

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-17440
Exam Date: 06/04/2020

1. Current Owner:
PINE GLEN WEST WATER ASSN 25441 N VISTA VIEW CT RATHDRUM ID 83858-7788
2. Accompanied by: Erin Bledsoe
Phone No: 916-764-2510
Address: Same as above
Relationship to permit Holder: Representative for water Assn.

3. **SOURCE:**
GROUND WATER

Method of Determination: DRG and Arcmap.

B. OVERLAP REVIEW

1. Other water rights with 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 SW¼ NW¼, Sec. 33, Twp 53N, Rge 04W, B.M. KOOTENAI County

Method of Determination: GPS. POD located at -116°50.894, 47°53.926, D0017281

PLACE OF USE: DOMESTIC and 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	
53N	04W	33						X	X										

Method of Determination: Field exam and Arcmap.

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
95-92-N-46	FRANKLIN ELECTRIC	5			

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date

2. Measurements: Unable to perform flow measurement due to inadequate piping requirements between well and pressure tank.

E. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

Measured Method: Theoretic pumping equation calculated 28.9 gpm, with a pump depth of 455 feet operating at 40 psi.
 Resulting diversion rate = **0.06 cfs**.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

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

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

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

2. Volume Calculations for Other Uses:

$$\text{DOMESTIC} = 9 \text{ homes} \times 1.2 \text{ af (home and } \frac{1}{2} \text{ acre irrigation)} = \mathbf{10.8 \text{ af}}$$

$$\text{STOCKWATER} = 9 \text{ lots} \times 4 \text{ head mixed stock per lot} \times 12 \text{ gpd} \times 365 \text{ days} = 157,680 \text{ gal} / 325,850 \text{ gal/af} = 0.48 \text{ af, rounded to } \mathbf{0.5 \text{ af}}$$

complying with department admin memo, application processing No.6, Significant Figures for Numeric Values.

$$\text{Maximum Diversion Volume} = 10.8 \text{ af (domestic)} + 0.5 \text{ af (stockwater)} = \mathbf{11.3 \text{ af}}$$

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 6/4/2020 with Pine Glen Water Assn representative, Erin Bledsoe, showed one well servicing 9 lots for domestic and stockwater purposes. The well was situated within a pump house, with piping going directly from well to pressure tank with inadequate pipe requirements to complete flow measurements. Theoretic pumping equation calculated 28.9 gpm, with a 5 HP pump at a depth of 455 feet, operating at 40 psi. The resulting diversion rate = **0.06 cfs**, which will be applied to license as the maximum diversion volume. Applicant was permitted for 0.14 cfs for domestic component, the department standard diversion rate for 9 homes domestic, but applicant is limited to pump performance at time of field exam. The applicant incorporated 2ea 5,000 gallon storage tanks co-located near well, to provide storage volume to make up for lower flow rate and service homes during peak water usage. The diversion rate for stockwater of 36 head of mixed stock (4 per lot) equals **0.02 cfs**, which is applied on license, but not additive above the 0.06 cfs limited by pump performance assigned to maximum diversion rate.

At time of field exam, 9 lots located within the PineGlen West Subdivision were being serviced from shared well for domestic use. 9 homes qualified for domestic with up to ½ acre irrigation, resulting in the annual volume of $9 \times (0.6 \text{ af} + 0.6 \text{ af}) = \mathbf{10.8 \text{ af}}$. Each lot is limited by condition 187 to ½ acre of irrigation. Lot 7, Blk 1 has two homes serviced by one water connection, with one of the homes being used as an assisted living quarter for an elderly family member of parcel owner. Two parcels adjoining the original water association northern boundary have been incorporated into the association; physical addresses to those two homes are 25573 N Vista View CT and 25576 N Vista View CT.

Applicant was permitted for 4 head of mixed stock per home. During field exam, stock pens were identified on parcels with horses and chickens observed. Stockwater annual volume equals $9 \text{ lots} \times 4 \text{ head mixed stock per lot} \times 12 \text{ gpd} \times 365 \text{ days} = 157,680 \text{ gal} / 325,850 \text{ gal/af} = 0.48 \text{ af}$, rounded to **0.5 af** complying with department admin memo, application processing No.6, Significant Figures for Numeric Values. The Maximum Diversion Volume of license equals $10.8 \text{ af (domestic)} + 0.5 \text{ af (stockwater)} = \mathbf{11.3 \text{ af}}$, which will be applied to license.

Condition 046 was removed from license. Condition X59 was added to describe the POD's location in Lot 5, Blk 1 of PineGlen West Sub., and condition x60 was added to describe POU for 9 homes within the subdivision and added 2ea parcels by parcel No. to the north of the PineGlen West Subdivision. All other conditions remain on license. There are no overlap concerns for this WR.

Have conditions of permit approval been met? ☒ 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	01/01 to 12/31	0.02 CFS	0.5 AF
DOMESTIC	01/01 to 12/31	0.06 CFS	10.8 AF

Totals: 0.06 CFS 11.3 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

I. AUTHENTICATION

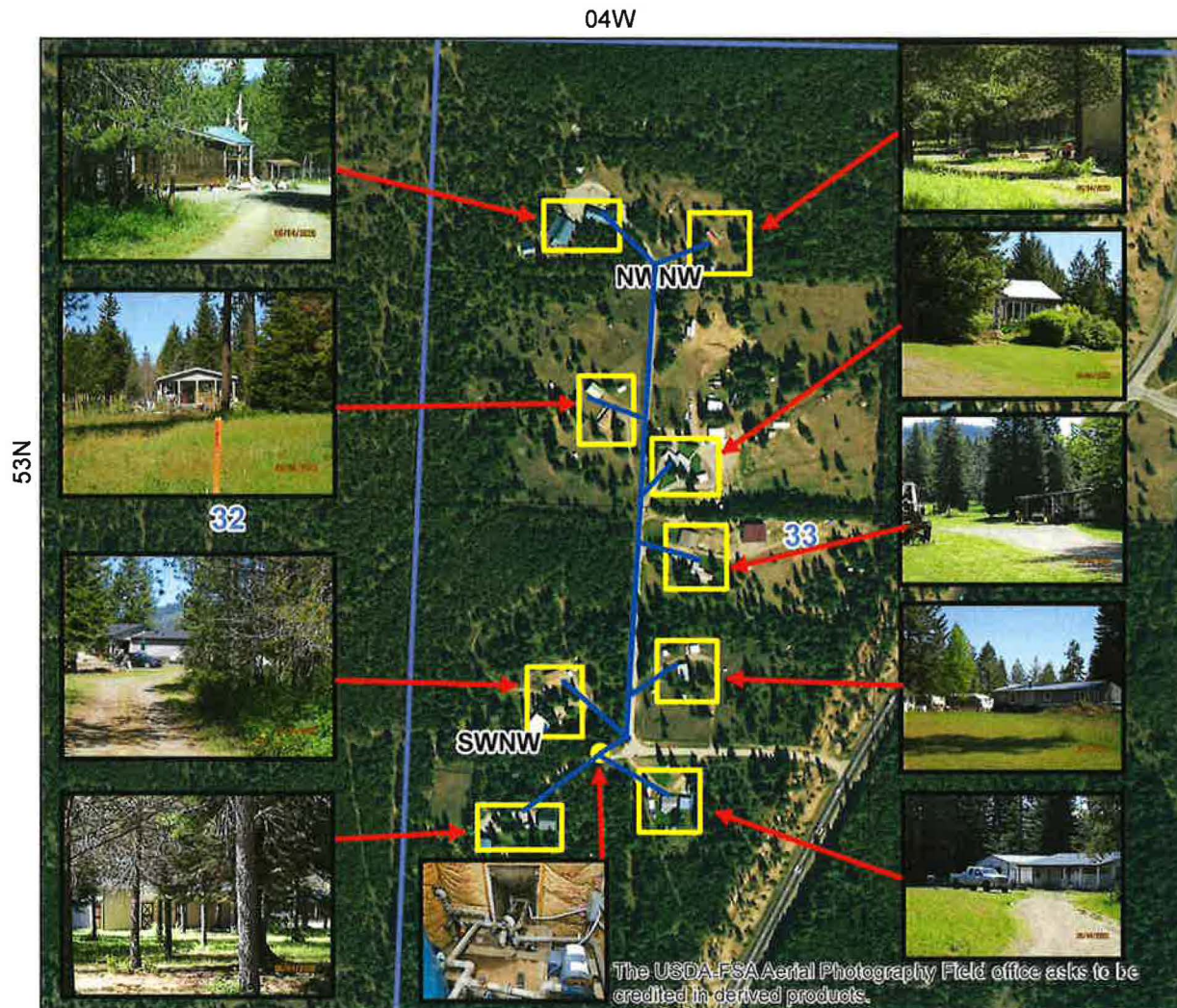
Luke Bates - Water Resource Agent

Field Examiner's Name [Signature] Date 6/25/2020

Reviewer [Signature] Date 6/30/2020

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-17440

DOMESTIC system diagram.



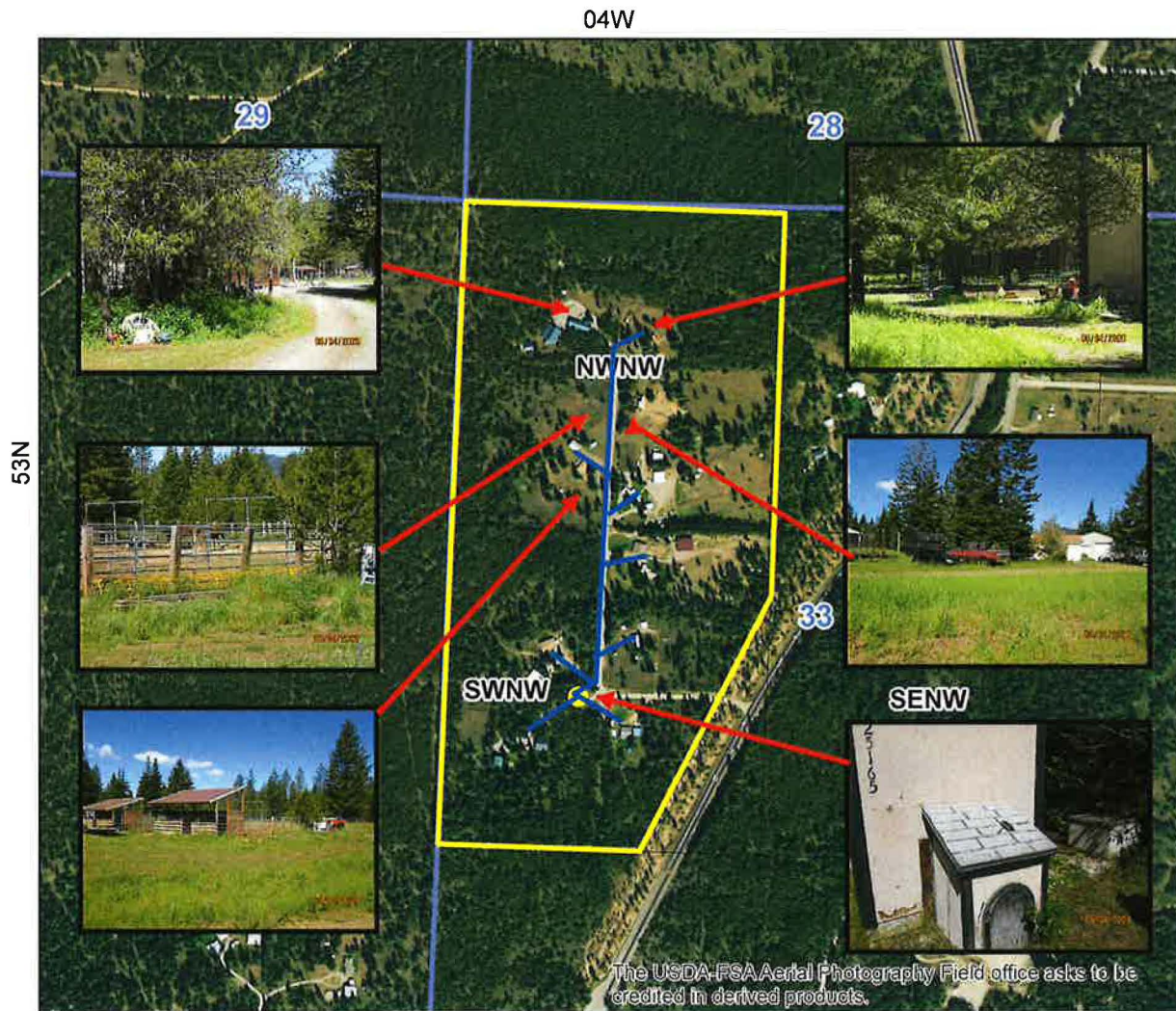
-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters

0 0.05 0.1 0.2 Miles



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STOCKWATER system diagram.



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

0 0.075 0.15 0.3 Miles



THEORETICAL PUMPING EQUATION FOR WR# 95-17440

Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to be at 455 ft, and running at 40 psi.

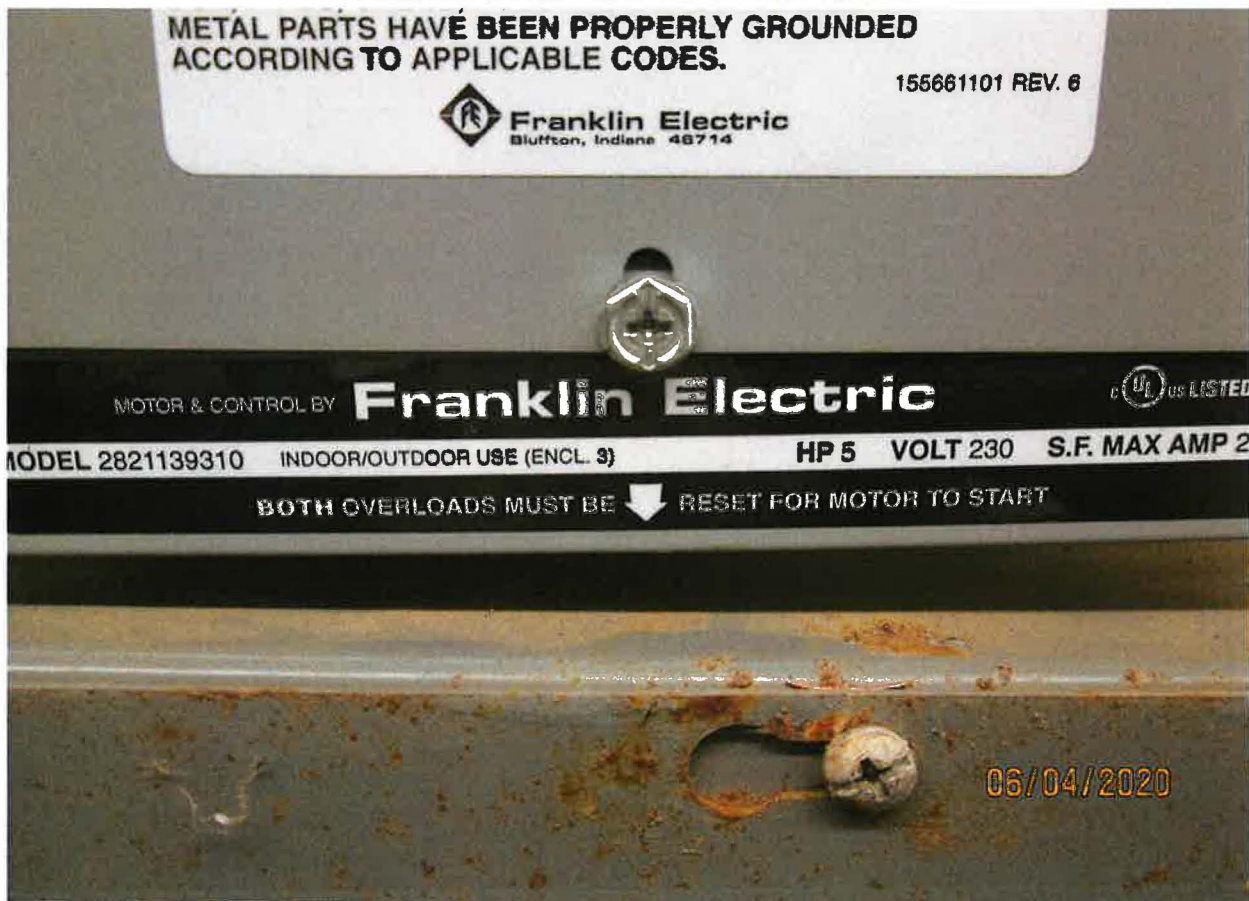
<u>PUMP EQUATIONS</u>						
WATER RIGHT No. 95-17440						
		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q =	$HP \cdot 8.8 \cdot \text{Eff} / H$	5	547.517	0.8	455	40
Q =		0.064 cfs	28.9 gpm			



POD – WELL PERMIT No. 95-92-N-6



PRESSURE TANKS – LOCATED IN PUMP HOUSE



5 HP FRANKLIN ELECTRIC PUMP



PUMP HOUSE



DOMESTIC / STOCKWATER POU – PINEGLEN WEST SUB, LT 5 BLK 1



DOMESTIC / STOCKWATER POU – PINEGLEN WEST SUB, LT 4 BLK 1



DOMESTIC / STOCKWATER POU – PINEGLEN WEST SUB, LT 6 BLK 1



DOMESTIC / STOCKWATER POU – PINEGLEN WEST SUB, LT 3 BLK 1



DOMESTIC / STOCKWATER POU – PINEGLEN WEST SUB, LT 2 BLK 1



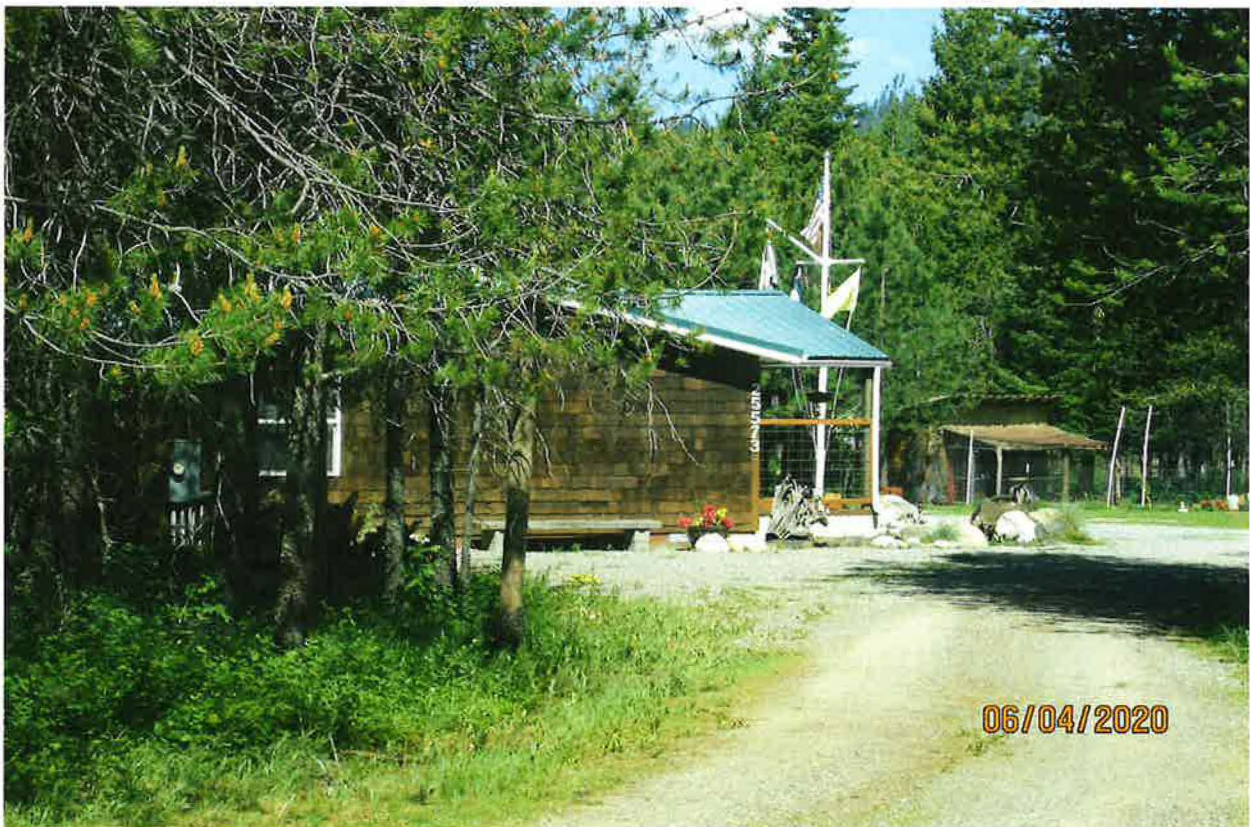
DOMESTIC / STOCKWATER POU – PINEGLEN WEST SUB, LT 7 BLK 1, 1ST HOME



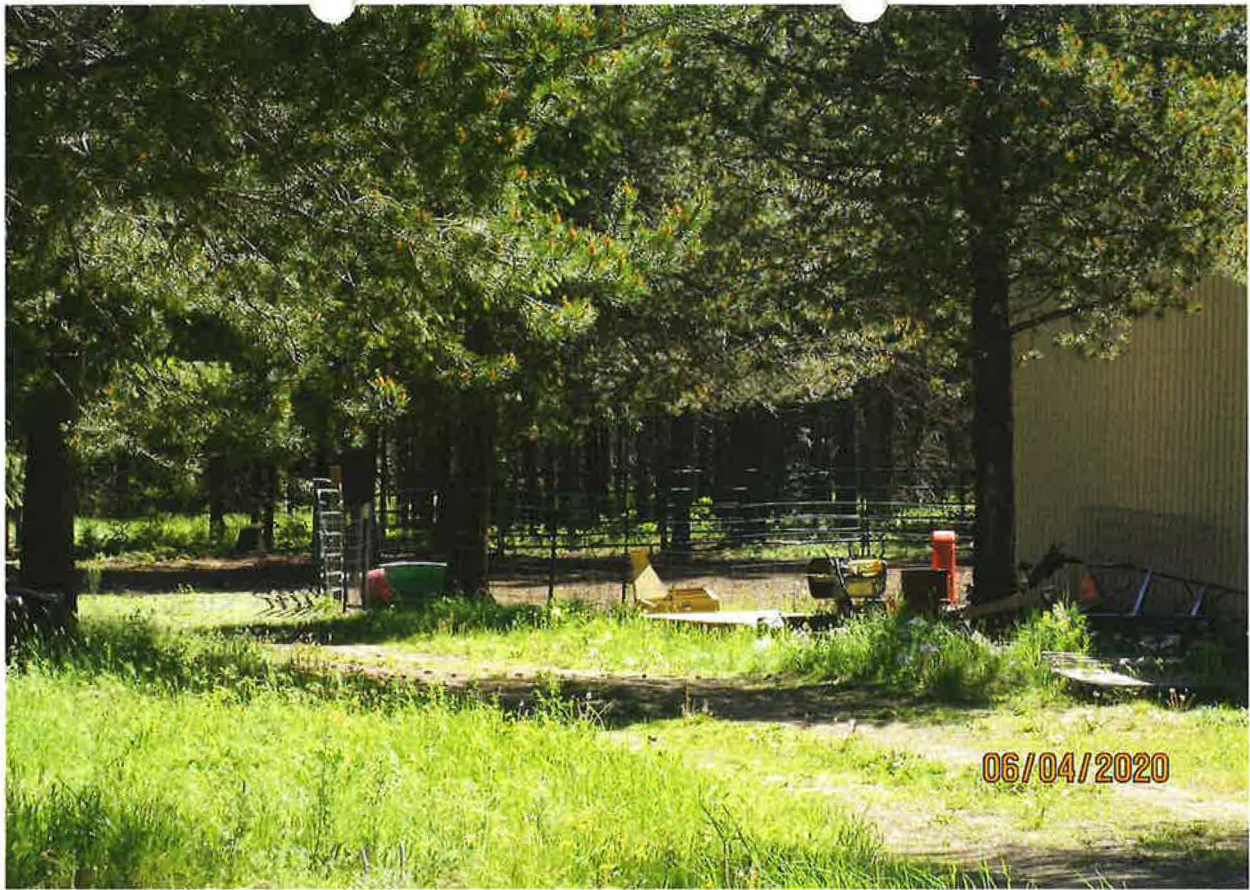
DOMESTIC / STOCKWATER POU – PINEGLEN WEST SUB, LT 7 BLK 1, 2ND HOME



DOMESTIC / STOCKWATER POU – PINEGLEN WEST SUB, LT 1 BLK 1



25573 N VISTA VIEW CT – ADDED TO PINE GLEN WEST WATER ASSN



25576 N VISTA VIEW CT - ADDED TO PINE GLEN WEST WATER ASSN



STOCKWATER POU



STOCKWATER POU

