

**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
MONROE COUNTY WATER DISTRICT
TO
COMMISSION'S REQUEST FOR INFORMATION
DATED DECEMBER 18, 2018**

FILED JANUARY 15, 2019

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

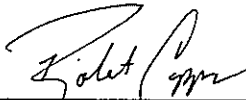
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CERTIFICATION OF RESPONSE OF MONROE COUNTY WATER DISTRICT TO
COMMISSION'S REQUEST FOR INFORMATION

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

DATE: 1-15-19



Robert Capps, General Manager
Monroe County Water District

Monroe County Water District

CASE NO. 2018-00394

Response to Commission's Request for Information

Question No. 1

Responding Witness: Robert Capps

Question 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.**

Response 1. Monroe County Water District (MCWD), reads master meters daily and customer meters monthly in two cycles. Master meter readings provide the total amount of water in gallons purchased from all suppliers and reconciled to the wholesale providers monthly bills once received. The amount produced is copied from the WTP Monthly Report compiled from the Daily Bench Sheets. Water loss is calculated monthly by using the Code Summary Report generated by the MCWD billing system of total gallons sold to all customers. The difference between water sold and water purchased/produced after adjusting for flushing, fire hydrant usage, fire department usage, line break loss and other usages as identified on Reporting Form is water loss.

- a. Monroe County Water District uses the Monthly (Annual) Water Loss Report (Excel Workbook) approved by EPPC/DEP/DOW, KY PSC, KRWA.**
- b. Exhibit 1 – sample *Monthly Water Loss sheet* from Excel Workbook
Exhibit 2 – sample *Daily Master Meter Readings – Monthly Operation Report*
Exhibit 3 – *WTP Monthly Report* (data compiled from Daily Bench Sheets)
Exhibit 4 – sample page of *Code Summary Report*
Exhibit 5 – sample page of bi-annual *Flushing of Lines Record***

Exhibit 6 – sample Monthly Fire Department Report

Exhibit 7 – sample Leak/Flush Log

Exhibit 8 – print screens of Android Phone App(s) use a) *Hydrant or Pipe Flush Flow Calculator*; b) *Circular Break Around Pipe*; c) *Hole In Pipe*; and d) *Rectangular Break Along Pipe*.

- c. **Kentucky Public Service Commission source for Water Loss Workbook; United Systems and Software source for Code Summary Report; Rural Water Association source for Phone Apps; and Monroe County Water District creates all other forms/logs/reports, etc.**

Monroe County Water District

CASE NO. 2018-00394

Response to Commission's Request for Information

Question No. 2

Responding Witness: Robert Capps

Question 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.

Response 2. Monroe County Water District (MCWD) purchases and produces all of the water it sells. MCWD understands the Water Statistics (Ref Page: 30) of the Annual Report as follows:

- 1. This is a section heading, "Water Produced, Purchased and Distributed"**
- 2. MCWD enters total gallons of water produced omitting 000's**
- 3. MCWD enters total gallons of water purchased omitting 000's**
- 4. This number is the total gallons of water the utility produced and purchased**
- 5. There is not a Number 5 (an intentional skip line) on Water Statistics (Ref Pg 30) print copy**
- 6. This is a section heading, "Water Sales: "**
- 7. Using reports generated by billing system, MCWD enters Residential total usage in gallons**
- 8. Using reports generated by billing system, MCWD enters Commercial total usage in gallons**
- 9. MCWD does not have any Industrial sales.**
- 10. MCWD does not have any Bulk Loading Stations.**
- 11. Using reports generated by billing system, MCWD enters total gallons sold to wholesale customers**
- 12. Any water sold that cannot be categorized within Nos. 7 – 11, input here in total gallons**
- 13. Total of all Water Sales (in gallons) calculated from all categories (Nos. 7-12)**
- 14. There is not a Number 14 (an intentional skip line) on Water Statistics (Ref Pg 30)**
- 15. This is a section heading, "Other Water Used"**
- 16. MCWD enters total gallons of water used at Water Treatment Plant for backwashing and**

other operational tasks.

17. MCWD does not have a Wastewater treatment plant
18. MCWD routinely flushes to maintain safe drinking water standards. Flushing calculations and records are maintained. Total gallons used for flushing entered.
19. MCWD enters Fire Department usage from FD Usage Reports
20. Other Water Usage, such as testing meters, theft, meter failures, weather-related events, etc. is entered here on this line.
21. Total of Other Water Used (in gallons) calculated from all categories (Nos. 16-20)
22. There is not a Number 22 (an intentional skip line) on Water Statistics (Ref Pg 30)
23. This is a section heading, "Water Loss: "
24. Gallons of water loss due to an annual total of any Tank Overflow entered (records are maintained, if applicable). Recordings documented from SCADA
25. Gallons of water loss due to Known Line Breaks (caused/reported by utility, other utilities, customers, contractors, etc.) entered on this line (records are maintained, if applicable)
26. Gallons of water loss due to Known Line Leaks that have been located/repaired.
27. MCWD does not enter/use this category therefore "Other leaks" is left blank
28. Total Line Loss (water in gallons) calculated from all categories (Nos. 24-27) and entered
29. There is not a Number 29 (an intentional skip line) on Water Statistics (Ref Pg 30)
30. There is not a Number 30 (an intentional skip line) on Water Statistics (Ref Pg 30)
31. There is not a Number 31 (an intentional skip line) on Water Statistics (Ref Pg 30)
32. This is a section heading, "Water Loss Percentage"
33. The Water Loss Percentage is calculated based upon data entry of Line 28, "Total Line Loss" divided by Line 4, "Total Produced and Purchased"

Monroe County Water District

CASE NO. 2018-00394

Response to Commission's Request for Information

Question No. 3

Responding Witness: Robert Capps

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

Response 3. Monroe County Water District (MCWD) has no questions regarding the use of the updated Commission Form attached as Appendix A to the Order.

Monroe County Water District

CASE NO. 2018-00394

Response to Commission's Request for Information

Question No. 4

Responding Witness: Robert Capps

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

Response 4. Monroe County Water District (MCWD) has no suggestions or improvements to offer for the updated Commission Form described and attached as Appendix A to the Order.

Monroe County Water District

CASE NO. 2018-00394

Response to Commission's Request for Information

Question No. 5

Responding Witness: Robert Capps

Question 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.

Response 5. Monroe County Water District (MCWD) has no questions regarding how the information in the updated Commission Form described and attached as Appendix A to the Order is to be incorporated into annual reports.

Monroe County Water District

CASE NO. 2018-00394

Response to Commission's Request for Information

Question No. 6

Responding Witness: Robert Capps

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

Response 6. Monroe County Water District (MCWD) has no concerns regarding the use of the updated Commission Form described and attached as Appendix A to the Order upon the concurrence of KEEC/DEP/DOW.

Monroe County Water District

CASE NO. 2018-00394

Response to Commission's Request for Information

Question No. 7

Responding Witness: Robert Capps

Question 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.

Response 7. Monroe County Water District (MCWD) believes 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 the Order. MCWD consistently tracks water loss and believes it is a good business practice for all water utilities (including non-jurisdictional utilities) to use the same Form. Identifying the sources and calculating the financial impact of non-revenue water are critical components to efficient and effective operations. Water loss may serve as an indicator for the need of infrastructure replacement, the need to modify standard operating procedures, et al. to maintain customers' level of confidence.

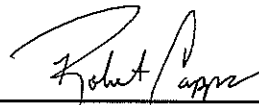
Monroe County Water District

CASE NO. 2018-00394

Response to Commission's Request for Information

CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that Monroe 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 15, 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.



**Robert Capps, General Manager
Monroe County Water District**

Monthly Water Use Report

Water Utility: Monroe County Water District

For the Month of:

Year:

LINE #	ITEM	GALLONS (Omit 000's)	%
1	WATER PRODUCED or PURCHASED		
2	Water Produced		
3	Water Purchased		
4	TOTAL PRODUCED AND PURCHASED		0
WATER SOLD			
5	Residential		
6	Commercial		
7	Industrial		
8	Bulk Loading Stations		
9	Wholesale		
10	Other Sales (explain) _____		
11	TOTAL WATER SOLD		0
12	TOTAL WATER NOT SOLD		0
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		0
BREAKDOWN OF WATER LOST			
18	Tank Overflows		
19	Line Breaks		
20	Other Loss		
	TOTAL WATER LOST		0

"OTHER LOSS" FLOW RATE CALCULATION:		
21	"Other Loss"	0
22	% "Other Loss"	
23	Number of Days in Period	31
24	"Other Loss" per Day (1,000's gallons per Day)	0
25	"Other Loss" per Minute (GPM)	0



Monroe County Water Treatment Plant
Monthly Report

Month/Yr: Dec/18

Hours plant operated: 368.9

Highest finished turbidity: .05

Lowest CL2 reading: 1.49 ppm

Total Water produced: 27,896,000 gl

Total Backwash Water: 805,000 gl 3.44 %

Total effluent flow: 25,127,000 gl

Treatment Plant usage: 3,317,000 gl

Total pumped to distribution: 21,810,000 gl

(total effluent - water plant usage)

Cycle II Jan. 20, 2019
 Exhibit 4

Monroe County Water District
 Code Summary

Service Type All Service Types
 Cycle 2 Cycle 2
 Account Range All Accounts
 Date Range Current Billing

Break Report Down By Customer Type
 Breakdown Addons By Service Type
 Include Inactive Accounts
 Inactive Accounts To Include Inactive Accounts With Arrears Shown in Billing
 Use Reading Factor

Print Add On Usage

Service	Rate	Number Active	Number Inactive	Charges	Arrears	Total	Usage	Adjustment Amount	Adjusted Total
**** Customer Type C Commercial ****									
WA WATER	06 5/8 X 3/4 Meter Com	79	0	\$2,726.04	\$113.61	\$2,839.65	216,340		
	07 1" Meter Commercial	6	0	\$537.06	\$59.58	\$596.64	48,680		
	08 2" Meter Commercial	3	0	\$483.42	\$0.00	\$483.42	12,900		
		88	0	\$3,746.52	\$173.19	\$3,919.71	277,920		
Local Tax	01 Utility Tax	88	0	\$112.22	\$0.00	\$112.22			
State Tax	01 State Tax	85	0	\$223.54	\$0.00	\$223.54			
Net Amount		0	0	\$4,082.28	\$173.19	\$4,255.47			
Penalty	01 Penalty	88	0	\$368.74	\$0.00	\$368.74			
Gross Amount		0	0	\$4,451.02	\$173.19	\$4,624.21			
Overpayment		4	0	\$0.00	(\$723.51)	(\$723.51)			
Total Amount		0	0	\$4,451.02	(\$550.32)	\$3,900.70	277,920		
**** Customer Type R Residential ****									
WA WATER	01 5/8 X 3/4 Inch Meter	1,455	4	\$54,935.10	\$4,215.98	\$59,151.08	4,974,490		
	02 1 Inch Meter	18	0	\$3,688.25	\$0.00	\$3,688.25	456,010		
	03 2 Inch Meter	18	0	\$10,559.71	\$16.11	\$10,575.82	1,350,900		
	05 Wholesale	1	0	\$0.00	\$0.00	\$0.00	0		
		1,492	4	\$69,183.06	\$4,232.09	\$73,415.15	6,781,400		
SV Service Ch	99 Deposit Interest	9	0	(\$3.57)	\$0.00	(\$3.57)			
Local Tax	01 Utility Tax	1,457	4	\$2,024.50	\$0.00	\$2,024.50			
State Tax	01 State Tax	1	0	\$1.37	\$0.00	\$1.37			
Net Amount		0	0	\$71,205.36	\$4,232.09	\$75,437.45			
Penalty	01 Penalty	1,492	4	\$6,719.37	\$0.00	\$6,719.37			
Gross Amount		0	0	\$77,924.73	\$4,232.09	\$82,156.82			
Overpayment		82	1	\$0.00	(\$2,977.16)	(\$2,977.16)			
Total Amount		0	0	\$77,924.73	\$1,254.93	\$79,179.66	6,781,400		
**** Summary For All Customer Types ****									
WA WATER	01 5/8 X 3/4 Inch Meter	1,455	4	\$54,935.10	\$4,215.98	\$59,151.08	4,974,490		
	02 1 Inch Meter	18	0	\$3,688.25	\$0.00	\$3,688.25	456,010		
	03 2 Inch Meter	18	0	\$10,559.71	\$16.11	\$10,575.82	1,350,900		
	05 Wholesale	1	0	\$0.00	\$0.00	\$0.00	0		
	06 5/8 X 3/4 Meter Com	79	0	\$2,726.04	\$113.61	\$2,839.65	216,340		
	07 1" Meter Commercial	6	0	\$537.06	\$59.58	\$596.64	48,680		
	08 2" Meter Commercial	3	0	\$483.42	\$0.00	\$483.42	12,900		
		1,580	4	\$72,929.58	\$4,405.28	\$77,334.86	7,059,320		

**FLUSHING OF LINES
MONROE COUNTY WATER DISTRICT**

Manager Robert Capps II

Year 2018

DATE	LOCATION OF HYDRANTS OR BLO-OFF	TEST RESULTS	SIZE	EST G.P.M.	TIME FLUSH	GALLONS FLUSHED	FLUSHED BY	VALVE SIZE
	<u>BYBEE RD</u>		3	80				SM
	<u>HOLLOWAY RD</u>		3	80				LG
	<u>JOHN EATON RD</u>		2	80				SM
	<u>JOHN EATON RD</u>		3	40				SM
	<u>LYONS TRAIL</u>		3	40				SM
	<u>MCCARTHY ROAD</u>		2	40				SM
	<u>F FERGUSON ROAD</u>		2	40				SM
	<u>DEERVIEW SUB</u>		3	80				SM
	<u>BELCHER RD</u>		2	40				SM
	<u>PEBBLEBROOK LANE</u>		3	40				LG
	<u>BILL FERGUSON RD</u>		3	80				SM
	<u>PIPELINE RD</u>		4	80				H
	<u>PIPELINE RD</u>		1	40				PL
	<u>P NORRIS RD</u>		3	80				SM
	<u>CYCLONE RD</u>		3	80				LG
	<u>EDMONTON RD</u>		3	80				SM

TOTAL ESTIMATED _____ gallons

Android Phone App Screen Print

Hydrant or Pipe Flush Flow Calculator

Diameter of Hydrant Nozzle Opening or Pipe (In Inches):

Horizontal Distance from the end of the Nozzle or Pipe Opening to the upper or outermost edge of the water where it hits the ground (Keep ruler or yardstick level, extending out from the upper edge of this nozzle or pipe) (in inches):

Vertical Distance from the top rim of Nozzle or Pipe to the ground (in inches):

Estimated Flow from this Hydrant or Pipe in gallons per minute (GPM) is:

This flow translates into the following quantities:
0.00 Gal / Hour **0.00 Gal / Day**

[Click Here To Close Window!](#)
[Print This Window!](#)




Android Phone App Screen Print

Circular Break Around Pipe

Dia of Pipe, in inches:	<input type="text" value="0.00"/>
Width of Break, in inches:	<input type="text" value="0.00"/>
Pressure in Pipe, in PSI:	<input type="text" value="0.00"/>
Leak Time, in hours:	<input type="text" value="0.00"/>
GPM Flow lost from leak:	<input type="text" value="0.00"/>
Total Water Lost, in gallons:	<input type="text" value="0.00"/>

[Click Here To Close Window!](#)
[Print This Window!](#)




Android Phone App Screen Print

Hole In Pipe

Diameter of Hole, in inches:	<input type="text" value="0.00"/>
Pressure in Pipe, in PSI:	<input type="text" value="0.00"/>
Leak Time, in hours:	<input type="text" value="0.00"/>
GPM Flow lost from leak:	<u>0.00</u>
Total Water Lost, in gallons:	<u>0.00</u>

[Click Here To Close Window!](#)
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Android Phone App Screen Print

Rectangular Break Along Pipe

Length of Break, in inches:	<input type="text" value="0.00"/>
Width of Break, in inches:	<input type="text" value="0.00"/>
Water Pressure, in PSI:	<input type="text" value="0.00"/>
Leak Time, in hours:	<input type="text" value="0.00"/>
GPM Flow lost from leak:	<u>0.00</u>
Total Water Lost, in gallons:	<u>0.00</u>

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