

In some cases, the scan or audit techniques may discover the sources of water loss that are not large enough to locate. Water losses that are found economical to repair will vary from system to system, depending on the cost of water, the cost to produce and pump the water, and the specific costs of repair. Some general guidelines which may be helpful to determine those that may be economical to repair include:

1. If the leak is in excess of 250 gallons per day per inch diameter per mile of pipe; and
2. If the flow measured at night is in excess of 50 percent of average daily flow.

It should be noted that these guidelines would change if a water supplier is experiencing a severe water shortage that cannot be solved another way.<sup>19</sup>

Few Oklahoma utilities have actual leak detection and repair programs. A few have well planned priority systems that, based on customer reports, evaluate water loss and potential damage caused by leaks. Leaks are then repaired from a priority list in the most cost-effective fashion. Several of the larger water suppliers also have annual replacement programs which systematically replace older mains.

Of several central Oklahoma utilities, none reported leakage was a serious problem. Average losses were reported as four to eight percent -- well below the nationwide average. The low rate of loss is likely attributable to relatively new distribution systems and systematic maintenance. None of those contacted had a leak detection program, relying on reports from consumers and estimates to determine where water is being lost.