



March 31, 2023

**Newtown Artesian Water Company 2022 Water Audit**

Attached with this letter is the completed 2022 Water Audit for Newtown Artesian Water Company, docket number M-2023-3037451.

Please contact me with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Pierone", with a long horizontal flourish extending to the right.

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# AWWA Free Water Audit Software: Worksheet

FWAS v6.0  
American Water Works Association  
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Water Audit Report for: **Newtown Artesian Water Company**  
 Audit Year: **2022**    **Jan 01 2022 - Dec 31 2022**    **Calendar**

To access definitions, click the input name

Click 'n' to add notes  
 Click 'g' to determine data validity grade

To edit water system info: [go to start page](#)

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

Water Supplied Error Adjustments

choose entry option:

### WATER SUPPLIED

VOS	Volume from Own Sources:	n g 7	276.583	MG/Yr	n g 8	1.67%	percent	
WI	Water Imported:	n g 7	462.802	MG/Yr	n g 9	0.18%	percent	<a href="#">under-registration</a> VOSEA
WE	Water Exported:	n g n/a	0.000	MG/Yr				<a href="#">under-registration</a> WIEA WEEA
<b>WATER SUPPLIED:</b>			<b>744.917</b>	<b>MG/Yr</b>				

### AUTHORIZED CONSUMPTION

BMAC	Billed Metered:	n g 7	704.109	MG/Yr				
BUAC	Billed Unmetered:	n g n/a		MG/Yr				
UMAC	Unbilled Metered:	n g n/a	0.000	MG/Yr				
UUAC	Unbilled Unmetered:	n g 10	10.956	MG/Yr				
<b>AUTHORIZED CONSUMPTION:</b>			<b>715.065</b>	<b>MG/Yr</b>				

choose entry option:  
[custom](#) **10.956** MG/Yr

### WATER LOSSES

#### Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

SDHE	Systematic Data Handling Errors:	n g 3	1.760	MG/Yr				
CMI	Customer Metering Inaccuracies:	n g 8	14.370	MG/Yr				
UC	Unauthorized Consumption:	n g 3	1.760	MG/Yr				

choose entry option:

0.25%	default
2.00%	percent
0.25%	default

[under-registration](#)

Default option selected for Unauthorized Consumption, with automatic data grading of 3

**Apparent Losses: 17.890 MG/Yr**

#### Real Losses

**Real Losses: 11.962 MG/Yr**

**WATER LOSSES: 29.852 MG/Yr**

### NON-REVENUE WATER

**NON-REVENUE WATER: 40.808 MG/Yr**

### SYSTEM DATA

Lm	Length of mains:	n g 10	136.0	miles				
Nc	Number of service connections:	n g 8	10,569		(including fire hydrant lead lengths)			
	Service connection density:		78	conn./mile main	(active and inactive)			
Are customer meters typically located at the curbstop/property line?			No					
Lp	Average length of (private) customer service line:	n g 10	68.8	ft	(average distance between property line and meter)			
AOP	Average Operating Pressure:	n g 7	71.8	psi				

### COST DATA

CRUC	Customer Retail Unit Charge:	n g 9	\$6.67	\$/1000 gallons (US)				
VPC	Variable Production Cost:	n g 8	\$2,443.37	\$/Million gallons				
					<b>Total Annual Operating Cost</b>			
					<input type="text"/>		\$/yr (optional input)	

### WATER AUDIT DATA VALIDITY TIER:

**\*\*\* The Water Audit Data Validity Score is in Tier IV (71-90). See Dashboard tab for additional outputs. \*\*\***

[go to dashboard](#)

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

#### PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

- 1: Water Imported (WI)
- 2: Billed Metered (BMAC)
- 3: Volume from Own Sources (VOS)

#### KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below.

Unit Total Losses:	<input type="text"/>	gal/conn/day
Unit Apparent Losses:	<input type="text"/>	gal/conn/day
Unit Real Losses <sup>a</sup> :	<input type="text"/>	gal/conn/day
Unit Real Losses <sup>b</sup> :	<input type="text"/>	gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)