STATE OF IDAHO DEPARTMENT OF WATER RESOURCES BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

- 1. Current Owner: DAVID P GIBSON PO BOX 969 POST FALLS ID 83877 AND/OR LINDA K GIBSON PO BOX 969 POST FALLS ID 83877 AND/OR GARY L GIBSON PO BOX 969 POST FALLS ID 83877
- Accompanied by: David Gibson. Phone No: 208-660-3970. Address: Same as above. Relationship to permit Holder: Permit Holder.

3. SOURCE: GROUND WATER

Method of Determination: DRG and Arcmap

B. OVERLAP REVIEW

1. Other water rights v	vith the same place of use:	NO Overlap	
Water Right No.	Source	Purpose of Use	Basis

Comments: ____

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. 29, Twp 51N, Rge 05W, B.M. KOOTENAI County

Method of Determination: GPS; POD is a well D0051245 located at -116º59.767, 47º43.951.

PLACE OF USE: IRRIGATION

Turn	Bog Soo		NE NE			NW		SW			SE			Totals					
Twp	wp Rng Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE		
51N	05W	29												1.3					1.3

Total Acres: 1.3

PLACE OF USE: STOCKWATER

Tum Bag Soo		Sec		N	IE			N۱	N			S	N			S	E		Totals
Iwp	Twp Rng Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE		
51N	05W	29												Х			1		

Permit No: 95-9388 Exam Date: 07/30/2020

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Method of Determination: Field Exam and Arcmap.

3.

- Delivery System Diagram Attached (required). Indicate all major components and distances between components. X 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 X 1:24,000 or greater.

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

X Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Нр	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
D0051245	UNKOWN	5			

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Туре	Make	Model No.	Serial No.	Size	Calib. Date
5 GAL BUCKET TEST						

2. Measurements: Three 5 gallon bucket tests were completed from frost free hydrant piped direct from well, with average of three resulting in diversion flow rate of 5 gal / 11.93 sec x 60 sec/min = 25.16 gpm = **0.06 cfs.**

E. FLOW CALCULATIONS

Measured Method: 5 GAL Bucket Test = (5 gal / 11.91 sec) x 60 sec/min = 25.19 gpm = (5 gal / 11.74 sec) x 60 sec/min = 25.55 gpm = (5 gal / 12.13 sec) x 60 sec/min = 24.73 gpm Average of 3ea 5 GAL Bucket Tests = (25.19 gpm + 25.55 gpm + 24.73 gpm) / 3 = 25.16 gpm = 0.06 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

V_{I.R} = (Acres Irrigated) x (Irrigation Requirement) = 1.3 ac x 3.0 afa = 3.9 af

 V_{DR} = [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835 = 0.06 x 246 days x 1.9835 = 29.28 af V = Smaller of V_{LR} and V_{DR} = **3.9 af**

2. Volume Calculations for Other Uses:

Stockwater Annual Volume = 15 head mixed stock x 12 gpd x 365 days = 65,700 gal / 325,850 gal/af = **0.2 af**. Combined Maximum Diversion Volume = 3.9 af (irrigation) + 0.2 af (stockwater) = **4.1 af**

Permit No 95-9388

G. NARRATIVE/REMARKS/COMMENTS

Field exam conducted on 7/30/2020 with applicant, David Gibson, showed a well with 5 hp pump diverting water direct on demand for irrigation and stockwater use. Applicant stated there was no pressure tank installed in system, and that frost free hydrants were connected directly by piping from the well. Future plans included incorporating a pressure tank, but that had not been developed at time of field exam. As such, 3ea 5-gal bucket tests were completed from a frost free hydrant colocated with the well with the following results to obtain the maximum diversion rate:

5 GAL Bucket Tests = (5 gal / 11.91 sec) x 60 sec/min = 25.19 gpm

= (5 gal / 11.74 sec) x 60 sec/min = 25.55 gpm

= (5 gal / 12.13 sec) x 60 sec/min = 24.73 gpm

Average of 3ea 5 GAL Bucket Tests = (25.19 gpm + 25.55 gpm + 24.73 gpm) / 3 = 25.16 gpm = 0.06 cfs, which will be applied to license as the maximum diversion rate. The irrigation beneficial use diversion rate equals 1.3 ac x 0.03 cfs (small acreage department rate) = 0.04 cfs. The stockwater beneficial use diversion rate equals 0.02 cfs, the department standard for 15 head of mixed stock. Combined, the two beneficial rates equal the applicant's pump performance with flow rate measured at 0.06 cfs.

Applicant had permitted for 8 acres of irrigation between the two parcels he owned. At time of field exam, only irrigation along the main driveway and around 2 homes were observed to be irrigated. Irrigation was done primarily by automatic sprinkler system that was connected directly to the pump. Applicant stated he had approximately 21 zones, with only 5-6 heads per zone watering at one time. Applicant also irrigated using hose and above ground sprinklers he rotated between frost free hydrants, and a hose to spray nozzle to irrigate a small garden co-located with one home. At time of exam, irrigation acreage was sketched out, and during licensing review arcmap imagery was used to trace out irrigation place of use acres equaling 1.3 acres. The irrigation annual volume equals 1.3 ac x 3.0 afa = 4.2 af, which will be applied to license.

Applicant permitted for 15 head of mixed stock, and at time of field exam stock was observed on the property. Stock tanks were present, as well as a paddock with frost free hydrants to water stock tanks. Applicant also had several pigs within the POU, and stated cattle were rotated between fields depending on time of year and feed availability. Applicant stated he did not water fields, and grass growth was only done by seasonal rain and surface water runoff. The stockwater annual volume equals 15 head mixed stock x 12 gpd x 365 days = 65,700 gal / 325,850 gal/af = 0.2 af, which will be applied at time of licensing. The Maximum Diversion Volume for license equals 4.2 af (irrigation annual volume) + 0.2 af (stockwater annual volume) = 4.1 af, which will be applied to license.

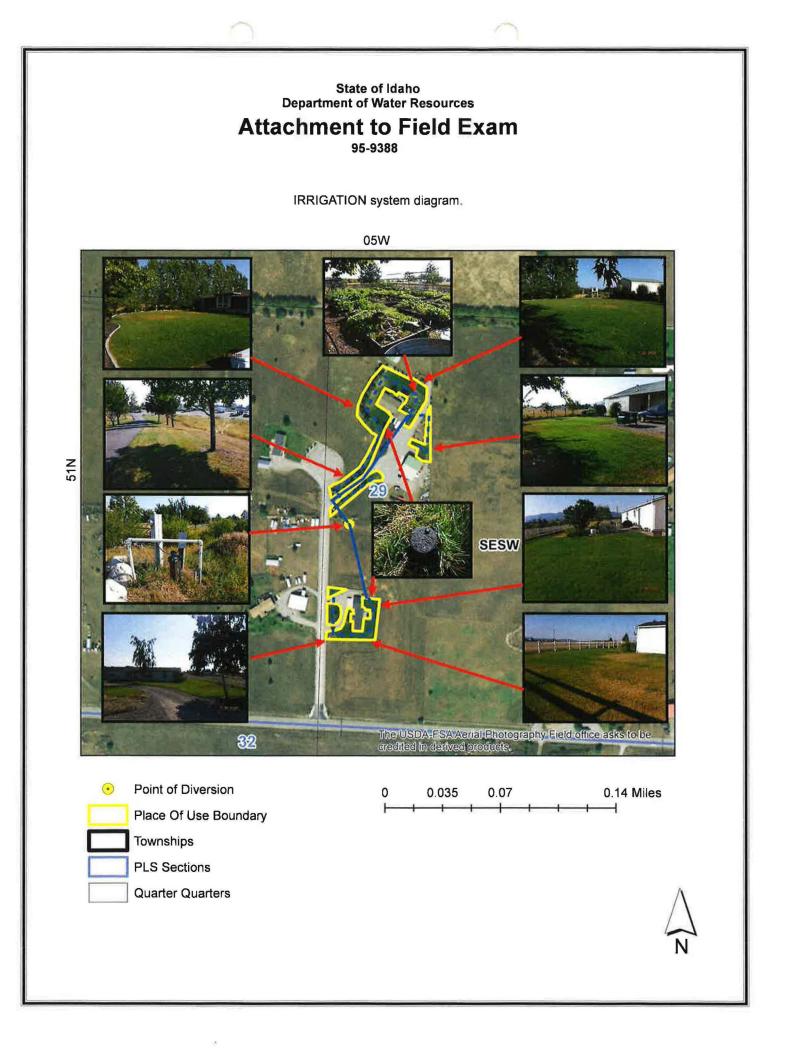
Conditions 046, 26A, and X02 were removed from permit at during licensing review. Condition R62 was replaced with R66 to account for the 1.3 acres of irrigation found at time of field exam, and provides no more than 0.03 cfs per acre nor more than 3.0 afa per acre for irrigation of the place of use. All other conditions remain on permit and will be applied to license. There are no overlap concerns for this water right.

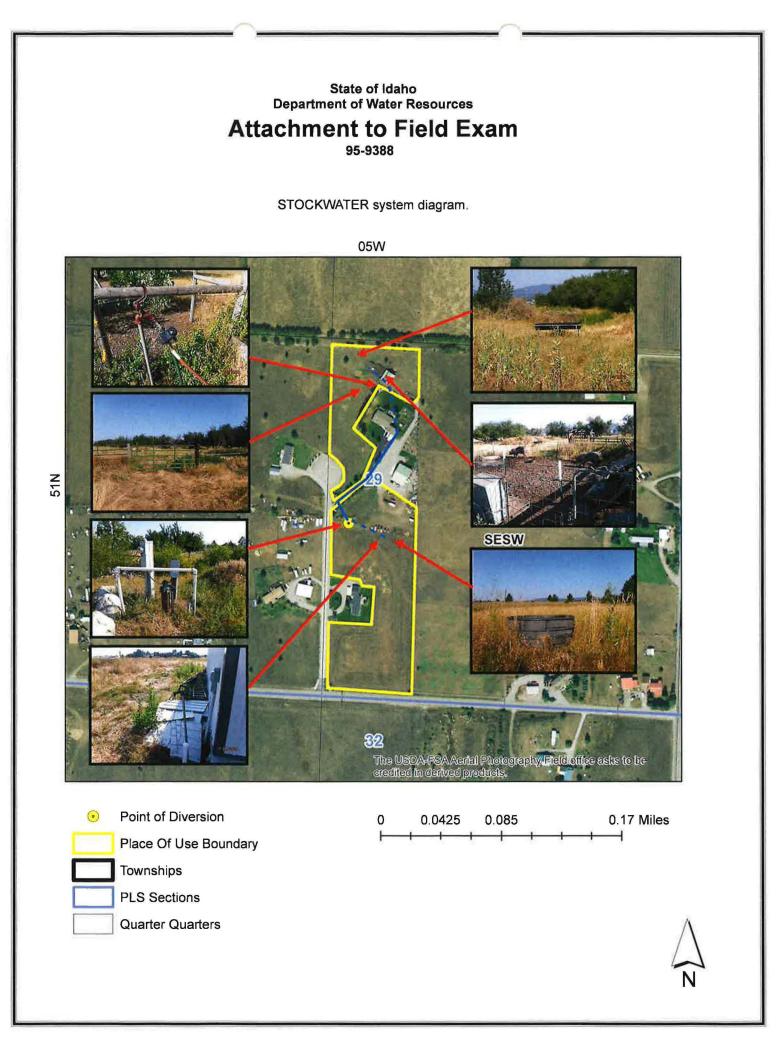
Have conditions of	of permit approval	been met?	X	Yes	No

н. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use	Rate of Diversion	Annual Volume
IRRIGATION	03/15 to 11/15	0.04 CFS	3.9 AF
STOCKWATER	01/01 to 12/31	0.02 CFS	0.2 AF
	<u>Totals:</u>	0.06 CFS	4.1 AF
2. Recommended Amendments			
Change P.D. as reflected	above Add P.D	0. as reflected above X	None
Change P.U. as reflected	above Add P.L	J. as reflected above X	None
I. AUTHENTICATION L	uke Bates - Water Resou	irce Agent	
Field Examiner's Name	ZAN	Date	8/3/2020
Reviewer ad Finh	オ	Date 😵	5 2020







POD - WELL D0051245



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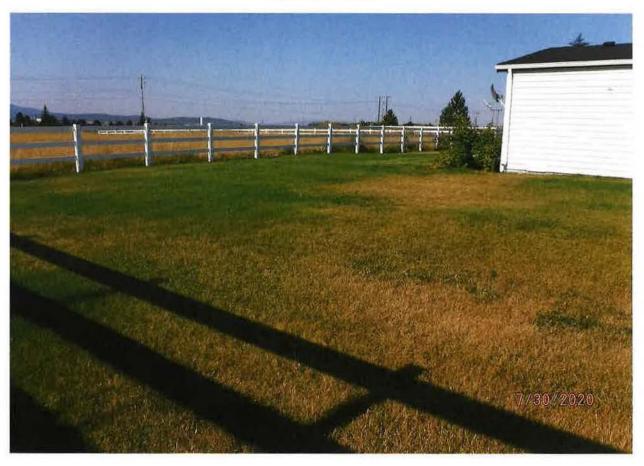


IRRIGATION POU





IRRIGATION POU





IRRIGATION POU

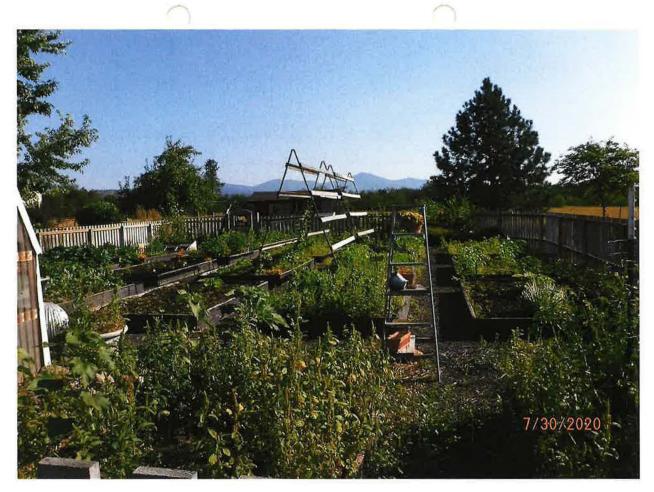


IRRIGATION OF LAWNS BY PRESSURIZED SPRINKLER SYSTEM



IRRIGATION POU





IRRIGATION POU

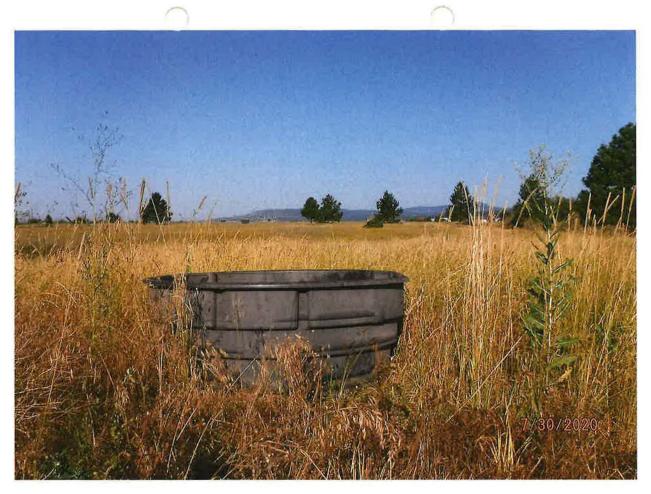


IRRIGATION OF GARDEN BY HOSE AND SPRINKLER



STOCKWATER POU



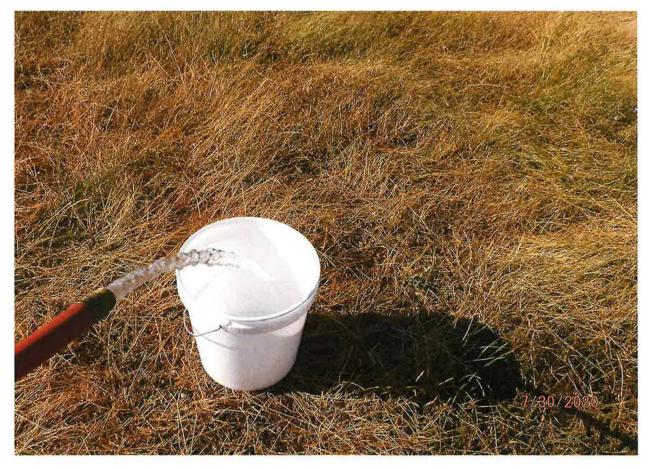


STOCKWATER POU





STOCKWATER POU



5 GAL BUCKET FLOW MEASURMENT