

**INFRASTRUCTURE IMPROVEMENT PLAN**

**SOUTH WOODFORD WATER DISTRICT**

**117-D CROSSFIELD DRIVE**

**VERSAILLES KY 40383**

Prepared by  
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## 1.0 INTRODUCTION:

### **Purpose and Background**

The primary purpose of this document is to layout a concise plan of action with a goal of reducing the South Woodford Water District's (SWWD) water loss to an acceptable level below the industry standard of 15%. It is also intended to fulfill item #1 in the Kentucky Public Service Commission order in Case # 2022-00035 which requires SWWD to file with the Commission "a qualified infrastructure improvement plan".

On March 17, 2022, SWWD filed its application with the Commission requesting to adjust its water rates pursuant to 807 KAR 5:076, as well as requesting approval to implement a water loss recovery surcharge of \$3.87 per customer per month to help lower system water loss, which was 29.63 percent for the 2020 test year.

On January 17, 2023, the Commission entered an Order that granted SWWD a rate increase, and the Commission further stated that it would not address the Commission Staff's recommended Water Loss Reduction surcharge of \$3.87 per meter per month until SWWD complied with several requirements. Now that those requirements have been met, the Commission finds that a monthly surcharge as recommended in Commission Staff's Report is a reasonable means for SWWD to recover the cost for its leak detection efforts and repairs to reduce the increased expense and lost revenue from unaccounted-for water loss.

### **General Facility Information**

SWWD purchases its water from the City of Versailles and has a distribution system that is comprised of 214 miles of transmission mains varying in size (2" - 8"), serving over 1,800 customer services. The system utilizes three tanks for water storage and maintains adequate pressures (30 – 150 psi) throughout the distribution system.

The system has three storage tanks:

- 1) 181,000 gallons located on Highway 33,
- 2) 200,000 gallons located at Mortonsville on Delaney's Ferry Road and
- 3) 250,000 gallons located on Cummins Ferry Road.

## 2.0 WATER LOSS PREVENTION AND LEAK DETECTION PROGRAM

As part of the filing in Case No. 2022-00035 SWWD developed and submitted a Water Loss Prevention and Leak Detection Program outlining processes and procedures that can be conducted on a routine basis to identify and repair water line leaks, identify and monitor un-metered water usage and reduce the overall water loss in the system. This document was filed under Case No. 2025-00295.

### Implementation

The Routine Procedures portion of plan, i.e. Communications, Master Meters, Recording Readings, Consistent Meter Reading Schedules, Data Analysis, etc. which do not require capital expenditures have already been implemented as have the Leak Detection Procedures.

The less expensive capital improvement items, i.e. portable flow meters, ground penetrating radar, gate valve replacement, additional by-pass meters, will be undertaken and prioritized in that order as funding from the surcharge accumulates.

### Anticipated Timeline & Estimated Cost

With approximately 1,800 active meters, SWWD should be collecting approximately \$6,966 each month from the surcharge. With surcharge collection starting in February 2026, the following schedule of installation of the less expensive capital improvement items is anticipated (subject to change based on results):

• Portable flow meters (2)	=	\$20,000	=	April 2027
• Ground Penetrating Radar	=	\$20,000	=	July 2027
• Gate Valve Replacement	=	\$30,000	=	November 2027
• Additional By-Pass Meters	=	\$30,000	=	April 2028

### **3.0 PROPOSED IMPROVEMENTS PROJECT**

#### **Description**

**ROAD CROSSING:** This project will install a new road crossing about one half mile from Clear Creek Bridge under Highway 33. A new 12-inch casing will need to be installed along with a new 6-inch water pipe inside the casing. Then fittings will be needed to allow for the new project to take the place of the old casing and the old 8-inch AC pipe that is currently leaking. This is the only way to limit water outage to one day for 500 customers.

#### **Need for Project**

Kentucky Rural Water and Gatewood Water Service have tracked a water leak into this casing pipe on Highway 33. With the pipe being so deep within road banks the only way to fix the problem is to do the whole project in order to keep 500 customers from being without water for a week.

#### **Estimated Cost**

The current estimated cost of this project is in the \$68,000 range, per boring contractors that have a vertical boring machine at least 24-inches in size.

#### **Anticipated Funding and Timeline**

It is anticipated that within ten months of collecting the \$3.87 surcharge per active meter (approximately 1,800 active meters) per month that the SWWD should have enough money (\$69,660.00) to pay for this project and will therefore send this project out for bid in December 2026.