



## AWWA Free Water Audit Software: Worksheet

FWAS v6.0

American Water Works Association.

Water Audit Report for: **VEOLIA - Harrisburg**  
 Audit Year: **2023** | **Jan 01 2023 - Dec 31 2023** | **2023**

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:

WATER SUPPLIED							
VOS	Volume from Own Sources:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="7"/>	<input type="text" value="3,856.444"/>	MG/Yr	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="4"/>	<input type="text" value="percent"/>	VOSEA
WI	Water Imported:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/>	<input type="text" value="0.048"/>	MG/Yr	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="4"/>	<input type="text" value="percent"/>	WIEA
WE	Water Exported:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="n/a"/>		MG/Yr			WEEA

**WATER SUPPLIED:**  MG/Yr

### AUTHORIZED CONSUMPTION

BMAC	Billed Metered:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="8"/>	<input type="text" value="2,765.789"/>	MG/Yr		
BUAC	Billed Unmetered:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="n/a"/>		MG/Yr		
UMAC	Unbilled Metered:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="n/a"/>		MG/Yr		
UUAC	Unbilled Unmetered:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="4"/>	<input type="text" value="36.897"/>	MG/Yr		

choose entry option:

MG/Yr

**AUTHORIZED CONSUMPTION:**  MG/Yr

### WATER LOSSES

MG/Yr

### Apparent Losses

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

SDHE	Systematic Data Handling Errors:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/>	<input type="text" value="6.914"/>	MG/Yr	<input type="text" value="0.25%"/> <input type="text" value="default"/>	
CMI	Customer Metering Inaccuracies:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/>	<input type="text" value="27.657"/>	MG/Yr	<input type="text" value="volume"/> <input type="text" value="27.657"/>	<input type="text" value="under-registration"/>
UC	Unauthorized Consumption:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="1"/>	<input type="text" value="9.641"/>	MG/Yr	<input type="text" value="custom"/> <input type="text" value="9.641"/>	

choose entry option:

**Apparent Losses:**  MG/Yr

### Real Losses

**Real Losses:**  MG/Yr

**WATER LOSSES:**  MG/Yr

### NON-REVENUE WATER

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

### SYSTEM DATA

Lm	Length of mains:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="8"/>	<input type="text" value="537.1"/>	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="8"/>	<input type="text" value="38,718"/>		(active and inactive)
	Service connection density:		<input type="text" value="72"/>	conn./mile main	
Lp	Are customer meters typically located at the curbstop/property line?	<input type="text" value="No"/>			
	Average length of (private) customer service line:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="7"/>	<input type="text" value="75.0"/>	ft	(average distance between property line and meter)
AOP	Average Operating Pressure:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="7"/>	<input type="text" value="70.0"/>	psi	

### COST DATA

CRUC	Customer Retail Unit Charge:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="5"/>	<input type="text" value="\$8.24"/>	\$/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="\$588.30"/>	\$/Million gallons	

### WATER AUDIT DATA VALIDITY TIER:

**\*\*\* The Water Audit Data Validity Score is in Tier III (51-70). 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>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)