

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC INVESTIGATION INTO  
EXCESSIVE WATER LOSS BY KENTUCKY'S  
JURISDICTIONAL WATER UTILITIES

)  
) CASE NO.  
) 2019-00041

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**NOTICE OF FILING OF RESPONSES OF NORTH MANCHESTER WATER  
ASSOCIATION (NMWA) TO APPENDIX H – APPENDIX TO AN ORDER OF THE  
KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2019-00041 DATED  
NOVEMBER 22, 2019**

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Comes NMWA, by and through its legal counsel, has attached its responses to Appendix H  
of the Order of the Kentucky Public Service Commission entered November 22, 2019, hereto.

ALL on this 23<sup>rd</sup> day of September, 2020.

Respectfully Submitted,



RALEIGH P. SHEPHERD  
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ATTORNEY FOR NMWA

VERIFICATION

Steve Davis, being duly sworn upon his oath deposes and states:

I am the President of NMWA and have read the responses to Appendix H of the Order entered by the Kentucky Public Service Commission on November 22, 2019; and the foregoing answers and responses to same are true and accurate according to the best of my knowledge, information and belief.

  
\_\_\_\_\_  
STEVE DAVIS

COMMONWEALTH OF KENTUCKY,

COUNTY OF CLAY,

SUBSCRIBED, sworn to and acknowledged before me by STEVE DAVIS on this 23<sup>rd</sup> day of SEPTEMBER, 2020.

  
\_\_\_\_\_  
NOTARY PUBLIC, STATE AT LARGE  
ID#584571

My Commission Expires: 09/13/2021.

**North Manchester Water Association, Inc.**

**Public Service Commission Case No. 2019-00041**

**Responses**

1. a) Develop and implement a written policy regarding theft of water service; A written policy regarding theft of water has been developed and implemented. **The policy directs the employee that finds the theft in progress take pictures of the device and or method of theft and contact the sheriff's office prior to removal of said device.**
- b) Amend its tariff to include the water theft policy and ensure that the tariff is enforced. **Current tariff includes the following: See sheet 36 AD – 2 and AD -3 dated 2/2/2019.**
- c) Develop and implement a set schedule for meter and valve testing as part of its leak detection and water loss mitigation plan; **Approximately 20 meters per month are being tested and NMWA has budgeted to replace approximately 40 meters per month for the next 6 months.**
- d) Test all of its meters that are ten years old or older; **Approximately 20 Meters per month are being tested.**
- e) Complete a comprehensive water audit; **Please see attached. Exhibit e)**
- f) Provide documentation that it is enforcing its tariff regarding fire department usage reporting and assessing fines against any fire department that does not report its usage amounts; **Please see attached. Exhibit f)**
- g) Develop and implement a written policies and procedures manual to include office and financial internal controls and protocols; **See attached. Exhibit g)**
- h) Development and implement a written employee vehicle usage policy; **See Attached. Exhibit H)**
- i) Develop and implement a written safety training schedule; and **See attached. Exhibit i)**
- j) Conduct safety training at regular intervals; **See attached. Exhibit J.**

## **Exhibit E**



## **Water Audit**

**We have gathered the information for the monthly water loss reports. We have concluded that the average water loss for 2019 is 43.99%. The average water loss for 2020 is 45.99% through August 2020. The monthly water loss for July 2020 is 30.36 and the water loss for August 2020 is 19.27. Approximately 16 leaks were fixed for this month. Therefore, the water loss is trending to our goal of 20%.**

**The NMWA is currently average approximately 10 leaks fixed per month.**

**The master meters are read daily to help locate any possible daily leaks. This helps develop an average daily flow in the distribution system.**

**Water losses are occurring on the older asbestos cement mains and existing water mains that are over 30 years old. The service lines and connections on these mains are also common places for leaks.**

**The options at this point is to correct the areas with most leak occurrences. We are developing a project to include these most frequent leak areas. The benefits to replace is determined to be more beneficial compared to continuing making repairs once they have occurred. Even though the economic impact to repair the entire area is most costly initially, it is less costly than continuing to pay for the excessive water loss.**

**We have determined that the North Manchester Water Association will solicit funding to replace old ageing waterlines instead of continuing to spot repair.**

# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility:

North Manchester Water Assn.

For the Month of:

January

Year:

2019

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	14,000
4	<b>TOTAL PRODUCED AND PURCHASED</b>	<b>14,000</b>
5		
6	<b>WATER SALES</b>	
7	Residential	7,002
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain) _____	
14	<b>TOTAL WATER SALES</b>	<b>7,002</b>
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	52
20	Fire Department	43
21	Other Usage (explain) _____	
22	<b>TOTAL OTHER WATER USED</b>	<b>95</b>
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	5,072
27	Line Leaks	1,831
28	Excavation Damages	
29	Theft	
30	Other Loss (explain) _____	
31	<b>TOTAL WATER LOSS</b>	<b>6,903</b>
32		
33	<b>Note: Line 14 + Line 22 + Line 31 MUST Equal Line 4</b>	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	49.31%

# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility:

North Manchester Water Assn.

For the Month of:

February

Year:

2019

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	11,995
4	<b>TOTAL PRODUCED AND PURCHASED</b>	11,995
5		
6	<b>WATER SALES</b>	
7	Residential	10,885
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain) _____	
14	<b>TOTAL WATER SALES</b>	10,885
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	26
20	Fire Department	
21	Other Usage (explain) _____	
22	<b>TOTAL OTHER WATER USED</b>	26
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	147
27	Line Leaks	937
28	Excavation Damages	
29	Theft	
30	Other Loss (explain) _____	
31	<b>TOTAL WATER LOSS</b>	1,084
32		
33	<b>Note:</b> Line 14 + Line 22 + Line 31 <b>MUST</b> Equal Line 4	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	9.04%

# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility:

North Manchester Water Assn.

For the Month of:

March

Year:

2019

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	13,057
4	<b>TOTAL PRODUCED AND PURCHASED</b>	<b>13,057</b>
5		
6	<b>WATER SALES</b>	
7	Residential	6,101
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain)	
14	<b>TOTAL WATER SALES</b>	<b>6,101</b>
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	50
20	Fire Department	38
21	Other Usage (explain)	
22	<b>TOTAL OTHER WATER USED</b>	<b>88</b>
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	1,831
27	Line Leaks	5,037
28	Excavation Damages	
29	Theft	
30	Other Loss (explain)	
31	<b>TOTAL WATER LOSS</b>	<b>6,868</b>
32		
33	<b>Note: Line 14 + Line 22 + Line 31 MUST Equal Line 4</b>	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	52.60%

# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility:

North Manchester Water Assn.

For the Month of:

April

Year:

2019

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	13,818
4	<b>TOTAL PRODUCED AND PURCHASED</b>	13,818
5		
6	<b>WATER SALES</b>	
7	Residential	7,423
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain) _____	
14	<b>TOTAL WATER SALES</b>	7,423
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	116
20	Fire Department	
21	Other Usage (explain) _____	
22	<b>TOTAL OTHER WATER USED</b>	116
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	
27	Line Leaks	6,274
28	Excavation Damages	5
29	Theft	
30	Other Loss (explain) _____	
31	<b>TOTAL WATER LOSS</b>	6,279
32		
33	<b>Note: Line 14 + Line 22 + Line 31 MUST Equal Line 4</b>	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	45.44%

# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility:

North Manchester Water Assn.

For the Month of:

May

Year:

2019

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	15,751
4	<b>TOTAL PRODUCED AND PURCHASED</b>	15,751
5		
6	<b>WATER SALES</b>	
7	Residential	7,289
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain) _____	
14	<b>TOTAL WATER SALES</b>	7,289
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	70
20	Fire Department	32
21	Other Usage (explain) _____	
22	<b>TOTAL OTHER WATER USED</b>	102
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	7,301
27	Line Leaks	1,059
28	Excavation Damages	
29	Theft	
30	Other Loss (explain) _____	
31	<b>TOTAL WATER LOSS</b>	8,360
32		
33	<b>Note:</b> Line 14 + Line 22 + Line 31 <b>MUST</b> Equal Line 4	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	53.08%

# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility:

North Manchester Water Assn.

For the Month of:

June

Year:

2019

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	13,922
4	<b>TOTAL PRODUCED AND PURCHASED</b>	<b>13,922</b>
5		
6	<b>WATER SALES</b>	
7	Residential	11,577
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain) _____	
14	<b>TOTAL WATER SALES</b>	<b>11,577</b>
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	15
20	Fire Department	1
21	Other Usage (explain) _____	
22	<b>TOTAL OTHER WATER USED</b>	<b>16</b>
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	1,384
27	Line Leaks	945
28	Excavation Damages	
29	Theft	
30	Other Loss (explain) _____	
31	<b>TOTAL WATER LOSS</b>	<b>2,329</b>
32		
33	<b>Note: Line 14 + Line 22 + Line 31 MUST Equal Line 4</b>	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	16.73%

# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility:

North Manchester Water Assn.

For the Month of:

July

Year:

2019

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	14,257
4	<b>TOTAL PRODUCED AND PURCHASED</b>	14,257
5		
6	<b>WATER SALES</b>	
7	Residential	7,556
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain) _____	
14	<b>TOTAL WATER SALES</b>	7,556
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	63
20	Fire Department	50
21	Other Usage (explain) _____	
22	<b>TOTAL OTHER WATER USED</b>	113
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	6
27	Line Leaks	6,582
28	Excavation Damages	
29	Theft	
30	Other Loss (explain) _____	
31	<b>TOTAL WATER LOSS</b>	6,588
32		
33	<b>Note:</b> Line 14 + Line 22 + Line 31 <b>MUST</b> Equal Line 4	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	46.21%



# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility:

North Manchester Water Assn.

For the Month of:

August

Year:

2019

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	16,725
4	<b>TOTAL PRODUCED AND PURCHASED</b>	16,725
5		
6	<b>WATER SALES</b>	
7	Residential	9,843
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain) _____	
14	<b>TOTAL WATER SALES</b>	9,843
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	155
20	Fire Department	50
21	Other Usage (explain) _____	
22	<b>TOTAL OTHER WATER USED</b>	205
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	6
27	Line Leaks	6,671
28	Excavation Damages	
29	Theft	
30	Other Loss (explain) _____	
31	<b>TOTAL WATER LOSS</b>	6,677
32		
33	<b>Note:</b> Line 14 + Line 22 + Line 31 <b>MUST</b> Equal Line 4	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	39.92%

# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility:

North Manchester Water Assn.

For the Month of:

September

Year:

2019

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	17,276
4	<b>TOTAL PRODUCED AND PURCHASED</b>	17,276
5	<b>WATER SALES</b>	
7	Residential	7,827
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain)	
14	<b>TOTAL WATER SALES</b>	7,827
15	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	155
20	Fire Department	
21	Other Usage (explain)	
22	<b>TOTAL OTHER WATER USED</b>	155
23	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	89
27	Line Leaks	9,205
28	Excavation Damages	
29	Theft	
30	Other Loss (explain)	
31	<b>TOTAL WATER LOSS</b>	9,294
32		
33	<b>Note: Line 14 + Line 22 + Line 31 MUST Equal Line 4</b>	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	53.80%

# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility:

North Manchester Water Assn.

For the Month of:

October

Year:

2019

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	18,048
4	<b>TOTAL PRODUCED AND PURCHASED</b>	18,048
5		
6	<b>WATER SALES</b>	
7	Residential	8,648
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain) _____	
14	<b>TOTAL WATER SALES</b>	8,648
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	9
20	Fire Department	
21	Other Usage (explain) _____	
22	<b>TOTAL OTHER WATER USED</b>	9
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	820
27	Line Leaks	8,571
28	Excavation Damages	
29	Theft	
30	Other Loss (explain) _____	
31	<b>TOTAL WATER LOSS</b>	9,391
32		
33	<b>Note:</b> Line 14 + Line 22 + Line 31 <b>MUST</b> Equal Line 4	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	52.03%

# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility:

North Manchester Water Assn.

For the Month of:

November

Year:

2019

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	19,798
4	<b>TOTAL PRODUCED AND PURCHASED</b>	19,798
5		
6	<b>WATER SALES</b>	
7	Residential	8,394
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain) _____	
14	<b>TOTAL WATER SALES</b>	8,394
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	9
20	Fire Department	
21	Other Usage (explain) _____	
22	<b>TOTAL OTHER WATER USED</b>	9
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	100
27	Line Leaks	11,295
28	Excavation Damages	
29	Theft	
30	Other Loss (explain) _____	
31	<b>TOTAL WATER LOSS</b>	11,395
32		
33	<b>Note:</b> Line 14 + Line 22 + Line 31 <b>MUST</b> Equal Line 4	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	57.56%

# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility:

North Manchester Water Assn.

For the Month of:

December

Year:

2019

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	18,581
4	<b>TOTAL PRODUCED AND PURCHASED</b>	<b>18,581</b>
5		
6	<b>WATER SALES</b>	
7	Residential	8,861
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain) _____	
14	<b>TOTAL WATER SALES</b>	<b>8,861</b>
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	9
20	Fire Department	
21	Other Usage (explain) _____	
22	<b>TOTAL OTHER WATER USED</b>	<b>9</b>
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	144
27	Line Leaks	9,567
28	Excavation Damages	
29	Theft	
30	Other Loss (explain) _____	
31	<b>TOTAL WATER LOSS</b>	<b>9,711</b>
32		
33	<b>Note:</b> Line 14 + Line 22 + Line 31 <b>MUST</b> Equal Line 4	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	52.26%

# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility:

North Manchester Water Assn.

For the Month of:

January

Year:

2020

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	-
3	Water Purchased	17,992
4	<b>TOTAL PRODUCED AND PURCHASED</b>	<b>17,992</b>
5		
6	<b>WATER SALES</b>	
7	Residential	6,888
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain) _____	
14	<b>TOTAL WATER SALES</b>	<b>6,888</b>
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	3
20	Fire Department	
21	Other Usage (explain) _____	
22	<b>TOTAL OTHER WATER USED</b>	<b>3</b>
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	79
27	Line Leaks	11,022
28	Excavation Damages	
29	Theft	
30	Other Loss (explain) _____	
31	<b>TOTAL WATER LOSS</b>	<b>11,101</b>
32		
33	<b>Note: Line 14 + Line 22 + Line 31 MUST Equal Line 4</b>	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	61.70%

# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility:

North Manchester Water Assn.

For the Month of:

February

Year:

2020

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	20,356
4	<b>TOTAL PRODUCED AND PURCHASED</b>	20,356
5		
6	<b>WATER SALES</b>	
7	Residential	8,076
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain)	
14	<b>TOTAL WATER SALES</b>	8,076
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	5
20	Fire Department	
21	Other Usage (explain)	
22	<b>TOTAL OTHER WATER USED</b>	5
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	36
27	Line Leaks	12,239
28	Excavation Damages	
29	Theft	
30	Other Loss (explain)	
31	<b>TOTAL WATER LOSS</b>	12,275
32		
33	<b>Note:</b> Line 14 + Line 22 + Line 31 <b>MUST</b> Equal Line 4	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	60.30%

# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility: North Manchester Water Assn.

For the Month of: March Year: 2020

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	18,241
4	<b>TOTAL PRODUCED AND PURCHASED</b>	18,241
5		
6	<b>WATER SALES</b>	
7	Residential	9,752
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain) _____	
14	<b>TOTAL WATER SALES</b>	9,752
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	3
20	Fire Department	
21	Other Usage (explain) _____	
22	<b>TOTAL OTHER WATER USED</b>	3
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	57
27	Line Leaks	8,429
28	Excavation Damages	
29	Theft	
30	Other Loss (explain) _____	
31	<b>TOTAL WATER LOSS</b>	8,486
32		
33	<b>Note:</b> Line 14 + Line 22 + Line 31 <b>MUST</b> Equal Line 4	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	46.52%



# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility:

North Manchester Water Assn.

For the Month of:

April

Year:

2020

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	18,816
4	<b>TOTAL PRODUCED AND PURCHASED</b>	18,816
5		
6	<b>WATER SALES</b>	
7	Residential	8,176
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain) _____	
14	<b>TOTAL WATER SALES</b>	8,176
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	3
20	Fire Department	
21	Other Usage (explain) _____	
22	<b>TOTAL OTHER WATER USED</b>	3
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	
27	Line Leaks	129
28	Excavation Damages	10,508
29	Theft	
30	Other Loss (explain) _____	
31	<b>TOTAL WATER LOSS</b>	10,637
32		
33	<b>Note:</b> Line 14 + Line 22 + Line 31 <b>MUST</b> Equal Line 4	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	56.53%

# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility: North Manchester Water Assn.

For the Month of: May Year: 2020

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	17,178
4	<b>TOTAL PRODUCED AND PURCHASED</b>	<b>17,178</b>
5		
6	<b>WATER SALES</b>	
7	Residential	8,891
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain) _____	
14	<b>TOTAL WATER SALES</b>	<b>8,891</b>
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	3
20	Fire Department	
21	Other Usage (explain) _____	
22	<b>TOTAL OTHER WATER USED</b>	<b>3</b>
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	
27	Line Leaks	94
28	Excavation Damages	8,190
29	Theft	
30	Other Loss (explain) _____	
31	<b>TOTAL WATER LOSS</b>	<b>8,284</b>
32		
33	<b>Note:</b> Line 14 + Line 22 + Line 31 <b>MUST</b> Equal Line 4	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	<b>48.22%</b>

# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility: North Manchester Water Assn.

For the Month of: June Year: 2020

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	17,766
4	<b>TOTAL PRODUCED AND PURCHASED</b>	17,766
5		
6	<b>WATER SALES</b>	
7	Residential	9,744
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain) _____	
14	<b>TOTAL WATER SALES</b>	9,744
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	20
20	Fire Department	
21	Other Usage (explain) _____	
22	<b>TOTAL OTHER WATER USED</b>	20
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	
27	Line Leaks	221
28	Excavation Damages	7,781
29	Theft	
30	Other Loss (explain) _____	
31	<b>TOTAL WATER LOSS</b>	8,002
32		
33	<b>Note:</b> Line 14 + Line 22 + Line 31 <b>MUST</b> Equal Line 4	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	45.04%

# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility: North Manchester Water Assn.

For the Month of: July Year: 2020

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	14,869
4	<b>TOTAL PRODUCED AND PURCHASED</b>	<b>14,869</b>
5		
6	<b>WATER SALES</b>	
7	Residential	10,330
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain) _____	
14	<b>TOTAL WATER SALES</b>	<b>10,330</b>
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	25
20	Fire Department	
21	Other Usage (explain) _____	
22	<b>TOTAL OTHER WATER USED</b>	<b>25</b>
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	144
27	Line Leaks	4,370
28	Excavation Damages	
29	Theft	
30	Other Loss (explain) _____	
31	<b>TOTAL WATER LOSS</b>	<b>4,514</b>
32		
33	<b>Note:</b> Line 14 + Line 22 + Line 31 <b>MUST</b> Equal Line 4	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	30.36%

# PUBLIC SERVICE COMMISSION

## Monthly Water Loss Report

Water Utility: North Manchester Water Assn.

For the Month of: August Year: 2020

LINE #	ITEM	GALLONS (Omit 000's)
1	<b>WATER PRODUCED AND PURCHASED</b>	
2	Water Produced	
3	Water Purchased	13,619
4	<b>TOTAL PRODUCED AND PURCHASED</b>	13,619
5		
6	<b>WATER SALES</b>	
7	Residential	10,887
8	Commercial	
9	Industrial	
10	Bulk Loading Stations	
11	Wholesale	
12	Public Authorities	
13	Other Sales (explain) _____	
14	<b>TOTAL WATER SALES</b>	10,887
15		
16	<b>OTHER WATER USED</b>	
17	Utility and/or Water Treatment Plant	
18	Wastewater Plant	
19	System Flushing	107
20	Fire Department	
21	Other Usage (explain) _____	
22	<b>TOTAL OTHER WATER USED</b>	107
23		
24	<b>WATER LOSS</b>	
25	Tank Overflows	
26	Line Breaks	2,242
27	Line Leaks	383
28	Excavation Damages	
29	Theft	
30	Other Loss (explain) _____	
31	<b>TOTAL WATER LOSS</b>	2,625
32		
33	<b>Note:</b> Line 14 + Line 22 + Line 31 <b>MUST</b> Equal Line 4	
34		
35	<b>WATER LOSS PERCENTAGE</b>	
36	(Line 31 divided by Line 4)	19.27%