

RECEIVED

DEC 05 2016

WATER RESOURCES
WESTERN REGION12-5-16
AMENDED
STATE OF IDAHODEPARTMENT OF WATER RESOURCES
APPLICATION FOR PERMIT
To appropriate the public waters of the State of IdahoIdent. No. 65-23682

1. Name of applicant(s) Garrett Post &/Or Trisha Post Phone 208.412.1075
 Name connector (check one) ☐ and ☐ or ☒ and/or
 Mailing address 5840 Adams Rd Email tvdrilling@gmail.com
2. Name of representative, if any _____ Phone _____
 Mailing address _____ Email _____
- a. ☐ Send all correspondence for this application to the representative and not to the applicant OR
☐ Send original correspondence to the applicant and copies to the representative.
- b. ☐ The representative may submit information for the applicant but is not authorized to sign for the applicant OR
☐ The representative is authorized to sign for the applicant. Attach a Power of Attorney or other documentation providing authority to sign for the applicant.
3. Source of water supply Ground Water which is a tributary of _____
4. Location of point(s) of diversion:

Twp	Rge	Sec	Govt Lot	1/4	1/4	1/4	County	Source	Local name or tag #
7N	4W	9			SW	NW	PAYETTE	GROUND WATER	N/A
7N	4W	9			SW	NW	PAYETTE	GROUND WATER	N/A

5. Water will be used for the following purposes:
- Amount 0.05 CFS for DIVERSION TO STORAGE purposes from 1/1 to 12/31 (both dates inclusive)
 (cfs or acre-feet per year)
- Amount 0.04 CFS for DOMESTIC purposes from 1/1 to 12/31 (both dates inclusive)
 (cfs or acre-feet per year)
- Amount 16.1 AF for AESTHETIC STORAGE purposes from 1/1 to 12/31 (both dates inclusive)
 (cfs or acre-feet per year)
- Amount 16.1 for FISH PROPAGATION purposes from 1/1 to 12/31 (both dates inclusive)
 (cfs or acre-feet per year)
6. Total quantity to be appropriated is (a) .05 cubic feet per second (cfs) and/or (b) 26.1 acre-feet per year (af).
7. Proposed diverting works:
- a. Describe type and size of devices used to divert water from the source. Pond will naturally fill with ground water and water will also be diverted from a 2hp and 7hp pump from well.
- b. Height of storage dam x feet; active reservoir capacity 1/2 acre acre-feet; total reservoir capacity 1/2 acre acre-feet. If the reservoir will be filled more than once each year, describe the refill plan in item 11. For dams 10 feet or more in height AND having a storage capacity of 50 acre-feet or more, submit a separate [Application for Construction or Enlargement of a New or Existing Dam](#). Application required? ☐ Yes ☐ No
- c. Proposed well diameter is 8 inches; proposed depth of well is 700 feet.
- d. Is ground water with a temperature of greater than 85°F being sought? ☐ Yes ☒ No
- e. If well is already drilled, when? No; drilling firm - _____;
 well was drilled for (well owner) - _____; Drilling Permit No. - _____

For Department Use

Received by RS Date 12-5-16 Time Am. Preliminary check by _____
 Fee \$ 250 Received by WESTERN Receipt No. W044808 Date 11-28-16

* Fee received w/ original application

pg. 1

8. Description of proposed uses (if irrigation only, go to item 9):

- a. Hydropower; show total feet of head and proposed capacity in kW. - _____
- b. Stockwatering; list number and kind of livestock. - _____
- c. Municipal; must complete and attach the [Municipal Water Right Application Checklist](#).
- d. Domestic; show number of households 1 Home
- e. Other; describe fully. 2 acres of irrigation, pond for aesthetic use and the propagation of 400 fish.

9. Description of place of use:

- a. If water is for irrigation, indicate acreage in each subdivision in the tabulation below.
- b. If water is used for other purposes, place a symbol of the use (example: D for Domestic) in the corresponding place of use below. See instructions for standard symbols.

TWP	RGE	SEC	NE				NW				SW				SE				TOTALS
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
7N	4W	9							2										2
									D										
									J										
									H										

Total number of acres to be irrigated: 2

10. Describe any other water rights used for the same purposes as described above. Include water delivered by a municipality, canal company, or irrigation district. If this application is for domestic purposes, do you intend to use this water, water from another source, or both, to irrigate your lawn, garden, and/or landscaping? NONE

11. a. Who owns the property at the point of diversion? APPLICANTS

b. Who owns the land to be irrigated or place of use? APPLICANTS

c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing: - _____

12. Describe your proposal in narrative form, and provide additional explanation for any of the items above. Attach additional pages if necessary. Propose to drill one well and excavate a pond with a surface area of .5 acre and a depth of 22' for aesthetic, fish propagation, domestic, and irrigation uses. The pond will naturally fill with groundwater in addition to ground water being diverted into the pond from the proposed well.

Water bearing zone to be appropriated is from 0' to 700'.

13. Time required for completion of works and application of water to proposed beneficial use is 5 years (minimum 1 year).

14. **MAP OF PROPOSED PROJECT REQUIRED** - Attach an 8½" x 11" map or maps clearly identifying the proposed point of diversion, place of use, section #, township & range. The map scale shall not be less than two (2) inches equal to one (1) mile.

The information contained in this application is true to the best of my knowledge. I understand that any willful misrepresentations made in this application may result in rejection of the application or cancellation of an approval.

Signature of Applicant

Signature of Applicant

Print Name (and title, if applicable)

Print Name (and title, if applicable)

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Ident. No. 65-23082.

Season of Use/Purpose of Use Supplement

Attachment to: ☒ Application for Permit to Appropriate Water ☐ Adjudication Claim ☐ Beneficial Use Field Report
☐ Application for Amendment of Permit ☐ Statutory Claim

Water will be used for the following purposes:

Amount 10.0 AF for IRR FROM STORAGE purposes from 3/1 to 11/15 (both dates inclusive)
(cfs or acre-feet per year)

Amount 10.0 AF for IRR STORAGE purposes from 3/1 to 11/15 (both dates inclusive)
(cfs or acre-feet per year)

Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per year)

Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per year)

Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
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(cfs or acre-feet per year)

Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per year)

65-23082

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	xx-xxxxx
REVIEWER	Rache & Sonny
DATE	11/28/2016

User Input
Calculated value
Formula Explanations

INPUTS

Pond Surface Area (AC.)	0.5	AC.
-------------------------	-----	-----

Pond Surface Area (SQ. FT.)	21780	SQ. FT.
-----------------------------	-------	---------

I used the following method to obtain my Soil Classification information:	NRCS Web Soil Survey	
My Soil Classification is	GP	
Suggested Seepage Rate (FT./DAY)	0.0200	FT./DAY

Formula: (Surface Area X Seepage Rate) X 7.48 = Gallons Per Day Loss
--

Convert to GPD	3258	GPD
----------------	------	-----

Total Seepage Loss (AFA)	3.6	AFA
--------------------------	-----	-----

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.

65-28682

pg. 4

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	XX-XXXXX
REVIEWER	Rache & Sonny
DATE	11/28/2016

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: <http://data.kimberly.uidaho.edu/ETIdaho/>

Precipitation Deficit

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

Month	mm/day ¹	Days per month	mm/Month
Jan	0.37	31	11.47
Feb	0.92	28	25.76
March	1.97	31	61.07
April	3.07	30	92.10
May	3.82	31	118.42
June	4.16	30	124.80
July	4.37	31	135.47
August	3.83	31	118.73
September	2.87	30	86.10
October	1.86	31	57.66
November	0.81	30	24.30
December	0.37	31	11.47

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 = **867.35**

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

(**867.35**) ÷ **304.8**) X **0.50** = **1.4 AFA**

Flow Rate into Pond (CFS)	22.00	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)	4.37	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)	0.02	"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)	0.01	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	0	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	484	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.

Total Storage Calculations

FILE NUMBER	XX-XXXX
REVIEWER	Rache & Sonny
DATE	11/28/2016

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

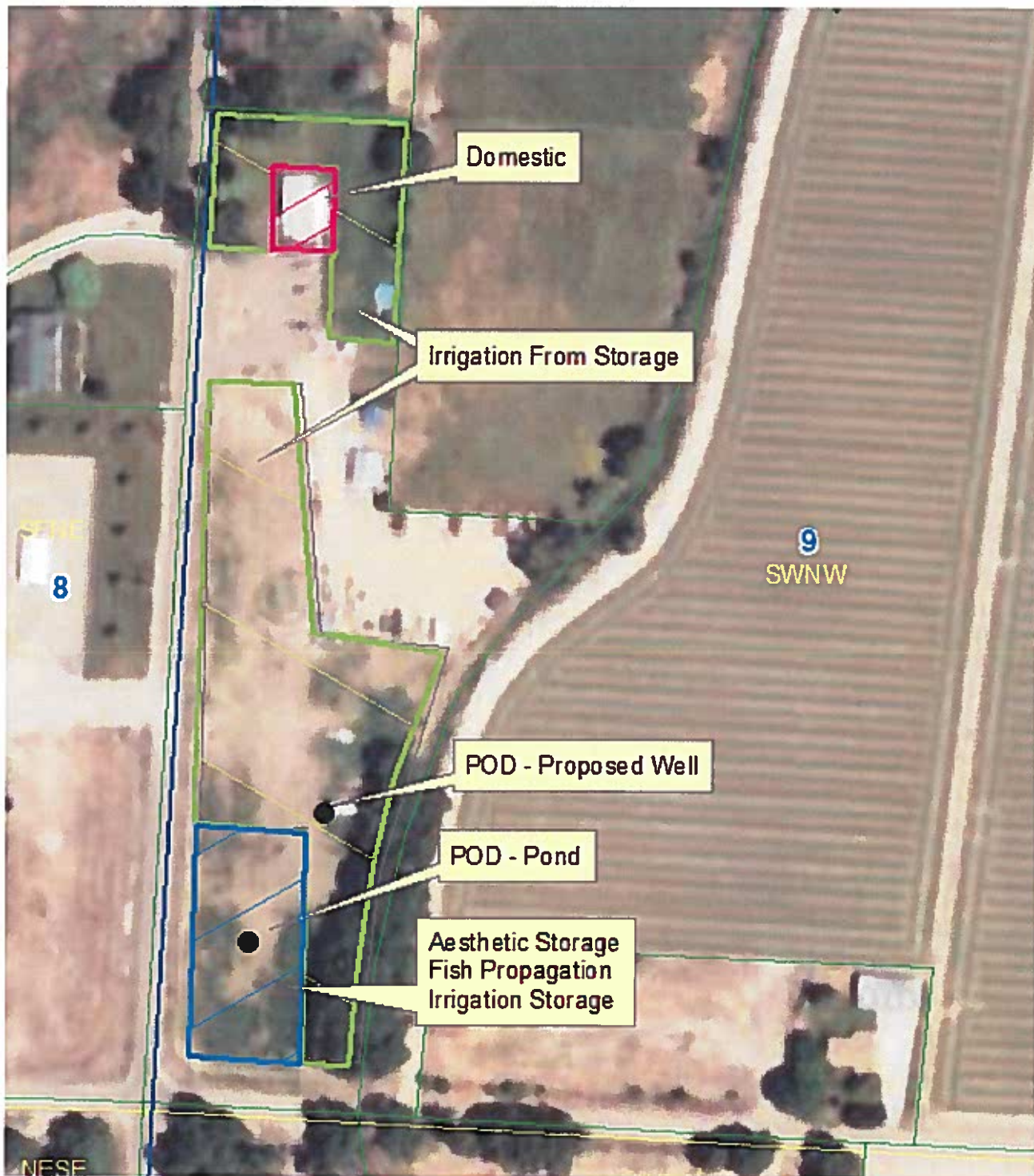
Surface Area (AC.)	0.5	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	22	"Average Pond Depth" depicts the actual depth of the pond either measured or estimated. Note: If you know the maximum depth and not the average depth, the Field Examiner's Handbook 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)	11	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)	10	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)	3.6	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	1.4	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	26.1	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.

16.1 AF IS USED FOR FISH POND AND AESTHETIC
 10.0 ADDITIONAL FOR IRRIGATION FROM STORAGE.
 26.1 TOTAL.

65-23682

A.7

POST
7N 4W SEC 9 SWNW



65-23682

pg. 8

NOV 28 2016

WATER RESOURCES
WESTERN REGION

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
APPLICATION FOR PERMIT

To appropriate the public waters of the State of Idaho

Ident. No. 05-23082

1. Name of applicant(s) Garrett Post Trisha Post Phone 208-412-1075
Name connector (check one): ☐ and ☐ or ☒ and/or
Mailing address 5840 Adams Rd City New Plymouth
State ID Zip 83655 Email tristilling@gmail.com
2. Source of water supply ground water which is a tributary of _____
3. Location of point(s) of diversion:

TWP	RGE	SEC	Govt Lot	1/4	1/4	1/4	County	Source	Local name or tag #
<u>07N</u>	<u>04W</u>	<u>9</u>		<u>-</u>	<u>SW</u>	<u>NW</u>	<u>Payette</u>	<u>Ground water</u>	
<u>07N</u>	<u>04W</u>	<u>9</u>		<u>-</u>	<u>SW</u>	<u>NW</u>	<u>Payette</u>	<u>well</u>	<u>- ground water</u>

4. Water will be used for the following purposes: SEE ATTACHED FOR ALL USES.
Amount 10. AF for IRR FROM SPRING purposes from 3/1 to 11/15 (both dates inclusive)
(cfs or acre-feet per year)
Amount 16.1 AF for AESTHETIC STORAGE purposes from 1-1 to 12-31 (both dates inclusive)
(cfs or acre-feet per year)
Amount 10.1 AF for Fish Propagation purposes from 1-1 to 12-31 (both dates inclusive)
(cfs or acre-feet per year)
Amount 10. AF for IRR STORAGE purposes from 1-1 to 12-31 (both dates inclusive)
(cfs or acre-feet per year)
5. Total quantity to be appropriated is (a) .05 CFS cubic feet per second (cfs) and/or (b) 26.1 AF acre feet per year (af).
6. Proposed diverting works:
a. Describe type and size of devices used to divert water from the source. 2hp & 7hp pump, well
b. Height of storage dam 0 feet; active reservoir capacity 1/2 acre acre-feet; total reservoir capacity _____ acre-feet. If the reservoir will be filled more than once each year, describe the refill plan in item 11. For dams 10 feet or more in height OR reservoirs with a total storage capacity of 50 acre-feet or more, submit a separate Application for Construction or Enlargement of a New or Existing Dam. Application required? ☐ Yes ☒ No
c. Proposed well diameter is 8 inches; proposed depth of well is 700 feet.
d. Is ground water with a temperature of greater than 85°F being sought? ☐ Yes ☒ No
e. If well is already drilled, when? 120; drilling firm _____; well was drilled for (well owner) _____; Drilling Permit No. _____
7. Description of proposed uses (if irrigation only, go to item 8):
a. Hydropower; show total feet of head and proposed capacity in kW. _____
b. Stockwatering; list number and kind of livestock. 400 Fish
c. Municipal; complete and attach the Municipal Water Right Application Checklist.
d. Domestic; show number of households 1
e. Other; describe fully. land scape, Grass 2 trees

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Ident. No. 65-23682

Season of Use/Purpose of Use Supplement

Attachment to: ☒ Application for Permit to Appropriate Water ☐ Adjudication Claim ☐ Beneficial Use Field Report
☐ Application for Amendment of Permit ☐ Statutory Claim

Water will be used for the following purposes:

Amount .05 cfs for DIVERSION TO STORAGE purposes from 1/1 to 12/31 (both dates inclusive)
(cfs or acre-feet per year)

Amount .04 cfs for DOMESTIC purposes from 1/1 to 12/31 (both dates inclusive)
(cfs or acre-feet per year)

Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per year)

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(cfs or acre-feet per year)

8. Description of place of use:

- a. If water is for irrigation, indicate acreage in each subdivision in the tabulation below.
- b. If water is used for other purposes, place a symbol of the use (example: D for Domestic) in the corresponding place of use below.
See instructions for standard symbols.

TWP	RGE	SEC	NE				NW				SW				SE				TOTALS
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
07N	04W	9							2										2

Total number of acres to be irrigated: 2

9. Describe any other water rights used for the same purposes as described above. Include water delivered by a municipality, canal company, or irrigation district. If this application is for domestic purposes, do you intend to use this water, water from another source, or both, to irrigate your lawn, garden, and/or landscaping?

NO

10. a. Who owns the property at the point of diversion? Garrett & Trisha Post
- b. Who owns the land to be irrigated or place of use? same
- c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing:

NO

11. Describe your proposal in narrative form, and provide additional explanation for any of the items above. Attach additional pages if necessary.

Fill pond with ground water & well, irrigate landscape from pond, keep fish in pond

WBZ - 0 to 22 ft.

DIMENSIONS OF POND - 22' DEEP . 5 ACRES.

12. Time required for completion of works and application of water to proposed beneficial use is 1yr years (minimum 1 year).

13. **MAP OF PROPOSED PROJECT REQUIRED** - Attach an 8 1/2" x 11" map clearly identifying the proposed point of diversion, place of use, section #, township & range. A photocopy of a USGS 7.5 minute topographic quadrangle map is preferred.

The information contained in this application is true to the best of my knowledge. I understand that any willful misrepresentations made in this application may result in rejection of the application or cancellation of an approval.

[Signature]
Signature of Applicant

Garrett Post
Print Name (and title, if applicable)

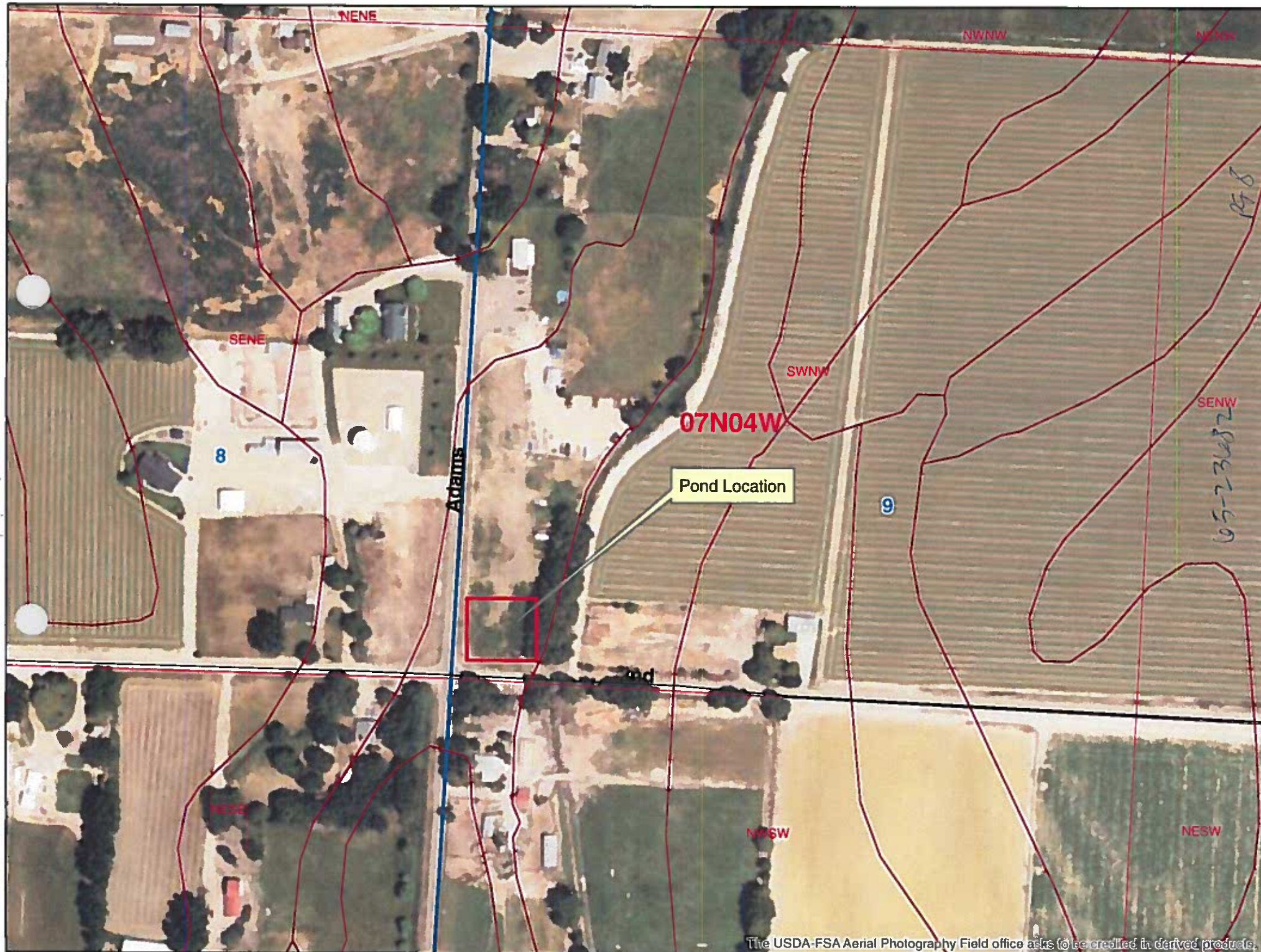
[Signature]
Signature of Applicant

Trisha D. Post.
Print Name (and title, if applicable)

Received by [Signature] Date 11/28/16 Time 9:30 Preliminary check by

Fee \$ 250.00 Received by [Signature] Receipt No. WD44808 Date 11/28/16

65-23682





07N 04W 9 SWNW

0 57.7 meters

05-23082

pg. 9



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

January 26, 2017

GARRETT F POST
TRISHA POST
5840 ADAMS ROAD
NEW PLYMOUTH, ID 83655

Application for Permit No. 65-23682

Dear Applicant(s):

The Department of Water Resources has received your water right application. Please refer to the number referenced above in all future correspondence regarding this application.

A legal notice of the application has been prepared and is scheduled for publication in the INDEPENDENT ENTERPRISE on 2/1/2017 and 2/8/2017. Protests to this application may be submitted for a period ending ten (10) days after the second publication.

If the application is protested, you will be sent a copy of each protest. All protests must be resolved before the application can be considered for approval. If the protest(s) cannot be resolved voluntarily, the Department will conduct a conference and/or hearing on the matter.

If the application is not protested, the Department will process your application and notify you of any action taken on the application. If your application is approved, the Department will send you a copy of the permit.

Please contact this office if you have any questions regarding the application.

Sincerely,

A handwritten signature in black ink, appearing to read 'Rachel Neely', with a long horizontal line extending to the right.

Rachel Neely
Administrative Assistant

Neely, Rachel

From: Neely, Rachel
Sent: Thursday, January 26, 2017 9:04 AM
To: 'Ind-Ent Legals'
Subject: Payette Legal Ad
Attachments: Payette Cover Letter.docx; Payette Legal Ad.docx

Good Morning Legal Clerk,

Please see the attached ad for publication on 2/1/17 & 2/8/17.

Please confirm these are okay to publish as shown.

Thank you,

Rachel Neely

Administrative Assistant I
IDWR-Western Region
2735 Airport Way Boise, ID 83705
Rachel.Neely@idwr.idaho.gov

January 26, 2017

LEGAL NOTICE DEPARTMENT
INDEPENDENT ENTERPRISE
124 S MAIN
PAYETTE, ID 83661

RE: Application for Permit No. 65-23682

Dear Legal Notice Department:

Please publish the enclosed legal notice on the dates indicated (once a week for two consecutive weekly issues). If you cannot publish the notice on the proposed dates, please contact us immediately.

An affidavit of publication must be submitted to the Department along with the publication bill. Please send the affidavit and bill to this office before 2/20/2017. Your cooperation is appreciated.

Sincerely,

Rachel Neely
Administrative Assistant

Enclosure(s)

The following application has been filed to appropriate the public waters of the State of Idaho:

65-23682

GARRETT F POST

TRISHA POST

5840 ADAMS ROAD

NEW PLYMOUTH, ID 83655

(2)Points of Diversion SWNW S9 T07N R04W PAYETTE County Source GROUND WATER

Use: AESTHETIC STORAGE 01/01 to 12/31 16.1 AF

Use: DIVERSION TO STORAGE 01/01 to 12/31 0.05 CFS

Use: DOMESTIC 01/01 to 12/31 0.04 CFS

Use: FISH PROPAGATION STORAGE 01/01 to 12/31 16.1 AF

Use: IRRIGATION FROM STORAGE 03/01 to 11/15 10 AF

Use: IRRIGATION STORAGE 03/01 to 11/15 10 AF

Total Diversion: 0.05 CFS

Date Filed: 12/5/2016

Places of Use: FISH PROPAGATION STORAGE, IRRIGATION STORAGE, DOMESTIC, AESTHETIC STORAGE, IRRIGATION FROM STORAGE

T07N R04W S9 SWNW

Total Acres: 2

Permits will be subject to all prior water rights. For additional information concerning the property location, contact Western Region office at (208) 334-2190; or for a full description of the right(s), please see www.idwr.idaho.gov/WaterManagement/WaterRights. Protests may be submitted based on the criteria of Idaho Code § 42-203A. Any protest against the approval of the application(s) must be filed with the Director, Dept. of Water Resources, Western Region, 2735 Airport Way, Boise ID 83705 together with a protest fee of \$25.00 for each application on or before 2/20/2017. The protestant must also send a copy of the protest to the applicant.

GARY SPACKMAN, Director

Published on 2/1/2017 and 2/8/2017

MEMORANDUM

DATE: JANUARY 12, 2017
TO: WATER RIGHT FILE 65-23682
FROM: RSOMMER
RE: COMMENT/ANALYSIS

On November 28, 2016 an application for permit was submitted in the name of Garrett and Trisha Post for multiple uses. The map submitted with the application was incomplete, the applicants submitted an amended application on December 5, 2016. The amended application lists an incomplete address, because the complete address is listed on the original application this is acceptable.

After speaking with the applicants and reviewing the proposal map it was determined the use "fish propagation" listed on the application should be recognized as "fish propagation storage" because the propagation of fish will only occur in a pond on the applicant's property.

The amount of water needed for the fish propagation storage is 16.1 af, and even though the amended application does not specify the amount to be appropriate as a volume the original application does. The total volume requested for this application is 26.1 af; 16.1 af for aesthetic storage and fish propagation storage and 10.0 af for irrigation storage. Attached is a revised Pond Loss Calculation Spreadsheet concluding the total volume needed for this project is 22.1 af; 12.1 af for aesthetic storage and fish propagation storage and 10.0 af for irrigation storage. The Department would be inclined to approve 22.1 af.

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	65-23682
REVIEWER	rsommer
DATE	1/12/2017

User Input
Calculated value
Formula Explanations

INPUTS

Pond Surface Area (AC.)	0.5	AC.
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Pond Surface Area (SQ. FT.)	21780	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	GP	
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	65-23682
REVIEWER	rsommer
DATE	1/12/2017

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: <http://data.kimberly.uidaho.edu/ETIdaho/>

Precipitation Deficit

Station: Payette (NWS -- 106891)

Month	mm/day ¹	Days per month	mm/Month
Jan	-0.93	31	0.00
Feb	-0.04	28	0.00
March	1.02	31	31.62
April	2.38	30	71.40
May	2.98	31	92.38
June	3.44	30	103.20
July	4.17	31	129.27
August	3.56	31	110.36
September	2.53	30	75.90
October	1.32	31	40.92
November	-0.36	30	0.00
December	-1.02	31	0.00

Total mm/year = **655.05**

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.

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

(**655.05**) ÷ (**304.8**) × **0.50** = **1.1 AFA**

Total Storage Calculations

FILE NUMBER	65-23682
REVIEWER	rsommer
DATE	1/12/2017

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.)	0.5	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	22	"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)	11	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)	10	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)	1.1	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	22.1	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)	0.05	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)	4.17	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	119	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	333	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.