

AWWA WLCC Free Water Audit Software: Reporting Worksheet

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WAS v4.2

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Water Audit Report for: **City of Cranbrook Water Distribution System**  
 Reporting Year: **2015** | **1/2015 - 12/2015**

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: MEGALITRES (THOUSAND CUBIC METRES) PER YEAR

**WATER SUPPLIED** << Enter grading in column 'E'

Volume from own sources:	<input type="text" value="7"/>	<input type="text" value="4,737.842"/>	Megalitres/yr (or ML/Yr)
Master meter error adjustment (enter positive value):	<input type="text" value="8"/>	<input type="text"/>	ML/Yr
Water imported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	ML/Yr
Water exported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	ML/Yr
<b>WATER SUPPLIED:</b>		<b>4,737.842</b>	ML/Yr

**AUTHORIZED CONSUMPTION**

Billed metered:	<input type="text" value="1"/>	<input type="text" value="167.190"/>	ML/Yr
Billed unmetered:	<input type="text" value="1"/>	<input type="text" value="3,664.160"/>	ML/Yr
Unbilled metered:	<input type="text" value="n/a"/>	<input type="text"/>	ML/Yr
Unbilled unmetered:	<input type="text" value="5"/>	<input type="text" value="59.223"/>	ML/Yr
<b>AUTHORIZED CONSUMPTION:</b>		<b>3,890.573</b>	ML/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

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

Use buttons to select percentage of water supplied OR value

**WATER LOSSES (Water Supplied - Authorized Consumption)**  ML/Yr

**Apparent Losses**

Unauthorized consumption:	<input type="text" value="5"/>	<input type="text" value="11.845"/>	ML/Yr
Customer metering inaccuracies:	<input type="text" value="n/a"/>	<input type="text" value="16.535"/>	ML/Yr
Systematic data handling errors:	<input type="text" value="5"/>	<input type="text"/>	ML/Yr
<b>Apparent Losses:</b>		<b>28.380</b>	

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

Systematic data handling errors are likely, please enter a non-zero value; otherwise grade = 5

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:	<input type="text" value="5"/>	<input type="text" value="818.889"/>	ML/Yr
<b>WATER LOSSES:</b>		<b>847.269</b>	ML/Yr

**NON-REVENUE WATER**

<b>NON-REVENUE WATER:</b>	<input type="text" value="5"/>	<input type="text" value="906.492"/>	ML/Yr
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= Total Water Loss + Unbilled Metered + Unbilled Unmetered

**SYSTEM DATA**

Length of mains:	<input type="text" value="2"/>	<input type="text" value="163.4"/>	kilometers
Number of active AND inactive service connections:	<input type="text" value="2"/>	<input type="text" value="10,000"/>	
Connection density:	<input type="text" value="5"/>	<input type="text" value="61"/>	conn./km main
Average length of customer service line:	<input type="text" value="5"/>	<input type="text" value="10.0"/>	metres (pipe length between curbstop and customer meter or property boundary)
Average operating pressure:	<input type="text" value="5"/>	<input type="text" value="55.3"/>	metres (head)

**COST DATA**

Total annual cost of operating water system:	<input type="text" value="1"/>	<input type="text"/>	\$/Year
Customer retail unit cost (applied to Apparent Losses):	<input type="text" value="1"/>	<input type="text"/>	
Variable production cost (applied to Real Losses):	<input type="text" value="1"/>	<input type="text"/>	\$/Megalitre

**PERFORMANCE INDICATORS**

**Financial Indicators**

Non-revenue water as percent by volume of Water Supplied:	<input type="text" value="19.1%"/>
Non-revenue water as percent by cost of operating system:	<input type="text"/>
Annual cost of Apparent Losses:	<input type="text"/>
Annual cost of Real Losses:	<input type="text"/>

**Operational Efficiency Indicators**

Apparent Losses per service connection per day:	<input type="text" value="7.78"/>	litres/connection/day
Real Losses per service connection per day*:	<input type="text" value="224.35"/>	litres/connection/day
Real Losses per length of main per day*:	<input type="text" value="N/A"/>	
Real Losses per service connection per day per meter (head) pressure:	<input type="text" value="4.06"/>	litres/connection/day/m
Unavoidable Annual Real Losses (UARL):	<input type="text" value="271.30"/>	ML/year
From Above, Real Losses = Current Annual Real Losses (CARL):	<input type="text" value="818.89"/>	ML/year
Infrastructure Leakage Index (ILI) [CARL/UARL]:	<input type="text" value="3.02"/>	

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

**WATER AUDIT DATA VALIDITY SCORE:**

Add a grading value for 1 parameter(s) to enable an audit score to be calculated

**PRIORITY AREAS FOR ATTENTION:**

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

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

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