

APPENDIX P – WATER AUDIT METHOD

SSWA STANDARD WATER BALANCE AND AUDIT

II - 4 ANNUAL WATER BALANCE FOR THE AUDIT YEAR 2011

II - 4.1 Water Audit Results

The calculation of Real Losses using the AWWA standardized water balance is effectively an accounting exercise that subtracts the measured or estimated volume of all known uses of water from the measured or estimated volume of water entering the system. The difference is the amount of water that is physically lost from the system.

In the previous three sections all components of the Water Balance were assessed and validated. The results of the Water Balance are presented in Figure II—18.

Figure II—18 Annual Water Balance CY11

System Input Volume 1,323.64 MG (100%)	Authorized Consumption 1,035.66 MG (78%)	Billed Authorized Consumption 986.57 MG (75%)	Billed Water Exported 0 MG (0%)	Revenue Water 986.57 MG (75%)	
			Billed Metered Authorized Consumption 986.57 MG (75%)		
			Billed Un-metered Authorized Consumption 0 MG (0%)		
	Water Losses 287.98 MG (22%)	Un-billed Authorized Consumption 49.09 MG (4%)	Apparent Losses 73.51 MG (6%)	Un-billed Metered Authorized Consumption 35.39 MG (3%)	Non-Revenue Water 337.07 MG (25%)
				Un-billed Un-metered Authorized Consumption 13.69 MG (1%)	
		Real Losses 214.47 MG (16%)	Unauthorized Use (including theft of water) 3.31 MG/yr (<1%)		
Consumption Meter Error 70.20 MG (5%)					

The Water Balance results show a total volume of Real Losses of 214.47 MG during the audit period, which represents about 16% of the total System Input Volume.

Non-Revenue Water (NRW) accounts for 25% of the total water supplied to the system. The main components of NRW are Real Losses and Meter Error.