

Please direct questions to Katie Schwaab at 303-384-8180

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0
American Water Works Association.
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? Click to access definition
+ Click to add a comment

Water Audit Report for: **City of Golden**
Reporting Year: **2019** 1/2019 - 12/2019

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

WATER SUPPLIED

Volume from own sources: + ? 7 3,195.290 acre-ft/yr
Water imported: + ? n/a 0.000 acre-ft/yr
Water exported: + ? n/a 0.000 acre-ft/yr

Master Meter and Supply Error Adjustments

Pcnt: 9 Value: -0.327 acre-ft/yr
+ ?
+ ?
+ ?

WATER SUPPLIED: 3,195.617 acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Billed metered: + ? 5 2,790.100 acre-ft/yr
Billed unmetered: + ? 10 0.760 acre-ft/yr
Unbilled metered: + ? 10 28.920 acre-ft/yr
Unbilled unmetered: + ? 7 59.329 acre-ft/yr

Unbilled Unmetered volume entered is greater than the recommended default value

AUTHORIZED CONSUMPTION: 2,879.109 acre-ft/yr

Click here: ?
for help using option buttons below

Pcnt: Value: 59.329 acre-ft/yr

Use buttons to select percentage of water supplied OR value

Pcnt: 0.25% Value: acre-ft/yr

1.50% 0.25% Value: acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

316.508 acre-ft/yr

Apparent Losses

Unauthorized consumption: + ? 7.989 acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies: + ? 3 42.929 acre-ft/yr
Systematic data handling errors: + ? 5 6.975 acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 57.894 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: ? **258.615** acre-ft/yr

WATER LOSSES: 316.508 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: 404.757 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains: + ? 10 112.7 miles
Number of active AND inactive service connections: + ? 10 5,474
Service connection density: ? 49 conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: + ? (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: + ? 4 95.7 psi

COST DATA

Total annual cost of operating water system: + ? 10 \$6,530,430.98 \$/Year
Customer retail unit cost (applied to Apparent Losses): + ? 10 \$7.88 \$/1000 gallons (US)
Variable production cost (applied to Real Losses): + ? 5 \$270.36 \$/acre-ft Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 71 out of 100 ***

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

PRIORITY AREAS FOR ATTENTION:

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

- 1: Volume from own sources
- 2: Customer metering inaccuracies
- 3: Billed metered



AWWA Free Water Audit Software: System Attributes and Performance Indicators

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Water Audit Report for:
 Reporting Year:

***** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 71 out of 100 *****

System Attributes:

	Apparent Losses:	<input type="text" value="57.894"/>	acre-ft/yr
	+	Real Losses:	<input type="text" value="258.615"/>
	=	<u>Water Losses:</u>	<input type="text" value="316.508"/>

Unavoidable Annual Real Losses (UARL): acre-ft/yr

Annual cost of Apparent Losses:

Annual cost of Real Losses: Valued at **Variable Production Cost**

Return to Reporting Worksheet to change this assumption

Performance Indicators:

Financial: { Non-revenue water as percent by volume of Water Supplied:
 Non-revenue water as percent by cost of operating system: Real Losses valued at Variable Production Cost

Operational Efficiency: { Apparent Losses per service connection per day: gallons/connection/day
 Real Losses per service connection per day: gallons/connection/day
 Real Losses per length of main per day*:
 Real Losses per service connection per day per psi pressure: gallons/connection/day/psi

From Above, Real Losses = Current Annual Real Losses (CARL): acre-feet/year

Infrastructure Leakage Index (ILI) [CARL/UARL]:

* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline