

AWWA WLCC Free Water Audit Software: Reporting Worksheet

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WAS v4.2

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Water Audit Report for: **Austin Water Utility**

Reporting Year: **2012** 10/2011 - 9/2012

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 (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: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

| | | | | |
|---|-------------------|----|------------|---------------------------------|
| Volume from own sources: | ? | 8 | 47,137.782 | Million gallons (US)/yr (MG/Yr) |
| Master meter error adjustment (enter positive value): | ? | 7 | 961.996 | under-registered MG/Yr |
| Water imported: | ? | 10 | 71.845 | MG/Yr |
| Water exported: | ? | 10 | 3,160.967 | MG/Yr |

WATER SUPPLIED: 45,010.656 MG/Yr

AUTHORIZED CONSUMPTION

| | | | | |
|---------------------|-------------------|----|------------|-------|
| Billed metered: | ? | 7 | 40,809.593 | MG/Yr |
| Billed unmetered: | ? | 10 | 3.311 | MG/Yr |
| Unbilled metered: | ? | 10 | 55.685 | MG/Yr |
| Unbilled unmetered: | ? | 8 | 73.060 | MG/Yr |

AUTHORIZED CONSUMPTION: 40,941.649 MG/Yr

Click here: [?](#)
for help using option buttons below

Pcnt: ☐ Value: ☐ 73.060

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption) 4,069.007 MG/Yr

Apparent Losses

Unauthorized consumption: [?](#) 8 120.249 MG/Yr

| | | | | |
|----------------------------------|-------------------|---|---------|-------|
| Customer metering inaccuracies: | ? | 7 | 939.588 | MG/Yr |
| Systematic data handling errors: | ? | 5 | 0.001 | MG/Yr |

Apparent Losses: [?](#) 1,059.838

Pcnt: ☐ Value: ☐ 120.249

☐ ☐ 939.588

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: [?](#) 3,009.169 MG/Yr

WATER LOSSES: 4,069.007 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: [?](#) 4,197.752 MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

| | | | | |
|--|-------------------|----|---------|---|
| Length of mains: | ? | 9 | 3,674.0 | miles |
| Number of active AND inactive service connections: | ? | 9 | 213.08 | |
| Connection density: | | | 58 | conn./mile main |
| Average length of customer service line: | ? | 10 | 0.0 | ft (pipe length between curbstop and customer meter or property boundary) |
| Average operating pressure: | ? | 9 | 77.3 | psi |

COST DATA

| | | | | |
|---|-------------------|----|---------------|----------------------|
| Total annual cost of operating water system: | ? | 8 | \$194,664,459 | \$/Year |
| Customer retail unit cost (applied to Apparent Losses): | ? | 10 | \$4.40 | \$/1000 gallons (US) |
| Variable production cost (applied to Real Losses): | ? | 8 | \$390.00 | \$/Million gallons |

PERFORMANCE INDICATORS

Financial Indicators

| | |
|---|-------------|
| Non-revenue water as percent by volume of Water Supplied: | 9.3% |
| Non-revenue water as percent by cost of operating system: | 3.0% |
| Annual cost of Apparent Losses: | \$4,663,287 |
| Annual cost of Real Losses: | \$1,173,576 |

Operational Efficiency Indicators

| | | |
|---|----------|----------------------------|
| Apparent Losses per service connection per day: | 13.63 | gallons/connection/day |
| Real Losses per service connection per day*: | 38.69 | gallons/connection/day |
| Real Losses per length of main per day*: | N/A | |
| Real Losses per service connection per day per psi pressure: | 0.50 | gallons/connection/day/psi |
| ? Unavoidable Annual Real Losses (UARL): | 1,462.60 | million gallons/year |
| From Above, Real Losses = Current Annual Real Losses (CARL): | 3,009.17 | million gallons/year |
| ? Infrastructure Leakage Index (ILI) [CARL/UARL]: | 2.06 | |

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 84 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: Master meter error adjustment

3: Billed metered

[For more information, click here to see the Grading Matrix worksheet](#)

| AWWA WLCC Free Water Audit Software: <u>Water Balance</u> | | | | Water Audit Report For: | | Report Yr: | | | |
|--|--|---|--|-------------------------|--|----------------------|--|------|--|
| Copyright © 2010, American Water Works Association. All Rights Reserved. | | | | WAS v4.2 | | Austin Water Utility | | 2012 | |
| Own Sources (Adjusted for known errors) 48,099.778 | Water Exported 3,160.967 | | Billed Water Exported | | | | | | |
| | Authorized Consumption 40,941.649 | Billed Authorized Consumption 40,812.904 | Billed Metered Consumption (inc. water exported) 40,809.593 | | | | Revenue Water | | |
| | | | Billed Unmetered Consumption 3.311 | | | | 40,812.904 | | |
| | | Unbilled Authorized Consumption 128.745 | Unbilled Metered Consumption 55.685 | | | | Non-Revenue Water (NRW) 4,197.752 | | |
| | | | Unbilled Unmetered Consumption 73.060 | | | | | | |
| | Water Supplied 45,010.656 | Apparent Losses 1,059.838 | Unauthorized Consumption 120.249 | | | | | | |
| | | | Customer Metering Inaccuracies 939.588 | | | | | | |
| | | | Systematic Data Handling Errors 0.001 | | | | | | |
| | Water Losses 4,069.007 | Real Losses 3,009.169 | Leakage on Transmission and/or Distribution Mains Not broken down | | | | | | |
| | | | Leakage and Overflows at Utility's Storage Tanks Not broken down | | | | | | |
| | | | Leakage on Service Connections Not broken down | | | | | | |
| Water Imported 71.845 | | | | | | | | | |