

**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  
NORTH SHELBY WATER COMPANY  
TO  
COMMISSION’S REQUEST FOR INFORMATION  
DATED DECEMBER 18, 2018**

**FILED: January 11, 2019**

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BEFORE THE PUBLIC SERVICE COMMISSION**

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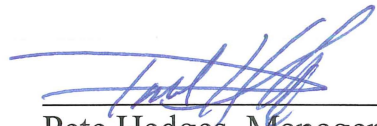
**CERTIFICATION OF RESPONSE OF  
NORTH SHELBY WATER COMPANY**

**TO**

**COMMISSION'S REQUEST FOR INFORMATION**

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

Date: 1-11-19

  
\_\_\_\_\_  
Pete Hedges, Manager  
North Shelby Water Company

# **NORTH SHELBY WATER COMPANY**

**CASE NO. 2018-00394**

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

### **Question No. 1**

#### **Responding Witness: Pete Hedges**

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. The North Shelby Water Company (NSWC) utilizes a Monthly Water Loss Report spreadsheet to manually calculate and track water loss for the system. The spreadsheet allows system personnel to enter values for water purchased, water sold (by customer type), water used but not sold (flushing and fire department use), and water loss (tank overflows, line breaks and line leaks). NSWC does not produce water and purchases all water for re-sale to our customers from the Louisville Water Company, Frankfort Electric & Water Plant Board and Shelbyville Municipal Water & Sewer Commission. Information regarding water purchased is obtained from readings taken at purchase point master meters and the total monthly usage for all purchase points is combined to give the total amount of water purchased for the system.

Likewise, information regarding water sold is obtained from readings taken at all active customer meters once per month. The total usage for all customer meters is totaled via our billing software to determine the total amount of water sold for the system. Regarding water which is used but not sold, the spreadsheet allows for system personnel to input the amount of water which is used for both system flushing and fire department use. In the case of flushing, the inputs are recorded in the field by the service technician who is performing the flushing. The inputs are recorded on a "Flushing Report" worksheet which is then taken back to the office and then the estimated volume is calculated for input into the spreadsheet at the end of the month. Similarly, inputs relative to fire department usage are recorded in the field by fire department personnel on a "Fire Department Monthly Report" worksheet which is delivered to the NSWC office monthly as applicable for input into the spreadsheet. Regarding water loss, known water loss events are recorded in field on "Line Break Logbook" forms by service technicians and then taken back to the office for input into the spreadsheet before the end of the month.

- a. NSWC utilizes a Monthly Water Loss Report Excel spreadsheet to manually calculate and track water loss for the system.
- b. See attached the following:
  - Monthly Water Loss Report Excel spreadsheet
  - "Flushing Report" worksheet

- "Fire Department Monthly Report" worksheet
  - "Line Break Logbook" worksheet
- c. The Monthly Water Loss Report Excel spreadsheet was sourced from the Kentucky Rural Water Association. All other forms referenced were created by NSWC.

# **NORTH SHELBY WATER COMPANY**

## **CASE NO. 2018-00394**

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

#### **Question No. 2**

##### **Responding Witness: Pete Hedges**

- 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. NSWC's understanding of the information to be provided in each of the categories on the Water Statistics page of the annual report is as follows:
1. "Water Produced, Purchased, and Distributed" – Heading
  2. "Water Produced" – The total volume of water produced by NSWC. Not applicable for NSWC.
  3. "Water Purchased" – The total volume of water purchased by NSWC from our suppliers.
  4. "Total Produced and Purchased" – The sum of Line 2 "Water Produced" and Line 3 "Water Purchased". More specifically, this is the total volume of water which enters the NSWC system.
  6. "Water Sales:" – Heading
  7. "Residential" – The total volume of water sold by NSWC to residential customers.

8. “Commercial” – The total volume of water sold by NSWC to commercial customers.
9. “Industrial” – The total volume of water sold by NSWC to industrial customers.
10. “Bulk Loading Stations” – The total volume of water sold by NSWC to customers at bulk loading stations, automatic water sales stations, or similar type sales. Not applicable to NSWC
11. “Resale” – The total of volume of water sold by NSWC to other water utilities or customers for resale to their customers or users. Not applicable to NSWC.
12. “Other Sales” – The total of volume of water sold by the NSWC to customers which are not considered residential, commercial, or industrial type users. For NSWC this includes schools, governmental entities, temporary users such as contractors, and other similar unusual customer categories.
13. “Total Water Sales” – The sum of Line 7 “Residential”, Line 8 “Commercial”, Line 9 “Industrial”, Line 10 “Bulk Loading Stations”, Line 11, “Resale”, and Line 12 “Other Sales”. More specifically, this is the total volume of water which is sold by NSWC.
15. “Other Water Used” – Heading
16. “Utility/water treatment plant” – The total of volume of water used by NSWC at a water treatment plant or similar type facility. Not applicable to NSWC.

17. “Wastewater plant” – The total of volume of water used by NSWC at a wastewater treatment plant or similar type facility. Not applicable to NSWC.
18. “System flushing” – The total of volume of water used by NSWC to flush transmission and distribution mains throughout the system. This includes routine system flushing, flushing related to leak and break repairs, flushing of newly constructed mains, and flushing related to the control of Disinfection Byproducts.
19. “Fire Department” – The total of volume of water used by fire departments within the NSWC system for firefighting and fire hydrant testing and maintenance.
20. “Other” – The total of volume of water used by NSWC within the system for purposes other than Utility/Water Treatment Plant, Wastewater plant, System Flushing, and Fire Department. Not applicable to NSWC.
21. “Total Other Water Used” – The sum of Line 16 “Utility/water treatment plant”, Line 17 “Wastewater plant”, Line 18 “System flushing”, Line 19 “Fire Department”, and Line 20 “Other”. More specifically, this is the total volume of water which NSWC uses but is not sold to customers.
23. “Water Loss” – Heading
24. “Tank Overflows” – The total of volume of water lost by NSWC due to inadvertent water storage tank overflows.



25. “Line Breaks” – The total of volume of water lost by NSWC due to known water line breaks.
26. “Line Leaks” – The total of volume of water lost by NSWC due to line leaks within the system. This includes accidental leaks due to excavation damage by others as well as other spontaneous regular leaks within the system that are found and repaired.
27. “Other” – The total of volume of water lost by NSWC within the system due to causes other than Tank Overflows, Line Breaks, and Line Leaks. NSWC considers all lost water which cannot be accounted for by known tank overflows or line breaks to be classified as “Other” water loss.
28. “Total Line Loss” – The sum of Line 24 “Tank Overflows”, Line 25 “Line Breaks”, Line 26 “Line Leaks”, and Line 27 “Other”. More specifically, this is the total volume of water which NSWC lost within the system.
32. “Water Loss Percentage” – Heading
33. “Line 28 divided by Line 4” – This is the amount Line 28 “Total Line Loss” divided by Line 4 “Total Produced and Purchased”. More specifically, this is the percentage of the amount of water which was lost within the NSWC system as compared the amount of water which entered the NSWC system.

**NORTH SHELBY WATER COMPANY**

**CASE NO. 2018-00394**

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

**Question No. 3**

**Responding Witness: Pete Hedges**

- 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. NSWC currently has no questions.

**NORTH SHELBY WATER COMPANY**

**CASE NO. 2018-00394**

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

**Question No. 4**

**Responding Witness: Pete Hedges**

- 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. NSWC currently has no suggestions or improvements.

**NORTH SHELBY WATER COMPANY**

**CASE NO. 2018-00394**

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

**Question No. 5**

**Responding Witness: Pete Hedges**

- 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. NSWC currently has no questions.

**NORTH SHELBY WATER COMPANY**

**CASE NO. 2018-00394**

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

**Question No. 6**

**Responding Witness: Pete Hedges**

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. NSWC currently has no concerns.

**NORTH SHELBY WATER COMPANY**

**CASE NO. 2018-00394**

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

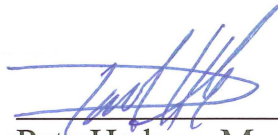
**Question No. 7**

**Responding Witness: Pete Hedges**

- 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. NSWC **does** believe it is reasonable, proper, and appropriate for the Commission to require jurisdictional water utilities to maintain and use the updated Commission Form. The updated Commission Form includes all appropriate categories to measure, calculate, and track water loss for all water systems, regardless of the size and type. As the Commission continues to emphasize water loss in rate making and other proceedings, it is logical that all utilities should be required to use the same form to report the information to the Commission.

## CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that North Shelby Water Company'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 11, 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.



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Pete Hedges, Manager  
North Shelby Water Company

# Monthly Water Loss Report

Water Company:

For the Month of:  Year:

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

**A: Total Water Produced and Purchased = 0 gallons**

Sold: Residential  gallons  
 Commercial  gallons  
 Water Salesman  gallons

**Total Sold = 0 gallons**

**B: Difference: (Produced+Purchased) - Sold = 0 gallons**

**% Difference = #DIV/0! % total water loss**

**Gallons of Water Accounted For:**

Breaks (Estimated Total)  gallons  
 Hydrant Flushing  gallons  
 Storage Tank Overflow  gallons  
 Water Treatment Plant Use  gallons  
 Wastewater Treatment Plant Use  gallons  
 Fire Department Use  gallons  
 Net Computer Adjustment + / -  gallons  
 Other  gallons

**C: Total Gallons Accounted For = 0 gallons**

**Loss: Unaccounted-for Water: (B-C) = 0 gallons**

**% Loss: Unaccounted-for Water: (B-C)/A %= #DIV/0! % unaccounted - for loss**

**Gallons / Day Loss =  days in month #DIV/0! gallons/day**  
**Gallons / Minute Loss = #DIV/0! gallons/min.**



Flushing Report

NSW

US60

Date: \_\_\_\_\_

Location: \_\_\_\_\_

Type:      **Fire Hydrant or Blow Off**

Size: \_\_\_\_\_

Pressure: \_\_\_\_\_

Time Flushed: \_\_\_\_\_

Residual: \_\_\_\_\_

Performed By: \_\_\_\_\_

FIRE STATION MONTHLY REPORT

Month of \_\_\_\_\_

Department Name \_\_\_\_\_

Chief/Contact \_\_\_\_\_

DATE	LOCATION	ESTIMATED GALLONS USED

TOTAL GALLONS (ESTIMATED) \_\_\_\_\_

# LINE BREAK LOGBOOK

\*Required by 401 KAR 8:150, Section 4(2)

*DATE	
*LOCATION OF BREAK	
*TIME IT WAS DISCOVERED	
*POPULATION AFFECTED	
*LENGTH OF TIME TO REPAIR	
*DATE & TIME CL2 RESIDUALS DETECTED	
*DATE & TIME BACT SAMPLES TAKEN	
<i>TURNED WATER OFF (yes or no)</i>	
<i>BWA REQUIRED (yes or no)</i>	
<i>OTHER COMMENTS</i>	

*DATE	
*LOCATION OF BREAK	
*TIME IT WAS DISCOVERED	
*POPULATION AFFECTED	
*LENGTH OF TIME TO REPAIR	
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<i>BWA REQUIRED (yes or no)</i>	
<i>OTHER COMMENTS</i>	