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
Southern Madison Water District

TO
COMMISSION’S REQUEST FOR INFORMATION
DATED DECEMBER 18, 2018

FILED: January 14, 2018
COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

CERTIFICATION OF RESPONSE OF Southern Madison Water District TO
COMMISSION’S REQUEST FOR INFORMATION

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

Date: 1-14-19

[Signature]

Tommy Bussell / Manager
Southern Madison Water District
Southern Madison Water District

CASE NO. 2018-00394

Response to Commission’s Request for Information

Question No. 1

Responding Witness: Tommy Bussell

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. We at SMWD have our system divided into separate zone with a master meter feeding each zone that we read daily and we know what the average should be in each zone if the usage has went up we start looking for leaks. We read all our customers’ meters monthly and then we compare that usage to what we have purchased from our supplier for that month to get our water loss before any breaks, hydrant flushing, tank overflow, fire department usage etc. is taken off to get our unaccounted for water loss.

a. SMWD uses the monthly water loss report spreadsheet that was a product of WKU and KRWA and also we have used the monthly water use report approved by EPPC/DEP/DOW, KY PSC, and KRWA.

b. Copy’s included
c. KRWA
Southern Madison Water District

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Response to Commission’s Request for Information

Question No. 2

Responding Witness: Tommy Bussell

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. Water Statistics

1. Tracking water produced, Purchased, & Distributed
2. Water Produced N/A to SMWD
3. Total amount Purchased from Supplier
4. Total amount Purchased from Supplier
5. N/A
6. Total of all water sold to SMWD customers
7. Total sold to Residential customers
8. Total sold to Commercial customers
9. Total sold to Industrial customers
10. Total sold to Bulk loading stations N/A to SMWD at this time
11. Total sold to Wholesale customers N/A to SMWD at this time
12. Total sold to Public Authorities
13. Other sales N/A
14. Total of all water sold to all types of customers
15. N/A
16. Water used that might not be metered
17. Water used for distribution or water plant
18. Water used at wastewater plant N/A for SMWD
19. Water used for system flushing
20. Water used by fire departments
21. All water for other usage
22. Total of all other water used
23. N/A
24. Water Loss
25. Water lost due to tank overflow
26. Repaired line breaks with estimated water loss
27. Repaired line leaks with estimated water loss
28. Leaks due to excavation damages
29. Some stealing water
30. Unknown Loss
31. Total of all water lost for any reason
32. N/A
33. Total water sales + other water used + Total line lost must equal total water
    Purchased
34. N/A
35. Water loss percentage for rate making purposes
36. Total line loss divided by total water purchased equals line lost percentage
**Weekly Water Loss Report**

**Water Utility:**

**For the Month of:**

<table>
<thead>
<tr>
<th>LINE #</th>
<th>ITEM</th>
<th>GALLONS (Omit 000's)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>WATER PRODUCED, PURCHASED, &amp; DISTRIBUTED</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Water Produced</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Water Purchased</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>TOTAL PRODUCED AND PURCHASED</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>WATER SALES</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Residential</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Commercial</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Industrial</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Bulk Loading Stations</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Wholesale</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Public Authorities</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Other Sales (explain)</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>TOTAL WATER SALES</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>OTHER WATER USED</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Utility and/or Water Treatment Plant</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Wastewater Plant</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>System Flushing</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Fire Department</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Other Usage (explain)</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>TOTAL OTHER WATER USED</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>WATER LOSS</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Tank Overflows</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Line Breaks</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Line Leaks</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Excavation Damages</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Theft</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Unknown Loss</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>TOTAL LINE LOSS</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Note: Line 14 + Line 22 + Line 31 MUST Equal Line 4</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>WATER LOSS PERCENTAGE FOR RATERMAKING PURPOSES</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>(Line 31 divided by Line 4)</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

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Southern Madison Water District

CASE NO. 2018-00394

Response to Commission’s Request for Information

Question No. 3

Responding Witness: Tommy Bussell

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 at this time.
Southern Madison Water District

CASE NO. 2018-00394

Response to Commission’s Request for Information

Question No. 4

Responding Witness: Tommy Bussell

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. No Suggestions or Improvement at this time.
Southern Madison Water District

CASE NO. 2018-00394

Response to Commission’s Request for Information

Question No. 5

Responding Witness: Tommy Bussell

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 at This Time
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. No Concerns at this Time
Southern Madison Water District

CASE NO. 2018-00394

Response to Commission’s Request for Information

Question No. 7

Responding Witness: Tommy Bussell

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. Yes I believe it is reasonable, proper and appropriate for all utilities to use the same form.
CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that Southern Madison 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 14, 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.

[Name]
## Monthly Water Loss Report

**Water Company:** Southern Madison Water District

**For the Month of:** [ ]  **Year:** [ ]

| Water Produced this month: | gallons |
| Water Purchased this month: | gallons |

### A: Total Water Produced and Purchased =

<table>
<thead>
<tr>
<th>Sold:</th>
<th>gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
</tr>
<tr>
<td>Water Salesman</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Sold =</th>
<th>gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

### B: Difference: (Produced+Purchased) - Sold =

<table>
<thead>
<tr>
<th>% Difference =</th>
<th>#DIV/0! % total water loss</th>
</tr>
</thead>
</table>

### Gallons of Water Accounted For:

<table>
<thead>
<tr>
<th>Gallons</th>
<th>gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breaks (Estimated Total)</td>
<td></td>
</tr>
<tr>
<td>Hydrant Flushing</td>
<td></td>
</tr>
<tr>
<td>Storage Tank Overflow</td>
<td></td>
</tr>
<tr>
<td>Water Treatment Plant Use</td>
<td></td>
</tr>
<tr>
<td>Wastewater Treatment Plant Use</td>
<td></td>
</tr>
<tr>
<td>Fire Department Use</td>
<td></td>
</tr>
<tr>
<td>Net Computer Adjustment + / -</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

### C: Total Gallons Accounted For =

<table>
<thead>
<tr>
<th>Loss: Unaccounted-for Water: (B-C)</th>
<th>gallons</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>% Loss: Unaccounted-for Water: (B-C)/A %</th>
<th>#DIV/0! % unaccounted for loss</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Gallons / Day Loss =</th>
<th>#DIV/0! gallons/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gallons / Minute Loss =</td>
<td>#DIV/0! gallons/min.</td>
</tr>
</tbody>
</table>

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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) 745-5948 or at http://water.wku.edu. This spreadsheet may be freely distributed. Please let us know if you use it, like it, or have suggestions for improvement!
# Monthly Water Use Report

**Water Utility:**

For the Month of: January  

Year:  

<table>
<thead>
<tr>
<th>LINE #</th>
<th>ITEM</th>
<th>GALLONS (Omit 000's)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>WATER PRODUCED or PURCHASED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Water Produced</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Water Purchased</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>TOTAL PRODUCED AND PURCHASED</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**WATER SOLD**

5  Residential  
6  Commercial  
7  Industrial  
8  Bulk Loading Stations  
9  Wholesale  
10 Other Sales (explain)  

11 TOTAL WATER SOLD  
12 TOTAL WATER NOT SOLD  

**BREAKDOWN OF UNSOLD WATER USED**

13 Utility and/or Water Treatment Plant  
14 Wastewater Plant  
15 System Flushing  
16 Fire Department  
17 Other (explain)  

TOTAL UNSOLD WATER USED  

**BREAKDOWN OF WATER LOST**

18 Tank Overflows  
19 Line Breaks  
20 Other Loss  

TOTAL WATER LOST  

**"OTHER LOSS" FLOW RATE CALCULATION:**

21 "Other Loss"  
22 % "Other Loss"  
23 Number of Days in Period  
24 "Other Loss" per Day (1,000's gallons per Day)  
25 "Other Loss" per Minute (GPM)  

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*This form approved by: EPPC/DEP/DOW, KY PSC, KRWA*

Revised: January 10, 2007