MEMORANDUM

TO: Water Right File 57-7627

FROM: Daniel Nelson – Analyst 3

DATE: February 24, 2020

SUBJECT: Licensing Review of Water Right 57-7627

This field exam for this right was performed by Western Region Staff on July 1, 1997. The field examiner recommended domestic use for 0.02 cfs and 0.6 af for in house use for a single family home, and 0.20 cfs and 1.0 af for fish propagation. For a total of 0.20 cfs and 1.6 af.

The field examiner also stated that conditions 4 and 5 had not been met. Condition 4 is condition 045. Please see the attached memorandum on this condition. Condition 5 is condition 09E. Condition 09E was replaced with condition R07. R07 requires an injection injection well permit, and 09E required discharge into an natural channel or well to meet Idaho Water Quality standards. This system diverts water from a spring into a set of ponds that are built on a wastewater ditch. The use of this spring authorized by this right actually improves the water quality of the wastewater, so they have met this condition and it will not need to be carried forward to licensing.

This permit was filed to cover the water use from this spring for the domestic use and fish propagation due to an earlier field examination for water right license 57-7457 that found that the permit holder was using the spring water for the home and the ponds. Water right 57-7457 uses the same spring, but is only for irrigation purposes.

Water Uses, Diversion Rate, and Diversion Volume:

The domestic use determined by the field examiner seems is reasonable, and the diversion rate and volume meet current standards.

The fish propagation was never fully realized and no fish have been commercially grown in this facility. The comments placed into the database for this permit from Lori Graves dated April, 22, 1996, stated that the "Fish propagation is for personal consumption only, not for profit." There is also a condition that states that the following:

> Fish propagation under this permit shall be for non-commercial, recreational purposes.

The ponds should have been described as recreational ponds instead of fish propagation when this permit was issued and by the field examiner in the field report. There was never the intent to commercially grow fish. The ponds were constructed and continue to be used for recreational purposes. Therefore, we are going to clarify the use for this permit as recreational storage. There will be a diversion to storage from the spring and the storage component.

As mentioned above and in the attached condition memorandum, this permit is to be considered totally non-consumptive. Fortunately, the ponds were constructed in a waste ditch, so there is wastewater available to cover the evaporation and seepage losses in the pond. The permit holder has filed a new application for permit to cover the filling of the pond when the spring water is not available, seepage losses, and evaporation losses.

The field examiner determined that the ponds had a volume of 0.78 acre-feet rounded to 1.0 acre-feet. Using the Department's mapping system and the Department's Pond Spreadsheet, I determined that the pond surface area of the two ponds is actually 0.24 acres, and the capacity of the two ponds is 0.96 acre-feet. When rounding to the nearest tenth, volume recommended by the field examiner and the actual volume are the same. This permit cannot cover the evaporation or seepage from this pond. According to the pond spreadsheet, the seepage loss is 0.26 acre-feet and the evaporation is 0.71 acre-feet for a total of ~~9.7~~ 0.97 AC-FEET af of losses, or consumptive use. When the total usage is added up, 1.93 acre-feet (rounded to 1.9 af) of water is needed for this system. AG 3/11/2020

I agree with the diversion rate calculated by the field examiner, so I am recommending that the diversion to storage be limited to 0.20 cfs and the recreational storage be limited to 1.0 af. As stated above the fish propagation will not be carried forward to licensing. The total diversion rate measured was 0.33 cfs, so there will need to be a combined limitation when combined with 57-7457.

Conditions:

This permit uses the same spring as water right license 57-7457. During the field examination, the field examiner measured the spring, and found that the capacity of the spring is 0.33 cfs. Water right 57-7457 authorizes a diversion rate of 0.22 cfs, and this permit being recommended with a diversion rate of 0.20 cfs for diversion to storage and 0.02 cfs for domestic use for a combined limit of 0.20 cfs when the two uses are combined. Since the capacity of the system is limited to 0.33 cfs, an X35 condition will be needed that states when water rights 57-7457 and this permit are combined they are limited to a combined diversion rate of 0.33 cfs. An acre limit and volume will not be needed in the combined limitation conditions, since those uses are not limited by the capacity of the system.

As stated explained above, condition 09E will be removed at licensing, because it is no longer used on water right permits or licenses. Condition 07A is also no longer used by the Department, and will be removed at licensing. Condition 045 as described above will be changed to condition 027.

Condition WB5 will replace the existing condition describing the domestic use to comply with current standards. All of the irrigation around the home is covered by water right 57-7457, and the domestic use authorized by this permit is for in-house use only. Therefore Condition WB5 is the proper condition to use in this situation.

The condition that states that the fish propagation is for non-commercial purposes, but is used for recreational use will also be removed at licensing. This condition and the fish propagation use shouldn't have been placed on this permit, so now that the use has been corrected to recreational storage, there is no use for this permit.

Condition 220 will also be needed to show there are 2 ponds, and the limitations of the surface area and the capacity of the pond. No other storage conditions should be needed.

Permit 57-7627 – License Review Map

The field report was completed prior to the current mapping capabilities. I have supplied the 2004 aerial imagery for this permit showing the place of use for both uses. The domestic use is within the yellow border, the recreational storage (ponds) are in the blue border, and the spring is marked with the yellow dot. The 2004 aerial imagery is the earliest imagery available after proof of beneficial use was submitted, so it is the only imagery that show the initial development of this property.

MEMORANDUM

TO: Water Right Permit File 57-7627

FROM: Daniel A. Nelson

DATE: February 24, 2020

SUBJECT: Review of Condition 045

In my initial review of this permit, I found the rarely used condition 045. There were a total of 10 permits with this condition placed on them, and all of those rights have been licensed except for this permit. This condition has not been carried forward to licensing on any of the permits having this condition. There are several different reasons why the condition wasn't carried forward. The main reasons were the losses to the natural waterway were either de minus, were mitigated with storage water, or were not included on the order granting the approval of the water right.

A memo was written by Michele Edl in water right permit 37-8389, where she had sought guidance for this condition from the administrative staff. None of the administrative staff had an idea where this condition came from, and what its initial purpose really was. In recent years, the condition seems to have been replaced by the non-consumptive conditions to ensure that the spirit of the condition was carried forward to the license (see right 37-8331).

Therefore, I will move forward with the licensing of this permit with the understanding that this permit should be considered non-consumptive, and I will replace this condition with the standard non-consumptive conditions.

Even though this condition is no longer valid, the permit holder is still required to address the losses to the system. I met with the permit holder on December 18, 2019, to discuss some options that were available to them. Please see the December 18, 2019, meeting memorandum for additional information. On February 24, 2020, the permit holder filed a new application for permit to divert the wastewater that was entering the ponds. The wastewater will be used to cover the evaporation and seepage losses for these ponds. The ponds were built on a wastewater ditch, so the permit was required to file on the wastewater anyway.

Taking into account the filing of the new application for permit to comply with this permit. I feel this permit can move forward without any further delay.

WILD HORSE RD
MELBA ID 83641

FORM 203 Rev. 09/16

RECEIVED

FEB 24 2020

WATER RESOURCES
WESTERN REGION

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR PERMIT

To appropriate the public waters of the State of Idaho

Ident. No. _____

1. Name of applicant(s) Mark and Angela Jensen Phone (208) 495-4710
   Name connector (check one) ☒ and ☐ or ☐ and/or
   Mailing address 10015 Wild Horse Road City Givens Hot Springs/Melba
   State Idaho ZIP 83641 Email mark@sagelysown.com ; hardtrigger@yahoo.com
2. Name of representative, if any _____ Phone _____
   Mailing address _____ City _____
   State _____ ZIP _____ Email _____
   a. ☐ Send all correspondence for this application to the representative and not to the applicant OR
      ☐ Send original correspondence to the applicant and copies to the representative.
   b. ☐ The representative may submit information for the applicant but is not authorized to sign for the applicant OR
      ☐ The representative is authorized to sign for the applicant. Attach a Power of Attorney or other documentation.
3. Source of water supply waste water which is a tributary of Snake River
4. Location of point(s) of diversion:

Twp	Rge	Sec	Govt Lot	¼	¼	¼	County	Source	Local name or tag #
01N	03W	17			NE	SE	OWYHEE	WASTEWATER	

5. Water will be used for the following purposes:
   Amount 1.9 (cfs or acre-feet per year) for recreation purposes from 1/1 to 12/31 (both dates inclusive)
   Amount _____ (cfs or acre-feet per year) for _____ purposes from _____ to _____ (both dates inclusive)
   Amount _____ (cfs or acre-feet per year) for _____ purposes from _____ to _____ (both dates inclusive)
   Amount _____ (cfs or acre-feet per year) for _____ purposes from _____ to _____ (both dates inclusive)
6. Total quantity to be appropriated is (a) _____ cubic feet per second (cfs) and/or (b) 1.9 acre-feet per year (af).
7. Proposed diverting works:
   a. Describe type and size of devices used to divert water from the source. Waste water from neighbor's dug pond runs through ditch into our dug pond and from our pond flows to ditch leading to Snake River.
   b. Height of storage dam N/A feet; active reservoir capacity _____ acre-feet; total reservoir capacity _____ acre-feet. If the reservoir will be filled more than once each year, describe the refill plan in item 12. For dams 10 feet or more in height AND having a storage capacity of 50 acre-feet or more, submit a separate Application for Construction or Enlargement of a New or Existing Dam. Application required? ☐ Yes ☐ No
   c. Proposed well diameter is N/A inches; proposed depth of well is _____ feet.
   d. Is ground water with a temperature of greater than 85°F being sought? ☐ Yes ☐ No
   e. If well is already drilled, when? N/A; drilling firm _____; well was drilled for (well owner) _____; Drilling Permit No. _____.

For Department Use

Received by KT Date 2/24/2020 Time 1:13 Preliminary check by _____
Fee $ 100 Receipted by KT Receipt No. W048011 Date 2/24/2020

MEMORANDUM

TO: Water Right Permit File 57-7627

FROM: Daniel A. Nelson

DATE: December 18, 2019

SUBJECT: Meeting with Permit Holder 57-7627

On December 18, 2019, I met with Mark Jensen and his wife (Permit Holder) concerning permit 57-7627. Permit 57-7627 has a condition that basically requires this permit to be totally non-consumptive. I informed the Permit Holder that ponds were not considered non-consumptive, and did remove water from the system through seepage and evaporation. I also informed the Permit Holder that they needed to file a water right to cover the wastewater that they capture after it leaves the neighbor's property.

During this discussion, it was determined that they would file a new application for permit for wastewater to cover the evaporation and seepage losses of the pond, and to cover the waste water that fills the pond from the neighbor's property.

We also discussed the fish propagation for this pond. Mr. Jensen stated that he originally set out to raise fish in these ponds, but it turned out to be too difficult to raise and harvest the fish on such a small scale. They still have the ponds and there are still some fish in the pond for personal enjoyment, but the ponds are more for recreational purposes and should have been permitted that way when the permit was filed. This is a clarification of the use and should not require an amendment of permit to change the use from fish propagation to recreation.

I agreed to hold permit 57-7627 until the end of January of 2020 to allow them time to file that application for permit.

Total Storage Calculations

FILE NUMBER	57-7627
REVIEWER	Dan Nelson
DATE	11/25/2019

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.)	0.24	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	4	"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)	0.96	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 *from storage* component if the *from storage* 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)	0.26	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.71	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	1.93	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	57-7627
REVIEWER	Dan Nelson
DATE	11/25/2019

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/

Precipitation Deficit

Station: Nampa (PN-AM--NMPI)

Month	mm/day[1]	*Days per month*	mm/Month
Jan	-0.11	31	0.00
Feb	0.66	28	18.48
March	1.94	31	60.14
April	2.78	30	83.40
May	3.54	31	109.74
June	4.66	30	139.80
July	5.66	31	175.46
August	4.83	31	149.73
September	3.18	30	95.40
October	1.75	31	54.25
November	0.53	30	15.90
December	-0.20	31	0.00

Total mm/year =	902.30

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.

[(mm/yr) ÷ (convert to feet)] X (Surface area of pond, in acres) = Evaporation Loss in Acre Feet

(902.30 ÷ 304.8) X 0.24 = 0.7 AFA

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	57-7627
REVIEWER	Dan Nelson
DATE	11/25/2019

User Input
Calculated value
Formula Explanations

INPUTS

Pond Surface Area (AC.)	0.24	AC.
Pond Surface Area (SQ. FT.)	10454	SQ. FT.
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

Convert to GPD	235	GPD
Total Seepage Loss (AFA)	0.3	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.

Nelson, Dan

From: Nelson, Dan
Sent: Monday, February 24, 2020 1:29 PM
To: '(null) (null)'
Subject: RE:

Thank you Ms. Jensen, I will start moving forward on licensing your permit.

Dan Nelson

-----Original Message-----
From: (null) (null) [mailto:hardtrigger@yahoo.com]
Sent: Monday, February 24, 2020 1:22 PM
To: Nelson, Dan <Dan.Nelson@idwr.idaho.gov>
Subject:

Nelson, Dan

From: (null) (null) <hardtrigger@yahoo.com>
Sent: Monday, February 24, 2020 1:22 PM
To: Nelson, Dan
Attachments: 578C0897-B63F-4BB2-A2C6-1814A8207451.JPG; ATT00001.txt

10015 WILD HORSE RD
MELBA ID 83641

FORM 503 Rev. 09/16

RECEIVED
FEB 24 2020
WATER RESOURCES
Western Region

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR PERMIT

To appropriate the public waters of the State of Idaho

Ident. No. _____

1. Name of applicant(s) Mark and Angela Jensen
Name connector (check one) ☒ and ☐ or ☐ and/or
Phone (208) 495-4710
Mailing address 10015 Wild Horse Road
City Givens Hot Springs/Melba
State Idaho ZIP 83641
Email mark@sagelysown.com ; hardtrigger@yahoo.com

2. Name of representative, if any _____
Phone _____
Mailing address _____
City _____
State _____ ZIP _____
Email _____

a. ☐ Send all correspondence for this application to the representative and not to the applicant OR
☐ Send original correspondence to the applicant and copies to the representative.

b. ☐ The representative may submit information for the applicant but is not authorized to sign for the applicant OR
☐ The representative is authorized to sign for the applicant. Attach a Power of Attorney or other documentation.

3. Source of water supply waste water which is a tributary of Snake River

4. Location of point(s) of diversity:

Twp	Rge	Sec	Govt Lot	¼	¼	¼	County	Source	Local name or tag #
01N	03W	17			NE	SE	OWYHEE	WASTEWATER	
						SE			

5. Water will be used for the following purposes:

Amount 1.9 (cfs or acre-feet per year) for recreation purposes from 1/1 to 12/31 (both dates inclusive)

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

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

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

6. Total quantity to be appropriated is (a) _____ cubic feet per second (cfs) and/or (b) 1.9 acre-feet per year (af).

7. Proposed diverting works:

a. Describe type and size of devices used to divert water from the source. Waste water from neighbor's dug pond runs through ditch into our dug pond and from our pond flows to ditch leading to Snake River.

b. Height of storage dam N/A feet; active reservoir capacity _____ acre-feet; total reservoir capacity _____ acre-feet. If the reservoir will be filled more than once each year, describe the refill plan in item 12. For dams 10 feet or more in height AND having a storage capacity of 50 acre-feet or more, submit a separate Application for Construction or Enlargement of a New or Existing Dam. Application required? ☐ Yes ☐ No

c. Proposed well diameter is N/A inches; proposed depth of well is _____ feet.

d. Is ground water with a temperature of greater than 85°F being sought? ☐ Yes ☐ No

e. If well is already drilled, when? N/A; drilling firm _____; well was drilled for (well owner) _____; Drilling Permit No. _____.

For Department Use

Received by KT Date 2/24/2020 Time 1:13 Preliminary check by _____

Fee $ 100 Receipted by KT Receipt No. W048071 Date 2/24/2020

Nelson, Dan

From: (null) (null) <hardtrigger@yahoo.com>
Sent: Friday, February 14, 2020 7:23 PM
To: Nelson, Dan
Subject: Re: Jensen Re application permit

Thank you for your help, I should be able to get it done before that time limit.
The funeral is next Tuesday and after that things are more open.

I didn't even see your response until a couple of days ago, it was kind of crazy getting a rhythm for caring for "Grandpa" 24 hrs a day and when he passed I had to catch up on sleep for several days, deal with funeral arrangements and keeping up with family communication. Hairy ride to be sure.

I'm probably going to need a phone conversation to get re-oriented on this, may I make an appointment for that call for Thursday or Friday this next week?

Sincerely,
Angela Jensen

Sent from my iPhone

> On Feb 14, 2020, at 10:45 AM, Nelson, Dan <Dan.Nelson@idwr.idaho.gov> wrote:
>
> Dear Mr. and Ms. Jensen,
>
> Today was the day that you were originally required to have the application for permit filed for the wastewater for your ponds. You requested an extension due to a family medical emergency, and I agreed to approve that extension of time on that basis. However, I did ask if you could give me a time frame that you thought you could supply the information. I didn't receive a response from you, which is to be expected during such difficult times.
>
> However, I am required to set a deadline to submit the application for permit that will allow your existing water right permit to be licensed. Since you didn't give a specific time, I can give you an additional 30 days to file the application for permit for the wastewater for the ponds. Please file the application for permit by March 16, 2020, or I will be required to move your existing permit (57-7627) through the voiding process.
>
> If you have any questions or concerns, please don't hesitate to contact me.
>
> Respectfully,
>
>
> Daniel Nelson
> Water Right Analyst 3
> Idaho Department of Water Resources
> Telephone (208) 287-4856
> Fax (208) 287-6700 (attn: Dan Nelson)
>
>
>
> -----Original Message-----
> From: Nelson, Dan
> Sent: Tuesday, January 28, 2020 7:08 AM

> To: '(null) (null)' <hardtrigger@yahoo.com>
> Subject: RE: Jensen Re application permit
>
> Dear Mr. and Ms. Jensen,
>
> Absolutely you can have more time. You time should be focused on Mark's dad at this time. I wish you all and him the best.
>
> I do need to ask if you could give me a time you think you could finish with this process. I have to enter a specific month/day/year into my records to get the additional time approved.
>
> Once again I wish the best for your family in this difficult time.
>
> Respectfully,
>
>
> Daniel Nelson
> Water Right Analyst 3
> Idaho Department of Water Resources
> Telephone (208) 287-4856
> Fax (208) 287-6700 (attn: Dan Nelson)
>
>
>
> -----Original Message-----
> From: (null) (null) [mailto:hardtrigger@yahoo.com]
> Sent: Monday, January 27, 2020 10:10 PM
> To: Nelson, Dan <Dan.Nelson@idwr.idaho.gov>
> Subject: Jensen Re application permit
>
>
> Hi,
> We have been dealing with some family medical emergencies and though I thought I would make final progress on this application waiting at the Hospital, we are now transitioning to Hospice for Mark's Dad. I'm not even sure where we are on our time limit for this permit on the neighbor's waste water into our ponds.
>
> Can we get an extension again if we are nearing the deadline we talked about in early December? I'm carrying the paper work in and out of St. Alphonses but ...
>
> Angela (Mrs. Mark) Jensen
> 10015 Wild Horse Rd,
> Given's Hot Springs, ID
>
> Sent from my iPhone

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

November 25, 2019

MARK S JENSEN
10012 WILD HORSE RD
MELBA ID 83641

RE: Water Right Permit 57-7627.

Dear Mr. Jensen:

On April 16, 2019, you filed for a water right permit for fish propagation and domestic use from a spring. The permit was approved on June 11, 1996. You then filed a proof of beneficial use form stating that the project was completed on June 24, 1997. On July 1, 1997, Idaho Department of Water Resources (Department) staff performed a filed examination to verify the use you developed. The field examiner found you had developed the two ponds and a domestic use from the spring, but that you had not complied with the following condition on the permit:

> Prior to placing water to beneficial use under this right, the right holder must determine the rate of loss within his facilities using a procedure approved by the Director of the Department of Water Resources, and provide a source of augmentation water to mitigate all losses.

The permit was then set aside to give you time to come into compliance with this condition. From our records, it doesn't appear as though you have done anything to comply with this condition. The intent behind this condition was to ensure that these two ponds are totally non-consumptive. In my review of these two ponds, the capacity of the two ponds is 0.96 af or 1.0 af when rounded. The total losses to the system are 0.3 af for seepage loss and 0.7 af for evaporation losses. In order to come into compliance with this permit, you will need to supply 1 af of water to account for the consumptive use of this permit (0.3 af + 0.7 af = 1.0 af). I have attached some spreadsheets showing how I calculated the volume of the ponds and the ponds losses.

There are additional issues that need to be addressed that the field report did not address. Fish propagation is generally considered to be the commercial production of fish. The field report did not supply the amount of fish produced each year. Generally for commercial producers of fish, the density of trout should not exceed ½ pounds per cubic foot of water in earthen ponds. Therefore, we will need to know the following information:

1. Type of fish raised.
2. Number of fish raised.
3. Average pounds of fish raised.

The above information can generally be attained through the records or sales receipts of the fish purchased, produced, and sold. If these ponds are not for commercial fish propagation, then you should consider amending the permit to a recreation or aesthetic use instead of fish propagation.

The final issue is that the field report states that the ponds receives runoff and wastewater from the neighbor's pond south of your property. This permit only authorizes the filling of the ponds from the spring, so you will need to file a new permit to cover the water use from the runoff/wastewater received from the neighbor's pond. This new permit could also be used to cover the seepage and evaporation losses from your ponds to meet the condition requirement discussed above.

In order to move this permit forward, I would like to ask that you supply this information within the 30 days. Additional time can be granted if needed to resolve the issues listed above. If I do not receive any response from you in the next 30 days, I will be forced to move the permit through the voiding process. I have discussed a great deal of information in this letter, and I would be happy to meet with you in our office if you would like to sit down and go over all of this information.

Respectfully;

Daniel Nelson
Water Right Analyst 3
Idaho Department of Water Resources
Email: dan.nelson@idwr.idaho.gov
Telephone (208) 287-4856
Fax (208) 287-6700 (attn: Dan Nelson)

Enclosures: Computer Generated Report of Permit 57-7627
Map of place of use of ponds and domestic use
Pond Spreadsheets

Map of Water Use Based on Field Report.

The yellow border shows the general location of the domestic use. The blue borders show the location of the ponds. The yellow dot shows the location of the spring.

Total Storage Calculations

FILE NUMBER	57-7627
REVIEWER	Dan Nelson
DATE	11/25/2019

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.)	0.24	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	4	"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)	0.96	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 *from storage* component if the *from storage* 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)	0.3	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.7	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	1.9	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.

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	**57-7627**
REVIEWER	**Dan Nelson**
DATE	**11/25/2019**

User Input
Calculated value
Formula Explanations

INPUTS

Pond Surface Area (AC.)	**0.24**	AC.
Pond Surface Area (SQ. FT.)	**10454**	SQ. FT.

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

Convert to GPD	**235**	GPD
Total Seepage Loss (AFA)	**0.3**	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.

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	57-7627
REVIEWER	Dan Nelson
DATE	11/25/2019

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/

Precipitation Deficit

Station: Nampa (PN-AM--NMPI)

Month	mm/day[1]	*Days per month*	mm/Month
Jan	-0.11	31	0.00
Feb	0.66	28	18.48
March	1.94	31	60.14
April	2.78	30	83.40
May	3.54	31	109.74
June	4.66	30	139.80
July	5.66	31	175.46
August	4.83	31	149.73
September	3.18	30	95.40
October	1.75	31	54.25
November	0.53	30	15.90
December	-0.20	31	0.00

Total mm/year = 902.30

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.

[(mm/yr) ÷ (convert to feet)] X (Surface area of pond, in acres) = Evaporation Loss in Acre Feet

(902.30 ÷ 304.8) X 0.24 = 0.7 AFA

University of Idaho
Kimberly Research and Extension Center

Water Resources Program

ETI$_{daho}$ 2017

Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho

Please send suggestions for improving this site to robison at uidaho dot edu

2019-11-25 09:10

Nampa (PN-AM -- NMPI)

Statistics based on thirty year normal spans 1997 to 2016 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 Mircosoft Excel or OpenOffice spreadsheet to plot or otherwise work with this data.

Open water - small stock ponds
Precipitation Deficit (Click here for a graph)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Growing Season[a]	Non Growing Season[b]	Annual
Mean[j]	mm/day												mm		
Monthly[c]	-0.11	0.66	1.94	2.78	3.54	4.66	5.66	4.83	3.18	1.75	0.53	-0.20	893	0	893
15-Day Moving Average[d]	-0.11	0.61	2.00	2.85	3.57	4.71	5.66	4.86	3.18	1.71	0.54	-0.23			
7-Day Moving Average[e]	-0.10	0.65	1.95	2.79	3.52	4.67	5.66	4.83	3.16	1.74	0.53	-0.23			
3-Day Moving Average[f]	-0.11	0.66	1.94	2.77	3.52	4.65	5.67	4.83	3.16	1.74	0.53	-0.20			