COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

RESPONSE OF

West McCracken Water District

TO

COMMISSION'S REQUEST FOR INFORMATION

DATED DECEMBER 18, 2018

FILED: January 16, 2019
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 West McCracken Water District TO COMMISSION’S REQUEST FOR INFORMATION

This is to certify that I have supervised the preparation of West McCracken Water District’s Response to the Commission’s Request for Information. The response submitted on behalf of West McCracken Water District is true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.

Date: 1/16/19

April Reed-Warriner, Superintendent
West McCracken Water District
West McCracken Water District

CASE NO. 2018-00394

Response to Commission’s Request for Information

Question No. 1

Responding Witness: April Reed-Warriner

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. West McCracken Water District (WMWD) purchases water. To obtain the amount of water purchased we read our 3 master meters daily. When we receive a water bill from our wholesale supplier, we compare the meter readings to make sure they are correct. Customer meters are read monthly. We print a consumption analysis report from our billing system software that generates the total gallons sold to all customers. We take the difference in water purchase and water sold. Then we adjust for system flushing, fire department usage, tank overflows, line breaks and leaks. Once those amounts are adjusted, we have our water loss total for the month.

a. WMWD uses the KRWA Monthly Loss Report

b. Exhibit 1, sample, Monthly Water Loss Report
   Exhibit 2, sample, Consumption Analysis
   Exhibit 3, sample, Hydrant Flushing Log
   Exhibit 4, sample, Fire Department Usage
   Exhibit 5, sample, Line Break Log

c. Monthly Water Loss Report, KRWA
   Consumption Analysis, United Systems Software
   Hydrant Flushing Log, KRWA
   Fire Department Usage, KRWA
   Line Break Log, WMWD
West McCracken Water District

CASE NO. 2018-00394

Response to Commission’s Request for Information

Question No. 2

Responding Witness: April Reed-Warriner

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

A-2. West McCracken Water District (WMWD) understands the information the Commission is requesting for the report.

1. Header for lines below. Water produced, purchase, and distributed.
2. WMWD does not produce water so line 2 is left blank.
3. WMWD enters total gallons of water purchased
4. Total water produced and purchased by utility
5. Blank
6. Header for lines 7-13, Water Sales
7. Total gallons sold for Residential
8. Total gallons sold for Commercial
9. Total gallons sold for Industrial
10. Total gallons sold for Bulk Loading Station
11. Total gallons sold for Resale
12. Any water sold that is not in category within lines 7-11, goes in this line
13. Total of all Water Sales calculated from lines 7-12.
14. Blank
15. Header for lines 16-21, Other Water Used
16. Total gallons used by the Utility/Water treatment plant
17. Total gallons used by Wastewater Plant
18. Total gallons used for System Flushing
19. Total gallons used by the Fire Department
20. Other usage not included in lines 16-19.
21. Total gallons of accounted for water other than sales
22. Blank
23. Header for lines 24-28, Water Loss
24. Total gallons from Tank Overflow
25. Total gallons from known Main Line Breaks
26. Total gallons from known Line Leaks
27. Total unaccounted for gallons from other leaks not listed
28. Total Line Loss calculated from lines 24-27
29. Blank
30. Blank
31. Blank
32. Header for line 33, Water Loss Percentage
33. Total Line Loss is divided by Total produced and purchased
West McCracken Water District

CASE NO. 2018-00394

Response to Commission’s Request for Information

Question No. 3

Responding Witness: April Reed-Warriner

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. West McCracken Water District (WMWD) has no questions regarding how to use the updated Commission Form attached as Appendix A to the Order.
West McCracken Water District

CASE NO. 2018-00394

Response to Commission’s Request for Information

Question No. 4

Responding Witness: April Reed-Warriner

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

A-4. West McCracken Water District (WMWD) has no suggestions or improvements to the updated Commission Form described and attached as Appendix A to the Order.
West McCracken Water District

CASE NO. 2018-00394

Response to Commission’s Request for Information

Question No. 5

Responding Witness: April Reed-Warriner

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. West McCracken Water District (WMWD) has no questions regarding how the information in the updated Commission Form is to be incorporated in the annual report.
West McCracken Water District

CASE NO. 2018-00394

Response to Commission’s Request for Information

Question No. 6

Responding Witness: April Reed-Warriner

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. West McCracken Water District (WMWD) has no concerns regarding the use of the updated Commission Form described and attached as Appendix A to the Order.
West McCracken Water District

CASE NO. 2018-00394

Response to Commission’s Request for Information

Question No. 7

Responding Witness: April Reed-Warriner

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. West McCracken Water District (WMWD) believes it is reasonable for each water system to use the update Commission Form described and attached as Appendix A to the Order. WMWD wants to keep track of water loss to keep costs down for our customers. WMWD understands the importance of tracking this information. Any non-revenue water loss can quickly create a hardship for a small utility especially.
CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that West McCracken 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 16, 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.

April Reed-Warriner
Monthly Water Loss Report

Water Company: West McCracken Water District
For the Month of: ____________________ Year: ____________

Water Produced this month: ____________________ gallons
Water Purchased this month: ____________________ gallons

A: Total Water Produced and Purchased = 0 gallons
Sold: all customers
     ____________________ gallons
     ____________________ gallons
     ____________________ gallons

Total Sold = 0 gallons

B: Difference: (Produced + Purchased) - Sold = 0 gallons
% Difference = #DIV/0! % total water loss

Gallons of Water Accounted For:
Breaks (Estimated Total) ____________________ gallons
Hydrant Flushing ____________________ gallons
Storage Tank Overflow ____________________ gallons
Water Treatment Plant Use ____________________ gallons
Wastewater Treatment Plant Use ____________________ gallons
Fire Department Use ____________________ gallons
Net Computer Adjustment + / - ____________________ gallons
Other ____________________ gallons

C: Total Gallons Accounted For = 0 gallons
Loss: Unaccounted-for Water: (B-C) = 0 gallons
% Loss: Unaccounted-for Water: (B-C)/A % = #DIV/0! % unaccounted - for loss

Gallons / Day Loss = #DIV/0! gallons/day
Gallons / Minute Loss = #DIV/0! gallons/minute

This spreadsheet is a product of the Technical Assistance Center for Water Quality at Western Kentucky University and the Kentucky Rural Water Association. Feel free to contact us at (270) 745-8885 or at http://waterky.org.
This spreadsheet may be freely distributed. Please let us know if you use it, like it, or have suggestions for improvement!
## West McCracken Water District
### Consumption Analysis

<table>
<thead>
<tr>
<th>Usage Bracket</th>
<th>Number Of Services</th>
<th>Total Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Type C Commercial Breakdown</td>
<td>0 To 0</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>1 To 999,999,999</td>
<td>37</td>
</tr>
<tr>
<td>Customer Type C Commercial Totals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Type E Commercial/Non-Tax</td>
<td>1 To 999,999,999</td>
<td>14</td>
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<tr>
<td>Customer Type E Commercial/Non-Tax</td>
<td></td>
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<tr>
<td>Customer Type I Industrial Breakdown</td>
<td>1 To 999,999,999</td>
<td>3</td>
</tr>
<tr>
<td>Customer Type I Industrial Totals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Type R Residential Breakdown</td>
<td>0 To 0</td>
<td>68</td>
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<td></td>
<td>1 To 999,999,999</td>
<td>1,405</td>
</tr>
<tr>
<td>Customer Type R Residential Totals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Type S Schools Breakdown</td>
<td>1 To 999,999,999</td>
<td>2</td>
</tr>
<tr>
<td>Customer Type S Schools Totals</td>
<td></td>
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<tr>
<td>Grand Totals</td>
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</tbody>
</table>
# Monthly Hydrant Flushing Report

*Flushing for other than DBP maintenance*

## West McCracken County Water District
*(name of Water System)*

<table>
<thead>
<tr>
<th>Date</th>
<th>Hydrant Location and/or Number</th>
<th>Reason Operated</th>
<th>Total Minutes Operated</th>
<th>Nozzle Size (typically 2.5 or 4.5)</th>
<th>Pitot Pressure</th>
<th>GPM</th>
<th>Gallons Flowed</th>
<th>Estimated Flow if Pitot not used</th>
</tr>
</thead>
</table>

**Formula:** \( GPM = \frac{29.83 \cdot d^2 \cdot v}{2} \)

**Unit conversion factor:** 29.83

**Coefficient value:** 0.95

**Total Gallons for Month:** 0

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Fire Department - Water Usage Report Form

KRS 278.170(3)  807 KAR 5:095 Section 9

Any city, county, urban-county, charter county, fire protection district, or volunteer fire protection district ("User") may withdraw water from the utility's water distribution system for the purpose of fighting fires or training firefighters at no charge on the condition that it maintains estimates of the amount of water used for fire protection and training during the calendar month and reports the amount of this water usage to the utility no later than the 15th day of the following calendar month.

Any city, county, urban-county, charter county, fire protection district, or volunteer fire protection district that withdraws water from the utility's water distribution system for fire protection or training purposes and fails to submit the required report on water usage in a timely manner shall be assessed the cost of this water.

A non-reporting user's usage shall be presumed to be 0.3 percent of the utility's total water sales for the calendar month.

West McCracken Co Fire Department
(name of Fire Department)

West McCracken Co Fire Department
(name of Water System)

<table>
<thead>
<tr>
<th>Date</th>
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</table>

unit conversion factor: 29.83
coefficient value: 0.95

Total Gallons for Month: 0

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**LINE BREAK LOGBOOK**

*Required by 401 KAR 8:150, Section 4(2)*

<table>
<thead>
<tr>
<th><em>DATE</em></th>
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<tbody>
<tr>
<td><strong>LOCATION OF BREAK</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TIME IT WAS DISCOVERED</strong></td>
<td></td>
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<tr>
<td><strong>POPULATION AFFECTED</strong></td>
<td></td>
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<tr>
<td><strong>LENGTH OF TIME TO REPAIR</strong></td>
<td></td>
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<tr>
<td><strong>DATE &amp; TIME CL2 RESIDUALS DETECTED</strong></td>
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<tr>
<td><strong>DATE &amp; TIME BACT SAMPLES TAKEN</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TURNED WATER OFF (yes or no)</strong></td>
<td></td>
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<tr>
<td><strong>BWA REQUIRED (yes or no)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>OTHER COMMENTS</strong></td>
<td></td>
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</tbody>
</table>