

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 67-7996

Exam Date: 7/15/2013

1. Current Owner: DANIEL G GIBSON JR
19500 HWY 20-26
CALDWELL ID 83607
(208)453-2649
- CAROLYN A GIBSON
19500 HWY 20-26
CALDWELL ID 83607
(208)453-2649
2. Accompanied by: Dan Gibson
Phone No: Same
Address: Same
Relationship to Permit Holder:

3. **SOURCE**

SPRING
UNNAMED STREAM

TRIBUTARY

WEST FORK WEISER RIVER
WEST FORK WEISER RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point of diversion: None

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

SPRING	NW1/4NW1/4	Sec. ~~1~~ ¹² RC 12/26/13	Twp 19N,	Rge 01W, B.M.
ADAMS County				
UNNAMED STREAM	NW1/4NW1/4	Sec. 12,	Twp 19N,	Rge 01W, B.M.
ADAMS County				

Method of Determination: Arc Map (Aerial Photo); GPS (Well) – Latitude N.45°00.216', Longitude W. 116°24.584'; Datum – NVD83.

2. **PLACE OF 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	
19N	01W	1											2.0						2.0
19N	01W	12						13.0											13.0
Total Acres:		15																	

IRRIGATION FROM STORAGE same as IRRIGATION
DIVERSION TO STORAGE same as IRRIGATION
FIRE PROTECTION STORAGE same as IRRIGATION
IRRIGATION STORAGE same as IRRIGATION
AESTHETIC STORAGE same as IRRIGATION
AESTHETIC same as IRRIGATION

Method of Determination: Arc Map (Aerial Photo); Tax Lots.

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.

<u>Well or Diversion ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
N/A	Franklin	10	Unknown	Unknown	4"

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

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
N/A						

2.

Measurements: No field measurements. Sprinkler nozzles were too large to obtain an operating pressure measurement for the irrigation system. Four (4) Rainbird impact sprinklers with 13/32" nozzles operating at 62 psi (gauge pressure). $Q = 4 \times 38.72 \text{ gpm} = 154.9 \text{ gpm} \sim 0.34 \text{ cfs}$.

E. FLOW CALCULATIONS

Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 10/60 + (2.31 \times 62) = 61.6/203.22 = 0.30 \text{ cfs}$$

$$HP = 10$$

$$Z = 60' \text{ (Estimated)}$$

$$Q(\text{sprinklers}) = 4 \times 38.72 \text{ gpm} = 154.9 \text{ gpm} \sim 0.34 \text{ cfs}$$

$$P = 62 \text{ psi (Gauge)}$$

$$Q(\text{theoretical}) = 0.30 \text{ cfs} < 0.34 \text{ cfs } Q(\text{sprinklers}) > 0.28 \text{ cfs } Q(\text{permit})$$

Appears that the current irrigation pumping system can attain the permit diversion rate of 0.28 cfs.

Recommend the irrigation permit diversion rate of 0.28 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 15 \times 4.0 = 60.0 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.28 \times 214 \times 1.9835 = 118.9 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 60.0 \text{ AFA}$$

2. Volume Calculations for Other Uses: (Irrigation, Fire Protection, & Aesthetic Storage Pond)

Storage Pond Surface Area = 1.7 ac.

Maximum Pond Depth = 8'

$$V_d = 8' \times 1.7 \text{ ac.} = 13.6 \text{ AF}$$

$$V_d = 13.6 \text{ AF} > 5.0 \text{ AF } V(\text{Permit Limit})$$

Total Permit Volume = 5.0 AF

Recommended Storage Volume of 5.0 AF

G. NARRATIVE/REMARKS/COMMENTS**WATER SUPPLY SYSTEM:**

A storage pond constructed on an Unnamed Stream, stores water from the Unnamed Stream and three (3) springs located north of Price Valley Road. Except for the spring channel located near the easterly property line, spring water is conveyed by natural channels through the right holder's property to the storage pond. A small excavated ditch conveys water from the spring channel near the easterly property line to the storage pond. However, since two of the springs located in the SW1/4SW1/4 were never developed, they cannot be designated as points of diversion.

The only developed diversion to storage is the excavated ditch channel from the natural spring channel. Since no measuring device exists, and no flow was being diverted during the field exam, a diversion rate of 0.04 cfs is recommended. The storage pond is constructed on the Unnamed Stream. Therefore, no diversion to storage can be appropriated for the Unnamed Stream.

IRRIGATION SYSTEM:

A 10-hp submersible pump located in a perforated 15" CMP stand pipe, diverts water for irrigation of 15 acres of fields and pasture. A deep channel excavated from the easterly bank of the storage pond is filled with a mixture of rip-rap and miscellaneous rock to convey water from the storage pond to the perforated 15" CMP stand pipe. The rock filled channel allows conveyance of water to the 15" CMP perforated stand pipe, but also operates as a filter to prevent debris and sediments from reaching the 15" CMP stand pipe and plugging the pipe perforations.

The 10-hp submersible pump discharges water through 4" PVC irrigation main line. The pressurized irrigation system is comprised of six (6) stations. Each station contains four (4) Rainbird impact sprinklers with 13/32" nozzles. Each sprinkler is approximately 2' – 3' above ground on 1" steel riser pipes.

FIRE PROTECTION:

The same 10-hp submersible pump is used to divert water to a fire hydrant for fire suppression. A 3" PVC supply line is connected to the 4" irrigation discharge line for conveying water to the fire hydrant. The fire hydrant contains two sizes of nozzles, 3" and 1 1/2", for attaching fire hoses.

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

CONDITION NO.4 – The right holder shall install and maintain a measuring device and lockable controlling works. Lockable controlling works have been installed at the irrigation and fire protection pump control panel. Submitted a request to Brandi Horton, District 67 Watermaster, on November 21, 2013, to waive the requirement for the right holder to install a measuring device. On December 5, 2013, the Department received a response from the District 67 Watermaster, agreeing to waive the measuring device requirement at this time.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	1.00	&/or	5.00
Beneficial Use Limit	0.34	&/or	N/A
System Measurement	0.34(theoretical)	&/or	N/A
Proof Fee Amount	1.00	&/or	N/A
Recommended Amount	0.32	&/or	5.00

H.**RECOMMENDATIONS****1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION FROM STORAGE	4/01 to 10/31		5.00 AF
IRRIGATION	4/01 to 10/31	0.280 CFS	60.00 AF
DIVERSION TO STORAGE	1/01 to 12/31	0.040 CFS	
FIRE PROTECTION STORAGE	1/01 to 12/31		1.00 AF
IRRIGATION STORAGE	1/01 to 12/31		5.00 AF
AESTHETIC STORAGE	1/01 to 12/31		1.00 AF
<u>Totals:</u>		0.320 CFS	65.00 AFA

2. Recommended Amendments

___ Change P.D. as reflected above ___ Add P.D. as reflected above X None

___ Change P.U. as reflected above ___ Add P.U. as reflected above ___ Other

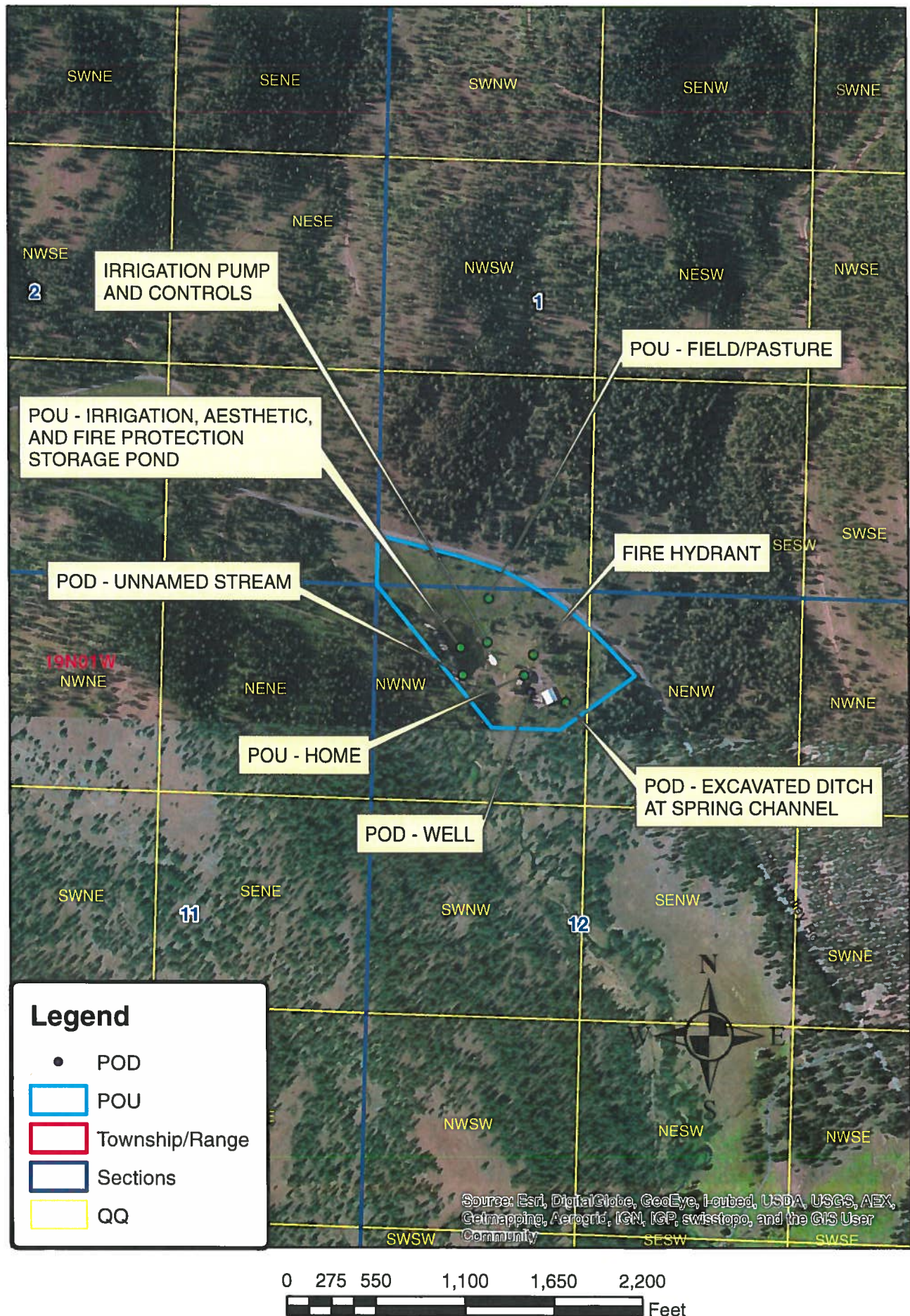
I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 12/11/13

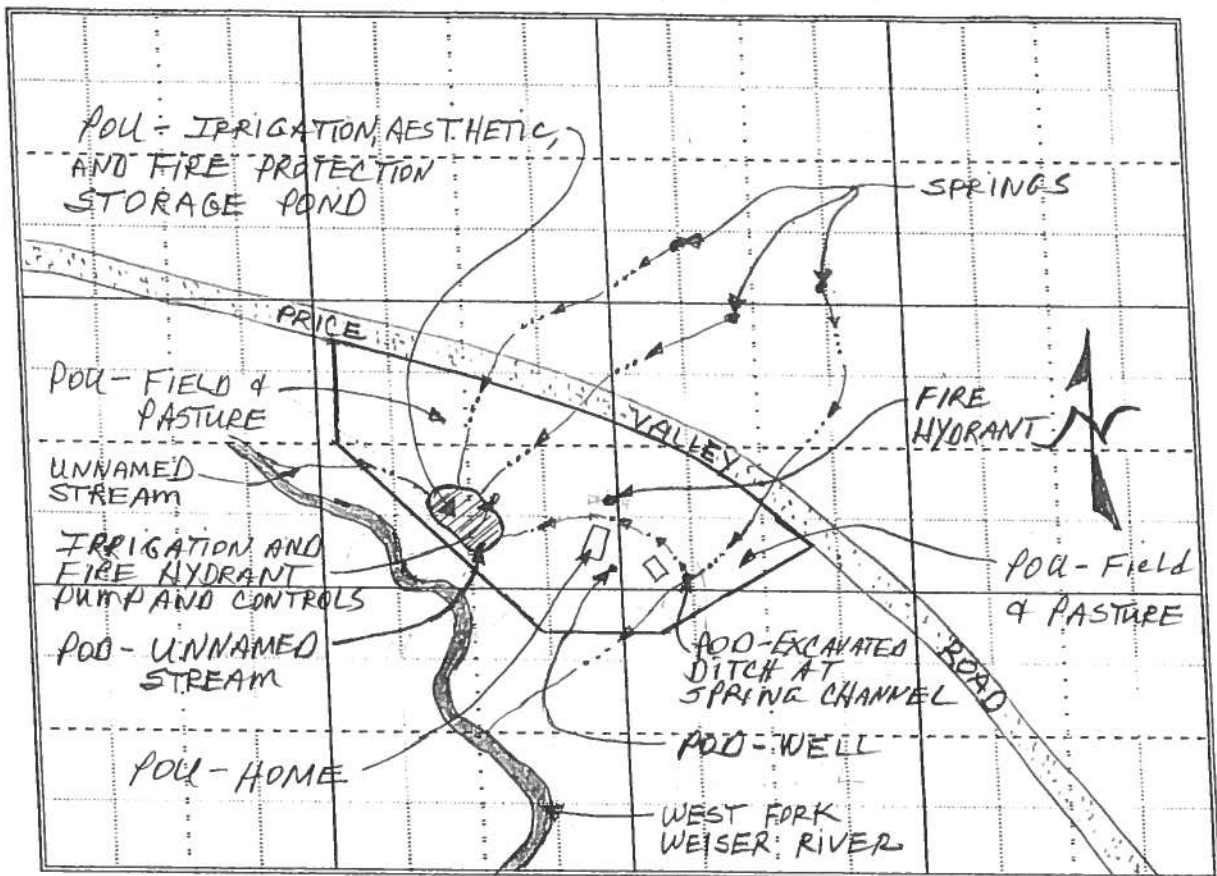
Reviewer _____ Date _____

ESRI AERIAL PHOTO - 2012

ESRI AERIAL PHOTO - 2012



3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached.



Scale: 1" = NTS

- ☐ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)
☒ Aerial photo attached (required for irrigation of 10+ acres)
☒ Photo of diversion and system attached

FIELD EXAM PHOTOS

Water Right Permit: 67-7996

Field Exam Date: 7-15-13

PLS: NW1/4, NW1/4 Section 27, T.19N, R.01W.

Field Examiner: RC



Point of Diversion: View southerly of the ground water well serving the home for domestic use.



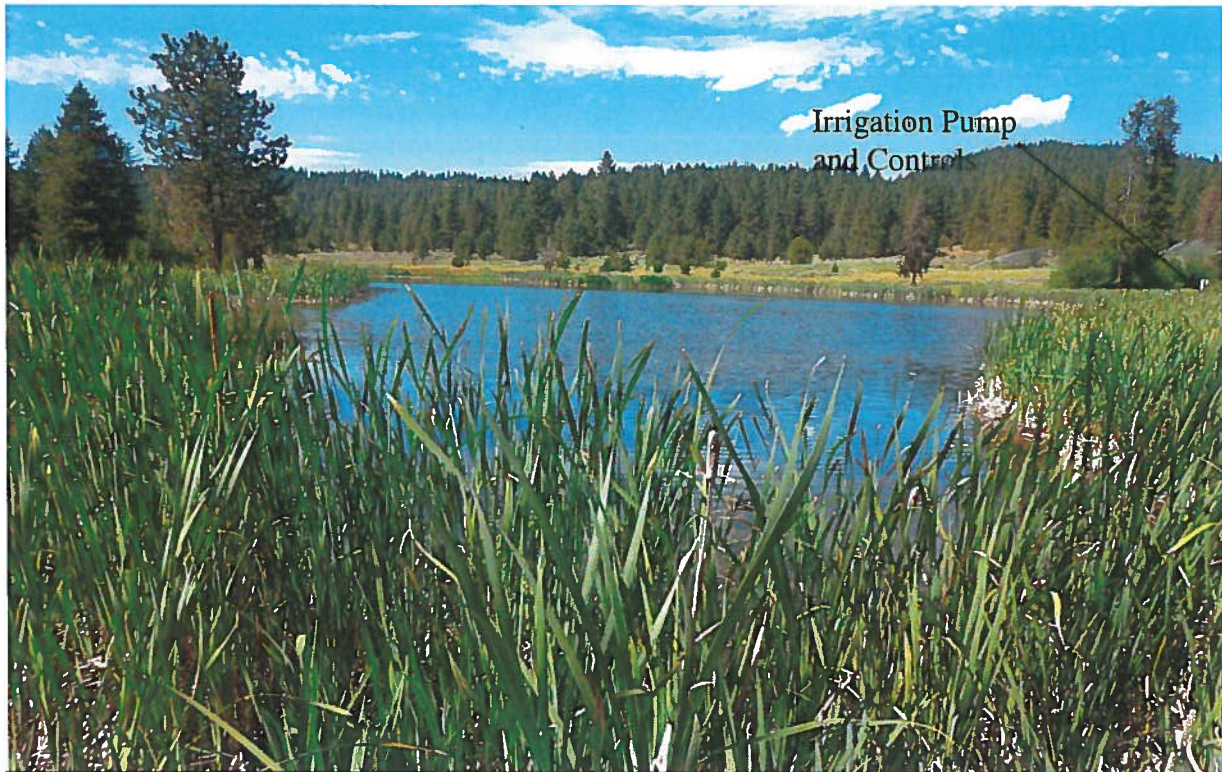
Place of Use: View northwesterly from near the ground water well of the home served by the ground water well.



View southwesterly of the fire hydrant for fire protection. The fire hydrant is constructed of 3" steel pipe with 3" and 1 1/2" nozzles for hose attachment to fight a fire or for fill the holding tanks in fire trucks. A 10-hp pump irrigation and fire protection pump diverts water from the storage pond to the fire hydrant through a 3" main line.



Point of Diversion: View easterly of a 15" perforated CMP stand pipe in which contains a 10-hp submersible pump. Water is discharged through a 4" PVC irrigation main line to operate the irrigation system. The 3" PVC fire protection main line to the fire hydrant 'tees' off the 4" irrigation discharge pipe.



Place of Use: View northwesterly from the southern end of the irrigation, fire protection, and aesthetic storage pond.



Place of Use: View northwesterly of the irrigation system irrigating the northerly pasture area. Each of the six (6) stations is comprise of four (4) Rainbird impact sprinklers with 13/32" nozzles.

Collingwood, Rick

From: watermaster67 [watermaster67@hotmail.com]
Sent: Thursday, December 05, 2013 9:42 AM
To: Collingwood, Rick
Subject: RE: Water Right Permit No. 67-7996 - Gibson

Good Morning Rick,

Finally had a chance to review my email since I got back, and have looked into 67-7996...I have no problem with waiving the measuring device requirement at this time. Sorry for the delay...have a great day!

Merry Christmas!

Brandi Horton
Watermaster-Dist.67
2397 Snapp Lane
Midvale, ID 83645
(208) 550-0313

----- Original message -----

From: "Collingwood, Rick" <Rick.Collingwood@idwr.idaho.gov>
Date: 12/04/2013 4:03 PM (GMT-07:00)
To: watermaster67@hotmail.com
Subject: FW: Water Right Permit No. 67-7996 - Gibson

Brandi,

I am forwarding my 11/21 e-mail to you just in case you did not receive it.

Rick Collingwood, P.E.

Water Resource Agent, Sr.

From: Collingwood, Rick
Sent: Thursday, November 21, 2013 2:45 PM
To: 'watermaster67@hotmail.com'
Subject: Water Right Permit No. 67-7996 - Gibson

Brandi,

I completed a field exam for Water Right Permit No. 67-7996 this summer. The site is located approximately 3 miles west of State Highway 95 on Price Valley Road at 2400 Price Valley Road.

One of the conditions of approval requires that the right holder install a measuring device and lockable controlling works. Lockable controlling works have been installed at the irrigation and fire protection pump control panel, but a flowmeter has not been installed on the discharge pipe by the right holder. However, based on the sprinkler system, nozzles sizes, and operating pressure, the diversion rate from the storage pond can be calculated.

The irrigation, fire protection, and aesthetic storage pond was constructed in the mid 90's. The water for the storage pond is supplied by an unnamed stream which discharges into the storage pond. Also, there is water from three springs which are located on the north side of Price Valley Road. The three springs convey water through the right holder's property prior to discharging to the storage pond. The discharge from the three (3) springs is so minor that attempting to obtain a flow measurement may not be practical or possible.

The Unnamed Stream channel near the storage pond is undefined and not suitable for installing a measuring device. The Unnamed Stream channel is more defined upstream, but due to the close proximity of the right holder's storage pond to the adjacent property owner to the west, it is not clear if there is a good location on the right holder's property in which to install a measuring device.

The storage pond consists of two 10" overflow pipes, which discharge water to the West Fork of the Weiser River. If water measurements are required for the Unnamed Stream, flow measurements can be calculated or measured from the overflow pipes.

Due to the above mentioned constraints with obtaining flow measurements for the Unnamed Stream and the three springs, and the available options in which to calculate flow measurements for the irrigation pumping system and the overflow pipes from the storage pond, I am recommending that the approval condition requiring a measuring device be waived.

Thanks for your attention to this issue. If you have any questions, please contact me at 334-2190, or by e-mail.

Rick Collingwood, P.E.

Water Resource Agent, Sr.



State of Idaho

DEPARTMENT OF WATER RESOURCES

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

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

December 27, 2013

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

DANIEL G GIBSON JR and
CAROLYN A GIBSON
19500 HWY 20-26
CALDWELL ID 83607

RE: Water Right Permit No. 67-07996

Dear Permit Holders:

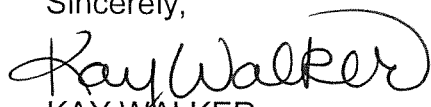
The Department of Water Resources is reviewing the permit referenced above prior to issuing a water right license. By issuing a license, the Department confirms the extent of development that has been established in compliance with the terms of the permit. The examiner who verified your water use reported that certain elements of the permit have been developed differently than described on your permit. Changes that do not increase the authorized use of water under the permit can be requested and approved in accordance with Section 42-211, Idaho Code. Before a license can be issued, your permit must be amended to depict your water use as it was actually developed. Based on the examiner's report, the point of diversion for the spring was developed in a different location than permitted.

We also noticed that you had developed two separate systems. One system being your domestic well for your home and the other as depicted herein. The domestic use will be licensed under a different water right number.

The enclosed Application for Amendment form depicts the elements of the water right as they will appear on the license when it is issued. Please review the amendment form carefully. If you concur with the information presented, please sign the form and return it with the \$100.00 filing fee within 14 days.

If you have any questions, please call me at (208)334-2190.

Sincerely,


KAY WALKER
Sr. Water Resource Agent

Enclosures: Amendment Application & Layout



State of Idaho

DEPARTMENT OF WATER RESOURCES

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

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

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

June 21, 2013

Daniel G. & Carolyn A. Gibson
19500 Hwy. 20-26
Caldwell, ID 83607

RE: Scheduling Field Exam for Water Right Permit No. 67-7996

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of July 15, 2013**. An examination is needed to verify your water use in order to issue a water right license.

Please be advised that you will need to operate your system under normal operating conditions during the examination. The permit authorizes the diversion of 1.0 cfs of ground water, spring water, and surface water from an unnamed stream for domestic use for 1 home, irrigation of 15.0 acres, aesthetic, irrigation storage of 5.0 AF, fire protection storage of 1.0 AF, and aesthetic storage of 1.0 AF.

In order to conduct your exam as efficiently as possible, we ask that you call this office to schedule a day and time convenient for you. **Please call me at 208-334-2190 by July 12, 2013, to conduct the exam during the week of July 15, 2013.** If there is a problem with scheduling or conducting the examination at this time, please let me know so we can reschedule or make other arrangements.

I appreciate your attention to this matter and I look forward to hearing from you.

Sincerely,

Rick Collingwood, P.E.
Water Resource Agent, Sr.