



AWWA Free Water Audit Software: Worksheet

FWAS v6.1
American Water Works Association

Water Audit Report for: **City of Riverside - Public Utilities**

Audit Year: **2025** **Jul 01 2024 - Jun 30 2025** **Fiscal**

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: ACRE-FEET PER YEAR

Water Supplied Error Adjustments

choose entry option:

VOS	Volume from Own Sources:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="10"/>	<input type="text" value="69,358.928"/>	Acre-ft/Yr	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="10"/>	<input type="text" value="volume"/> <input type="text" value="2.000"/>	acre-ft/yr	<input type="text" value="over-registration"/>	VOSEA
WI	Water Imported:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="n/a"/>	<input type="text" value="0.000"/>	Acre-ft/Yr					WIEA
WE	Water Exported:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="9"/>	<input type="text" value="4,622.000"/>	Acre-ft/Yr	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="10"/>	<input type="text" value="percent"/>			WEEA
WATER SUPPLIED:			64,734.928	Acre-ft/Yr					

AUTHORIZED CONSUMPTION

BMAC	Billed Metered:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="9"/>	<input type="text" value="58,139.075"/>	Acre-ft/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"/>	Acre-ft/Yr					
UMAC	Unbilled Metered:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="10"/>	<input type="text" value="1,069.404"/>	Acre-ft/Yr					
UUAC	Unbilled Unmetered:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="8"/>	<input type="text" value="500.000"/>	Acre-ft/Yr					
AUTHORIZED CONSUMPTION:			59,708.479	Acre-ft/Yr					

WATER LOSSES

5,026.449 Acre-ft/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="145.348"/>	Acre-ft/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="8"/>	<input type="text" value="0.000"/>	Acre-ft/Yr	<input type="text" value="0.00%"/> <input type="text" value="percent"/>				<input type="text" value="under-registration"/>
UC	Unauthorized Consumption:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/>	<input type="text" value="145.348"/>	Acre-ft/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: 290.695 Acre-ft/Yr

Real Losses

Real Losses: 4,735.753 Acre-ft/Yr

WATER LOSSES: 5,026.449 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 6,595.853 Acre-ft/Yr

SYSTEM DATA

Lm	Length of mains:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="10"/>	<input type="text" value="911.7"/>	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="10"/>	<input type="text" value="68,553"/>		(active and inactive)
	Service connection density:		<input type="text" value="75"/>	conn./mile main	
Lp	Are customer meters typically located at the curbstops/property line?	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="10"/>	<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="6"/>	<input type="text" value="83.5"/>	psi	

COST DATA

CRUC	Customer Retail Unit Charge:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="10"/>	<input type="text" value="\$2.04"/>	\$/100 cubic feet (ccf)	Total Annual Operating Cost
VPC	Variable Production Cost:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="8"/>	<input type="text" value="\$198.15"/>	\$/acre-ft	<input type="text" value="\$55,486,242"/> \$/yr (optional input)

Click here to calculate carbon emissions ---> [carbon](#)

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: Unauthorized Consumption (UC)
- 2: Systematic Data Handling Errors (SDHE)
- 3: Billed Metered (BMAC)

KEY PERFORMANCE INDICATOR TARGETS:

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

Unit Total Losses:	<input type="text" value=""/>	gal/conn/day
Unit Apparent Losses:	<input type="text" value="17.6"/>	gal/conn/day
Unit Real Losses ^A :	<input type="text" value="60.9"/>	gal/conn/day
Unit Real Losses ^B :	<input type="text" value=""/>	gal/mile/day

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