

3/29/2022



*Newtown Artesian Water Company 2021 Water Audit*

Attached with this letter is the completed 2021 water audit for Newtown Artesian Water Company, docket number M-2022-3030282.

If any more information is needed or if there are any questions regarding this information please contact me.

Thank you,

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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: **2021** Jan 01 2021 - Dec 31 2021 Calendar

Click 'n' to add notes To edit water system info: [go to start page](#)  
Click 'g' to determine data validity grade

To access definitions, click the input name

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

Water Supplied Error Adjustments

## WATER SUPPLIED

choose entry option:

VOS  
WI  
WE

Volume from Own Sources:	n	g	7	267.814	MG/Yr
Water Imported:	n	g	7	445.131	MG/Yr
Water Exported:	n	g	n/a		MG/Yr

n	g	8	0.26%	percent
n	g	9	0.50%	percent

[under-registration](#) VOSEA  
[under-registration](#) WIEA  
WEWA

WATER SUPPLIED: 715.880 MG/Yr

## AUTHORIZED CONSUMPTION

BMAC  
BUAC  
UMAC  
UUC

Billed Metered:	n	g	7	667.294	MG/Yr
Billed Unmetered:	n	g	n/a	0.000	MG/Yr
Unbilled Metered:	n	g	2	3.740	MG/Yr
Unbilled Unmetered:	n	g	8	10.134	MG/Yr

choose entry option:

custom 10.134 MG/Yr

AUTHORIZED CONSUMPTION: 681.168 MG/Yr

## WATER LOSSES

34.712 MG/Yr

### Apparent Losses

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

choose entry option:

SDHE  
CMI  
UC

Systematic Data Handling Errors:	n	g	3	1.668	MG/Yr
Customer Metering Inaccuracies:	n	g	9	0.000	MG/Yr
Unauthorized Consumption:	n	g	3	1.668	MG/Yr

0.25%	default
	percent
0.25%	default

[under-registration](#)

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

Apparent Losses: 3.336 MG/Yr

### Real Losses

Real Losses: 31.376 MG/Yr

WATER LOSSES: 34.712 MG/Yr

## NON-REVENUE WATER

NON-REVENUE WATER: 48.586 MG/Yr

## SYSTEM DATA

Lm  
Nc  
Lp  
AOP

Length of mains:	n	g	10	135.2	miles	(including fire hydrant lead lengths)
Number of service connections:	n	g	8	10,563		(active and inactive)
Service connection density:				78	conn./mile main	

Are customer meters typically located at the curbstop/property line? No

Average length of (private) customer service line: n g 7 68.8 ft (average distance between property line and meter)

Average Operating Pressure: n g 7 71.0 psi

## COST DATA

CRUC  
VPC

Customer Retail Unit Charge:	n	g	9	\$6.67	\$/1000 gallons (US)
Variable Production Cost:	n	g	8	\$2,352.17	\$/Million gallons

Total Annual Operating Cost \$/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:		gal/conn/day
Unit Apparent Losses:		gal/conn/day
Unit Real Losses <sup>1</sup> :		gal/conn/day
Unit Real Losses <sup>2</sup> :		gal/mile/day

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