



# AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

American Water Works Association

?	Click to access definition
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**Water Audit Report for:** Community Utilities of Pennsylvania at Penn Estates (2450065)  
**Reporting Year:** 2020 / 1/2020 - 12/2020

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

**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

**WATER SUPPLIED**

Volume from own sources:	+ ?	5	119.056	MG/Yr
Water imported:	+ ?	9	0.351	MG/Yr
Water exported:	+ ?	n/a		MG/Yr

----- Enter grading in column 'E' and 'J' ----->

		Pcnt:	Value:	
+ ?	2	<input checked="" type="radio"/>		MG/Yr
+ ?	2	<input type="radio"/>		MG/Yr
+ ?	2	<input type="radio"/>		MG/Yr

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

**WATER SUPPLIED:** 119.407 MG/Yr

**AUTHORIZED CONSUMPTION**

Billed metered:	+ ?	9	83.157	MG/Yr
Billed unmetered:	+ ?		0.000	MG/Yr
Unbilled metered:	+ ?	10	3.011	MG/Yr
Unbilled unmetered:	+ ?	8	0.072	MG/Yr

Click here: ?  
for help using option buttons below

Pcnt:	Value:	
<input type="radio"/>	<input checked="" type="radio"/>	0.072

Use buttons to select percentage of water supplied  
OR  
value

**AUTHORIZED CONSUMPTION:** 86.240 MG/Yr

**WATER LOSSES (Water Supplied - Authorized Consumption)**

33.167 MG/Yr

**Apparent Losses**

Unauthorized consumption: 0.299 MG/Yr

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

Customer metering inaccuracies:	+ ?	7	0.043	MG/Yr
Systematic data handling errors:	+ ?	5	0.208	MG/Yr

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

**Apparent Losses:** 0.550 MG/Yr

Pcnt:	Value:	
0.25%	<input checked="" type="radio"/>	
0.05%	<input type="radio"/>	
0.25%	<input type="radio"/>	

**Real Losses (Current Annual Real Losses or CARL)**

**Real Losses = Water Losses - Apparent Losses:** 32.617 MG/Yr

**WATER LOSSES:** 33.167 MG/Yr

**NON-REVENUE WATER**

**NON-REVENUE WATER:** 36.250 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

**SYSTEM DATA**

Length of mains:	+ ?	5	25.6	miles
Number of <u>active AND inactive</u> service connections:	+ ?	9	1,730	
Service connection density:	?		68	conn./mile main

Are customer meters typically located at the curbside 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: 45.0 ft

Average operating pressure: 74.7 psi

**COST DATA**

Total annual cost of operating water system:	+ ?	9	\$983,180	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+ ?	8	\$9.28	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	+ ?	4	\$638.00	\$/Million gallons <input type="checkbox"/> Use Customer Retail Unit Cost to value real losses

**WATER AUDIT DATA VALIDITY SCORE:**

**\*\*\* YOUR SCORE IS: 64 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: Variable production cost (applied to Real Losses)
- 3: Unauthorized consumption



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[+](#) Click to add a comment

Water Audit Report for: **Tamiment/The Glen (2520070)**  
Reporting Year: **2020** | **1/2020 - 12/2020**

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

**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

### WATER SUPPLIED

Volume from own sources: [+](#) [?](#) 8  MG/Yr  
Water imported: [+](#) [?](#) n/a  MG/Yr  
Water exported: [+](#) [?](#) n/a  MG/Yr

### Master Meter and Supply Error Adjustments

Pcnt:  Value:  MG/Yr

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

**WATER SUPPLIED: 44.465** MG/Yr

### AUTHORIZED CONSUMPTION

Billed metered: [+](#) [?](#) 8  MG/Yr  
Billed unmetered: [+](#) [?](#) 8  MG/Yr  
Unbilled metered: [+](#) [?](#) n/a  MG/Yr  
Unbilled unmetered: [+](#) [?](#) 5  MG/Yr

Unbilled Unmetered volume entered is greater than the recommended default value

**AUTHORIZED CONSUMPTION: 20.051** MG/Yr

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

Pcnt:  Value:  MG/Yr

Use buttons to select percentage of water supplied  
OR  
value

Pcnt:  Value:  MG/Yr

MG/Yr  
    MG/Yr

### WATER LOSSES (Water Supplied - Authorized Consumption)

**24.414** MG/Yr

#### Apparent Losses

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

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

Customer metering inaccuracies: [+](#) [?](#) 4  MG/Yr  
Systematic data handling errors: [+](#) [?](#) 5  MG/Yr

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

**Apparent Losses: 0.208** MG/Yr

#### Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses:  MG/Yr

**WATER LOSSES: 24.414** MG/Yr

### NON-REVENUE WATER

**NON-REVENUE WATER: 25.164** MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

### SYSTEM DATA

Length of mains: [+](#) [?](#) 8  miles  
Number of active AND inactive service connections: [+](#) [?](#) 8   
Service connection density:  conn./mile main

Are customer meters typically located at the curbside or property line?

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: [+](#) [?](#) 8  psi

### COST DATA

Total annual cost of operating water system: [+](#) [?](#) 4  \$/Year  
Customer retail unit cost (applied to Apparent Losses): [+](#) [?](#) 5  \$/1000 gallons (US)  
Variable production cost (applied to Real Losses): [+](#) [?](#) 4  \$/Million gallons  Use Customer Retail Unit Cost to value real losses

### WATER AUDIT DATA VALIDITY SCORE:

**\*\*\* YOUR SCORE IS: 63 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: Total annual cost of operating water system**



# AWWA Free Water Audit Software: Reporting Worksheet

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American Water Works Association

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**Water Audit Report for:** Community Utilities of Pennsylvania at Westgate (3480024)  
**Reporting Year:** 2020 / 1/2020 - 12/2020

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

**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

**WATER SUPPLIED**

----- Enter grading in column 'E' and 'J' ----->

Volume from own sources:	+ ?			MG/Yr
Water imported:	+ ?	5	56.862	MG/Yr
Water exported:	+ ?			MG/Yr

**Master Meter and Supply Error Adjustments**

Pcnt:		Value:		MG/Yr
+	?	2	2.175	MG/Yr
+	?			MG/Yr
+	?			MG/Yr

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

**WATER SUPPLIED:** 56.862 MG/Yr

**AUTHORIZED CONSUMPTION**

Billed metered:	+ ?	7	49.482	MG/Yr
Billed unmetered:	+ ?			MG/Yr
Unbilled metered:	+ ?			MG/Yr
Unbilled unmetered:	+ ?	8	2.175	MG/Yr

Unbilled Unmetered volume entered is greater than the recommended default value

**AUTHORIZED CONSUMPTION:** 51.657 MG/Yr

Click here: ?  
for help using option buttons below

Pcnt:		Value:		MG/Yr
0.25%	●	2.175	2.175	MG/Yr

Use buttons to select percentage of water supplied  
**OR**  
value

Pcnt:		Value:		MG/Yr
0.25%	●			MG/Yr

0.20%	●			MG/Yr
0.25%	●			MG/Yr

**WATER LOSSES (Water Supplied - Authorized Consumption)**

5.205 MG/Yr

**Apparent Losses**

Unauthorized consumption: 0.142 MG/Yr

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

Customer metering inaccuracies:	+ ?	5	0.099	MG/Yr
Systematic data handling errors:	+ ?	5	0.124	MG/Yr

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

**Apparent Losses:** 0.365 MG/Yr

**Real Losses (Current Annual Real Losses or CARL)**

Real Losses = Water Losses - Apparent Losses: 4.840 MG/Yr

**WATER LOSSES:** 5.205 MG/Yr

**NON-REVENUE WATER**

**NON-REVENUE WATER:** 7.380 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

**SYSTEM DATA**

Length of mains:	+ ?	5	14.4	miles
Number of <u>active AND inactive</u> service connections:	+ ?	9	986	
Service connection density:	?		68	conn./mile main

Are customer meters typically located at the curbside 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: 2 45.0 ft

Average operating pressure: 4 76.2 psi

**COST DATA**

Total annual cost of operating water system:	+ ?	9	\$676,804	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+ ?	8	\$9.28	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	+ ?	10	\$4,287.72	\$/Million gallons <input type="checkbox"/> Use Customer Retail Unit Cost to value real losses

**WATER AUDIT DATA VALIDITY SCORE:**

**\*\*\* YOUR SCORE IS: 63 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: Water imported
- 2: Customer metering inaccuracies
- 3: Billed metered