

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 77-14142
Exam Date: 10/01/2019

1. Current Owner:
MIKE LA PAGLIA PO BOX 1043 EMMETT ID 83617
2. Accompanied by:
Phone No:
Address:
Relationship to permit Holder:

3. **SOURCE:**
GROUND WATER

Method of Determination: _____ Field Exam _____

B. OVERLAP REVIEW

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

Water Right No.	Source	Purpose of Use	Basis
77-7220	Spring	Domestic	GIS

Comments: Water right 77-7220 is the only direct overlapping water right for the place of use, but is for domestic use from a spring and is not tied into the fire protection pond. Water right 77-7220 should not affect the licensing of this permit. The only other water right for this 40 acre tract is 77-10100, but it is for a different owner in Lot 1 of Block 2 of Secesh Meadows Subdivision. This parcel is across the river and not tied in any way to the owner or the pond.

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

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER SE¼ SW¼, Sec. 14, Twp 22N, Rge 05E, B.M. IDAHO County

Method of Determination:

PLACE OF USE: FIRE PROTECTION 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	
22N	05E	14												X					

Method of Determination: Field 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

D. FLOW MEASUREMENTS

1.

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

2. Measurements:

E. FLOW CALCULATIONS Additional Computation Sheets Attached

Measured Method:

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

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

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} =$$

2. Volume Calculations for Other Uses:

SEE ATTACHED POND SPREADSHEET

G. NARRATIVE/REMARKS/COMMENTS

The groundwater permit falls within the Wild and Scenic Watershed (Salmon River excluding Middle Fork). At the time of permitting (2001) both the Wilderness Moratorium, dated October 26, 1999, and the Salmon & Clearwater River Moratorium, dated April 30, 1993, affected applications for new appropriations. The pond was considered non-consumptive so it was ok to process through to permit despite the Wilderness Moratorium. Since then, the evaporation component is now considered consumptive use of water, however this evaporation component in this pond system is a de-minimus use. The recommended annual volume for fire protection storage is 1.2 A.F., which in whole is below the diversion and volume limit of 0.04 cfs and 2,500 gpd (2.8 A.F. annually) to be considered a de-minimus (42-111) use. The permit describes the PODs as being in 22N 05E 23 SWNW and NWSW. However, there is only one POD and the POD and POU are located in 22N 05E 14 SESW. Additionally, the Conditions of Approval X60 describes the Place of Use being located within lot 57, Sesech Meadows No. 4 however, the pond is actually in Lot 56 and the house is on lot 57. I believe this error was made because the plat map had no North arrow and was read upside down. The location has been amended and signed by Mr. LaPaglia in April 1, 2020 and is in the file. Mr. Paglia described to me several times his pond has been used to fight fires in the immediate area, most recently as this summer. The helicopters will dip in to take water and drop off hot shots, and trucks will pull up to the pump house to fill their tanks. Visual evidence of charred landscape was abundant in spring of 2020 showing how close the fire got to his house from a fire a few years back and how close the fire this year got to some of the structures in the area.

The surface area of the pond is 470 ft² or 0.2 acres and the average depth is 5 ft making the pond capacity 1 A.F.. There is a condition that the pond shall not exceed 0.5 acres in surface area and the calculated surface area of 0.2 acres is below the limit of this condition. Since this is a pond intercepting groundwater, we don't need to know the soil texture, which is lucky for this exam since finding soil texture for this area was quite a challenge. The Web Soil Survey has no information and the soils layer in GIS has a very broad soil texture classification for this area. The closest climate information to determine evaporative losses is from the Riggins RS NWS-

USC00107706. Mr. Paglia states that the pond level is constant thorough the year, which is ideal for a pond sitting in the floodplain intercepting shallow groundwater. All factors accounted for, the total required volume is 1.22 A.F. and rounded to the nearest tenths, the recommended volume is 1.2 A.F..

The spring has been diverted to the pond for an unknown amount of time, but since Mr. Paglia does not have a permit including this source of water for storage in this pond he must file a permit or re-route the spring back to the original course to meet the river. Since this permit was allowed to be processed even though it is within the wilderness moratorium area due to the non-consumptive use, we can assume this same rational if Mr. Paglia was to apply for a permit with the spring water source and same use. Since the channel is so small a traditional transect was not possible, it was wide enough to get one good velocity measurement. The Flowtracker 2 was used to measure velocity (0.03 ft/s) and with the area of the channel (1.8 ft wide and 0.02 ft deep), the discharge came to 0.01 cfs. If Mr. Paglia chooses to file for a permit I would quadruple this value to account for seasonal maximum, matching other local water right and permit spring flows and get a measurement in late spring/early summer.

At the time of the field examination Mr. Paglia was concern he was "in-trouble" for the spring water and was advised that he should disconnect the spring water until he had an approved permit. When the permit has been licensed a formal letter from the department will be mailed to him with this same message.

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>
FIRE PROTECTION STORAGE	01/01 to 12/31		1.2 AF

Totals:

1.2 AF

2. Recommended Amendments

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

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

I. AUTHENTICATION

Kellie Smith - Hydrologist, Technical

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



Map showing Point of Diversion (POD) a yellow circle and Place of Use (POU) outlined in red

Total Storage Calculations

FILE NUMBER	77-14142
REVIEWER	Kellie Smith
DATE	9/30/2019

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.)	0.2	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	5	"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	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 " <u>From Storage</u> " component exceeding the initial fill on the permit to include a volume in this space.
Estimated Seepage Loss (AF)	0.00	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.22	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	1.22	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.

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	77-14142
REVIEWER	Kellie Smith
DATE	9/30/2019

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/>

Riggins RS (NWS--USC00107706)

Precipitation Deficit

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

Month	mm/day ¹	Days per month	mm/Month
Jan	-0.77	31	0.00
Feb	-0.33	28	0.00
March	-0.07	31	0.00
April	0.71	30	21.30
May	1.18	31	36.58
June	1.77	30	53.10
July	3.18	31	98.58
August	2.85	31	88.35
September	1.14	30	34.20
October	0.32	31	9.92
November	-0.82	30	0.00
December	-1.03	31	0.00

Total mm/year = 342.03

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

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

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

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

$$\left(\frac{342.03}{304.8} \right) \times 0.20 = 0.22 \text{ AFA}$$

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User Input
Calculated value
Formula Explanations

INPUTS

Pond Surface Area (AC.)	0.2	AC.
-------------------------	-----	-----

Pond Surface Area (SQ. FT.)	8712	SQ. FT.
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I used the following method to obtain my Soil Classification information:	NRCS Web Soil Survey	
My Soil Classification is	GrndWtr	
Suggested Seepage Rate (FT./DAY)	0.0000	FT./DAY

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

Convert to GPD	0	GPD
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Total Seepage Loss (AFA)	0.00	AFA
--------------------------	------	-----

Though sand and gravel seepage rates may actually be higher, the maximum allowable rate is 0.2 ft/day, pursuant to Administrative Memo "Seepage Loss Standards for Ponds and Reservoirs."

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

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



Left to Right:

Figure 1. Looking NW at the outlet of the pond.

Figure 2. Looking NE at the inlet. This is where the spring water has been diverted into the pond. Mr. Paglia has been advised to re-divert the spring back to its natural course or apply for a permit to continue storing the spring water in the pond.



Left to Right

Figure 3. Again looking NE, in the foreground is the pipe used to pump water for fire protection use.

Figure 4. Looking W, the smaller reddish house with the white roof is the pump house. The trucks will pull up to the pump house and fill their tanks when fighting fire.



Figure 5. The spring water coming into the pond. Mr. La Paglia said he can easily re-divert the spring back to its natural course which flows back to the river. At the time of this field exam, the spring water enters the pond and flows back to the river. In correspondence (see file), this issue was put in writing that the spring water needed to go back to the natural course, and should not be entering the pond.



State of Idaho

DEPARTMENT OF WATER RESOURCES

322 E Front Street, Suite 648 • PO Box 83720 • Boise ID 83720-0098

Phone: (208) 287-4800 • Fax: (208) 287-6700

Website: idwr.idaho.gov • Email: idwrinfo@idwr.idaho.gov

BRAD LITTLE
Governor

GARY SPACKMAN
Director

March 3rd, 2020

MIKE LA PAGLIA
PO BOX 1043
EMMETT ID 83617

Notice of Intent to Void Permit

RE: Water Appropriation Permit No. 77-14142

Mr. La Paglia:

The Department of Water Resources (IDWR) is reviewing your Water Appropriation Permit (Permit) to issue a Water Right License (license) for the uses developed. On September 14, 2001, IDWR approved the Permit for fire protection and storage of groundwater. Proof of beneficial use was received on July 19, 2002 stating that the project was in place and completed.

On October 1, 2019 I met with you at your property in Sesech Meadows to conduct the field examination and verify the location and water source for this system. During this visit, I identified that the point of diversion (POD) and place of use (POU) developed are in locations other than what was described on your permit. The permit describes two PODs and POU as being in 22N 05E 23 SWNW and NWSW which is across the river and farther south into the meadow from your property. However, the actual POD and POU are located in 22N 05E 14 SESW at your property. Therefore, before a license can be issued, your permit must be amended to depict your water right as it was actually developed.

On October 7th, 2019 I sent you a letter describing this issue along with directions and paperwork to amend your permit so that it can continue to licensing. During the field examination we discussed that you would be moving to Arizona for the winter and you provided me your address there to send correspondence. The envelope was not returned so I assume it was delivered. This letter will be mailed again to the Arizona address as well as the address we have on file for you in Emmett.

The final step in the water appropriation process is the issuance of a license. By issuing a license, IDWR recognizes that you have met the requirements for establishing a water right. **A signed amendment and \$100 filing fee must be received within 30 days or by April 3, 2020. Failure to provide the needed documentation by April 3, 2020 will require that IDWR to void Permit 77-14142.**

In addition, a possibility we discussed during the field exam, you will need to discontinue the diversion of spring water into the pond. If you would like to continue using the spring water in the pond you will need to file a new application for permit

If you have any questions in regard to this matter, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Kellie Smith". The script is cursive and fluid, with the first letter of each name being capitalized and prominent.

Kellie Smith
Staff Hydrologist
Idaho Department of Water Resources
Telephone (208) 287-4842
Fax (208) 287-6700 (C/O Kellie Smith)
kellie.smith@idwr.idaho.gov



State of Idaho

DEPARTMENT OF WATER RESOURCES

322 E Front Street, Suite 648 • PO Box 83720 • Boise ID 83720-0098

Phone: (208) 287-4800 • Fax: (208) 287-6700

Website: idwr.idaho.gov • Email: idwrinfo@idwr.idaho.gov

BRAD LITTLE
Governor

GARY SPACKMAN
Director

October 7, 2019

MIKE LA PAGLIA
17200 WEST BELL ROAD
HAPPY TRAILS 1269
SURPRISE, AZ 85374

RE: WATER RIGHT 77-14142

Dear Mr. La Paglia:

The Department of Water Resources is reviewing the permit referenced above prior to issuing a water right license. By issuing a license, the Department confirms that water right has been established in compliance with the terms of the permit. During the field exam conducted on October 1, 2019 I identified that the point of diversion (POD) and place of use (POU) developed are in locations other than what was described on your permit. The permit describes two PODs and POU as being in 22N 05E 23 SWNW and NWSW. However, the actual POD and POU are located in 22N 05E 14 SESW. Therefore, before a license can be issued, your permit must be amended to depict your water right as it was actually developed.

The enclosed Application for Amendment form depicts the point of diversion and place of use and other information as it will appear on the license when issued. Please review the amendment form carefully. If you concur with the information presented, please sign the form and return with the \$100.00 filing fee by December 1st, 2019.

In addition, a possibility we discussed during the field exam, you will need to discontinue the diversion of spring water into the pond. If you would like to continue using the spring water in the pond you will need to file a new application for permit (enclosed).

If you do not concur, or if you have any questions about this information, please contact me as soon as possible. My telephone number is 208-287-4842.

Sincerely,

Kellie Smith

A handwritten signature in cursive script that reads 'Kellie Smith'.

Staff Hydrologist

Enclosures

Comments: <There is a permit 77-7306 BJ Spradling Spring Domestic Exam submitted in 1997 but no license yet. Paula Dillon was assigned this permit to license >

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

Source	Govt. Lot	¼	¼	¼	Sec.	Twp.	Rge.		County
Ground Water			SE	SW	14	22N	05E	B.M.	IDAHO
								B.M.	
								B.M.	

Method of Determination: <GIS, field exam >

Change in POD? ☒ Y ☐ N Amendment Required? ☒ Y ☐ N**2. PLACE OF USE:** 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	
22N	05E	14												X					
Total Acres =																			

Method of Determination: < GIS, field exam >

Change in POU? ☒ Y ☐ N Amendment Required? ☒ Y ☐ N

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

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

☒ Photo of Diversion and System Attached

4. Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
N/A					

*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

2. Measurements: < N/A >

E. FLOW CALCULATIONS

_____Additional Computation

Measured Method: N/A

< N/A >

Measurement = < N/A > cfs**Permit allowed = < N/A > cfs****License recommend for < N/A > cfs.****F. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:
- N/A**

 $V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}). =$ $V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$ $V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$

2. Volume Calculations for Other Uses: SEE ATTACHED POND SPREADSHEET

G. PURPOSE OF USEIrrigation _____Y ☒N # Stock _____ Domestic # of Homes _____

Other: < FIRE PROTECTION STORAGE >

Change in Purpose of Use? _____Y ☒N

Method of Determination: < >

If Yes: _____ Amount _____ CFS _____ AFA _____

H. NARRATIVE/REMARKS/COMMENTS

<

This groundwater permit is not subject to the Wild and Scenic Salmon River Moratorium, but does fall within the wilderness moratorium. Since the pond use is considered non-consumptive, it was ok to process to permit. The permit describes the PODs as being in 22N 05E 23 SWNW and NWSW. However, there is only one POD and the POD and POU are

located in 22N 05E 14 SESW. I am unsure of why the POD and POU are so off from the actual location. Mr. Paglia has been at these parcels for over 30 years. I will do an amendment to update the POD and POU to the correct PLSS. Additionally, the Conditions of Approval X60 describes the Place of Use being located within lot 57, Sesech Meadows No. 4 however, the pond is actually in Lot 56 and the house is on lot 57. I believe this error was made because the plat map had no North arrow and was read upside down. Mr. Paglia described to me several times his pond has been used to fight fires in the immediate area, most recently as this summer. The helicopters will dip in to take water and drop off hot shots, and trucks will pull up to the pump house to fill their tanks. Visual evidence was abundant showing how close the fire got to his house from a fire a few years back and how close the fire this year got to some of the structures in the area.

The surface area of the pond is 470 ft² or 0.2 acres and the average depth is 5 ft making the pond capacity 1 A.F.. There is a condition that the pond shall not exceed 0.5 acres in surface area and the measured area is below the limit of this condition. Since this is a pond intercepting groundwater, we don't need to know the soil texture, which is lucky for this exam since finding soil texture for this area was quite a challenge. The Web Soil Survey has no information and the soils layer in GIS has a very broad soil texture classification for this area. The closest climate information to determine evaporative losses is from the Riggins RS NWS-USC00107706. MR. Paglia states that the pond level is constant thorough the year, which is ideal for a pond sitting in the floodplain intercepting shallow groundwater. All factors accounted for, the total required volume is 1.22 A.F. and rounded to the nearest tenths, the recommended volume is 1.2 A.F..

The spring has been diverted to the pond for an unknown amount of time, but since Mr. Paglia does not have a permit including this source of water for storage in this pond he must file a permit or re-route the spring back to the original course to meet the river. Since this permit was allowed to be processed even though it is within the wilderness moratorium area due to the non-consumptive use, we can assume this same rational if Mr. Paglia was to apply for a permit with the spring water source and same use. Since the channel is so small a traditional transect was not possible, it was wide enough to get one good velocity measurement. The Flowtracker 2 was used to measure velocity (0.03 ft/s) and with the area of the channel (1.8 ft

wide and 0.02 ft deep), the discharge came to 0.01 cfs. If Mr. Paglia chooses to file for a permit I would quadruple this value to account for seasonal maximum, matching other local water right and permit spring flows and get a measurement in late spring/early summer.

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

I. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
<Fire Protection Storage>	<01/01 to 12/31 >		<1.2 > AF
	<u>Totals:</u>	<N/A> CFS	< 1.2 > AF

2. Recommended Amendments

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

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

Other: < N/A >

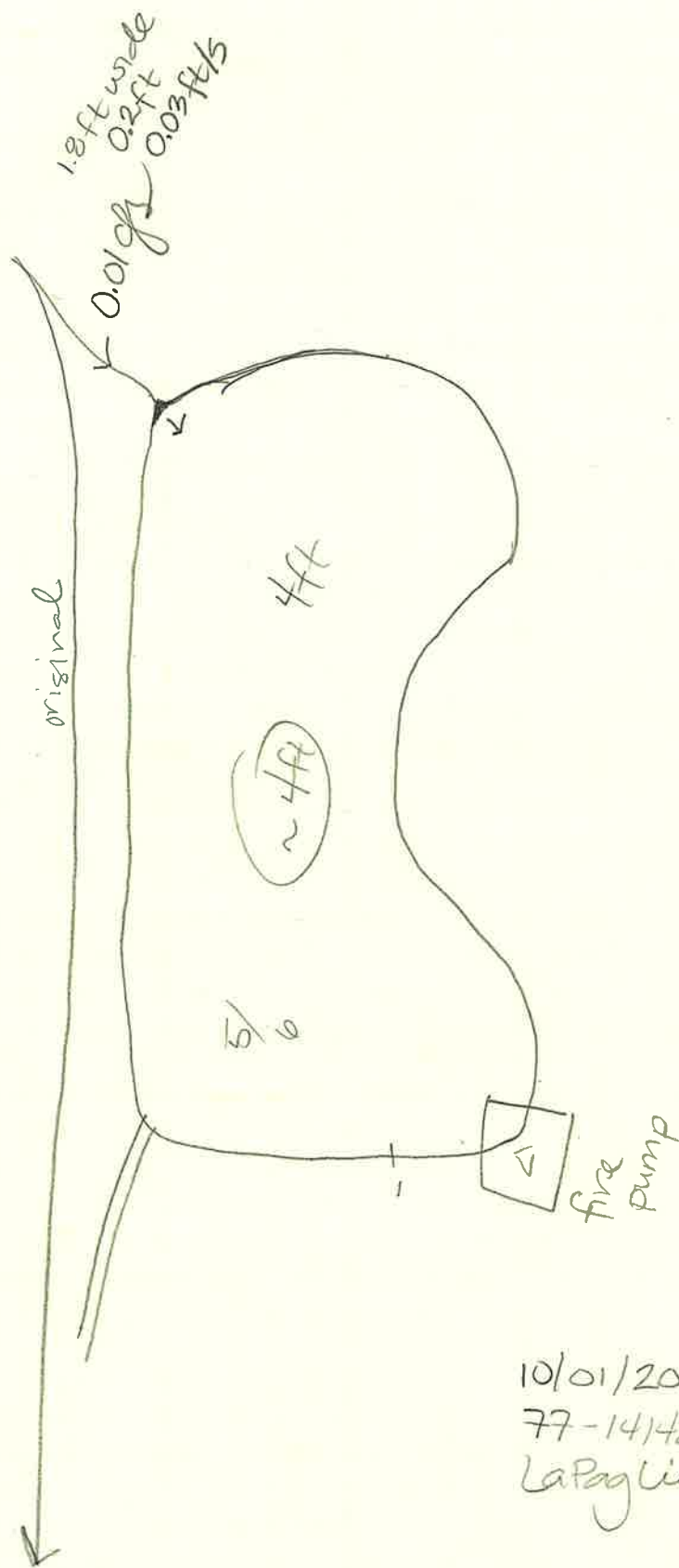
J. AUTHENTICATION

Permit No: <77-14142>

Page 6

Field Examiner's Name _____
Date _____

Reviewer _____
Date _____



↑ 2

10/01/2019 K. Smith.
 77-14142
 LaPaglia

Total Storage Calculations

FILE NUMBER	77-14142
REVIEWER	Kellie Smith
DATE	9/30/2019

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Average Pond Depth (FT.)	5	"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	Pond Capacity is calculated by multiplying the Pond Surface Area by the Average Pond Depth. If you know the capacity, divide the capacity by surface area and enter the average pond depth in the space above. Note: If pond capacity is determined using a method shown on the "Pond Capacity" sheet, the user may need to modify the value of "Pond Capacity" (cell B9) manually. Note that if the value is modified manually, the formula will be altered for future use.
Multiple Fill Volume Above Initial Fill to Fulfill From Storage Needs- "Multiple Fills" (AF)	0	The "Multiple Fill Volume Above Initial Fill" is the acre-feet of water required to meet a <i>from storage</i> component if the <i>from storage</i> component exceeds a one time fill. This section should not include the amount of water needed to fill the pond initially or the amount of water needed to maintain the pond level due to evaporation or seepage. For example: if a pond has a capacity of 5 acre feet and 2.5 acre feet of seepage and evaporation, but the pond is used for irrigation that requires 10 acre feet of from storage for the irrigation use, then you would insert 5 acre feet into this location (10 acre feet needed - 5 acre feet from the initial fill = 5 acre feet of additional storage needed). Note: You must have a "From Storage" component exceeding the initial fill on the permit to include a volume in this space.
Estimated Seepage Loss (AF)	0.00	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.22	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	1.22	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.



Figure 1. Looking NW at the outlet of the pond.



Figure 2. Looking NE at the inlet. This is where the spring water has been diverted into the pond. Mr. Paglia has been advised to re-divert the spring back to its natural course or apply for a permit to continue storing the spring water in the pond.



Figure 3. Again looking NE, in the foreground is the pipe that is used to pump water for fire protection use.



Figure 4. Looking W, the smaller reddish house with the white roof is the pump house. The trucks will pull up to the pump house and fill their tanks when fighting fire.



Figure 5. The spring water coming into the pond. Mr. La Paglia said he can easily red-divert the spring back to its natural course which flows back to the river. Currently, the spring water enters the pond and exits and still flows back to the river.