On Monday September 23rd William Dixon traveled to Mockingbird Hill Waster Association to assist with low water pressure water conditions in the Gum Springs Road area. William discovered that there was 28 gallons per minute going down the 3" main feeding the Gum Springs area, after closing a series of valves, a section of the main about a mile long was determined to contain the leak. William was walking the section as the valve was reopened, as the water pressurized the line, the leak was found by using a listening device to hear the water rushing out of the pipe about ¾ of a mile down a long hill. The water was not surfacing but disappearing under the ground. The location was marked and located, for the repair, a local contractor was available to start digging so the repair could be made. The leak was on the bottom of the 3' PVC main where it was laying on a large rock, the rock had caused the main to split creating the leak. **See Attachment #1** The repair was done by using a full circle wrap clamp. **See Attachment #2.** After the line was repaired, the valves were opened, and pressure was checked at various residents. Pressure readings were between 55-60 psi. **see attachment #3.** ARWA will be assisting with the rebuilding and replacing of numerous pressure reducing valves that are currently not working.

Attachment #1

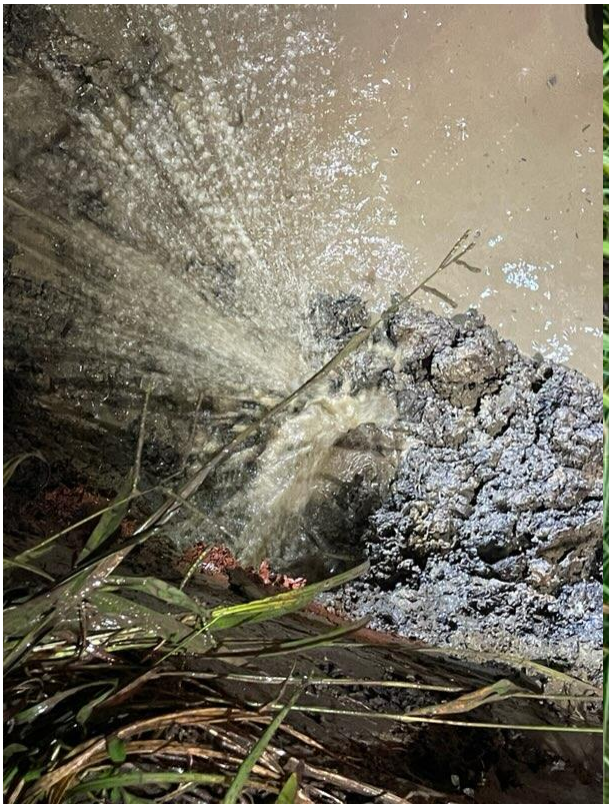
Attachment #2

Attachment #3

On Thursday September 12th, 2024, William Dixon and Sean Turner traveled to Mockingbird hill water association to assist with water loss, and leak detection. The leak detection process was done by closing gate valves in the area affected by low pressure. The leak was determined to be on Will Jones Road, During the process of locating a gate valve water was discovered flowing in the ditch beside the road, using the gate valve as a location marker William and Sean followed the water main through a pasture with tall grass to locate the leak at 495 Newton County Road 6020 (Will Jones Road) The leak was found and an emergency one call was made to locate utilities in the area **see attachments #1 & #2**. A local contractor was called to bring a back-hoe to the location to dig up the water main. The leak was a result of a limestone shelf rock that had shifted on the 3" PVC main causing a break the leak was estimated to be approximately 20 gallons per minute it was repaired using a full wrap clamp. See **attachment #3**.

On Friday September 13th William and Sean wen to another area of Mockingbird Hill's system that was experiencing low water pressure issues (Gum Springs Road). William & Sean discovered that a 3" pressure reducing valve had been bypassed with a 1" service line and as a result the system was unable to keep up with demand, resulting in low pressure **see attachment 4.** The PRV was slowly re opened until the water main had filled and was pressurized. Water pressure was then checked at several residents, and pressure readings were 50-60 psi. **See attachment #5.** The mountainous terrain requires numerous pressure reducing valves (PRVs) . Most of the PRVs have been neglected, deemed non-functional, and bypassed with 1" service meters. ARWA is committed to assisting and training the water operator in rebuilding and maintaining the PRVs

Attachment #1



Attachment #2

Attachment #3

Attachment #4

Attachment #5

The first leak that was found on Will Jones Road was estimated at twenty gallons per minute, which may not seem like a lot to some, but when you do the math 20 gpm X 1440 minutes per day = 28,800 gallons per day X 30 days per month = 864,000 gallons per month. That water loss is equivalent to if not more than what the total customers buy. There is no such thing as a SMALL leak!

The leak that was discovered on Monday September 23rd, was 28 gallons per minute which equals 40,320 gallons per day and 1,209,600 gallons per month. The combined water loss for both leaks would have been 2,073,600.

William Dixon

Arkansas Rural Water

(870) 560-9904