

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-8998

Exam Date: 8/13/2007

1. Current Owner: ELLEN LARSEN
6734 W STURGEON RD
RATHDRUM ID 83858
(208)687-9333
2. Accompanied by: Per Larsen
Phone No: (208) 687.9333
Address: 6734 W Sturgeon RD, Rathdrum, ID 83858
Relationship to Permit Holder: Husband

3. SOURCE TRIBUTARY
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 95-8999 (partial overlap)
2. Other water rights with the same point of diversion: 95-8999

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION: Well 47° 50.690' N, 116° 52.848' W
GROUND WATER NW1/4NE1/4 Sec. 19, Twp 52N, Rge 04W, B.M.
KOOTENAI County

Method of Determination: GPS, USGS 7.5' Quadrangle 'Rathdrum'

2.

PLACE OF USE: IRRIGATION

Twp Rge Sec	NE				NW				SW				SE				Totals
52N 04W 19	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	11.0
		11.0															11.5

Total Acres: 11.5

DOMESTIC same as IRRIGATION
STOCKWATER same as IRRIGATION

Method of Determination:

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

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4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
718623	unknown	3	unknown	unknown	-

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

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Watch	Wrist	Remington	-	-	-	-
Bucket	5 GAL	-	-	-	5 GAL capacity	-

2. Measurements:

$$\frac{5.5 \text{ GAL}}{15 \text{ SECONDS}} \times \frac{4}{4} = \frac{60 \text{ SEC}}{22 \text{ GAL}} = 22 \text{ GPM}$$

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method:

PUMP EQUATIONS WATER RIGHT No.			95-8998			
	HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI	
Q = $HP \cdot 8.8 \cdot \text{Eff} / H$	3	227.8231	0.7	170	25	
Q =	0.081	CFS = 35.9 GPM				

The well for this water right was drilled before IDWR well log data required. Data shown is derived from well tag D0041489 for comparison. D0041489 was drilled in 2007, is owned by the 95-8998 Permit holder, and is located approximately 1/4 mile away in similar terrain.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = (11.5) \times (3.0) = 34.5 \text{ AF}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = (0.05) \times (246) \times (1.9835) = 24.39 \text{ AF}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 24.39 \text{ AF} = 24.40 \text{ AF}$$

2. Volume Calculations for Other Uses: Domestic (1 Bed & Breakfast/Residence with 2 Buildings) without irrigation
 $\phi . \phi 2 \text{ CFS} / \phi . \phi 0 \text{ AF}$
 Stockwater (30 Sheep) - $\phi . \phi 2 \text{ CFS} / \phi . \phi 7 \text{ AF}$

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G. NARRATIVE/REMARKS/COMMENTS

Permit 95-8998 is one of two permits that have an interconnected water system and related Points of Use (POU). The related Permit is Permit 95-8999. Ownership of both Permits is currently by the original owner (Ellen Larsen).

Permit 95-8998 Point of Diversion (POD) is a well located South of the Owners Bed & Breakfast (B & B) / residence at the edge of a lawn. A pressure tank, irrigation zone controls, valves and electrical controls are located in a corrugated pipe with lid (underground vault) next to the well. Well output was measured at 22 Gallons Per Minute from a spigot located next to the well.

A pond, accessible via a logging trail and largely covered by tree canopy, is located approximately 75-100 yards southwest from the well. Pipes and a raised dam are present. The pond is not part of Permit 95-8998.

Two underground water lines lead out from the well. Line 1 goes east approximately 470 feet to a second cylindrical concrete vault. Line 2 leads north. Line 2 supplies domestic water for the B & B, lawn irrigation, water to a barn, and spigots that are used for stockwater and irrigation on both sides of the driveway leading to the B & B from Sturgeon Road.

Line 1 leads east, & down slope, from the corrugated pipe vault, through a pasture, to reach a circular concrete vault. The cylinder shaped concrete vault has LAWSON spray painted in blue letters on the lid. A water line runs east from the covered spring POD in Permit 95-8999, past a small log cabin that is managed as part of the B & B, and along a driveway to the LAWSON vault. Valves inside the LAWSON vault allow water from the Permit 95-8998 well to reach the log cabin and be used for irrigation on three acres of Permit 95-8999 in addition to use on the Permit 95-8998 POU. A water line from this vault leads north to a spigot on the east side of the cabin driveway and across the B & B driveway to another spigot.

11 sheep were seen during the Exam (10 ewes 1 ram). Fencing and a barn on the property will support 30 sheep.

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

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/15 to 11/15	0.050 CFS	24.40 AF
DOMESTIC	01/01 to 12/31	0.020 CFS	0.60 AF
STOCKWATER	01/01 to 12/31	0.020 CFS	0.70 AF
<u>Totals:</u>		0.050 CFS	25.70 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 ☐ Other

I. AUTHENTICATION

Field Examiner's Name Shawn M. Mapey

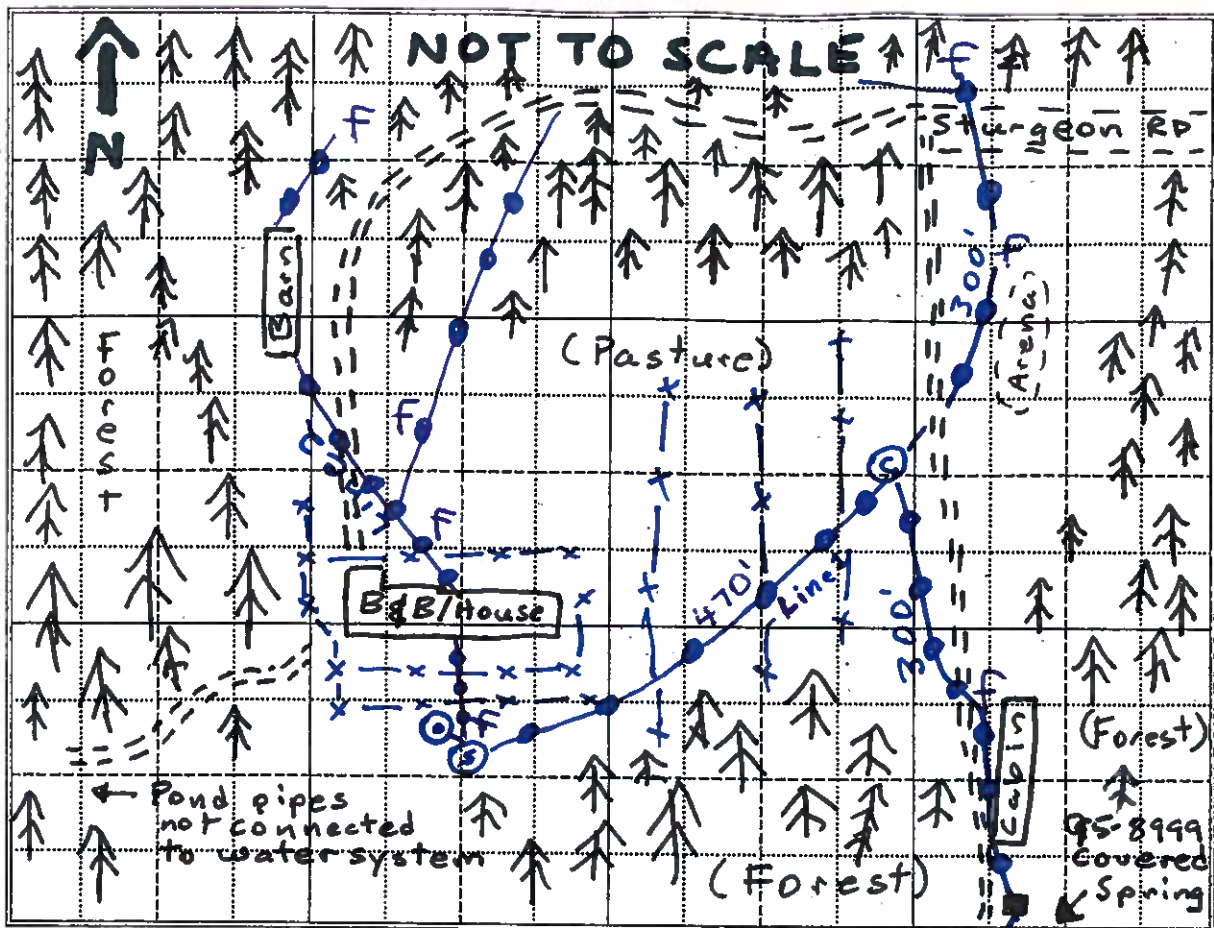
Date 9/9/08

Reviewer [Signature]

Date 9/12/8

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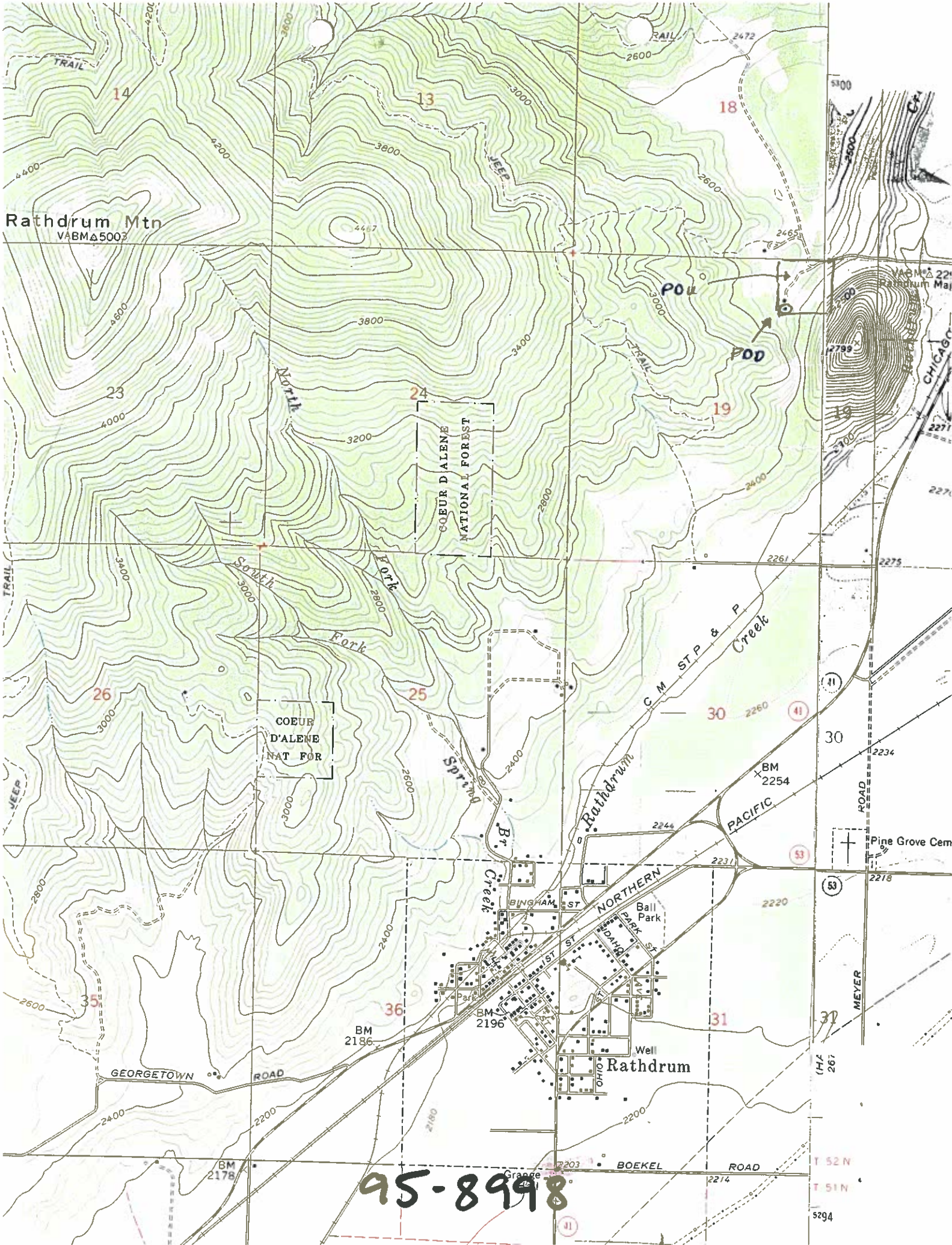
Delivery System Diagram



- ⊙ Well
- x-x- Sprinklers
- Underground water line
- ⊙ Concrete Vault
- Ⓢ Corrugated Steel Vault
- f Spigot
- Pump House (w.r. 95-8999)
- - - Road / Driveway
- ▭ Cabin
- ▭ Barn
- ▭ Buildings
- ↑ ↑ ↑ Trees / Forest

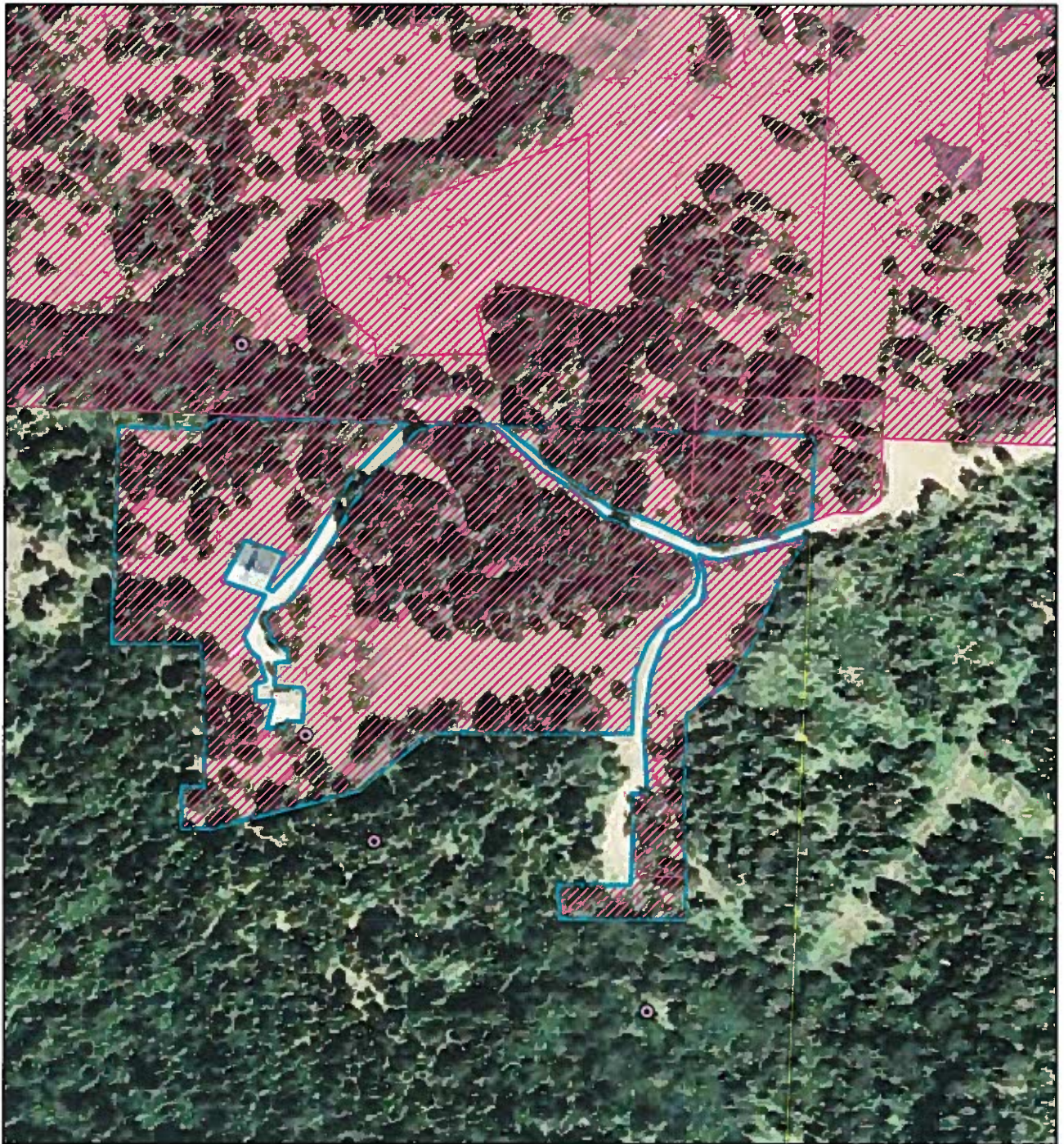
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Rathdrum Mtn
VABM Δ 5003



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95-8998 Well Point of
Diversion (POD) & Spigot....



95-8998 Full water tank NE
POU.JPG



95-8998 Spigot & POU North
of B & B.JPG



95-8998 AUG 07 View W
Van Spigot Cabin DR.JPG



95-8998 Cabin SE part of
POU IDWR bucket.JPG



95-8998 Cabin
Driveway.JPG



95-8998 East Concrete Vault
View North.JPG



95-8998 East Concrete Vault
& Spigot near Cabin Drive....



95-8998 POU Lawn
Sprinkler Head.JPG



95-8998 Vault Well POD &
View North .JPG



95-8998 Valve Box
Interior.JPG



95-8998 Valve Box near
Well & B & B.JPG



95-8998 Pond Pipes Not
Connected.JPG



95-8998 Sprinklers vic SW
POU Corner & Pond RD.J...



95-8998 Steel Vault
Interior.JPG



95-8998 AUG 07 Water line
sheep NW POU.JPG

95-8998



95-8998 Well Point of Diversion (POD) & Spigot



95-8998 Full water tank NE POU

95-8998



95-8998 Spigot & POU North of B & B



95-8998 AUG 07 View W Van Spigot Cabin DR

95-8998



95-8998 Cabin SE part of POU & IDWR bucket



95-8998 Cabin Driveway

95- 8998



95-8998 East Concrete Vault View North

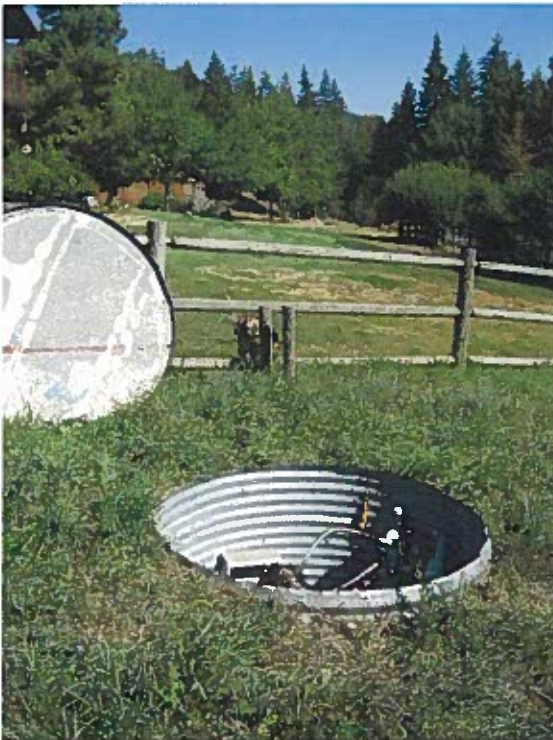


95-8998 East Concrete Vault & Spigot near Cabin Drive

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95-8998 POU Lawn Sprinkler Head



95-8998 Well Vault and View North

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95-8998 Valve Box Interior



95-8998 Valve Box near Well & B & B

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95-8998 Pond Pipes Not Connected



95-8998 Sprinklers vic SW POU Corner & Pond RD

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95-9889 Well Vault (Steel) Interior



95-8998 AUG 07 Water line sheep NW POU

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