

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 92-11131
Exam Date: 07/24/2024

1. Current Owner:
JAMES CHARLSON 2937 PETTIS PEAK RD ST. MARIES ID 83861
2. Accompanied by: James Charlson
Phone No: 209-484-9131
Address: Same as above
Relationship to permit Holder: Permit Holder.

3. **SOURCE:**
UNNAMED STREAM

Tributary
THORN CREEK

Method of Determination: ArcMap and DRG layer.

B. OVERLAP REVIEW

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

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

UNNAMED STREAM NE¼ NE¼, Sec. 22, Twp 45N, Rge 01W, B.M. BENEWAH County

Method of Determination: GPS located; POD is a PVC pipe gravity flowing from stream located at -116°26.4685, 47°14.1417.

PLACE OF USE: STOCKWATER and DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
45N	01W	22	X																

Method of Determination: Beneficial use field exam, Benewah County tax parcel map information, and ArcMap GIS.

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
Unnamed Stream	N/A	N/A	½ inch PVC pipe gravity flowing to storage tank	N/A	N/A

D. FLOW MEASUREMENTS

Flow measurement not required as per IDAPA RULE 37.03.02.035.01.r.iii.

E. FLOW CALCULATIONS

The diversion rate for domestic water use is limited to **0.04 cfs** or 18 gpm.

The diversion rate for stockwater use is limited to **0.02 cfs** or 9 gpm.

The maximum diversion rate for this water right is limited to **0.04 cfs** or 18 gpm.

The applicant's diverting works incorporates a 1/2-inch PVC pipe with small 1/4-inch holes drilled to collect water, gravity flowing into a storage tank before distribution by transfer pump to the POU. Flow measurements are not required to license this Permit, and I didn't have access to the interior of the storage tank to obtain a measurement. The applicant asserts that upon installation in spring months the flow is approximately 18 gpm but reduces in late summer months based on water availability. I'm recommending a maximum diversion rate of 0.04 cfs based on this information, which is reduced from the Permit authorized 0.06 cfs due to water system constraints found at time of exam.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

2. Volume Calculations for Other Uses:

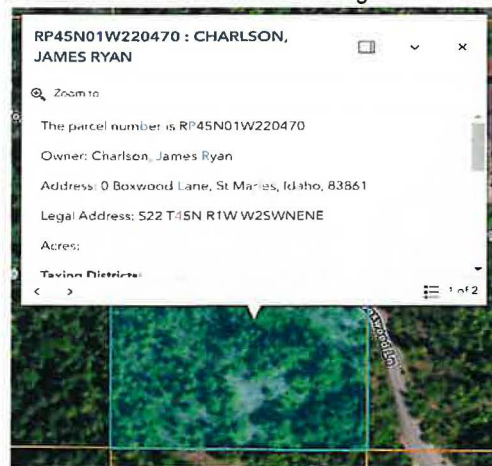
- The domestic annual volume for 1 home with external water use = **1.2 af**.
- The stockwater annual volume for numerous small stock = **0.1 af** as illustrated in the table below:

WR 92-11131 STOCKWATER ANNUAL VOLUME CALCULATIONS				
STOCK ANIMALS	# HEAD	GPD	DAYS/YR	GPY
GOATS	5	2	365	3650
PIGS	4	4	365	5840
TURKEYS	6	2	365	4380
CHICKENS/DUCKS	30/10	10	365	3650
GAL PER YEAR				17520
ACRE-FEET PER YEAR				0.053767

Volume rounds up to 0.1 af considering Department significant figure rounding conventions.

G. NARRATIVE/REMARKS/COMMENTS

The Department's parcel data shows Mr. James Charlson as the owner of the property, and I've attached an excerpt from Benewah County tax parcel maps that validate parcel ownership at the POD/POU at time of licensing. ArcMap aerial imagery didn't adequately illustrate domestic & stockwater beneficial use occurring at parcel No. RP45N01W220470 and I completed a site visit beneficial use exam to affirm information designated on the Statement of Completion form.



Tax parcel data retrieved from Benewah County Parcel search on 8/1/2024.

During the site visit I observed a small pool alongside the unnamed stream collecting surface water, which was captured by a ½" perforated PVC pipeline gravity flowing into a nearby 635-gallon storage reservoir. The applicant uses a 1-HP electric transfer pump to deliver water uphill from the POD to the POU. The applicant contemplated POD development at the downstream reach of the applicant's property, but the POD was GPS located on the SE corner of the applicant's property where stream flow enters flowing to the NW. I used ArcMap aerial imagery to assign the water right POD based on Garmin GPS located coordinates. I've recommended licensing with a maximum diversion rate of **0.04 cfs** which is reduced from the 0.06 cfs permit approved. The applicant's system is limited by the ½ inch inflow pipe from the small pool, which the applicant asserts achieves 18 gpm during peak runoff periods, but the flow reduces throughout the summer months. There was adequate flow in the stream during my exam to meet the applicant's water uses and the 635-gallon storage tank provides for peak demand water use each day.

I took photographs of the domestic and stockwater POU during my field exam, which illustrates water is used for a small residential structure and a recreation vehicle (RV). A generator operates the electric pump which delivers water via 1-inch poly-pipe to the in-home water users and frost-free hydrant to garden hose for small landscape & garden containers located on the property. The annual volume for 1 home with irrigation equals **1.2 af**. The Stockwater annual volume as illustrated above rounds up to **0.1 af** associating with numerous small stock animals observed in stock pens co-located with the RV. I filled a stock tank using a hose to demonstrate the water system is capable of putting stream water to beneficial use. I used ArcMap aerial imagery and field map sketches to assign the domestic & stockwater POU (same POU) during licensing review. The maximum diversion volume recommended for licensing purposes equals **1.3 af**.

There are no overlapping water right concerns toward licensing this Permit. I removed condition X02 from the permit during licensing review and all other conditions are being carried forward to licensing.

Have conditions of permit approval been met? X 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>
STOCKWATER	1 /1 to 12/31	0.02 CFS	0.1 AF
DOMESTIC	1 /1 to 12/31	0.04 CFS	1.2 AF

Totals: 0.04 CFS 1.3 AF

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 X None

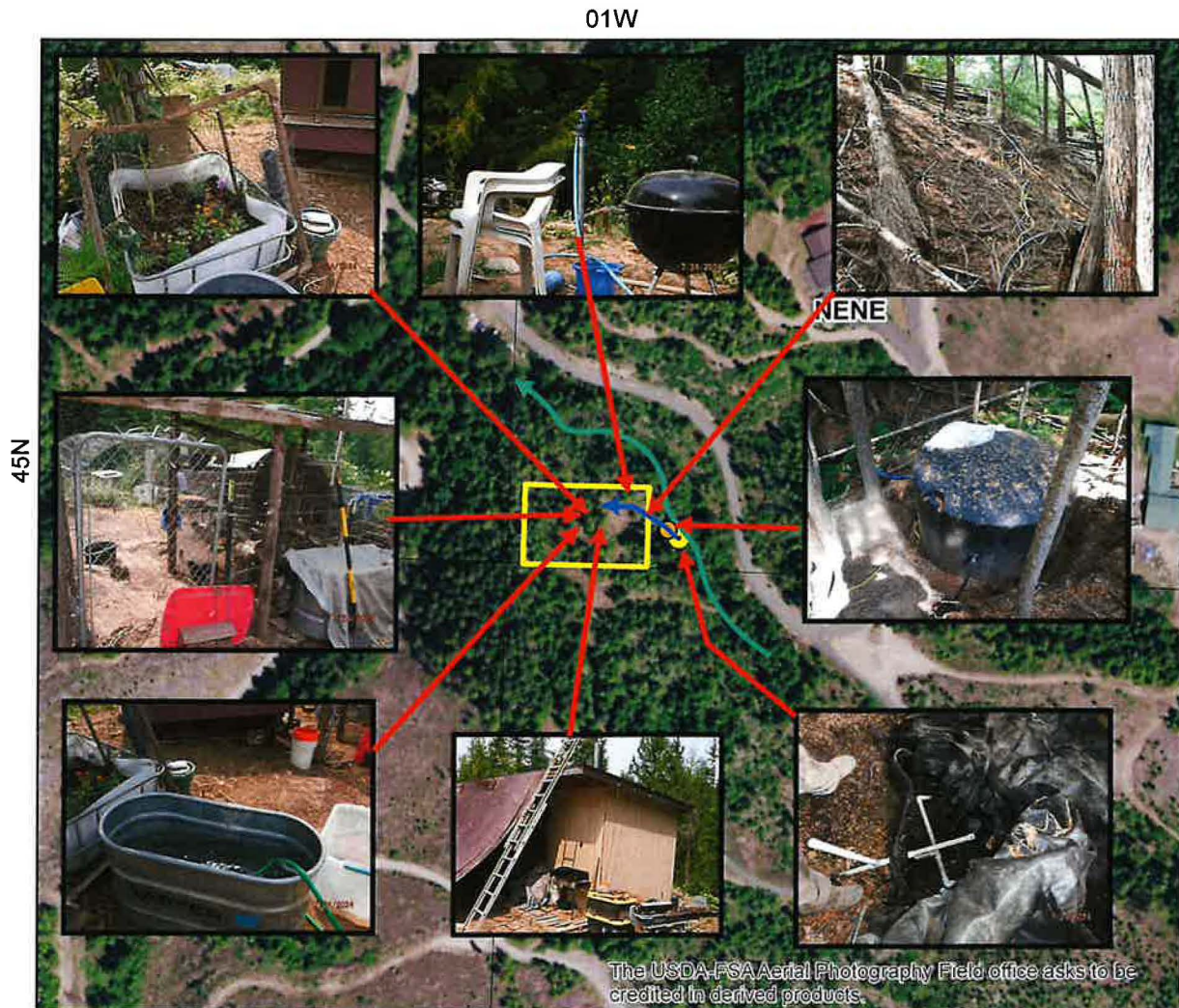
I. AUTHENTICATION Luke Bates – Sr Water Resource Agent

Field Examiner's Name *LS Bates* Date 8/1/2024

Reviewer *Chris Buf* Date 1/16/2025

State of Idaho
Department of Water Resources
Attachment to Field Exam
92-11131

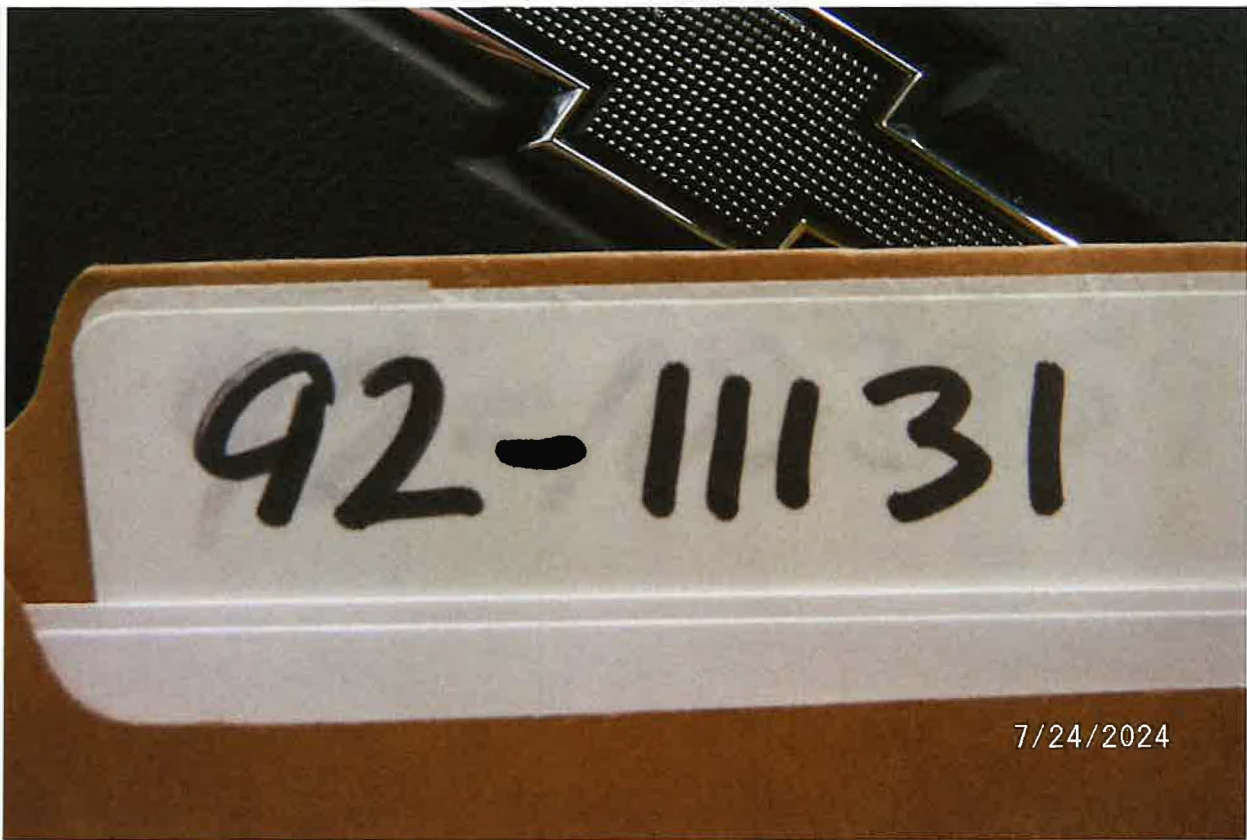
This map depicts the DOMESTIC and STOCKWATER system diagram.



0 0.035 0.07 0.14 Miles

-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters
-  Point of Diversion





BENEFICIAL USE FIELD EXAM DATE 7/24/2024



POD – UNNAMED STREAM CAPTURED IN POOLING WITH ½-INCH PVC PIPE DRILLED WITH ¼-INCH HOLES
GRAVITY FLOWING TO STORAGE TANK



½-INCH PIPE INFLOW TO 635- GALLON STORAGE TANK, WHICH USES A 1-HP PUMP AND PIPELINE CONVEYANCE SYSTEM TO DISTRIBUTE STREAM WATER FOR BENEFICIAL USES



POLY-PIPELINE ROUTES UP-SLOPE TO THE POU FROM STREAM POD



DOMESTIC POU – SMALL STRUCTURES AND A RECREATION VEHICLE



WATER DISTRIBUTED BY FROST FREE HYDRANT TO HOSE(S) FOR BENEFICIAL USES



GENERATOR OPERATED 1 HP PUMP IN CISTERN DELIVERS STREAM WATER TO POU



STOCKWATER POU



STOCKWATER POU



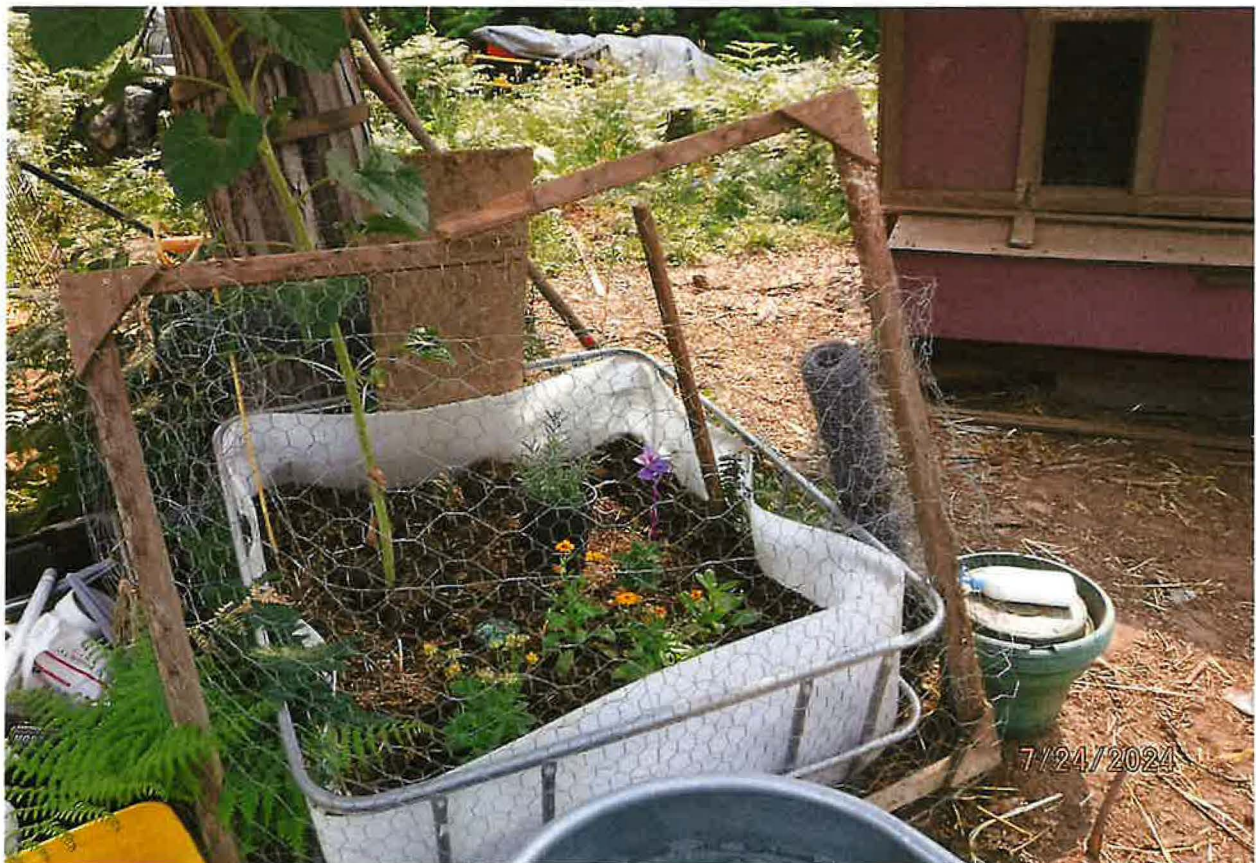


STOCKWATER POU





STOCKWATER POU



EXAMPLE SEVERAL SMALL GARDEN AND PLANT GROWING RAISED BEDS IN USE