

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 86-11924

Exam Date: 06/10/2018

1. Current Owner:

JOHN A GRAVELLE PO BOX 603 JULIAETTA ID 83535 AND
MATT P GRAVELLE PO BOX 603 JULIAETTA ID 83535 AND
PAUL J GRAVELLE PO BOX 603 JULIAETTA ID 83535 AND
CAROLYN M GRAVELLE PO BOX 603 JULIAETTA ID 83535

2. Accompanied by: John Gravelle

Phone No: 509-995-1940

Address: Same as above

Relationship to permit Holder: Permit Holder

3. **SOURCE:**

SPRING

Tributary

SINKS

Method of Determination: Arcmap and DRG

B. OVERLAP REVIEW

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

YES Overlap

Water Right No.	Source	Purpose of Use	Basis
86-12002	SPRING	STOCKWATER	DECREEED

Comments: WR 86-12002 is for stockwater use by the same applicant, with one of the springs being the same POD as this water right. Stockwater overlap is on irrigation component POU only for this water right.

2. Other water rights with the same point-of-diversion:

NO Overlap

Water Right No.	Source	Purpose of Use	Basis
86-12002	SPRING	STOCKWATER	DECREEED

Comments: WR 86-12002 is for stockwater use by the same applicant, with one of multiple springs being the same POD as this water right.

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

SPRING SE¼ NE¼ SW¼, Sec. 26, Twp 38N, Rge 03W, B.M. LATAH County

Method of Determination: Arcmap and GPS. POD located at -116°40.718, 46°36.228.

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
38N	03W	26												2.6			3.1		5.7

Total Acres: 5.7

PLACE OF USE: STOCKWATER

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
38N	03W	26												X					

Method of Determination: Arcmap and GPS

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 1:24,000 or greater.

XX Aerial Photo Attached (required for irrigation of 10+ acres).X 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
N/A					

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
5-GALLON BUCKET TEST						

2. Measurements: A 5 gallon bucket test was completed at point that piping from spring fed into stock tank, resulting in 5 gal / 10 sec x 60 sec/min = 30 gpm = **0.06 cfs**.

E. FLOW CALCULATIONSMeasured Method: 5 gal / 10 sec x 60 sec/min = 30 gpm = **0.06 cfs**.**F. VOLUME CALCULATIONS**

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 5.7 \text{ ac} \times 4 \text{ afa} = 22.8 \text{ af}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.06 \text{ cfs} \times 246 \times 1.9835 = 29.3$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = \mathbf{22.8 \text{ af}}$$

2. Volume Calculations for Other Uses:

$$\text{STOCKWATER} = 50 \text{ head cattle} \times 12 \text{ gpd} \times 365 \text{ days} = 219,000 \text{ gal}$$

$$50 \text{ horses} \times 12 \text{ gpd} \times 365 \text{ days} = 219,000 \text{ gal}$$

$$50 \text{ goats/sheep} \times 2 \text{ gpd} \times 365 \text{ days} = 36,500 \text{ gal}$$

$$(219,000 \text{ gal} + 219,000 \text{ gal} + 36,500 \text{ gal}) / 325,850 \text{ gal/af} = \mathbf{1.5 \text{ af}}$$

As this is a surface water source, no there will be no volume applied to irrigation. The annual volume applied to stockwater is associated with diversion rate from irrigation, resulting in no Maximum Diversion Volume applied to license.

G. NARRATIVE/REMARKS/COMMENTS

Admin Note: WR 86-11924 has been split, with subsequent WRs added: 86-12084, 86-12085, and 86-12086. Numerous PODs, POUs, and beneficial use components have been removed and/or added to from this license, and applied to others after field exam annotated how the POD and applicant systems interacted.

Field exam on 6/10/2018 with applicant, John Gravelle, showed a spring with spring box diverting water by pipes to stock tanks and holding tanks for irrigation and stockwater use. The spring at POD also fed into two small holding ponds that qualify under the 24-Hour Fill allowance for Impoundment (Admin Memorandum, App Processing No. 73), which the applicant used daily for stockwater and irrigation purposes. A 5-gallon bucket test was completed, with diversion rate equaling 5 gal / 10 sec x 60 sec/min = 30 gpm = **0.06 cfs**, which will be carried forward to licensing for both irrigation and stockwater components and the Maximum Diversion Rate.

Domestic, Diversion to storage, Stockwater Storage, Stockwater from Storage, Irrigation Storage, and Irrigation from Storage components were removed from license. Only Irrigation and Stockwater components remain on license for this WR in the combined 4-way WR-split.

Applicant applied for 28 acres of irrigation, and during field exam irrigated area from this spring POD was sketched out. During licensing review, irrigated acreage was traced out using arcmap aerial imagery equaling 5.7 acres. The annual volume for the irrigation component equals 5.7 ac x 4.0 afa = 22.8 af, but as this is a surface water source no volume is applied to the license.

Applicant was permitted for stockwater use for 50 head of cattle, 50 horses, and 50 goats/sheep. The annual volume for these stock animals equals 1.5 af as computed below:

50 head cattle x 12 gpd x 365 days = 219,000 gal

50 horses x 12 gpd x 365 days = 219,000 gal

50 goats/sheep x 2 gpd x 365 days = 36,500 ga

(219,000 gal + 219,000 gal + 36,500 gal) / 325,850 gal/af = **1.5 af**

The stockwater annual volume is diverted from same POD and water system as the irrigation component, which does not have an annual volume applied to license, and as such there will not be a Maximum Diversion Volume applied to license.

Condition 046, 26A, and 132 were removed from license. Condition X35 was added to describe overlap requirements for Stockwater diversion rate and annual volume. Condition F06 was added to describe that WR 86-11924 and 86-12002 are diverted from the same POD. WR 86-12002 overlaps this water right, but is for stockwater purposes that overlap irrigation component only. The Stockwater POU for this water right was licensed to not overlap WR 86-12002, mitigating overlap concerns between the two water rights.

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>
IRRIGATION	03/15 to 11/15	0.06 CFS	
STOCKWATER	01/01 to 12/31	0.06 CFS	1.5 AF

Totals: 0.06 CFS

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

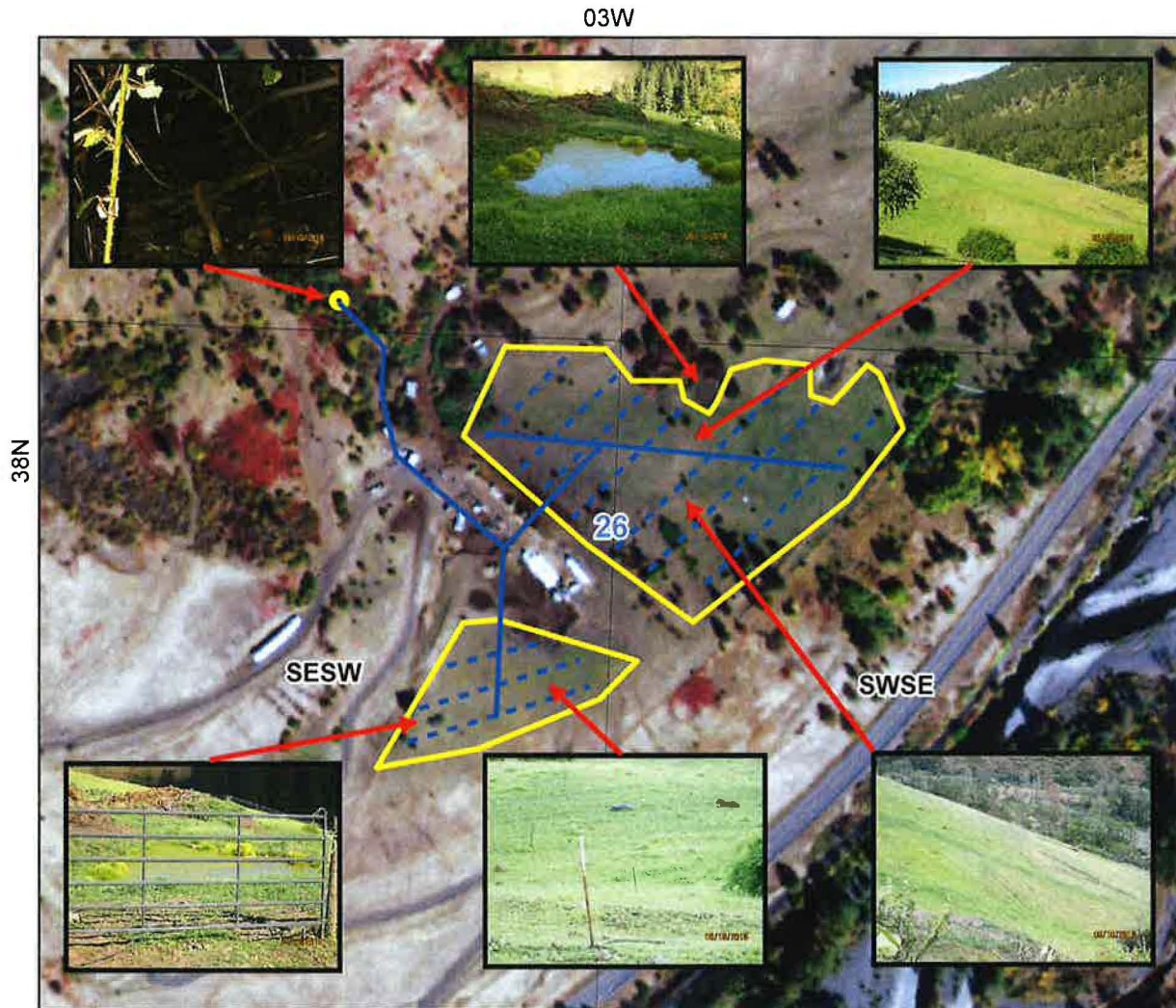
I. AUTHENTICATION Luke Bates - Water Resource Agent

Field Examiner's Name Alex Fink Date 5/27/2020

Reviewer [Signature] Date 5/19/2020

State of Idaho
Department of Water Resources
Attachment to Field Exam
86-11924

IRRIGATION system diagram.



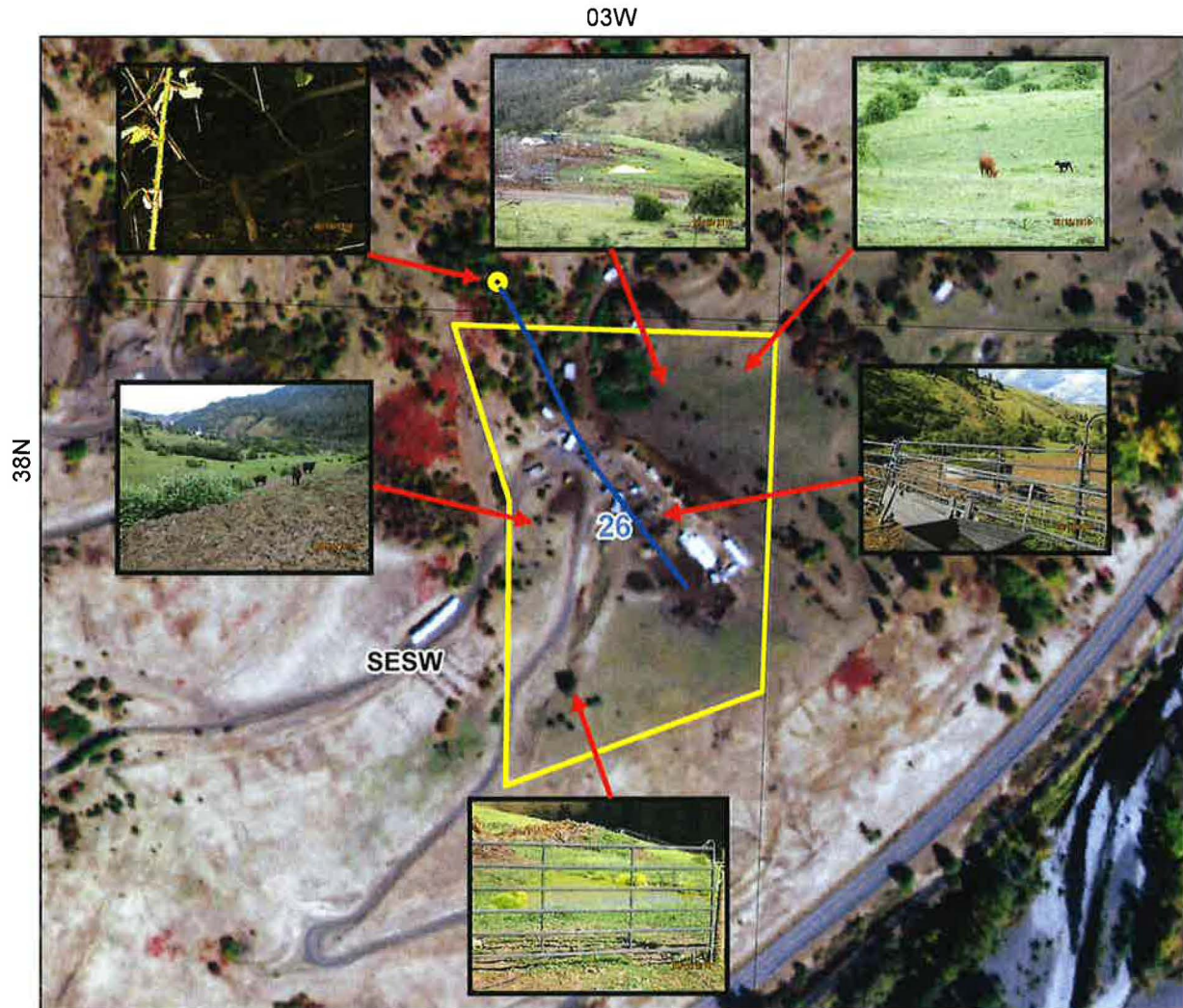
-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters

0 0.035 0.07 0.14 Miles



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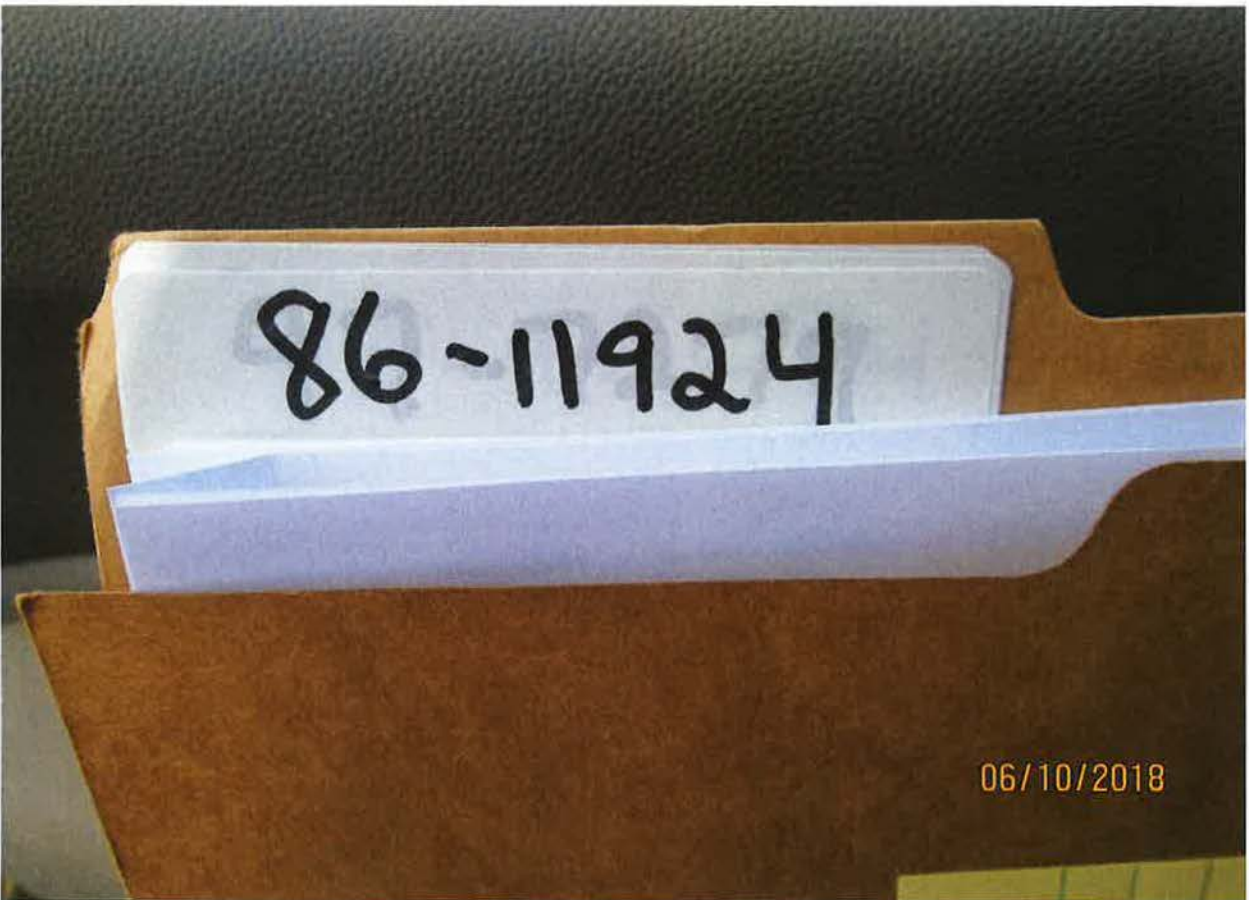
STOCKWATER system diagram.



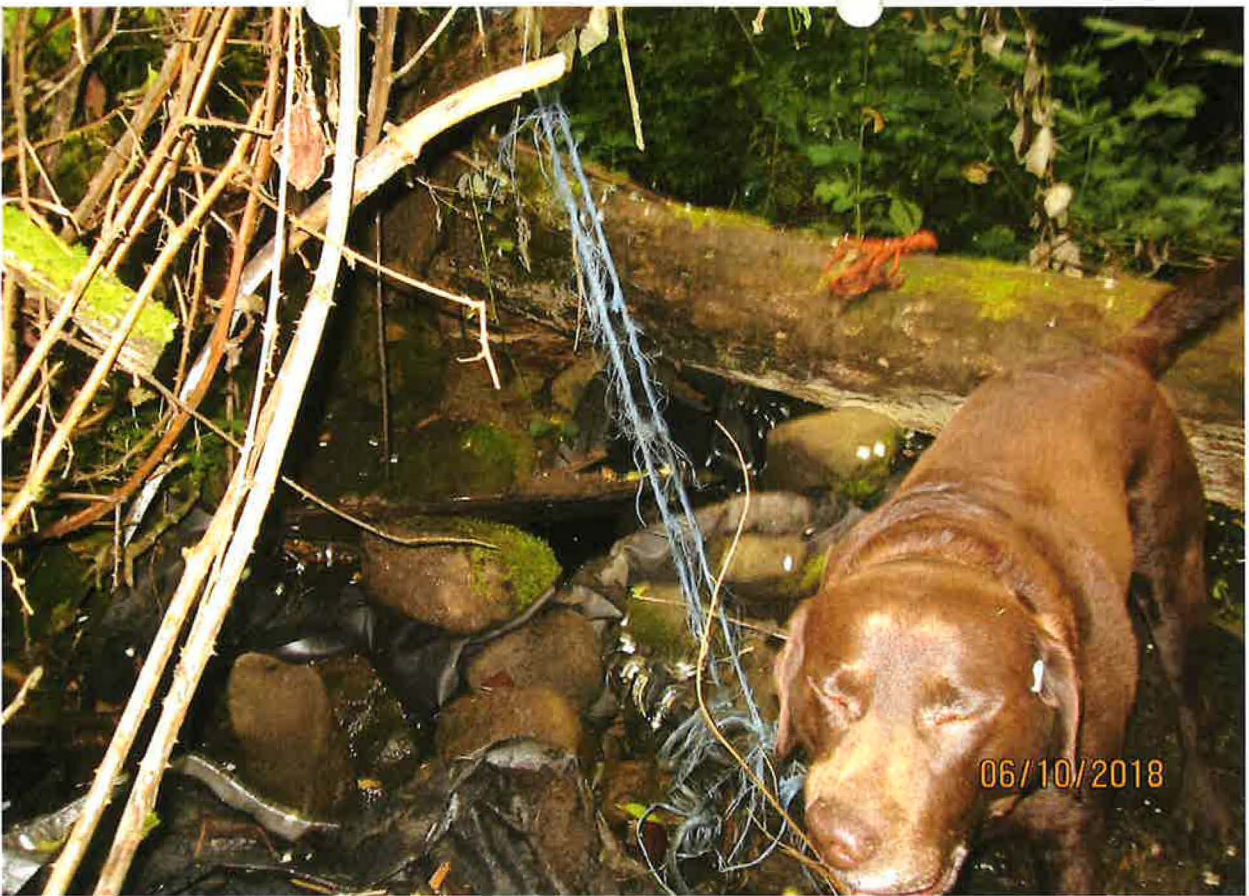
-  Point of Diversion
-  Place Of Use Boundary
-  Townships
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-  Quarter Quarters

0 0.035 0.07 0.14 Miles





POD - SPRING



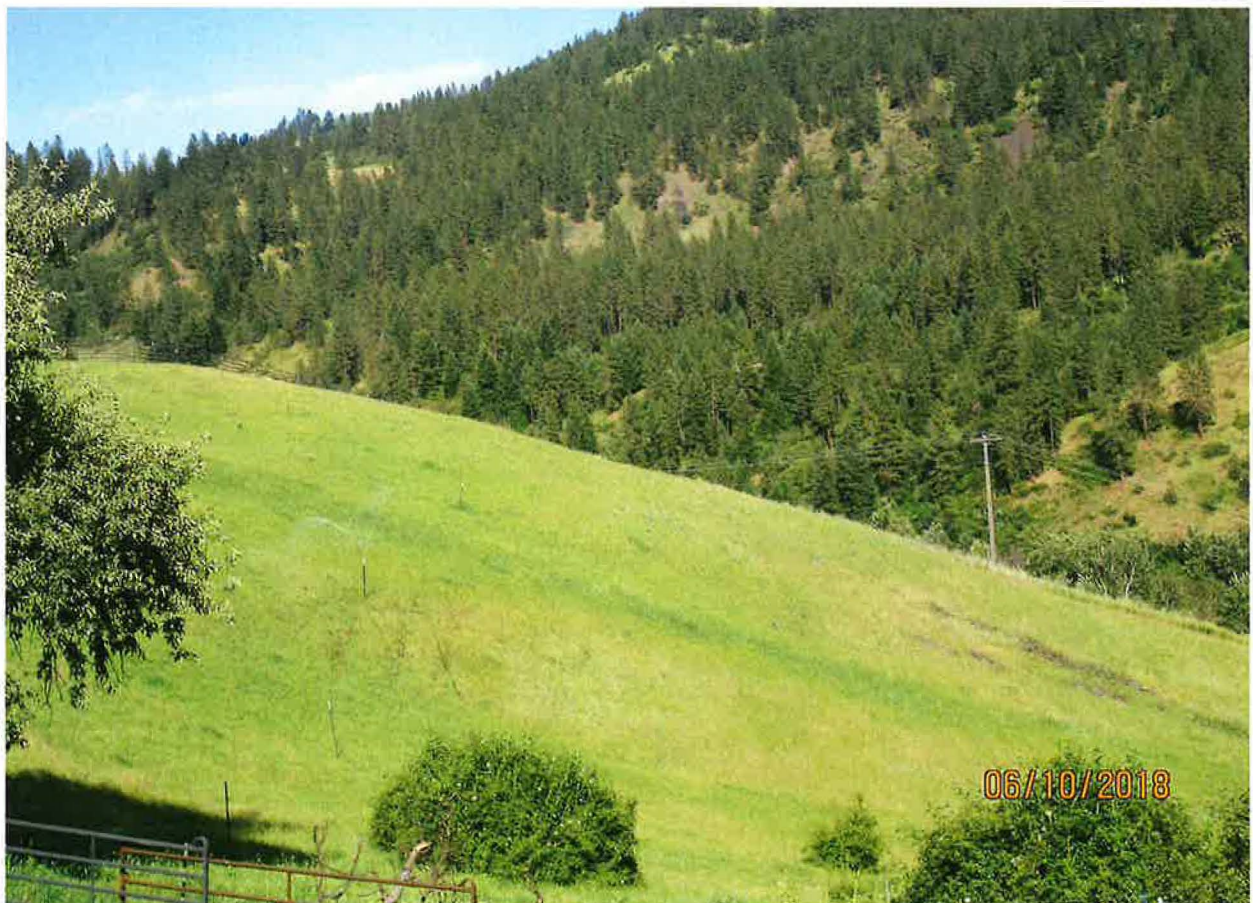
POD – SPRING



24 HR IMPOUNDMENT POND AT POU



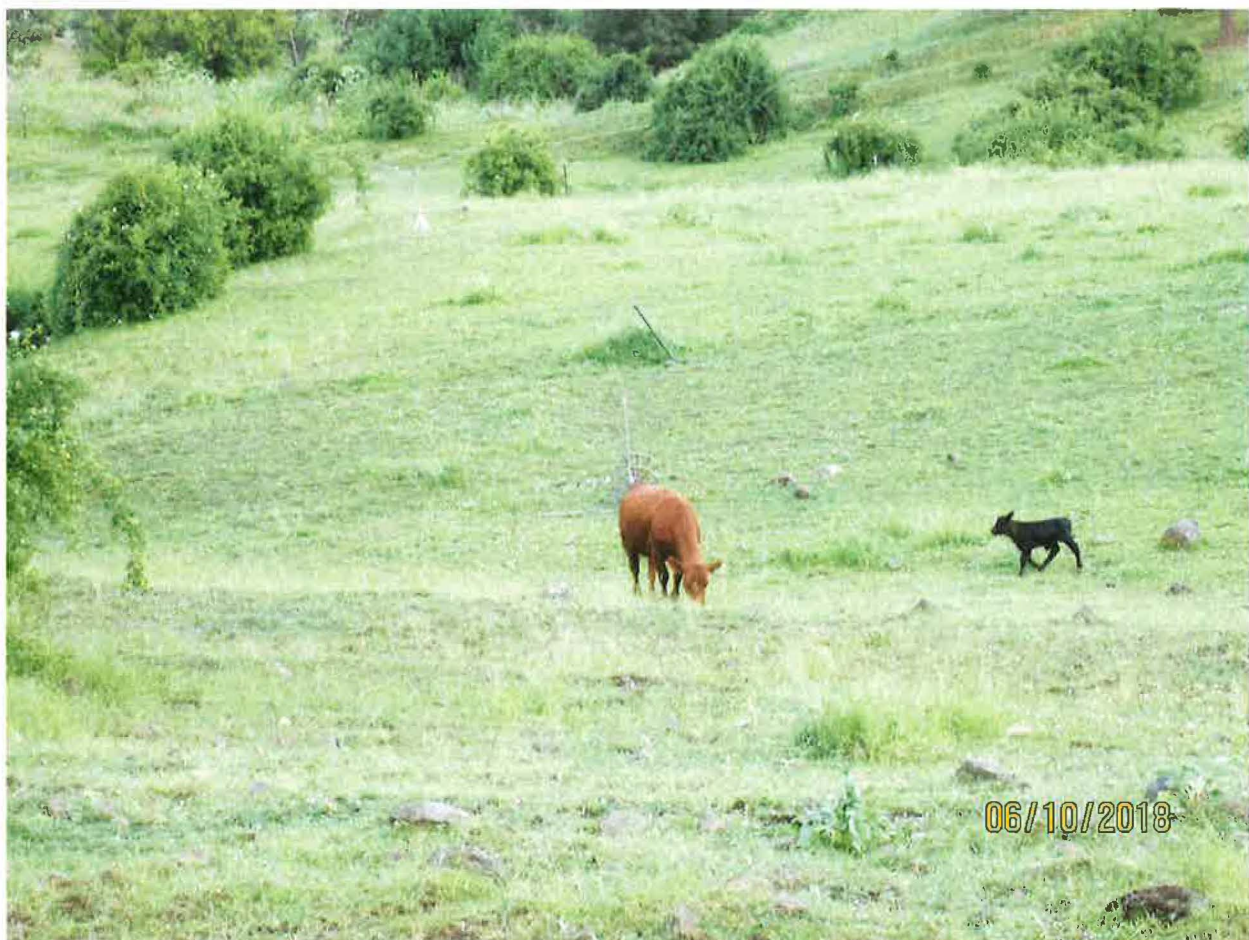
24HR IMPOUNDMENT POND AT POU



IRRIGATION POU



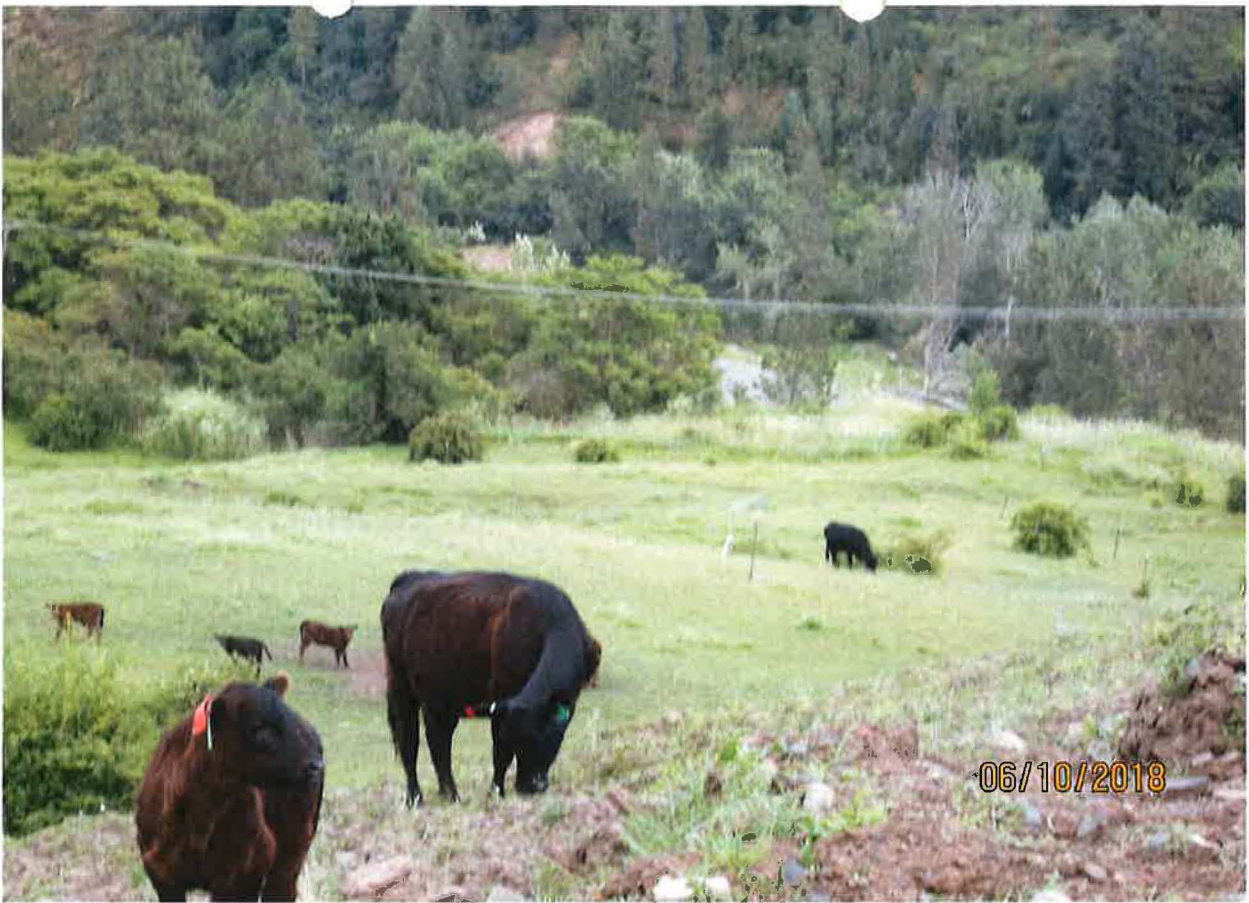
IRRIGATION AND STOCKWATER POU





IRRIGATION AND STOCKWATER POU





IRRIGATION AND STOCKWATER POU



STOCKWATER POU



STOCKWATER POU

