

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 83-11989
Exam Date: 06/29/2023

1. Current Owner:
REX A SUMMERFIELD 147 WILSON RD WEIPPE ID 83553 AND/OR
TERRI C SUMMERFIELD 147 WILSON RD WEIPPE ID 83553

2. Accompanied by:
Phone No:
Address:
Relationship to permit Holder:

3. **SOURCE:**
UNNAMED STREAM

Tributary
CRANBERRY CREEK

Method of Determination: GIS and field observations

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
n/a			

Comments: No Overlapping WR's

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

Water Right No.	Source	Purpose of Use	Basis

Comments: No Overlapping WR's

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

UNNAMED STREAM NE¼ SW¼, Sec. 24, Twp 38N, Rge 02E, B.M. CLEARWATER County
UNNAMED STREAM NE¼ SW¼, Sec. 24, Twp 38N, Rge 02E, B.M. CLEARWATER County
UNNAMED STREAM SE¼ SW¼, Sec. 24, Twp 38N, Rge 02E, B.M. CLEARWATER County

Method of Determination: GIS and field GPS observations

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	
38N	02E	24									X	X		X					

PLACE OF USE: RECREATION 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	
38N	02E	24									X	X		X					

Method of Determination: GIS and field observations

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.*
Northern Pond: 993186
Central Pond: 993187
Southern Pond: 993188

D. FLOW MEASUREMENTS

N/A: No flow elements on water right permit (on-stream storage with no measuring device requirements)

E. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Measured Method: N/A

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: No irrigation developed

2. Volume Calculations for Other Uses:

RECREATION STORAGE (See attached *Total Storage Calculations*)

	Surface Area (acres)	Capacity (acre-ft)	Losses (acre-ft)
NORTHERN POND (max 9 ft deep)	0.04	0.15	0.38
CENTRAL POND (max 10 ft deep)	0.09	0.36	0.80
SOUTHERN POND (max 9 ft deep)	0.04	0.13	0.32
TOTAL (2 sig. figures)	0.2	0.6	1.5

Recommended Volume: $0.6 + 1.5 = 2.1$ acre-ft

STOCKWATER STORAGE

10-25 head of range cattle = 0.4 acre-ft

ANNUAL RECOMMENDED VOLUME = 2.1 AF + 0.4 AF = 2.5 AF

G. NARRATIVE/REMARKS/COMMENTS

Permit 83-11989 authorized the diversion of 17.7 acre-ft of water from three unnamed streams tributary to Cranberry Creek in NE¼ SW¼ and SE¼ SW¼, Sec. 24, Twp 38N, Rge 02E in Clearwater County. Cranberry Creek is tributary to Dworshak Reservoir. Uses permitted included irrigation storage, irrigation from storage, stockwater storage, stockwater from storage, wildlife storage, and recreation storage. Proof was submitted and received on August 12, 2022. A field exam was performed on June 29, 2023, with the permit holders, Rex and Terri Summerfield, present.

The points of diversion were confirmed to be from unnamed streams in the correct PLS descriptions. The field exam was conducted at a time when the streams were not running, so it is hard to discern what percentage of the ponds were diffuse surface water runoff. Measurements were taken at the northern and southern ponds where aerial imagery is inadequate for determining size and shape. The capacities of the ponds were determined using the *Pond Loss Calculation Spreadsheet*.

The Statement of Completion form for submitting proof of beneficial use states: "Not enough surface runoff for irrigation. Stock, wildlife, and recreational use only. Ponds are 3 earthen dam ponds." Rex stated that only 0.66 acre-ft of the permitted 17.7 acre-ft had been developed and put to beneficial use. He also included pictures of the ponds at their capacities and included proof that fish screens were installed, as he has a permit for stocking at least one of the ponds with fish. Upon inspection, it was verified that no irrigation has occurred, likely due to insufficient supply. The stockwater from storage use had also not been developed; cattle drink directly from the ponds and there are no diversions from the ponds whatsoever. The permit holders have had up to 25 head of cattle, to which the corresponding volume requirement is 0.4 acre-ft (application processing memo no.3).

When the application for permit had been sent to Idaho Fish and Game, they commented that there was insufficient proof that the project held any benefit to wildlife and that they recommended removing the wildlife use from the permit. The comment letter is saved in the physical folder and online. Specifically, they contend that there is no wildlife management plan and that providing a drinking water source is not necessary given the proximity to Cranberry Creek and Dworshak Reservoir. I recommend the wildlife use is removed from the license.

I recommend 2.5 acre-ft of water diverted annually to account for a total pond capacity of 0.6 acre-ft, annual losses due to seepage and evaporation of 1.5 acre-ft, and an additional 0.4 acre-ft for stockwater storage. Conditions 259 and 220 should be revised to reflect the recommended volume. The permit holders complied with condition X15 but it should be removed since the developed use is onstream storage. X02 should not be used on the license in accordance with current policy. Condition 004 should be removed, the POD's and POU's are confirmed to be within land owned by the permit holders. Condition R66 should be removed, irrigation use was not developed.

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>Rate of Diversion</u>	<u>Annual Volume</u>
STOCKWATER STORAGE	01/01 to 12/31		0.4 AF
RECREATION STORAGE	01/01 to 12/31		2.1 AF

Totals:

2.5 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

Blake Burkard -

Field Examiner's Name [Signature] Date 7/5/24

Reviewer Ph... Date 5/3/24



Figure 1: Permit System Diagram. POD shapes represent center of earthen embankment.



Figure 2: Northern Pond inflow and high watermark



Figure 3: Northern pond GPS



Figure 4: Northern pond facing downstream embankment



Figure 5: Northern pond screened outflow



Figure 6: Central pond and screened outflow



Figure 7: Central pond GPS



Figure 8: Southern Pond at capacity



Figure 9: Southern pond GPS

83-11989

Total Storage Calculations

FILE NUMBER	83-11989
REVIEWER	Blake Burkard
DATE	8/7/2023

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

Southern Pond

Surface Area (AC.)	0.036	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	3.6	"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)	0.130	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)	0.26	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.06	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	0.450	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.

83-11987

Total Storage Calculations

FILE NUMBER	83-11987
REVIEWER	Blake Burkard
DATE	8/7/2023

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

Northern Pond

Surface Area (AC.)	0.04219	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	3.6	"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)	0.152	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)	0.31	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.07	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	0.528	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.

83-11989

Total Storage Calculations

FILE NUMBER	86-12096
REVIEWER	Blake Burkard
DATE	8/7/2023

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

Central Pond

Surface Area (AC.)	0.0903	"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)	0.361	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)	0.66	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.14	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	1.165	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.