

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 67-14886
Exam Date: 5/8/2017

1. Current Owner:

ROBERT V SHOEMAKER PO BOX 1306 MC CALL ID 83638 2086342636 Or

ALANA M SHOEMAKER PO BOX 1306 MC CALL ID 83638 2086342636

2. Accompanied by: ROBERT V SHOEMAKER

Phone No: 2086342636

Address: PO BOX 1306 MC CALL ID 83638

Relationship to Permit Holder: OWNER

3. SOURCE:

UNNAMED STREAM

TRIBUTARY:

WEISER RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NONE

2. Other water rights with the same point-of-diversion: NONE

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

UNNAMED STREAM SW¼NE¼ Sec. 33, Twp 14N, Rge 03W, B.M. WASHINGTON County

Method of Determination: Aerial imagery and field exam.

2.

PLACE OF USE: FIRE PROTECTION STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
14N	03W	33			X														

PLACE OF USE: FISH PROPAGATION 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	
14N	03W	33			X														

PLACE OF USE: STOCKWATER STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
14N	03W	33			X														

Method of Determination: Aerial imagery and field exam.

3.

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

X 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.

X

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

X

X Photo of Diversion and System Attached

X

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

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

D. FLOW MEASUREMENTS

1.

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

2. Measurements:

E. FLOW CALCULATIONS

Measured Method: NA

F. VOLUME CALCULATIONS

1. Volume Calculations for Stockwater Storage, Fish Propagation Storage, and Fire Protection:

Pond Analysis:

Pond Capacity = 24 AF

Seepage Loss = 3.3 AF

Evaporation Loss = 5.4 AF

Total Volume = **32.7 AF** (License will be limited to the permitted volume of 25 AF)**Stockwater Storage:** $V_{IR} = NA$ $V_{DR} = 30 \text{ cattle} = 0.7 \text{ AF per Admin Memo \#3}$ $V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 0.7 \text{ AF}$ **Fish Propagation Storage and Fire Protection:**

These volumes were verified with the pond capacity of 24 AF and should be okay to recommend for licensing as there is enough stored water available.

G. NARRATIVE/REMARKS/COMMENTS

Permit No. 67-14886 permits 25 AF of water to be stored for the beneficial use of Stockwater Storage, Fish Propagation Storage, and Fire Protection Storage. A field exam was completed on May 8, 2017 by WRAs Patrick Kelly and Aaron Skinner. Mr. Shoemaker accompanied Patrick and Aaron during the field exam.

System Description:

Water runs into the pond via an unnamed stream that runs under Highway 95. The unnamed stream is winter runoff water. The water is held in a 20' maximum depth pond that has the capability to overflow back into the unnamed stream via a ditch northeast of the dam crest. The unnamed stream eventually runs into the Weiser River about 260 yards south of the dam.

The pond has a surface area of 3.0 acres and a total capacity of 24 AF as outlined in Section F. Seepage analysis were completed using the NRCS' Web Soil Survey tool and established a soil characteristic of CL. The relative annual seepage for the pond is 3.3 AF. Evaporation loss was determined using the Kimberly Research Center's website. The precipitation deficit station used is in Cambridge (NWS - 101408) that determined the annual evaporation loss to be 5.4 AF. The total volume sufficient to maintain the pond was estimated to be 32.7 AF (24 AF + 3.3 AF + 5.4 AF), not including the stockwater storage component of 0.7 AF for 30 cows as outlined in the proof of beneficial use form.

Diversion Rate and Volume:

There is no diversion rate for this permit. Annual volumes are noted above in Section F and the attached pond analysis. The permitted volume was 25 AF. The pond has a total volume of 32.7 AF + 0.7 AF for stockwater storage. Since the recommended licensing volume cannot be more than what was permitted, **the recommended volume for licensing is 25 AF.**

Ownership:

The current taxlot data for Washington County suggest that Robert Shoemaker is the parcel owner, matching the permit holder's name.

Overlap:

There are no POD and POU overlaps associated to this right.

Conditions:

Condition 086 is forwarded to licensing. Conditions 01H and 18C's language was modified per Conclusions of Law dated April 9, 2014; 01H became 199 and 18C was removed while the appropriate language was added to fulfill the Conclusion of Law requirement. Condition R05 was updated with "may be regulated.." and forwarded to licensing. Condition X02 was dropped at licensing. 18B was removed as the dam currently does not fall into the Dam Safety requirements defined as an impoundment of a volume of water greater than or equal to fifty (50) AF. Condition 077 was modified to 218 at licensing. Condition 121 was updated with condition 103 and forwarded to licensing. Conditions 219 and 220 were added and forwarded to licensing to establish a developed pond capacity, surface area, and consumptive use totals.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
STOCKWATER STORAGE	03/01 to 12/31		0.7 AF
FISH PROPAGATION STORAGE	01/01 to 12/31		25.0 AF
FIRE PROTECTION STORAGE	04/01 to 11/01		10.0 AF
<u>Totals:</u>			25.00 AF

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

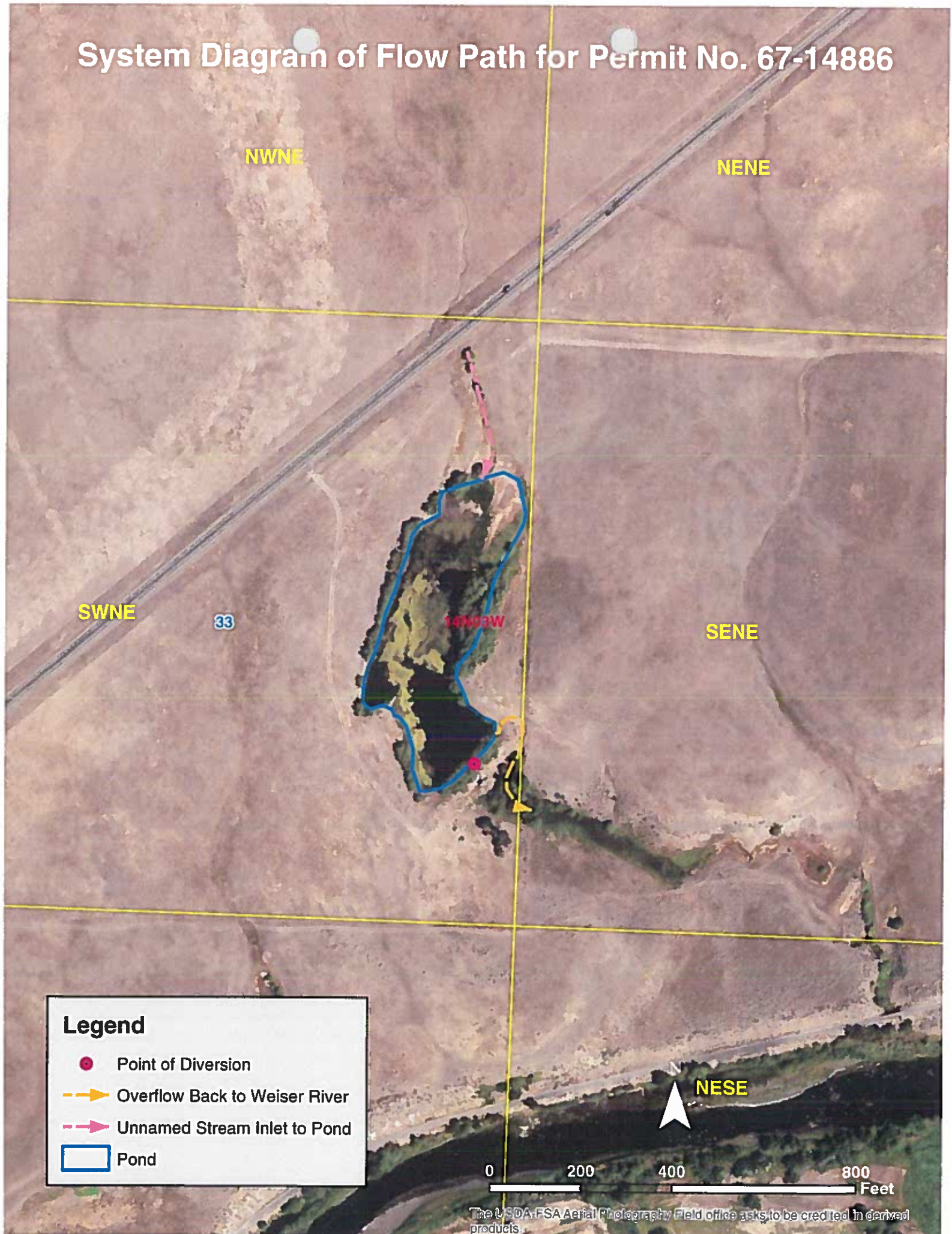
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ None

I. AUTHENTICATION

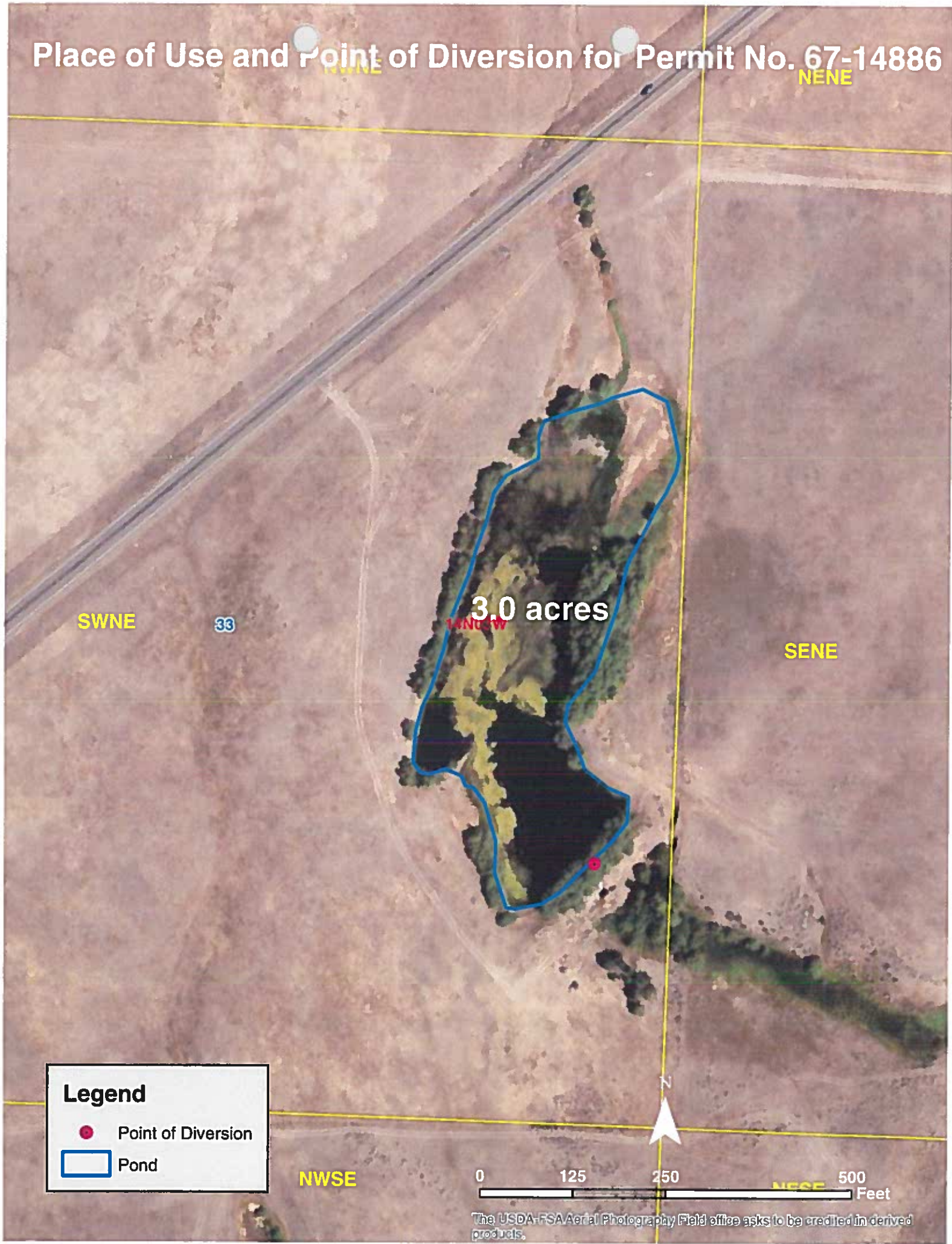
Field Examiner's Name Aaron Skinner Date 6/19/2017

Reviewer _____ Date _____

System Diagram of Flow Path for Permit No. 67-14886



Place of Use and Point of Diversion for Permit No. 67-14886



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	67-14886
REVIEWER	Aaron Skinner
DATE	4/19/2017

User Input
Calculated value
Formula Explanations

INPUTS

Pond Surface Area (AC.)	3	AC.
-------------------------	---	-----

Pond Surface Area (SQ. FT.)	130680	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	CL	
Suggested Seepage Rate (FT./DAY)	0.0030	FT./DAY

Formula: (Surface Area X Seepage Rate) X 7.48 = Gallons Per Day Loss
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Convert to GPD	2932	GPD
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Total Seepage Loss (AFA)	3.3	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	67-14886
REVIEWER	Aaron Skinner
DATE	4/19/2017

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

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

Precipitation Deficit

Station: Cambridge (NWS -- 101408)

Month	mm/day ¹	Days per month	mm/Month
Jan	-1.98	31	0.00
Feb	-1.49	28	0.00
March	-0.04	31	0.00
April	1.72	30	51.60
May	2.20	31	68.20
June	3.18	30	95.40
July	4.27	31	132.37
August	3.58	31	110.98
September	2.23	30	66.90
October	0.69	31	21.39
November	-1.77	30	0.00
December	-2.80	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 = 546.84

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

(546.84 ÷ 304.8) X 3.00 = 5.4 AFA

Total Storage Calculations

FILE NUMBER	67-14886
REVIEWER	Aaron Skinner
DATE	4/19/2017

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.)	3	"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)	24	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)	3.3	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	5.4	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	32.7	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)	4.27	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)	0.05	"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)	0.03	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	12	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. <i>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.</i>
Days Required to Fill the Pond at 13,000 Gallons per Day	-2156	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. <i>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.</i> 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 Idaho

Please send suggestions for improving this site to mison at kimberly dot uidaho dot edu Copyright 2012, University of Idaho

Cambridge (NWS -- 101408)

Statistics based on thirty year normal spans 1979 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 ^a	Annual
Mean¹	mm/day												mm		
Monthly ²	-1.98	-1.49	-0.04	1.72	2.21	3.18	4.27	3.59	2.23	0.64	-1.77	-2.84	301	0	301
15-Day Moving Average ³	-1.99	-1.90	-0.08	1.76	2.22	3.22	4.33	3.53	2.10	0.71	-1.74	-2.61			
7-Day Moving Average ⁴	-2.01	-1.71	-0.09	1.72	2.21	3.21	4.30	3.59	2.15	0.69	-1.80	-2.71			
3-Day Moving Average ⁵	-1.99	-1.55	-0.04	1.72	2.21	3.16	4.27	3.59	2.22	0.64	-1.79	-2.78			
Standard Deviation⁶	mm/day												mm		
Monthly ²	1.70	1.52	1.76	0.75	2.12	0.95	0.64	0.79	1.01	1.13	1.37	2.33	128	0	128
15-Day Moving Average ³	1.64	1.88	1.64	1.04	2.16	1.21	0.54	0.81	1.35	1.22	1.74	2.04			
7-Day Moving Average ⁴	2.27	2.57	2.10	1.58	2.54	1.82	0.76	1.11	1.71	1.78	2.42	3.09			
3-Day Moving Average ⁵	3.03	3.38	2.68	2.28	3.26	2.68	1.01	1.54	2.29	2.43	3.31	4.27			
20% Exceedance⁷	mm/day												mm		
Monthly ²	-1.02	-0.28	0.72	2.44	3.06	3.94	4.62	4.01	3.01	1.44	-0.72	-1.52	394	0	394
15-Day Moving Average ³	0.13	0.18	2.04	3.29	4.51	4.78	4.92	4.34	3.41	2.24	0.57	0.18			
7-Day Moving Average ⁴	0.38	1.02	2.62	4.13	5.08	5.23	5.18	4.72	3.75	2.76	0.97	0.38			
3-Day Moving Average ⁵	0.46	1.24	3.04	4.57	5.66	5.67	5.48	5.05	4.20	3.02	1.34	0.48			
80% Exceedance⁸	mm/day												mm		
Monthly ²	-2.77	-2.23	-0.71	0.85	1.08	2.57	3.85	2.98	1.47	-0.05	-3.06	-3.99	184	0	184
15-Day Moving Average ³	-4.46	-4.64	-3.16	-0.30	-1.24	1.22	3.28	1.86	0.13	-1.47	-5.56	-6.04			
7-Day Moving Average ⁴	-7.27	-8.66	-5.41	-2.19	-3.31	-1.44	2.23	0.02	-1.68	-3.64	-8.13	-9.74			
3-Day Moving Average ⁵	-12.15	-12.26	-9.23	-5.52	-7.08	-6.12	0.28	-2.44	-6.84	-7.61	-11.98	-15.93			
Ave Highest Part	mm/day												--		
15-Day Moving Average ³	0.07	0.12	1.12	2.73	3.51	4.20	4.69	4.12	2.94	1.76	0.22	0.06			
7-Day Moving Average ⁴	0.25	0.75	1.94	3.58	4.43	4.97	4.94	4.48	3.46	2.31	0.64	0.24			
3-Day Moving Average ⁵	0.39	1.03	2.64	4.24	5.18	5.41	5.32	4.88	3.95	2.59	1.01	0.39			
Ave Lowest Part	mm/day												--		
15-Day Moving Average ³	-3.20	-2.78	-1.13	0.80	0.80	2.12	3.89	3.01	1.36	-0.20	-3.05	-4.47			
7-Day Moving Average ⁴	-5.31	-4.94	-2.72	-0.65	-1.13	0.35	3.24	2.20	0.23	-1.98	-5.18	-7.50			
3-Day Moving Average ⁵	-8.65	-8.45	-5.18	-3.00	-4.29	-2.91	2.01	0.48	-2.31	-4.77	-8.98	-12.25			
Special normal distribution parameters for monthly, seasonal, and annual intervals															
Skew ⁹	-0.15	-2.14	-0.21	-0.06	-0.67	-1.31	-0.38	-0.31	-1.50	0.05	-0.74	-0.19	-0.57	0.00	-0.57
Kurtosis ⁹	0.78	9.06	0.93	2.03	1.98	4.47	1.13	0.78	4.75	0.64	2.99	1.00	2.81	0.00	2.81

^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 month^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.ⁿ This value represents the skewness (asymmetry) of the distribution of the parameter values for the month (year) over the 'normal' period. A value near zero indicates that the distribution approximates a normal (Gaussian) and symmetrical distribution. A negative skew indicates that the parameter distribution has relatively few low values compared to high values. A positive skew indicates that the distribution has relatively few high values compared to the number of low values. A skew value near 1 indicates that the underlying distribution approximates a lognormal distribution.^o This value represents the kurtosis of the parameter value distribution for the month (year) over the 'normal' period. Kurtosis is a measurement of the height to width ratio of the probability distribution, or the peakiness (slenderness). A normal (Gaussian) distribution has a kurtosis of 3. A high kurtosis distribution has a sharper peak and longer tails, while a low kurtosis distribution has a more rounded peak and shorter tails.

This work and report were prepared by the University of Idaho Research and Extension Center at Kimberly, Idaho under contract with the Idaho Department of Water Resources. Work was supported by funding from IDWR and the Idaho Agricultural Experiment Station and Idaho Engineering Experiment Station. The authors gratefully acknowledge the long-term evapotranspiration data collection and long-standing advice provided by Dr. James L. Wright, USDA-ARS Kimberly (ret.), the more than two decades of high quality agricultural weather data collection by the U.S. Bureau of Reclamation AgriMet system, and the very long-standing, routine data collection by the hundreds of cooperative weather station volunteers across the state who, for more than one-hundred years, have faithfully observed daily air temperature and precipitation.

The citation for the evapotranspiration data used from this site should be: Allen, Richard G. and Clarence W. Robison, 2012. Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho: Supplement updating the Time Series through December 2008. Research Technical Completion Report, Kimberly Research and Extension Center, University of Idaho, Moscow, ID.

Questions regarding the data should be addressed to Clarence W. Robison or Richard G. Allen, University of Idaho, Kimberly Research and Extension Center, 3793 North 3600 East, Kimberly, ID 83341. Telephone (208) 423-6610.





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Soil Health

Soil Physical Properties

Engineering Properties

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Include minor soils? ☐

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Particle Size and Coarse Fragments

Physical Soil Properties

Soil Qualities and Features

Vegetative Productivity

Waste Management

Water Features

Water Management

Soil Map

 Scale: [not to scale]



Report — Engineering Properties

Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007 (<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Adams-Washington Area, Parts of Adams and Washington Counties, Idaho

Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification	Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity Index	
						>10 inches	3-10 inches	4	10	40	200			
					Unified	AASHTO	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	
141—Midvale silty clay loam, 0 to 2 percent slopes														
Midvale	99	C	0-10	Silty clay loam	CL, CH	A-7	0-0-0	0-0-0	100-100-100	100-100-100	95-98-95	85-90-95	41-47-53	19-22-25
			10-30	Clay loam, clay, silty clay	CH, CL	A-7	0-0-0	0-0-0	100-100-100	100-100-100	90-95-100	70-83-95	45-52-59	25-29-33
			30-56	Loam	CL, CL-ML	A-4, A-6	0-0-0	0-0-0	100-100-100	100-100-100	85-90-95	60-68-75	20-29-38	6-12-19
			56-60	Silt loam, very fine sandy loam	ML, CL, CL-ML	A-4, A-6	0-0-0	0-0-0	100-100-100	100-100-100	85-90-95	50-63-75	16-24-32	2-8-13
142—Midvale silty clay loam, 2 to 4 percent slopes														
Midvale	99	C	0-10	Silty clay loam	CL, CH	A-7	0-0-0	0-0-0	100-100-100	100-100-100	95-98-95	85-90-95	41-47-53	19-22-25
			10-30	Clay loam, clay, silty clay	CH, CL	A-7	0-0-0	0-0-0	100-100-100	100-100-100	90-95-100	70-83-95	45-52-59	25-29-33
			30-56	Loam	CL, CL-ML	A-4, A-6	0-0-0	0-0-0	100-100-100	100-100-100	85-90-95	60-68-75	20-29-38	6-12-19
			56-60	Silt loam, very fine sandy loam	CL-ML, CL, ML	A-4, A-6	0-0-0	0-0-0	100-100-100	100-100-100	85-90-95	50-63-75	16-24-32	2-8-13

Description — Engineering Properties

Overlap Analysis for Permit No. 67-14886 POD

14ND3W33	Process	BasinSequence	Draft	Owner	Source	Use	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	TotalAcres
	Water Right	67-10703	N	LEACHMAN, GREGG; LEACHMAN, ROBERT B	GROUND WATER						X												
	Water Right	67-10704	N	LEACHMAN, GREGG; LEACHMAN, ROBERT B	GROUND WATER						X												
	Water Right	67-14229	N	SNYDER, GEORGE F; WESNER, CAROLYN J	UNNAMED STREAM											X							
	Water Right	67-14886	Y	SHOEMAKER, ALANA M; SHOEMAKER, ROBERT V	UNNAMED STREAM				X														
	Water Right	67-7167	N	FAIRCHILD, VIRGIL; GAERTNER, A DAWSON	UNNAMED SLOUGH														X				

Overlap Analysis for Permit No. 67-14886 POU

14ND3W33	Process	BasinSequence	Draft	Owner	Source	Use	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	TotalAcres
	Water Right	67-10703	N	LEACHMAN, GREGG; LEACHMAN, ROBERT B	GROUND WATER	STOCKWATER					X												
	Water Right	67-10704	N	LEACHMAN, GREGG; LEACHMAN, ROBERT B	GROUND WATER	DOMESTIC					X												
	Water Right	67-10704	N	LEACHMAN, GREGG; LEACHMAN, ROBERT B	GROUND WATER	STOCKWATER					X												
	Water Right	67-14229	N	SNYDER, GEORGE F; WESNER, CAROLYN J	UNNAMED STREAM	STOCKWATER										X							
	Water Right	67-14229	N	SNYDER, GEORGE F; WESNER, CAROLYN J	UNNAMED STREAM	STOCKWATER FROM STORAGE										X							
	Water Right	67-14566	N	LOST VALLEY RESERVOIR CO	LOST CREEK	IRRIGATION FROM STORAGE									X	X	X	X	X	X	X	X	
	Water Right	67-14567	N	LOST VALLEY RESERVOIR CO	LOST CREEK	IRRIGATION FROM STORAGE									X	X	X	X	X	X	X	X	
	Water Right	67-14568	N	LOST VALLEY RESERVOIR CO	LOST CREEK	IRRIGATION FROM STORAGE									X	X	X	X	X	X	X	X	
	Water Right	67-14886	Y	SHOEMAKER, ALANA M; SHOEMAKER, ROBERT V	UNNAMED STREAM	FIRE PROTECTION STORAGE				X						X	X	X	X	X	X	X	
	Water Right	67-14886	Y	SHOEMAKER, ALANA M; SHOEMAKER, ROBERT V	UNNAMED STREAM	FISH PROPAGATION STORAGE				X													
	Water Right	67-14886	Y	SHOEMAKER, ALANA M; SHOEMAKER, ROBERT V	UNNAMED STREAM	STOCKWATER STORAGE				X													
	Water Right	67-23	N	MIDDLE VALLEY DITCH CORP	WEISER RIVER	IRRIGATION												X	X	X	X	X	
	Water Right	67-24	N	MIDDLE VALLEY DITCH CORP	WEISER RIVER	IRRIGATION												X	X	X	X	X	
	Water Right	67-25	N	MIDDLE VALLEY DITCH CORP	WEISER RIVER	IRRIGATION												X	X	X	X	X	
	Water Right	67-4434	N	MIDDLE VALLEY DITCH CORP	WEISER RIVER	IRRIGATION												X	X	X	X	X	



Pond inlet from the unnamed stream. Arrow shows the direction the water is flowing. Unnamed stream is winter run off water.

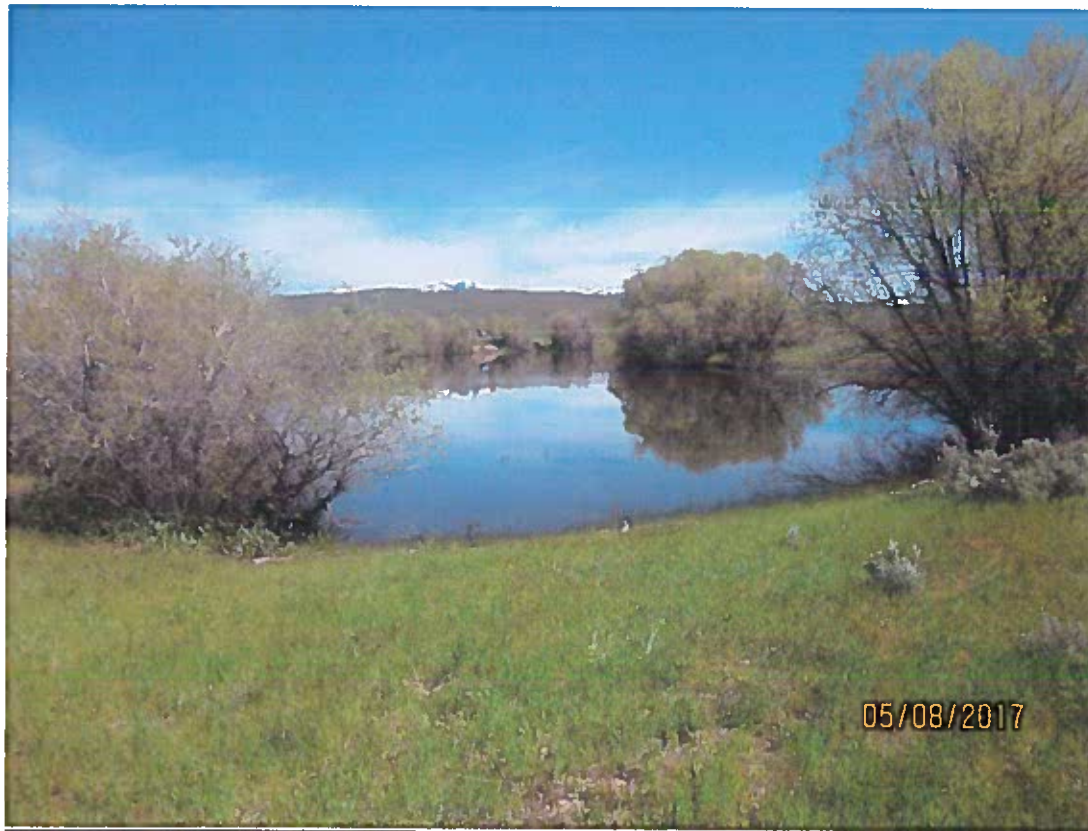


Image of the pond from the dam looking northwest back at the pond.



Overflow that allows water back into the unnamed stream and eventually back to the Weiser River.



Another look at the overflow ditch developed to allow water back to the unnamed stream.



Toe of dam looking
northeast.



State of Idaho

DEPARTMENT OF WATER RESOURCES

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

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

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

April 5, 2017

COPY

ROBERT V SHOEMAKER AND/OR
ALANA M SHOEMAKER
PO BOX 1306
MC CALL, IDAHO 83638

RE: Scheduling Field Exam for Water Right Permit No. 67-14886

Dear Permit Holder:

We are planning to conduct water right examinations in the vicinity of the above-referenced permit **during the weeks of May 8th – May 26, 2017**. An examination is needed to verify the water use in order to issue a water right license.

The above-referenced permit authorizes a **beneficial use for stockwater storage, fish propagation storage, and fire protection storage from an Unnamed Stream, a tributary of the Weiser River**. If you have developed a beneficial use 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 or if you did develop that use, but subsequently abandoned it, a license cannot be issued. Please relinquish the permit by submitting the enclosed Relinquishment of Permit form (no fee required). The permit will be voided if beneficial use under the permit was not developed or was developed, but is now abandoned and you do not relinquish the permit.

If you did develop a beneficial use of water under the permit, but you no longer own the place of use property identified in the permit, please submit the enclosed Assignment of Permit form with the applicable \$25 processing fee.

Please contact me within the next thirty (30) days to either schedule an examination, submit a relinquishment, or submit an assignment. If you no longer own the place of use property and/or do not respond to this letter, the department will work with the current property owner to issue a license or void the permit.

Please call me at (208) 334-2190 if you have any questions. I appreciate your attention in this matter and I look forward to hearing from you.

Sincerely,

Aaron Skinner
Water Resource Agent

Enclosures: Relinquishment of Permit form
Assignment of Permit form
Water Permit Report and Map