

2024 ANNUAL PROGRESS REPORT OF GARRISON QUINCY-KY-O-HEIGHTS WATER DISTRICT'S WATER

LOSS DETECTION AND REPAIR PROGRAM

On November 24, 2021, the Public Service Commission in Case No. 2021-00094 authorized Garrison Quincy-KY-O Heights (Garrison Water) to collect a monthly surcharge of \$1.73 per metered customer on and after January 1, 2022 and continuing for 48 months or until the total amount of the surcharge assessed equaled \$88,468.00, whichever occurred first, subject to certain conditions. These conditions included the submission of a yearly report containing a schedule of the estimated and actual progress of Garrison Water's water loss detection and repair program and the estimated and actual expenditures made with surcharge proceeds. The Public Service Commission indicated that this yearly report will be used to evaluate the need for prospective adjustment to the water loss detection and repair program and the authorized surcharge.

This report addresses Garrison Water's water loss and detection program for the period from January 1, 2024 to November 1, 2024. It compares the results of the program's year to the schedule of the estimated and actual progress of the water loss detection and repair program, and estimated and actual expenditures made with surcharge proceeds, for the purpose of evaluating whether adjustments to the program or to the surcharge amount are required.

During this report year, Garrison Water District has had an increase in water loss. At this time, we have increased over the past year from 25% to 31%. We anticipated a 5% loss but instead we had a 6% gain in water loss for 2024. The intense drought caused many problems with sections of pipe that had not been problematic in recent history. No expenditures have been made this year but the past purchases from the water loss surcharge program helped us locate many of these leaks throughout the year.

Program Implementation

In its Order of November 24, 2021, the Commission directed Garrison Water to submit an infrastructure improvement plan, including a comprehensive unaccounted-for water loss reduction plan that established priorities and a time schedule for eliminating each source of unaccounted-for water loss and provides a detailed spending plan for the proceeds of a surcharge. With assistance from Kentucky Rural Water Association (KRWA), Garrison Water completed and submitted that plan on March 23, 2022.

As advised by Public Service Commission Staff, Garrison Water has created a revised plan, including some new items and excluding some other original submitted plans. As stated, some expenditures has been made and some improvement has been made. The plan is as follows:

Leak Detection Equipment

Garrison Water District added an additional listening device in 2023 from water loss surcharge funds. This extra device has helped to assist in locating water leaks by listening to valves, meter, and hydrants or above the location of the water line. The addition of this listening device has given us the opportunity to use 2 operators at the same time to make leak detection more time efficient.

A portable flow meter to measure gallons flowing through the water main was purchased in 2023. The application of a portable flow meter is needed to assist in narrowing down the search area for listening device. The portable flow meter had a warranty issue that has been resolved and has since proven its worth. Once our staff was properly trained, the flow meter was put into use. It has become an important part of our equipment to assist in leak detection.

One zone meter will need to be installed below our tank site. This meter will register the usage for 30% of the customers on this section of our system. This zone meter will allow the field staff to read the meter daily and monitor increases in water usage. Upon an increase in usage, the District will focus its leak detection efforts in that zone. Currently, Garrison Water District has a request for disbursement (Disbursement Request #3) in the amount of \$32,070.80 for the purchase and installation of this zone meter.

Distribution System

This year Garrison Water District has, with the assistance of Kentucky Rural Water Association, exercised 21 valves within the system. These valves were in need of evaluation to determine if they need to be replaced. The valve exercising equipment that was provided, proved to get the most of the valves into fully functioning valves. This has allowed Garrison Water District to isolate more of its system for leak detection as well as less customer interruptions in the event of a water leak. Garrison Water District sought out funding and did not have to use Water Loss Surcharge funds to achieve this work

Bypass Meters

Garrison Water acquired grant money from Round 1 Cleaner Water Program. Within the budgeted amount allowed, Garrison Water has purchased enough supplies to install ten (10) bypass meters on some of our smaller sections of line to be used for leak detection. Garrison Water has installed 3 additional new bypass meter sets in 2024. This item is not part of the water loss surcharge but was advised by Public Service Commission Staff to include into our water loss report.

Customer Meters

In the allotted money from the Round 1 Cleaner Water Grant, Garrison Water Districts used a portion of that for meter replacement within our system. Garrison Water received 200 - 5/8" X 3/4" residential meters. 25 of these new meters have been installed into the system. The change out process was cut short of more installations due to the amount of problems we encountered this year with the severe drought. This money did not come from the water loss surcharge funds but was also advised by Public Service Commission Staff to include into our report.

Service Line

With funds from Cleaner Water Round 1 we were able to replace a troubled service line. This 300 foot long 1 inch line had been a repetitive problem due to the terrain it was in. We were able to get it replaced and installed into a casing pipe to ensure its longevity. Replacing this line has eliminated water loss for the entire year.

Summary of plan

Garrison Water District’s water loss on average is above 15%. The overage is approximately 30-40 gallons per minute. In a distribution system of over 100 miles of water main with 3 distribution employees, consistently lowering the water loss below 15% is not a small task and will require time. The existing funds along with the items we have already been able to purchase will assist Garrison Water District in lowering its water loss. These purchased tools along with the permanent fixtures will be a valuable investment in the infrastructure by Garrison Water District to assist in water loss detection.

Surcharge Revenue

During the period of January 1, 2024 to November 1, 2024, Garrison Water collected \$17,307.24 in surcharge revenues. With the fluctuation of customers the billing and collection amount varied throughout the year. As shown in Table 1 below.

TABLE 1

Month Collected	Customers Billed	Customers Paid	Actual Collected
January 2024	1040	1036	\$1,792.28
February 2024	1036	993	\$1,717.53
March 2024	1027	1027	\$1,776.95
April 2024	1031	989	\$1,710.80
May 2024	1027	975	\$1,687.23
June 2024	1028	1038	\$1,795.28
July 2024	1037	956	\$1,654.53
August 2024	1040	1005	\$1,738.97
September 2024	1045	1019	\$1,762.72
October 2024	1048	966	\$1,670.95
November 2024	NOT INCLUDED	IN THIS	REPORT
December 2024	NOT INCLUDED	IN THIS	REPORT

Expenditures

There were not any expenditures that was approved and purchased this year.

Conclusion

With the new surcharge collections of 2025 along with the current balance of \$42,779.95, Garrison Quincy-KY-O-Heights Water District will use the available revenue, upon the Public Service Commission's approval, to initiate the above listed items. The zone meter being top priority will ensure the ability to quickly identify leaks on a large portion of our system. This will eliminate precious time narrowing down problem areas and allow quicker response in order to reduce unaccounted-for water loss within our system. The water loss surcharge revenue along with the items already purchased with these funds will be equally important in controlling our water loss. The total amount received for 2024 as of the time of this report was \$17,307.24. Over the past 12 months Garrison Water has increased by 6%. It is estimated that 5% will be reduced by the end of 2025.