

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

| | | |
|--|---|------------|
| ELECTRONIC APPLICATION OF NORTH |) | |
| MARSHALL WATER DISTRICT FOR A |) | |
| CERTIFICATE OF PUBLIC CONVENIENCE AND |) | |
| NECESSITY TO CONSTRUCT A SYSTEM |) | CASE NO. |
| IMPROVEMENTS PROJECT AND AN ORDER |) | 2021-00333 |
| APPROVING A CHANGE IN RATES AND |) | |
| AUTHORIZING THE ISSUANCE OF SECURITIES |) | |
| PURSUANT TO KRS 278.023 |) | |

ORDER

On September 17, 2021, the Commission issued an Order granting North Marshall Water District (North Marshall District) a Certificate of Public Convenience and Necessity (CPCN) to construct a water system improvements project, approval of the proposed plan of financing the project, and approval of the proposed rates in its application. The Order had two attachments, Attachment 1 and Attachment 2, which contained hyperlinks to two documents. The Commission finds that Attachments 1 and 2 should contain the documents to which the hyperlinks connect instead of containing the hyperlinks.

Finding that the September 17, 2021 Order should be amended, the Commission HEREBY ORDERS, *nunc pro tunc*, that:

1. The hyperlinks contained in Attachment 1 and Attachment 2 of the September 17, 2021 Order are stricken and are replaced by the actual documents to which the hyperlinks connect.

2. All other provisions of the Commission's September 17, 2021 Order that are not in conflict with the terms of this Order shall remain in effect.

By the Commission



ATTEST:


Executive Director

Case No. 2021-00333



Andy Beshear
Governor

Rebecca W. Goodman
Secretary
Energy and Environment Cabinet

Commonwealth of Kentucky
Public Service Commission
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Michael J. Schmitt
Chairman

Kent A. Chandler
Vice Chairman

Talina R. Mathews
Commissioner

August 2, 2021

Roger Colburn
North Marshall Water District
90 Carroll Road
Benton, KY 42025

Re: Periodic Water Inspection
North Marshall Water District
Marshall County, KY

Dear Mr. Colburn:

Public Service Commission staff performed a periodic inspection of the North Marshall Water District water system on May 4, 2021 reviewing utility operations and management practices pursuant to Commission regulations. The report of this inspection is enclosed with this letter.

Based on the inspector's observations, the following deficiencies were identified:

1. North Marshall Water District is failing to operate its facilities so as to provide adequate and safe service to its customers as required by 807 KAR 5:066, Section 7, due to water loss exceeding 15 percent. (2020-33.5267%)
2. Utility has 5/8 x 3/4 meters that have been in service for 10 years without being tested contrary to the table in 807 KAR 5:066, Section 16(1). (2,000 meters)

According to North Marshall Water District's annual report for 2020, unaccounted-for water loss equaled approximately 33.5267 percent of the Utility's total water produced. The Utility produced \$35,537 of water that cannot be recovered for ratemaking purposes.

For the deficiencies listed above, an explanation of why these deficiencies occurred and how these deficiencies will be remedied and prevented in the future needs to be provided. A letter addressing the organization's actions regarding the deficiencies shall be submitted by August 31, 2021.

Periodic Water Inspection
North Marshall Water District
August 2, 2021
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Please review the enclosed inspection report in its entirety as you will find further information noted in regard to the inspection. If you have any questions regarding this inspection, feel free to contact Erin Donges at 502-782-2627 or via email at erin.donges@ky.gov.

Sincerely,



Roy Gray
Utility Regulatory & Safety Investigator
Public Service Commission

Enclosure(s)

Copy: James Leonard, Chairman
Kevin Neal, County Judge/Executive
Kevin Spraggs, County Commissioner
Justin Lamb, County Commissioner
Monti Collins, County Commissioner

NORTH MARSHALL WATER DISTRICT

96 Carroll Road, Benton, Kentucky 42025
Telephone (270) 527-3208 • Fax (270) 527-3039



August 27, 2021

Ms. Linda C. Bridwell PE
Commonwealth of Kentucky
Public Service Commission
211 Sower Blvd.
P.O. Box 615
Frankfort, KY 40602-0615

RE: Periodic Water Inspection
North Marshall Water District
Marshall County, KY

Dear Ms. Bridwell:

The North Marshall Water District has received the PSC Periodic Inspection Report for our system conducted on May 4, 2021. Per the requirements outlined in the transmittal letter, we are submitting a report outlining the deficiencies noted, the cause of the deficiencies and mitigative steps the North Marshall Water District will take to remedy the deficiencies and prevent them in the future.

The inspector noted the following deficiencies:

1. Reported water loss exceeded 15%.
2. Utility has meters that have been in service more than 10 years without testing

I have completed a review of the water loss reported by the District and have identified the likely causes of the reported excessive water loss. Based on my review, I believe the following factors have attributed to inaccuracies in the reported water loss number:

1. Metering inaccuracies
2. Data collection and flow reporting inaccuracies
3. System leaks

Following the inspection, we arranged to have meters at our water plants tested. We found one of our larger meters used to measure finished water pumped to the distribution system was over registering our production flow by 15%. We found some minor calibration issues with other production side meters as well. The meters found to be out spec have been adjusted and are now within the calibration

requirements. The district is experiencing widespread failures in electronic meters that are nearing their useful battery life further degrading the accuracy of the numbers used for sales volume. Follow-up manual re-reads are leading to some accuracy issues in syncing the production data with the usage data. A review of our reporting and data collection procedures revealed probable inaccuracies in the data that was being collected and used in preparation of the District's water loss reports. The District is computing water loss for each billing cycle. Other water used sums have likely been understated and usage has skewed more towards the unaccounted side of the loss equation. NMWD is working with our area fire departments to capture and log the water they use more accurately. Upon implementing, improvements in the way data is captured and logged, the computed loss for the latest billing cycle is 23.15%.

Another issue noted in the inspector's reported associated with the age of untested meters is somewhat related to the water loss issue. The District replaced the bulk of the meters for the system in 2010 and went with a radio read AMR system. Meter failures on a widespread basis began in 2018. The District attempted to replace the meters within the limits of funding and available time and made substantial headway in replacing approximately 3200 meters. Many meters had to be manually read resulting in some syncing issues which contributes into errors with the loss calculations.

The District has developed and has begun to implement a plan to address the deficiencies reported during the inspection. The plan is summarized as followed:

1. Replace the remaining meters in the system – Approximately 3,200 meters were replaced in 2018 through 2020. The District has completed a recent procurement process and plans to replace the remaining 5/8" X 3/4" meters and 1" meters prior to the end of the year.
2. The District is quickly working to update calibration of the remaining 1 1/2" and larger commercial meters. The COVID pandemic had delayed the schedule for several of the larger meter calibrations. The District is working with a certified meter inspector to complete the calibrations. Several of the larger meters are being replaced with new ultrasonic technology meters with electronic radio read registers.
3. The District is evaluating water loss tracking record keeping. In addition to renewing focus on production and sales metering accuracy, we are working with our local fire departments to improve their record keeping, improving the way we are tracking system flushing and improving our measurements of use within our treatment plants.
4. The District is evaluating a plan to incorporate zoned metering. Water loss will be calculated on a zoned basis. Trending will be initiated by tracking water sales versus water pumped into metered zones. The data points will be used to prioritize leak detection studies.
5. The District has identified a local contractor that has been providing leak detection studies. The District will prepare a leak detection program and include funds in the annual budget for performing leak detection studies to identify loss points.

Ms. Linda C. Bridwell PE
August 27, 2021
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6. NMWD has implemented an asset management program which includes a GIS based asset management system synced with the District's electronic work order tracking system.

NMWD has an active program of leak repair. Upon discovery, leaks are entered into our work order system and our crews usually make the necessary repairs within 7 to 10 days of discovery in most cases. Management is working ways to reduce the amount of time required to resolve leaks. Management will continue to improve our loss accounting and will report our loss on a bi-monthly basis. The initial results of attention to detail mentioned herein we believe have yielded a more accurate estimate of system loss. Please feel free to call me with any questions you may have at 270-527-3208.

Sincerely,

Handwritten signature of Roger L. Colburn in black ink.

Roger L. Colburn PE, PLS
General Manager

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