

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

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|-----------------------------|---|----------|
| ELECTRONIC SOUTHERN WATER & |) | |
| SEWER DISTRICT’S METER |) | CASE NO. |
| REPLACEMENT SURCHARGE |) | 2020-121 |
| MONITORING |) | |

REVISED ANNUAL PROGRESS REPORT

WATER LOSS

Southern Water and Sewer District, hereafter “Southern”, has had a history of suffering from a high rate of water loss.¹ Southern’s high rate of water loss can be attributed to several factors. The remote and mountainous area that Southern serves, theft of water/illegal hookups, the high prevalence of leaks due to the aging distribution system are all factors that have resulted in Southern’s high water loss rate.

Prior to Southern’s new Board of Commissioners being installed, the data Southern gathered and reported to the PSC via their annual reports were not reliable. It was difficult for the new Board to ascertain any meaningful information from the records Southern maintained. For several years prior to the new Board being empaneled, Southern reported the same or very similar figures for several years for fire department usage, wastewater plant, system flushing, water loss rates etc. Without dependable data from prior years, it is difficult, if not impossible, to compare present water loss rates to the current water loss rate and to determine if any improvements or declines have been made to the water loss percentages.

Recently, Southern replaced their old water meters with new more updated meters. Southern had hoped that replacing the out-dated water meters would improve water loss rates as some of the old meters were slow read or zero read meters. Unfortunately, Southern has had a difficult time quantifying any water loss reduction after the installation of the new meters. This was due in large part to the lack of accurate comparative water data from years past. Additionally, theft of water/illegal hookups and our aging water distribution system has also played a role in Southern’s high water loss rates.

Southern has been able to gather more accurate consumer data regarding the use of the Water purchased and/or produced by Southern since the new meters have been installed. This information is helpful to maintain accurate information regarding the usage of water but is not very beneficial to Southern’s water loss programs.

Since the conversion to volumetric billing, Southern's water loss rate has hovered from 48% to 63%.ⁱⁱ Southern is somewhat disappointed in this high water loss rate and places great importance on reducing this rate. The primary obstacle that prevents Southern from addressing and correcting the high rate of water loss is Southern's lack of resources. In order to detect and fix line leaks, Southern would require more manpower and equipment. As the PSC may be aware, it has become increasingly difficult to find and maintain qualified employees. Additionally, even if Southern could locate the manpower, currently Southern is not in the financial position to fund the additional employees needed to properly address the water loss issues.

To exacerbate this financial obstacle to reducing water loss, the conversion from flat fee billing to volumetric billing has further reduced Southern's operating income. Since the conversion to volumetric billing Southern has experienced an approximately 20% reduction in monthly operating income. After the conversion from flat fees, Southern received several complaints from customers regarding leaks on the customer side of the meter. These customers have since fixed the leaks and many customers are now closely monitoring their water usage in order to reduce their water bills. Southern serves a poverty stricken area in Eastern Kentucky and many of their customers make great efforts to conserve their water usage to curb their water bills.

Going forward, Southern is required to submit a new rate case with the PSC in the coming months. Southern will attempt to address the water loss rate by requesting sufficient funding to employ a leak detection crew with adequate equipment that is dedicated to strictly attempting to find and correct leaks in their distribution system. As previously stated, it appears that the biggest impediment to correcting Southern's high rate of water loss is adequate funding to create a dedicated leak detection crew along with the equipment needed to support said crew.

MASTER METERS

Southern has recently requested PSC approval to purchase and install master meters. Southern's goal is to purchase and install ten separate master meters with each master meter representing a distinct area. These Master Meters would assist Southern in their leak detection program. The master meters would provide Southern with valuable information so that Southern can use consumption analysis to figure out if any water loss is occurring and where said loss is located. In addition, the master meters could be used to show instantaneous measures of water flow.

As is the case with Water Loss, the greatest obstacle to realizing the goal of installing 10 master meters is funding. The average per site estimate of the cost of each master meter, vault, incoming and discharge main line valve installation and appropriate size bypass line with appurtenances is approximately \$25,000. Thus, Southern estimates that the master meter project would cost approximately \$250,000 to complete.

The only available monies that Southern has at its disposable to fund any master meters is the remaining proceeds of the Co-Bank loan proceeds. This loan was received for the purpose of purchasing and installing new water meters. Southern feels as though it would be able to meet its obligations to repay this note from the proceeds of the water meter surcharge and thus could use the remaining funds of the Co-Bank loan to fund a portion of the master meter project. Although the remaining monies available in this account (as of May 31, 2021 \$17,816.36) would not be enough to fund the entire \$250,000 master meter project, it would be enough to begin the project. Southern intends on requesting funds to complete the installation of the ten master meters in the next rate case that will be filed within the next few months.

CONCLUSION

Southern places great importance on reducing their water loss percentage. Purchasing and installing 10 master meters would assist Southern in their goal of reducing water loss. Additionally, funding a dedicated leak detection crew would greatly assist in this goal. Southern is constantly seeking grant or other funding to reduce the percentage of water loss. If grant funding is not available, Southern intends on requesting funding for master meters and a leak detection crew in Southern's upcoming rate case.

/s/ Steven Bailey
Steven P Bailey, J.D./M.B.A.
Attorney for Southern Water & Sewer District
181 E Court St
Prestonsburg, KY 41653

ⁱ See Annual Reports.

ⁱⁱ See Attached Monthly Water Loss Reports from October 2020 until March 2021.