

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-35242
Exam Date: 07/03/2024

1. Current Owner:
LEANNA MOSER 10200 GABICA ST MIDDLETON ID 83644-5704 AND
JAMES MOSER 10200 GABICA ST MIDDLETON ID 83644-5704
2. Accompanied by: JAMES MOSER
Phone No: 208-908-1694
Address: 10200 GABICA ST MIDDLETON ID 83644-5704
Relationship to permit Holder: Permit Holder

3. **SOURCE:**
GROUND WATER

Method of Determination: Site visit, aerial imagery, pond intercepts shallow groundwater

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 SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
GROUND WATER L1 (SE $\frac{1}{4}$ SE $\frac{1}{4}$), Sec. 8, Twp 04N, Rge 02W, B.M. CANYON County

Method of Determination:

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	
04N	02W	8																X L1	

PLACE OF USE: AESTHETIC 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	
04N	02W	8																X L1	

Method of Determination: Site visit, 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
NONE					

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NONE						

2. Measurements: No flow rate to measure**E. FLOW CALCULATIONS**N/A Additional Computation Sheets Attached**F. VOLUME CALCULATIONS**

1. Volume Calculations for irrigation: None
2. Volume Calculations for Other Uses: Aesthetic & Recreational Storage

Using the submitted Pond Loss Calculation Spreadsheet, GIS tracing and measurement tools, information collected at the field exam, and depth approximations the following theoretical calculations were determined:

Surface area (GIS): 0.5 acres

Average pond depth: 8 feet

Losses: 1.2 AF Pond Evaporation [(756.98 mm/yr / 304.8) X 0.5-acre surface area = 1.2-acre feet annual evap loss]

Pond Capacity: 4 AF (8 feet avg depth X 0.5-acre surface area = 4 AF pond capacity)

4 AF Pond Capacity + 1.2 AF Losses = 5.2 AF

Theoretical Aesthetic & Recreational Storage Volume: 5.2 AF

Permitted Aesthetic & Recreational Storage Volume: 21.1AF

License Recommendation: 5.2 AF

G. NARRATIVE/REMARKS/COMMENTS

A field exam was conducted on July 03, 2024, by Water Resource Agent Sr. Marcelina Williams and was accompanied by James Moser. James Moser is the current owner of the permit and original applicant. The permit was issued on October 19, 2022, and proof of beneficial use was submitted on October 24, 2023.

A 0.5-acre pond was excavated to an average depth of 8 feet and intercepts shallow groundwater. The pond is used for aesthetic and recreational purposes year-round. The aesthetic and recreational use component of this right authorizes the storage of water for the pond capacity and for the evaporation loss. There is no seepage loss because the pond intercepts shallow ground water. ArcMap tools and aerial imagery, supported by photos taken during the field exam, were used to verify the POU area.

Condition 26A was removed as per department licensing standards. Condition 121 was updated to 103 as per department licensing standards. Condition 219, ~~220~~, 123, X59 and X60 were carried over at licensing.

Have conditions of permit approval been met? ☒ 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>
RECREATION STORAGE	01/01 to 12/31		5.2 AF
AESTHETIC STORAGE	01/01 to 12/31		5.2 AF

Totals:

5.2 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

Marcelina Williams - Water Resource Agent Sr.

Field Examiner's Name Marcelina Williams Date 09.24.24

Reviewer [Signature] Date 9/24/24

DELIVERY SYSTEM DIAGRAM

Water Right No. 63-35242



Total Storage Calculations

FILE NUMBER	63-35242
REVIEWER	MW
DATE	8/24/2024

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.)	8	"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)	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	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)	0.0	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	1.2	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	5.2	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.

Flow Rate into Pond (CFS)	1.00	The "Flow Rate into Pond" depicts the actual flow, either measured or estimated, into the pond. For offstream facilities, this will be equivalent to "diversion to storage" rate.
Highest Daily Evaporation Rate From Evaporation Tab. (mm/Day)	4.88	This number is carried over from the "Evaporation Loss" sheet. It is the highest recorded number in the "Precipitation Deficit Table".
Required Daily Maintenance Volume (AF/Day)	0.01	"Required Daily Maintenance Volume" is the maximum volume of water needed on any given day during the year to maintain pond volume. It is calculated by adding the highest daily evaporation loss to the average daily seepage loss in acre feet. The average daily seepage loss is calculated by dividing the "Estimated Seepage Loss" by 365 days. This is acceptable, since the seepage rate shouldn't vary throughout the season unless the pond completely freezes over during the winter months. The highest daily evaporation loss is calculated by dividing the Highest Daily Evaporation Rate by the 304.8 conversion factor and multiplying this number by the pond surface area to attain a combined daily acre feet requirement.
Minimum Maintenance Flow (CFS)	0.00	The "Minimum Maintenance Flow" is the minimum amount of flow required to maintain the level of the pond. This number is determined by dividing the "Maximum Required Daily Maintenance Volume" by 1.9835. This flow can be used to determine if the flow rate into the pond is adequate to maintain the pond level.
Days Required to Fill the Pond	2	The "Days Required to Fill the Pond" is calculated by dividing the "Pond Capacity" by the "Flow Rate" minus "Minimum Maintenance Flow" multiplied by 1.9835. This section will assist you in determining if the flow rate being diverted to the pond is adequate to fill the pond while maintaining the pond level. The length of time to fill the pond will help determine if the flow rate is adequate for the size of pond being proposed. If this number is approximately 6 months (180 days) or more, the reviewer should have a discussion with the applicant to make sure he/she understands that it will take a significant length of time to fill the pond.
Days Required to Fill the Pond at 13,000 Gallons per Day	125	Some water users may want to fill a pond under the 13,000 gallons per day domestic exemption. The "Days Required to Fill the Pond at 13,000 Gallons per Day" is calculated by converting the "Pond Capacity" and the "Required Daily Maintenance Volume" to gallons. The "Pond Capacity" is then divided by 13,000 gallons minus the "Required Daily Maintenance Volume" in gallons to determine the number of days to fill pond. If this number is approximately 6 months (180 days) or more, the reviewer should have a discussion with the applicant to make sure he/she understands that it will take a significant length of time to fill the pond. Negative values indicate that the supply of 13,000 gallons per day is not enough volume to overcome the required daily maintenance volume; the pond will never fill.

Seepage Loss Calculations

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the total annual seepage losses from a pond.

FILE NUMBER	63-35242
REVIEWER	MW
DATE	8/24/2024

User Input
Calculated value
Formula Explanations

INPUTS

Pond Surface Area (AC.)	0.5	AC.
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Pond Surface Area (SQ. FT.)	1800	SQ. FT.
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I used the following method to obtain my Soil Classification information:	NRCS Web Soil Survey	
My Soil Classification is	GrndWtr	
Suggested Seepage Rate (FT./DAY)	0.0000	FT./DAY

Formula: (Surface Area X Seepage Rate) X 7.48 = Gallons Per Day Loss
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Convert to GPD	0	GPD
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Total Seepage Loss (AFA)	0.0	AFA
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Though sand and gravel seepage rates may actually be higher, the maximum allowable rate is 0.2 ft/day, pursuant to Administrative Memo "Seepage Loss Standards for Ponds and Reservoirs."

Suggested Seepage Rates for Different Soil Types:
GW, GP, GM, GC, SW, SP and SM (silty sand, sand silt mixtures and gravel mixtures) = 0.2 ft per day
OL and ML (inorganic silts - very fine sands, silty, or clayey fine sands) = 0.02 ft per day
SC (clayey sands, sand clay mixtures) = 0.007 ft per day
CL (Low to medium plasticity clays) = 0.003 ft per day
MH, OH, PT and CH (high plasticity clays) = 0.0003 ft per day
LINED PONDS (liners can be chemical, fabric, or bentonite) = 0 ft per day
Ponds Intercepting Groundwater (excavated ponds filled by ground water) = 0 ft per day

PLEASE NOTE: The initial basis for the Suggested Seepage Rates in the table above is found on Page 16 of Seepage from Fish Ponds, Bulletin 599, August 1989 Alabama Agricultural experiment Station, Auburn University, Auburn University Alabama. If you don't know the soil type, please refer to the map provided at the NRCS Web Soil Survey (Tab #1), an ArcMap Soil Classification Map (Tab #1.1), or published NRCS Soil Survey (Tab #1.2). Use "0" if the pond fill relies on the water table.

Evaporation Loss Calculations

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the annual evaporation losses from a pond.

FILE NUMBER	63-35242
REVIEWER	MW
DATE	8/24/2024

User Input
Calculated value
Formula Explanations

The acronyms used on the Kimberly Research Center website are defined below:

P = Precipitation
ET= Evapotranspiration
P _d = Precipitation deficit
P _d =ET-P

USING THIS SPREADSHEET

Use the link below to access the Kimberly Research Center website. This website provides the Precipitation Deficit for a station most representative of the pond under examination. The Precipitation Deficit is the total amount of free water surface evaporation minus the precipitation for a given area, which gives the total amount of evaporative losses incurred by the pond. There are several weather sites that are used throughout the state. IDWR staff can find the nearest site using Arc Map. The shape file containing the sites can be found at <X:/Spatial/Climate/ETIdahostations.shp>.

Instructions:

1. Use the link below to navigate to ET Idaho 2012.
2. Select the station which is most representative to your pond location.
3. Click Submit Query.
4. Under "Land Covers with Evapotranspiration Estimates," select "Open Water - Shallow Systems (ponds, streams)" or "Open Water - small stock ponds" depending on the pond size.
5. Click the link to "Precipitation Deficit."
6. Reference and copy (ctrl + C) the first subheading "Mean" values.
7. Click the "Paste Values from ET Idaho" button. The table will automatically enter a zero (0) for any negative precipitation deficit values.

Found at: <https://et-idwr.idaho.gov/>

Precipitation Deficit

Station: Twin Falls 2 NNE (NWS -- 109294)

Month	mm/day ¹	Days per month	mm/Month
Jan	-0.74	31	0.00
Feb	0.07	28	1.96
March	1.11	31	34.41
April	2.45	30	73.50
May	3.49	31	108.19
June	4.21	30	126.30
July	4.88	31	151.28
August	4.11	31	127.41
September	2.78	30	83.40
October	1.63	31	50.53
November	-0.20	30	0.00
December	-0.78	31	0.00

PLEASE NOTE: The seasonal average for precipitation deficit should not be used for calculations because precipitation often exceeds evaporation during wetter months of the year. If the pond is kept full, excess precipitation during wetter months does not serve to refill the pond during drier months.

For example, see Sandpoint KSPT (NWS -- 108137), the annual precipitation deficit is -106 mm. However, April through September have positive precipitation deficit values. To properly estimate the annual volume of water necessary to refill a pond due to evaporation losses, the table will automatically enter a zero (0) for each month that the precipitation value is reported as a negative value.

As described above, precipitation offsets evaporation in winter months, so the net effect is that wintertime precipitation deficit is usually zero.

Total mm/year = 756.98

$[(\text{mm/yr}) \div (\text{convert to feet})] \times (\text{Surface area of pond, in acres}) = \text{Evaporation Loss in Acre Feet}$

$$\left(\frac{756.98}{304.8} \right) \times 0.50 = 1.2 \text{ AFA}$$



Fig. 1 – Southeast corner of pond with home to the West.

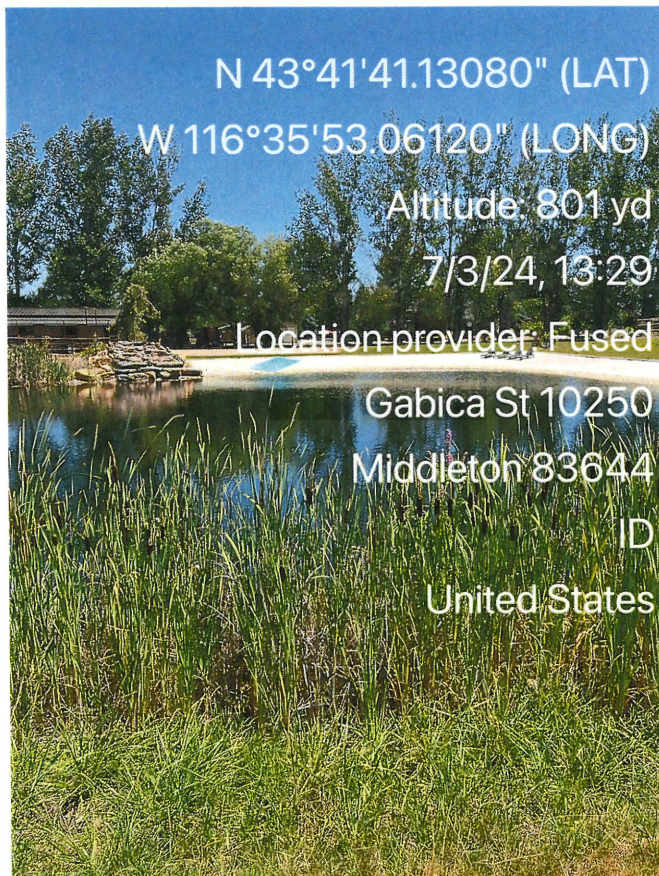


Fig. 2 – West side of pond corner facing



Fig. 3 – Looking West



Fig. 4 – Looking South to the house.



Western Region • 2735 W Airport Way • Boise, ID 83705-5082

Phone: 208-334-2190 • Fax: 208-334-2348 • Email: westerninfo@idwr.idaho.gov • Web: idwr.idaho.gov

Governor Brad Little

Director Mathew Weaver

May 31, 2024

JAMES MOSER
LEANNA MOSER
10200 GABICAST
MIDDLETON ID 83644

Re: Notice of Intent to Void Water Right Permit No. 63-35242

Dear Permit Holder:

We are planning to conduct water right examinations in the vicinity of the above-referenced permit **this season**. An examination is needed to verify the water use to issue a water right license.

The above-referenced permit authorizes **21.1 AF of ground water for aesthetic and recreation storage use**. **If you have developed a beneficial use of water and still own the place of use property, please contact me at your earliest convenience to schedule an examination.**

If you did not develop a beneficial use of water under the permit during the beneficial use period, a license cannot be issued, and the permit should be relinquished. If that use was developed but you have ceased using the water and currently carry no interest in it, please relinquish the permit by submitting the enclosed Relinquishment of Permit form (no fee required).

The Department sent the original request via mail dated May 1, 2024. The letter stated that a reply must be made within thirty (30) days or the Department will void the permit. As of May 31, 2024, no correspondence has been received by the Department. If it is your intent to further pursue the permit, please provide a response to the original letter or request additional time to respond. It is the intent of the Department to void your permit within the next fourteen (14) days if no response is received. **Please contact me within the next fourteen (14) days at (208) 605-4632 to either schedule an examination or submit a relinquishment form. If you no longer own the place of use property do not respond to this letter, the department will work with the current property owner to issue a license or void the permit.**

Sincerely,

Marcelina Williams
Water Resource Agent Sr.

Enclosure: Relinquishment of Permit Form



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Governor Brad Little

Director Mathew Weaver

May 1, 2024

JAMES MOSER
LEANNA MOSER
10200 GABICAST
MIDDLETON ID 83644

RE: Scheduling Field Exam for Water Right Permit No. 63-35242

Dear Permit Holder:

We are planning to conduct water right examinations in the vicinity of the above-referenced permit **this season**. An examination is needed to verify the water use to issue a water right license.

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Sincerely,

Marcelina M. Williams
Water Resource Agent Sr.

Enclosure: Relinquishment of Permit Form



IDAHO DEPARTMENT OF
WATER RESOURCES

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Phone: 208-334-2190 • Fax: 208-334-2348 • Email: westerninfo@idwr.idaho.gov • Web: idwr.idaho.gov

Governor Brad Little

Director Mathew Weaver

April 25, 2024

JAMES MOSER
LEANNA MOSER
8440 W SPARKS LAKE DR
BOISE ID 83714-2233

RE: Scheduling Field Exam for Water Right Permit No. 63-35242

Dear Permit Holder:

We are planning to conduct water right examinations in the vicinity of the above-referenced permit **this season**. An examination is needed to verify the water use to issue a water right license.

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Sincerely,

Marcelina M. Williams
Water Resource Agent Sr.

Enclosure: Relinquishment of Permit Form