



# AWWA Free Water Audit Software: Worksheet

FWAS v6.0  
American Water Works Association.  
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Water Audit Report for: **Roosevelt Borough Water System**  
Audit Year: **2023** | **Jan 01 2023 - Dec 31 2023** | **Calendar**

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

To access definitions, click the [input name](#)

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

Water Supplied Error Adjustments

choose entry option:

<b>WATER SUPPLIED</b>	Volume from Own Sources: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="4"/> <input type="text" value="27.144"/> MG/Yr	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="4"/> <input type="text" value="percent"/>	
VOS	Water Imported: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="n/a"/> <input type="text" value="0.000"/> MG/Yr		VOSEA
WI	Water Exported: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="n/a"/> <input type="text" value="0.000"/> MG/Yr		WIEA
WE			WEEA

**WATER SUPPLIED:** 27.144 MG/Yr

**AUTHORIZED CONSUMPTION**

BMAC	Billed Metered: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="7"/> <input type="text" value="16.757"/> MG/Yr		
BUAC	Billed Unmetered: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="n/a"/> <input type="text" value="0.000"/> MG/Yr		
UMAC	Unbilled Metered: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="4"/> <input type="text" value="4.566"/> MG/Yr		choose entry option:
UUAC	Unbilled Unmetered: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/> <input type="text" value="0.042"/> MG/Yr		<input type="text" value="0.25%"/> <input type="text" value="default"/>

Default option selected for Unbilled Unmetered, with automatic data grading of 3

**AUTHORIZED CONSUMPTION:** 21.365 MG/Yr

**WATER LOSSES**

5.779 MG/Yr

**Apparent Losses**

SDHE	Systematic Data Handling Errors: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/> <input type="text" value="0.042"/> MG/Yr		choose entry option:
CMI	Customer Metering Inaccuracies: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/> <input type="text" value="0.000"/> MG/Yr		<input type="text" value="0.25%"/> <input type="text" value="default"/>
UC	Unauthorized Consumption: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/> <input type="text" value="0.042"/> MG/Yr		<input type="text" value="0.25%"/> <input type="text" value="default"/>

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

**Apparent Losses:** 0.084 MG/Yr

under-registration

**Real Losses**

**Real Losses:** 5.696 MG/Yr

**WATER LOSSES:** 5.779 MG/Yr

**NON-REVENUE WATER**

**NON-REVENUE WATER:** 10.387 MG/Yr

**SYSTEM DATA**

Ln	Length of mains: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="6"/> <input type="text" value="4.8"/> miles		(including fire hydrant lead lengths)
Nc	Number of service connections: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="6"/> <input type="text" value="303"/>		(active and inactive)
	Service connection density: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="63"/> conn./mile main		
Lp	Are customer meters typically located at the curbstop/property line? <input type="text" value="Yes"/>		
AOP	Average length of customer service line has been set to zero and a data grading of 10 has been applied		
	Average Operating Pressure: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="5"/> <input type="text" value="45.0"/> psi		

**COST DATA**

CRUC	Customer Retail Unit Charge: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="9"/> <input type="text" value="\$12.14"/> \$/1000 gallons (US)		<b>Total Annual Operating Cost</b>
VPC	Variable Production Cost: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/> <input type="text" value="\$7,492.71"/> \$/Million gallons		<input type="text" value="\$203,382"/> \$/yr (optional input)

**WATER AUDIT DATA VALIDITY TIER:**

**\*\*\* The Water Audit Data Validity Score is in Tier II (26-50). 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: Volume from Own Sources (VOS)
- 2: Customer Metering Inaccuracies (CMI)
- 3: Variable Production Cost (VPC)

**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>1</sup> :	<input type="text"/>	gal/conn/day
Unit Real Losses <sup>2</sup> :	<input type="text"/>	gal/mile/day

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