Northeast Woodford Water District
225-A South Main Street
Versailles, Kentucky 40383

January 17, 2019

Public Service Commission
211 Sower Blvd.
Frankfort, KY 40602-0615

Re: Case 2018-00394
Electronic Investigation into the
Measuring, Recording, and Reporting
Of Water Loss by Kentucky's
Jurisdictional Water Utilities

Dear Commissioners,

Enclosed with this letter is the response by the Northeast Woodford Water District as requested in your Order relating to Case 2018-00394, dated December 18, 2018. Please contact my office by phone at 859-873-7334, if there are any questions.

Sincerely,

John S. Davis
Chairman

Enclosure:
Northeast Woodford Water District
Response, dated January 17, 2019

Copy

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC INVESTIGATION INTO THE MEASURING, RECORDING, AND REPORTING OF WATER LOSS BY KENTUCKY'S JURISDICTIONAL WATER UTILITIES	))))))	CASE NO. 2018-00394

RESPONSE OF

NORTHEAST WOOODFORD COUNTY WATER DISTRICT

TO

COMMISSION'S REQUEST FOR INFORMATION

DATED DECEMBER 18, 2018

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC INVESTIGATION INTO THE MEASURING, RECORDING, AND REPORTING OF WATER LOSS BY KENTUCKY'S JURISDICTIONAL WATER UTILITIES	))))))	**CASE NO. 2018-00394**

CERTIFICATION OF RESPONSE OF NORTHEAST WOOODFORD COUNTY WATER DISTRICT TO COMMISSION'S REQUEST FOR INFORMATION

This is to certify that I have supervised the preparation of NORTHEAST WOODFORD COUNTY WATER DISTRICT'S Response to the Commission's Request for Information. The response submitted on behalf of NORTHEAST WOODFORD COUNTY WATER DISTRICT is true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.

Date: January 17, 2019

John S. Davis, Chairman
Northeast Woodford County Water District

NORTHEAST WOODFORD COUNTY WATER DISTRICT

CASE NO. 2018-00394

Response to Commission's Request for Information

Question No. 1

Responding Witness: Dale Gatewood

Q-1. Explain in detail the manner in which you measure, calculate, and track water loss, and:

a. Identify whether you use any manual form (including Excel spreadsheet) or electronic or mechanized system to calculate and track water loss.

b. Provide a copy of any form used (including Excel spreadsheet).

c. Identify the source of any form or system used.

A-1. The District measures, calculates, and tracks water loss monthly using our meter usage report generated by our billing software, internal flushing reports, fire department reports as well as leak/break reports. That information is then input into a modified version of PSC's calculation sheet in Excel.

a. Modified version of PSC's calculation sheet in Excel.

b. See attached Exhibit 1-B

c. Kentucky Public Service Commission.

NORTHEAST WOODFORD COUNTY WATER DISTRICT

CASE NO. 2018-00394

Response to Commission's Request for Information

Question No. 2

Responding Witness: Dale Gatewood

Q-2. Explain in detail your understanding of the information to be provided in each of the categories on the Water Statistics page 56 (reference page 30) of the annual report required of jurisdictional water utilities, accessed through the Commission's website.

A-2. Reference Page 56 Water Statistics

1. All water that was produced and/or purchased, and then distributed.

2. The District only Purchases water.

3. Gallons purchased.

4. Total Purchased gallons.

6. The total amount of water sold to the District's customers, including all classes.

7. Total for Residential Class.

8. Total for Commercial Class.

9. The District has no Industrial sales.

10. The District does not have a bulk loading station.

11. The District does not resell any water.

12. Total for Other Class.

13. Total of all Classes.

15. Total of Other Water Used.

16. Total gallons used by the Utility/Water treatment plant.

17. The District has no wastewater plant.

18. Total gallons used for System Flushing.

19. Total gallons used by Fire Departments.

20. Total gallons used by Other.

21. Total of Other use.

23. The difference between purchased/produced and sold plus other water used section.

24. Total gallons from Tank Overflows.

25. Total gallons from known Line Breaks.

26. Total gallons from known Line Leaks.

27. Total gallons from issues yet to be found.

28. Total gallons used from Overflows, Line Leaks, Line Breaks.

32. Overflows, Leaks, Breaks, and Flushing divided by Total Purchased.

33. Total line loss is divided by Total Purchased.

NORTHEAST WOODFORD COUNTY WATER DISTRICT

CASE NO. 2018-00394

Response to Commission's Request for Information

Question No. 3

Responding Witness: Dale Gatewood

Q-3. State any questions you have regarding how to use the updated Commission Form described and attached as Appendix A to this Order.

A-3. No Questions.

NORTHEAST WOODFORD COUNTY WATER DISTRICT

CASE NO. 2018-00394

Response to Commission's Request for Information

Question No. 4

Responding Witness: Dale Gatewood

Q-4. State any suggestions or improvements you have for the update Commission Form described and attached as Appendix A to this Order.

A-4. Water not sold but accounted for as tank overflows should be counted as Other Water Used. The amounts of water are a known and measurable quantity.

Water not sold but accounted for due to excavation damages should be counted as Other Water Used. In many cases, this water is actually paid for by the offending contractor or excavation entity. This water is a known and measurable quantity.

The standard specifications for pipe, meters and various appurtenances on the water system allow a certain amount of leakage when a brand new installation is made. Though this water is not known or measurable, an allowance for this loss should be made under other water used.

NORTHEAST WOODFORD COUNTY WATER DISTRICT

CASE NO. 2018-00394

Response to Commission's Request for Information

Question No. 5

Responding Witness: Dale Gatewood

Q-5. State any questions you have regarding how the information in the updated Commission Form described and attached as Appendix A to this Order is to be incorporated into annual reports.

A-5. No Questions.

NORTHEAST WOODFORD COUNTY WATER DISTRICT

CASE NO. 2018-00394

Response to Commission's Request for Information

Question No. 6

Responding Witness: Dale Gatewood

Q-6. State any concerns you have regarding the use of the updated Commission Form described and attached as Appendix A to this order.

A-6. Water Districts that do not have excessive (greater than 15%) water loss should not be given additional record keeping responsibilities of a new form.

NORTHEAST WOODFORD COUNTY WATER DISTRICT

CASE NO. 2018-00394

Response to Commission's Request for Information

Question No. 7

Responding Witness: Dale Gatewood

Q-7. State whether you believe it is reasonable, proper and appropriate for the Commission to require jurisdictional water utilities to maintain and use the updated Commission Form described and attached as Appendix A to this Order. Fully explain your answer.

A-7. I believe that it is reasonable, proper, and appropriate for the Commission to require jurisdictional water utilities to maintain and use the updated form. The updated form universalizes the way in which water loss is measured, calculated, tracked, and reported for all utilities across the state. The use of the Commission Form should not be made mandatory for jurisdictional water utilities that currently operate below the 15% water loss threshold.

CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that NORTHEAST WOODFORD COUNTY WATER DISTRICT'S electronic filing of this Response is a true and accurate copy of the same document being filed in paper medium; that the electronic filing was transmitted to the Public Service Commission on January 17, 2019; that there are currently no parties that the Public Service Commission has excused from participation by electronic means in this proceeding; and that an original paper medium of this Response will be delivered to the Public Service Commission within two business days.

John S. Davis

John S. Davis, Chairman
Northeast Woodford County Water District

Water Loss Prevention and Leak Detection Program

1. ROUTINE PROCEDURES (Daily/Weekly/Monthly/Yearly)

   A. COMMUNICATIONS: Monthly meetings to address the status of water loss by personnel from the office, distribution department and board members are planned to assure a unified team effort to minimize water loss.

   B. MASTER METERS: Read and record all master meter readings throughout the distributions system at approximately the same time each day: Wholesale Master Meter - Big Sink Pike

   C. RECORDING READING: All master meter readings shall be recorded in log books or on spreadsheets. Record readings of both registers on compound meters.

   D. CONSISTENT METER READING SCHEDULES: Establish a schedule wherein all customer meters are read at approximately the same time each month to ensure that any inconsistencies are identified and potential service line problems are identified and corrected.

   E. FIELD PERSONNEL RESPONSIBILITIES: All office personnel (meter readers, maintenance, etc.) shall immediately report to their supervisor any identified water leaks, tank overflows, telemetry problems, or other concerns that are presently or could result in water leak or loss. A work order will be generated by the supervisor to address the problem immediately or at the earliest possible time, given the urgency of the problem reported.

   F. OFFICE PERSONNEL RESPONSIBILITIES: All office personnel shall immediately report any customer reported leaks, tank overflows, pressure problems, or other issues (whether during regular operational hours or after hours) to the appropriate field supervisor. The office supervisor will generate a work order and coordinate with the field manager to make a determination as to whether a field crew needs to be dispatched immediately or later, based not he urgency of the problem.

   G. RECORDING DATA: Daily and monthly records (via computer data base, manual logs, or spreadsheets) shall be maintained by appropriate supervisory personnel to record an analyze the following information:
      * Daily & Weekly master meter reading
      * Pump station run times
      * Estimated water losses from line breaks, tank overflows, hydrant usage, etc.
      * Metered customer water sales
      * Other un-metered water usage

EXHIBIT 1-B

H. DATA ANALYSIS: Water purchased and usage data obtained and recorded (item F. Above) shall be evaluated and analyzed on a daily/ weekly/monthly basis to determine:

* Water purchase amounts
* Meter usage
* Known losses from line breaks, etc.
* Water loss by distribution zone

I. METER TESTING AND REPLACEMENT: Pursuant to PSC regulations, customer meters will be tested and/or replaced on a periodic schedule to ensure that they are registering water accurately.

* All 2" meters will be tested every three years.
* All 1" and 3/4" meters are to be tested or replaced new every ten years.
* All meters will be replaced as warranted.

2. LEAK DETECTION PROCEDURES

A. DISTRICT PERSONNEL: On a bi-yearly (as routine system operations permit), District personnel will be assigned to leak detection shifts after hours (typically 11:00 PM to 4:00 AM.). Customer usage is minimal at this time and allows field personnel to go valve to valve (and ofter meter to meter) with listening devices and detect abnormal flows. Personnel will perform leak detection in those areas with the highest known water loss, based on routine data collection and analysis.

B. OUTSIDE CONSULTANTS: Outside consultants will be utilized as circumstances and funding dictate. The Water District has routinely utilized the services of Kentucky Rural Water in the process.

3. CAPITAL IMPROVEMENTS

As funding permits, the District will prioritize and acquire/install the following:

A. FLOW METER: One of the most important tools in detecting water usage and loss is a portable flow meter. As funds are available, the Water District will purchase on of the units.

B. GATE VALVES: All gate valves will be exercised as recommenced in the Kentucky Division of Water Regulations. Valves which fail to operate properly will be replaced as funding permits.

C. MAPS: The Water District will maintain update distribution system maps. Accurate maps depicting line size and locations are vital to leak detection.

D. REPLACEMENT OF OLDER TRANSMISSION MAINS: As noted above much of the distribution system has been replaced as the original community systems were merged hydraulically. As funding permits, new projects to replace remaining older pipe in the distribution system will be developed.