



# STORIES OF PROGRESS IN ACHIEVING HEALTHY WATERS

## EPA Region 3 Water Protection Division

### Leak Detectives Saving Money, Water in Virginia

Richmond, Virginia · May 26, 2016

“Circuit riders” from the [Virginia Rural Water Association](#) (VRWA) are traveling to small communities across the Commonwealth using special equipment financed by EPA to locate expensive and wasteful leaks in drinking water distribution systems.

The VRWA works with the Virginia Department of Health’s Office of Drinking Water to identify systems most in need of the leak detection services. The equipment used by the VRWA to track down the leaks was financed by VDH through EPA’s Drinking Water State Revolving Fund (DWSRF).

Virginia requires water authorities to report water loss through a variety of means, including DWSRF and planning grant applications, sanitary surveys and operation reports. The information has provided a better understanding of the number of waterworks experiencing significant water loss and the assistance required to correct the issues.

Once dispatched, two staff members from VRWA known as circuit riders hone in on the problems using leak detectors and line locators.

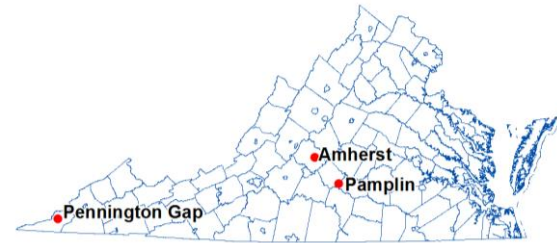
“We work with the systems to find the leaks and the lines and teach them how to use the equipment” in the event they want to budget for their own devices, said Myrica Keiser, VRWA executive director.

In the Town of Pennington Gap, three main leaks were located and repaired, saving an estimated 400,000 gallons per day as well as monetary savings in treatment chemical costs, electric fees and reduced future maintenance.

In the Town of Amherst, a circuit rider was called in when the town was unable to locate a major leak in the system. Using a ground microphone, the circuit rider was able to pinpoint the leak on an 8-inch water main. More than 1 million gallons of water were lost before the leak was detected.

The Town of Pamplin City had discovered several small leaks in its water distribution system, but the findings did not explain the excessive running of well pumps and the loss of between 50 and 60 percent of the system’s water supply each month. A circuit rider isolated sections of the distribution system using a pressure gauge and located a 10,000 gallon per day leak at a flush valve off an 8-inch main that had been covered with fill over the years. In a small system with just 120 water connections, the savings were substantial.

The funding and the VRWA services are helping to ensure sustainable operations in the Commonwealth’s drinking water systems and the protection of public health.



#### AT A GLANCE

- Major water leaks identified with equipment funded by EPA.



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