

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-8999

Exam Date: 7/10/2008

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

3. SOURCE~~GROUND WATER~~
SPRINGTRIBUTARY

UNAMED STREAM

B. OVERLAP REVIEW

1. Other water rights with the same place of use: *95-8998 (partial overlap) (Same owner)*
2. Other water rights with the same point of diversion: *(See Narrative regarding 95-7354)*

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

SPRING SE1/4NW1/4NE1/4, Sec. 19, Twp 52N, Rge 04W, B.M., KOOTENAI County

*47° 50' 622 North 116° 52' 714 West*Method of Determination: *Garmin GPS Receiver, USGS 'Rathdrum' 7.5' Quadrangle*

2.

PLACE OF USE: IRRIGATION

Twp Rge Sec	NE				NW				SW				SE				
	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>Totals</u>
52N 04W 19		2.5															2.5
Total Acres:	2.5																

PLACE OF USE: DOMESTIC

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

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
718678	Not Visible	3	Not Visible	Not Visible	Info. Not Available

*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
Bucket	5-GAL	NA	NA	NA	5-GAL	NA
Watch	Wrist	Remington	NA	NA	NA	NA

2. Measurements

E. FLOW CALCULATIONS

Additional Computation Sheets Attached

Measured Method: $\frac{5 \text{ GAL}}{20 \text{ SEC}} \times \frac{3}{3} = \frac{60 \text{ SEC}}{15 \text{ GAL}} = 156 \text{ PM}$

PUMP EQUATIONS	WATER RIGHT	No.	95-8999			
	HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI	
Q = HP*8.8*Eff/H	3	140.9524	0.7	60	35	
Q =	0.131 cfs	= 586 PM				

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = (2.5) \times (3.0) = 7.5 \text{ AF}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = (.04) \times (246) \times (1.9835) = 19.51 \text{ AF}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 7.5 \text{ AF}$$

2. Volume Calculations for Other Uses:

Domestic (1 Bed & Breakfast with Two Buildings .04 cfs on Permit)

$$.04 \text{ cfs} / 1.2 \text{ AF}$$

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G. NARRATIVE/REMARKS/COMMENTS The permit certificate states that there are two sources of water for Permit 95-8999, an unnamed stream tributary to Rathdrum Creek, and a spring which sinks. Three locations are listed on the Permit as locations for the Point of Diversions (POD). Two of the three POD locations listed are for the same spring (see permit condition 7).

A pond is located a short distance southwest of the Bed & Breakfast / Residence and shown on the Permit application map. The pond is in a densely wooded area and is accessible via a logging trail. The pond was not supplying water to the water system for Permit 95-8999 during the Exam although pipes were visible at the pond.

Field Exam ground inspection shows that a covered spring exists which is tributary to an unnamed stream. The unnamed stream and spring do not appear on the USGS Rathdrum 7.5 Minute Quadrangle. Coordinates obtained using a Global Positioning System (GPS) receiver indicate that the covered spring is now located in the same 1/4 1/4 section as shown on the map accompanying the Permit Application.

The covered spring is reached via a graded and rock fill access road. The road runs south from a log cabin that is part of the Permit Bed & Breakfast and past two pump houses. The southernmost pump house contains equipment for this Permit. The other (northern) pump house is not in use, has graded rock resting against it, and was used for a prior water system with a different Point of Use. Mr. Per Larsen stated that the owner of the prior water system owner was a Mr. Park. The northern pump house appears to have been out of service for many years.

A grass covered area cleared of heavy vegetation / trees lies above collection pipes / fabric at the covered spring. The spring lies in or immediately adjacent to the bed of the unnamed stream. A underground collection pipe is capable of diverting all of the spring flow into the pump house and the water system. A valve at the pumphouse allows all spring water to bypass the water system and enter the unnamed stream. No flowing stream or channel was observed running from the pond to the covered spring. A unnamed stream channel with flowing water was seen below the pump house which receives water from the spring.

Water from the spring flows via gravity to the pump house where it can be diverted to an adjacent reservoir or pumped directly into a water line, shared with water right 95-8998, that leads north. The line leads north to the cabin and continues until it reached a round, partially buried, concrete vault marked by the word LAWSON in blue letters. A water line leading to the west can be used to pump domestic water to the Bed & Breakfast. A second water line continues north from the LAWSON vault to reach a spigot near the cabin driveway and across the Bed & Breakfast driveway to provide irrigation water. Output from the covered spring was measured at 15 Gallons per Minute (GPM) at a spigot located next to the cabin and at 8 GPM after running from the spring through the pump house and back into the unnamed stream.

Review of the Twin Lakes adjudication indicates that 95-8999 may use the same POD as Water Right 95-4357 (Park, Inc.). It is not known if there is another spring in the vicinity that supplies 95-4357. No pipeline was seen connecting the old pumphouse, seen in the exam photos, to the 95-4357 Point of Use located to the east near Rathdrum Creek.

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	0.040 CFS	7.50 AF
DOMESTIC	01/01 to 12/31	0.040 CFS	1.20 AF
	<u>Totals:</u>	0.040 CFS	8.70 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

Sharon M. May

Date

9/15/08

Reviewer

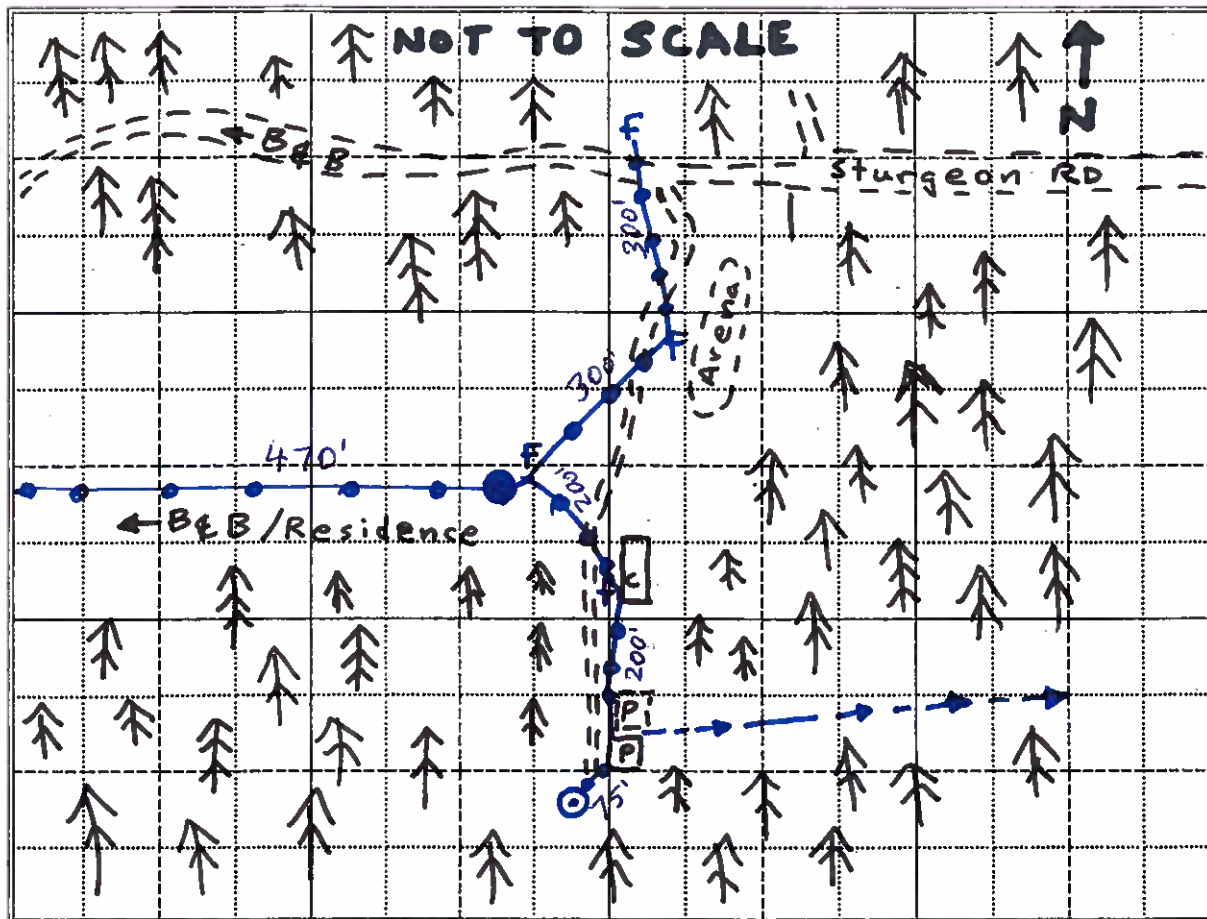
[Signature]

Date

9/22/08

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3. Delivery System Diagram:

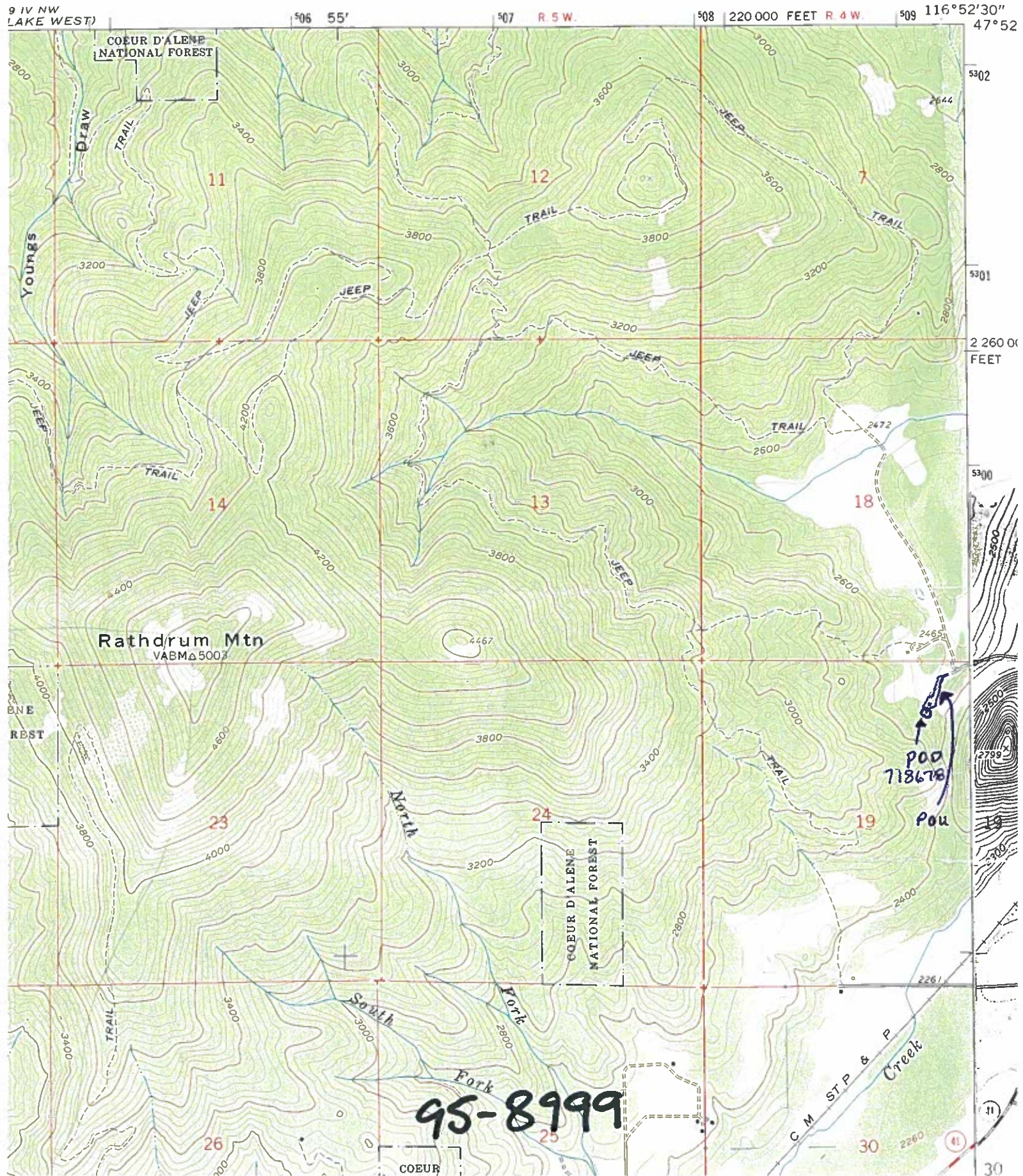


- > Unnamed Stream
- Water Line (Underground)
- ⊙ Covered Spring (POD)
- Vault
- f Spigot
- [C] Cabin
- [P] Pumphouse
- [P] Pumphouse (Old - Not w.R. 95-8999)
- Driveway / Road
- ↑↑↑ Forest

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RATHDRUM QUADRANGLE
IDAHO-KOOTENAI CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
SW/4 SPIRIT LAKE 15' QUADRANGLE

(SP)



9 IV NW
(LAKE WEST)

506 55'

507 R 5 W

508 220 000 FEET R 4 W

509 116°52'30"
47°52'

COEUR D'ALENE
NATIONAL FOREST

Rathdrum Mtn
VABM 5007

COEUR D'ALENE
NATIONAL FOREST

95-8999

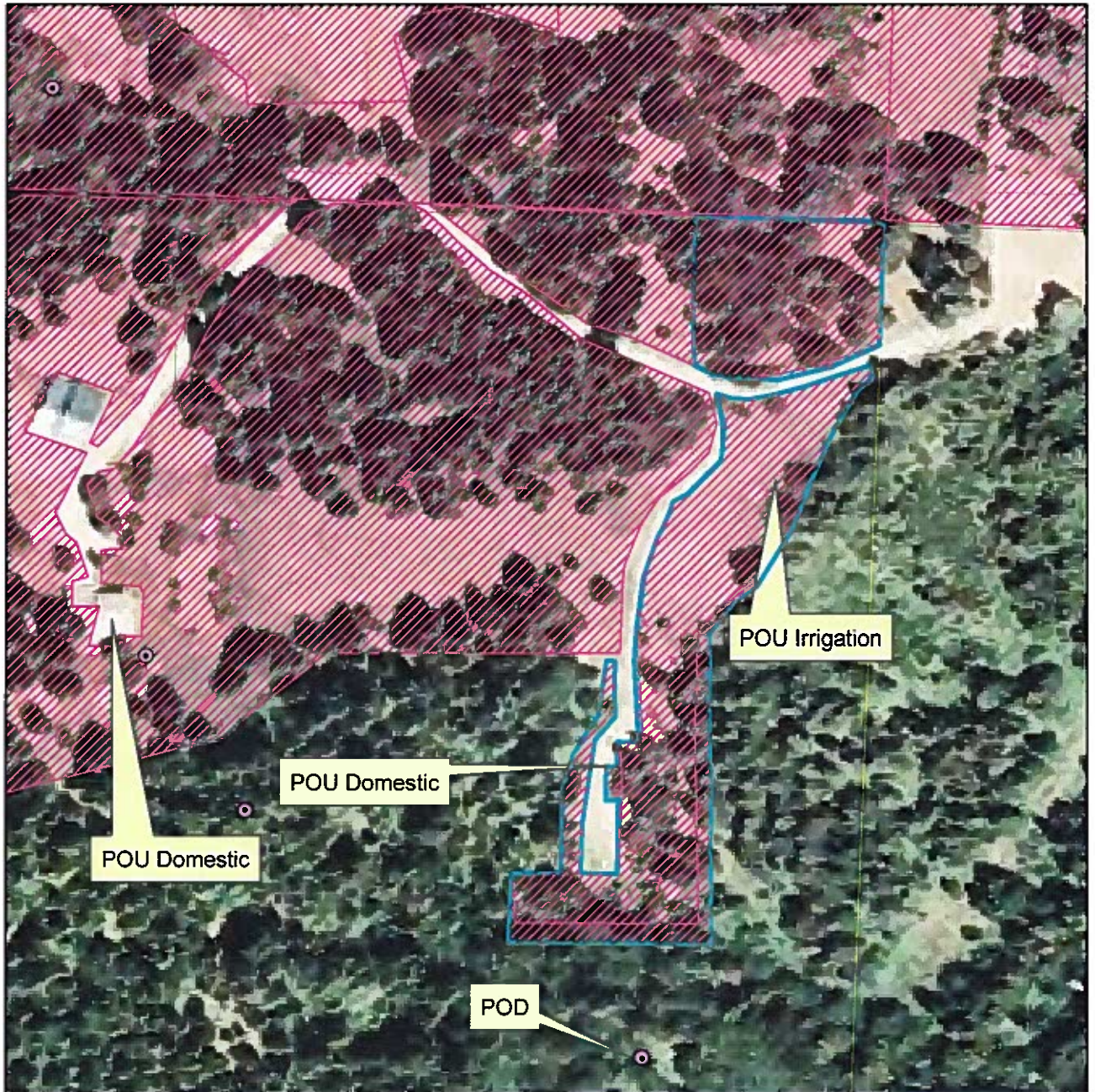
POD
718678
Pou

C M STP & P
Creek

COEUR

30

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95-8999



95-8999 Pond Pipes Not Connected.JPG



95-8999 Water N of B & B Drive.JPG



95-8999 Covered Spring Point of Diversion (POD).J...



Old Pumphouse not 95-8999.JPG



95-8999 Pumphouse near Spring.JPG



95-8999 Pumphouse with reservoir.JPG



95-8999 Lawson Vault & Spigot near Cabin DR.JPG



95-8999 AUG 07 IDWR Bucket at Bypass.JPG



95-8999 Pumphouse Tank.JPG



95-8999 Pumphouse Tank & Pumps.JPG



95-8999 JUL 08 Eight GPM at Bypass.JPG



95-8999 JUL 08 Spigot on Cabin DR.JPG



95-8998 Tree seedlings.JPG



95-8999 AUG 07 Spigot on Cabin DR.JPG



95-8999 Cabin & Driveway.JPG



95-8999 Cabin SE part of POU & IDWR Bucket.JPG



95-8999 Flowers above cabin.JPG



95-8999 Lilacs irrigated near Cabin.JPG



95-8999 Lilacs.JPG

95-8999



95-8999 Pond Pipes Not Connected



95-8999 Water N of B & B Drive

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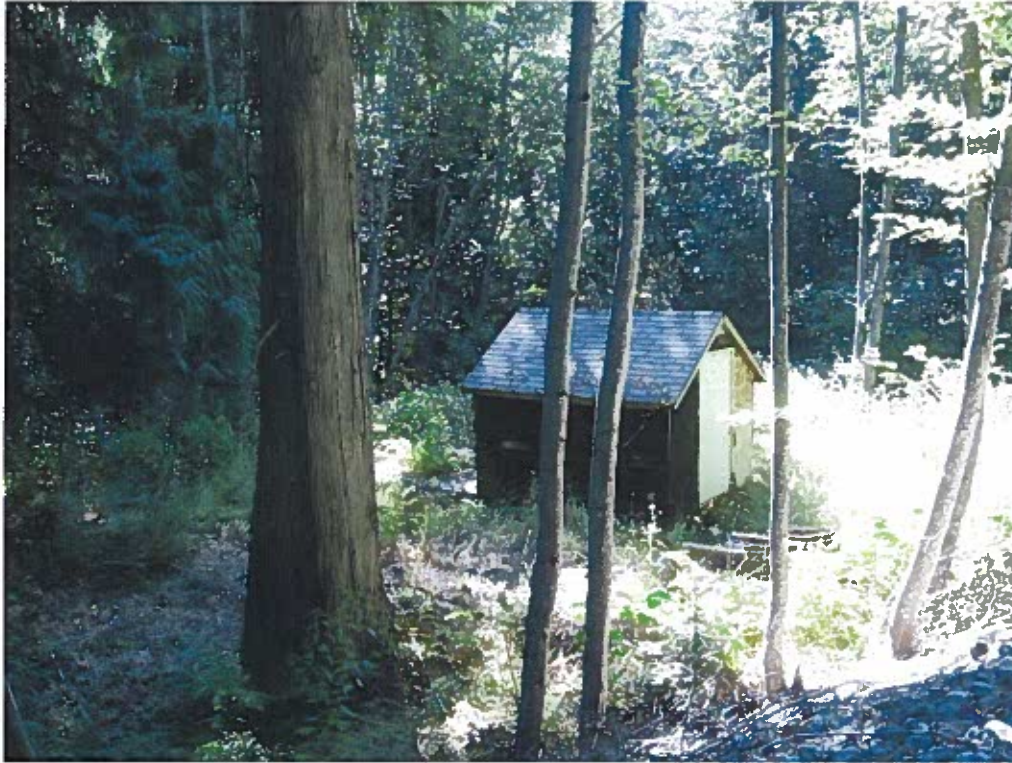


95-8999 Covered Spring Point of Diversion (POD)



Old Pumphouse not 95-8999

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95-8999 Pumphouse near Spring



95-8999 Pumphouse with reservoir

95-8999



95-8999 Lawson Vault & Spigot near Cabin DR



95-8998 AUG 07 IDWR bucket at Bypass

95-8999



95-8999 Pumphouse Tank



95-8999 Pumphouse Tank & Pumps

95-8999



95-8998 JUL 08 Eight GPM at Bypass



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95-8999