January 16, 2019

Public Service Commission  
P.O. Box 615  
Frankfort, KY 40602  

RE: PSC Case No. 2018-00394 – Water Loss Investigation  

To Whom It May Concern:  

Enclosed please find the Martin County Water District’s Response to Commission’s Request for Information dated December 18, 2018 in the above referenced matter.  

The electronic filing receipt is also enclosed.  

Thank you for your attention to this matter.  

Very truly yours,  

BRIAN CUMBO  

BC/ld  
Enclosure  
cc: Martin County Water District
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 )

RESPONSE OF

MARTIN COUNTY 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 MARTIN COUNTY WATER DISTRICT TO COMMISSION'S REQUEST FOR INFORMATION

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

Date: 11/5/19

Greg Scott, General Manager
Martin County Water District
MARTIN COUNTY WATER DISTRICT
RESPONSE TO COMMISSION’S REQUEST FOR INFORMATION
CASE NO. 2018-00394
Question No. 1
Responding Witness: Greg Scott

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 electric 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 Martin County Water District calculates water loss by Accounted for Water Loss VS. Unaccounted for Water Loss method. Total Water Sold is subtracted from Total Water Produced and Purchased and that amount is the total water loss gallons. Of that total, the District subtracts gallons accounted for through leaks and breaks repaired, hydrant flushing, tank overflows, water treatment plant use, fire department use, and other water used such as known water withdrawn from hydrants and water used by the District in daily operations. That total is the Accounted for Water. The remaining gallons are the Unaccounted for Water. This number is divided into the Total Water Produced and Purchased, then multiplied by 100 to get the calculated percentage of Unaccounted for Water Loss.

A-1a. Martin County Water District uses an Excel Spreadsheet to calculate its water loss percentage each month.

A-1b. See attached copy of spreadsheet.

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. Item 2 – Water Produced – Includes all water produced by the utility.
Item 3 – Water Purchased – Includes all water purchased by the utility from another utility or source.
Item 4 – Total Produced & Purchased – Total of all water produced and purchased by the utility for distribution into the system.
Item 7 – Residential – Includes all water sold to customers under the residential rate code.
Item 8 – Commercial – Includes all water sold to customers under the commercial rate code.
Item 9 – Industrial – Not used.
Item 10 – Bulk Loading Stations – Includes all water distributed at bulk loading stations which the District does not have.
Item 11 – Resale – Includes all water sold by MWD to other utilities or entities for resale (Wholesale customers).
Item 12 – Other Sales – Includes water sold to any other entity not listed above.
Item 13 – Total Water Sales – Total of all water sold by the utility during the year.
Item 16 – Utility Water Treatment Plant – Includes water used by the utility for producing potable water at the treatment plant.
Item 17 – Wastewater Plant – Includes any water used for treatment of wastewater at the utilities WWTPs.

Item 18 – System Flushing – Includes all water used for flushing within the system.

Item 19 - Fire Department – Includes reported water from county fire departments including calculated water for non-reporting fire departments as .3% of gallons sold.

Item 20 – Other – Includes water written off for customer adjustments, illegal usage, non-metered customer usage, MWD water used in daily operations.

Item 21 – Total Other Water Used – Total of water from lines 16 thru 20.

Item 24 – Tank Overflows – Includes water from tank overflows.

Item 25 – Line Breaks – Includes water from line breaks due to outside force, material failure or improper installation (on rock, etc.).

Item 26 – Line Leaks – Includes water from leak repairs.

Item 27 – Other – Includes water not listed in items 24 thru 26.

Item 28 – Total Line Loss – Total of items 24 thru 27.

Item 33 – Line 28 Divided by Line 4 = Calculated Water Loss Percentage.
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 from Martin County Water District.**
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. 1. Martin County Water District requests Excavation Damages and Illegal usage found (theft) be included in “Other Water Used” due to the loss being of no fault of the utility and out of their control, therefore the utility would not be penalized for this type of loss.
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. Are there plans for PSC to provide guidance and/or training on how best to utilize this report?
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. 1. The Martin County Water District appreciates that the commission has allowed excavation damages and theft to be listed in separate categories. However, we agree in the submitted Mountain Water District comments, that these should be included in “Other Water Used” and not in the “Water Loss” section. Inclusion in the “Other Water Used” section would not penalize the utility for loss that is beyond its control. Both categories can be invoiced, and the utility reimbursed for this loss.
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. The Martin County Water District believes it is reasonable, proper, and appropriate for the Commission to require jurisdictional water utilities to maintain and use an updated Commission Form. However, we ask the Public Service Commission’s consideration of the difficulties operating and maintaining a utility in the eastern mountains of Kentucky. We believe that a baseline fifteen percent allowable water loss for rate purposes does not allow any leeway in consideration of Martin County Water District’s specific circumstances due to aging infrastructure, hydraulic challenges, and the remote nature of the majority of the utility’s distribution system. Martin County Water District currently operates fifteen (15) water storage tanks, fifteen (15) primary pump stations, three (3) booster pump stations, approximately 350 miles of main line, and approximately 700 miles of laterals and service lines, 3,600 service connections, and six (6) pressure reducing stations. We believe that these things should be taken into consideration on a case by case basis to establish an acceptable percentage of water loss for each utility. Due to difficulties in operation and maintenance, these factors may present an unfair expectation of performance of utilities, when comparatively studied to utilities
unaccustomed to mountainous terrain and other difficulties within mountainous areas.
# Monthly Water Use Report

**Water Utility:**

**PWSID:**

**For the Month of:**

**Year:**

## PRODUCTION COST PER THOUSAND

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>PRODUCTION COST PER THOUSAND</td>
</tr>
<tr>
<td>2</td>
<td>PURCHASE COST PER THOUSAND</td>
</tr>
</tbody>
</table>

### (insert cost)

### (insert cost)

### GALLONS

## WATER PRODUCED or PURCHASED

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>Water Produced</td>
</tr>
<tr>
<td>4</td>
<td>Water Purchased</td>
</tr>
</tbody>
</table>

### TOTAL PRODUCED AND PURCHASED

### TOTAL COST

## WATER SOLD

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>7</td>
<td>Residential</td>
</tr>
<tr>
<td>8</td>
<td>Commercial</td>
</tr>
<tr>
<td>9</td>
<td>Industrial</td>
</tr>
<tr>
<td>10</td>
<td>Bulk Loading Stations</td>
</tr>
<tr>
<td>11</td>
<td>Wholesale</td>
</tr>
<tr>
<td>12</td>
<td>Other Sales (explain)</td>
</tr>
</tbody>
</table>

### TOTAL WATER SOLD

### TOTAL WATER NOT SOLD

## BREAKDOWN OF WATER USAGE

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Water Treatment Plant</td>
</tr>
<tr>
<td>16</td>
<td>Wastewater Treatment Plant</td>
</tr>
<tr>
<td>17</td>
<td>System Flushing</td>
</tr>
<tr>
<td>18</td>
<td>Fire Department Usage</td>
</tr>
<tr>
<td>19</td>
<td>DBP Flushing, DBP Maintenance</td>
</tr>
</tbody>
</table>

### TOTAL USAGE

### WATER LOSS PERCENTAGE FOR RATE PURPOSES

## BREAKDOWN OF WATER LOST

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>Tank Overflows (other than for DBP maintenance)</td>
</tr>
<tr>
<td>23</td>
<td>Excavation Breaks</td>
</tr>
<tr>
<td>24</td>
<td>Repaired Line Breaks</td>
</tr>
<tr>
<td>25</td>
<td>Unknown Loss</td>
</tr>
</tbody>
</table>

### TOTAL WATER NOT SOLD OR USED

### COST OF WATER NOT SOLD OR USED

### "UNKNOWN LOSS" FLOW RATE AND COST:

<p>| | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>28</td>
<td>&quot;Unknown Loss&quot;</td>
</tr>
<tr>
<td>29</td>
<td>% &quot;Unknown Loss&quot;</td>
</tr>
<tr>
<td>30</td>
<td>(insert days of operation during month)</td>
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<tr>
<td>31</td>
<td>Number of Days in Period</td>
</tr>
<tr>
<td>32</td>
<td>&quot;Unknown Loss&quot; per Day (Gallons per Day)</td>
</tr>
<tr>
<td>33</td>
<td>&quot;Unknown Loss&quot; per Minute (GPM)</td>
</tr>
<tr>
<td>34</td>
<td>&quot;Unknown Loss&quot; Cost for Month</td>
</tr>
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</table>