

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

Definitions of Terms
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. Note: 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 zones
APPARENT LOSSES: includes all types of inaccuracies associated with customer metering, systematic error or manipulation of consumption data in billing and accounting systems, plus unauthorized consumption (theft or illegal consumption). Note: Over-registration of customer meters, leads to under-estimation of REAL LOSSES. Under-registration of customer meters, leads to over-estimation of REAL LOSSES.
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 Note: Although physical losses after the point of customer flow measurement or assumed consumption are excluded from the assessment of REAL LOSSES, this does not necessarily mean that they are insignificant or unworthy of attention for demand management purposes
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
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
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Own Sources 83,159.7 227.8	System Input 84,224.1 230.8	Water Exported 949.0 2.6	Water Exported 949.0 2.6	Water Exported 949.0 2.6	Water Exported 949.0 2.6	Billed Water Exported 949.0 2.6
		Water Supplied 83,275.1 228.2	Authorized Consumption 50,215.5 137.6	Billed Authorized Consumption 48,891.3 133.9	Revenue Water 48,891.3 133.9	Billed Metered Consumption 48,891.3 133.9
				Unbilled Authorized Consumption 1,324.2 3.6	Non-revenue Water 34,383.8 94.2	Billed Unmetered Consumption 0.0 0.0
		Unbilled Metered Consumption 0.0 0.0				
		Unbilled Unmetered Consumption 1,324.2 3.6	Customer Metering Inaccuracies 2,085.9 5.7			
		Apparent Losses 5,924.1 16.2	Unauthorized Consumption 2,060.3 5.6			
		Water Losses 33,059.6 90.6	Systematic Data Handling Error 1,777.8 4.9			
			Leakage on Mains 11,745.2 32.2			
		Real Losses 27,135.5 74.3	Leakage and Overflows at Storages 0.0 0.0			
		- Correction -1,064.4 -2.9	Water Imported 0	Leakage on Service Connections up to the point of customer metering 15,390.3 42.2		

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Own Sources 80,746.9 220.6	System Input 81,464.3 223.2	Water Exported 547.5 1.5	Water Exported 547.5 1.5	Water Exported 547.5 1.5	Water Exported 547.5 1.5	Billed Water Exported 547.5 1.5	
		Water Supplied 80,916.8 221.7	Authorized Consumption 49,333.6 135.2	Billed Authorized Consumption 47,986.4 131.5	Revenue Water 47,986.4 131.5	Billed Metered Consumption 47,986.4 131.5	
				Unbilled Authorized Consumption 1,347.2 3.7	Billed Unmetered Consumption 0.0 0.0	Unbilled Metered Consumption 0.0 0.0	
					Apparent Losses 5,724.1 15.7	Non-revenue Water 32,930.4 90.2	Unbilled Unmetered Consumption 1,347.2 3.7
		Water Losses 31,583.2 86.5	Real Losses 25,859.1 70.8	Leakage on Mains 10,902.8 29.9	Customer Metering Inaccuracies 2,115.2 5.8	Unauthorized Consumption 2,357.3 6.5	Systematic Data Handling Error 1,251.7 3.4
					Leakage and Overflows at Storages 0.0 0.0	Leakage on Service Connections up to the point of customer metering 14,956.3 41.0	
					- Correction -940.6 -2.6	Water Imported 0	

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Own Sources 79,963.6 219.1	System Input 81,295.1 222.7	Water Exported 547.5 <i>1.5</i>	Water Exported 547.5 <i>1.5</i>	Water Exported 547.5 <i>1.5</i>	Water Exported 547.5 <i>1.5</i>	Billed Water Exported 547.5 <i>1.5</i>	
		Water Supplied 80,747.6 221.2	Authorized Consumption 48,862.0 133.9	Billed Authorized Consumption 47,412.7 129.9	Revenue Water 47,412.7 129.9	Billed Metered Consumption 47,412.7 129.9	
				Unbilled Authorized Consumption 1,449.3 4.0	Non-revenue Water 33,334.9 91.3	Billed Unmetered Consumption 0.0 0.0	
		Water Losses 31,885.6 87.4	Apparent Losses 6,304.1 17.3	Unbilled Metered Consumption 0.0 0.0		Unbilled Unmetered Consumption 1,449.3 4.0	
				Customer Metering Inaccuracies 2,038.1 5.6		Unauthorized Consumption 2,736.0 7.5	
		- Correction -1,331.5 -3.6	Water Imported 0	Real Losses 25,581.5 70.1		Systematic Data Handling Error 1,530.0 4.2	Leakage on Mains 11,476.9 31.4
						Leakage and Overflows at Storages 0.0 0.0	Leakage on Service Connections up to the point of customer metering 14,104.6 38.6

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Own Sources 81,005.2 221.9	System Input 81,459.1 223.2	Water Exported 474.5 1.3	Water Exported 474.5 1.3	Water Exported 474.5 1.3	Water Exported 474.5 1.3	Billed Water Exported 474.5 1.3		
		Water Supplied 80,984.6 221.9	Authorized Consumption 48,095.4 131.8	Billed Authorized Consumption 46,552.1 127.5	Revenue Water 46,552.1 127.5	Billed Metered Consumption 46,552.1 127.5		
				Unbilled Authorized Consumption 1,543.3 4.2	Non-revenue Water 34,432.5 94.3	Billed Unmetered Consumption 0.0 0.0		
		Water Losses 32,889.2 90.1	Apparent Losses 5,630.3 15.4	Unbilled Metered Consumption 0.0 0.0		Unbilled Unmetered Consumption 1,543.3 4.2		
				Real Losses 27,258.9 74.7		Customer Metering Inaccuracies 1,891.5 5.2	Unauthorized Consumption 2,238.4 6.1	
		- Correction -474.5 -1.3	Water Imported 0					Systematic Data Handling Error 1,500.4 4.1
								Leakage and Overflows at Storages 0.0 0.0

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