

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 97-7572

Exam Date: 08/22/2024

1. Current Owner:

IDAHO DEPT OF LANDS PO BOX 83720 BOISE ID 83720-0050 AND
BRADLEY J MCMULLEN 3239 78TH PL NE MEDINA WA 98039-1019 AND
COLLETTE E MCMULLEN 3239 78TH PL NE MEDINA WA 98039-1019 AND
MARK S MACKIN 309 W VIEWMONT RD SPOKANE WA 99224-9238 AND
PATTI A MACKIN 309 W VIEWMONT RD SPOKANE WA 99224-9238 AND
JEFF A BROWN 7015 S BROOKSHIRE CT SPOKANE WA 99223-6226 AND
LORIANN C BROWN 7015 S BROOKSHIRE CT SPOKANE WA 99223-6226 AND
JAMES A BROWN 2021 S ONEIDA PL SPOKANE WA 99203-2044 AND
MYRNA H BROWN 2021 S ONEIDA PL SPOKANE WA 99203-2044 AND
ROBERT SINCLAIR 5525 N LEHMAN RD SPOKANE WA 99217-9539 AND
JODIE SINCLAIR 5525 N LEHMAN RD SPOKANE WA 99217-9539

2. Accompanied by: Jim Brown

Phone No: 509-951-3090

Address: 78 W. Horton Creek Rd Coolin ID 83821

Relationship to permit Holder: Permit Holder serving as representative for the others.

3. **SOURCE:**

HORTON CREEK

Tributary

PRIEST LAKE

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
97-7656	Priest Lake	Domestic	Notice of Claim filed in the CFRBA
97-7763	Priest Lake	Domestic	Notice of Claim filed in the CFRBA
97-8383	Horton Creek	Domestic	Notice of Claim filed in the CFRBA

Comments: Each WR listed above is in an active Notice of Claim filed in the Clark Fork Pend Oreille River Basin Adjudication (CFRBA) process.

- 97-7656 claims domestic use from Priest Lake associated with Lot 25, Blk 1, Horton Creek Subdivision. I've added condition 928 to the Permit during licensing review; if recommended and decreed this Permit shall be reduced to negate any redundancy between Rights 97-7656 & 97-7572. If the claim is decreed, this Permit would have combined use limits between the two WRs for domestic use occurring at the home on Lot 25, Blk 1.
- 97-7763 claims domestic use from Priest Lake associated with Lot 24, Blk 1, Horton Creek Subdivision. I've added condition 928 to the Permit during licensing review; if recommended and decreed this Permit shall be reduced to negate any redundancy between Rights 97-7763 & 97-7572. If the claim is decreed, this Permit would have combined use limits between the two WRs for domestic use occurring at the home on Lot 24, Blk 1.
- 97-8383 claims domestic use from Horton Creek associated with Lot 22, Blk 1, Horton Creek Subdivision. I've added condition 928 to the Permit during licensing review; if recommended and decreed this Permit shall be reduced to negate any redundancy between Rights 97-8383 & 97-7572. If decreed, this Right 97-7572 would be reduced by 1 home for domestic use volume = 0.6 af based on an earlier priority for domestic use for Lot 22, Blk 1.

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

NO Overlap

Comments: Notice of Claim 97-8383 as detailed above designates the same water source, Horton Creek, as this Permit but the Claim POD has not been validated and it's unclear if there is a direct correlation between the two. If Claim 97-8383 is recommended and decreed as claimed there is potential for overlap between the two WRs. I don't recommend adding condition F06 toward licensing this Permit.

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

HORTON CREEK SE¼ NE¼, Sec. 3, Twp 60N, Rge 04W, B.M. BONNER County

Method of Determination: GPS; POD is located at -116°49.6819, 48°35.0223.

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	
60N	04W	3	2.5 L1	0.1 L2															2.6

Total Acres: 2.6

PLACE OF USE: DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
60N	04W	3	X L1	X L2															

Method of Determination: beneficial use field examination 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
Creek Diversion	N/A – Gravity flow water system using polyurethane pipeline				1.5-inch conveyance pipe

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 from the second blowout/primer valve in line from the intake in creek; the first valve didn't allow placement of the measuring bucket. The average of three tests resulted in a diversion rate of 25.7 gpm = **0.06 cfs**, considering department rounding standards.

E. FLOW CALCULATIONS

X Additional Computation Sheets Attached

Measured Method:

- Permit authorized: 0.12 cfs (irrigation), 0.10 cfs (domestic), and maximum diversion rate = 0.22 cfs.
 - Beneficial Use Examination 5-GAL Bucket Tests = (5 gal / 11.34 sec) x 60 sec/min = 26.46 gpm
= (5 gal / 12.09 sec) x 60 sec/min = 24.81 gpm
= (5 gal / 11.61 sec) x 60 sec/min = 25.84 gpm
- Average of 3ea 5-GAL Bucket Tests = (26.46 gpm + 24.81 gpm + 25.84 gpm) / 3 = 25.7 gpm = 0.06 cfs considering department rounding standards.
- License recommendation = **0.06 cfs** designated for domestic use, irrigation use, & maximum diversion rate.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 2.6 \text{ ac} \times 3.0 \text{ afa} = 7.8 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.06 \text{ cfs} \times 214 \text{ days} \times 1.9835 = 25.5 \text{ af}$$

$$V = \text{Smaller of } V_{LR} \text{ and } V_{DR} = 7.8 \text{ af}$$

2. Volume Calculations for Other Uses: the irrigation Beneficial Use (BU) from the Horton Creek source is exempt from the volume reporting requirements in accordance with IDAPA 37.03.02, Section 035.

Domestic BU annual volume = 4 homes x 0.6 af (in-home water use only) = **2.4 af** annually.

G. NARRATIVE/REMARKS/COMMENTS

I performed the beneficial use (BU) field exam on 8/22/2024 with Mr. James Brown, one of the Permit Holders, who was representing all the Permit Holders for exam purposes. During the exam Mr. Brown and I walked the water system from the POD in Horton Creek, following the water conveyance pipeline to a filtration tank and throughout the four lot(s) consisting of the domestic and irrigation POU. At the POD, a 4-ft stainless steel perforated intake pipe houses a 1.5-inch poly-pipe which routes from POD-to-filtration tank. The entire system operates under gravity flow conditions and there are three separate primer/blow out valves installed at intervals in the upper reach of the conveyance pipeline; I accessed the second blowout valve from the POD in creek to perform 5-gallon bucket measurements. While each BU by Department Standard is authorized larger diversion rates, I've recommended licensing this Permit for **0.06 cfs**, which is the results of my flow measurements demonstrating gravity flow diversion from Horton Creek. The irrigation BU diversion rate is reduced to 0.06 cfs as well as the domestic BU diversion rate reducing to 0.06 cfs.

I followed the 1.5-inch conveyance pipeline which lies above ground until it reaches paved E Shore Dr, where it routes underground from the roadside embankment. The pipeline remains buried until it reaches a green metal pressure tank repurposed to be the collection and sand filled filtration tank for the water system. I captured several photographs illustrating the collection tank, which incorporates a water line tree out of tank with one 5/8-inch poly-pipe dedicated to each of the four lots for domestic and irrigation usage. A 5th pipeline feeds off the out-flow tee that serves as the cleanout/blow-out line. The entire water system is purged, drained, and cleaned each fall and prepared for use each spring annually. At the time of exam, I observed the collection tank holding pressure at 70 psi.

Each 5/8-inch service line from the collection tank routes NE approximately 50 -75 feet above each parcel's primary residence with multiple 'Y' fittings in place allowing hose to portable sprinkler for forest and landscape watering at each parcel. During the exam I walked each parcel with Mr. Brown, capturing pictures of irrigation practices that primarily are to

water mature forest side slopes in an effort to stay off root rot. All the residences have minor landscape watering for small green spaces, potted plants, or ground cover shrubs that are actively watered during the irrigation season of use. I used field exam maps to sketch the irrigation POU. The Irrigation POU excluded small footprints for four primary residences, one per lot. During licensing review, I used ArcMap aerial imagery to assign the irrigation POU equaling 2.6 acres. Each lot's irrigation is a band of area extending by hose and sprinkler from the main service line for each lot. This excludes a band of acreage at the higher elevation of each parcel that isn't actively irrigated. This results in a reduction in acreage from 6.0 ac permit approved to develop and 2.6 ac recommended for licensing. The annual volume for 2.6 ac = 7.8 af, but as this water system uses a surface water creek the Permit is exempt from volume reporting on the face of the license. Condition R66 serves to describe volume authorization based on the Department standard of 3.0 afa per acre at the field headgate.

The Domestic POU consists of one home per parcel found at Lots 22-25, Blk 1, Horton Creek Subdivision. Each home has a single 5/8-inch poly-pipe service line from the collection tank located on Lot 25, Blk 1 of the subdivision. During the exam I collected photographs of each residence which are included in the BU report for licensing purposes. I've recommended an annual volume of 0.6 af per residence or **2.4 af** annually. Due to the surface water source exempting irrigation volume reporting, I've assigned an annual volume to the domestic BU but there isn't a maximum diversion volume on the face of the license.

I removed conditions 029 and 26A from the Permit during licensing review. I revised condition X60 providing current POU subdivision lot descriptions. I replaced condition R62 with R66 based on developed irrigation acreage being less than 5 acres versus the 6 acres permit approved to develop; R66 more accurately describes small acreage irrigation allowances by Department standards. All other conditions on the Permit are being carried forward to licensing. I've added 3ea separate condition 928 to the Permit for licensing purposes based on multiple Notice of Claims filed in the CFPRBA which have overlapping domestic POU's with 97-7572 as follows:

- Some of the water use authorized by this right is claimed with an earlier priority date on Clark Fork-Pend Oreille River Basins Adjudication Claim No. 97-7656. If Claim 97-7656 is decreed as it is claimed, this right shall be diminished by the amount necessary to avoid any redundancy of water rights.
- Some of the water use authorized by this right is claimed with an earlier priority date on Clark Fork-Pend Oreille River Basins Adjudication Claim No. 97-7763. If Claim 97-7763 is decreed as it is claimed, this right shall be diminished by the amount necessary to avoid any redundancy of water rights.
- Some of the water use authorized by this right is claimed with an earlier priority date on Clark Fork-Pend Oreille River Basins Adjudication Claim No. 97-8383. If Claim 97-8383 is decreed as it is claimed, this right shall be diminished by the amount necessary to avoid any redundancy of water rights.

Overlapping water right analysis discussed on PG 1 of this report result in the addition of 3ea condition 928 shown above. There are no additional overlapping water right concerns toward licensing 97-7572.

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	04/01 to 10/31	0.06 CFS	
DOMESTIC	01/01 to 12/31	0.06 CFS	2.4 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 – Sr Water Resource Agent

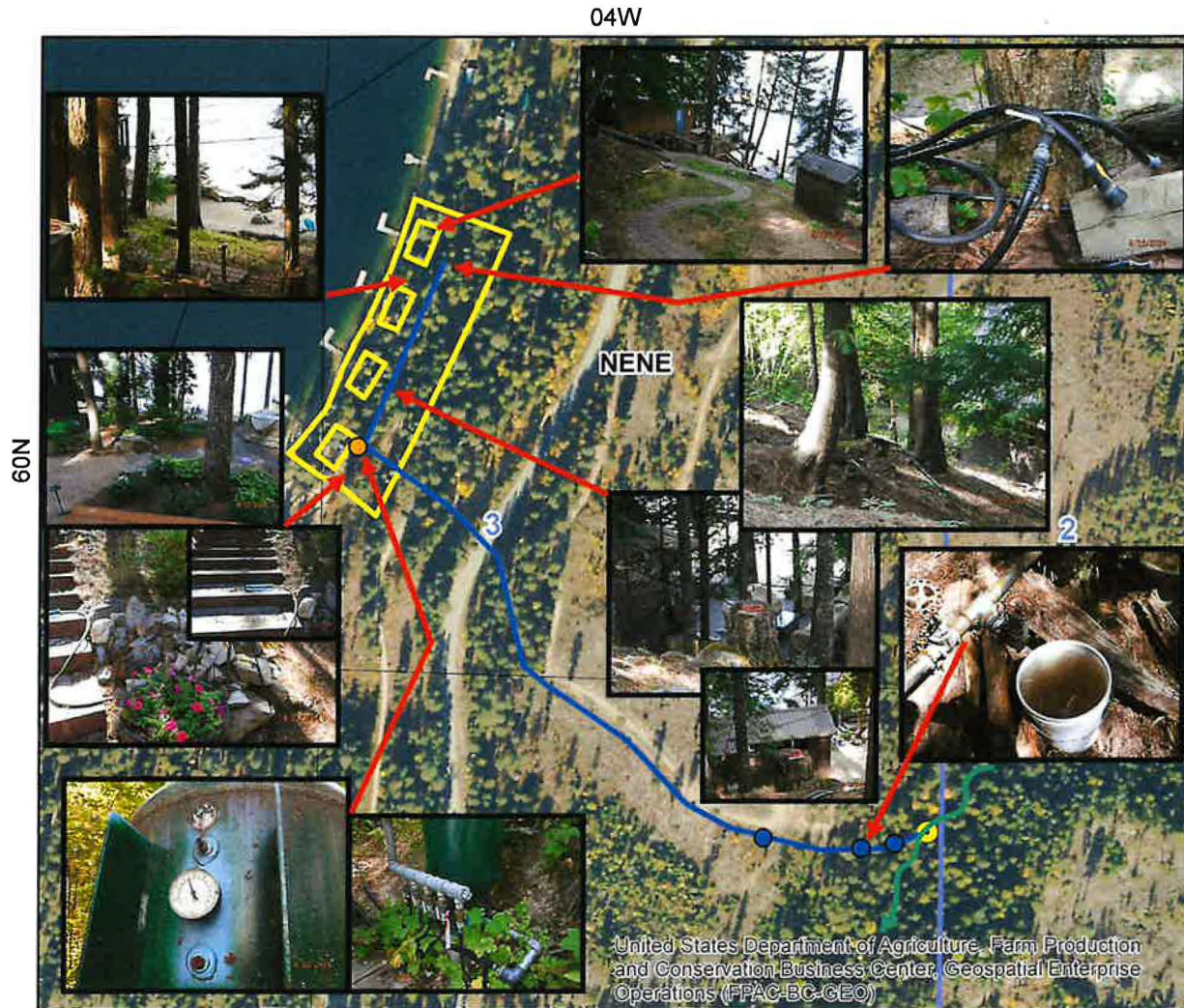
Field Examiner's Name LS.D Date 1/24/2025Reviewer Chris Bay Date 3/24/2025

This map depicts the DOMESTIC system diagram.



State of Idaho
Department of Water Resources
Attachment to Field Exam
97-7572

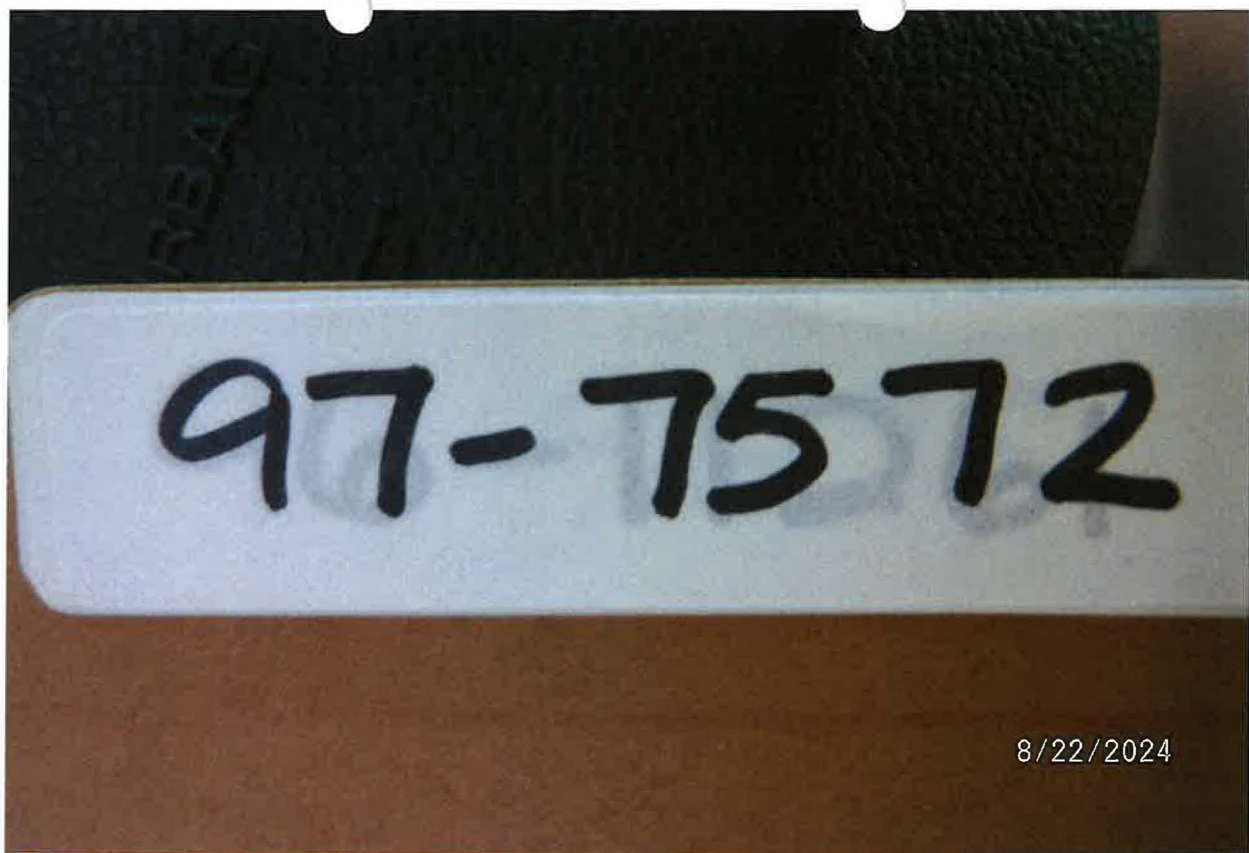
This map depicts the IRRIGATION system diagram.



0 0.045 0.09 0.18 Miles

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

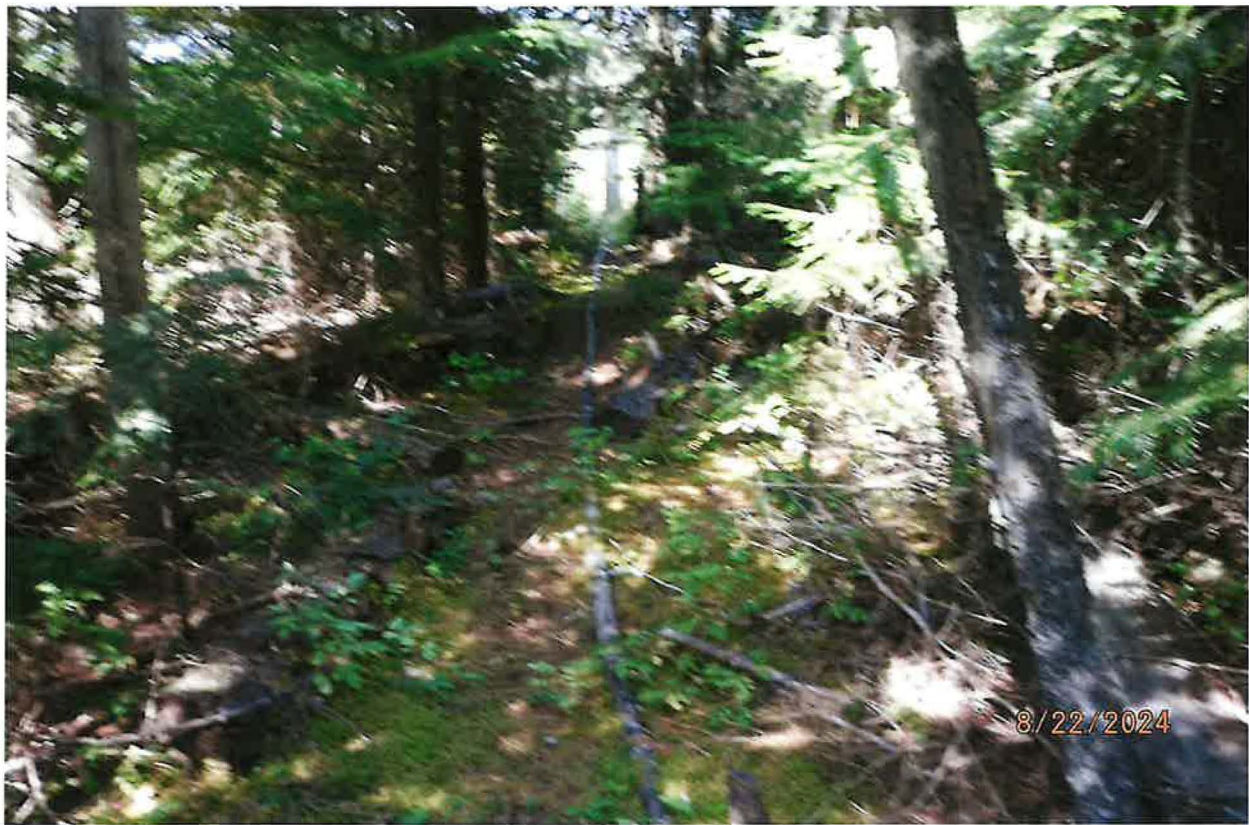




BENEFICIAL USE FIELD EXAM DATE 8/22/2024



POD – SCREENED 4-INCH METAL INTAKE, GRAVITY FLOW SYSTEM FROM CREEK



WATER CONVEYANCE SYSTEM INCLUDES A 1.5 -INCH POLY-PIPELINE RUN FROM
POD TO POU



ONE OF THREE PRIMER/BLOW OUT VALVES INSTALLED IN MAIN PIPELINE



FLOW MEASUREMENTS (3EA) TAKEN FROM 2ND BLOWOUT VALVE FROM POD



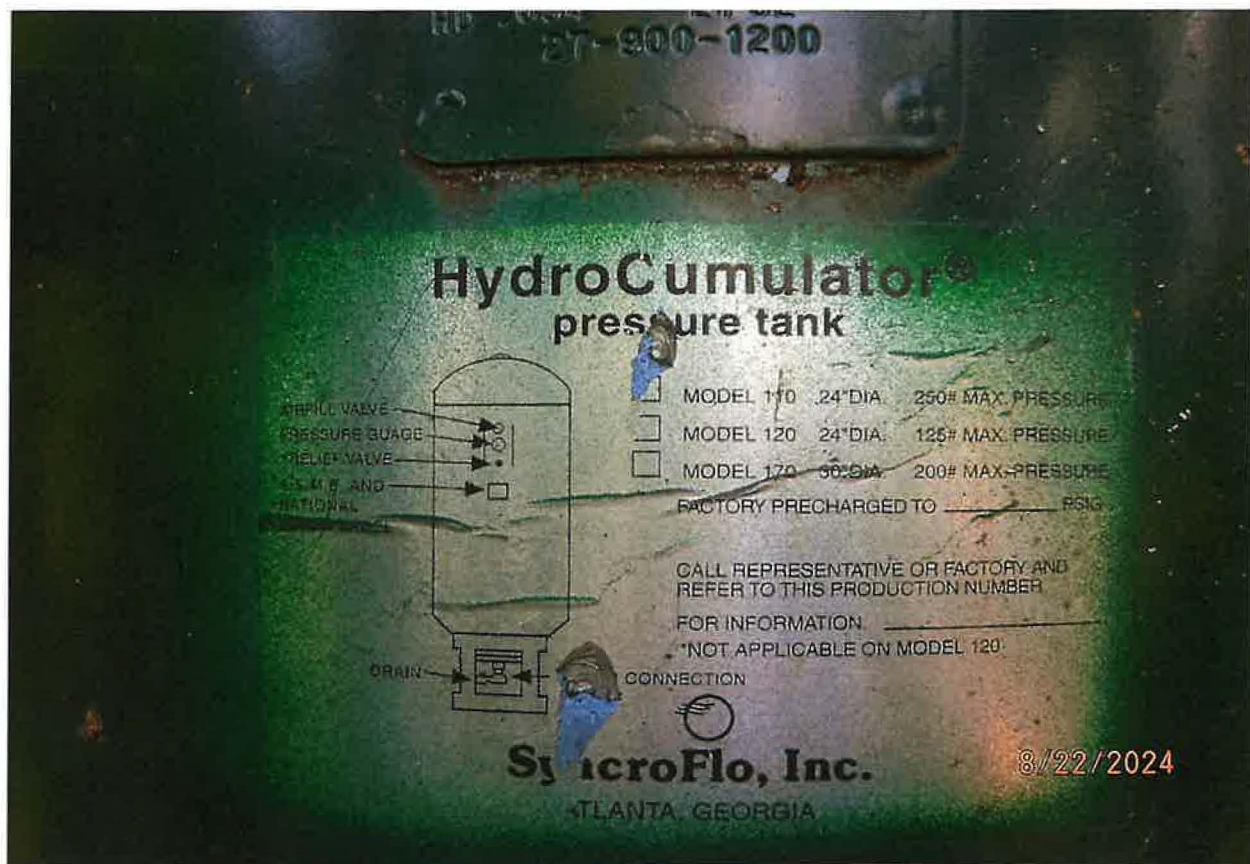
3RD PRIMER/BLOWOUT VALVE INSTALLED ON MAIN SERVICE PIPELINE



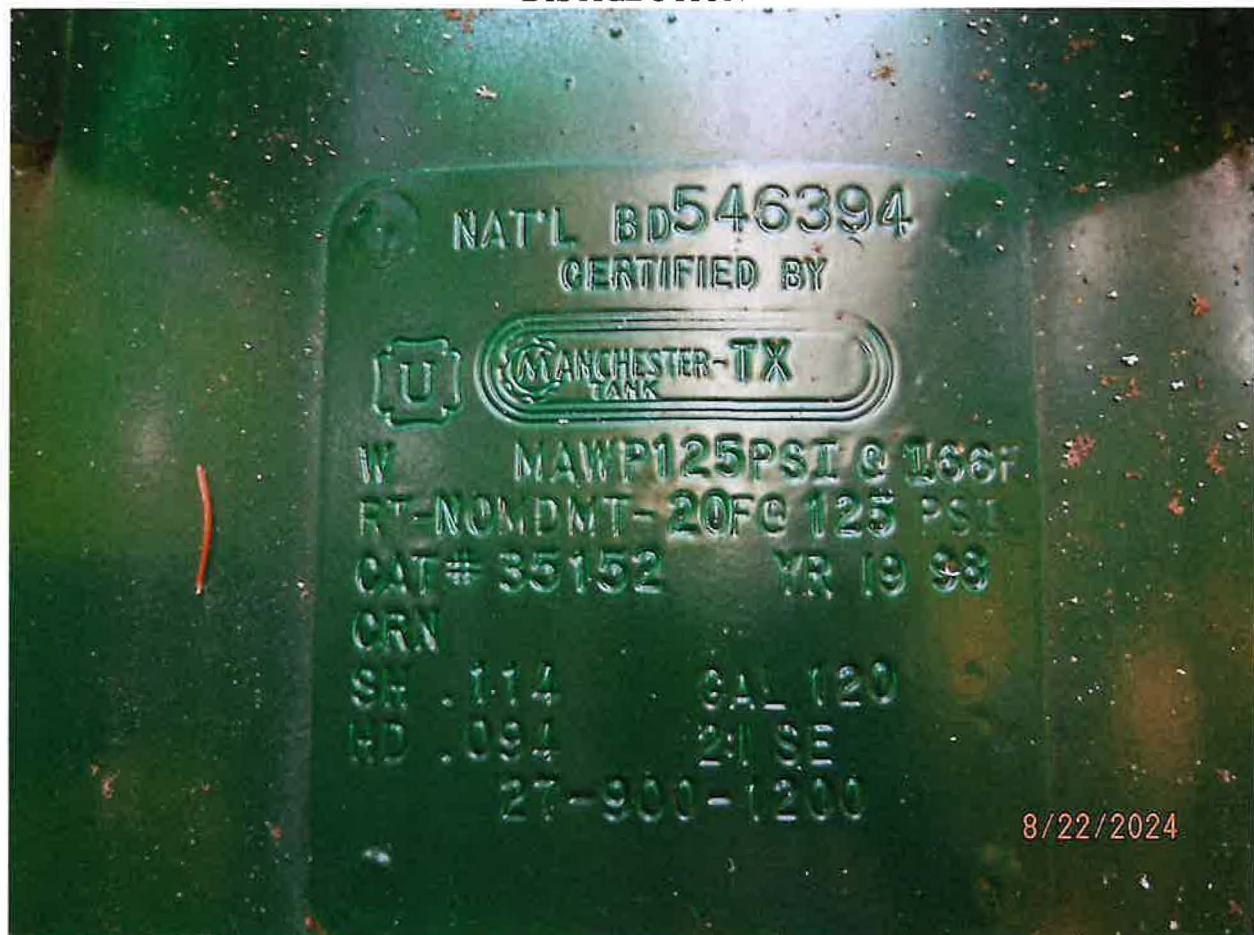
WATER CONVEYANCE PIPELINE ROUTES ABOVE GROUND TO PAVED ROADWAY,
THEN GOES UNDER THE ROAD AND DAYLIGHTS WITHIN THE POU



METAL FILTRATION SYSTEM AND DISTRIBUTION WATER LINE MANIFOLD –
GRAVITY FLOW SYSTEM



SAND FILLED PRESSURE TANK USED TO FILTER CREEK WATER PRIOR TO DISTRIBUTION

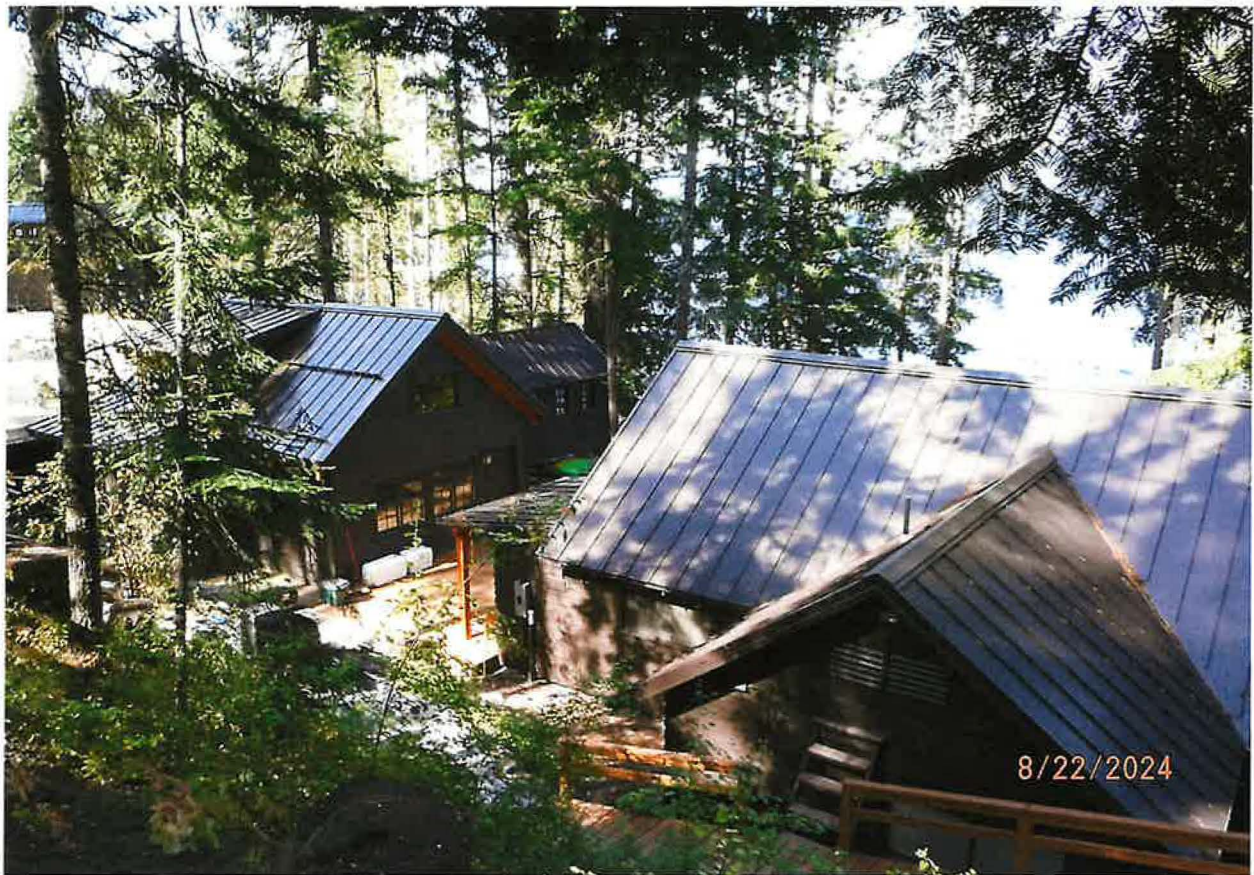




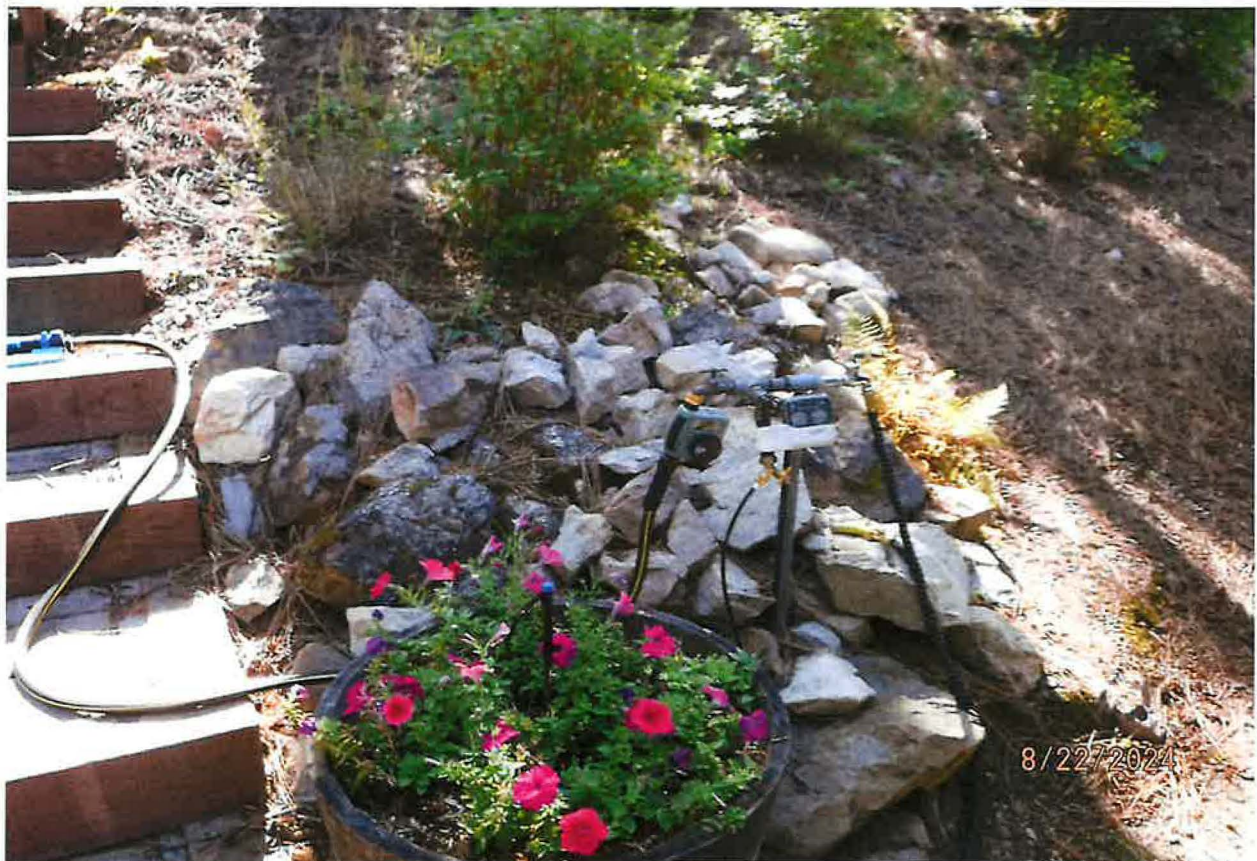
70 PSI WATER SYSTEM STATIC PRESSURE



1-EA DISTRIBUTION $\frac{3}{4}$ -INCH POLY PIPELINE FOR EACH OF FOUR PARCELS AND
1-EA WINTER BLOWOUT VALVE AND PIPELINE



DOMESTIC POU – LOT 25, BLK 1, HORTON CREEK SUBDIVISION (RP059520010250A)



IRRIGATION POU – LOT 25, BLK 1; INCLUDES MINOR LANDSCAPE WATERING AND FOREST TREE WATERING ON PARCEL BELOW ACCESS RD



IRRIGATION POU - LT 25, BLK 1





IRRIGATION POU – LT 25, BLK 1; HOSE AND SPRINKLERS USED TO WATER TREES
ON SLOPED PARCEL



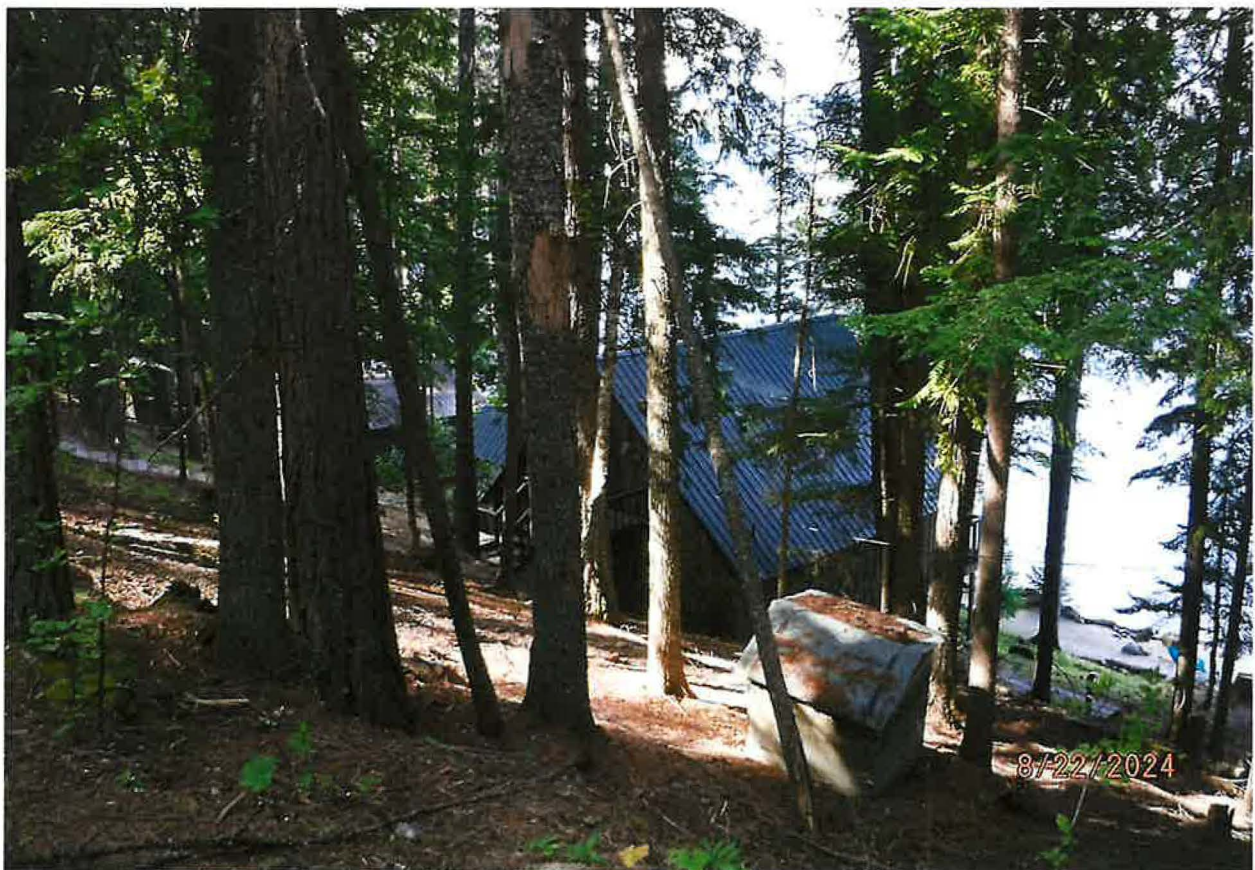


DOMESTIC POU – LOT 24, BLK 1, HORTON CREEK SUBDIVISION (RP059520010240A) &
IRRIGATION POU – NOTE HOSE & SPRINKLER ON TREE STUMP USED TO WATER
FOREST FLOOR





IRRIGATION POU – LOT 24, BLK 1; FOREST TREES ACTIVELY WATERED
THROUGHOUT SUMMER MONTHS TO REDUCE ROOT ROT & POTENTIAL FOR
DISEASE



DOMESTIC POU – LOT 23, BLK 1, HORTON CREEK SUBDIVISION (RP059520010230A)



IRRIGATION POU – MINOR LANDSCAPE WATERING AND FOREST TREE WATERING
BY HOSE AND SPRINKLERS



WATER LINE ROUTED ACROSS PARCEL



DOMESTIC POU – LOT 22, BLK 1, HORTON CREEK SUBDIVISION (RP059520010220A)



IRRIGATION POU – LOT 22, BLK 1; MULTIPLE HOSE TO SPRINKLER ATTACHMENTS
FOR LANDSCAPE WATERING AND TREE WATERING



IRRIGATION POU – LOT 22, BLK 1



FOREST FLOOR ACTIVELY IRRIGATED TO SUPPORT HEALTHY TREES ON THE PROPERTY