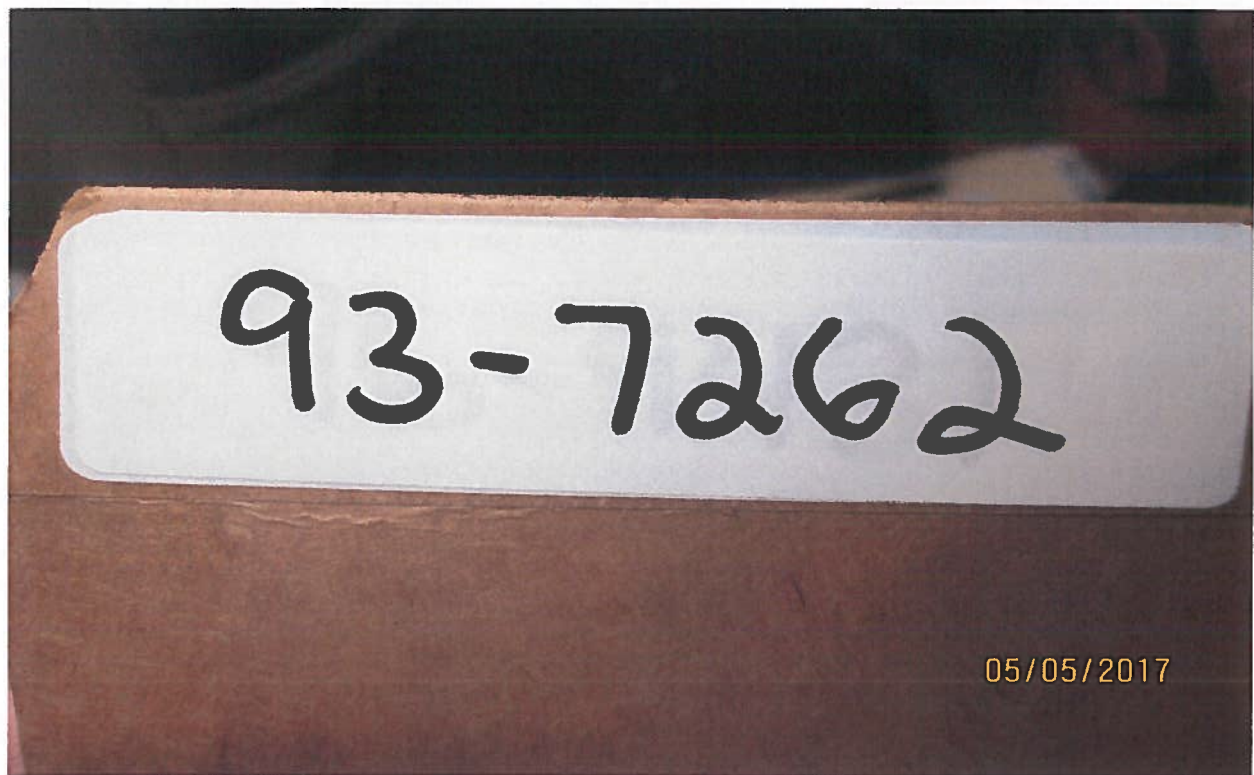
Total Storage Calculations

FILE NUMBER	93-7262
REVIEWER	Adam Frederick
DATE	5/31/2017

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.)	0.11	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	5	"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	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)	0.8	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.



View of dam. Applicant said the dam washes out each year and he hasn't found a good way to keep it there.



Overview of pond, you can see water has been stored in pond because grass isn't really growing in storage area.



View from dam at overflow culvert and storage area.



View downstream of dam with debris washout from dam.



12 inch overflow pipe.



View of hole in dam after washout.



View of storage area of pond where grass was not growing.



Storage area.



Storage area.