

IN THE TENNESSEE PUBLIC UTILITY COMMISSION
AT NASHVILLE, TENNESSEE

IN RE:)	
)	
PETITION OF TENNESSEE-)	
AMERICAN WATER COMPANY)	DOCKET NO. 20-00008
REGARDING THE PRODUCTION)	
COSTS AND OTHER PASS-)	
THROUGHS RIDER)	

CONSUMER ADVOCATE'S SECOND DISCOVERY REQUEST
TO TENNESSEE AMERICAN WATER COMPANY.

To: Tennessee American Water Company
C/O Melvin J. Malone
Butler, Snow, O'Mara, Stevens & Cannada, PLLC
The Pinnacle at Symphony Place
150 3rd Avenue South, Suite 1600
Nashville, TN 37201
Melvin.Malone@butlersnow.com

Elaine K. Chambers
Director of Rates and Regulation – Tennessee and Kentucky
Kentucky American Water Company
2300 Richmond Road
Lexington, KY 40502
Elaine.K.Chambers@amwater.com

This Second Discovery Request is hereby served upon Tennessee American Water Company (Company), pursuant to Rules 26, 33, 34 and 36 of the Tennessee Rules of Civil Procedure and Tenn. Comp. R. & Reg. 1220-1-2-.11. The Consumer Advocate Unit in the Financial Division of the Office of the Attorney General (Consumer Advocate) requests that full and complete responses be provided pursuant to the Tennessee Rules of Civil Procedure. The responses are to be produced at the Office of the Tennessee Attorney General and Reporter, Financial Division, Consumer Advocate Unit, War Memorial Building, 301 6th Avenue North,

Nashville, Tennessee 37243, c/o Karen H. Stachowski, on or before 2:00 p.m. (CDT), March 15, 2019.

PRELIMINARY MATTERS AND DEFINITIONS

These Additional Discovery Requests incorporate by reference the same Preliminary Matters and Definitions as set forth in the *Consumer Advocate's First Discovery Request to Tennessee American Water* sent to the Company on February 14, 2020¹, and are to be considered continuing in nature, and are to be supplemented from time to time as information is received by the Company which would make a prior response inaccurate, incomplete, or incorrect.

SECOND DISCOVERY REQUESTS

2-1. Refer to the Company's Response to the Consumer Advocate's (CA) DR No. 1-9, Attachment, pp. 1-2. On page 1 under the section *Energy & Water Gross Receipts IN TENNESSEE*, the Company has the amount of \$1,109,918.00 in the line for *Miscellaneous*. However, on page 2 the amount of \$1,109,918.00 is now located in the line for *Wastewater Revenues*. Explain the amount \$1,109,918.00 located in the lines for *Miscellaneous* and *Wastewater Revenues* on pp. 1-2 of the Attachment.

RESPONSE:

2-2. Refer to the Company's Response to CA DR No. 1-3 and its Attachment. In its Response, the Company states that the "accounted for non-revenue water amounts have been removed from this calculation as these amounts generally fall under water losses." In the Attachment, the Company provides the details of the *Accounted for Non-Revenue Water* to include *Identified Leaks, Hydrant Inspections, Hydrant/Main Flushing, Fire Usage*, and


¹ On February 28, 2020, the Company filed with TPUC its response to the *Consumer Advocate's First Discovery Request to Tennessee American Water*.

Inactive Customer Account Usage. Refer to the American Water Works Association's (AWWA) *Best Practice in Water Loss Control: Improved Concepts for 21st Century Water Management*. A copy of this AWWA document is attached as CA Exhibit 2-2. In the IWA/AWWA Water Balance Table on page 2 of Exhibit CA No. 2-2, Non-revenue Water includes three classifications: Unbilled Authorized Consumption, Apparent Losses, and Real Losses. In classifying the Company's five types of Non-revenue Water under the AWWA's Water Balance Table, confirm or correct the following:

- a. Identified Leaks are Real Losses.
- b. Hydrant Inspections are Unbilled Authorized Consumption.
- c. Hydrant/Main Flushing is Unbilled Authorized Consumption.
- d. Fire Usage is Unbilled Authorized Consumption.
- e. Inactive Customer Accounts are Apparent Losses.

RESPONSE:

RESPECTFULLY SUBMITTED,


KAREN H. STACHOWSKI (BPR #019607)
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Office of the Tennessee Attorney General
Financial Division, Consumer Advocate Unit
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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was served via U.S. Mail or electronic mail upon:

Melvin J. Malone
Butler Snow LLP
The Pinnacle at Symphony Place
150 3rd Avenue South, Suite 1600
Nashville, TN 37201
Melvin.Malone@butlersnow.com

Elaine K. Chambers
Director of Rates and Regulation – Tennessee and Kentucky
Kentucky American Water Company
2300 Richmond Road
Lexington, KY 40502
Elaine.K.Chambers@amwater.com

This the 6th day of March 2019.


KAREN H. STACHOWSKI



Best Practice in Water Loss Control: Improved Concepts for 21st Century Water Management

In 2003 the American Water Works Association (AWWA) adopted improved best practice methods for defining and measuring water loss in water distribution systems. This transition into a new era of effective water management marked a departure from previous terms and practices no longer useful to the industry. The following explains this departure from obsolete practices and articulates key points and best practices in water loss control today.

Improved Terminology: Non-revenue Water

In 2003 AWWA abandoned use of the term “unaccounted-for” water (UFW) because all volumes of water supplied within a distribution system go toward either beneficial consumption or wasteful loss. *All water sent into the distribution system can be accounted for.* Today, the industry term favored by AWWA and its Water Loss Control Committee when quantifying water loss is “non-revenue” water (NRW).

NRW is specifically defined to include the sum of specific types of water loss and any authorized, unbilled consumption that occurs within water distribution systems.

Enhanced Performance Indicators to Measure Progress

Although percentage indicators—typically the ratio of authorized customer consumption to distribution system input—still exist in the industry, AWWA discourages use of percentage indicators, such as the “unaccounted-for” water percentage. Using percentage indicators to assess water loss in distribution systems gives a misleading and unreliable measure of utility performance because a percentage indicator

- › is greatly affected by changing levels of customer consumption
- › cannot distinguish among the specific components of non-revenue water occurring in a distribution system
- › reveals nothing about water volumes and associated costs (the two most important factors in assessing water waste within a distribution system).

Today, the industry best practice for water loss auditing created by the International Water Association (IWA) and AWWA now quantifies **several key performance indicators, which provide vastly superior means for assessing water loss performance in distribution systems, while recognizing that contributing factors and potential corrective measures are specific to each water utility.**



**American Water Works
Association**

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The following table provides a guide to the most up-to-date industry best practices and water loss control terminology.

Editorial Guide for Use of Up-to-Date Water Loss Control Terminology		
INCORRECT	CORRECT	WHY
Unaccounted-for water (UFW)	Non-revenue water (NRW)	All water entering a distribution system can be defined as a component of either authorized consumption or water loss
% of system input volume to measure water loss performance	Suite of key performance indicators for water loss as outlined in IWA/AWWA audit method (As an example: gal/service connection/day)	A %-based expression obscures the underlying causes of water loss and impedes realistic solutions based on system specifics

It is important to understand that all water utility distribution systems incur leakage (real losses). Similarly, all water utilities fail to recover revenue from all of the water that is (or should be) billed to customers (apparent losses). Although every system is unique, all water utilities should employ leakage control and revenue recovery programs that strive to keep losses contained to appropriate, economically justified levels. AWWA's Manual: *Water Audits and Loss Control Programs* (M36) and the [AWWA FREE Water Audit Software](#) provide a robust pathway for utilities to develop data-driven programs to cost-effectively manage all water loss components (apparent and real) in distribution systems, as shown below in the IWA/AWWA Water Balance.

The IWA/AWWA Water Balance						
Volume From Own Sources (corrected for known errors)	System Input Volume	Water Exported (corrected for known errors)	Billed Water Exported			Revenue Water
		Water Supplied	Authorized Consumption	Billed Authorized Consumption	Billed Metered Consumption	Revenue Water
					Billed Unmetered Consumption	
				Unbilled Authorized Consumption	Unbilled Metered Consumption	Non-revenue Water
					Unbilled Unmetered Consumption	
			Apparent Losses		Customer Metering Inaccuracies	
					Unauthorized Consumption	
				Systematic Data Handling Errors		
			Water Losses	Real Losses	Leakage on Transmission and Distribution Mains	
		Leakage and Overflows at Utility's Storage Tanks				
Leakage on Service Connections up to the Point of Customer Metering						
Water Imported (corrected for known errors)						

NOTE: All data in volume for the period of reference, typically one year.

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6666 W. Quincy Ave. | Denver, CO 80235 | www.awwa.org

Exhibit CA No. 2-2