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A. KEY PERFORMANCE INDICATORS (KPIs)

WATER SERVICE (W)

A-1.0 KPI-W1 Domestic Connections (*Monthly Report Card*)

For KPI-W1, the unit of measure is the number of Domestic Water Connections of which:

No. of Domestic Water Connections = Residential + Semi-business + Urban Poor

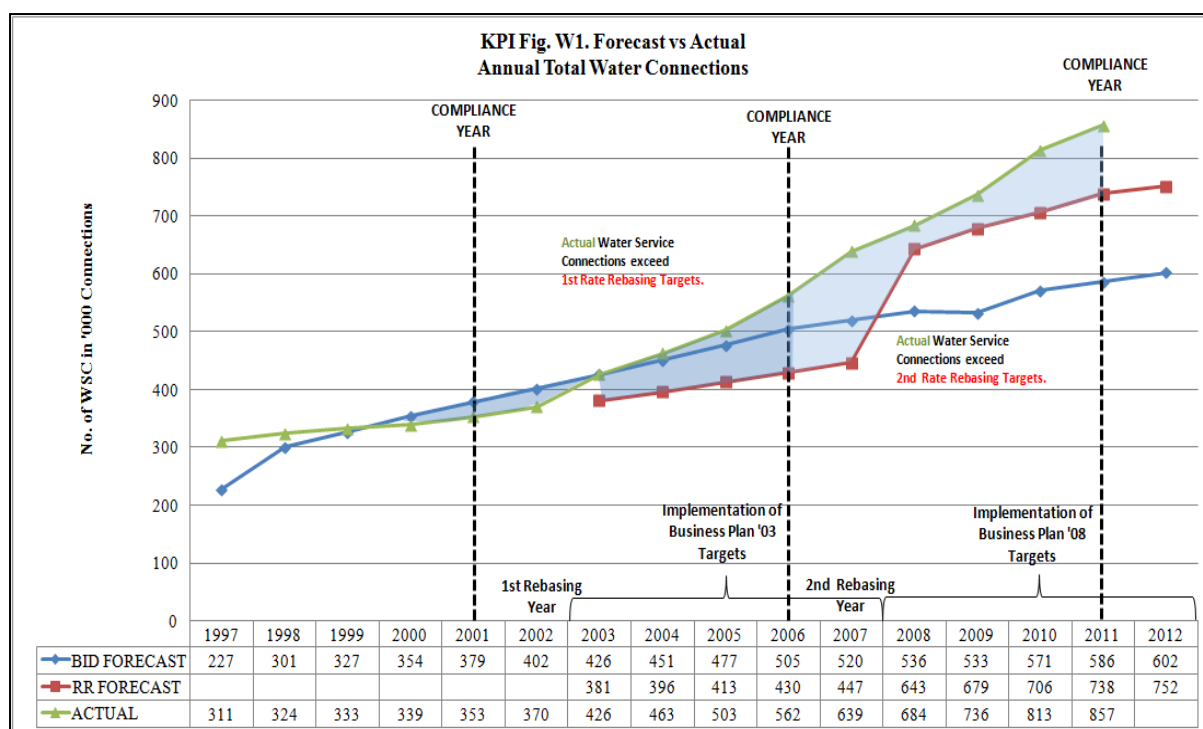
- (Bulk meter and public faucets = 1 connection)
(From Table 1 of Thames Report)

KPI Table W1a. Annual New Water Connection Targets

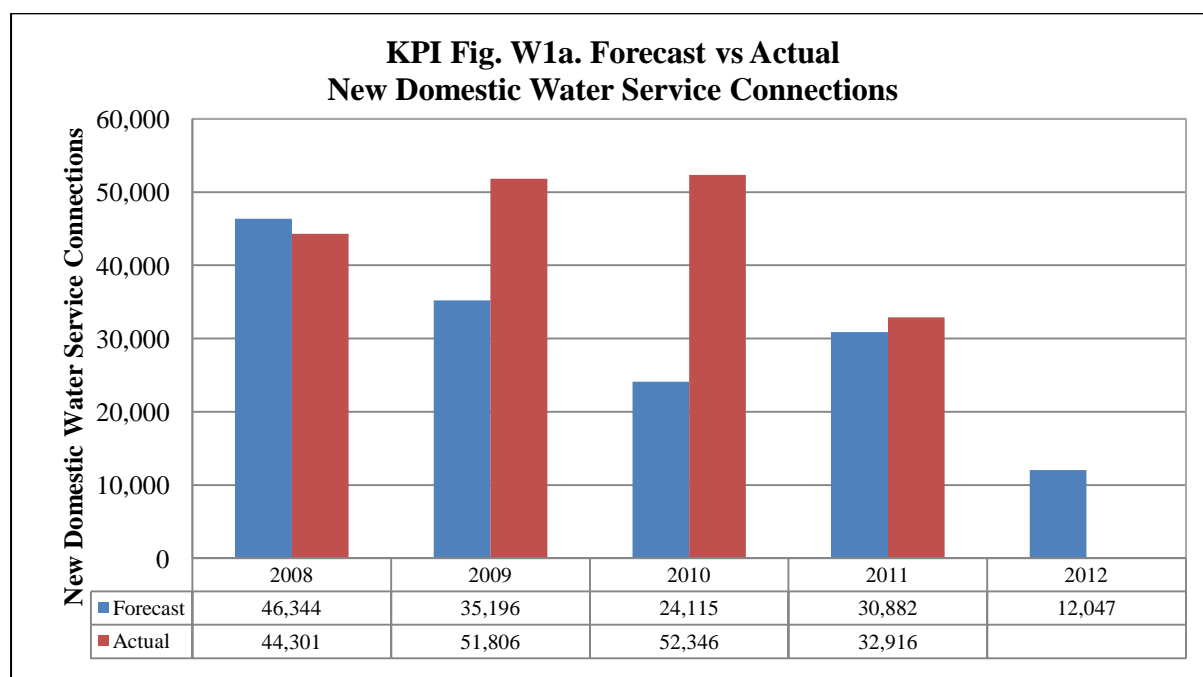
Indicators	2007	2008		2009		2010		2011		2012	
	Base Yr	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
New Domestic Connections (W1)	596,240	46,344	44,301	35,196	51,806	24,115	52,346	30,882	32,196	12,047	
Individualized Subds/Bulk Accts							1,754		5,135		
Individualized POs							17,707		510		
Urban Poor Connections (TPSB)							20,344		4,416		
W1 + New Individualized Accounts + Urban Poor)							92,151		42,977		
Cumulative Domestic Connections		642,584	640,541	677,780	692,347	701,895	784,498	732,777	807,770	744,824	
Data Cleanup Adjustment Dec.. 2010 (-19,705)		-	-	-	-	-	764,793	-	-	-	
New C/I Connections		No target	527	1,970	605	2,441	1,660	1,474	1,062	1,470	
Cumulative C/I	42,826	-	43,353	44,796	43,958	47,237	45,618	48,711	50,211	50,181	
Data Cleanup Adjustment Dec. 2010 (+3,531)		-	-	-	-	-	49,149				
Total New Water Service Connections (W1+C1)		46,344	44,828	37,166	52,144	54,006	32,356	33,978	13,517		
Total New Water Service Connections (W1+C1)+Individualizations and Urban Poor						93,811		44,039			
Cum. Total Water Service Connections	693,066	642,584	683,894	679,750	736,305	706,306	830,116	738,662	857,982	752,179	
Data Cleaning Result Net Adjustment of -16,173 (+12,054 re-tagged accounts and -28,227 invalidated data)							813,943				

Sources: 1. Manila Water 2008 Second Rate Rebasement Business Plan;
2. Manila Water 2008, 2009 & 2010 Annual Reports; and
3. KPI+BEM Reports Jan-Dec 2011

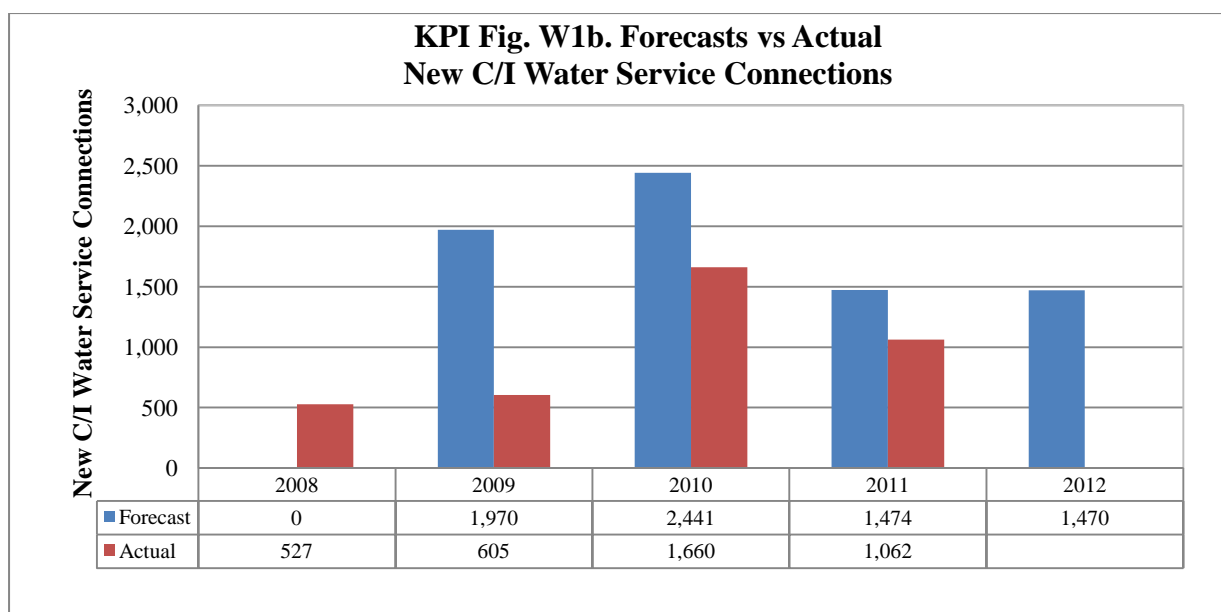
Notes: 1. RR Forecasts were adjusted considering the 2007 actual connections;
2. Target Domestic and C/I connections were assumed 90/10 of the total new water connections; and
3. Data Cleaning was conducted by MWCI in December 2010 which re-established the total number of Domestic Water Service Connection at 764,793 (previously reported as 784,497) and the total number of Commercial and Industrial Connections at 49,149 (previously reported as 45,618)



Sources: Manila Water 2008 Business Plan & MWCI KPI+BEM Report Cards CYs 2008-2011



Sources: Manila Water 2008 Business Plan & MWCI KPI+BEM Report Cards CYs 2008-2011



Sources: Manila Water 2008 Business Plan & MWCI KPI+BEM Report Cards CYs 2008-2011

KPI-W1 Evaluation

KPI Fig. W1a shows that for 2008, MWCI actual New Domestic Water Service Connections was slightly (around 2,000 connections) lower than its forecast of the same year. In 2009 to 2011, MWCI's actual New Domestic WSC was 46,875 connections (or 152%) higher than the forecasts under the same period. In fact, the Concessionaire at EO 2011 was already 32,785 connections higher (at 122%) than its forecasts from 2008-2012.

KPI Fig. W1b on the other hand shows that the actual New Commercial/Industrial Water Service Connections of 3,854 connections from 2008-2011 was only around 65% as compared to its forecasts of 5,885 connections under the same period.

Individualization of Bulk Selling Accounts

- As of 2010, Manila Water has expanded its KPI+BEM reportorial format to include the individualization of Bulk Selling Accounts as well as delineating new domestic accounts under their urban poor program "Tubig Para sa Barangay".

As per Manila Water's 2011 KPI+BEM Annual Report, a total of **5,645** individualizations were undertaken from January to December. Majority or **91%** of this number comprise a total of **5,135** individualized accounts from Subdivisions while **9%** or **510** were individualized accounts from PO's also under the Bulk Selling Scheme (See KPI Table W1a. Annual New Water Connection Targets).

Urban Poor Water Service Accounts

- A total of **4,416** new connections under the Concessionaire's "Tubig Para Sa Barangay" urban poor program was also declared as accomplished from January to December 2011. (See KPI Table W1a. Annual New Water Connection Targets).

All in all, a total of **42,977 new domestic connections** have been implemented by MWCI for 2010, the breakdown of which is as follows: **32,916** under the regular connection program, **5,645** individualized bulk selling accounts and **4,416** new urban poor connections under the "Tubig Para sa Barangay" program.

This brings the running total of domestic accounts being maintained by MWCI to **807,770** as of Compliance Year 2011. This number exceeds the 2011 Annual W1 Target of **732,777** by **74,993**.

The **807,770** domestic water service connections at the end of 2010 represent a **6%** growth from the re-established **764,793** number of domestic water service connections in 2010.

As of Compliance Year 2011, the running total of water service accounts being maintained by MWCI is at **857,982** (**807,770** domestic and **50,211** commercial and industrial connections)

2. Water Service Coverage 2011

- The **807,770** domestic connections being maintained by Manila Water at the end of compliance year 2011 serves an equivalent **1,109,457** household **or a population of 6.5 M (at 8.1 persons per connection as per the PAWS survey)**.
- In terms of Service Coverage as per Manila Water's 2008 Business Plan, water service coverage determination for 2008-2011 shall be based upon the Households Approach Method (See Annex A). As of compliance Year 2011, the Water Service Coverage of Manila Water is at **102%** of the households in the east service area. (**1,109,457** Households Served / **1,088,536** Net Service Households in the East Zone).

3. Compliance with KPI-W1 Targets

Manila Water's accomplishment for the Second Rate Rebasing is supplemented by the individualization of bulk selling accounts and urban poor connections. Data cleaning in December 2010 has invalidated a total of 16,173 connections.

New Connections

- As per Manila Water's 2008 Business Plan, a total of **142,442** (**136,537** domestic and **5,885** commercial and industrial) new water service connections were targeted for implementation from 2008 to Compliance Year 2011 (See KPI Table W1a. Annual New Water Connection Targets). These targets project the compliance year figures for domestic water service connections to be **732,777** at the end of compliance year 2011.
- From January 2008 to December 2011, Manila water has connected a total of **181,369** new domestic water service connections under its regular program. This figure meets and exceeds the 2008 Business Plan Target of **136,537** domestic connections by **33%** or **44,832 connections**.

Individualization of Bulk Selling Accounts

- From January 2010 to December 2011, the Concessionaire has managed to individualize a total of **25,106** Bulk Selling Accounts (**6,899** Accounts from Subdivisions and **18,217** from Peoples' Organizations). Also within the same period, **24,760** accounts under the Pro-urban poor "Tubig Para sa Barangay" program were accomplished.

The **181,369** new domestic water service connections under the regular program, along with the **25,106** individualized accounts and the **18,217** New Urban Poor connections bring the running total of domestic water service connections to **807,770**. This meets and exceeds the projected **732,777** domestic water service connections for compliance year 2011 by **10% or 74,993** connections.

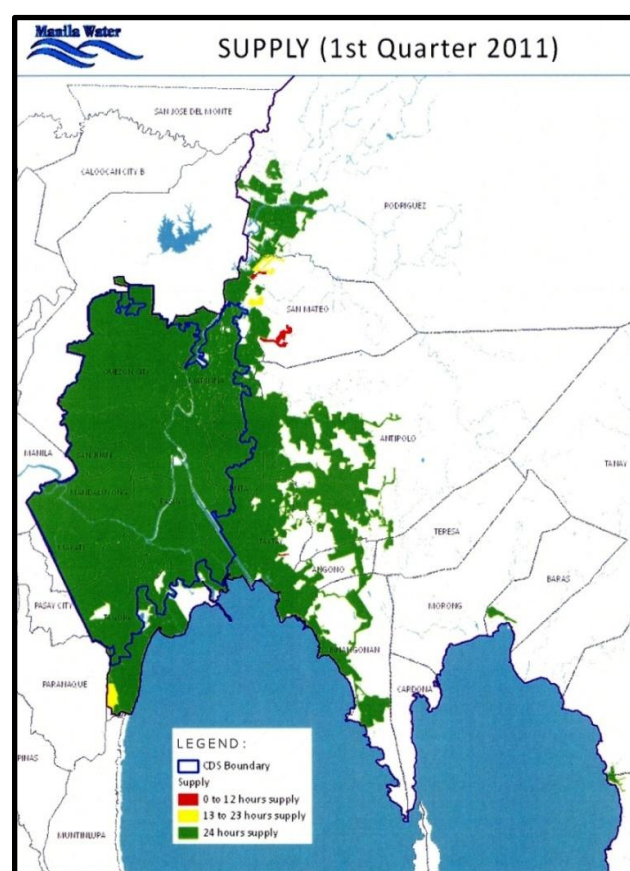
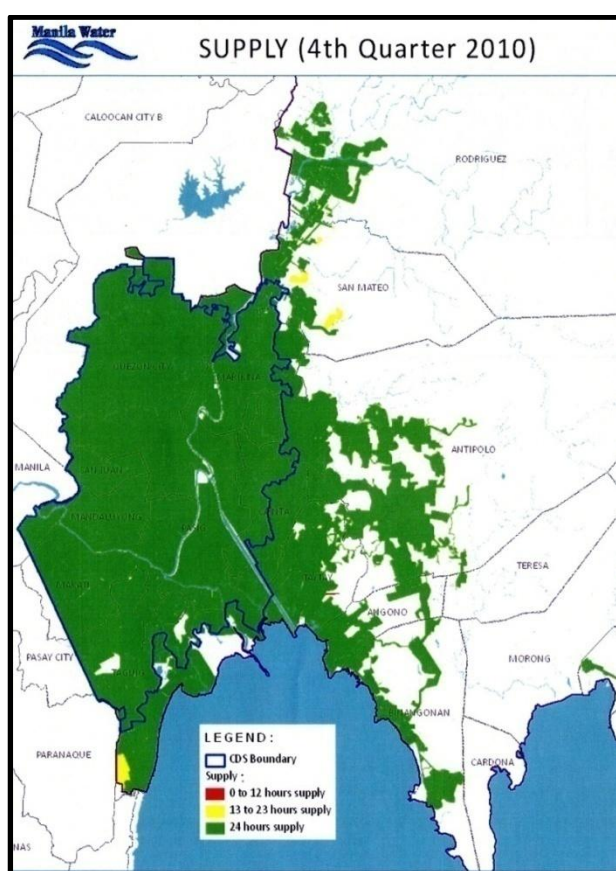
The total number of water service connections being maintained by Manila Water at the end of compliance year 2011 amounts to **857,982 (807,770 domestic and 50,211 commercial and industrial connections)**. This represents an over-all growth of **34%** from the 2007 Base Year of **639,066** water service connections (**596,240** domestic and **42,826** commercial/industrial).

A-2.0 KPI-W2 Continuity of Supply

% of Total Hours @ 24 Hours Supply

- Base is number of connected customers served with 24 hours water supply (increasing in time)
- Excluding connected customers which cannot be served with 24 hours water supply

No. of Hours of Supply	2008		2009		2010		2011		2012	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
24 hours	98%	98%	98%	99%	98%	99%	98%	99%	98%	
Less than 24 hours	2%	2%	2%	1%	2%	1%	2%	1%	2%	



KPI-W2 Observations

Despite overshooting its total water service connection targets, table above shows that MWCI met its target of customers receiving 24 hours of water supply in 2008 at 98% and overshoots the same KPI-W2 targets from 2009 to 2011.

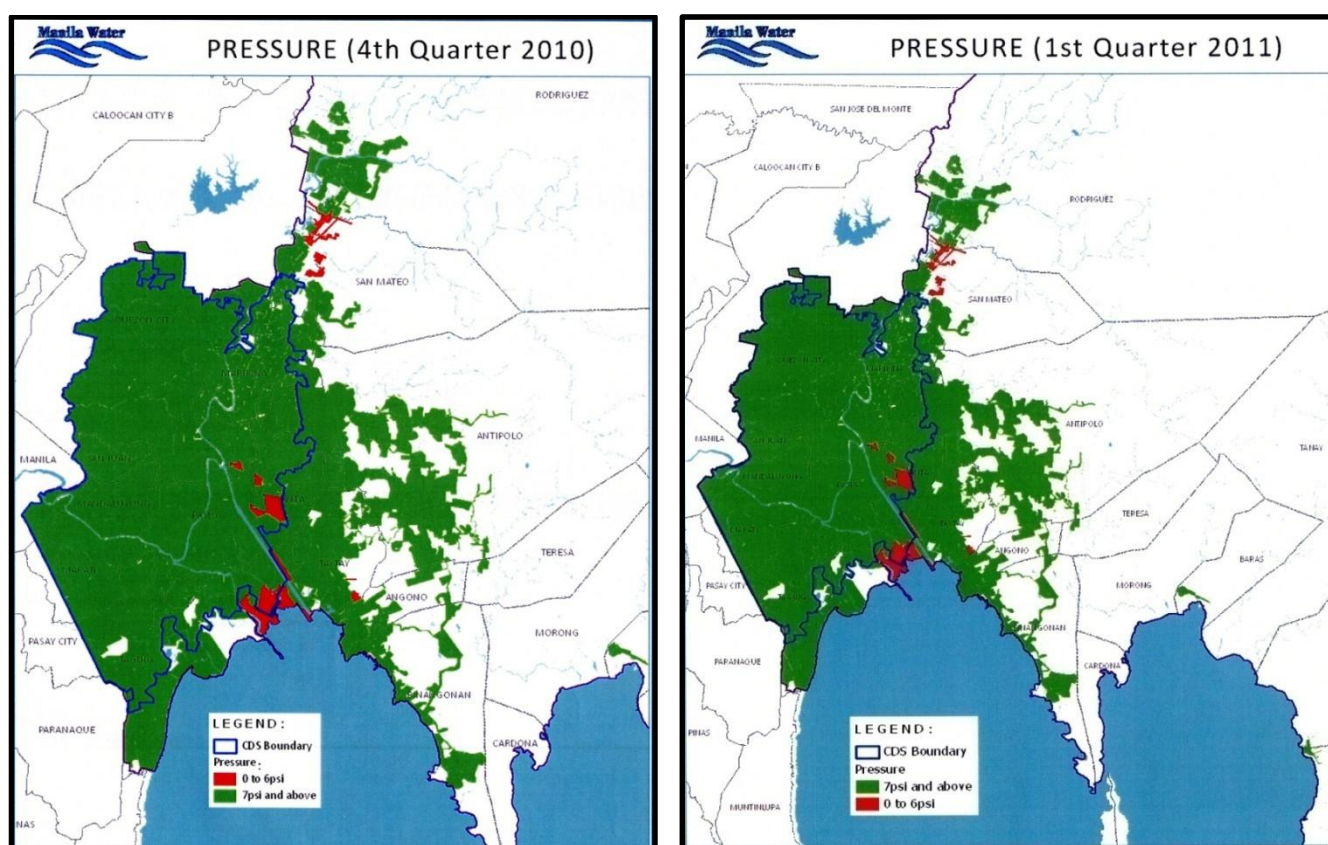
It was recorded at EO December 2011 that 99% of the currently served customers in the East Zone were receiving 7 psi and above water pressure.

A-3.0 KPI-W3 Pressure of Water Supply

% Total Hours @ Minimum Pressure of 7 psi

- Base is number of connected customers served with 7 psi and above (increasing in time)
- Excluding connected customers which cannot be served with minimum 7 psi pressure

No. of Hours of Supply	2008		2009		2010		2011		2012	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
7 psi and above	76%	99%	78%	99%	80%	99%	82%	99%	85%	
7 psi below	24%	1%	22%	1%	20%	1%	18%	1%	15%	



KPI-W3 Observations

As in the case of KPI-W2, table above shows that MWCI overshoots its targets of customers (in percentage terms) receiving 7 psi and above pressure from 2008 to 2011.

At EO December 2011, 98.83% of the currently served areas have an access of 7 psi and above pressure of water supply. This is around 17 percentage points higher than its target of 82% for CY 2011. The average pressure in the East Zone was recorded at 19.34 psi for the period under review.

A-4.0 KPI-W4 Water Quality at Plant Outlet

This requires the Concessionaire to test for specified parameters at prescribed frequencies as set in the KPI Guide Doc. At the treatment plant or water treatment works, sampling frequencies are based on the average daily output from the treatment plant during the previous calendar year except where it is known that the current year's average daily output will be significantly different from the previous year's average daily output. Further, set sampling frequencies is also based on the assumption that water quality of the raw water source of is at least Class A based on DENR classification.

There is no requirement in the KPI Guide Doc to sample for some parameters at the water treatment works. However, when the Concessionaire has carried out determination for those some parameters and supplied the information as part of its compliance information, the number of determinations and any breaches of the standards have been included in the assessment of water quality.

The legal requirement on water companies at the treatment plant or water treatment works is 100% compliance with the Philippine National Standards for Drinking Water. The same has also been the target of Manila Water in its submitted and approved 2008 Business Plan.

Table W4 shows the summary of water quality at the ten (10) treatment plants/works operated by Manila Water in 2011.

Table W4 SUMMARY OF WATER QUALITY AT THE TREATMENT PLANT/ WTWs

	2008	2009	2010	2011
NUMBER OF TPs/ WTWs OPERATED	11	12	12	10
- number with exceeding PCV	0	0	1	1
- with exceeding PCV	n/a	n/a	Taytay	San Rafael
TOTAL NUMBER OF TESTS	20,726	37,376	32,755	19,822
- w/ exceeding PCV	0	0	23	4
PERFORMANCE, %	100.0 %	100.0 %	99.93%	99.98%

PCV- prescribed concentration value set by the Phil. National Standards for Drinking Water

KPI-W4 Evaluation

Manila Water's Performance under W4 KPI- Water Quality at the Treatment Plant is based on the number of tests that exceeded the prescribed concentration value set in the PNSDW over the number of required number of test Manila Water has to carry out on its 10 operational TPs/ WTWs. As shown in Table W4 above, Manila Water failed to meet its target of 100% passing on the quality of the product water at the treatment plant outlet based on the specified parameters for monitoring at the required sampling frequency.

The reduction in the required number of tests in 2011 compared to 2010 was due to the following:

- Taytay WTWs had been decommissioned since February 2011 due to the availability of surface water in the supply zone served by Taytay WTWs;
- Similarly, Aranzasu was also decommissioned since December 2011 due to the availability of surface water in its supply zone;
- San Rafael TP stopped its operation during the month of February due to its failure to meet total coliforms standard in January;
- Reduction on the required number of tests in some treatment plants;
- Molave and Tanguile WTWs had been merged with the Curayao WTWs where monitoring was conducted only at the effluent of Curayao WTWs;
- Increase in water quality rating in 2011 compared in 2010 may be due to sampling shortfalls observed in San Rafael TP, Manggahan, Jala-jala, and Aranzasu where it is considered significant due to reasons not known or disclosed by Manila Water to MWSS RO. The parameters where shortfalls were observed are the parameters that need to be treated or reduced so that the product water meets PNSDW standard and where improvements were done by Manila Water.

A-5.0 KPI-W5 Water Quality in the Distribution System (Supply Zone)

The indicator intends to provide an overall indication of the quality of water in the distribution as it arrives at the point of delivery to the consumer. The parameter is total coliforms which sampling frequency is based on the number of served population. Usually, the minimum required number of samples to be collected from validated regulatory sampling points (RSPs) is 20 + 1 sample for every 10,000 population or 1 sample for every 5,000 population depending on the number of the served population of each water source. Table W5 below is a summary of the bacteriological tests conducted by Manila Water in 2011.

Table W5. SUMMARY OF COMPLIANCE

	CY 2011		CY 2010		CY 2009		CY 2008	
	T. coliform	Sampling Freq	T. coliform	Sampling Freq	T. coliform	Sampling Freq	T. coliform	Sampling Freq
Balara Filters	<95%	> 100%	<95%	> 100%	<95%	> 100%	<95%	> 100%
San Rafael TP	<95%	> 100%	<95%	> 100%	<95%	> 100%	<95%	> 100%
Montalban DWs	<95%	> 100%	<95%	> 100%	<95%	> 100%	<95%	> 100%
Baras WTWs	<95%	> 100%	<95%	> 100%	<95%	> 100%	<95%	> 100%
Jala-jala TP	<95%	> 100%	<95%	> 100%	<95%	> 100%	<95%	> 100%
Taytay TP	<95%	> 100%	<95%	> 100%	<95%	> 100%	<95%	> 100%
OVERALL	<95%	>100%	<95 %	>100%	<95%	>100%	<95%	>100%

KPI-W5 Evaluation

Based on Table W5 above, Manila Water consistently surpassed the minimum 95% passing on the bacteriological quality of supplied water in the distribution system. In order to evaluate

satisfactory compliance of the service provider with regards to bacteriological, MWSS RO also needs to look at the sampling frequency, which Manila Water was also able to surpass the minimum 100% PNSDW requirement.

A-6.0 KPI-W6 Sampling

The indicator gives a measure on the achievement of Manila Water to comply with the required sampling frequency for specified parameters at 1) at the treatment plants, 2) at the supply zones or distribution system, and 3) at the service reservoirs. Manila Water set 100% as its target for sampling.

Table W6. SUMMARY ON SAMPLING

	Year 2011	Year 2010	Year 2009	Year 2008
Number of treatment Plant/ WTWs	10	12	12	11
- with sampling shortfall	5	0	0	Phase-in
- sampling freq compliance	50 %	100 %	100 %	Phase-in
Number of Supply Zone	7	6	5	5
- with sampling shortfall	0	0	0	Phase-in
- no sampling shortfall	100 %	100 %	100 %	Phase-in
Number of service reservoirs	22	20	18	
- with sampling shortfall	0	1	0	Phase-in
- no sampling shortfall	100%	95 %	100 %	Phase-in
OVERALL PERFORMANCE RATING	83.3%	98.3 %	100 %	Phase-in

KPI-W6 Evaluation

As shown in Table W6, Manila Water at 88.3 % failed to meet its 100% target on sampling due to sampling shortfall observed in 5 out of the 10 treatment plants the company operated in 2011, notwithstanding the numbers shown in Table W6-a below which are significantly more than the required number, Manila Water failed to achieve its target for the Jala-jala TP, because sampling frequency on TDS and hardness were not followed. Jala-jala TP is installed with advance treatment process- the reverse osmosis. There were parameters that were tested more than their required frequency while parameters that need to be monitored more frequent due to problems in elevated levels of manganese and iron in the source groundwater. Thus, MWSS RO considered the shortfall observed in 2011 significant. Refer to Table W6-a for the details.

Unlike in 2010 where sampling shortfall had been considered **not significant** because the shortfall occurred in the San Juan No. 2 reservoir where Manila Water did not conduct testing during the incident of dirty water; cleaning and disinfecting the said reservoir was undertaken

by Manila Water when the shortfall occurred. All other sampling requirements at the treatment plant, supply zone or distribution system were complied such as sampling at regular intervals.

Table W6-a. 2011 SAMPLING

Monitoring points	number	Required number of test	Number of test conducted	Sampling performance, %	With sampling shortfall
Treatment plant/ water treatment works	10	14,001	19,828	50%	<p>SRTP: in Jan- 13 events each of 7 check parameters requiring daily testing</p> <p>Jala-jala: from July to dec- 12 events for TDS and 3 events for hardness requiring 2/week and 1/week testing, respectively</p> <p>Manggahan: in Jan- 2 events each for TC/HPC/Cl/color/Fe/Mn/hardness requiring weekly testing</p> <p>Manggahan: in Jan- 2 events each for TC, HPC, Cl, color, Fe, Mn, hardness requiring for weekly testing</p> <p>Manggahan: all in July , color- 1 event requiring weekly sampling; Fe & Mn: 2 events requiring for weekly testing</p> <p>Aranzasu: all in July to Aug: TC & Res Cl- 1 event each requiring weekly; Color- 3 events requiring weekly testing; Fe & Mn- 4 events each requiring weekly testing</p> <p>San Jose: Fe & Mn- 2 events each in July requiring weekly testing</p>
Supply zone / distribution system	7	26,831	40,958	> 100%	
Service reservoir	22	7,212	7,034	> 100%	
W6. Performance				83.3%	

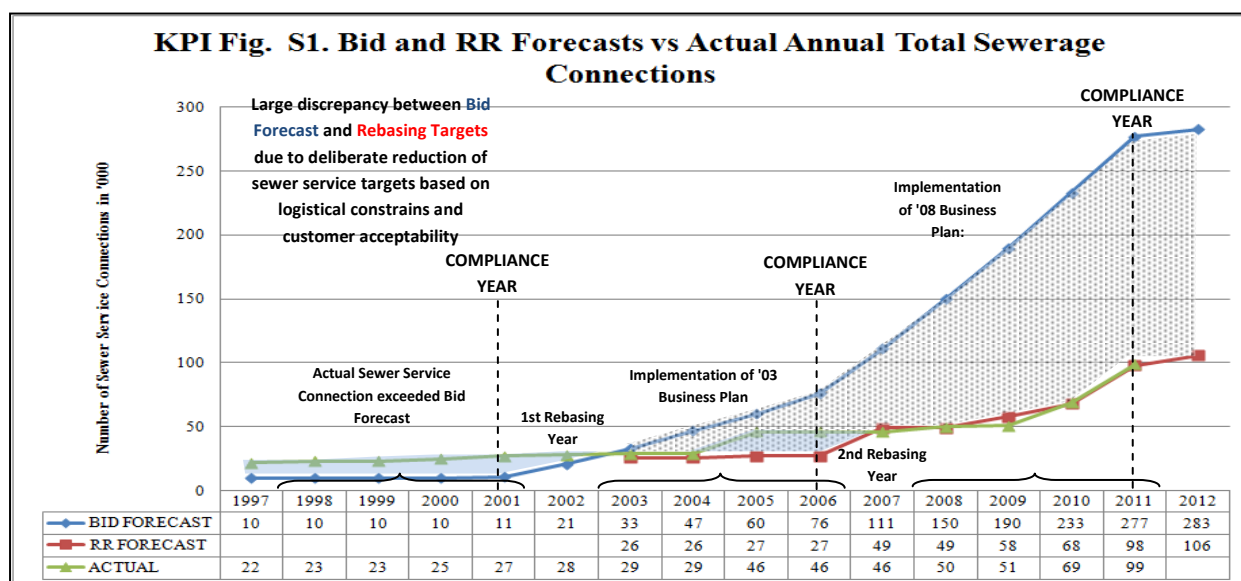
SEWERAGE + SANITATION (S1 and S2)

A-7.0 KPI-S1 Sewerage Connections

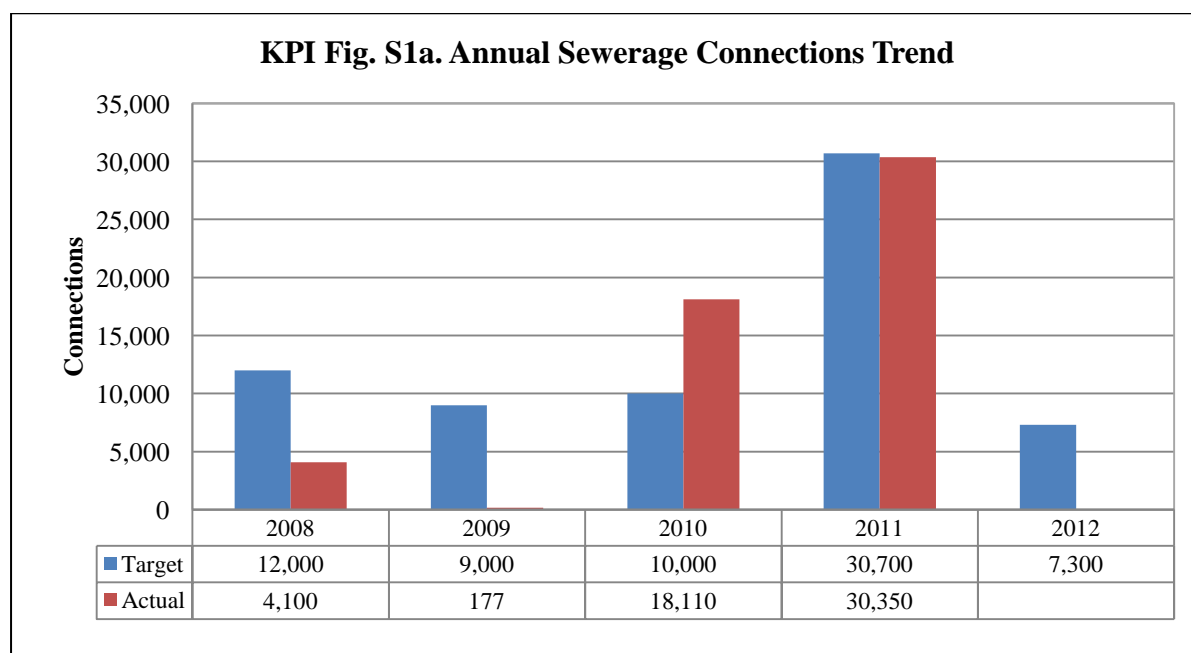
For KPI-S1, the unit of measure is the number of Domestic Sewer Connections of which:

No. of Domestic Sewer Connections = Res'l + Semi-business + Urban Poor

- (Bulk meter = 1 connection as Water Service)
- (From Thames Report)



Sources: Manila Water 2008 Business Plan & MWCI KPI+BEM Report Card January to June 2011



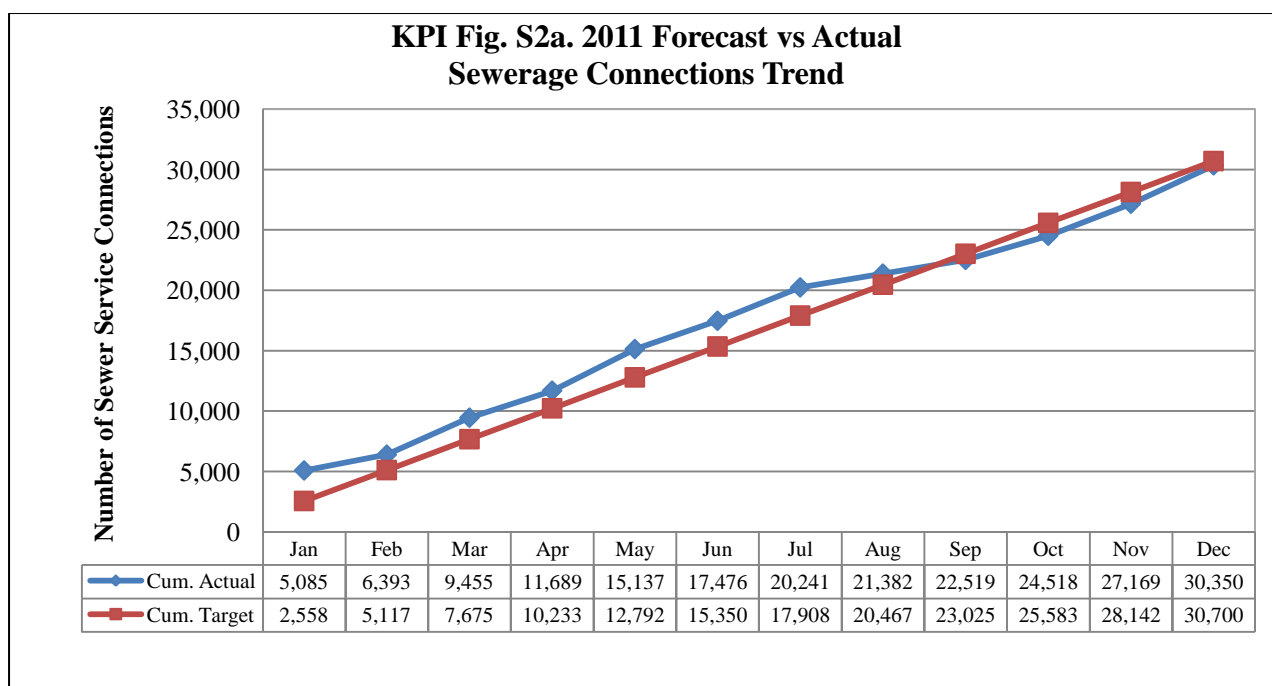
Sources: Manila Water 2008 Business Plan & MWCI KPI+BEM Report Card CYs 2008 to 2011

KPI Table S1a. Annual New Domestic Sewer Connection Targets

Sewer Service Connections	<u>2007</u>	<u>2008</u>		<u>2009</u>		<u>2010</u>		<u>2011</u>		<u>2012</u>	
	Base Year	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
New Sewer Service Connections (Separate+Combined)		12,000	4,100	9,000	177	10,000	18,110	30,700	30,350	7,300	-
TOTAL	46,523	58,523	50,623	67,523	50,800	77,523	68,910	108,223	99,260	115,523	-

Sources: Manila Water 2008 Business Plan & MWCI KPI+BEM Report Card January to June 2011

Notes: 2011 RR Target for sewerage connections should only be 98,700 and not 106,000. The corrections was based on 2011 Sewer Coverage Target (As reflected in Annex 2 of 2008 RR Approved Business Plan) that equivalent households of 98,700 sewerage connections is 144,300



KPI-S1 Evaluation

For KPI-S1, MWCI failed to meet the required number of sewerage connections both from the separate sewer system as well as from the combined sewer system to meet its forecasted connections from 2008 to 2011. As of EO December 2011, the Concessionaire installed/connected a total of 52,737 sewer connections (separate + combined systems) during the four (4) year period which is 8,963 sewer connections short or is about 85% of the target connections of 69,000. The Concessionaire's failure to meet the targeted sewer connections can be attributed to the non-implementation of some wastewater projects due to re-profiling of the Marikina River Basin Catchment Area into Marikina-San Juan-Pasig River System.

As of EO December 2011, MWCI has **99,260** sewer connections serving a total of **146,237** households (as per MWCI 2011 Annual KPI Report). This represents sewer service coverage of **13.19%** of **1,108,663** water served households for Compliance Year 2011. The **13.19%**

sewer service coverage for compliance year 2011 also represents a growth of **5.42%** from the **7.77%** 2007 base year sewer service coverage.

Compliance with KPI S1 Targets

From January 2008 to December 2011, Manila Water has accumulated a total of **52,737** new sewer service connections. This meets and exceeds the **52,177** KPI-S1 new sewer service connection targets for the second rate rebasing by **560** sewer service connections.

Majority or **78%** of the **52,737** new sewer service connections are under the Combined Sewer Service (CSS). These are located mostly in the cities of Makati, Marikina, Pasig, Quezon City, Taguig and the municipality of Cainta. The City of Taguig has the most number of households being served by the combined system at with **18,790** connections serving **24,364** households see Actual Sewer Service Compliance table.

The **52,737** new sewer service connections along with the 2007 base year balance of **46,523** brings Manila Water's total number of sewer service connection to **99,260**.

Sewer Service Coverage under the reduced target

Sewer Service Coverage under the household framework increased by **6%** from 2008 to 2011. With an equivalent sewer service household of **146,237** **against 1.10M** domestic households served by water, Manila Water concludes compliance year 2011 with a sewer service coverage of **13.19%** (**see** Actual Sewer Service Compliance table). Against the 2021 target of **15%** population coverage (as per reduction of sewer service coverage see Reduction of Sewer Service Targets 2003-2011), Manila water's running total of **99,260** sewer service connections translates to an estimated **0.8M** (at 8.1 persons per service connection as per the PAWS survey). The **0.8M** sewer service population garners a service coverage of **12%**

In sum, Manila Water has met and exceeded the KPI-S1 Targets for the Second Rate Rebasing and has made significant expansion of sewer services under the combined system in the Cities of Pasig, Taguig and in the municipality of Cainta.

A-8.0 KPI-S2 Sanitation

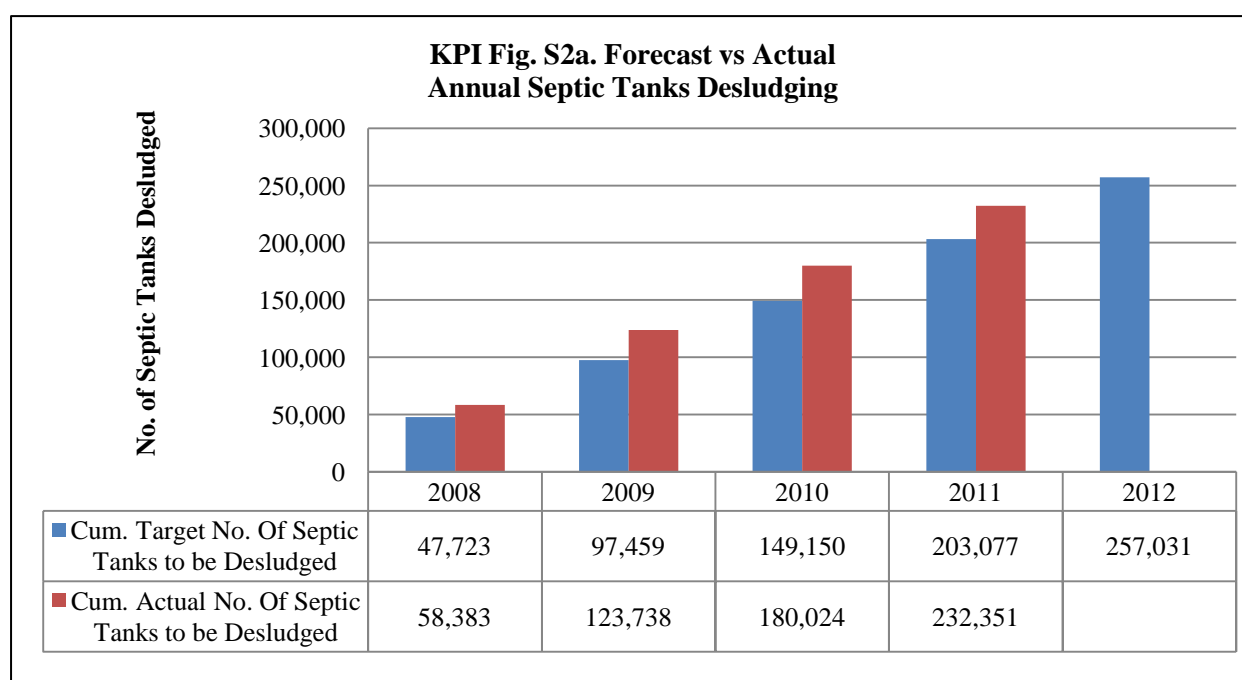
For KPI-S1, the unit of measure is the number of households desludged:

KPI Table S1. Annual Septic Tanks Desludging

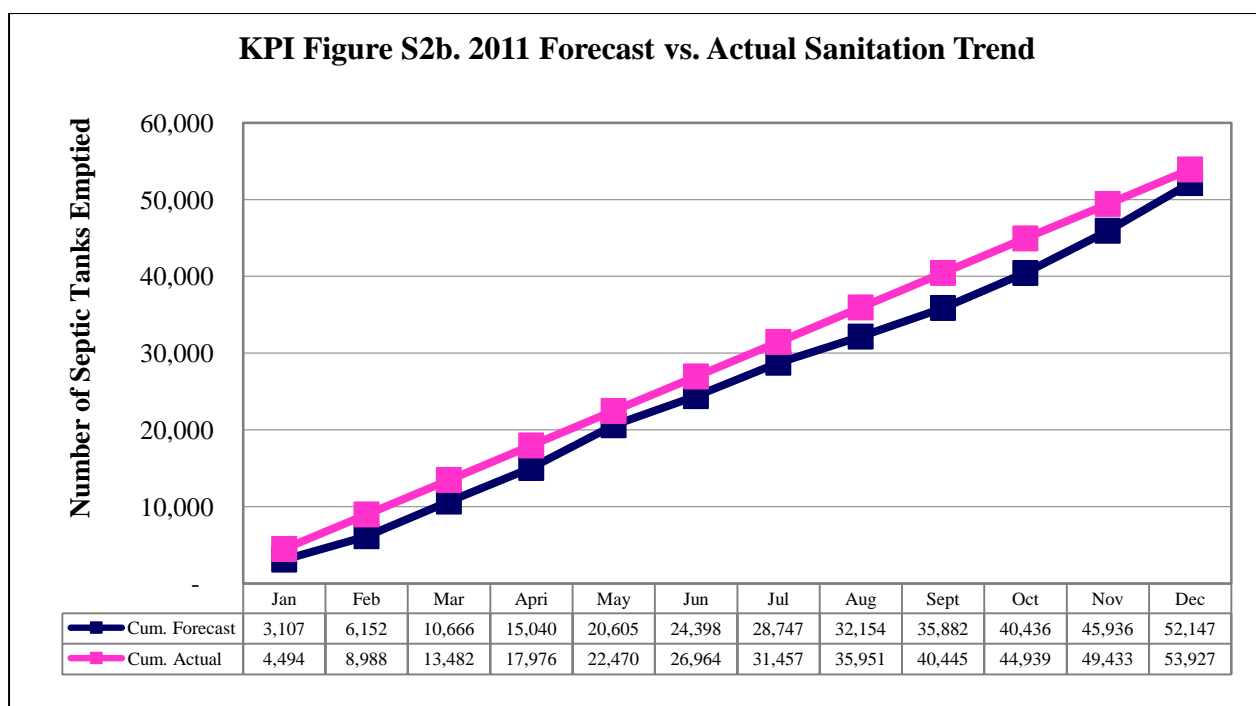
	2008	2009	2010	2011	2012
No. of Septic Tanks to be Emptied	50,235	52,353	54,412	56,765	56,794
Target % Requirement	95%	95%	95%	95%	95%
Target No. of Septic Tanks to be Emptied	47,723	49,735	51,691	53,927	53,954
Target Cumulative Septic Tanks to be Emptied	47,723	97,459	149,150	203,077	257,031
Actual No. of Septic Tanks Emptied	58,383	65,355	56,466	52,147	
Actual Cumulative No. of Septic Tanks Emptied	58,383	123,738	180,204	232,351	
% Accomplishment to Date to 2011 Target	29%	61%	89%	114%	

Note: Data taken from the approved KPIs+BEMs Report

Beginning balance for Year 2007 is 31,409 Septic Tanks Desludged



Sources: Manila Water 2008 Business Plan & MWCI KPI+BEM Report Card January 2008 to December 2011



Sources: Manila Water 2008 Business Plan & MWCI KPI+BEM Report Card January to December 2011

KPI-S2 Evaluation

Compliance with KPI S2 Annual Target

- Manila Water's Annual Sanitation Services cleaned a total of **52,147** septic tanks at a monthly average of **4,369** septic tanks.
- Majority or **61%** of sanitation accomplishments is from the NCR. The City of Marikina garnered the most number of septic tanks cleaned at **14,699** followed by Mandaluyong with **5,144** and Quezon City with **3,048**. The bulk of Sanitation accomplishment for Rizal is comprised of septic tanks cleaned from San Mateo with **6,293** followed by Cainta with **5,010** and Taytay with 3,436 septic tanks cleaned.
- At the end of compliance year 2011, the running total of Manila Water's KPI-S2 amounts to **232,351** (**58,383** in 2008+**65,355** in 2009+**56,466** in 2010+ **52,147 for compliance year 2011**). This meets and exceeds the Compliance Year Target of **203,077 septic tanks desludged by 14%** see KPI Table S1. Annual Septic Tanks Desludging

Sanitation Service Coverage 2011

- In terms of service coverage, as per Manila Water's 2008 Business Plan, Sanitation Service Coverage is represented by the ratio of households served by septic tank cleaning and households served by water. Counterpart household information regarding sanitation and water service was provided by Manila Water based on the tabulations by their meter consumption analysts.

- As result of Manila Water's Sanitation activities from 2008 to compliance year 2011, a total of **900,019** households have been served by the accumulation of **232,351 septic tanks cleaned for the said period.**
- Within the context of the **1,109,457 households being served by Manila Water's 807,770 domestic water service connections for compliance year 2011, sanitation service coverage is at 81.12%**

From January 2008 to December 2011, Manila Water desludged a total of **232,351** septic tanks exceeding the 2011 S2 Compliance Year Target by **14%**

The **232,351** number of septic tanks desludged has an equivalent households served of **900,019** (as reported by Manila Water). This meets and exceeds the 2008 Business Plan Target of 814,700 Households by 10% or **85,319** septic tanks cleaned. The **85,319** septic tanks cleaned represent requests for sanitation services beyond that of the scheduled number from 2008 to 2011.

Computed Sanitation Service coverage under the household framework is at **81.12%** which is merely **4%** short of the 2021 target of **85%**.

A-9.0 KPI-S3 Wastewater Effluent Standards

The indicator measures the effectiveness of the sewage treatment function as carried out on the effluent from orthodox sewerage systems and community sewerage systems. As set in the KPI Guide Doc, each Regulatory sample is analyzed for five parameters, namely, biochemical oxygen demand (BOD), chemical oxygen demand (COD), total coliforms (TC), total suspended solids (TSS) and oil & grease (O&G).

Performance on Wastewater Effluent Standards is determined at the end of each year in each sewage treatment plant (STP) the Manila Water operates. Performance is evaluated based on sampling frequency requirement and effluent standards, as follows -

1st - Requirement on sampling frequency has to be complied. Sampling frequency is based on average discharge volume

2nd - Effluent quality shall be evaluated using the standards set in the KPI Guide Doc on Wastewater Monitoring as the sum of the corresponding full weight of each of the five (5) parameters mentioned in the above. Test results on all samples collected separately or jointly by MWCI and MWSS RO are used in the evaluation. All samples refer to both the test results from the initial and repeat sampling conducted separately or jointly collected by the Regulator and Manila Water. Provided, the required number of samples has been complied, only STP garnering percentile rating for the year of not less than 95% shall be considered with Satisfactory Performance. However, evaluation will be based on adjusted number of samples when a written request for NO SAMPLING due to justifiable cause has been received by MWSS RO at least a day before the scheduled date of sampling at a particular STP. Table S6 found below summarizes the performance of Manila Water.

Table S6 found below summarizes the performance of Manila Water in 2008 to 2011.

	Year 2012	Year 2011	Year 2010	Year 2009	Year 2008
Number of sewage treatment plants		36	34	30	30
- with sampling shortfall		0	0	0	0
- with no sampling shortfall		100%	100%	100 %	100%
- with < 95 % compliance		0	0	11	6
- with compliance \geq 95 %		100%	100%	63%	80% *
% Performance		100 %	100 %	63 % (failed)	80 % (failed)

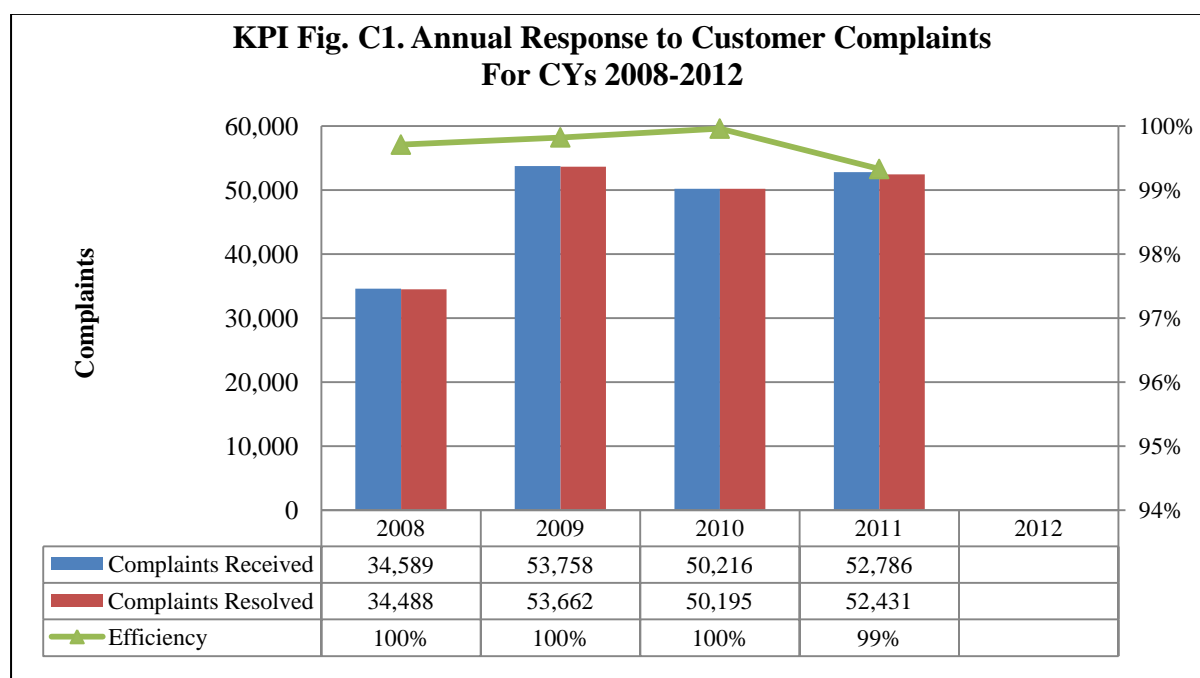
* - In 2008, compliance was determined based on the number of samples that failed in any of the 5 KPI parameters. Failure in any of the 5 parameters in any sample had been considered failure to meet target.

KPI-S3 Evaluation

Manila Water exceeded the minimum 95% performance rating on Wastewater Effluent Standards as shown in Table S6. All the thirty six (36) STPs operated by Manila Water in 2011 met the minimum Performance rate of 95% set by the MWSS RO in the KPI Guide Doc on Wastewater Monitoring. It is noted also that sampling requirement also set in the same Document was also complied in each of the 36 STPs during the year in review.

CUSTOMER SERVICE (C)

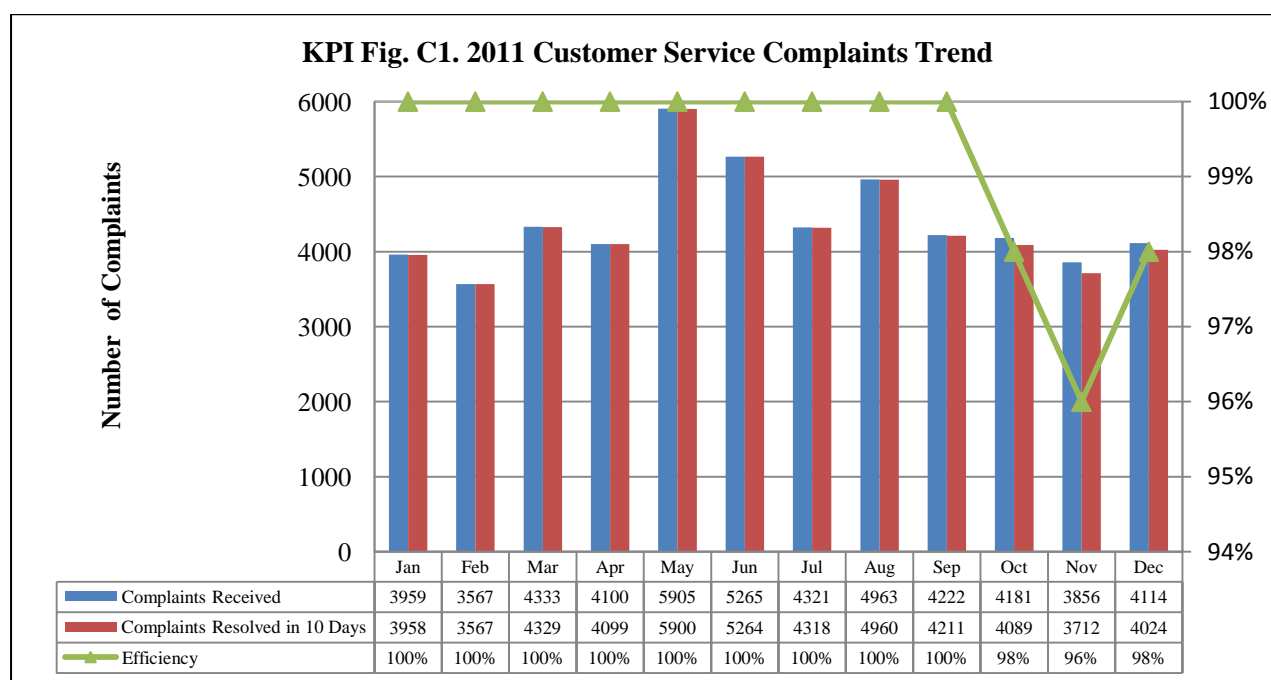
A-10.0 KPI-C1 Response to Customer Service Complaints



KPI Table C1. Response to Customer Service Complaints

No. of Service Complaints 2011	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Balance From Previous Month	0	0	0	1	0	0	0	1	0	0	1	1
Complaints Received	3,959	3,567	4,333	4,100	5,905	5,265	4,321	4,963	4,222	4,181	3,856	4,114
Complaints Resolved in 10 Days	3,958	3,567	4,329	4,099	5,900	5,264	4,318	4,960	4,211	4,089	3,712	4,024
Resolved > 10 Days	1	0	3	2	5	1	2	4	11	91	144	91
Unresolved Complaints	0	0	1	0	0	0	1	0	0	1	1	0
Complaints Handling Eff.	100%	100%	100%	100%	100%	100%	100%	100%	100%	98%	96%	98%

Sources: Manila Water 2008 Business Plan & MWCI KPI+BEM Report Card : January to December 2011



KPI-C1 Evaluation

Customer Complaints Handling Efficiency

KPI C1 is the indicator which denotes complaints handling efficiency, the parameters for C1 are the number of complaints received per month and the number of complaints resolved within 10 days. Complaints handling efficiency is the ratio of complaints resolved within 10 days with the number of complaints received in a month through the concessionaire's Customer Service Information System (CSIS). As per the 2008 Business Plan, the standard for complaints handling efficiency rate is 95% of all service complaints received per month.

KPI Table C1. show Manila Water's monthly performance with respect to the 95% standard on complaints handling efficiency.

- Based on previous recommendations of the Regulatory Office in 2010, Manila Water expanded the **KPI-C1** Reportorial format to include the handling of service complaints resolved beyond the 10-day resolution criteria see Table KPI C1 Response to Customer Service Complaints 2011.
- For the period in review, Manila Water received a total of **52,786** new service complaints (5% higher than the **50,216** service complaints received in 2010) at an average of **4,399** complaints / month. The month of January registered the most number of complaints at **5,905** while the month of February, the fewest at **3,567** service complaints see Table KPI C1 Response to Customer Service Complaints 2011.
- Out of the **52,786** the concessionaire resolved a total of **52,431** complaints under the 10 day requirement of the KPI-C1. This was carried out at an average of **4,369** complaints / month. This leaves a balance of **351** complaints resolved beyond 10 days and **4** service complaints still pending resolution as of the end of December 2011 see Table KPI C1 Response to Customer Service Complaints 2011.

From 2009 to 2011, Maynilad's Customer Service Information System (CSIS) registered a total of 109,156 service complaints. Majority or 77% of these complaints were Water Availability and Pressure Related while 13% or 13,230 are Water Quality related. Only 10% or **10,602** of the total number of complaints received for the period in review was related to Street Hazards.

A-11.0 KPI-C2 Response to Billing Complaints

Received by the Concessionaires (Data from the KPI Report)

The term 'billing complaints' refers to any written, telephone or direct contact with customers about billing issues.

The speed on which the Concessionaires respond to billing complaints serves as the basis of the Regulatory Office in evaluating the performance of the Concessionaires on this respect.

Table below shows the number of billing including meter related complaints received and resolved by MWCI from January to December 2011.

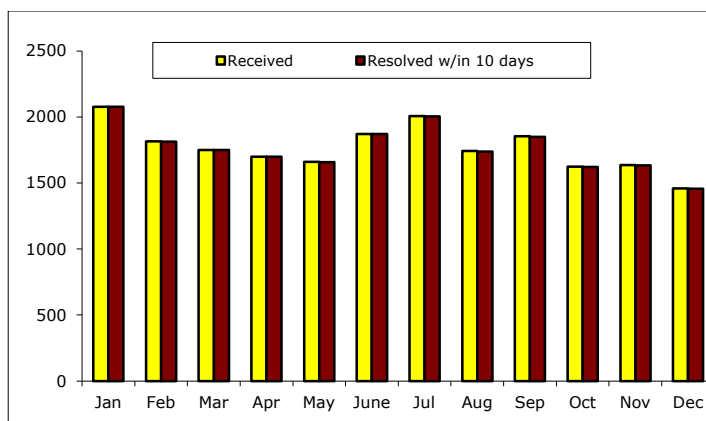
	2011											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Balance (Previous Month)	1	1	-	-	2	-	-	-	-	-	-	-
												1 ^a

Received (This Month)	1615	1453	1515	1573	2140	2323	2065	1988	1997	1924	2044	2337	22974
Total	1616	1454	1515	1573	2142	2323	2065	1988	1997	1924	2044	2337	22975
Resolved													
Within 10 days	1615	1452	1512	1563	2140	2318	2065	1986	1993	1906	1963	2292	22805
Beyond 10 Days	-	2	3	8	2	5	-	2	4	18	81	45	170
% Resolved w/in 10 Days	99.9	99.9	99.9%	99.4	99.9	99.8	100.0	99.8	99.8	99.1	96.0	98.1	99.3
Balance (This Month)	1	-	-	2	-	-	-	-	-	-	-	-	

^a - Balance from December 2010

MWCI received a total of 22,974 billing and meter related complaints in 2011 of which 22,805 or 99% were resolved within the 10 days standard time. This exceeded the 90% target.

Received by the MWSS Regulatory Office (Data from the CSR Database)



Below are data on billing and meter related complaints received in 2011 by the MWSS Regulatory Office (MWSS-RO) thru the Customer Service Regulation (CSR). Received complaints were endorsed to the concerned Concessionaires for appropriate action as part of the Standard Operating Policy (SOP). These include (1) application of average billing (2) rate classification (3) abrupt increase in consumption / excessive billing and (4) billing computation procedure, whereas meter related complaints include stolen meters along with defective meters, which consequently resulted also to billing complaints.

- CSR endorsed a total of 22 billing and meter related complaints received from MWCI customers in 2011. Out of this number, 21 complaints or 95% were resolved with an average resolution time (date resolved – date endorsed) of 22 days, far beyond the 10 days standard time required by the RO. This was also not consistent with MWCI's KPI report that majority (99%) of the received complaints were resolved within 10 days as shown in Table A-1 above.

	2011												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Balance (Previous Month)	-	-	2	-	1	1	-	-	1	1	3	1	-
Received (This Month)	-	3	3	1	-	3	1	1	2	5	2	1	22
Total	-	3	5	1	1	4	1	1	3	6	5	2	22
Resolved	-	1	5	-	-	4	1	-	3	3	4	1	21
% Resolved	-	33	100	-	-	100	100	-	67	50	80	50	95
Ave. Res. Time (in Days)	-	2	25	-	-	26	10	-	30	13	27	7	22
Unresolved / Active	-	2	-	1	1	-	-	1	1	3	1	1	1
Ave. Age of Unresolved	-	19	-	18	49	-	-	16	2	15	6	37	37

- Based on the agreement with the Concessionaires, complaints resolved within the 10 days standard time, but which date of resolution fell outside the reference period were also included in the above data. This is to capture all complaints received during the reference period which were resolved within 10 days irrespective of the date of resolution.
- In order not to drastically affect the average resolution time of normal / regular complaints, above data from both Concessionaires exclude complaints concerning request for individual connections by Subdivisions and Peoples Organization (POs) and other policy related issues such as (1) request for the downgrading of rate classification of churches and housing quarters in military bases (2) refund of overpayment resulting from the delay in the implementation of IRR on the Billing Scheme for High-rise and other Multiple Dwellings and (3) reconnection fee for permanently disconnected water connection received by CSR since these require much longer resolution time. These complaints comprised 14% of the total billing complaints received by CSR from MWCI customers in 2011.

A-12.0 KPI-C3 Response to Request for New Service Connections

This indicator measures the concessionaires' compliance with respect to response time to customers' request for new service connection from the date of application up to the issuance of notification to the customer of the proposed connection charge as provided under Article 9.5.1 of the Concession Agreement (CA).

- MWCI received a total of 50,068 applications for new water service connection in 2011 of which 100% were responded and communicated within the 5 days standard time.

	2010												Total
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	
Balance (Previous Month)	-	-	-	-	-	-	-	-	-	-	-	-	-
New application received	4042	4343	3841	3328	4327	3115	3529	3768	4680	4580	3084	7431	50068
Total													
New application responded and communicated w/in 5 days	4042	4343	3841	3328	4327	3115	3529	3768	4680	4580	3084	7431	50068
% Responded	100	100	100	100	100	100	100	100	100	100	100	100	100.0
Balance (This Month)	-	-	-	-	-	-	-	-	-	-	-	-	-

A-13.0 KPI-C4 Installation of New Water Service Connections

Article 9.5.1 of the CA further provides that such request for new connection shall be carried out by the concessionaires as promptly as maybe practicable following the customer's written acceptance of the proposed connection charge. Hence, this indicator measures the concessionaires' compliance with respect to waiting time for the installation of new service connection from the date of completion / submission of all pertinent documents and payment of connection fees by the customer.

	2011												
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
Balance (Previous Month)	5817	6521	5902	5594	5113	5974	6417	6507	7554	7041	7520	7202	5817 ^b
New application responded and communicated in C3	4042	4343	3841	3328	4327	3115	3529	3768	4680	4580	3084	7431	50068
Total	9859	10864	9743	8922	9440	9089	9946	10275	12234	11621	10604	14633	55885
New connection installed w/in 7 days	3104	3357	3340	2894	3344	2564	2489	2700	5009	3725	3134	2442	38102
New connection installed beyond 7 days	60	59	53	-	17	18	14	4	14	33	11	9	292
% installed within 7 days to total installed as reported in W1	98.1	98.3	98.4	100.0	99.5	99.3	99.4	99.9	99.7	99.1	99.7	99.6	99.2
Total Installed (from W1)	6521	5902	5594	5113	5974	6417	6507	7554	7041	7520	7202	11846	11846
Balance (This Month)	5817	6521	5902	5594	5113	5974	6417	6507	7554	7041	7520	7202	5817 ^b

^b - Balance from December 2010

W1 ^a	2011												
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
Water Service Connection Installed	3164	3416	3393	2894	3361	2582	2503	2704	5023	3758	3145	2451	38394

^a - Excluding Subdivisions and POs converted from bulk to individual connection

- Out of the received applications in 2011, MWCI installed a total of 38,102 new water service connections within the required time of 7 days upon payment of connection fees and completion / submission of pertinent documents. This accounted for 99% of the 38,394 total installed water connections as reported in W1 – Water Service connection, hence, surpassing the 95% target. These data however, exclude subdivisions and POs which were converted from bulk to individual connections as this process requires much longer time since certain issues need to be addressed first prior to the said conversion.
- The balance of 11,846 processed applications have yet to be installed as of the end of the period upon customers' completion of the necessary requirements such as excavation permits, payments, etc. May we emphasize that total workload to be reported under C4 must include only processed applications with complete requirements and paid connection fees.
- *Note that result of the 2011 PAWS survey disclosed that the average waiting time for the installation of a new connection after payment of required fees and completion / submission of all necessary documents is 23.55 days for MWCI (Refer to Section 2.2.1.4 of the PAWS Year V Report). This is much longer than the 7 days standard time and inconsistent with the KPI reports of both concessionaires in 2011 that majority of installed connections were done within 7 days. Further, complaints on the delay in the*

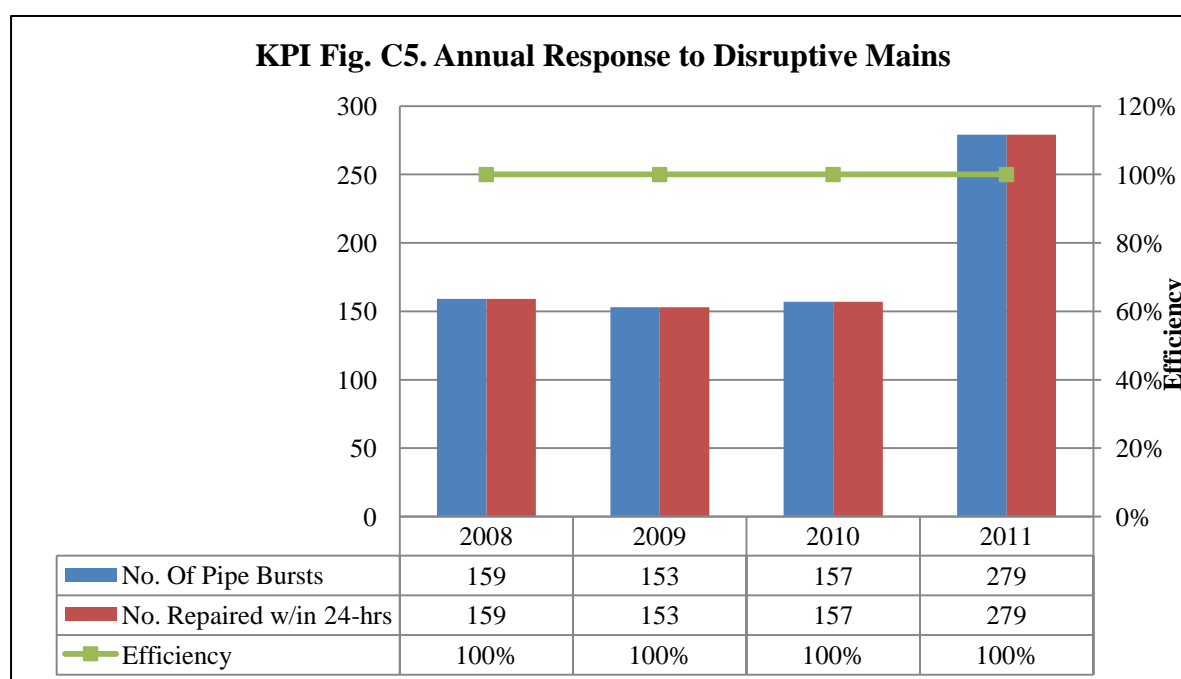
installation of new service connection accounts for 6,853 or 13% of the 52,786 total service complaints received by MWCI in 2011 (Refer to Annex C1-E of the KPI Report).

A-14.0 KPI-C5 Response to Disruptive Mains Failure

For KPI-C5, the unit of measure is % Repaired within 24 hours of reporting:

$$\% \text{ Repaired} = \frac{\text{No. of Repaired Disruptive Mains} * \text{Failure}}{\text{No. of Reported Disruptive Mains} * \text{Failure}} \times 100$$

Note: Mains greater than 300mm are excluded in this KPI.



KPI Table C5. Response to Disruptive Mains

	2011												YTD
	J	F	M	A	M	J	J	A	S	O	N	D	
Actual no. of pipe bursts	6	5	6	9	18	25	47	31	32	32	26	42	279
Actual no. of repaired within 24 hours	6	5	6	9	18	25	47	31	32	32	26	42	279
% Repaired within 24 hours	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100%

KPI-C5 Observation

KPI Table C5a shows the actual number of 159, 153 and 157 pipe bursts (with diameter of 300 mm and below) within the East Concession Area for CYs 2008, 2009 and 2010, respectively. This translates to an average of 13 pipe bursts per month in the East Concession Area for CYs 2008 through 2010. However, in 2011, the actual number of pipe bursts was

recorded at 279 or 23 pipe bursts per month. MWCI shall explain to RO such circumstance as it is expected that as the Concessionaire exerts effort to lower its NRW, the incidence of disruptive mains should have also been going down.

Moreover, the report for KPI-C5 could have been more appreciated had the MWCI provided the list of the pipe bursts with location, size and type of material since 2009 in order to determine the bursting frequency.

B. BUSINESS EFFICIENCY MEASURES

REVENUE AND COLLECTION/INCOME (IN)

B-1.0 BEM-IN1 Billed Volume

Formula:

Monthly Actual as % Forecast

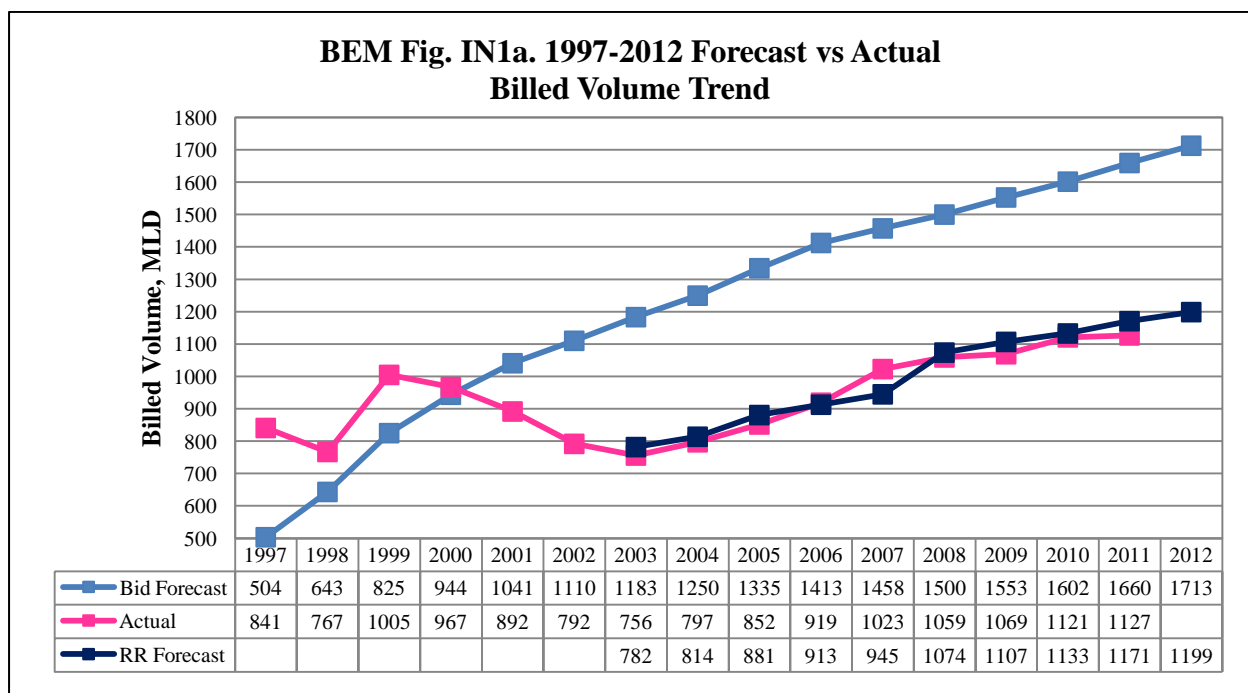
$$= \frac{\text{Actual Billed Volume}}{\text{Forecast Billed Volume}} \times 100$$

Cumulative Actual as % Forecast

$$= \frac{\text{Actual Cumulative Billed Volume}}{\text{Forecast Cumulative Billed Volume}} \times 100$$

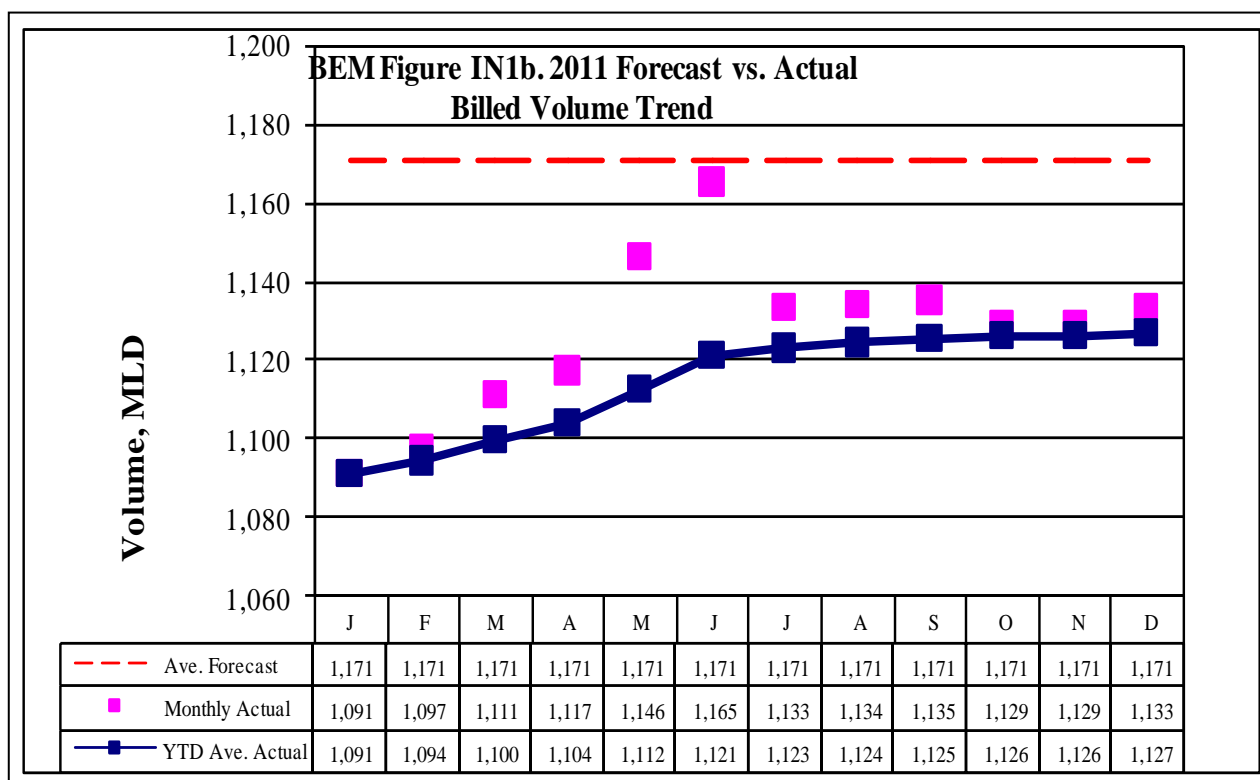
BEM Table IN1a. Annual Average Billed Volume Forecast* (MLD)

2008		2009		2010		2011		2012	
Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
1074	1059	1107	1069	1133	1121	1171	1127	1199	



BEM Table IN1b. 2011 Monthly Billed Volume Forecast vs Actual (MLD)

	J	F	M	A	M	J	J	A	S	O	N	D	AYTD
Forecast	1171	1171	1171	1171	1171	1171	1171	1171	1171	1171	1171	1171	1171
Actual	1091	1097	1111	1117	1146	1165	1133	1134	1135	1129	1129	1133	
Monthly Actual as % Forecast	93.2%	93.7%	94.9%	95.4%	97.9%	99.5%	96.8%	96.8%	96.9%	96.4%	96.4%	96.8%	
Cumulative Actual as % Forecast	93.2%	93.4%	93.9%	94.3%	95.0%	95.7%	95.9%	96.0%	96.1%	96.1%	96.2%	96.2%	



BEM-IN1 Evaluation

The billed volume, reported in million cubic meters (MCM) and in million liters per day (MLD), indicates the volume of water sold by the company for the period. As per its approved Business Plan, MWCI's average billed volume target for the CY 2011 is 1,171 MLD.

As of EO December 2011, the year-to-date (YTD) average actual billed volume registered at 1,127 MLD which is still 44 MLD lower than the target 2011 average billed volume of 1,171 MLD. In terms of total billed volume in million cubic meters (MCM), the total billed volume of the East Zone as of EO December 2011 was registered at 412 MCM. This is 15 MCM lower or around 96% of the total billed volume target for the year under review of 427 MCM.

B-2.0 BEM-IN2 Revenue Collection Rate

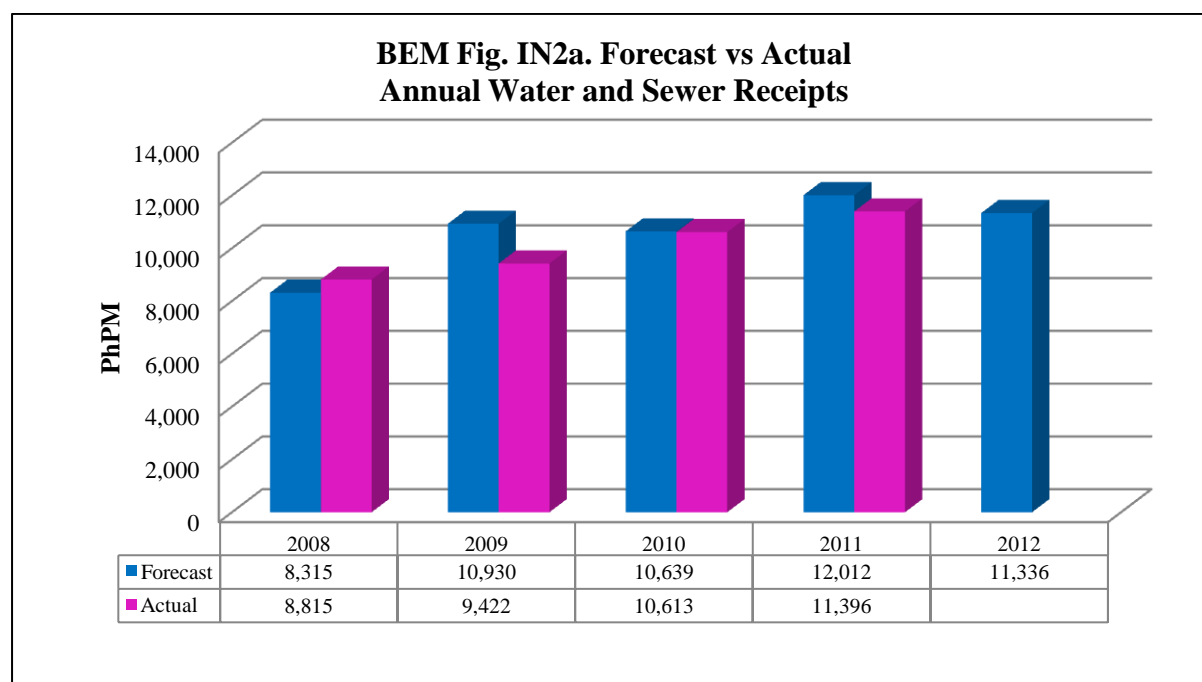
Formula:

$$\% \text{ Collection Efficiency} = \frac{\text{Collection on Current Month Billings}}{\text{Current Month Billings}} \times 100$$

BEM Table IN2a. Annual Water and Sewer Receipts Forecast

2008		2009		2010		2011		2012	
Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
8,315	8,815	10,930	9,422	10,639	10,613	12,012	11,396	11,336	

**CY 2010 based on MWCI CA Renewal/Extension of Final Business Plan in Million Pesos adjusted with "C" factor



** CY 2010 based on MWCI CA Renewal/Extension of Final Business Plan in Million Pesos

The CY 2011 forecast of P9,482 million as stated in the CA Renewal/Extension of MWCI Business Plan was adjusted to reflect the approved "C" in the basic water rate across the board, resulting to Php 12,012 million business plan receipts for CY 2011.

As of December 2011, submitted unaudited financial statement indicated cash flows from operating activities – water of Php 11.396 million, which relates to 94.5% of the adjusted forecasted receipts for the year 2011.

Actual amounts are still subject to reconciliation with the information presented in the 2011 annual audited financial reports.

BEM Table IN2c. 2011 Monthly Billing vs. Collection

		Jan	Feb	Mar	Apr	May	June	July	August	Sept	Oct	Nov	Dec
Current Collection (In P Million)	P	985	974	1,003	1,037	1,144	1,088	1,108	1,075	1,116	1,130	1,088	1,141
Current Billing (In P Million)	P	974	964	977	1,113	1,106	1,148	1,088	1,114	1,126	1,091	1,112	1,095
Collection Efficiency (Actual)		101.1%	101.06%	102.74%	93.25%	103.44%	94.8%	101.85%	96.54%	99.14%	103.59%	97.86%	104.21%
Collection Efficiency (Forecast)		95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
Year to Date (Actual)		101.09%	101.07%	101.63%	99.32%	100.21%	99.21%	99.60%	99.20%	99.19%	99.64%	99.47%	99.88%

The Approved CA Renewal/Extension MWCI Financial Annex Assumptions table shows a uniform 5% Bad Debts allowance on Revenues from 2008 to 2022 which means that the target collection efficiency is a uniform 95% throughout the concession period.

BEM-IN2 Evaluation

MWCI continues to perform well, in terms of their collection. Using the year-to-date efficiency rate, for the CY 2011, collection efficiency rate was pegged at more or less 100%. This indicates that the company is less likely to experience short-term liquidity problems and provide opportunities for short-term investments.

It bears to stress that the original formula of considering collections on current billings is amended to consider collections on current billings and arrearages (previous billings). The more important indicator is the year-to-date efficiency rate as it better reflects performance with timing difference considered.

OPERATIONAL EXPENDITURES (OP)

B-3.0 BEM-OP1 Labor

Formula:

Monthly Actual as % Forecast

$$= \frac{\text{Actual Monthly Personnel Cost}}{\text{Forecast Monthly Personnel Cost}} \times 100$$

Cumulative Actual as % Forecast

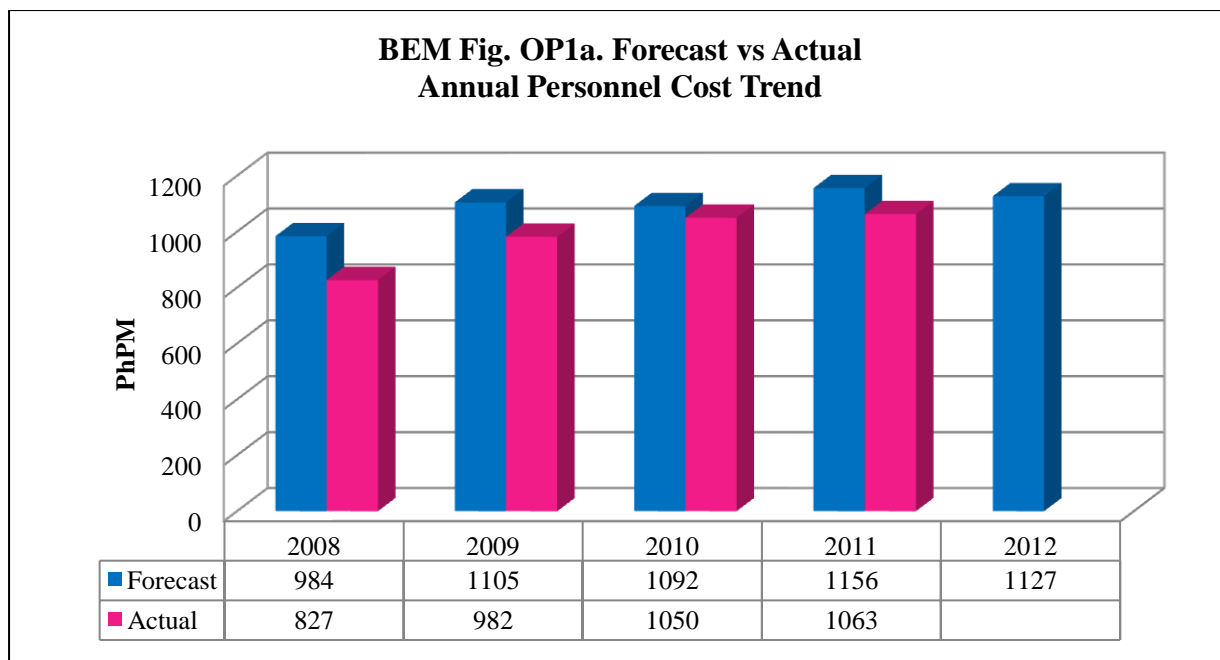
$$= \frac{\text{Actual Cumulative Personnel Cost}}{\text{Forecast Cumulative Personnel Cost}} \times 100$$

BEM Table OP1a. Annual Personnel Cost Forecast*

2008		2009		2010		2011		2012	
984	827.3	1,105	982	1,092	1,050	1,156		1,127	

**CY 2008-2009 based on December 2007 MWCI Final Business Plan in Million Pesos, inflation adjusted

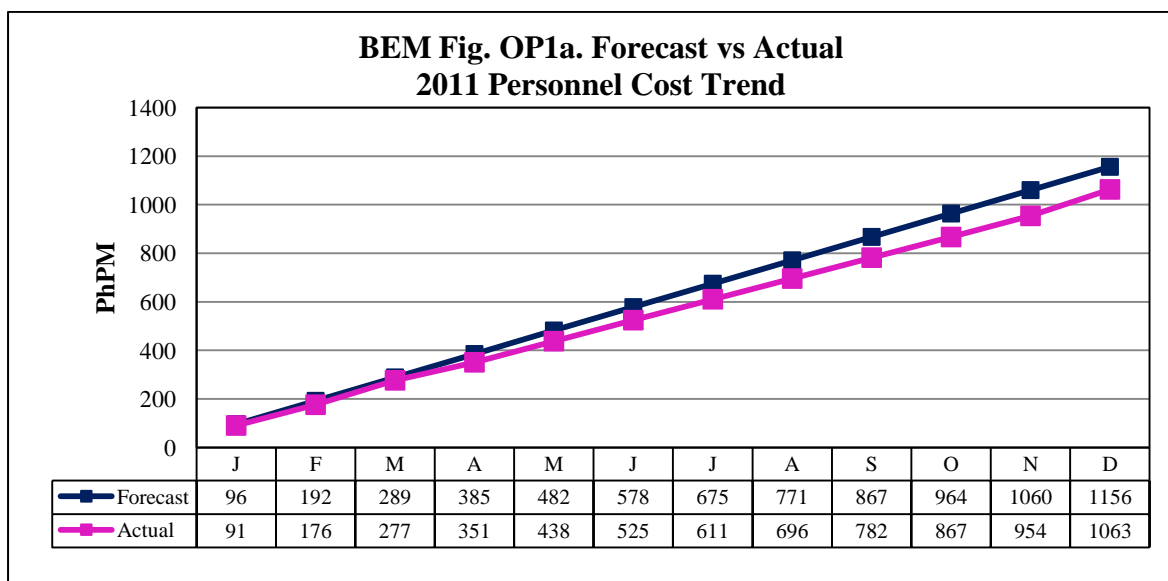
**CY 2010 and 2011 based on MWCI CA Renewal/Extension of Final Business Plan



The personnel cost forecast of P1,034 million stated in the CA Renewal/Extension of MWCI Business Plan adjusted to reflect the inflation rate, which resulted to P1,156 million personnel cost forecast for CY 2011. Inflation adjusted personnel cost forecast was divided by 12 months, which resulted to a monthly personnel cost of Php 96.36 million.

BEM Table OP1b. Labor Forecast vs Actual

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Headcount (Forecast)		1,717	1,717	1,717	1,717	1,717	1,717	1,717	1,717	1,717	1,717	1,717	1,717
Headcount (Actual)		1,584	1,579	1,578	1,567	1,588	1,596	1,594	1,587	1,582	1,579	1,571	1,566
Personnel Cost (Forecast) (in P Million)	P	96.36	96.36	96.36	96.36	96.36	96.36	96.36	96.36	96.36	96.36	96.36	96.36
Personnel Cost (Actual) (in P Million)	P	90.64	85.54	100.64	74.28	86.82	86.60	86.14	85.25	86.59	85.66	85.69	110.01
Monthly Actual as % of Forecast		94.06%	88.77%	104.44%	77.08%	90.10%	89.87%	89.39%	88.47%	88.82%	88.89%	88.92%	114.16%
Cum. Actual as % of Forecast		94.06%	91.41%	95.75%	91.09%	90.89%	90.72%	90.53%	90.27%	90.11%	89.99%	89.89%	91.91%
Personnel Cost / Head (Forecast)	P	56,124	56,124	56,124	56,124	56,124	56,124	56,124	56,124	56,124	56,124	56,124	56,124
Personnel Cost / Head (Actual)	P	57,222	54,174	63,777	47,403	54,673	54,261	54,040	53,718	54,102	54,250	54,545	70,249



BEM-OP1 Evaluation

As of December 2011, the actual personnel headcount is lower than the forecast headcount. Actual cost per personnel is P1,412M higher than the targeted cost per personnel of 56,124. Actual cost per personnel as of December 2011 is 70,249.

The cumulative actual personnel cost as of December 2011 is P1,063M. This is lower than the targeted cumulative monthly personnel cost of P1,156M. However, actual amounts are still subject to reconciliation with the information presented in the 2011 annual audited financial reports.

MWCI registered a 1,566 headcount with 858 thousand water service connections, as of December 2011. This resulted at a productivity ratio of 1.82 employees per 1,000 water service connections.

Starting CY 2010, the productivity ratio was computed based on water service connection rather than household connection.

B-4.0 BEM-OP2 Power

Formula:

Monthly Actual as % Forecast

$$= \frac{\text{Actual Monthly Power Cost}}{\text{Forecast Monthly Power Cost}} \times 100$$

Cumulative Actual as % Forecast

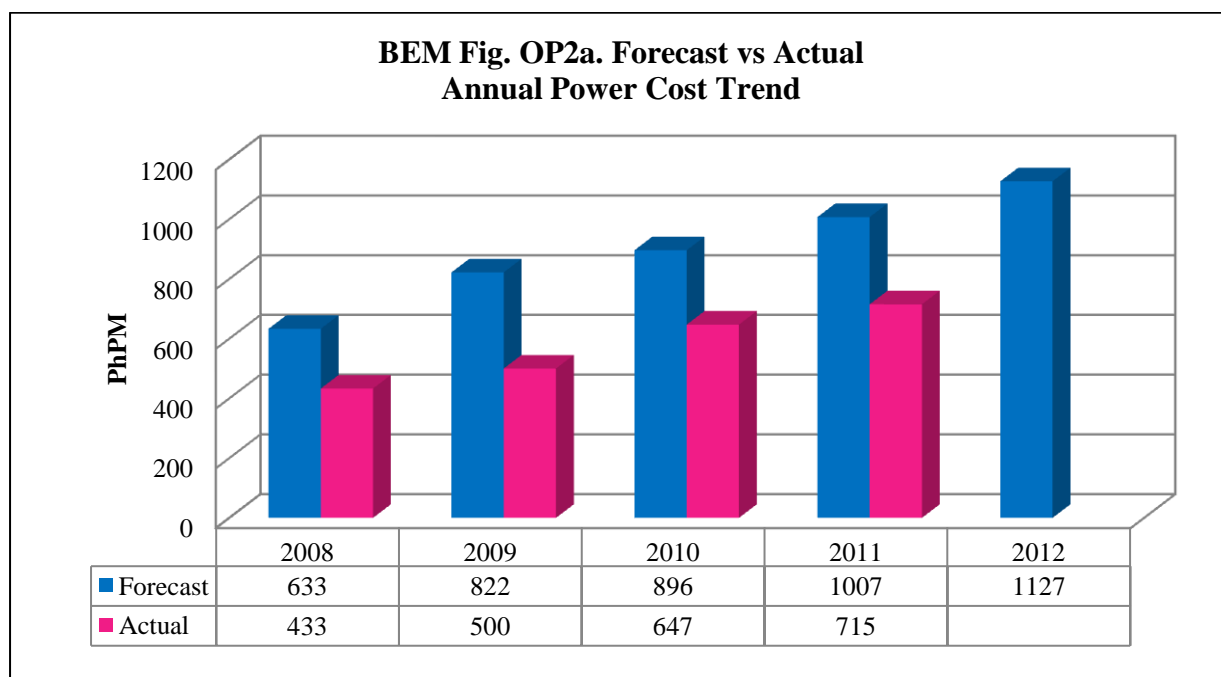
$$= \frac{\text{Actual Cumulative Power Cost}}{\text{Forecast Cumulative Power Cost}} \times 100$$

BEM Table OP2a. Annual Power Cost Forecast*

2008		2009		2010		2011		2012	
633	433	822	500	896	647	1,007	715	1127	

**CY 2008-2009 based on December 2007 MWCI Final Business Plan in Million Pesos, inflation adjusted

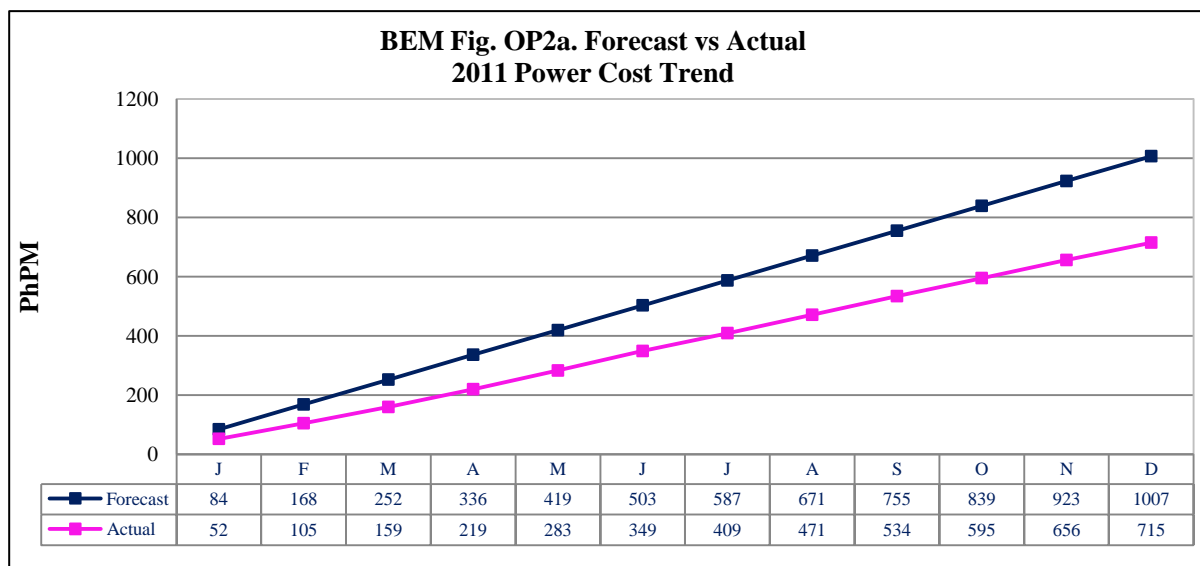
**CY 2010 and 2011 based on MWCI CA Renewal/Extension of Final Business Plan



Power cost forecast of P900 million stated in the CA Renewal/Extension of MWCI Business Plan was adjusted to reflect the inflation rate which resulted to P1,007 million power cost forecast for CY 2011. Inflation adjusted power cost forecast was divided by 12 months, which resulted to a monthly cost of Php 84 million.

BEM Table OP2b. 2011 Monthly Power Cost Forecast vs Actual

		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Power Cost (Forecast)(In P M)	P	84	84	84	84	84	84	84	84	84	84	84	84
Power Cost (Actual) (In P M)	P	52	53	55	60	63	66	61	62	63	61	60	59
Monthly Actual as % of Forecast		62%	63%	65%	72%	75%	79%	72%	74%	75%	73%	72%	70%
Cum. Actual as % of Forecast		62%	62%	63%	65%	67%	69%	70%	70%	71%	71%	71%	71%



BEM-OP2 Observation

During CY 2011, MWCI have consumed a higher kilowatt hour compared to the forecasted amount. As of EO December, cumulative actual power consumption was pegged at 89.40 million kwh costing P714.61 million.

The aggregate actual power cost as of December 2011 is P715 million which is 71% of the inflation adjusted targeted forecast of P1,006 million.

However, actual amounts are still subject to reconciliation with the information presented in the 2011 annual audited financial reports.

MWCI shall explain in writing the reason/s for the significant savings in power cost.

B-5.0 BEM-OP3 Total Controllable OPEX

Formula:

Monthly Actual as % Forecast

$$= \frac{\text{Actual Monthly Total Other Controllable Operating Expenses}}{\text{Forecast Monthly Total Other Controllable Operating Expenses}} \times 100$$

Cumulative Actual as % Forecast

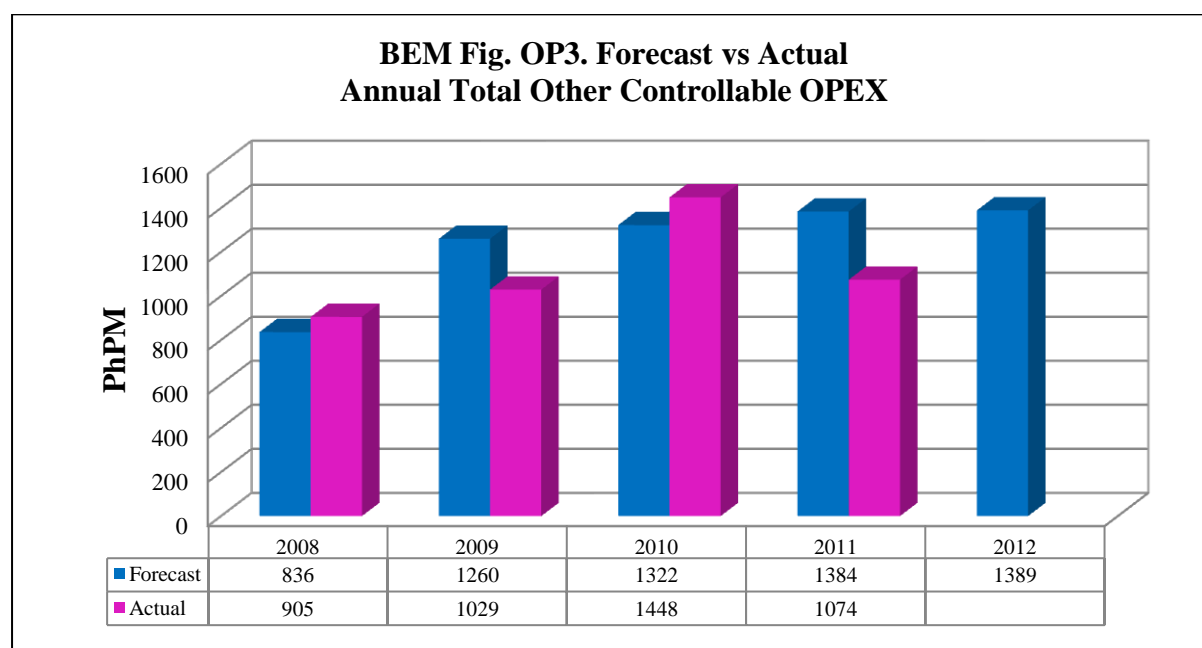
$$= \frac{\text{Actual Cumulative Total Other Controllable Operating Expenses}}{\text{Forecast Cumulative Total Other Controllable Operating Expenses}} \times 100$$

**BEM Table OP3a. Annual Total Other Controllable Operating Expense
(Cash Items exc. Interest Expense) Forecast***

2008		2009		2010		2011		2012	
836	905	1260	1029	1322	1448	1384	1074	2453	

**CY 2008-2009 based on December 2007 MWCI Final Business Plan in Million Pesos, inflation adjusted

**CY 2010 and 2011 based on MWCI CA Renewal/Extension of Final Business Plan

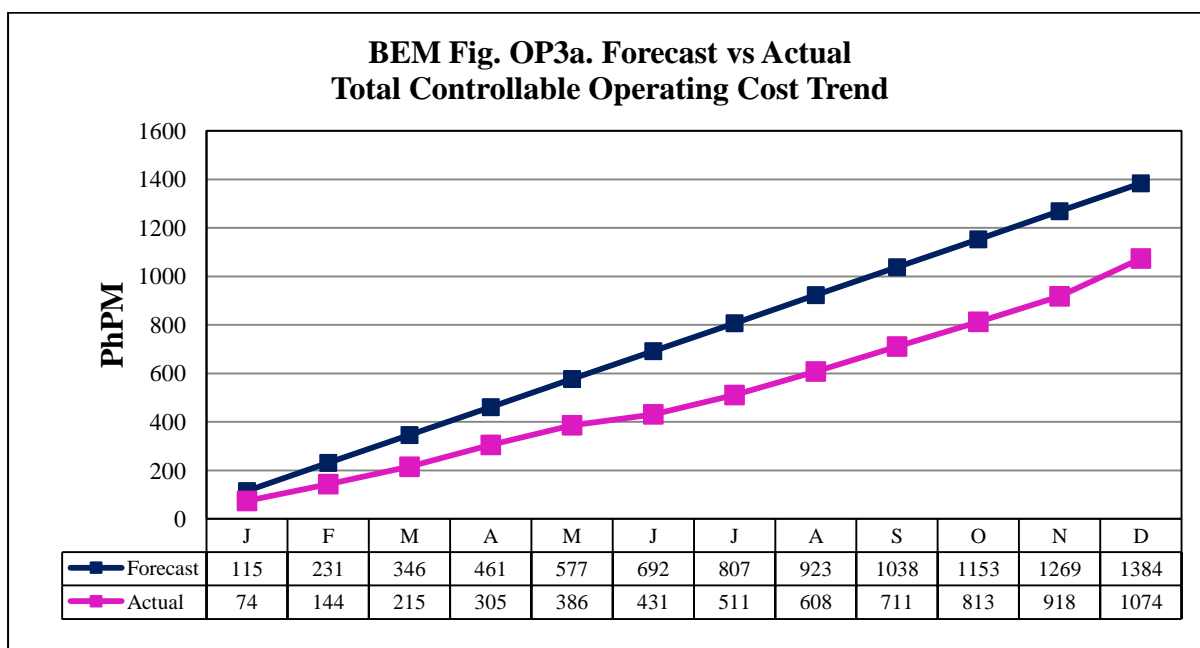


Total Controllable Operating Expense Forecast was derived by deducting uncontrollable cost (i.e. regulatory cost and taxes and licenses), labor and power cost which are analyze separately, Corporate Income taxes and non cash expenses.

Total Controllable Operating Expenses forecast of P1,238 million net of taxes stated in the CA Renewal/Extension Business Plan of MWCI was adjusted to reflect the inflation adjusted total controllable cost of P1,384 million.

BEM Table OP3b. Controllable Operating Expense Forecast vs Actual

		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Total Controllable Opex (Forecast)(In P M)	P	115	115	115	115	115	115	115	115	115	115	115	115
Total Controllable Opex (Actual)(In P M)	P	74	69	72	90	81	45	80	96	103	102	105	156
Monthly Actual as % of Forecast		64%	60%	62%	78%	70%	39%	69%	84%	89%	89%	91%	135%
Cum. Actual as % of Forecast		64%	62%	62%	66%	67%	62%	63%	66%	68%	70%	72%	78%



BEM-OP3 Evaluation

Actual controllable operating cost incurred for December 2011 is P156 million, which is 36% greater than the adjusted targeted monthly forecast of P115 million. Monthly controllable operating expense forecast was derived by dividing the inflation adjusted annual amount of P 1,384 million for CY2011 by 12 months which resulted to P115 million per month.

Despite a higher actual cost for December 2011 vis-à-vis targeted monthly cost, the cumulative actual controllable operating expense as of December 2011 amounted to P1,074 million pesos is about 78% only of the inflation adjusted forecasted amount of P1,384 million for by December 2011.

However, these amounts are still subject to reconciliation with the information presented in the 2011 annual audited financial reports.

CAPITAL EXPENDITURES (CA)

B-6.0 BEM-CA1 Total Capital Expenditure

Formula:

Monthly Actual as % Forecast

$$= \frac{\text{Actual Monthly Total Capital Expenses}}{\text{Forecast Monthly Total Capital Expenses}} \times 100$$

Cumulative Actual as % Forecast

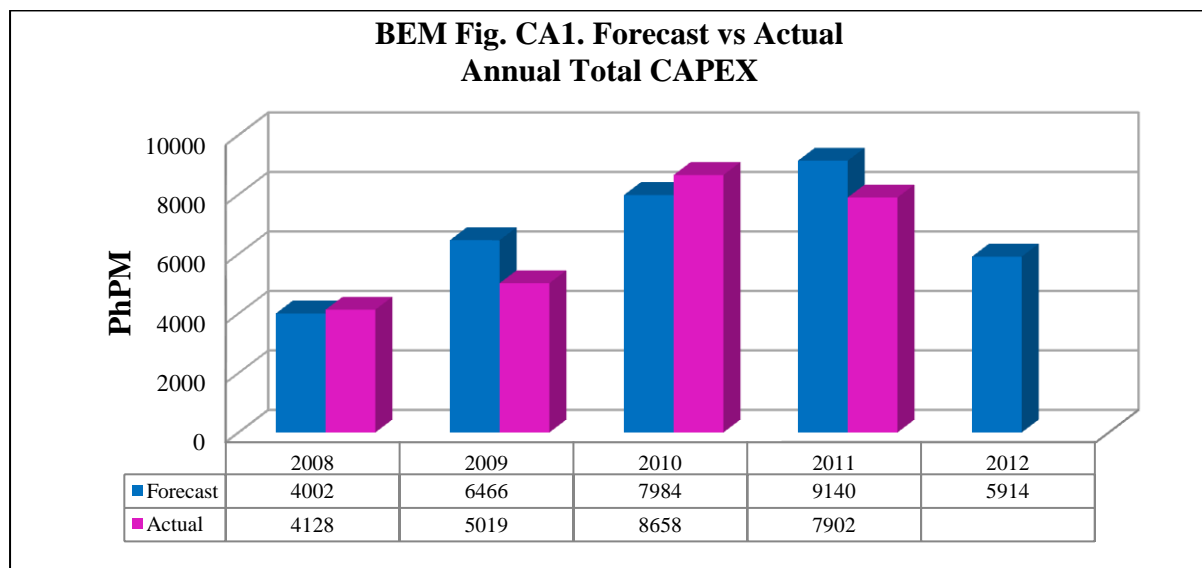
$$= \frac{\text{Actual Cumulative Total Capital Expenses}}{\text{Forecast Cumulative Total Expenses}} \times 100$$

BEM Table CA1a. Annual Total Concessionaire Capital Expenditure Forecast*

2008		2009		2010		2011		2012	
4,002	3,702	6,466	4,174	7,984	8,658	9,140	7,902	5,914	

**CY 2008-2009 based on December 2007 MWCI Final Business Plan in Million Pesos, inflation adjusted

**CY 2010 and 2011 based on MWCI CA Renewal/Extension of Final Business Plan



*CY 2008-2009 based on December 2007 MWCI Final Business Plan in Million Pesos

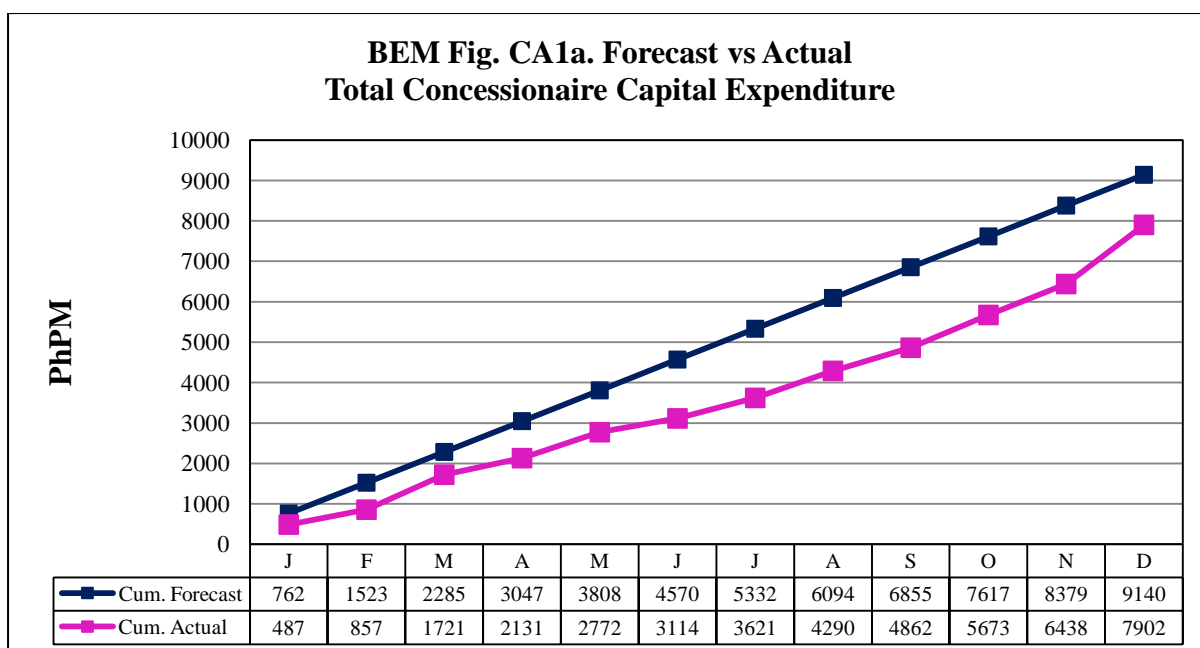
**CY 2010-2012 based on Approved MWCI CA Renewal/Extension

BEM Table CA1b. Monthly CAPEX Forecast vs. Actual

		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Total Capex (Forecast)(In P M)	P	762	762	762	762	762	762	762	762	762	762	762	762
Total Capex (Actual)(In P M)	P	487	369	865	410	641	341	508	668	572	811	765	1464
Monthly Actual as % of Forecast		64%	48%	113%	54%	84%	45%	67%	88%	75%	106%	100%	192%
Cum. Actual as % of Forecast		64%	56%	75%	70%	73%	68%	68%	70%	71%	74%	77%	86%

Total forecasted capital expenditures forecast of P8,173 million stated in CA Renewal/Extension of MWCI Business Plan was adjusted to reflect the inflation rate, which resulted to a forecasted total CAPEX of P9,140 million for 2011.

Monthly Capital Expense Forecast was derived by dividing the inflation adjusted annual amount of P9,140 million Concessionaire CAPEX forecast for 2011 by 12 months which resulted to P762 million per month.



BEM-CA1a Evaluation

The cumulative CAPEX disbursement as of December 2011 of P7, 902 million, reflects 86% of its targeted forecast of P9,140 million. However, the actual amount is still subject to reconciliation with the information presented in the 2011 annual audited financial reports.

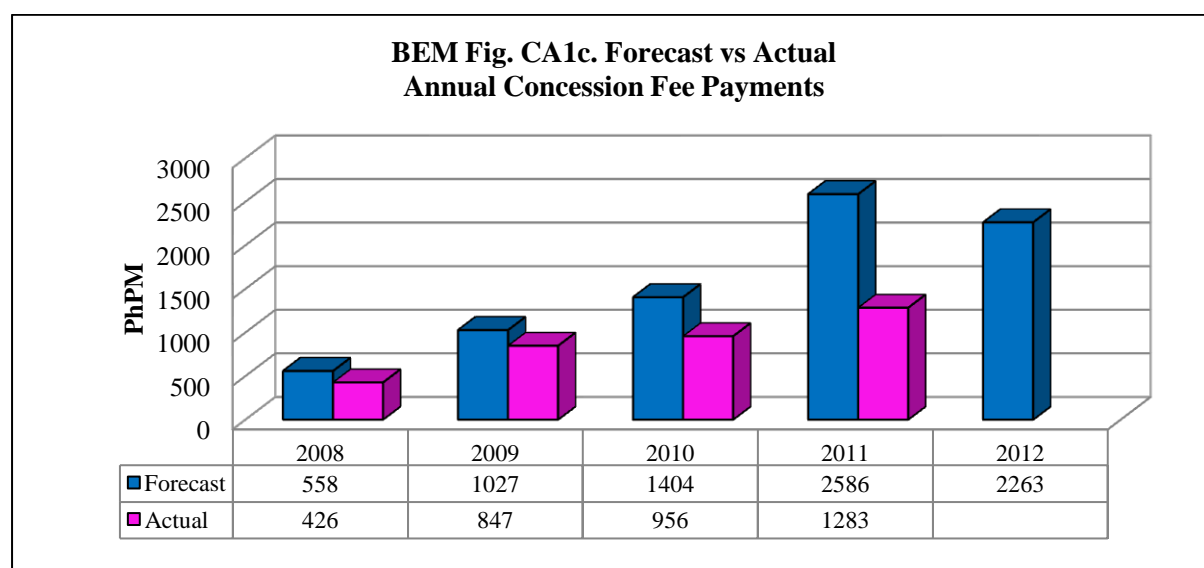
Further analysis of CAPEX disbursement is recommended based on the submitted CAPEX Report.

BEM Table CA1c. Annual Concession Fee Payments

2008	2009	2010	2011	2012
628	687	1,404	2,586	2,263

** CY 2008-2009 based on December 2007 MWCI Final Business Plan in Million Pesos

**CY 2010-2012 based on Approved MWCI CA Renewal/Extension

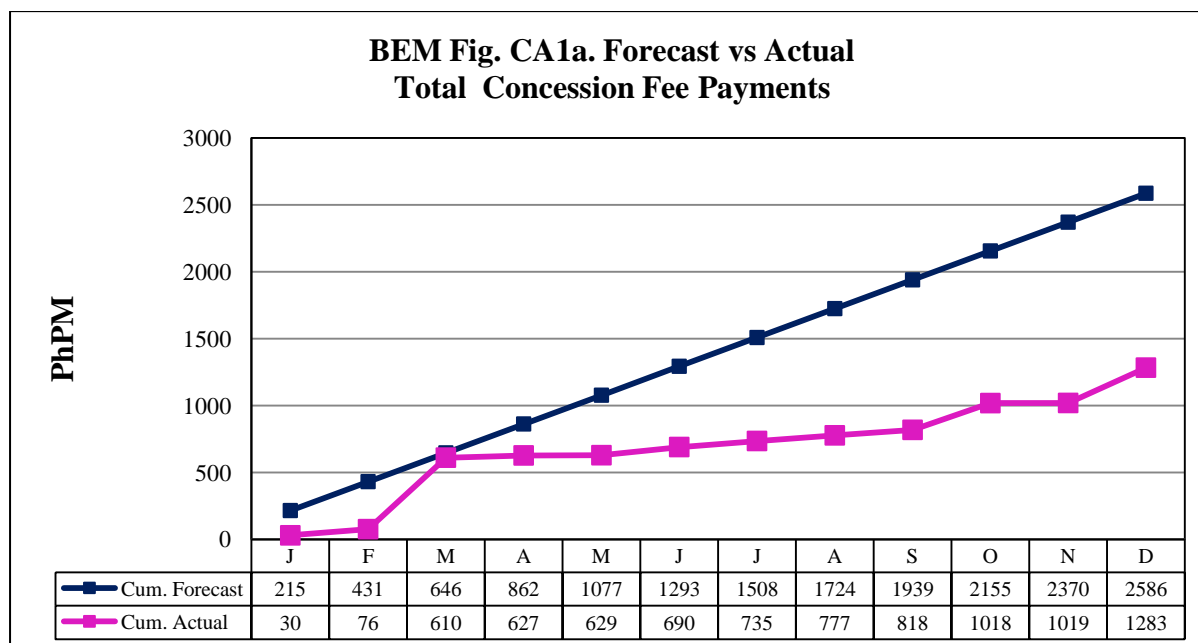


*CY 2008 – 2009 Approved 2007 Business Plan

**CY 2010 – 2012 Approved CA Renewal/Extension

BEM Table CA1d. Monthly Concession Fee Payment Forecast vs. Actual

		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Total Conc. Fees (Forecast)(In P M)	P	215	215	215	215	215	215	215	215	215	215	215	215
Total Conc. Fees (Actual) (In P M)	P	30	46	534	17	2	61	45	42	41	201	1	264
Monthly Actual as % of Forecast		14%	21%	248%	8%	.83%	28%	21%	20%	19%	93%	.31%	123%
Cum. Actual as % of Forecast		14%	18%	94%	73%	58%	53%	49%	45%	42%	47%	43%	50%



BEM-CA1b Evaluation

Total forecasted concession fee payments of P2,312 million stated in the Approved CA Renewal/Extension of MWCI Business Plan was adjusted to reflect the inflation rate, which resulted to a forecasted total concession fee payment of P2,586 million for CY 2011.

Monthly Concession Fee payments Forecast was derived by dividing the annual inflation adjusted amount of P 2,586 million Concession Fee payments forecast for 2011 by 12 months resulted to P215 million per month.

As of December 2011, concession fee paid totaled P1,283 million, which is 50% of the inflation adjusted forecasted amount of P2,586 million for the year 2011.

Actual figures used were based on KPI-BEMs report submitted thus, such figures are subject to reconciliation with audited financial statement.

B-7.0 BEM-CA2 Physical Accomplishment

The report on this BEM shall refer to the actual percent completion of CAPEX as per Business Plan and shall be consistent as the summary of the CAPEX Accomplishment Report (CAR) of MWCI.

BEM-CA2 Evaluation

MWCI failed to submit report on the physical accomplishment of its CAPEX for 2011.

B-8.0 BEM-CA3 Financial Accomplishment

BEM Table CA3. 2010 Monthly Financial Accomplishment-Key Projects and Headlines

	2011 TE Budget, PhPM	2010 YTD Actual Disbursement, PhPM	Variance, %	2011 Actual Monthly Disbursement, PhPM	
				Jan-June	Jan-Dec
I. RELIABILITY	5,292	4,922.26		1,864.73	3,553.79
I-1. Service Sustainability	3,289	4,259.95		2,299.87	4,182.69
1.1 Water supply facilities maintenance	924	1,695.75	+93%	701.91	1,559.80
1.1.1 Water Supply Facilities	467				
1.2 Network	885	1,518.74		402.66	760.40
1.3 Wastewater	185	736.82	+256%	179.85	283.09
1.6 Overhead CAPEX	625	308.64		325.75	296.48
I-2 Earthquake Contingency	664	657.26		254.56	654.01
I-3 Angat Reliability	1,338	5.05	-97%	-	-
II. EXPANSION	6,985	3,735.69		1,248.99	4,348.53
II-1 New Water Sources	1,664	1,179.37		665.48	1,664.16
1.1 Interim Projects	831			-	
1.1.1 RPWSIP (Angono-Binangonan Project)	820			-	
1.2 Long Term Projects	1,500			-	
1.2.3 Rodriguez Water Treatment Plant	577			-	
II-2 Network Expansion	441	1,264.73	+319%	461.04	1,587.69
II-3 Wastewater	4,197	1,257.07		212.23	1,096.68
3.3 Manila Third Sewerage Project	1,501				
3.4 Master Plan for Sewerage and Sanitation	2,672				
3.3.8 Marikina River Basin Catchment Area	-			-	
II.4 Bulacan Project	-			-	
II.5 RO-PAWS/Data Loggers	16	34.50		-	
Others (Cash Advances)				(165.21)	
Total CAPEX	12,277	8,657.95		3,113.72	7,902.32

Notes: 2010 Approved TE Budget of PhP 7,453 M was adjusted to 2010 prices using an average inflation rate of 7.12%
Brown filled cells are Key Projects while blue filled cells are headlines

BEM-CA3 Evaluation

The actual CAPEX disbursements of MWCI from January to December 2010 amounted to PhP 8,658 Million or +8% of the inflated to 2010 approved budget of PhP 7,984 Million. However, upon scrutiny, it was found out that the headlines Water Supply Facilities Maintenance, Wastewater (under reliability), Angat Reliability and Network Expansion were not within the +/-15% range. (See table above). Section 3, item d (i) of MWSS-RO Resolution No. 07-25-A-CA states that **prior approval of the MWSS-RO shall be obtained for any deviation in the +/- 15% range.** Likewise, Section 3, item d (ii) of the same resolution provides that in case of expenditures in excess of 15%, incurred without the prior approval of the MWSS-RO, **the same shall be deemed as neither prudent nor efficient and shall be disallowed.**

NON-REVENUE WATER (NRW)

B-9.0 BEM-NR1 Non-Revenue Water

Formula:

$$\text{Liters per Connection Per Day (LPCPD)} = \frac{\text{Production} - \text{Billed Volume}}{\text{Total No. of Connections}}$$

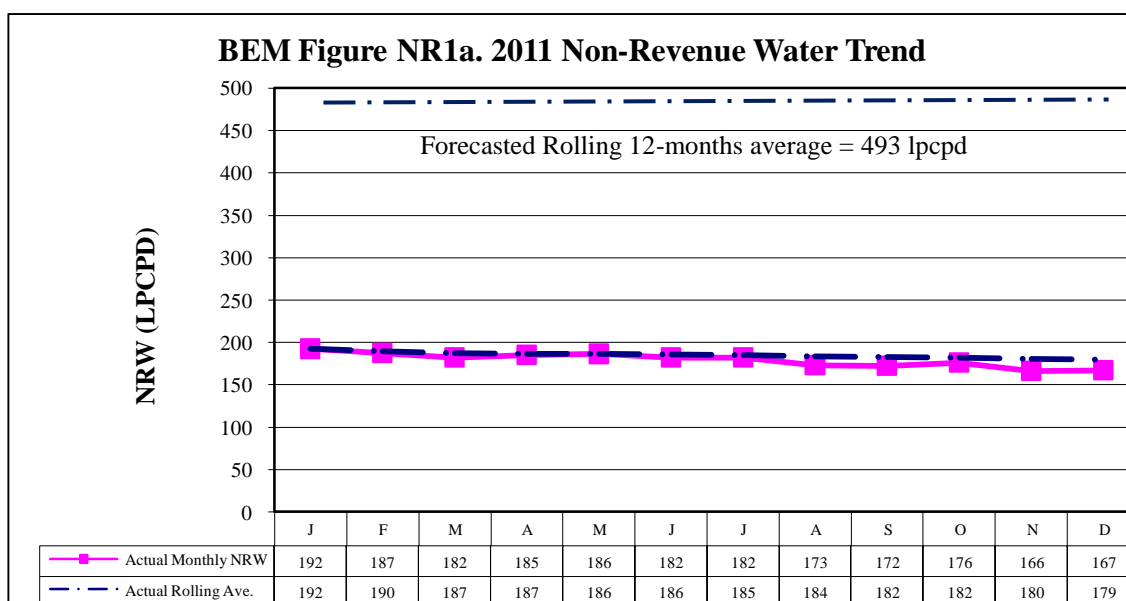
BEM Table NR1a. Annual Forecast and Actual NRW in Liters per Connection Per Day

		Base 2007	2008	2009	2010	2011	2012
Average Production (MLD)	Target	1,387	1,432	1,476	1,511	1,561	1,598
	Actual	1,378	1,341	1,316	1,287	1,278	
Average Billed Volume (MLD)	Target	1,040	1,074	1,107	1,133	1,171	1,199
	Actual	1,023	1,059	1,084	1,121	1,128	
Average NRW (MLD)	Target	347	358	369	378	390	400
	Actual	354	281	232	170	149	
Average Connection	Target	618,022	664,365	732,503	759,058	791,414	804,932
	Actual		664,973	713,689	787,722	838,421	
NRW in Liters per Connection per Day	Target	561	539	504	498	493	497
	Actual		423	325	216	179	

BEM Table NR1b. 2011 Rolling 12-Month NRW in Liters per Connection per Day

	J	F	M	A	M	J	J	A	S	O	N	D	YTD	
Actual Production (MLD)	1,248	1,251	1,261	1,271	1,301	1,317	1,286	1,280	1,281	1,279	1,271	1,276	1,277	
Actual Billed Volume (MLD)	1,091	1,097	1,111	1,117	1,146	1,165	1,133	1,134	1,135	1,129	1,129	1,133	1,127	
Actual NRW (MLD)	157	154	150	154	155	152	153	146	146	150	142	143	150	
Cumulative Total Water Connections	817,280	822,242	826,391	830,200	833,666	836,338	839,777	842,498	847,691	851,792	855,194	857,981	838,421	Target
Actual NRW in LPCD	192	187	182	185	186	182	182	173	172	176	166	167	179	493

Notes: 1. Actual production data from January-July were revised by MWCI in the Annual KPIs/BEMs report
2. The decrease in total water connections in December was due to data clean-up by MWCI



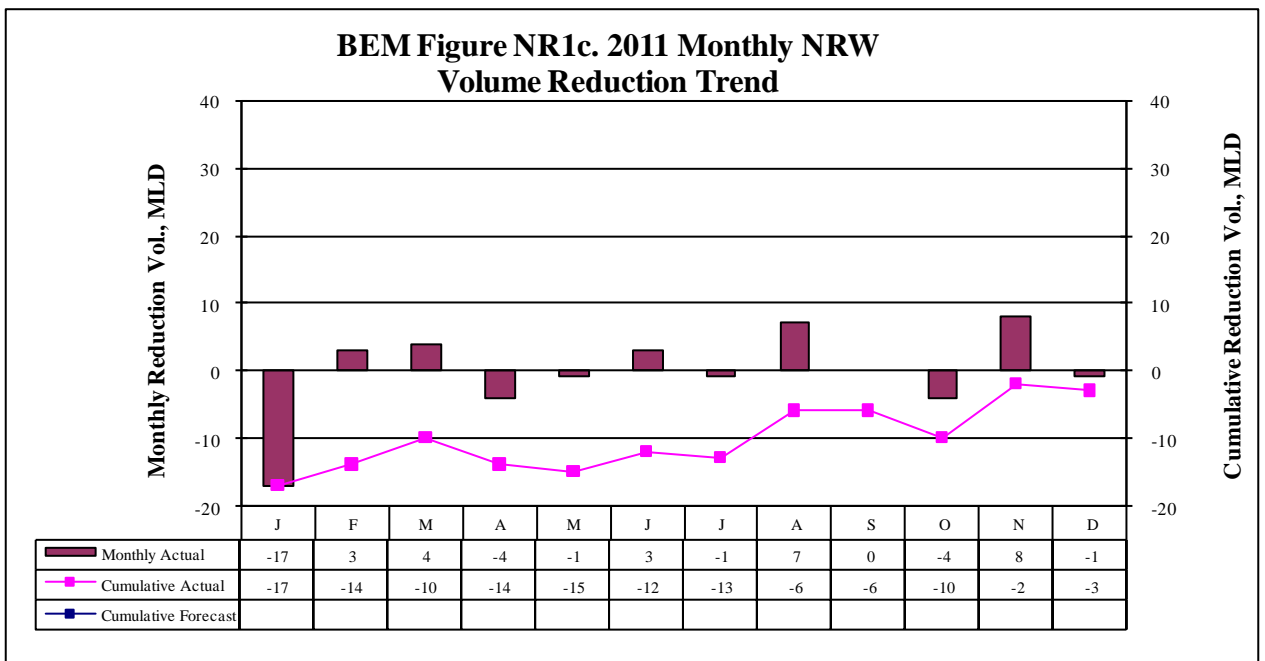
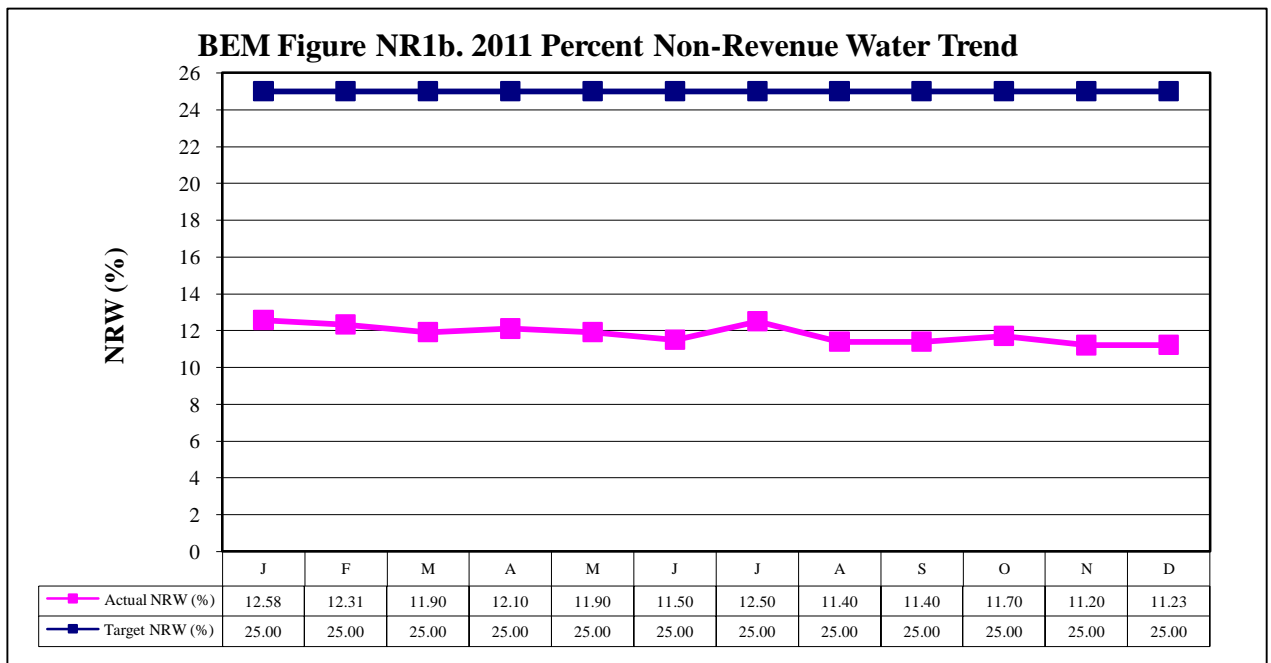
BEM Table NR1c. Annual NRW Volume Reduction Target (MLD)

	Actual* EO Dec-07	2008	2009	2010	2011	2012	
Production Target	1367	1432	1476	1511	1561	1598	
Billed Vol. Target	1040	1074	1107	1133	1171	1199	
NRW, %	24	25	25	25	25	25	
NRW Vol., MLD	327	358	369	378	390	400	Total
NRW Vol. Reduction Target		(31)	(11)	(9)	(12)	(10)	(73)

It can be observed from table above that the NRW volume reduction target of MWCI from 2008-2012 is negative meaning the NRW volume is increasing. In fact, there is an increase of 73 MLD in the NRW volume from 2008-2012.

BEM Table NR1d. Actual NRW Reduction Volume

	Dec. '10*	2011											
		J	F	M	A	M	J	J	A	S	O	N	D
NRW Volume this Month	140	157	154	150	154	155	152	153	146	146	150	142	143
NRW Volume Gain this Month		(17)	3	4	(4)	(1)	3	(1)	7	0	(4)	8	(1)
Cumulative Reduction		(17)	(14)	(10)	(14)	(15)	(12)	(13)	(6)	(6)	(10)	(2)	(3)



NRW Evaluation

BEM Figure NR1b above shows the NRW of MWCI to be recorded at 11.23% as of EO December 2011. This is 13.77 percentage points lower than its target to maintain its NRW at 25% level. In terms of Liters Per Connection Per Day (LPCPD), MWCI's rolling average as of EO December 2011 was recorded at 179 LPCPD as shown in BEM Figure NR1a above.

This is within the internationally accepted standard of 200 LPCPD and below.