

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 85-15804
Exam Date: 05/28/2025

1. Current Owner:
CLARK CHRISTIANSEN 1992 JACOBS RD NEZPERCE ID 83543-5007
2. Accompanied by: Clark Christiansen
Phone No: 208-937-1051
Address: Same as above
Relationship to permit Holder: Permit Holder

3. **SOURCE:**
UNNAMED STREAM

Tributary
LAWYER CREEK

Method of Determination: ArcMap and DRG Layer.

B. OVERLAP REVIEW

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

Water Right No.	Source	Purpose of Use	Basis
85-15523	Unnamed Stream	Stockwater (in-stream right)	Decreed
85-15524	Spring	Stockwater, Domestic	Decreed

Comments: Decreed Right 85-15523 has the same Unnamed Stream source as this permit but is associated with in-stream stock watering which has "B"-beginning reach POD and "E"-ending reach POD which authorizes stock to drink directly from the natural stream channel. There is no concern for overlap between 85-15523 and Permit 85-15804.

Decreed Right 85-15524 uses a separate water system diverting from a Spring source for domestic and stockwater use. The water system for 85-15524 and this permit are separate but have a generic POU which is overlapping. There is no concern for overlap between water rights 85-15524 and Permit 85-15804.

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. 21, Twp 33N, Rge 01E, B.M. LEWIS County

Method of Determination: GPS; POD is a collecting pool in stream located at -116°19.8281, 46°11.5467

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	
33N	01E	21	2.6	7.4															10.0

Total Acres: 10.0

Method of Determination: Beneficial use field exam and ArcMap aerial imagery.

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
Centrifugal Pump w/intake pipe	Centripro	2	Model # T63CXCLZ-2108	Goulds	GT20 – 2-inch discharge

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
5-GAL Bucket Measurements						

2. Measurements: Three 5-gallon bucket tests were completed at the first frost free hydrant in line from the diverting pump. The average of three tests resulted in a diversion rate of 46.7 gpm = **0.10 cfs**, considering Department rounding standards.

E. FLOW CALCULATIONS

Measured Method:

- Permit authorized: 0.20 cfs contemplated irrigation of 10 acres.
- Beneficial Use Examination 5-GAL Bucket Tests = (5 gal / 6.75 sec) x 60 sec/min = 44.44 gpm
 = (5 gal / 6.25 sec) x 60 sec/min = 48.0 gpm
 = (5 gal / 6.28 sec) x 60 sec/min = 47.77 gpm
 Average of 3 ea. 5-GAL Bucket Tests = (44.44 gpm + 48.0 gpm + 47.77 gpm) / 3 = 46.7 gpm = 0.10 cfs considering department rounding standards.
- License recommendation = **0.10 cfs** based on diverting pump capacity as developed at time of field exam. The diverting pump is the limiting factor for the 10 acres irrigation, and I've reduced the rate below Department authorized 0.02 cfs per acre or 0.20 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 100 \text{ ac} \times 3.0 \text{ afa} = 30.0 \text{ af.}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.10 \text{ cfs} \times 214 \text{ days} \times 1.9835 = 42.4 \text{ af}$$

$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \text{N/A}$ – the irrigation beneficial use from the Unnamed Stream source is exempt from the volume reporting requirements in accordance with IDAPA 37.03.02, Section 035.

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS

I conducted the beneficial use field exam on 5/28/2025 with the Right Holder, Mr. Clark Christiansen, which showed water being diverted from an Unnamed Stream (locally named Ginger Creek) for irrigation uses. At the POD, concrete rings are installed along the bank of the creek with small 24-hr impoundment ponding and screened intake pipe in the collection ponding. A small pump station is co-located with the concrete ring wet well, which houses a 2-hp Goulds centrifugal diverting pump with 2-inch discharge orifice. There is a large pressure tank installed as part of the water conveyance system which is a series of buried 2-inch poly-pipe, and segments within the POU where 2-inch is reduced to 1-inch poly-pipe, with numerous frost-free hydrants set at interval serving as irrigation risers.

I performed three 5-gallon bucket measurements from the first frost free hydrant in line approximately 25-ft from the diverting pump that resulted in a diversion rate equal to 0.10 cfs considering Department rounding standards. The permit was approved authorizing 0.20 cfs based on Department standard irrigation allowances for 10 acres of irrigation, but I've reduced the diversion rate and recommended for licensing **0.10 cfs** based on diverting system as developed at time of field exam.

During the exam Mr. Christiansen and I walked the entire irrigation POU and I used field maps to sketch out the irrigation distribution system. Irrigation is broken into several plots with the primary watering practices incorporating multi-hose splitters attached to each hydrant, coupled to a battery operated rainbird style watering timer, to hose with micro-emitter(s) which route along a zone of irrigation for orchard tree(s), berry bushes, garden crops, hazelnut & pinion nut crops, assorted vegetable crops, and lawn/landscape watering. Along the east side of the driveway the 2-inch main irrigation trunk line reduces to 1-inch, but on the west side of the driveway and up the hillside 2-inch main irrigation trunk line is buried. I've created a field exam map that provides the approximate location of each buried 2-inch main line.

During the exam I observed numerous hydrants, more than I was able to keep track of, which are set at intervals. The timer irrigation units are meticulously managed to allow each zone within the POU to irrigate for 20-min 4 times every 4th day to achieve deep soil watering for orchard trees, and timers are set to optimize the 2-hp pump with system pressure set at 47 psi. Use of micro emitters makes the system functional at the highest and furthest reach of the irrigation POU where the water system achieves 5 PSI enabling micro emitters to adequately irrigate by rotational zones.

Lawn and landscape around the residence is from hose and portable sprinkler. Along the southern extent of the irrigation POU a wind row has been developed with buried 2-inch poly-pipe with hydrants extending all the way to the southern extent of the NE1/4NE1/4 QQ/Q of Section 21. I operated a hydrant and verified water flow at the furthest extents of the irrigation POU. The annual volume requirement for 10 acres of irrigation equals 30.0 af, but due to the surface water stream source no annual volume nor maximum diversion volume is designated on the face of the license; irrigation volume limitations are set forth by Conditions of Approval that specify that this right when combined with all other rights shall not exceed 0.02 cfs nor more than 3.0 afa per acre for irrigation of the POU.

During licensing review I have shifted irrigation acreage by QQ/Q to accurately assign active irrigation acreage as developed under the permit. Permit authorized 1.5 ac in the NE1/4NE1/4 but I observed 2.6 acres. Permit authorized 8.5 acres in the NW1/4NE1/4 but I observed 7.4 acres. Due to both QQ/Q(s) being present on the Permit I was able to shift acreage which didn't result in enlargement without an amended permit requirement.

During licensing review, I made several changes to the Conditions of Approval as follows:

- I removed condition 26A based on compliance by the Right Holder.
- I removed condition 029; no fish screen requirement was required by IDFG but the intake does have a debris screen installed despite the Statement of Completion annotating 'no' for fish screen.
- I have separated condition 227 which housed MSF Right requirements for 85-7583 & 85-15616 but called out a USGS gauging station in Lewiston which is the lowest reach in the Clearwater River drainage. I have added two separate condition 227 to the license recommendation, one for each MSF Right with their respective USGS gauge station based on end reach of the applicable MSF Right.
- All other conditions on the permit shall be carried forward to the license.

Overlapping water right concerns have been discussed in detail on PG1 of this report, and there are no other concerns toward licensing Permit 85-15804.

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>
IRRIGATION	04/01 to 10/31	0.10 CFS

Totals: 0.10 CFS

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 – Sr Water Resource Agent

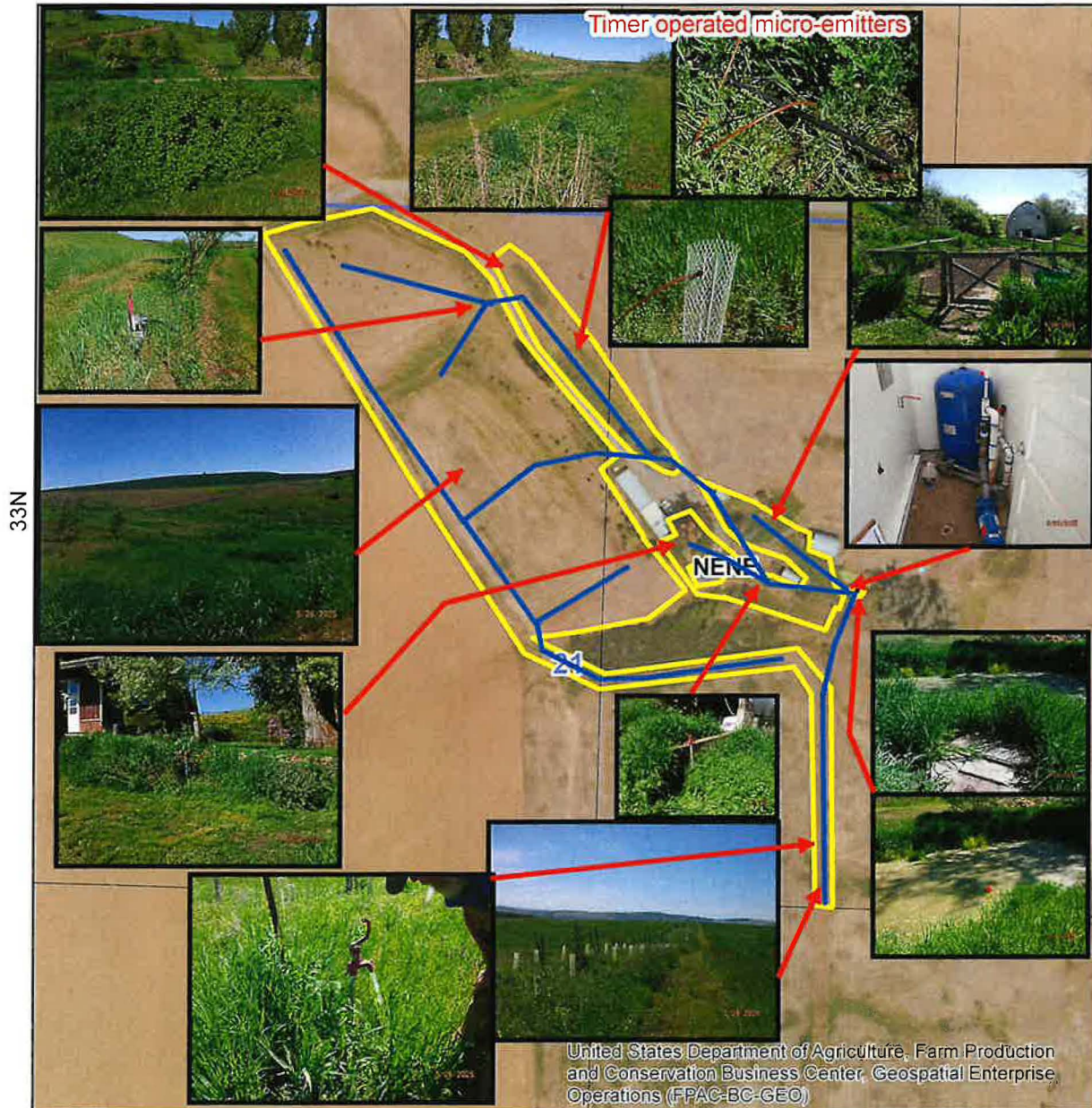
Field Examiner's Name  Date 12/16/2025

Reviewer _____ Date _____

State of Idaho
Department of Water Resources
Attachment to Field Exam
85-15804

This map depicts the IRRIGATION system diagram.

01E

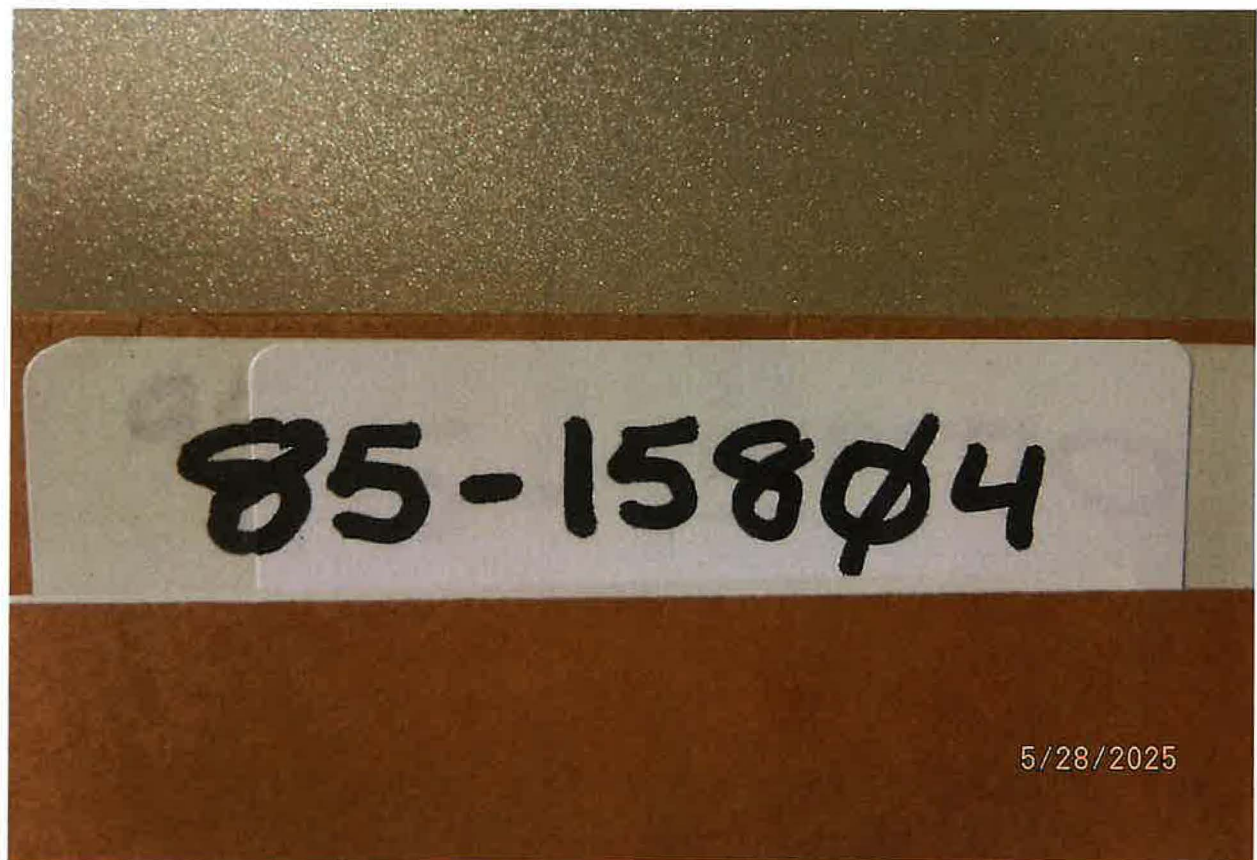


- Place Of Use Boundary
- Point of Diversion
- Townships
- PLS Sections
- Quarter Quarters

0 0.04 0.08 0.16 Miles



Examples: Irrigation by zone, numerous hydrants and timer operated lateral(s)



BENEFICIAL USE FIELD EXAM DATE 5/28/2025



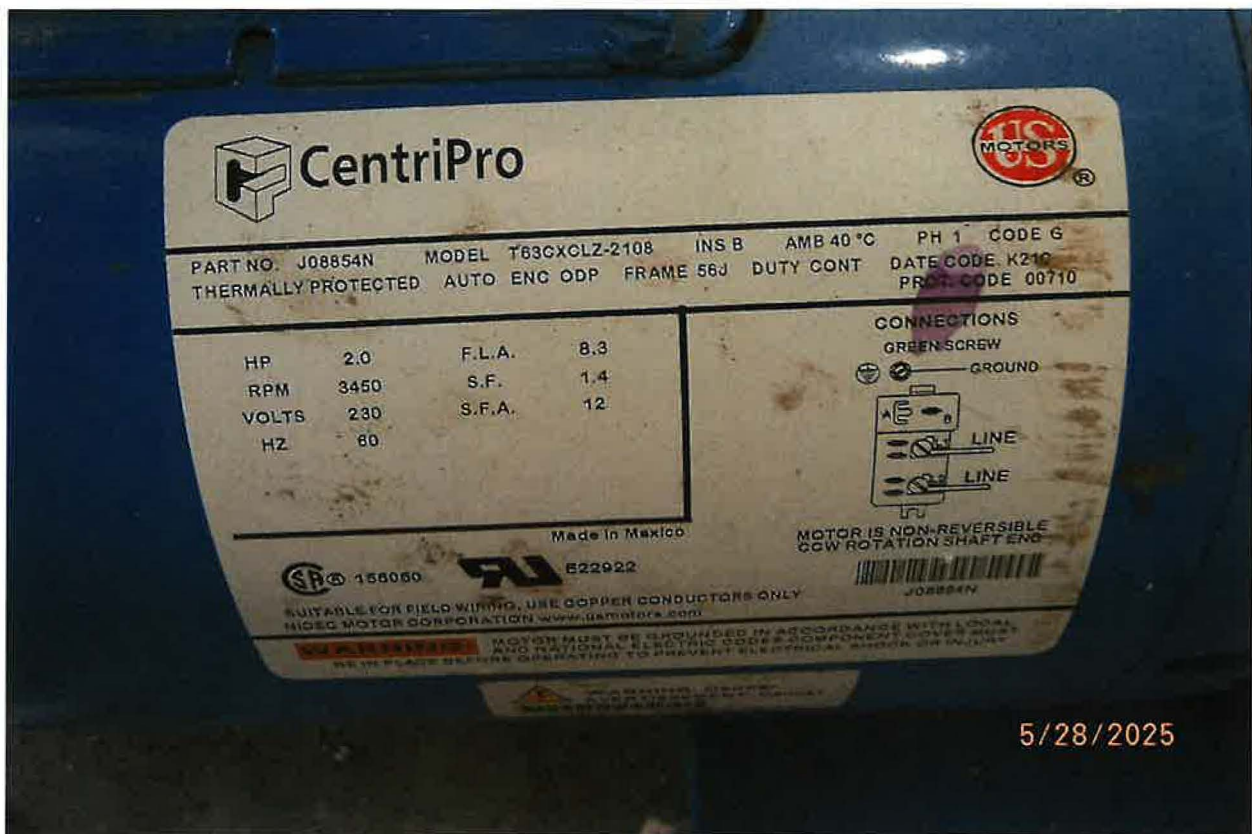
POD – WET WELL WITH INTAKE PIPE IN UNNAMED STREAM DIVERTED BY CENTRIFUGAL PUMP



DIVERTING WORKS INCLUDE A GOULDS 2 HP CENTRIFUGAL PUMP AND 2-INCH DISCHARGE PIPE; SMALL PUMP STATION CO-LOCATED AT POD WITH WET WELL



GOULDS GT20 SELF PRIMING PUMP END (2 HP)



CENTRIPRO 2 HP PUMP MOTOR PAIRED WITH GOULDS PUMP END



WATER SYSTEM PRESSURE 45 PSI WITH IRRIGATION ONGOING



UNNAMED STREAM FLOWS THROUGH SMALL COLLECTION POOL (24HR IMPOUNDMENT)



ORANGE BALL INDICATES LOCATION OF FOOT VALVE INTAKE PIPE IN POOL

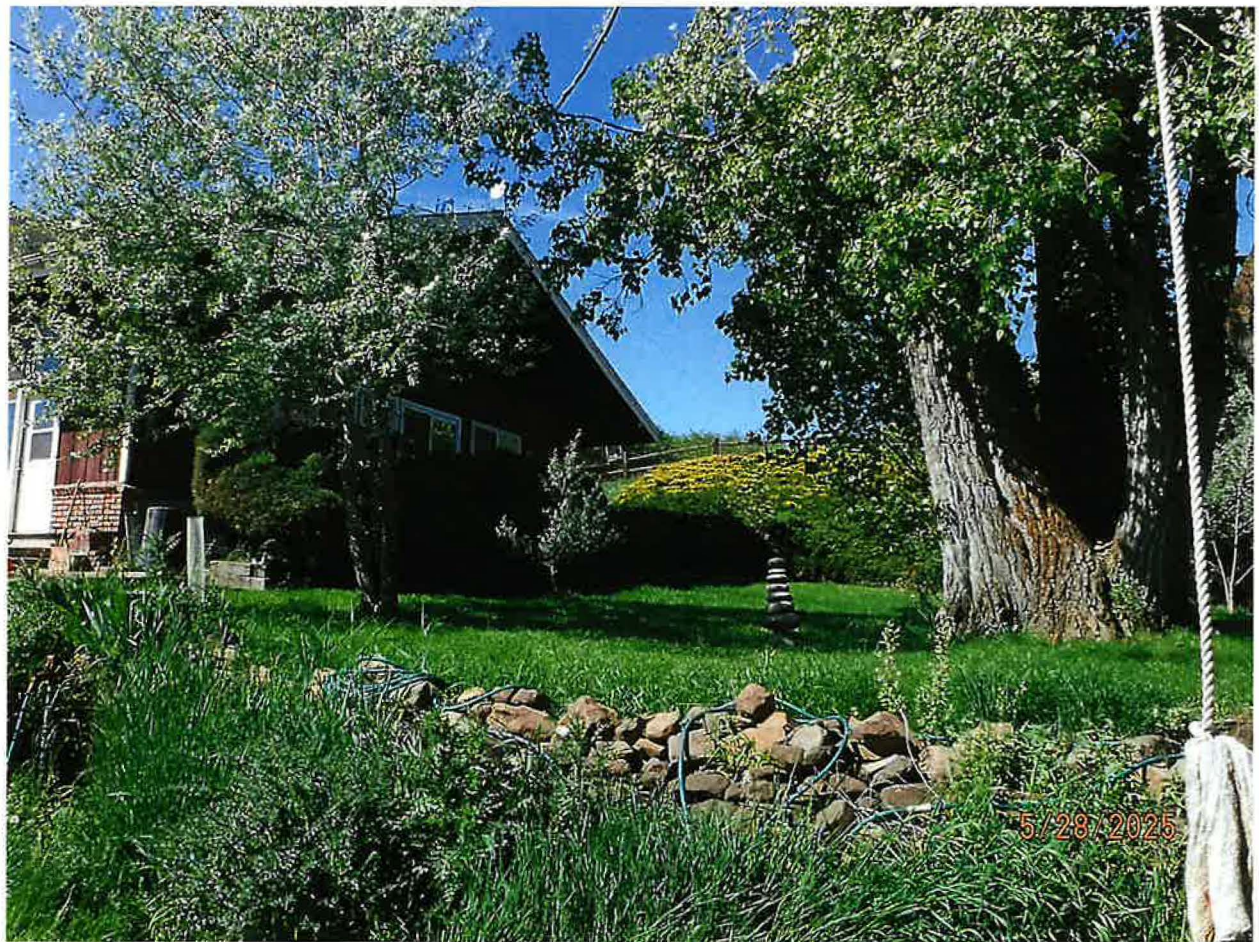


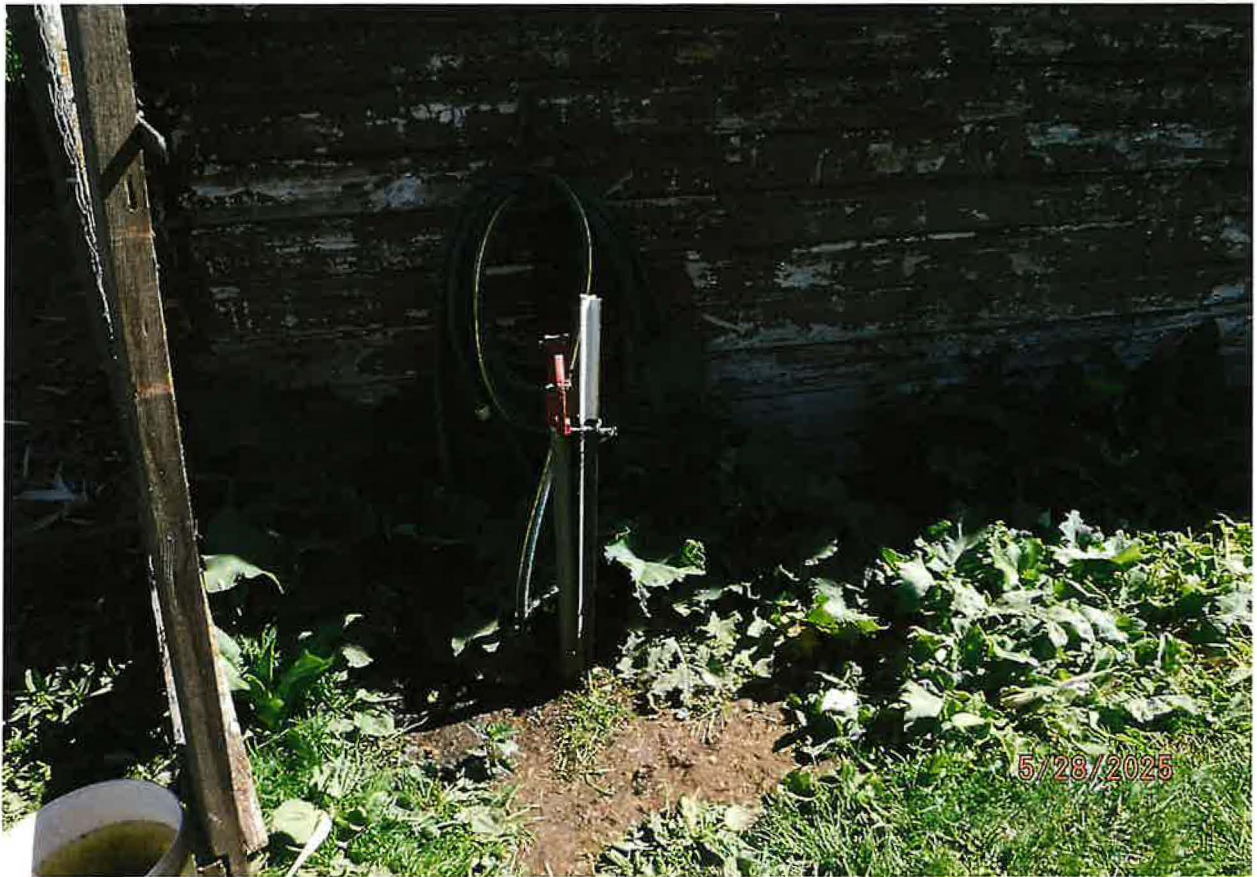
IRRIGATION POU - MULTIPLE GARDEN PLOTS WATERED USING FROST-FREE
HYDRANT-TO-DRIP LINES AND HOSE WITH SPRAY NOZZLE





IRRIGATION POU - LAWN IRRIGATION AROUND PRIMARY RESIDENCE BY HOSE AND SPRINKLER





IRRIGATION POU – NUMEROUS (TO MANY TO COUNT) FROST-FREE HYDRANTS
AND HOSE/SOAKER HOSE(S) USED FOR IRRIGATION





IRRIGATION POU – SMALL GREEN HOUSE



IRRIGATION POU – LAND BETWEEN TWO ROADWAYS WATERED BY ZONE WITH
1-INCH PIPELINE TO FROST-FREE HYDRANT(S) AND TIMER OPERATED SOAKER
HOSE ZONES



EXAMPLE – HYDRANT TO TIMER OPEARTED SOAKER HOSE ZONE IRRIGATION



NUMEROUS BERRY BUSH IRRIGATION BY ZONE



IRRIGATION POU – SOAKER HOSE RUNS OF ORCHARD TREES



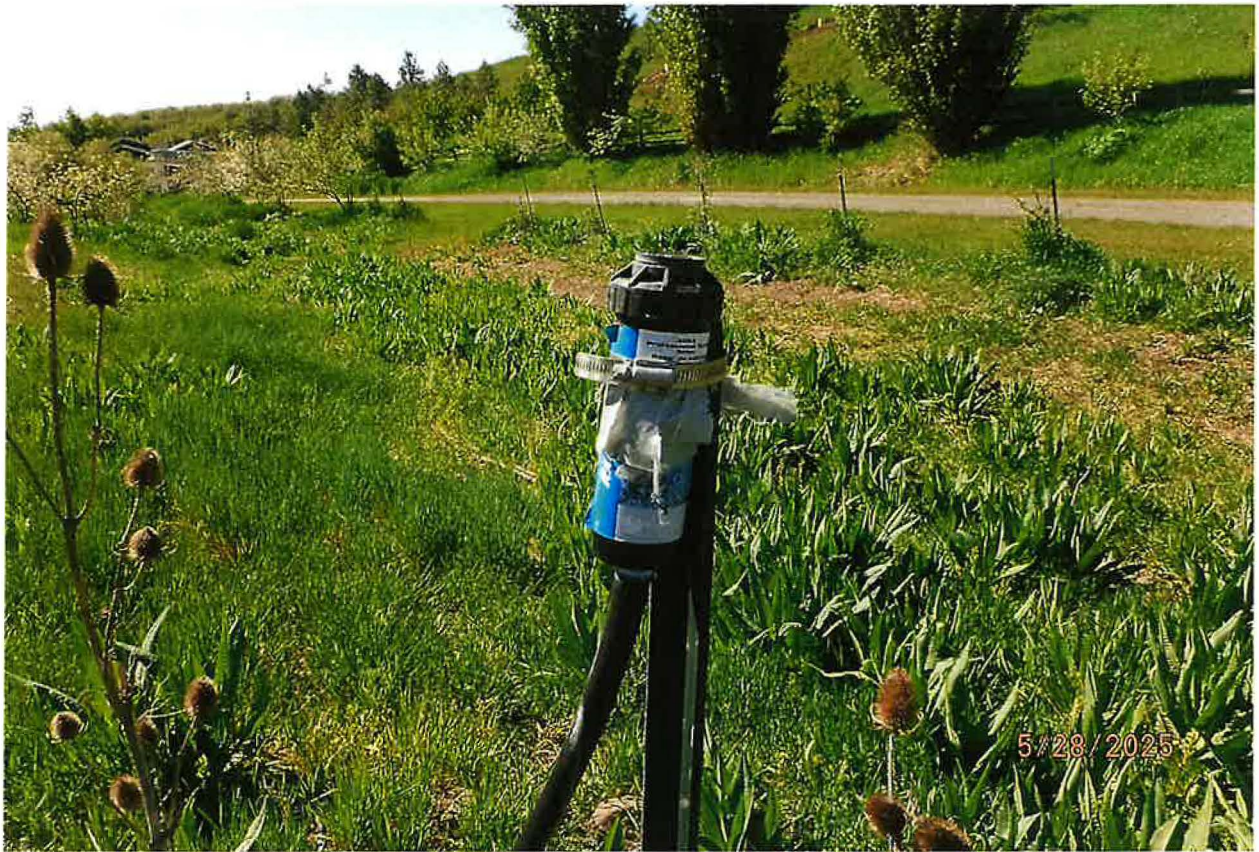
EXAMPLE – SOAKER HOSE FEEDS TO MICRO EMITTERS



ORCHARD TREES DEEP WATERED EVERY 4TH DAY BY SOAKER HOSE SET BY TIMERS



IRRIGATION POU



IRRIGATION POU – SMALL SECTION OF GROUND COVER CROPS IRRIGATED
USING RAIN BIRD ROTARY SPRINKLERS





IRRIGATION POU – UPHILL SIDE WEST OF DRIVEWAY



IRRIGATION POU – 2-INCH BURIED PIPELINE WITH HYDRANT RISERS TO SOAKER
HOSE TIMER OPERATED ORCHARD TREE ZONES



IRRIGATION POU



IRRIGATION POU – NORTHWEST MOST HYDRANT AND SOAKER HOSE ZONE THAT IRRIGATES ALONG WIND ROW FENCELINE



IRRIGATION POU



IRRIGATION POU – SOAKER HOSES WITH MICRO EMITTERS



IRRIGATION POU – WIND ROW WATERING USING MICRO EMITTERS





IRRIGATION POU – EXAMPLE OF FLOW FROM HYDRANT LOCATED AT FURTHEST REACH OF WATER CONVEYANCE SYSTEM



IRRIGATION POU



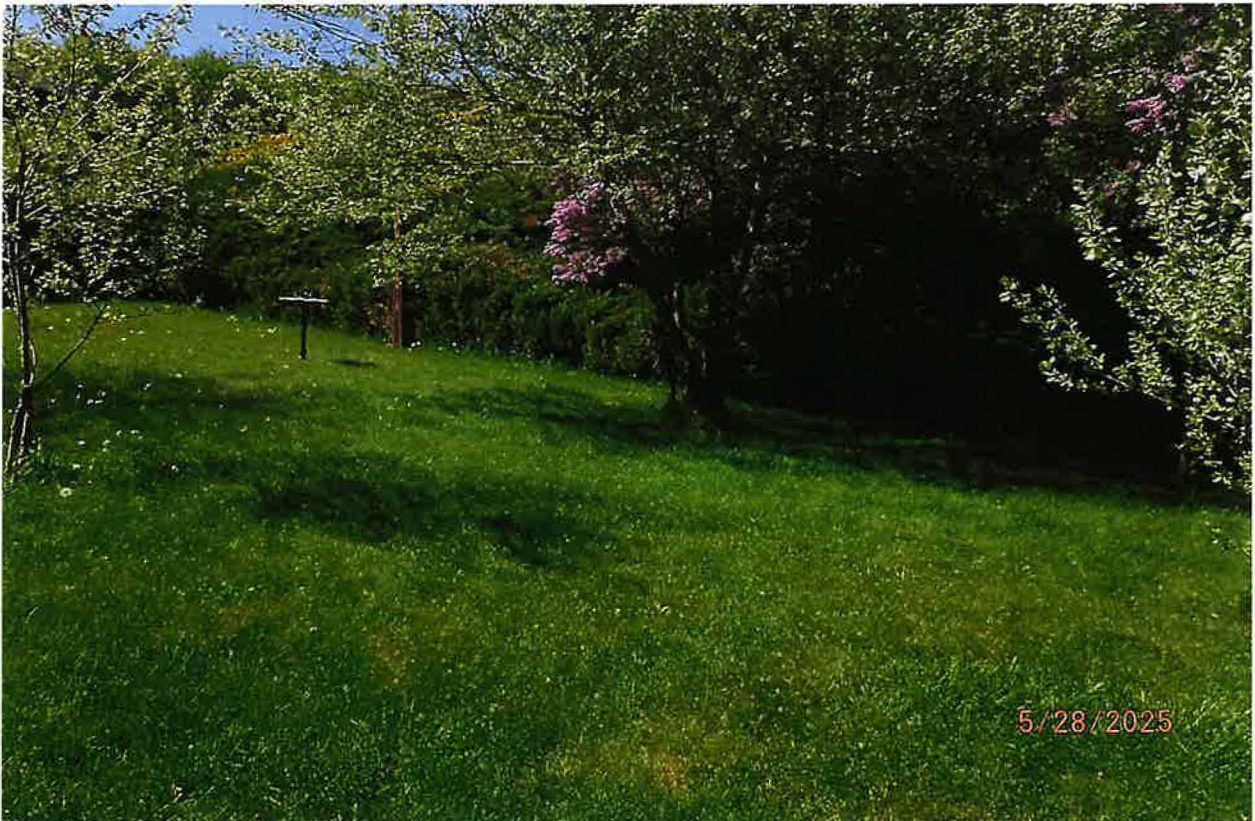
IRRIGATION POU – SOUTHWEST WIND ROW IRRIGATED BY HYDRANT TO SOAKER
HOSES AND MICRO EMITTERS



IRRIGATION POU – SOUTHWESTERN MOST IRRIGATION ZONE AND HYDRANT
WITH FLOW SHOWN IN IMAGE



OVERVIEW OF NORTHERN EXTENT OF IRRIGATION POU



IRRIGATION POU – LAWN AND VEGETATION WATERED BY HYDRANT TO HOSE
AND SPRINKLER



EXAMPLE – ONE OUT OF NUMEROUS (TO MANY TO COUNT) HYDRANTS AND
TIMER OPERATED SPRINKLER ZONES

