

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 78-12421

Exam Date: 4/19/2018

1. Current Owner:
KATELYN N CAMPBELL INC 9881 CARROLL CENTRE RD SAN DIEGO CA 92126 (760) 801-9866
2. Accompanied by: Received permission from John Wallace, Director of Katelyn N Campbell Inc. to perform site visit.
Phone No:
Address:
Relationship to Permit Holder:

3. **SOURCE:**
UNNAMED STREAM

TRIBUTARY:
ROUND VALLEY CREEK

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 78-7395
2. Other water rights with the same point-of-diversion: 78-7395

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

UNNAMED STREAM SW¼SE¼ Sec. 33, Twp 21N, Rge 01E, B.M. ADAMS County

Method of Determination: Same POD as WR No. 78-7395, site visit, and aerial imagery.

2.

PLACE OF USE: AESTHETIC STORAGE and RECREATION 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	
21N	01E	33															X		

Method of Determination: Same POU as WR No. 78-7395, site visit, and 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
NA	NA	NA	NA	NA	NA

D. FLOW MEASUREMENTS

1.

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

2. Measurements: In-stream storage. No measurement necessary.

E. FLOW CALCULATIONS

Measured Method: NA

 X Additional Computation Sheets Attached

F. VOLUME CALCULATIONS

1. Volume Calculations for Aesthetic Storage and Recreational Storage:

Pond Specs –

Surface area = 0.5 acres

Maximum depth = 7 feet

Capacity = 1.4 AF (Sloped side and bottom; surface area X 2/5 X maximum depth)

$V_R = (\text{Capacity} + \text{Evaporation} + \text{Seepage}) = 1.4 \text{ AF} + 0.705 \text{ AF} + 3.65 \text{ AF} = \mathbf{5.8 \text{ AF}}$

$V_{D.R.} = \text{No Diversion Requirement; in-stream storage developed.}$

G. NARRATIVE/REMARKS/COMMENTS

Permit No. 78-12421 authorizes 7.2 AF of water for Aesthetic Storage and Recreational Storage purposes. A field exam was conducted by WRA Aaron Skinner on April 19, 2018.

BACKGROUND:

The purpose of this right was to add additional volume for the 0.5 acre pond not covered under WR No. 78-7395. The pond has a maximum depth of 7 feet, but is bowl shaped or slopes to 7 feet as shown on the enclosed exam pictures. WR No. 78-7395 calculated the capacity as a box. Therefore, the capacity and required volume will be adjusted on this right accordingly.

System Description:

Runoff water is captured in various drainage ditches/channels that convey water from an unknown source discharging water to the pond. Water is released from in the northwest corner of the pond back into the unnamed stream as outlined in the attached system diagram created by Rick Collingwood in 2014. Rick performed the field exam for WR No. 78-7395.

Diversion Rate and Volume:

There is no permitted rate to this right. The permitted volume for this right is 7.2 AF. As mentioned above, volume calculations were based on 0.5 surface area and a 7 feet deep box. Because the pond is bowl shaped, the pond capacity will be adjusted to 1.4 AF (See Section F of this report). As shown on the attached pond analysis spreadsheets, seepage is 3.650 AF using soil classification ML determined using the soil classification tool in ArcMap. Evaporation is 0.705 AF using the New Meadows Ranger Station (NWS –106388) information. Together the total required volume equates to 5.8 AF and will be recommended to licensing.

Ownership:

Current Adams County taxlot data was used to verify land ownership and confirms that Katelyn N Campbell Inc. does own the land associated to this right.

Overlap:

An overlap analysis was completed for the POD and POU. WR No. 78-7395 is an overlapping right. Combine use limits and pond capacity limits will be recommended to licensing.

Conditions:

Conditions 219 and 220 were updated with the new surface area/capacity and forwarded to licensing. Condition 029 was removed because IDFG sent in a letter on January 8, 2016 stating they have no concerns with fish and wildlife relative to this right. WR No. 78-7395 did not include condition 029, so it's safe to infer the condition is unnecessary and will not be forwarded to licensing. Condition 004 is removed since the right holder owns the land associated to this right. Condition 121 was updated to 103 and forwarded to licensing.

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>
RECREATION STORAGE	01/01 to 12/31		5.8 AF
AESTHETIC STORAGE	01/01 to 12/31		5.8 AF
<u>Totals:</u>			5.80 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 Aaron Skinner Date 5/4/2018

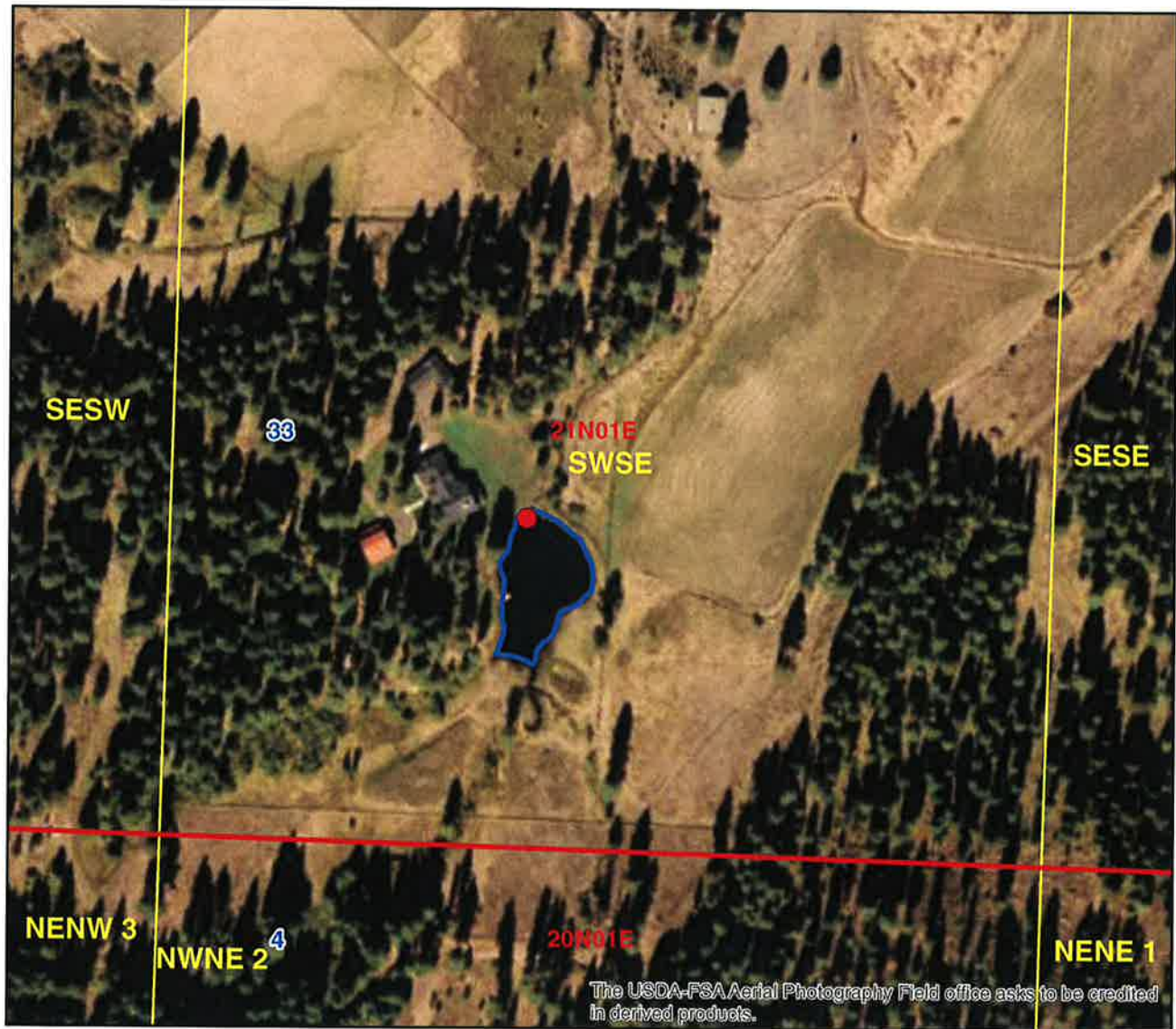
Reviewer Angela H. Quinn Date 5/8/18

State of Idaho
Department of Water Resources

Point of Diversion and Place of Use

Water Right Permit No. 78-12421

This map depicts the AESTHETIC and RECREATION STORAGE place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.

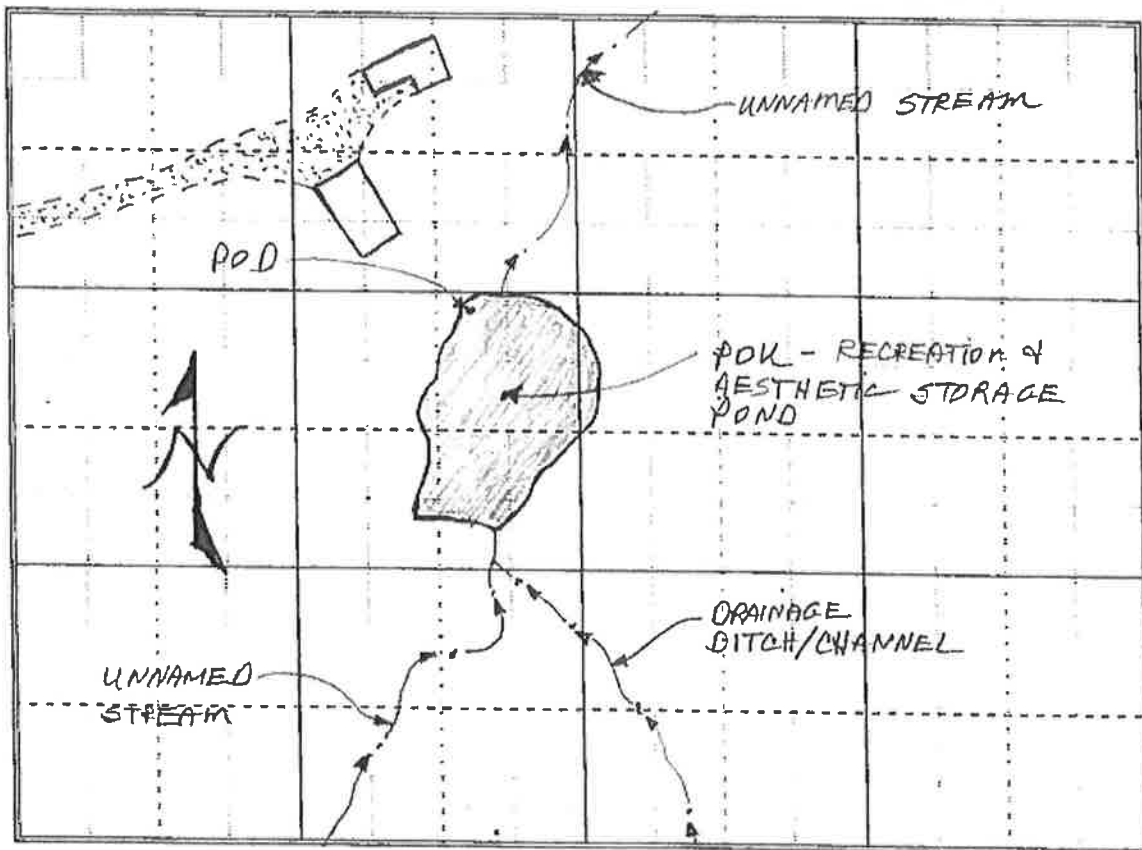


- Point of Diversion
- Recreation and Aesthetic Storage
- Township/Range
- Sections
- QQ

0 0.03 0.06 0.12 Miles



3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached.



Scale: 1" = NTS

- ☐ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)
- ☒ Aerial photo attached (required for irrigation of 10+ acres)
- ☒ Photo of diversion and system attached



State of California Secretary of State

S

Statement of Information

(Domestic Stock and Agricultural Cooperative Corporations)

FEES (Filing and Disclosure): \$25.00.

If this is an amendment, see instructions.

IMPORTANT – READ INSTRUCTIONS BEFORE COMPLETING THIS FORM

FR11824**FILED**

In the office of the Secretary of State
of the State of California

SEP-25 2017**1. CORPORATE NAME**

KATELYN N. CAMPBELL, INC.

2. CALIFORNIA CORPORATE NUMBER

C2046880

This Space for Filing Use Only

No Change Statement (Not applicable if agent address of record is a P.O. Box address. See instructions.)

3. If there have been any changes to the information contained in the last Statement of Information filed with the California Secretary of State, or no statement of information has been previously filed, this form must be completed in its entirety.

☐ If there has been no change in any of the information contained in the last Statement of Information filed with the California Secretary of State, check the box and proceed to Item 17.

Complete Addresses for the Following (Do not abbreviate the name of the city. Items 4 and 5 cannot be P.O. Boxes.)

4. STREET ADDRESS OF PRINCIPAL EXECUTIVE OFFICE CITY STATE ZIP CODE
9881 CARROLL CENTRE ROAD, SAN DIEGO, CA 92126

5. STREET ADDRESS OF PRINCIPAL BUSINESS OFFICE IN CALIFORNIA, IF ANY CITY STATE ZIP CODE

6. MAILING ADDRESS OF CORPORATION, IF DIFFERENT THAN ITEM 4 CITY STATE ZIP CODE

Names and Complete Addresses of the Following Officers (The corporation must list these three officers. A comparable title for the specific officer may be added; however, the preprinted titles on this form must not be altered.)

7. CHIEF EXECUTIVE OFFICER/ ADDRESS CITY STATE ZIP CODE
JOHN S WALLACE 9881 CARROLL CENTRE ROAD, SAN DIEGO, CA 92126

8. SECRETARY ADDRESS CITY STATE ZIP CODE
MARGOT S WALLACE 9881 CARROLL CENTRE ROAD, SAN DIEGO, CA 92126

9. CHIEF FINANCIAL OFFICER/ ADDRESS CITY STATE ZIP CODE
JOHN S WALLACE 9881 CARROLL CENTRE ROAD, SAN DIEGO, CA 92126

Names and Complete Addresses of All Directors, Including Directors Who are Also Officers (The corporation must have at least one director. Attach additional pages, if necessary.)

10. NAME ADDRESS CITY STATE ZIP CODE
MARGOT S WALLACE 9881 CARROLL CENTRE ROAD, SAN DIEGO, CA 92126

11. NAME ADDRESS CITY STATE ZIP CODE
JOHN S WALLACE 9881 CARROLL CENTRE ROAD, SAN DIEGO, CA 92126

12. NAME ADDRESS CITY STATE ZIP CODE

13. NUMBER OF VACANCIES ON THE BOARD OF DIRECTORS, IF ANY:

Agent for Service of Process If the agent is an individual, the agent must reside in California and Item 15 must be completed with a California street address, a P.O. Box address is not acceptable. If the agent is another corporation, the agent must have on file with the California Secretary of State a certificate pursuant to California Corporations Code section 1505 and Item 15 must be left blank.

14. NAME OF AGENT FOR SERVICE OF PROCESS
JOHN S WALLACE

15. STREET ADDRESS OF AGENT FOR SERVICE OF PROCESS IN CALIFORNIA, IF AN INDIVIDUAL CITY STATE ZIP CODE
9881 CARROLL CENTRE ROAD, SAN DIEGO, CA 92126

Type of Business

16. DESCRIBE THE TYPE OF BUSINESS OF THE CORPORATION
MANAGER & MEMBER OF LLC

17. BY SUBMITTING THIS STATEMENT OF INFORMATION TO THE CALIFORNIA SECRETARY OF STATE, THE CORPORATION CERTIFIES THE INFORMATION CONTAINED HEREIN, INCLUDING ANY ATTACHMENTS, IS TRUE AND CORRECT.

09/25/2017 JOHN S WALLACE CEO
DATE TYPE/PRINT NAME OF PERSON COMPLETING FORM TITLE SIGNATURE

Overlap Analysis for Water Right Permit No. 78-12421 POD

Process	Basin/Sequence	Draft	Owner	Source	Use	NENE	NWNE	SWNE	SENE	NENW	SWNW	SESW	NESW	NWSW	SWSW	SESW	NESW	NWSW	SESW	SESE	Totals/Acres
Water Right	78-10416	N	UNITED STATES OF AMERICA ACTING THROUGH	ROUND VALLEY CREEK						X											
Water Right	78-12421	Y	KATELYN N CAMPBELL INC; WALLACE, JOHN; WALLACE, MARGOT	UNNAMED STREAM																X	
Water Right	78-4272C	N	BRENNAN, ROBERT M; CIRCLE C RANCH INC; CIRCLE C RANCHES HOMEOWNERS ASSN INC	UNNAMED STREAM																	
Water Right	78-7395	N	COSTELLO, LAWRENCE E; KATELYN N CAMPBELL INC	UNNAMED STREAM																X	

Overlap: Combine use conditions recommended

Overlap Analysis for Water Right Permit No. 78-12421 POU

Process	Basin/Sequence	Draft	Owner	Source	Use	NENE	NWNE	SWNE	SENE	NENW	SWNW	SESW	NESW	NWSW	SWSW	SESW	NESW	NWSW	SESW	SESE	Totals/Acres
Water Right	78-10416	N	UNITED STATES OF AMERICA ACTING THROUGH	ROUND VALLEY CREEK	STOCKWATER					X											
Water Right	78-12421	Y	KATELYN N CAMPBELL INC; WALLACE, JOHN; WALLACE, MARGOT	UNNAMED STREAM	RECREATION STORAGE															X	
Water Right	78-2011	N	BRENNAN, ROBERT M; CIRCLE C RANCH INC; CIRCLE C RANCHES HOMEOWNERS ASSN INC	ROUND VALLEY CREEK	IRRIGATION																34
Water Right	78-4272B	N	BRENNAN, ROBERT M; CIRCLE C RANCH INC; CIRCLE C RANCHES HOMEOWNERS ASSN INC	ROUND VALLEY CREEK	IRRIGATION																34
Water Right	78-4272C	N	BRENNAN, ROBERT M; CIRCLE C RANCH INC; CIRCLE C RANCHES HOMEOWNERS ASSN INC	ROUND VALLEY CREEK	IRRIGATION																131.1
Water Right	78-4272D	N	BRENNAN, ROBERT M; CIRCLE C RANCH INC; CIRCLE C RANCHES HOMEOWNERS ASSN INC	UNNAMED STREAM	IRRIGATION																31.7
Water Right	78-7031	N	BRENNAN, ROBERT M; CIRCLE C RANCH INC; CIRCLE C RANCHES HOMEOWNERS ASSN INC	LITTLE SALMON RIVER	IRRIGATION																71.1
Water Right	78-7083	N	BRENNAN, ROBERT M; CIRCLE C RANCH INC; CIRCLE C RANCHES HOMEOWNERS ASSN INC	LITTLE SALMON RIVER	IRRIGATION																31.4
Water Right	78-7395	N	COSTELLO, LAWRENCE E; KATELYN N CAMPBELL INC	UNNAMED STREAM	RECREATION STORAGE																31.4

Overlap: Combine use conditions recommended

No overlap: Different use and different POU

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	78-12421
REVIEWER	Aaron Skinner
DATE	4/19/2018

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	ML	
Suggested Seepage Rate (FT./DAY)	0.0200	FT./DAY

Formula: (Surface Area X Seepage Rate) X 7.48 = Gallons Per Day Loss
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Convert to GPD	3258	GPD
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Total Seepage Loss (AFA)	3.650	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	78-12421
REVIEWER	Aaron Skinner
DATE	4/19/2018

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: New Meadows Ranger Stn (NWS -- 106388)

Month	mm/day ¹	Days per month	mm/Month
Jan	-2.62	31	0.00
Feb	-1.19	28	0.00
March	-0.43	31	0.00
April	0.67	30	20.10
May	1.68	31	52.08
June	2.21	30	66.30
July	3.96	31	122.76
August	3.26	31	101.06
September	1.85	30	55.50
October	0.38	31	11.78
November	-1.55	30	0.00
December	-2.26	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 = 429.58

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

(429.58 ÷ 304.8) X 0.50 = 0.705 AFA

Total Storage Calculations

FILE NUMBER	78-12421
REVIEWER	Aaron Skinner
DATE	4/19/2018

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.)	2.8	"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)	1.40	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)		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)	3.650	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.705	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	5.754	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)	3.96	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	1	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	60	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.

ETIdaho 2012 -- Evapotranspiration and Consumptive Irrigation Water Requirements for IdahoPlease send suggestions for improving this site to robison@kimberly.uidaho.edu Copyright 2012, University of Idaho.**New Meadows Ranger Stn (NWS -- 106388)**

Statistics based on thirty year normal spans 1948 to 2010 years

For a different land cover or crop click on the above link.

You can highlight this table and copy via the clipboard to a Microsoft Excel or OpenOffice spreadsheet to plot or otherwise work with this data.

Open water - shallow systems (ponds, streams)															
Precipitation Deficit (Click here for a graph)															
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Growing Season ^a	Non Growing Season ^b	Annual
Meanⁱ	mm/day												mm		
Monthly ^c	-2.62	-1.19	-0.43	0.67	1.68	2.21	3.96	3.26	1.85	0.38	-1.55	-2.26	170	0	182
15-Day Moving Average ^d	-2.76	-1.27	-0.41	0.75	1.91	2.26	4.04	3.17	1.66	0.42	-1.56	-2.33			
7-Day Moving Average ^e	-2.72	-1.22	-0.45	0.69	1.79	2.23	4.01	3.19	1.73	0.35	-1.62	-2.30			
3-Day Moving Average ^f	-2.64	-1.15	-0.44	0.67	1.68	2.20	3.98	3.25	1.80	0.38	-1.58	-2.27			
Standard Deviation^k	mm/day												mm		
Monthly ^c	2.61	1.20	1.46	1.16	1.23	1.28	0.94	1.25	1.44	1.90	1.53	1.92	146	0	141
15-Day Moving Average ^d	2.65	1.68	1.32	1.33	1.30	1.57	0.91	1.22	2.01	1.66	1.75	1.91			
7-Day Moving Average ^e	3.38	2.11	1.82	1.93	2.08	2.48	1.31	1.59	2.43	2.29	2.23	2.59			
3-Day Moving Average ^f	4.33	2.83	2.67	2.69	3.05	3.59	1.92	1.97	3.08	3.06	3.09	3.63			
20% Exceedance^l	mm/day												mm		
Monthly ^c	-1.13	-0.39	0.19	1.40	2.42	3.44	4.47	4.05	3.15	1.53	-0.61	-1.18	255	0	265
15-Day Moving Average ^d	0.17	0.39	1.31	2.55	3.99	4.46	4.94	4.44	3.52	2.22	0.53	0.10			
7-Day Moving Average ^e	0.44	0.96	1.63	3.23	4.57	5.04	5.18	4.76	3.81	2.64	0.79	0.30			
3-Day Moving Average ^f	0.57	1.15	1.96	3.76	5.11	5.43	5.43	4.99	4.08	2.90	1.04	0.40			
80% Exceedance^m	mm/day												mm		
Monthly ^c	-4.07	-1.87	-1.42	0.01	0.84	1.04	3.16	2.40	0.90	-0.78	-2.57	-3.54	50	0	50
15-Day Moving Average ^d	-5.95	-3.69	-3.01	-1.50	-0.62	-0.26	2.58	0.86	-1.21	-2.17	-3.45	-6.33			
7-Day Moving Average ^e	-10.11	-6.45	-5.31	-4.00	-3.08	-4.28	0.74	-1.25	-4.66	-5.05	-5.95	-8.32			
3-Day Moving Average ^f	-15.28	-12.99	-11.51	-6.87	-7.32	-10.10	-2.78	-4.15	-7.83	-11.36	-11.25	-14.28			
Ave Highest P_{def}	mm/day												--		
15-Day Moving Average ^d	0.08	0.22	0.68	1.80	3.00	3.56	4.62	3.98	2.82	1.56	0.15	0.05			
7-Day Moving Average ^e	0.23	0.76	1.35	2.51	4.04	4.70	4.96	4.44	3.41	2.21	0.55	0.18			
3-Day Moving Average ^f	0.43	1.00	1.74	3.17	4.67	5.16	5.25	4.74	3.82	2.57	0.84	0.32			
Ave Lowest P_{def}	mm/day												--		
15-Day Moving Average ^d	-4.41	-2.17	-1.42	-0.22	0.45	0.91	3.32	2.41	0.70	-0.67	-2.64	-3.79			
7-Day Moving Average ^e	-7.29	-3.89	-2.97	-1.95	-1.68	-1.56	2.18	1.22	-0.91	-2.47	-4.35	-5.91			
3-Day Moving Average ^f	-11.29	-7.23	-6.25	-4.77	-5.38	-5.54	-0.25	-0.71	-3.80	-5.90	-7.76	-10.09			
Special normal distribution parameters for monthly, seasonal, and annual intervals															
Skew ⁿ	-0.26	-1.72	-0.30	-1.01	-0.07	-0.64	-0.25	-0.22	-1.27	-0.17	-2.12	-0.11	-0.40	0.00	-0.52
Kurtosis ^o	0.95	7.20	0.93	4.62	0.62	3.18	0.57	0.72	4.52	0.67	8.87	0.64	3.19	0.00	3.56

^a Growing Season: This is usually the time from green up or planting in the spring to a killing frost or harvest in the fall. It is not applicable for entries without a growing season and will be blank.^b Nongrowing Season: This is usually the time from a killing frost or harvest in the fall to the of green up in the spring. It is not applicable for entries without a growing season.^c Mean of the average daily value for mpmth^d Mean of the fourteen 15-day period averages contained in the month^e Mean of the twenty three 7-day period averages contained in the month^f Mean of the twenty seven 3-day period averages contained in the month^g Mean of the highest/lowest 15-day period average in month^h Mean of the highest/lowest 7-day period average in monthⁱ Mean of the highest/lowest 3-day period average in month^j This value represents the *mean value* for the parameter for the month over the 'normal' period of record. Generally, the 'normal' period is the last thirty years with data.^k This value represents the *standard deviation* for the parameter for the month over the 'normal' period.^l This value represents the *value* for the parameter that has a 20% chance of being exceeded that month during any particular year. Conversely, there is an 80% chance that the parameter value will be less than the *value* shown.^m This value represents the *value* for the parameter that has a 80% chance of being exceeded that month during any particular year. Conversely, there is an 20% chance that the parameter value will be less than the *value* shown.



Point of
Diversion. A 4' –
6' embankment
was built to create
the pond. Water is
discharged back
into the unnamed
creek at this point.

Lat. 45.110323
Long. -116.339931



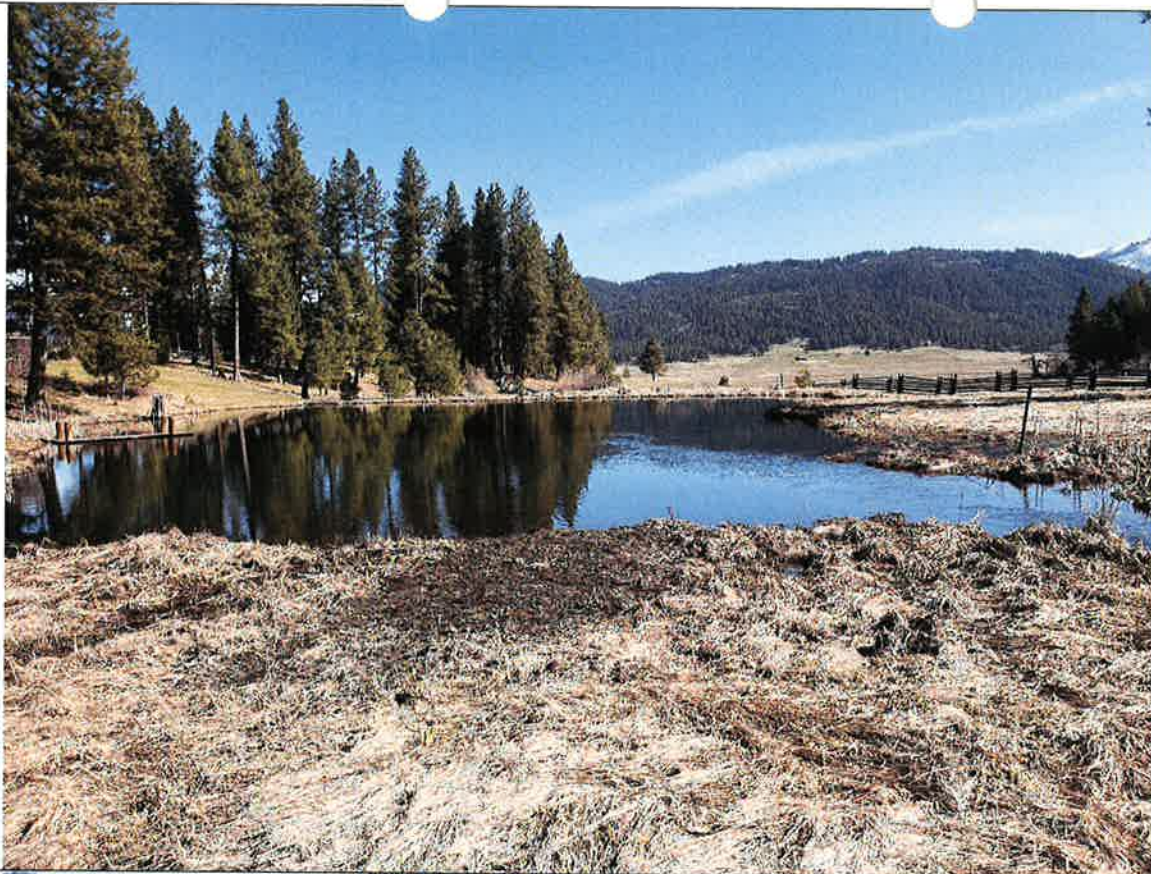
Water discharging
back into the
unnamed creek
from the pond.



Pond bottom gradually sloping to the 7 foot maximum depth.



North side of the pond showing the built up embankment that creates the pond.



South of the pond looking north. Water is discharged into the pond on each side of the pond from an unnamed stream and drainage ditch.



Corrugated pipe helps water discharge into the pond. This is the southwest unnamed stream feeding the pond.

Lat. 45.109688
Long. -116.340048



Southeast
discharge into the
pond via drainage
ditch and unnamed
stream.

Drain Ditch
Lat. 45.109368
Long. -116.339533

Unnamed Stream
Lat. 45.109425
Long. -116.339891



Along the property
line fence showing
the drain ditch
flowing into the
pond.



Unnamed stream flowing into the pond.



Dock, picnic tables, and fire pit in the background used to fulfill the recreational use component.