

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
IN-OFFICE REVIEW/BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATIONPermit No: 65-23294

Exam Date: 5/4/2015

1. Does this qualify for an in-office field exam (IDAPA 035.02.r)? X Y ___ N
 a. Irrigation of 5 acres or less
 b. Storage of up to 14.6 AF for stockwater purposes only
 c. Any use other than irrigation or storage, if the combined diversion rate is 0.24 cfs or less
 d. Other < >

2. Current Owner: Name: Thomas and Lisa Cunningham
 Owner of Record Correct? X Y ___ N
 Address of Record Correct? Y ___ N
 If No: Address

3. Beneficial Use Fees have been paid: X Y ___ N Receipt No: C0

4. **SOURCE****TRIBUTARY**

Unnamed stream

North Fork of the Payette River

The applicant originally called the source ground water. The source comes from an excavated pond and french drain collection pipe around the home to prevent flooding of the crawl space. Some of the water appears to actually be a spring, but Steve Lester composed a telephone conversation memo dated 5/31/2012, where he states that the "(s)ource is sporadic flow at draw, sinks and reemerges cross between runoff & seep, is not ground water. So unnamed stream is ok." I received the same information from the owner, so I agree that this can be called an unnamed stream or runoff. It follows the ravine downhill. Please see narrative for more detail.

Method of Determination: Owner's photos, GIS, and Taxlot DataChange in Source: Y ___ X ___ N**B. OVERLAP REVIEW**

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

Water Right No.	Source	Purpose of Use	Basis
NONE			

Comments: There are no overlaps. Water rights 65-1688, 65-12643, 65-17126 are for domestic uses for other lots within the subdivision. Most of the water in this area is acquired from runoff water through ravines. None of the other lots for the other water rights appear to be on the same ravine. Water right 65-18764 is for the same lot, but it is from ground water, so it is a different source.

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

Water Right No.	Source	Purpose of Use	Basis
65-18764	Ground water	Domestic	decree

Comments: Water right 65-18764 appears to be the only direct overlap. It is for domestic use from a well for the same lot. There are several domestic rights in the same area, 65-1688 is from an unnamed stream for domestic use, but the actual location of the lot is unclear on the water right. 65-12643 domestic use appears to be owned by a Zach, who owns several lots south of the owner's property. 65-17126 is also a domestic right for a lot south of the property.

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

Source	Govt. Lot	¼	¼	¼	Sec.	Twp.	Rge.		County
Unnamed stream	2		NW	NE	10	11N	3	B.M.	Valley County

Method of Determination: GIS and Taxlot data, and Map From Owner.Change in POD? X N Amendment Required? X N**2. PLACE OF USE:** Use: Irrigation

TWP	RGE	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
11N	3E	10					0.3												0.3
		Lot #					2												
Total Acres =																			0.3

Method of Determination: GISChange in POU? X N Amendment Required? X N X Delivery System Diagram Attached (required). Indicate all major components and distances between components.

Indicate weir size/pipe as applicable.

 X 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
Pump From Collection Basin	Unknown	0.5			

*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
NONE						

2. Measurements: No measurement is required for an in-house exam, but a theoretical calculation was used to determine if the diversion rate is reasonable.

E. FLOW CALCULATIONSX Additional Computation Sheets Attached

Measured Method:

A theoretical analysis shows that a diversion rate of 0.02 cfs is possible with a 1/2 Hp pump (see attached sheet for theoretical). The owner stated that the collection basin was 6 ft X 9 ft X 2 ft = 108 cubic feet. The owner also stated that he can only irrigate for approximately 1.5 hours to empty the pond.

$$108 \text{ cubic} \times 7.48 \text{ gal/cu ft} / 90 \text{ minutes} = 8.976 \text{ gpm} / 448.8 = 0.02 \text{ cfs}$$

Theoretical = 0.03 cfs

Diversion analysis = 0.02 cfs

Permit allowed = 0.02 cfs

The permit allowed 0.02 cfs for 0.5 acres of ground. The actual land irrigated is 0.3 acres. $0.3 \times 0.03 \text{ cfs per acre} = 0.009 \text{ cfs}$. The system was designed for 0.02 cfs, and it does not seem reasonable to limit the system to 0.01 cfs, since the system is already using one of the smallest pumps made. If I recommended 0.01 cfs, the owner would instantly be out of compliance. Where he can only irrigate for 1.5 hours at a time, it seems reasonable to limit this permit to 0.02 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.3 \times 3 = 0.9 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.02 \times 214 \times 1.9835 = 8.5 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 0.9 \text{ af}$$

2. Volume Calculations for Other Uses:

N/A

G. PURPOSE OF USEIrrigation X Y N # Stock Domestic # of Homes 1

Other: < >

Change in Purpose of Use? Y NMethod of Determination: Taxlot data and conversations with owner.If Yes: From Use To Use Amount CFS AFA **H. NARRATIVE/REMARKS/COMMENTS**

This permit is qualifies for an in-house exam. The owner supplied a map showing the area irrigated and the collection basin. The owner supplied photos showing the collection basin and the irrigated lawn in the background. This is a pretty basic system. I am concerned that some excavation has occurred to collect the water for this system. However, Mr. Lester's memo dated 5/31/2012 was justification for the permit reviewer to correct the source from ground water on the application to unnamed stream on the permit. The owner has a french style drain around his home that is piped to a catch basin that catches runoff water from the draw. The catch basin dries up mid June to the first of July at the latest. Once the runoff water is depleted the catch basin doesn't collect anymore water. The french drain is no deeper than the foundation of the home, so I have to agree that it only collects runoff water coming down the draw. The owner stated that the ground was mainly fractured granite, so it is doubtful that a spring would flow through the granite. Therefore, I have to agree that it should be called and unnamed stream or run off.

I am going to carry over conditions R05, R02, and 185 to the license, but I am going to remove condition 26A, since it no longer applies to the water right. Condition 121 will be changed to 103, and condition R66 will be changed to X31 per Department standards. No additional conditions should be needed. I considered adding condition X35, but I decided not to use this condition, since decreed water right 65-17126 is a domestic water right that is silent on the subject of yard irrigation. I am assuming that they do use the domestic well when the water described by this permit is not available, but it could limit the existing decree if I required a combined rate, volume and acreage amount for the irrigation component described by the decree. Both lots combined have a total of 0.5 acres minus the drive way, house, and shed, so it is doubtful that they will ever irrigate more than the 0.3 acres.

Have conditions of permit approval been met? X Yes No

I. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
Irrigation	04/01 to 10/31	0.02 CFS	0.9 AF
	Totals:	0.02 CFS	0.9 AF

2. Recommended Amendments

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

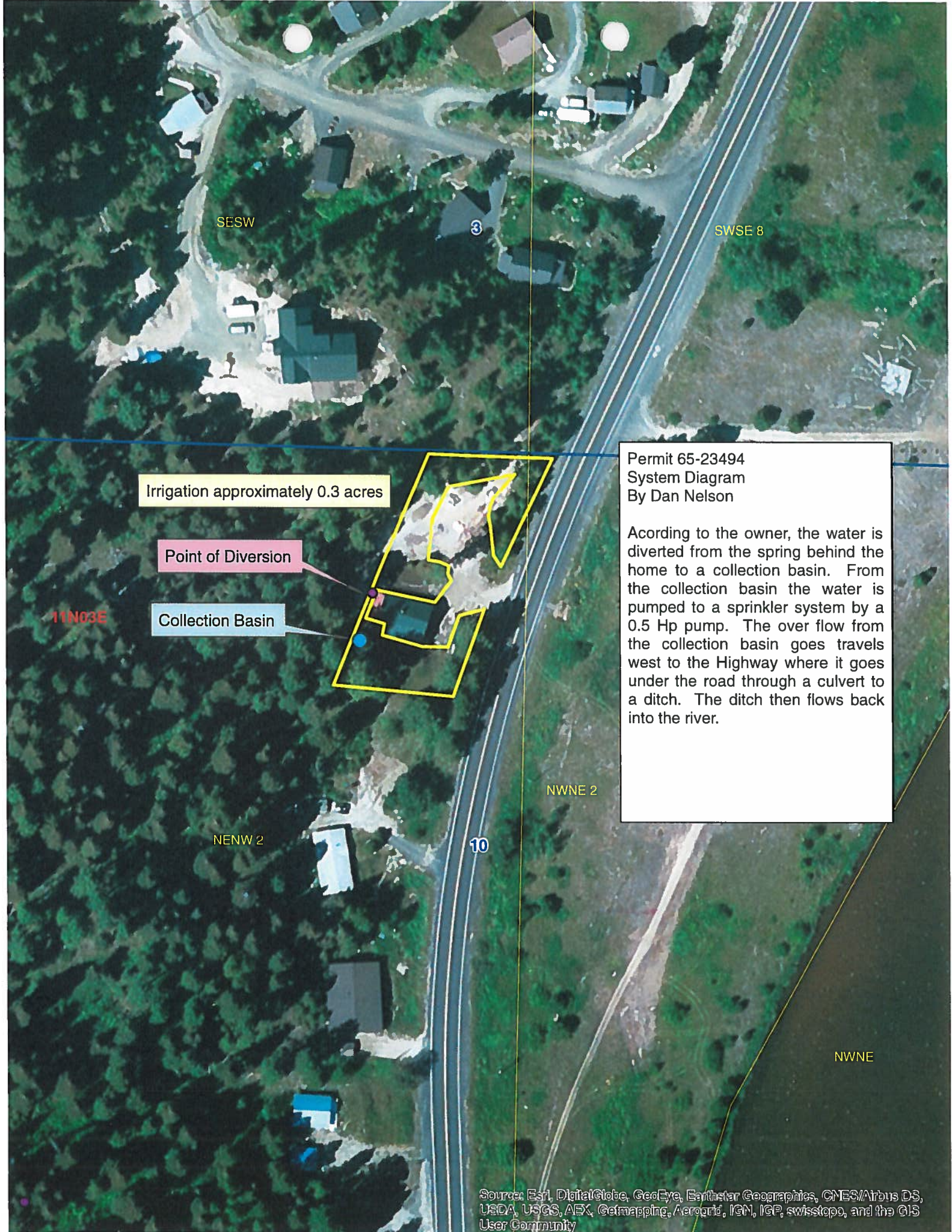
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ None

Other: < >

J. AUTHENTICATION – DANIEL A. NELSON

Field Examiner's Name Donald H. McKee Date 3-1-15

Reviewer _____ Date _____



Permit 65-23494
System Diagram
By Dan Nelson

According to the owner, the water is diverted from the spring behind the home to a collection basin. From the collection basin the water is pumped to a sprinkler system by a 0.5 Hp pump. The over flow from the collection basin goes travels west to the Highway where it goes under the road through a culvert to a ditch. The ditch then flows back into the river.

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 96-9004
 Reviewer: Dan Nelson
 Date of Review: 3/16/2015

P/D No.:	Well #1	Well #1	Well #1	
PUMP HORSEPOWER	0.5	0.5	0.5	
BOOSTER HORSEPOWER	0	0	0	
PUMPING LEVEL	10	10	10	
DISCHARGE PRESSURE	40	50	60	
RATE OF FLOW (cfs)	0.03	0.02	0.02	0.03
	13	11	9	11.27

The above calculates the formula =
$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: 70 efficiency.
 No Friction

Examiners Notes:

The pump for this system is a 1/2 Hp pump. The pump lifts the water approximately 10 feet . I used the standard domestic pressures based on a pressure tank of 40 to 60 psi. The owner stated that he could empty his 808 gallon collection basin in 1.5 hours. With the 1.5 hours of operation, the pump would need to divert approximately 9 gpm. The theoretical shows a possible average flow from 9 gpm to 13 gpm. This seems reasonable. I would recommend a diversion rate of 9 gpm or 0.02 cfs.

Nelson, Dan

From: Nelson, Dan
Sent: Monday, May 04, 2015 12:26 PM
To: 'ROD SALLY'
Subject: RE: Permit 65-23494

Ron,

I am sorry I caught you by surprise, that wasn't the intent. I have to look at the licensing process with new eyes. In other words, I have to look at what was done, not what was proposed. The information you sent shows that this catch basin has a plastic liner, and has approximately 108 cubic feet or 808 gallons capacity. Using the 1.5 hours of use, I determined that your pump diverts about 9 gallons per minute (808 gallons / 90 minutes = 9 gallons per minute). Your permit allows you divert 9 gallons permit or 0.02 cfs. Therefore, your water right allows you to fill and empty this catch basin in less than 24 hours or 1.5 hours. What this means is that this structure is actually a catch basin and not a storage pond.

In our telephone call, you also told me that the catch basin goes dry late May to the end of June. You also stated that the catch basin is piped to a ditch on Highway 55, where it goes into a ditch along the road to the river. This tells me that this catch basin basically provides you a means to pump water as part of the irrigation system, and not to store water on a long term basis.

In our telephone conversation you told me that the pump is set up with a lockable device for the power box. This satisfies the need for a lockable device required by the water district. It is basically an all on or all off type of system. With the short duration of the spring flow, I believe that spring dries up most years before the June 15 deadline that requires you to attain approval from the watermaster if you are diverting past June 15 of each year.

With all of the information you gave me in your email below and our telephone call, I think I can move forward with licensing this permit without a field examination. I will begin working on this process as soon as possible.

If you have any further questions, please don't hesitate to contact me.

Respectfully,

Dan Nelson

From: ROD SALLY [mailto:ssnyder208@msn.com]
Sent: Monday, May 04, 2015 10:18 AM
To: Nelson, Dan
Cc: ssnyder208@msn.com
Subject: Re: Permit 65-23494

Hi Dan,

This email has caught me by surprise.

I started sending emails with pictures and questions on 5-7- 2013 about the proper process and getting permission to do all this work. So.... the question about a catch basin pond was known by several folks years ago. The pond/ catch basin is approx 6 feet wide x 9 feet long and average depth of 2 feet. The water flow is almost dry now (just a trickle) so... when it dries up I clean the catch basin and it remains dry until next spring when it begins to flow again. This catch basin is the point that we use a 1/2

hp pump to sprinkle the lawn for fire protection. I can re-send all photos and correspondence from over the last 2 years if you would like? I have attached a photo that I sent to Matt Weaver on 5-7-2013. The first picture is of the Spring and the second picture is of the pond/ catch basin. It then continues to flow in its natural path to the borrow ditch by hwy 55.

Without water flowing into the pond I would guess I could water 1 hour before its dry. With water flowing into the pond I water approx 1.5 hours. Which is more than enough water on the grass lawn.

I would be more than happy to have you look it over. I leave in the morning to go back up there until Sunday this week when I return. As a note I do not have internet at the cabin. The cabin is at 9775 hwy 55 Smiths Ferry. My cell # is 208-515-6012.

Again Thank you for your help,

Rod Snyder

----- Original Message -----

From: [Nelson, Dan](#)

To: [ROD SALLY](#)

Sent: Monday, May 04, 2015 7:39 AM

Subject: RE: Permit 65-23494

Ron,

Thank you for photo. I will begin work in this permit as soon as possible. Your photo raises a couple of new questions. First, this permit does not authorize a pond. Is the pond used as part of the irrigation system? We can allow a regulation pond under an irrigation right that is only used during the irrigation season to hold enough water to be used in a 24 hour period. Could you give me the surface area (width X length) and the average depth of the pond? As always, I can come out and take a look at it if that will help.

Thank you.

Dan Nelson

From: ROD SALLY [<mailto:ssnyder208@msn.com>]

Sent: Sunday, May 03, 2015 12:18 PM

To: Nelson, Dan

Cc: ssnyder208@msn.com

Subject: Re: Permit 65-23494

Thanks Dan,

Sorry for the delay, I've been out of town and just seen your email.

I printed the picture and marked it accordingly for your review. The Arial photo must be rather old as the only thing the same now is the house placement and of coarse the lay of the land. If from some reason this isn't of good viewable nature? please email me with a time that works for you to personally view the diversion. We will have to do it rather quickly as the spring is already drying up. Looks to be a tough year on water because the spring usually runs until July or August.

Please let me know if you need anything else? And, Thank you for your help!

Rod Snyder

1-208-515-6012 cell

1-208-322-0585 home (Boise)

----- Original Message -----

From: [Nelson, Dan](#)

To: ssnyder208@msn.com

Sent: Tuesday, April 28, 2015 11:48 AM

Subject: Permit 65-23494

Dear Mr. Snyder,

Shelley Keen has asked me to work on licensing your water right permit 65-23494. Looking at your water right, I believe we can do this field exam in office if you like. All I would need is for you to describe using the attached map where your point of diversion is, and where you irrigate. You could print out the map and resend it to me if you like, or just describe where everything is.

If want us to come to your place, I would be happy to set up an appointment with you to come out and visit the property. If you would like me to come out, please give me a couple of times that would work best for you.

Thank you, and I look forward to hearing back from you.

Respectfully,

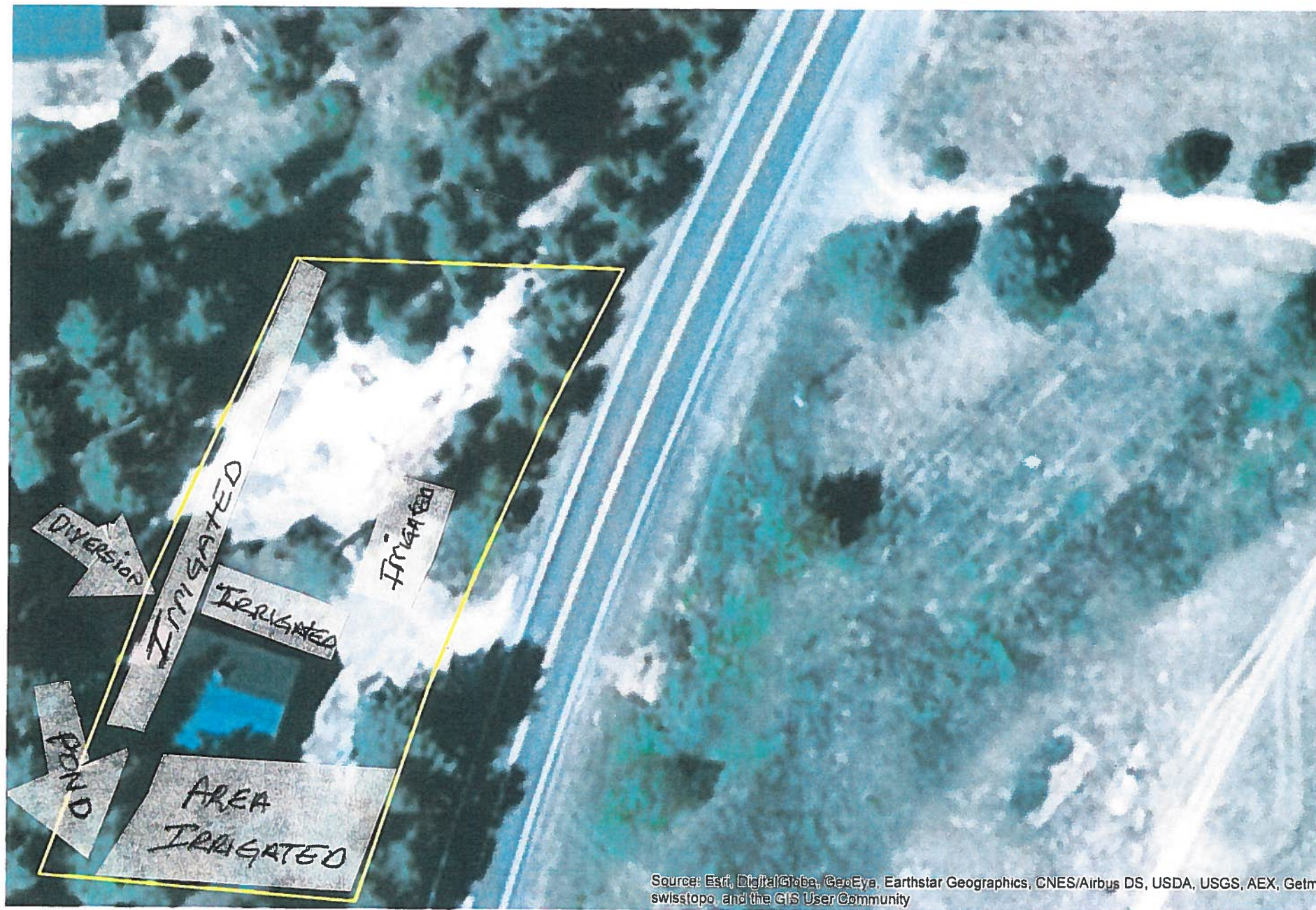
Daniel Nelson

Staff Hydrologist

Idaho Department of Water Resources

Telephone (208) 287-4856

Fax (208) 287-6700 (attn: Dan Nelson)



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getm
swisstopo, and the GIS User Community





Keen, Shelley

From: ROD SALLY [ssnyder208@msn.com]
Sent: Sunday, April 26, 2015 9:47 PM
To: Keen, Shelley
Subject: Fw: Water rights

Good morning Shelley,

Another year has come and gone. I feel I haven't completed this journey yet. My concern is that we will run out of water from that spring before we can be inspected. The water flow this year will probably dry up by mid May. Usually it will run until July or so. Looks like a dry summer coming.

Do I just call Ron Shurtleff ? or some one else? to have him/her to inspect the water use in order to comply with a proof of beneficial use? I have been watering as its been dry up in Smiths ferry area.

Thank you
Rod Snyder
322-0585

Now that your permit has been issued, you are authorized to divert water for irrigation. Please be sure to comply with condition number 6 on your permit. It requires you to contact the watermaster of Water District 65 for authorization to irrigate after June 15 each year. The watermaster is Ron Shurtleff -- (208)642-4465.

Condition number 1 on your permit requires you to submit a proof of beneficial use statement by August 1, 2014. Beneficial use means not just construction of your diversion and distribution system, but also the diversion of water for the permitted water use. **Sixty days before your proof statement is due, IDWR will mail you the form and instructions.** Most permit holders do not submit a proof of beneficial use statement before it is due, unless they have irrigated all the land they intend to irrigate. The reason is that once you submit your proof of beneficial use statement, you are not authorized to establish any more water use. For example, if you are permitted to irrigate half an acre, but you submit a proof statement when you have irrigated only a quarter acre, you would not be authorized to irrigate the second quarter acre. When your water right is licensed (item 8 on Mat's list), your water right will be limited to the extent you have used water, up to the permitted amount, on the date you submit your proof statement. Consequently, most permit holders are careful to establish the full amount of their permitted water use before submitting a proof of beneficial use statement.

Good luck with the rest of your project. Please call or email if you have additional questions.

Sincerely,

Shelley Keen
Idaho Department of Water Resources
P.O. Box 83720
Boise, ID 83720-0098
(208) 287-4947
shelley.keen@idwr.idaho.gov