

International Water Association - American Water Works Association Standard Water Balance for the Philadelphia Water Department - Fiscal Year 2010

Volumes reported in million gallons for the reporting year; and average million gallons per day, mgd in italic

		Water Exported 7,008.0 <i>19.2</i>	Water Exported 7,008.0 <i>19.2</i>	Water Exported 7,008.0 <i>19.2</i>	Water Exported 7,008.0 <i>19.2</i>	Billed Water Exported 7,008.0 <i>19.2</i>
		Water Supplied	Authorized Consumption	Billed Authorized Consumption	Revenue Water	Billed Metered Consumption
			54,249.7 <i>148.6</i>	53,512.7 <i>146.6</i>	53,512.7 <i>146.6</i>	53,512.7 <i>146.6</i>
Own Sources	System Input	82,200.3 <i>225.2</i>	Water Losses	Unbilled Authorized Consumption	Non-revenue Water	Billed Unmetered Consumption
				737.1 <i>2.0</i>		28,687.7 <i>78.6</i>
88,832.1 <i>243.4</i>	89,208.3 <i>244.4</i>	27,950.6 <i>76.6</i>	Real Losses	Apparent Losses	Leakage on Mains	Unbilled Metered Consumption
				6,208.4 <i>17.0</i>		737.1 <i>2.0</i>
				21,742.2 <i>59.6</i>	Unauthorized Consumption	Unbilled Unmetered Consumption
					2,270.4 <i>6.2</i>	737.1 <i>2.0</i>
					3,235.4 <i>8.9</i>	Customer Metering Inaccuracies
					17,642.8 <i>48.3</i>	702.6 <i>1.9</i>
					Leakage and Overflows at Storages	Systematic Data Handling Error
					0.0 <i>0.0</i>	3,235.4 <i>8.9</i>
					Leakage on Service Connections up to the point of customer metering	4,099.4 <i>11.2</i>
- Correction	Water Imported					
-376.2 <i>-1.0</i>	0					

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Own Sources	System Input	Water Supplied	Authorized Consumption	Billed Authorized Consumption	Revenue Water	Billed Metered Consumption		
				50,808.0 <i>139.2</i>			50,808.0 <i>139.2</i>	50,808.0 <i>139.2</i>
				51,592.7 <i>141.3</i>			Unbilled Authorized Consumption	Billed Unmetered Consumption
				84,251.1 <i>230.8</i>			784.7 <i>2.1</i>	0.0 <i>0.0</i>
- Correction	Water Imported	Water Losses	Water Losses	Apparent Losses	Non-revenue Water	Unbilled Metered Consumption		
				8,340.0 <i>22.8</i>		784.7 <i>2.1</i>	0.0 <i>0.0</i>	
				32,658.4 <i>89.5</i>		Real Losses	Unbilled Unmetered Consumption	
				92,613.0 <i>253.7</i>		24,318.5 <i>66.6</i>	784.7 <i>2.1</i>	
91,259.1 <i>250.0</i>	0	3,233.2 <i>8.9</i>	1,532.6 <i>4.2</i>	3,574.2 <i>9.8</i>	33,443.1 <i>91.6</i>	1532.6 <i>4.2</i>		
1,353.9 <i>3.7</i>	0	3,574.2 <i>9.8</i>	11,015.1 <i>30.2</i>	0.0 <i>0.0</i>	13,303.4 <i>36.4</i>	0.0 <i>0.0</i>		
				Leakage on Mains				
				Leakage and Overflows at Storages				
				Leakage on Service Connections up to the point of customer metering				

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		Water Exported 6,258.6 <i>17.1</i>	Water Exported 6,258.6 <i>17.1</i>	Water Exported 6,258.6 <i>17.1</i>	Water Exported 6,258.6 <i>17.1</i>	Billed Water Exported 6,258.6 <i>17.1</i>
				Billed Authorized Consumption	Revenue Water	Billed Metered Consumption
			Authorized Consumption	49,593.0 <i>135.5</i>	49,593.0 <i>135.5</i>	49,593.0 <i>135.5</i>
		Water Supplied	50,790.8 <i>138.8</i>			Billed Unmetered Consumption
		80,537.2 <i>220.0</i>		Unbilled Authorized Consumption		0.0 <i>0.0</i>
	System Input			1,197.8 <i>3.3</i>		Unbilled Metered Consumption
Own Sources	86,795.8 <i>237.1</i>					1,197.8 <i>3.3</i>
88,015.8 <i>240.5</i>			Water Losses	Apparent Losses	Non-revenue Water	Customer Metering Inaccuracies
				7,818.3 <i>21.4</i>	30,944.2 <i>84.6</i>	1,360.0 <i>3.7</i>
			29,746.4 <i>81.3</i>	Real Losses		Unauthorized Consumption
				21,928.1 <i>60.0</i>		2,712.2 <i>7.4</i>
- Correction	Water Imported					Systematic Data Handling Error
-1,220.0 <i>-3.3</i>	0					3,746.1 <i>10.2</i>
						Leakage on Mains
						9,978.4 <i>27.3</i>
						Leakage and Overflows at Storages
						0.0 <i>0.0</i>
						Leakage on Service Connections up to the point of customer metering
						11,949.6 <i>32.6</i>

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		Water Exported 5,219.5 <i>14.3</i>	Water Exported 5,219.5 <i>14.3</i>	Water Exported 5,219.5 <i>14.3</i>	Water Exported 5,219.5 <i>14.3</i>	Billed Water Exported 5,219.5 <i>14.3</i>
Own Sources	System Input	Water Supplied 81,778.6 <i>224.1</i>	Authorized Consumption 52,238.5 <i>143.1</i>	Billed Authorized Consumption	Revenue Water	Billed Metered Consumption
				50,279.4 <i>137.8</i>	50,279.4 <i>137.8</i>	50,279.4 <i>137.8</i>
- Correction	Water Imported		Water Losses 29,540.1 <i>80.9</i>	Unbilled Authorized Consumption	Non-revenue Water 31,499.2 <i>86.3</i>	Billed Unmetered Consumption
				1,959.0 <i>5.4</i>		0.0 <i>0.0</i>
				Apparent Losses		Unbilled Metered Consumption
				7,494.9 <i>20.5</i>		0.0 <i>0.0</i>
				Real Losses		Unbilled Unmetered Consumption
				22,045.2 <i>60.4</i>		1,959.0 <i>5.4</i>
	Customer Metering Inaccuracies					
	1,490.2 <i>4.1</i>	Unauthorized Consumption				
	2,425.5 <i>6.6</i>	Systematic Data Handling Error				
	3,579.3 <i>9.8</i>	Leakage on Mains				
	10,143.0 <i>27.8</i>	Leakage and Overflows at Storages				
	0.0 <i>0.0</i>	Leakage on Service Connections up to the point of customer metering				
	11,902.3 <i>32.6</i>					

International Water Association - American Water Works Association Standard Water Balance for the Philadelphia Water Department - Fiscal Year 2014

Volumes reported in million gallons for the reporting year; and average million gallons per day, mgd in italic

		Water Exported 5,329.0 <i>14.6</i>	Water Exported 5,329.0 <i>14.6</i>	Water Exported 5,329.0 <i>14.6</i>	Water Exported 5,329.0 <i>14.6</i>	Billed Water Exported 5,329.0 <i>14.6</i>
Own Sources 87,360.3 <i>239.3</i>	System Input 87,383.0 <i>239.4</i>	Water Supplied 82,054.0 <i>224.8</i>	Authorized Consumption 49,724.4 <i>136.2</i>	Billed Authorized Consumption 48,384.9 <i>132.6</i>	Revenue Water 48,384.9 <i>132.6</i>	Billed Metered Consumption 48,384.9 <i>132.6</i>
				Unbilled Authorized Consumption 1,339.5 <i>3.7</i>	Non-revenue Water 33,669.1 <i>92.2</i>	Billed Unmetered Consumption 0.0 <i>0.0</i>
						Unbilled Metered Consumption 0.0 <i>0.0</i>
				Water Losses 32,329.6 <i>88.6</i>	Apparent Losses 6,994.4 <i>19.2</i>	Unbilled Unmetered Consumption 1,339.5 <i>3.7</i>
						Customer Metering Inaccuracies 1,453.6 <i>4.0</i>
						Unauthorized Consumption 1,886.5 <i>5.2</i>
						Systematic Data Handling Error 3,654.3 <i>10.0</i>
						Leakage on Mains 11,529.9 <i>31.6</i>
				- Correction -22.7 <i>-0.1</i>	Water Imported 0	Leakage and Overflows at Storages 0.0 <i>0.0</i>
						Leakage on Service Connections up to the point of customer metering 13,805.3 <i>37.8</i>
				Real Losses 25,335.2 <i>69.4</i>		

Water Balance Key Definitions – source AWWA M36 Manual:

OWN SOURCES: the volume of water input to a water distribution system from the water supplier's own sources

WATER IMPORTED OR EXPORTED: the volumes of bulk transfers across operational boundaries

SYSTEM INPUT : the volume input to that part of the water supply system to which the water balance calculation relates, allowing for known errors. Equal to OWN SOURCES + WATER IMPORTED +/- CORRECTION for production meter error

WATER SUPPLIED: SYSTEM INPUT minus WATER EXPORTED

AUTHORIZED CONSUMPTION: volume of metered and/or unmetered water taken by registered customers, the water supplier and others who are implicitly or explicitly authorized to do so by the water supplier, for residential, commercial and industrial purposes.

Authorized consumption may include items such as fire fighting and training, flushing of mains and sewers, street cleaning, watering of municipal gardens, public fountains, frost protection, building water, etc. These may be billed or unbilled, metered or unmetered

WATER LOSSES: the difference between SYSTEM INPUT and AUTHORIZED CONSUMPTION. Water losses can be considered as a total volume for the whole system, or for partial systems such as raw water mains, transmission or distribution systems, or individual

APPARENT LOSSES: includes all types of inaccuracies associated with customer metering, plus unauthorized consumption (theft or illegal consumption).

REAL LOSSES: physical water losses from the pressurized system, up to the point of measurement of customer consumption. The annual volume lost through all types of leaks, breaks and overflows depends on frequencies, flow rates, and average duration of individual leaks, breaks and overflows.

REVENUE WATER: those components of SYSTEM INPUT which are billed and produce revenue (also known as BILLED AUTHORIZED CONSUMPTION). Equal to BILLED WATER EXPORTED, BILLED METERED CONSUMPTION and BILLED UNMETERED CONSUMPTION

UNBILLED AUTHORIZED CONSUMPTION: those components of AUTHORIZED CONSUMPTION which are not billed and do not produce revenue. Equal to UNBILLED METERED CONSUMPTION and UNBILLED UNMETERED CONSUMPTION

NON- REVENUE WATER: those components of SYSTEM INPUT which are not billed and do not produce revenue. Equal to UNBILLED AUTHORIZED CONSUMPTION, APPARENT LOSSES and REAL LOSSES