



Aqua Pennsylvania, Inc.
762 W. Lancaster Avenue
Bryn Mawr, PA 19010

www.aquaamerica.com

March 31, 2015

RECEIVED

VIA FEDERAL EXPRESS

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Two North Keystone
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

MAR 31 2015

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

RE: **Aqua Pennsylvania, Inc.'s 2014 Water Audit Reports**
Docket M-~~2008-2062697~~ M-2015-2464293

Dear Secretary Chiavetta:

Enclosed are Aqua Pennsylvania, Inc.'s 2014 Water Audit Reports for the Water Audit Pilot Project.

If you have any questions regarding this filing, please contact either Kim Joyce, Regulatory Counsel at (610) 645-1077 or myself at (610) 645-1136.

Sincerely,

William C. Packer
Regional Controller – PA/NJ

/lf

Attachments

cc: Brennan T. Kelly, P.E. (btkelly@aquamerica.com)
Kimberly Joyce, Esq. (kajoyce@aquamerica.com)

AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

American Water Works Association
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Water Audit Report for: Aqua Pennsylvania
 Reporting Year: 2014 1/2014 - 12/2014

Please enter data in the white calls 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 call. Hover the mouse over the call 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

	← Enter grading in column 'E' and 'J' →		
Volume from own sources:	<input type="button" value="n/a"/> <input type="button" value="1"/> <input type="button" value="2"/> <input type="button" value="3"/> <input type="button" value="4"/> <input type="button" value="5"/> <input type="button" value="6"/> <input type="button" value="7"/> <input type="button" value="8"/> <input type="button" value="9"/> <input type="button" value="10"/>	41,744.000	MG/Yr
Water imported:	<input type="button" value="n/a"/> <input type="button" value="1"/> <input type="button" value="2"/> <input type="button" value="3"/> <input type="button" value="4"/> <input type="button" value="5"/> <input type="button" value="6"/> <input type="button" value="7"/> <input type="button" value="8"/> <input type="button" value="9"/> <input type="button" value="10"/>	2,707.000	MG/Yr
Water exported:	<input type="button" value="n/a"/> <input type="button" value="1"/> <input type="button" value="2"/> <input type="button" value="3"/> <input type="button" value="4"/> <input type="button" value="5"/> <input type="button" value="6"/> <input type="button" value="7"/> <input type="button" value="8"/> <input type="button" value="9"/> <input type="button" value="10"/>	896.000	MG/Yr

Master Meter and Supply Error Adjustments

<input type="button" value="n/a"/> <input type="button" value="1"/> <input type="button" value="2"/> <input type="button" value="3"/> <input type="button" value="4"/> <input type="button" value="5"/> <input type="button" value="6"/> <input type="button" value="7"/> <input type="button" value="8"/> <input type="button" value="9"/> <input type="button" value="10"/>	Pcnt:	1.00%	<input type="radio"/> <input type="radio"/>	Value:	
<input type="button" value="n/a"/> <input type="button" value="1"/> <input type="button" value="2"/> <input type="button" value="3"/> <input type="button" value="4"/> <input type="button" value="5"/> <input type="button" value="6"/> <input type="button" value="7"/> <input type="button" value="8"/> <input type="button" value="9"/> <input type="button" value="10"/>		1.00%	<input checked="" type="radio"/> <input type="radio"/>		MG/Yr
<input type="button" value="n/a"/> <input type="button" value="1"/> <input type="button" value="2"/> <input type="button" value="3"/> <input type="button" value="4"/> <input type="button" value="5"/> <input type="button" value="6"/> <input type="button" value="7"/> <input type="button" value="8"/> <input type="button" value="9"/> <input type="button" value="10"/>		1.00%	<input checked="" type="radio"/> <input type="radio"/>		MG/Yr

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

WATER SUPPLIED: 43,123.762 MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	<input type="button" value="n/a"/> <input type="button" value="1"/> <input type="button" value="2"/> <input type="button" value="3"/> <input type="button" value="4"/> <input type="button" value="5"/> <input type="button" value="6"/> <input type="button" value="7"/> <input type="button" value="8"/> <input type="button" value="9"/> <input type="button" value="10"/>	33,523.000	MG/Yr
Billed unmetered:	<input type="button" value="n/a"/> <input type="button" value="1"/> <input type="button" value="2"/> <input type="button" value="3"/> <input type="button" value="4"/> <input type="button" value="5"/> <input type="button" value="6"/> <input type="button" value="7"/> <input type="button" value="8"/> <input type="button" value="9"/> <input type="button" value="10"/>	16.700	MG/Yr
Unbilled metered:	<input type="button" value="n/a"/> <input type="button" value="1"/> <input type="button" value="2"/> <input type="button" value="3"/> <input type="button" value="4"/> <input type="button" value="5"/> <input type="button" value="6"/> <input type="button" value="7"/> <input type="button" value="8"/> <input type="button" value="9"/> <input type="button" value="10"/>	33.178	MG/Yr
Unbilled unmetered:	<input type="button" value="n/a"/> <input type="button" value="1"/> <input type="button" value="2"/> <input type="button" value="3"/> <input type="button" value="4"/> <input type="button" value="5"/> <input type="button" value="6"/> <input type="button" value="7"/> <input type="button" value="8"/> <input type="button" value="9"/> <input type="button" value="10"/>	539.047	MG/Yr

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

AUTHORIZED CONSUMPTION: 34,111.925 MG/Yr

Click here: for help using option buttons below

Pcnt:	1.25%	<input checked="" type="radio"/> <input type="radio"/>	Value:	
				MG/Yr

Use buttons to select percentage of water supplied OR value

Pcnt:	0.25%	<input checked="" type="radio"/> <input type="radio"/>	Value:	
				MG/Yr
	2.50%	<input checked="" type="radio"/> <input type="radio"/>		MG/Yr
	0.25%	<input checked="" type="radio"/> <input type="radio"/>		MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption)

9,011.837 MG/Yr

Apparent Losses

Unauthorized consumption: 107.809 MG/Yr

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

Customer metering inaccuracies: 860.415 MG/Yr

Systematic data handling errors: 83.808 MG/Yr

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

Apparent Losses: 1,052.032 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 7,959.806 MG/Yr

WATER LOSSES: 9,011.837 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 9,584.062 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains: 5,772.0 miles

Number of active AND inactive service connections: 447,595

Service connection density: 78 conn./mile main

Are customer meters typically located at the curbstop or property line? No (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line: 25.0 ft

Average operating pressure: 60.0 psi

COST DATA

Total annual cost of operating water system: \$249,002,555 \$/Year

Customer retail unit cost (applied to Apparent Losses): \$14.30 \$/1000 gallons (US)

Variable production cost (applied to Real Losses): \$560.00 \$/Million gallons Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 76 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: Unbilled metered
- 3: Unauthorized consumption

AWWA Free Water Audit Software:

WAS v5.0

System/Attributes and Performance Indicators

American Water Works Association
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Water Audit Report for: Aqua Pennsylvania
Reporting Year: 2014 1/2014 - 12/2014

*** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 76 out of 100 ***

System Attributes:

Apparent Losses: 1,052.032 MG/Yr
+ Real Losses: 7,959.806 MG/Yr
= Water Losses: 9,011.837 MG/Yr

? Unavoidable Annual Real Losses (UARL): 2,502.30 MG/Yr

Annual cost of Apparent Losses: \$15,044,054

Annual cost of Real Losses: \$4,457,491 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: 22.2%
Non-revenue water as percent by cost of operating system: 8.0% Real Losses valued at Variable Production Cost

Operational Efficiency: { Apparent Losses per service connection per day: 6.44 gallons/connection/day
Real Losses per service connection per day: 48.72 gallons/connection/day
Real Losses per length of main per day*: N/A
Real Losses per service connection per day per psi pressure: 0.81 gallons/connection/day/psi

From Above, Real Losses = Current Annual Real Losses (CARL): 7,959.81 million gallons/year

? Infrastructure Leakage Index (ILI) [CARL/UARL]: 3.18

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

From: (610) 645-1128
Lora Fracek
Aqua America, Inc.
762 West Lancaster Avenue

Bryn Mawr, PA 19010

Origin ID: WAYA



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MAR 31 2015

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Rosemary Chiavetta, Secretary
PA Public Utility Commission
400 NORTH ST
Two North Keystone
HARRISBURG, PA 17120

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PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

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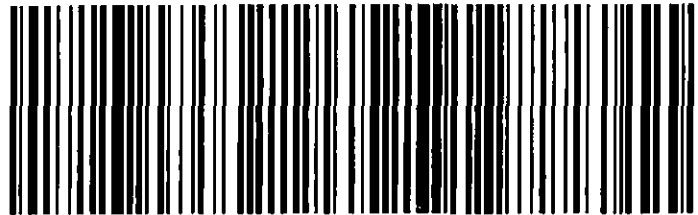
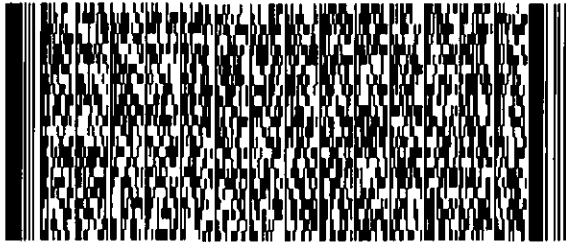
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