

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

**FILED: January 10, 2019**

**COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION**

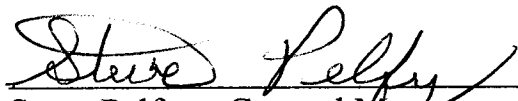
**In the Matter of:**

**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 MORGAN COUNTY WATER  
DISTRICT TO  
COMMISSION'S REQUEST FOR INFORMATION**

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

Date: 1-10-19

  
\_\_\_\_\_  
Steve Pelfrey, General Manager  
Morgan County Water District

# **MORGAN COUNTY WATER DISTRICT**

**CASE NO. 2018-00394**

## **Response to Commission's Request for Information**

### **Question No. 1**

#### **Responding Witness: Chernell Holbrook**

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. Responses for questions A thru C.

- a. We start by using a form we created to record our master meter readings and our billing register. The master meter readings are recorded by specific dates and supplier. The billing register is recorded by: date, supplier, residential, commercial or wholesaler customers. We also record fire department usage, water haul station usage and our automatic flushing hydrants. We next record our flushing through the use of a excel spreadsheet. The date, location, minutes flushed, nozzle size and pitot pressure are recorded on the sheet. The gallons flushed are automatically calculated. We use the same spreadsheet for both of our suppliers. We also use the Monthly Water Use Report for both of our suppliers. This

report has both the water purchased and the water sold to calculate the water loss percentage.

- b. Please find the forms attached.
- c. The Monthly Water Use Report and the Monthly Hydrant Flushing Report were both provided by Kentucky Rural Water Association.

**MORGAN COUNTY WATER DISTRICT**

**CASE NO. 2018-00394**

**Response to Commission's Request for Information**

**Question No. 2**

**Responding Witness: Chernell Holbrook**

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 Purchased: The total amount of water that we purchased from both of our suppliers.

Residential: The total amount of water sold to residential customers.

Commercial: The total amount of water sold to commercial customers.

Bulk Loading Stations: The total amount of water customers have purchased from the water haul stations.

Wholesale: The total amount of water sold to another distributor.

Other Sales: The total amount of water purchased from metered hydrants.

System Flushing: The total amount of water flushed from our system.

Fire Department: The total amount of water used by the fire departments.

**MORGAN COUNTY WATER DISTRICT**

**CASE NO. 2018-00394**

**Response to Commission's Request for Information**

**Question No. 3**

**Responding Witness: Chernell Holbrook**

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.

**MORGAN COUNTY WATER DISTRICT**

**CASE NO. 2018-00394**

**Response to Commission's Request for Information**

**Question No. 4**

**Responding Witness: Chernell Holbrook**

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 Recommendations.

**MORGAN COUNTY WATER DISTRICT**

**CASE NO. 2018-00394**

**Response to Commission's Request for Information**

**Question No. 5**

**Responding Witness: Chernell Holbrook**

- 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.



**MORGAN COUNTY WATER DISTRICT**

**CASE NO. 2018-00394**

**Response to Commission's Request for Information**

**Question No. 6**

**Responding Witness: Chernell Holbrook**

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 Response.

**MORGAN COUNTY WATER DISTRICT**

**CASE NO. 2018-00394**

**Response to Commission's Request for Information**

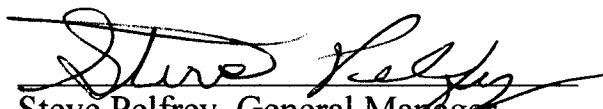
**Question No. 7**

**Responding Witness: Chernell Holbrook**

- 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. No Response.

## CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that [Morgan 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 10, 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.

  
Steve Pelfrey, General Manager

# A-1-b Attachments

Billing Register Month Dec. Nov. 24<sup>th</sup> ----- Dec. 23<sup>rd</sup> -----

	24 - 30	1 - 23	Totals				
Ditney Ridge	256,300	680,500	936,800				
Frank Blevins	14,300	45,100	59,400				
Kristen Lane	9,800	33,200	43,000				
Lee's Lane	1,700	6,900	8,600				
Hwy 7	62,500	262,900	325,400				
Hwy 191	373,000	1,270,000	1,643,000				
Spaws Creek	2,295,540	8,153,450	10,448,990	Totals WL		13,465,190	
460 Cave Run	2,141,000	7,219,000	9,360,000	Cave Run		9,360,000	
Total MOR	5,154,140	17,671,050	22,825,190				
Campton	0						
Frenchburg	0						
Total Wholesale							

City of West L	Commercial	Residential	Totals	Cave Run	Commercial	Residential	Totals
Rt. 1	25,530	936,930	962,460	Rt. 2	100	269,370	269,470
Rt. 4	97,540	1,480,640	1,578,180	Rt. 3	154,030	964,140	1,118,170
Rt. 6	5,690	952,270	957,960	Rt. 5	0	126,440	126,440
Rt. 8	0	174,210	174,210	Rt. 7	0	55,840	55,840
Rt. 11	114,110	43,790	157,900	Rt. 9	158,060	927,280	1,085,340
Rt. 12	0	6,510	6,510	Rt. 16	55,280	129,630	184,910
Rt. 13	26,800	722,420	725,100	Rt. 17	0	102,750	102,750
Rt. 14	0	47,840	47,840	Rt. 18	0	53,170	53,170
Rt. 15	0	38,470	38,470	Rt. 19	320	130,170	130,490
Rt.				Rt.			
Rt. Totals	245,550	4,403,080	4,648,630	Rt.	367,790	2,758,790	3,126,580
Rt.				Rt.			
Rt.				Rt.			
Rt.				Rt.			

Total Sales							
Wholesale							
Water Haul St.							
Fire Departments							1,000,000
Flushing			36,106				20,765
Auto Flushing			3,720,000				900,000
Total Sales							
Total Purchased							
Difference							
Leaks							
Tank Overflows							





# Monthly Water Use Report

Water Utility: Morgan Co. Water District (Cave Run) PWSID: Ky 0880594

For the Month of: Nov. 24 - Dec. 23 Year: 2018 (CAVE RN)

1	PRODUCTION COST PER THOUSAND	\$0.00	
2	PURCHASE COST PER THOUSAND	\$2.67	

**GALLONS**

<b>WATER PRODUCED or PURCHASED</b>				
3	Water Produced	\$0.00	0	0%
4	Water Purchased	\$24,991.20	9,360,000	100%
5	<b>TOTAL PRODUCED AND PURCHASED</b>		9,360,000	
6	<b>TOTAL COST</b>	\$24,991.20		

**WATER SOLD**

7	Residential	2,758,790	
8	Commercial	367,790	
9	Industrial		
10	Bulk Loading Stations	0	
11	Wholesale		
12	Other Sales (explain)	0	
13	<b>TOTAL WATER SOLD</b>	3,126,580	33.40%
14	<b>TOTAL WATER NOT SOLD</b>	6,233,420	<b>66.60%</b>

**BREAKDOWN OF WATER USAGE**

15	Water Treatment Plant		
16	Wastewater Treatment Plant		
17	System Flushing	920,765	
18	Fire Department Usage	1,000	
19	Other Usage (explain)		
20	<b>TOTAL USAGE</b>	921,765	
21	<b>WATER LOSS PERCENTAGE FOR RATE PURPOSES</b>		<b>56.75%</b>

**BREAKDOWN OF WATER LOST**

22	Tank Overflows		
23	Excavation Breaks		
24	Repaired Line Breaks	0	
25	Unknown Loss	5,311,655	56.75%
26	<b>TOTAL WATER NOT SOLD OR USED</b>	5,311,655	
27	<b>COST OF WATER NOT SOLD OR USED</b>	\$14,182.12	

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

28	"Unknown Loss"	5,311,655
29	% "Unknown Loss"	56.75%
30	Number of Days in Period	30
31	"Unknown Loss" per Day (Gallons per Day)	177,055
32	"Unknown Loss" per Minute (GPM)	122.95
33	"Unknown Loss" Cost for Month	\$14,182.12

## Monthly Water Use Report

Water Utility: Morgan Co. Water District (City of WL) PWSID: Ky 0880594

For the Month of: Nov. 24 - Dec.. 23 Year: 2018 (City WL)

1	PRODUCTION COST PER THOUSAND	\$0.00	
2	PURCHASE COST PER THOUSAND	\$3.08	

### GALLONS

<b>WATER PRODUCED or PURCHASED</b>				
3	Water Produced	\$0.00	0	0%
4	Water Purchased	\$41,472.79	13,465,190	100%
5	<b>TOTAL PRODUCED AND PURCHASED</b>		13,465,190	
6	<b>TOTAL COST</b>	\$41,472.79		

### WATER SOLD

7	Residential	4,403,080	
8	Commercial	245,550	
9	Industrial		
10	Bulk Loading Stations		
11	Wholesale	0	
12	Other Sales (explain) <u>Hinkle</u>		
13	<b>TOTAL WATER SOLD</b>	4,648,630	34.52%
14	<b>TOTAL WATER NOT SOLD</b>	8,816,560	65.48%

### BREAKDOWN OF WATER USAGE

15	Water Treatment Plant		
16	Wastewater Treatment Plant		
17	System Flushing	3,756,106	
18	Fire Department Usage		
19	Other Usage (explain)		
20	<b>TOTAL USAGE</b>	3,756,106	
21	<b>WATER LOSS PERCENTAGE FOR RATE PURPOSES</b>		<b>37.58%</b>

### BREAKDOWN OF WATER LOST

22	Tank Overflows		
23	Excavation Breaks		
24	Repaired Line Breaks		
25	Unknown Loss	5,060,454	37.58%
26	<b>TOTAL WATER NOT SOLD OR USED</b>	5,060,454	
27	<b>COST OF WATER NOT SOLD OR USED</b>	\$15,586.20	

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

28	"Unknown Loss"	5,060,454	
29	% "Unknown Loss"	37.58%	
30	Number of Days in Period	30	
31	"Unknown Loss" per Day (Gallons per Day)	168,682	
32	"Unknown Loss" per Minute (GPM)	117.14	
33	"Unknown Loss" Cost for Month	\$15,586.20	



# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility: Morgan County Water District

For the Month of: December Year: 2018

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED, PURCHASED &amp; DISTRIBUTED</b>	
2	Water Produced	
3	Water Purchased	22,825,190
4	<b>TOTAL PRODUCED AND PURCHASED</b>	<b>22,825,190</b>
5		
6	<b>WATER SALES</b>	
7	Residential	7,161,870
8	Commercial	613,340
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Other Sales	
13	<b>TOTAL WATER SALES</b>	<b>7,775,210</b> 34.1%
14		
15	<b>OTHER WATER USED</b>	
16	Utility and/or Water Treatment Plant	
17	Wastewater Plant	
18	System Flushing	4,676,871
19	Fire Department	1,000
20	Other	
21	<b>TOTAL OTHER WATER USED</b>	<b>4,677,871</b> 20.5%
22		
23	<b>WATER LOSS</b>	
24	Tank Overflows	
25	Line Breaks	
26	Line Leaks	10,372,109
27	Other	
28	<b>TOTAL LINE LOSS</b>	<b>10,372,109</b> 45.4%
29		
30	Note: Line 13 + Line 21 + Line 28 Must Equal Line 4	
31		
32	<b>WATER LOSS PERCENTAGE</b>	
33	Unaccounted-For Water (Line 28 divided by Line 4)	<b>45.4%</b>

# PUBLIC SERVICE COMMISSION

## Annual Water Loss Summary

Water Utility:

Morgan County Water District

For the Year:

2018

MONTH	WATER LOSS %
JANUARY	46.4
FEBRUARY	55.6
MARCH	47.0
APRIL	49.7
MAY	40.3
JUNE	32.1
JULY	35.1
AUGUST	26.0
SEPTEMBER	41.5
OCTOBER	31.2
NOVEMBER	37.4
DECEMBER	45.4
<b>TOTAL ANNUAL WATER LOSS %</b>	

The highest water loss was  and occurred in the month of

The lowest water loss was  and occurred in the month of

### LEGEND

Water Loss is between 15% - 30%

Water Loss is greater than 30%