

DATE: 11/1/2021

TO: 65-23447

FROM: Phill Hummer (Water Rights Supervisor) *PH*

RE: Total Volume and other Clarifications

Pond Volume Calculations

The beneficial use examination was made in-office by examination of aerial imagery, other resources available, and by direct communication with the permit holder. The examiner reported at total volume use in the two ponds of 0.4 af. However, the total storage calculation included 0.1 af for multiple fills (see pond volume calculations attached to the field examination report). Typically, additional volume for multiple fills is not included in the total volume calculation unless the use of the pond includes diversion out of the pond for use such as pumping from a pond for irrigation. It is my understanding that animals on the property drink directly from the two ponds and water is not diverted out of either pond so volume for multiple fills should not have been included in the total volume calculation nor should it be included on the license. The total volume will be reduced by 0.1 af to a total of 0.3 af.

Other Clarifications

The permit was approved on September 2, 2011 and listed two points of diversion, one for the ground water well and one for water from the unnamed stream. However, the application map indicates the intent was to store water in two ponds. Current policy for describing water rights dictates there should be one point of diversion for each pond at the location water is held back from naturally flowing in the stream. Since the intent of the application was to develop two ponds, each pond was constructed within the NESE of section 16, township 07N, range 01E, and it is likely the way in which points of diversion were described in 2011 was different, a second point of diversion for the ponds can be included on the license without an amendment.

Similarly, the permit also authorized the diversion of water from a ground water well to two ponds. Current policy for describing water rights dictates there should be a "diversion to storage" beneficial use to record the rate at which water can be diverted from the well to the pond. The field examination report shows the well and diversion system was constructed with the capacity to pump at a rate of 0.06 cfs. However, the report for permit no. 65-23446 shows diversion from the well for irrigation purposes during the development period was 0.03 cfs. To ensure this rate is not exceeded for irrigation a combined limit condition was recommend for both licenses such that the total rate should not exceed 0.03 cfs. The inclusion of the rate limit, a limit to the total volume, and conditions limiting the amount of water for the pond restrict the license to less water than was contemplated on the permit, the addition of a "diversion to storage" component does not increase the amount of water authorized by the license and does not add additional uses. It's inclusion serves to describe the use authorized by the permit in accordance with current policy.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-23447
Exam Date: 9/24/2019

1. Current Owner:
GARY A SKEEN PO BOX 2268 BOISE ID 83701

2. Accompanied by: IN-HOUSE FIELD EXAM

Phone No:

Address:

Relationship to permit Holder:

3. SOURCE:

GROUND WATER
UNNAMED STREAM

Tributary

SQUAW CREEK
SQUAW CREEK

Method of Determination: USGS DRG layer, Aerial Imagery, well drillers report, personal communication with owner

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
65-23446	Groundwater	Irrigation	Permit

Comments: This is still a permit, licensing at the same time. Recommending irrigation of 1.8 acres

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

Water Right No.	Source	Purpose of Use	Basis
65-23446	Groundwater	Irrigation	Permit

Comments: This is still a permit, licensing at the same time. Recommending diversion rate of 0.03 cfs. The groundwater source is from the well drilled in 2014 (drilled for irrigation only). The groundwater from the well is also used for irrigation under permit 65-23446. There is no indication that the new well is connected to the house and the domestic uses are achieved through use of an older well near the home.

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER NE¼ SE¼, Sec. 16, Twp 07N, Rge 01E, B.M. GEM County
UNNAMED STREAM NE¼ SE¼, Sec. 16, Twp 07N, Rge 01E, B.M. GEM County
UNNAMED STREAM NE¼ SE¼, Sec. 16, Twp 07N, Rge 01E, B.M. GEM County

Method of Determination: Aerial Imagery and personal communication with the owner

PLACE OF USE: STOCKWATER STORAGE

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
07N	01E	16													X				

Method of Determination: Aerial Imagery and personal communication with the owner

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
D0066299		1.5			

D. FLOW MEASUREMENTS

1.

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

2. Measurements:
N/A In office field exam

E. FLOW CALCULATIONS

☐ Additional Computation Sheets Attached

Flow from the Well:

Using parameters from the well log, a theoretical flow rate and minimum pump power requirement can be calculated. The pump test performed in 2014 shows a discharge of 35 gpm (0.07 cfs) with a drawdown of 14 feet and a reported static water level of 43 ft. I rounded the differential elevation to 60 ft just in case the static water level has dropped in the last couple of years.

Using these values along with the 310 feet of 1 ¼ inch diameter poly pipe (average inner diameter for nominal value poly pipe ~ 1.4 inches) and an estimated 40 psi requirement, the calculated total dynamic head of 194.96 ~195 ft. These parameters were used in the online TDH calculator located here.

<https://www.tuhorse.us/total-dynamic-head-tdh-calculator/>

To confirm this well system can pump to meet the recommended flow from the well to the stockwater ponds. The pump power requirement (assuming 70% pump efficiency) would be about 1.5 HP to get the water all the way to the ponds. The pump capacity of an average 1.5 HP pump at 60 ft at 40 psi is 27.5 gpm (0.06 cfs).

Flow from unnamed stream

The ponds are considered in stream, so no flow calculations are necessary.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$$

2. Volume Calculations for Other Uses:

Using aerial imagery from Google Earth dated 6/29/2017, the north pond measured at 45 ft x 25 ft (1125 ft² or 0.026 A.F.) at the longest and widest parts. The south pond measured at 30 ft x 15 ft (450 ft² or 0.01 A.F.) at the longest and widest parts. Together the surface area of both ponds is **0.036 A.F.** We will assume an average of 3 feet deep as specified by Mr. Skeen in the proof of beneficial use. For the stock fill volume I used 15 goats (2 gpd) and 3 horses (12 gpd) for a daily total of 66 gpd. For a whole year the stock fill volume is 24,090 gallons /325,850 or 0.074 AF ~**0.1 A.F.** In total both ponds have a required volume of 0.4 A.F. Please see attached pond spreadsheet for details.

In total, for both water rights, 6.7 AF could be used for stockwater storage and irrigation which is within the limits of the system capacity (30.8 AF). This will round to 7 A.F. for recommendation.

G. NARRATIVE/REMARKS/COMMENTS

This permit qualifies for an in-house examination to be performed since the storage for stockwater is <14.6 acre-feet. A memo was written by Dan Nelson on September 7, 2016 stating he believed that this permit would require a field visit since there were some questions regarding the north pond and whether it has held water from the well during the development period. I was able to address these questions with a combination of more aerial imagery, phone, and email communications with Mr. Skeen.

Delivery system from the unnamed stream:

The unnamed stream includes both natural flow and runoff from the farm field which supplies the ponds with water. Mr. Skeen indicated that the stream will go dry after August if the irrigation stops (personal communication - email). See attached diagram with the ponds outlined (image date 6/29/2017). Aerial imagery also suggest this is an ephemeral stream supplemented with wastewater from the neighbor and the channel is dry in the later summer and fall/winter.

Delivery system from the well:

At the well is a 1¼ inch galvanized steel riser with a manual valve. This riser drops down to an above ground 1¼ inch poly line. From the well this poly line runs approximately 75 feet and then turns to the south along the fence for 235 feet. At points along this feeder line are a series of T's and valves that allow diversion of water where needed and connect other lines. At the end of this line there is a removable end cap which is near the unnamed stream (for permit 65-23447). There are three frost free hose bibs piped around the property at locations that make it easy to distribute water. One is at the well head, one is behind the house, and one is on the fence line at the west side of the corral near the gate - these are for attaching other sprinkler systems as needed under the irrigation permit 65-23446. The moveable pipe is between 80-100 feet. On the line there are 3 Aquaburst 30's. These sprinklers are on 24" risers, 35-40 feet apart so that they overlap. This head, at the pressure it is running produces approximately a 50' radius. There is no indication that the new well is connected to the house and the domestic uses are achieved through use of an older well near the home.

Mr. Skeen stated that the ponds were filled for the first time with the well water after the well was drilled (2014). Also, he states that his wife fills the ponds with well water during the dry periods (Aug/Sept) after they have dried up from the stream source. Additionally he needs to maintain the structure of the ponds every 2-3 years since the livestock break the banks down and he states that 2016 was the last time he has rebuilt the banks. I wasn't able to find conclusive evidence in the Landsat Imagery (2015) or the Sentinel Imagery (2016) due to the pixel size being so large and the ponds being so small. In addition, open water should show up darker blue/black relative to plants (red, pink, yellow) and the resolution does not support using this imagery for this purpose. Using the NAIP 2011 I could see the North and South Pond holding water presumably from the unnamed stream. No other NAIP or Google Earth imagery really shows the ponds holding water from the groundwater (after August but before the next spring) during the development period. This is due more to the timing of the photos I believe rather than the lack of water being used. So while there is faint aerial imagery to support the use of the ponds for storage during the development period, no one image shows water in both of the ponds at the same time or conclusively which water source was used. For this reason, I am referring to statements made by Mr. Skeen in writing (see attached email communications) which I summarized previously. I am satisfied that the ponds were filled with water from both sources and the stock have used them during the developmental period and every year since. Mr. Skeen described a variety of stock (horse and goat) between 10-15 animals depending on the season and year.

Mr. Skeen originally sent in the application and proof of beneficial use for two ponds. After phone and email communications with Mr. Skeen, it became apparent he really had three ponds and was filling the third pond with water from his well. This is an additional pond for use by his stock which rotate around his property, he said. Reviewing the documentation in the original application, received Feb 9, 2011, I noticed that while the two ponds (north pond and south pond) were outlined in red marker, the third pond

was sketched in the topographic image in pencil. After performing total volume requirements for each pond, all three ponds still were within the 0.5 AF volume requested in the permit, however, the condition (164) on the permit states that the total capacity of the reservoir is 0.1 A.F., but the reservoir may be filled multiple times up to the total volume in a single year. The total capacity for all three ponds exceeds 0.1 A.F. (0.15 A.F.) therefore, he must apply for a permit for this third pond. Addressing the significant figures in this case, following the Administrative Memo #6 we would round the value 0.15 A.F. to 0.2 A.F. and report 0.2 A.F. which exceeds the 0.1 A. F. limit. In addition, the third pond has an additional source and we cannot add another source at this point in the licensing process. Mr. Skeen has been advised to stop filling the third pond until he has an approved permit.

Using aerial imagery from Google Earth dated 6/29/2017, the north pond measured at 45 ft x 25 ft (1125 ft² or 0.026 A.F.) at the longest and widest parts. The south pond measured at 30 ft x 15 ft (450 ft² or 0.01 A.F.) at the longest and widest parts. Together the surface area of both ponds is **0.036 A.F.** We will assume an average of 3 feet deep as specified by Mr. Skeen in the proof of beneficial use. For the stock fill volume I used 15 goats (2 gpd) and 3 horses (12 gpd) for a daily total of 66 gpd. For a whole year the stock fill volume is 24,090 gallons /325,850 or 0.074 AF **~0.1 A.F.** In total both ponds have a required volume of 0.4 A.F.

This water right is in Water District 65A (Squaw Creek) and the watermaster (Eric Herr) did not oppose this permit. This permit has the condition code 01H, but the language was manually changed. This is important since the language of the condition in the permit as issued states that "Upon notification, the right holder shall install a lockable outlet device and permanent pond staff gages to provide the Watermaster a suitable means to control the storage works", whereas the 01H condition really says "Prior to diversion of water under this right, the right holder shall install a lockable device, subject to the approval of the Department, in a manner that will provide the Watermaster suitable control of the diversion". Since this condition says upon notification and no notification has been given, the water user would have had no reason to install measuring works or a lockable device etc. I tried for several months to get in touch with the wastermaster of 65A but was quite unsuccessful. After discussion with water right supervisor Phill Hummer and section supervisor Angie Hansen, it was decided to proceed with the language of the permit as issued and license it as is.

There is a companion permit 65-23446 for irrigation from the groundwater source and is considered an overlapping water right. Condition X35 limiting the total combined diversion rate from the well to 0.3cfs.

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

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
STOCKWATER STORAGE	01/01 to 12/31		0.4 AF

Totals:

0.4 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

Kellie Smith - Hydrologist, Technical

*Kellie Smith*Field Examiner's Name _____ Date 9/2/2021Reviewer *Daniel A. Noh* Date 9-3-21



Figure1. The two ponds recommended for permit 65-23447. The two ponds are called "North Pond" the pond most to the north, "South Pond" the pond most to the south. Image date from Google Earth (6/29/2017) which is after the development period, but is the only aerial imagery we have showing the ponds with such clarity. This picture shows what the ponds look

like when before the water from the unnamed stream has fully dried up.

From: Smith, Kellie
Sent: Thursday, September 19, 2019 10:28 AM
To: gmacsgian@gmail.com
Subject: RE: Follow up questions for permit 65-23447
Attachments: 042016_skeen.jpg

Gary,

Thank you so much for all the detail, it is greatly appreciated. Two things I need some clarification on;

1. I think the directions you are using to describe the ponds are different than what I am using to describe them. To make sure we are on the same page I have attached a picture of your parcel and outlined the ponds for this permit and put a marker where the well is. Can you confirm that the well is in the correct location these and the two ponds of the left of the image are what you called northwest and southeast and the one on the right is what you called the front pond in your description below? I am assuming you meant northwest and southwest but I just want to be certain.
2. You made reference to filling the front pond with the well water, I am assuming this is your duck pond that you mentioned on the phone. Since this pond was not included in your original application and is not included in the permit, you have three options:
 - a. We can amend the license to include the third pond so that you can fill it with well water but we can't change the volume, so you would still have 0.5 AF across all three ponds. I measured the two and performed a few calculations to include seepage and evaporation and it looks like together the two require a volume of 0.3 AF per year. As long as the duck pond doesn't have a total required volume of more than 0.2 AFA then we might be able to amend this permit to include a third pond for aesthetic use.
 - b. Or you can apply for another permit using groundwater for and aesthetic/wildlife use (duck pond right?). I am not sure of this pond's measurements, but I am estimating 35 ft x 28 ft x 3 ft (LxWxD) based on aerial measurement for the length and width and carrying over the 3 feet depth from your other two ponds.
 - c. Stop filling this pond with the well water. Discontinue any fill other than natural precipitation and runoff.

Please let me know what you would like to do for the third pond and if you choose option a. or b. please provide an estimated length, width, and depth of the pond (or confirm my estimations) and a description of what it is used for. Over the phone you described the pond as the ducks liking it, so I am assuming it is more just for aesthetic wildlife and nature enjoyment, rather than for stock to drink.

Please feel free to call me with questions. Thank you

Kellie Smith
IDWR Water Distribution
(208) 287-4842

From: Gary Macsgian [mailto:gmacsgian@gmail.com]
Sent: Thursday, September 12, 2019 1:21 PM

Kellie:

I think it would be easiest if I just gave you an overview of what I did for water distribution on the property after the well was completed. I went out last night and measured. I gave you the wrong pipe size. It's a 1 1/4" line. So, at the well head I installed a 1 1/4 inch galvanized steel riser with a manual valve. This riser drops down to the 1 1/4 inch Poly line. This line is above ground at the well head. This line runs to the northeast approximately 75' and then a 90 degree turn to the south along the fence. The total length of this feeder line is about 235 feet. At points along this feeder line are a series of T's and valves that allow me to divert water where needed and connect other lines. At the end of the feeder line is a removable end cap. The end of this feeder line is near the creek at the back of the property. I also have three frost free hose bibs piped around the property at locations that make it easy to distribute water. One is at the well head, one is at the back of the house, and one is on the fence line at the west side of the corral near the gate. These are for filling troughs and attaching other sprinkler systems as needed. I also piped a line to a trough that straddles two of the holding pens. This trough is fed off of a ball cock valve and refills automatically.

Responses to your questions.

Regarding 65-23447

1. Ponds can be filled from the feeder line or 3/4" hose bib. Situated along the feeder line are valves and T's that can be opened and the water runs down the hill and into the pond. The property is slightly elevated. If I open the valve gravity solves my problem. In discussing with my wife, she indicated she has used a 3/4" 100' hose from the hose bib at the well head and also at the east stock pond behind the house to add water to these ponds during dry periods. As we discussed on the phone, sometimes in August or September the ponds will start to dry out, and she will use one of these methods to fill the ponds.
2. We first used the well to fill the ponds while proofing the well. The pond at the front was filled in this manner. Later that month the north west pond was filled. The same with the southeast pond.
3. The ponds were on the property when I bought the house in '96. Every 2-3 years I have to have someone come in and deepen them and rebuild the banks as the stock break down the banks around the ponds. The pond most damaged by stock is the one in the southeast corner. The others require less maintenance. I believe the last time was August 2016.

Regarding 65-23446

1. The pipe I move is between 80-100 feet. On the line I have 3 Auquaburst 30's. These sprinklers are on 24" risers, 35-40 feet apart so that they overlap. This head, at the pressure it is running produces approximately a 50' radius and delivers approximately 3 gpm. The well seems to be able to run this very comfortably and in truth, I could probably run another 3.
2. I first began using the irrigation system the year the well was completed. I have used it since. In 2017, 2018, and 2019. I quit using the sprinkler after about June 30th because of a weed locally known as Indian Tobacco; Latin name is Rumex Crispus. It took over my property. I tried 2-4D to no avail. My neighbor suggested adding diesel to the mix so I did. Turned them slightly yellow, but then they were fine. I became concerned about the health risks associated with the use of poison with the recent revelations about glyphosate. Our 4-H coordinator suggested using the goats to kill the burgeoning weed population, so I did. I shut off the water, turned the goats out and let them eat it to the ground. This is the second year with only a

few, Indian Tobacco plants returning so I plan on reseeding this fall. My neighbor on the fence line still has a burgeoning population of Indian Tobacco, but the goats have been the most effective deterrent against the invasion.

3. I usually water late in the evening and let it run 30 minutes to an hour. When it's hot, I may water daily, but in spring and fall, I can get by less frequently.

Let me know if I can answer any more questions.

Gary Skeen

On Wed, Sep 11, 2019 at 11:46 AM Smith, Kellie <Kellie.Smith@idwr.idaho.gov> wrote:

Mr. Skeen,

Thank you for talking with me on Monday. I have some follow up questions.

Regarding your ponds for the permit 65-23447.

1. How are you conveying water from the well to the ponds?
2. When did you first use the well to fill the ponds?
3. When did you construct or enhance the ponds? Can you provide an approximate date and description of the work you did?

Regarding the permit 65-23446 for irrigation.

You described on the phone that you have a 2" black pipe that you move around the pasture for irrigation

1. How long is the 2" pipe that you unhook and move around to irrigate the pasture and how many sprinklers (what size) are connected to the pipe?

2. When did you first begin irrigating the pasture?

3. Can you describe a very general irrigation schedule you use? How often do you water the pasture?

Thank you so much for taking the time to answer these questions. If I can get your responses to these questions, I may not need to come to your place for an in-person exam.

Kellie Smith

Staff Hydrologist

Water Distribution

Idaho Department of Water Resources

Phone: (208) 287-4842

Email: kellie.smith@idwr.idaho.gov

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	65-23447
REVIEWER	Kellie Smith
DATE	9/24/2019

User Input
Calculated value
Formula Explanations

INPUTS

Pond Surface Area (AC.)	0.036	AC.
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Pond Surface Area (SQ. FT.)	1568	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	SC	
Suggested Seepage Rate (FT./DAY)	0.0070	FT./DAY

Formula: (Surface Area X Seepage Rate) X 7.48 = Gallons Per Day Loss
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Convert to GPD	82	GPD
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Total Seepage Loss (AFA)	0.09	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.

Total Storage Calculations

FILE NUMBER	65-23447
REVIEWER	Kellie Smith
DATE	9/24/2019

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.)	0.036	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	3	"Average Pond Depth" depicts the actual depth of the pond either measured or estimated. Note: If you know the maximum depth and not the average depth, the Field Examiner's Handbook suggests multiplying the maximum depth by 0.4 to get the average depth, or you can use any method that seems reasonable to attain average depth.
Pond Capacity (AF)	0.108	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)	0.1	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 " <u>From Storage</u> " component exceeding the initial fill on the permit to include a volume in this space.
Estimated Seepage Loss (AF)	0.09	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.07	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	0.37	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.

Permit 65-23446 and 65-23447
Gary Skeen
2017 Aerial Imagery



SWNE

SENE

16

07N01E

NESE

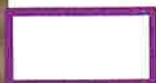
NWSE



65-23446_POD



65-23447_POD



65-23447_POU



65-23446_POU

State of Idaho
Department of Water Resources
Water Right License
65-23447



-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters

0 0.035 0.07 0.14 Miles



Permits 65-23446, 65-23447
Gary Skeen

Legend

-  = hosebibs to make connections
-  = 1 1/4" feeder line (main)
-  = 100' pipe with 3 sprinklers to move for lawn, pasture
-  = ponds
-  = unnamed stream
-  = well

Montour Rd

235 ft

DELIVERY SYSTEM DIAGRAM
K. SMITH 9/19

N

300 ft