

**CITY OF LAFOLLETTE
BOARD OF PUBLIC UTILITIES – WATER DEPARTMENT
AWWA WATER AUDIT REPORTING WORKSHEET**

| AWWA Free Water Audit Software: Reporting Worksheet | | | | WAS v6.0 American Water Works Association Copyright © 2014. All Rights Reserved. |
|---|---|---|------------------------------------|--|
| <input type="button" value="Click to access definition"/> Water Audit Report for: LaFollette Utilities Board (0000374) <input type="button" value="Click to add a comment"/> Reporting Year: 2020 7/2019 - 6/2020 | | | | |
| 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: MILLION GALLONS (US) 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 | | Master Meter and Supply Error Adjustments | | |
| | | Enter grading in column 'E' and 'J' | | |
| Volume from own sources: | <input type="text" value="793.559"/> MG/Yr | Point: | <input type="text" value="1.00%"/> | Value: |
| Water imported: | <input type="text" value="0.000"/> MG/Yr | | | |
| Water exported: | <input type="text" value="0.000"/> MG/Yr | | | |
| WATER SUPPLIED: | | 785.702 MG/Yr | | |
| AUTHORIZED CONSUMPTION | | | | |
| Billed metered: | <input type="text" value="425.749"/> MG/Yr | | | |
| Billed unmetered: | <input type="text" value="0.000"/> MG/Yr | | | |
| Unbilled metered: | <input type="text" value="99.748"/> MG/Yr | | | |
| Unbilled unmetered: | <input type="text" value="9.921"/> MG/Yr | | | |
| Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed | | | | |
| AUTHORIZED CONSUMPTION: | | 535.316 MG/Yr | | |
| WATER LOSSES (Water Supplied - Authorized Consumption) | | | | |
| | | 250.386 MG/Yr | | |
| Apparent Losses | | | | |
| Unauthorized consumption: | <input type="text" value="1.964"/> MG/Yr | | | |
| Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed | | | | |
| Customer metering inaccuracies: | <input type="text" value="27.658"/> MG/Yr | | | |
| Systematic data handling errors: | <input type="text" value="1.064"/> MG/Yr | | | |
| Default option selected for systematic data handling errors - a grading of 5 is applied but not displayed | | | | |
| Apparent Losses: | | 30.686 MG/Yr | | |
| Real Losses (Current Annual Real Losses or CARL) | | | | |
| Real Losses = Water Losses - Apparent Losses: | | 219.700 MG/Yr | | |
| WATER LOSSES: | | 250.386 MG/Yr | | |
| NON-REVENUE WATER | | | | |
| NON-REVENUE WATER: | | 359.953 MG/Yr | | |
| = Water Losses + Unbilled Metered + Unbilled Unmetered | | | | |
| SYSTEM DATA | | | | |
| Length of mains: | <input type="text" value="355.0"/> miles | | | |
| Number of active AND inactive service connections: | <input type="text" value="10,208"/> | | | |
| Service connection density: | <input type="text" value="29"/> conn./mile main | | | |
| Are customer meters typically located at the curbside or property line? <input type="text" value="Yes"/> (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: | <input type="text" value="125.0"/> psi | | | |
| COST DATA | | | | |
| Total annual cost of operating water system: | <input type="text" value="54,467,069"/> \$/Year | | | |
| Customer retail unit cost (applied to Apparent Losses): | <input type="text" value="\$13.04"/> \$/1000 gallons (US) | | | |
| Variable production cost (applied to Real Losses): | <input type="text" value="\$579.15"/> \$/million gallons | <input type="checkbox"/> Use Customer Retail Unit Cost to value real losses | | |
| WATER AUDIT DATA VALIDITY SCORE: | | | | |
| *** YOUR SCORE IS: 89 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: Unauthorized consumption | | | | |
| 3: Systematic data handling errors | | | | |

See Independent Auditor's Report.

CITY OF LAFOLLETTE
BOARD OF PUBLIC UTILITIES – WATER DEPARTMENT
AWWA WATER AUDIT REPORTING WORKSHEET (Continued)

| AWWA Free Water Audit Software: System Attributes and Performance Indicators | | WAG v5.0 American Water Works Association Copyright © 2014, All Rights Reserved |
|---|--|---|
| Water Audit Report for: LaFollette Utilities Board (0000374) | | |
| Reporting Year: 2020 7/2019 - 6/2020 | | |
| *** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 89 out of 100 *** | | |
| System Attributes: | | |
| | Apparent Losses: | 30,886 MG/Yr |
| | + Real Losses: | 219,700 MG/Yr |
| | = Water Losses: | 250,386 MG/Yr |
| | Unavoidable Annual Real Losses (UARL): | 157,49 MG/Yr |
| | Annual cost of Apparent Losses: | \$400,149 |
| | Annual cost of Real Losses: | \$127,239 |
| | | Valued at Variable Production Cost <small>Return to Reporting Worksheet to change this assumption</small> |
| Performance Indicators: | | |
| Financial: | Non-revenue water as percent by volume of Water Supplied: | 45.8% |
| | Non-revenue water as percent by cost of operating system: | 12.9% |
| | | Real Losses valued at Variable Production Cost |
| Operational Efficiency: | Apparent Losses per service connection per day: | 8.24 gallons/connection/day |
| | Real Losses per service connection per day: | N/A gallons/connection/day |
| | Real Losses per length of main per day*: | 1,695.54 gallons/mile/day |
| | Real Losses per service connection per day per psi pressure: | N/A gallons/connection/day/psi |
| | From Above, Real Losses = Current Annual Real Losses (CARL): | 219.70 million gallons/year |
| | Infrastructure Leakage Index (ILI) [CARL/UARL]: | 1.40 |
| * This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline | | |

See Independent Auditor's Report.