



TARIFF FILING PROPOSAL

Financial Year 2019-20

Final Draft

DECEMBER 2018

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Pursuant to the provisions of the operating licence signed on 30th April 2013

The Water and Sewerage Company (WASCO) has prepared and finalised this Tariff Filing Document.

The Tariff filing document has been seen and approved by the WASCO Board on 20th December 2018

Signed:
WASCO Chief Executive (a.i)

Signed:
WASCO Board Chairperson

Table of Contents

	Executive Summary	iv
1	Basis for Application	1
1.1	Basis and Key Assumptions	1
1.2	Statement of WASCO's Regulated Business	2
2	Analysis of Performance of Key Indicators Since 2010	4
2.1	Revenue/Expenditure outturn for 2010-11 to 2017-18	4
2.2	Operations & Maintenance Cost Coverage Trend Analysis	5
2.3	Review of Staff costs against Total Expenditure Trends	6
2.4	Non-Revenue Water (NRW) Performance	7
2.5	Water and Effluent Quality trends	8
2.6	Conclusion	10
3	Review of the 2017-18 Financial Year	11
3.1	Review of Outturn Regulatory Accounts and Budget Estimates	11
3.2	Production, Consumption and Sales Data	11
3.3	Review of Service Coverage against set targets	13
3.4	Review of Water and Effluent Quality Data	14
4	Review of Current Financial Year	16
4.1	Review and Reconciliation of Management Accounts and Budget Estimates (April to September 2018)	16
4.2	Production, Consumption and Sales Data	17
4.3	Review of Service Coverage	18
4.4	Review of Water and Effluent Quality	19
5	Forecast for the next Financial Year (2019-20)	21
5.1	Introduction	21
5.2	Priority Initiatives for 2019-20	21
5.3	Statement of the Approved Budget	22
5.4	Forecast Operating Costs	22
5.5	Forecast Capital Costs	25
6	Proposed Tariff Requirements for 2019-20	29
6.1	Regulated Accounts	29
6.2	Weighted Average Cost of Capital	29
6.3	Proposed Tariffs and Charges	29
6.4	The Basis and Rationale for Tariff Adjustment	31
6.5	Affordability Analysis	33
	Appendices	35

EXECUTIVE SUMMARY

This is a tariff review application for a single year period covering the period April 2019 to March 2020.

This tariff application is made against the backdrop of a cost of service study that will be the basis for future tariff applications.

Estimated total expenditure as at September 2018 was recorded at M93.28 million. It is anticipated that actual expenditure will reach an amount of M186.56.0 million at the end of the financial year against a budgeted amount of M250.81 million.

Revenue for the 2017-18 financial year ending in September 2018 was recorded at M115.95 million. The projected actual revenue for the financial year is M231.91 million against a budgeted figure of M269.11 million.

The total planned expenditure for the financial year 2019-20 is estimated to be M302.471 million.

The main drivers for this expenditure in the 2019-20 financial year include among others the following:

- Strengthened and continued debt recovery and collection
- Robust service coverage with extensions to previously non-serviced areas
- Roll out of Pre-paid metering system
- Staff empowerment through a retention and succession strategy
- Actively dealing with recent audit queries
- Improvement of stand-by capacity to improve service reliability
- Upgrade of reticulation infrastructure through AC pipe replacements
- Full operation of the Call centre
- Enhanced public outreach and marketing activities

An analysis of set WASCO performance indicators presents a somewhat bleak picture. Water quality has been the only indicator that has performed positively. There is realisable regression for the KPI for Non-Revenue Water

The 2019-20 budget forms the basis for a proposed M279.04 million Revenue Requirement. This revenue Requirement comprises M246.25 million and M32.79 million for water and sewerage respectively.

In this regard WASCO proposes to adjust by 8.5 percent the volumetric and standing charges for all customer categories. WASCO further proposes an introduction of a standing charge of M10.00 per month for customers in Band A.

CHAPTER I BASIS OF THE APPLICATION

1.1 Basis and Key Assumptions

This application is for a single year tariff adjustment for the financial year 2019-20. This application is premised on the LEWA Act as amended, the WASCO Composite Operating Licence as well as set out filing principles and guidelines. At the outset, this application is informed by the results of the cost of service study which was commissioned by WASCO to establish the estimated cost of provision of service to the nation by the utility. This is the penultimate tariff application

The basis for this application is the continued need for the Company to meet its service delivery commitments to reliably provide safe, quality and potable water while ensuring an environmentally tolerable effluent disposal service. This is against the backdrop of annual increases in prices of key materials for WASCO's operations and inputs for treatment of both water and waste water. The company continues to deploy measures to addressing a growing list of service delivery challenges and improving key performance indicators. KPIs. In this regard, the impact of provision of service to newly identified villages in selected peri-urban areas such as Ha-Foso, Motloheloa, Makhoathi, Thaba Bosiu would be felt in the new financial year.

The growth of the urban and peri-urban population as presented in the 2016 population census, is exerting pressure on WASCO to serve the ever-growing demand and expectations for its services. The existing infrastructure, of which most of it is old and obsolete is struggling to reliably serve the customers. The operation of the Metolong Water Treatment Facility is exerting immense pressure on the WASCO fiscus due to the increased power usage and resultant costs. Expenditure on power has in effect doubled in the last three years.

The key assumptions that underpin this tariff adjustment are that the national economy will continue to grow and no shocks will beset it in the near future. This presents a case that a large proportion of WASCO domestic customers will be able to afford and are willing to pay for services dully rendered. The issue of water and sanitation being an essential public service renders a continuous influx of customers to connect to the WASCO network thereby growing the WASCO customer base. In its strategic reviews, WASCO has put into place measures

that are intended to ensure that the new financial year will see more improvements in the cash collections. WASCO will continue to implement strategies that will increase the customer base especially in areas that has been reticulated with sewer lines. Furthermore, the utility will, during the 2018-19 financial year actively and robustly implement the smart prepaid metering programme that will guarantee commensurate revenue for services dully rendered. This will reduce the burden on collection costs as it is with the current system.

WASCO assures the Regulator that the proposed revenue requirement as informed by the 2019-20 budget has been carefully considered, rationalised for financial prudence. The issues raised in previous tariff determination documents have been considered and an attempt has been made to address them going forward.

1.2 Statement of WASCO's Regulated Businesses

The Water and Sewerage Company (PTY) Ltd came into being through a “Water and Sewerage Act No. 13 of 2010”, thereby making it a fully-fledged public company earmarked to deliver water and sewerage services in designated urban centres of the country. WASCO operates in 16 centres serving approximately 102 936¹ customers nation-wide, about 5 000 of whom are connected to sewer lines. The total number of customers comprises 2, 688 non-domestic customers and 91, 220 domestic customers. There are also more than 4, 300 domestic prepaid connections, and more than 4, 400 communal pre-paid token holders.

The Company operates within the water and sanitation sector functionally reporting to the Ministry of Water. The Ministerial oversight role is carried out by a Board of Directors. In this regard, there is currently a fully-fledged Board of Directors which was appointed in the first quarter of the 2018-19 financial year.

The WASCO value chain starts with the extraction and production of raw water from rivers, bore holes and dams. These are supported by its distribution and ultimate supply to households and entities as well as the extraction of sewer for safe disposal back into the environment. On this basis, the following functions or business of WASCO are regulated (i.e. production, distribution and sewerage disposal).

¹ The WASCO Customer base as at October 2018

Almost all WASCO activities are regulated and are included in this application with the exception of sewerage tankering services, which still occur in the districts as well as sewerage blockage services within customers' premises.

CHAPTER II ANALYSIS OF PERFORMANCE TRENDS OF KEY INDICATORS SINCE 2010

2.1 Revenue/Expenditure outrun for 2010-11 to 2017-18

The company has been experiencing a growth in surplus in the latter part of the review period against a backdrop of losses that were recorded in the first five years from the 2010-11 financial year. Following a marginal surplus of M2.337 million recorded for the 2015-16 financial year a surplus of M16.113 was generated in the 2016-17 financial year and leading to another surplus recorded for the 2017-18 financial year. The company experienced its highest loss (at M10, 595 million) during the 2011-12 financial year. This improvement has been largely as a result of a substantial and steady growth of Water and sewerage billing for the last five years since 2010-11 financial year coupled with more initiatives for cost management.

The table below highlights the outturn on the finances of WASCO for the review period as well as preceding years from financial year 2010-11.

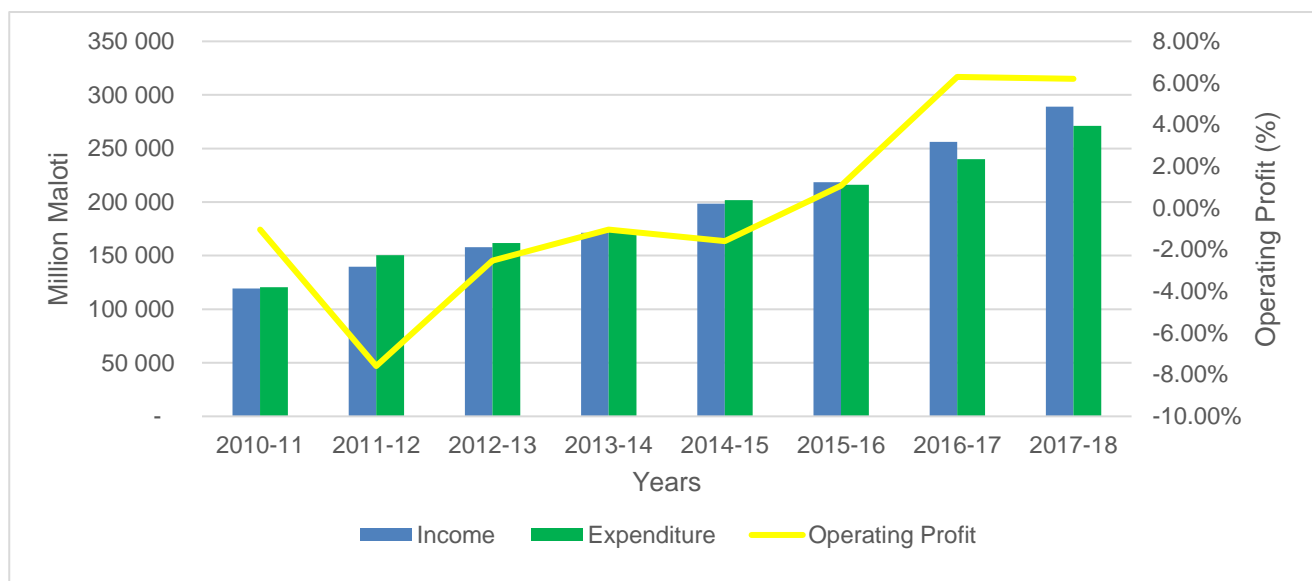
Table 2a: Revenue/Expenditure Outturn for 2010/11 to 2017/18 (In Maloti Million)

Item	2017-18	2016-17	2015-16	2014-15	2013-14	2012-13	2011-12	2010-11
Total Revenue	289, 098	256, 044	218, 609	198, 666	171, 233	157, 756	139, 705	119, 364
Water and Sewerage Billing	119, 354	192, 334	190, 539	175, 628	151, 452	137,878	115,691	103,555
New Service connections	13, 288	13, 916	15, 458	15, 826	14, 922	15,878	21,733	10,886
Other Income	76, 274	49, 794	27, 037	7, 212	4, 646	4,000	2,285	4,818
Interest Income	-	-	-	-	-	9,305	-	5,944
Expenditure	271, 137	239, 931	216, 272	201, 826	173, 014	161, 746	150,300	120,596
Manpower	103, 718	94, 988	88, 458	81, 926	80, 743	69,327	68,133	65,053
Power	23, 486	16, 581	17, 172	18, 460	16, 262	13,622	10,980	10,295
Reticulation and Plant Maintenance	10, 126	14, 833	13, 472	9, 579	12, 556	7,684	9,545	7,808
Chemical Usage	3, 671	3, 524	5, 506	7, 683	7, 230	5,460	6,688	4,272
New Connections Materials	10, 876	14, 113	15, 119	13, 682	9, 912	7,955	10,110	6,126
Depreciation	30, 962	27, 076	18, 416	17, 955	15, 086	14,767	14,586	13,751
Operating Profit	17, 961	16, 113	2, 337	(3, 160)	(1, 781)	(3, 990)	(10,595)	(1, 232)

Figure 2a below presents the growth of income and expenditure and the commensurate profit/loss for the last six years leading to the 2017-18 financial year. The financial year 2011-

12 experienced the most losses and this situation improved in the subsequent years leading to the first realised profit in the 2015-16 financial year. Total revenue has grown by a magnitude of 61 percent during the seven-year period to 2016-17 while expenditure grew by nearly 100 percent. A trend analysis clearly shows that Water and Sewerage Billing have been the main contributor to revenue growth while expenditure on human resources and plant and reticulation maintenance had the largest influence in the growth of expenditure for the period.

Figure 2a: Income/Expenditure performance for the years 2010 to 2018

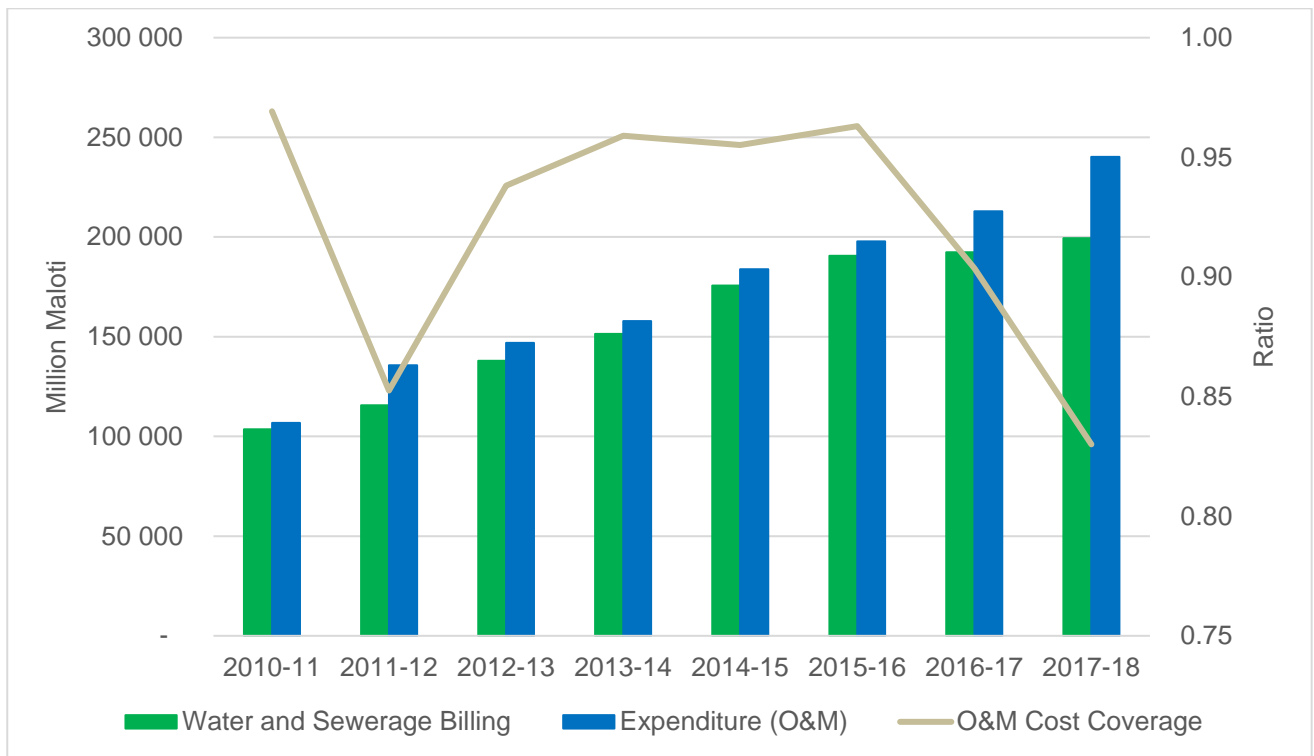


The rate of increase in expenditure on power has been very high in recent period as a result of an increase in tariffs by the LEC as well as increases in the demand for pumping due to increased coverage and population demand. The rate of growth of new service connection has been very erratic in recent years mainly due to slow implementation of reticulation extension initiatives and service coverage improvement projects.

2.2 Operations & Maintenance Cost Coverage Trend Analysis

For a utility to be viable, its billing has to be able to meet expected expenditure for the set period. The figure below analyses the trend in the ratio of billing against operations and maintenance costs.

Figure 2b: O&M Cost Coverage for 2011-12 to 2017-18

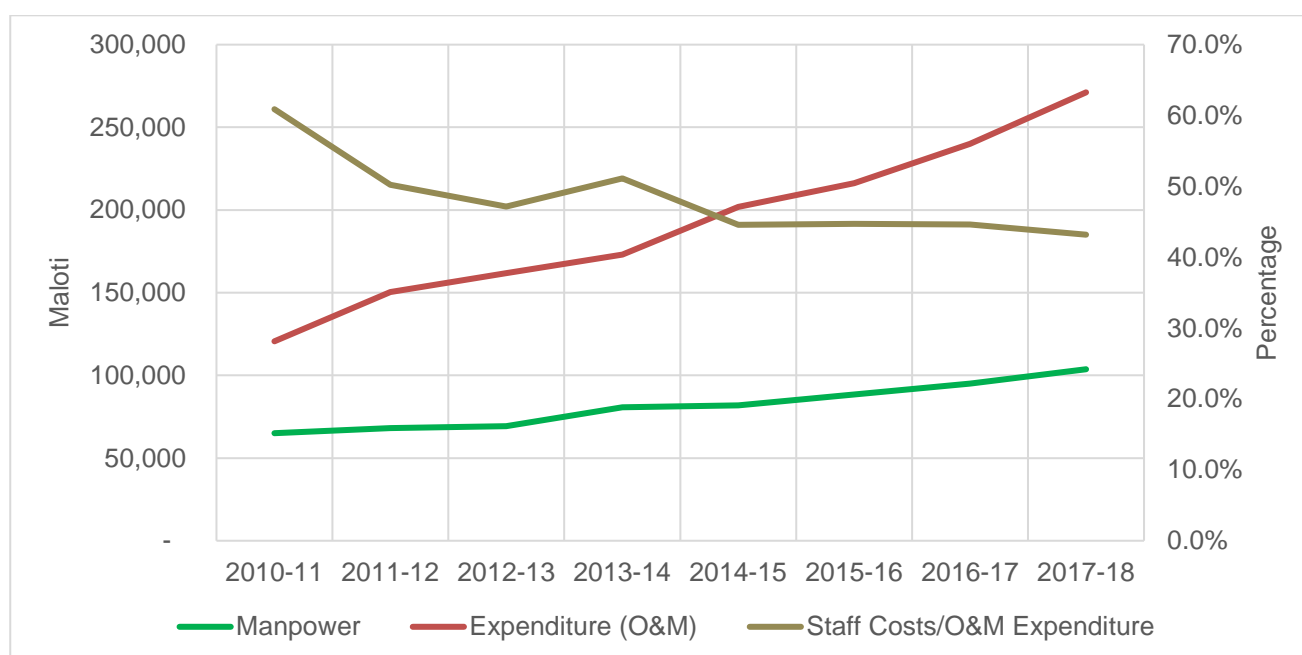


It can be inferred from figure 2b above that over time the utility's billing had not been able to meet expected expenditure in the past. This explains the losses that the company had been experiencing for the period but however, things improved somewhat in 2015-16 and 2016-17 financial years. The company is experiencing a drop in the cost-coverage by billing since the 2016-17 and this reflects an unhealthy situation.

2.3 Review of Staff costs against Total Expenditure Trends

Figure 2c below highlights the relationship between expenditure of human resources as a fraction of total expenditure. Regional and international benchmarks call for a well operating utility to have this relationship to be at a percentage ranging from 30 to 40 percent. LEWA in this case gave WASCO a target of 41 percent.

Figure 2c: Staff Costs against Total Expenditure for 2010-11 to 2017-18



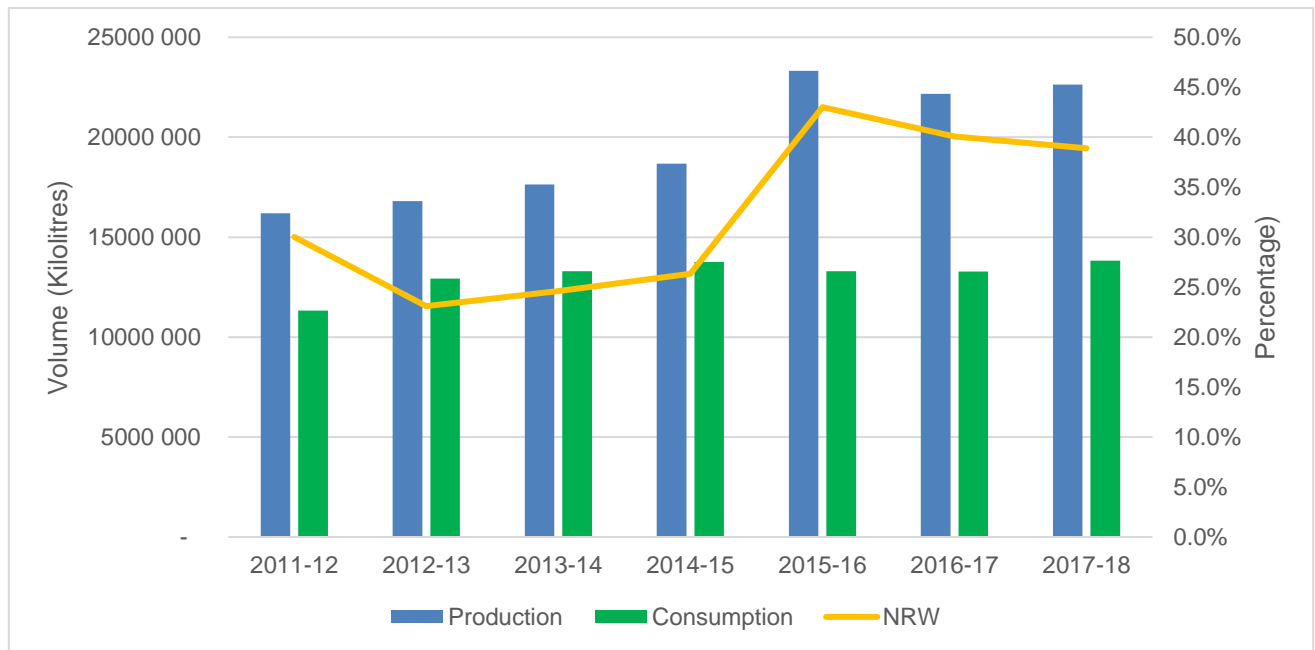
It can be inferred from the figure 2c above that expenditure on employees continued to grow at a much slower rate than total expenditure. This occurrence resulted in a steady drop in the Staff costs/O&M Expenditure rate to requisite levels during the period. After an initial rate above 60 percent this ratio reached a level of just above 40 percent in 2017-18. The average rate for the period was recorded at 49.0 percent.

2.4 Non-Revenue Water (NRW) Performance

The determination of NRW from production and consumption figures is an important KPI for a utility entity. For the period under review production is realised to have grown markedly while consumption had remained largely constant. The resultant NRW performance is noticeable for its continued increase albeit after a period of maintaining a good performance of around 25 percent for the first four years. The substantial increase in NRW from 2015-16 financial year highlights the challenges posed by losses generated as a result of the Metolong pressures which caused numerous pipe bursts for the Maseru area. The reminder of the period highlights a time where more effort was made to properly calculate the NRW figure hence its increase indicating that the lower figures of the earlier years could be doubted.

Figure 2d below presents a pictorial image of performance of NRW as calculated through balancing production and consumption volumes for the period leading to the 2017-18 financial year.

Figure 2d: NRW Performance for 2011-12 to 2017-18



2.5 Water and Effluent Quality trends

The figure below presents the trends in water quality for the period under review. The performance of key parameters for treating water, namely Residual Chlorine, Microbiology and Turbidity has not been at the required 100 percent level but have largely been excellent. There was a drop-in turbidity pass rates in 2016-17 which confirms the effects of incessant pipe leaks and bursts due to the extreme pressures from the Metolong system. This has been corroborated by a spike in NRW figures for the same period. The pass rate for alkalinity/acidity of treated water continued to be a challenge in almost all treatment plants due to their archaic nature. The *Langelier* index registered a very low performance (below 50 percent) for the period.

Figure 2e: Water Quality Trend Analysis for 2011-12 to 2017-18

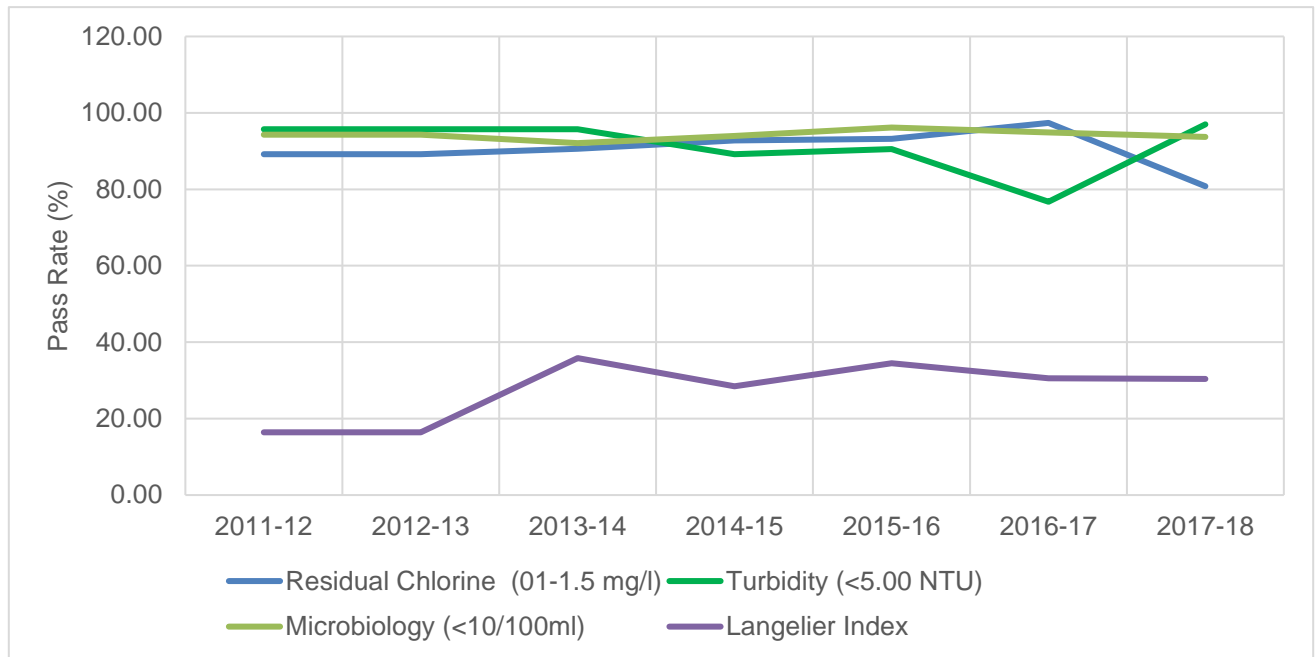
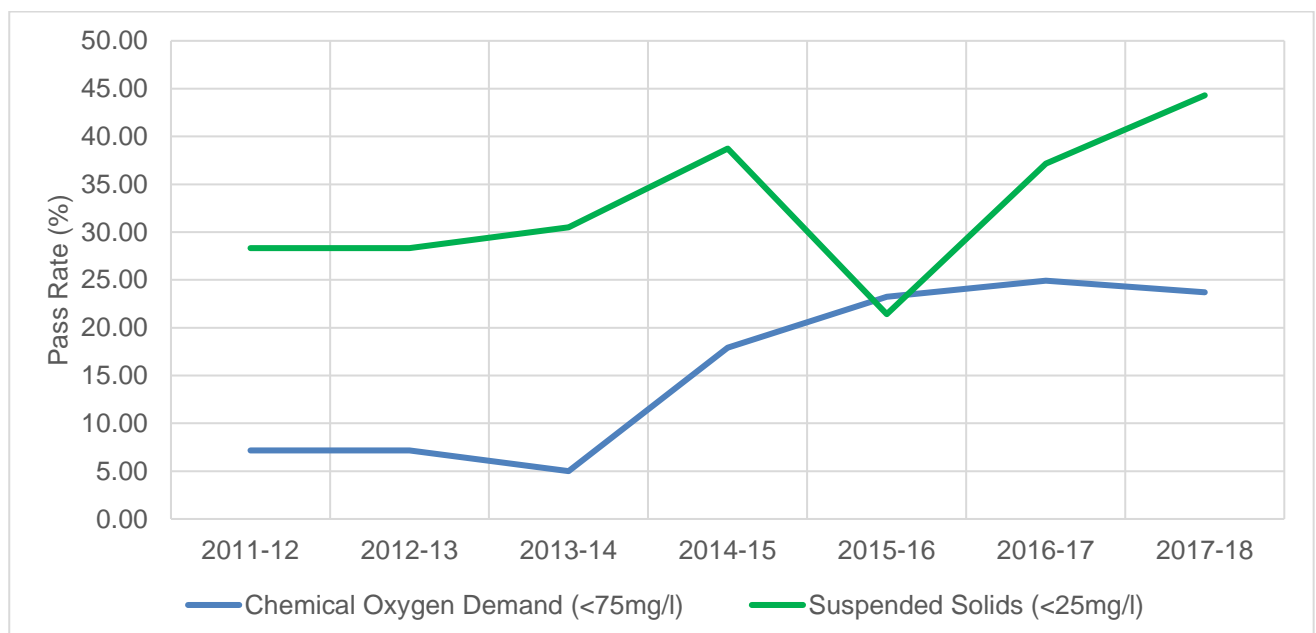


Figure 2e above shows a gradual increase in the pass rate for residual chlorine, Microbiology as well as for the *Langelier* Index. Turbidity pass rates have however been on a slight downward trend.

The figure below presents an analysis of Effluent quality for the period under review

Figure 2f: Effluent Quality Trend Analysis for 2011-12 to 2017-18



As can be seen from Figure 2f above the pass rates for the two parameters for effluent quality have been positive for the period under review. This has been largely so despite known infrastructural challenges. This also highlights the effects of the new waste water treatment infrastructure which came online in Maseru which influenced national pass rates.

2.6 Conclusion

This chapter presents a very positive position of WASCO in meeting set targets for key performance indicators laid out by LEWA. Despite known and new challenges as well as the need to improve services in an environment of scarce resources, WASCO did manage to improve the performance of key indicators over time. With support from the Government of Lesotho and the regulator, these would be further improved and those that are still posing problems turn around.

CHAPTER III REVIEW OF THE 2017-18 FINANCIAL YEAR

3.1 Review of Out-Turn Regulatory Accounts and Budget Estimates

From the data presented in the draft Statement of Income and Expenditure which is yet to be verified by the External Auditor, WASCO reported an annual operating profit of M17, 961 million for the financial year 2017-18. Total revenue generated for the period was recorded at M289.098 million with the main components being water and Sewerage billing at M199.35 million, new service connections at M13.29 million and other revenue accounting for the remaining M76.27 million.

Expenditure for the period is recorded at M271.14 million. The main contributors to expenditure for the year are manpower costs at M103.72 million, power M23.49 million while reticulation and plant maintenance and chemical usage accounted for M10.13 million and M3.67 million respectively.

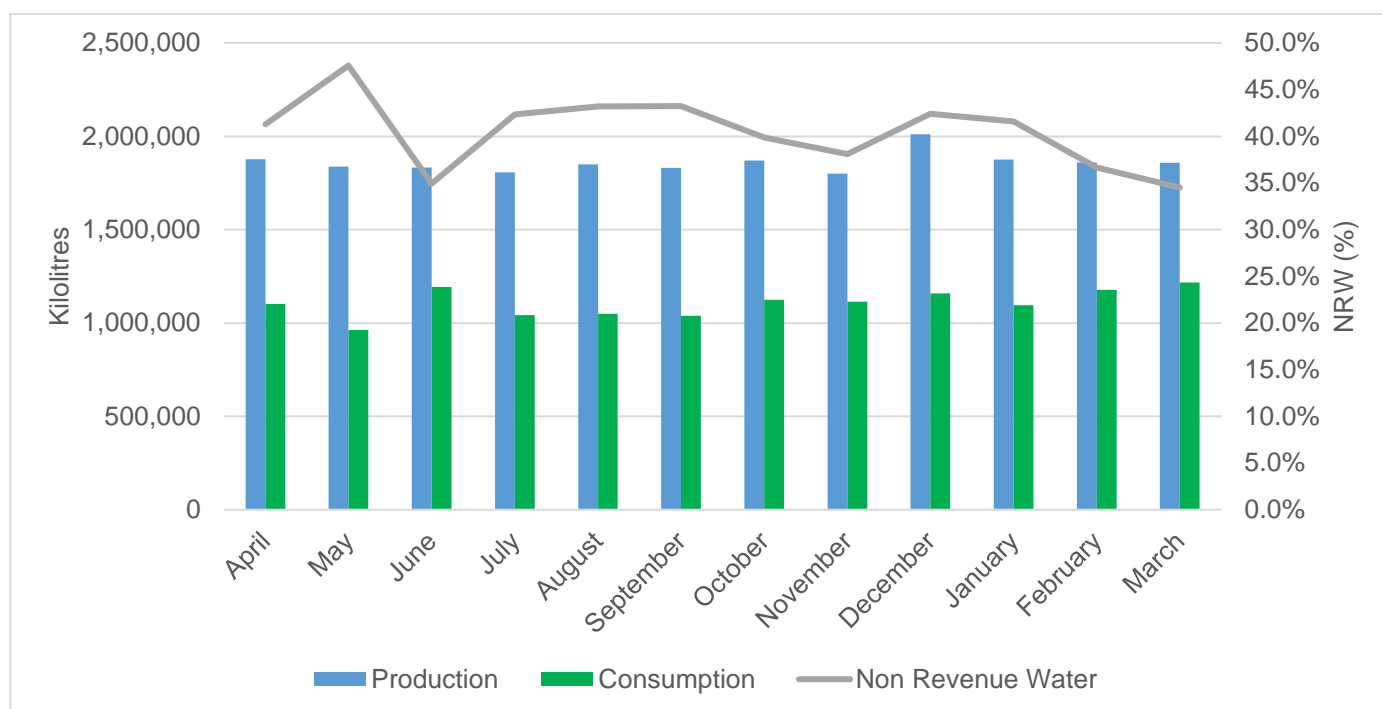
The contribution of Water and Sewerage billing has been below projected amounts as per the 2017-18 tariff determination which had estimated a collective revenue of M232.86 million. This is indicative of insignificant growth in consumption patterns experienced in the last three years characterised by notable consumption drops in the big north region centres of Maputsoe, Hlotse and Botha Bothe as a result of production and infrastructure challenges.

3.2 Review of Production, Consumption and Sales Data for the Year

Total production for the period ending March 2018 amounted to 22.62 million kilolitres while billed consumption was recorded at 13.82 million kilolitres. The resultant average non-revenue water recorded 44 percent. The NRW rate is higher than the last financial year's figure of 40.1 percent although at the time the NRW figure had dropped from the 2015-16 figure of 43. Percent.

Figure 3b below presents a graphical detail of a month-by-month analysis of NRW for the 2017-18 financial year.

Figure 3a: Analysis of production against billed consumption (April 2017-March 2018)



It is seen from the above figure that the NRW figure has been averaging 40 percent mark for the entire period to the end of March 2018. It is also clear from the picture that the set annual target for NRW of 28 percent was not attained. As stated in earlier sections, the average NRW for the period was at 41.5 percent. Among the factors that have been attributed to the substantial water losses have been issues pertaining to data collection at production plants where in most cases there were no bulk meters to determine the amount of water produced and hence most of the figures presented were estimates based on design capacities. Other factors included water losses due to some reticulation systems, particularly in Maseru not being able to withstand high pressures from the Metolong system hence experiencing high burst and leakage incidences as well as scouring activities following incidences of blood worm infestation.

3.3 Review of Service Coverage against set targets

The total number of connections up to the end of the year was 4 541. This figure is below the set annual target of 6,000 for house connections. At this rate performance has been largely below par with the half-way mark only being achieved at the end of nine months. The table

below shows the water and sewer connections in the three regions. It can be depicted that the month of September had the least water connections for the entire year. Water connections for the fourth quarter were recorded at 1 001 as against the quarterly target of 1 500. It should be noted that the performance for the second and third quarter was recorded at 1 373 and 1 237 respectively which was also below the set target.

Table 3a: Water and Sewerage Connections (April 2017 – March 2018)

<i>Water Connections</i>													
Region	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	Total
Central	245	296	115	426	334	140	168	375	375	204	140	232	2 950
North	54	64	83	70	149	96	50	75	45	72	111	72	941
South	6	83	84	25	106	27	61	53	35	58	69	43	650
Total	305	343	282	521	589	263	279	503	455	334	320	347	4 541
<i>Sewer Connections</i>													
Region	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	Total
Central	2	28	17	5	20	11	5	29	11	12	16	2	158
North	1	0	0	1	1	0	0	0	0	2	0	1	6
South	0	0	1	0	3	1	1	2	0	1	0	3	12
Total	3	28	18	6	24	12	6	31	11	15	16	6	176

The low connection rate leads to backlogs due to materials shortages and as a result the target of connecting customers within the stipulated 10 days was difficult to achieve. The main constraints in meeting this demand is the lack of vehicular support dedicated to do the connections.

For sewer, A total of 158 connections were carried out in the Central region while six and twelve were carried out in the North and South regions. The quarterly target of 250 has not been achieved. Altogether, 176 sewerage house connection were carried out during the financial year. The low performance of sewerage connection in this case has been largely due too inadequate sewerage infrastructure coverage in Maseru as well as the needed infrastructure being very limited or non-existent in other centers in the districts. Moreover, the number of customers who apply for sewer connections is very low even from areas that have the infrastructure.

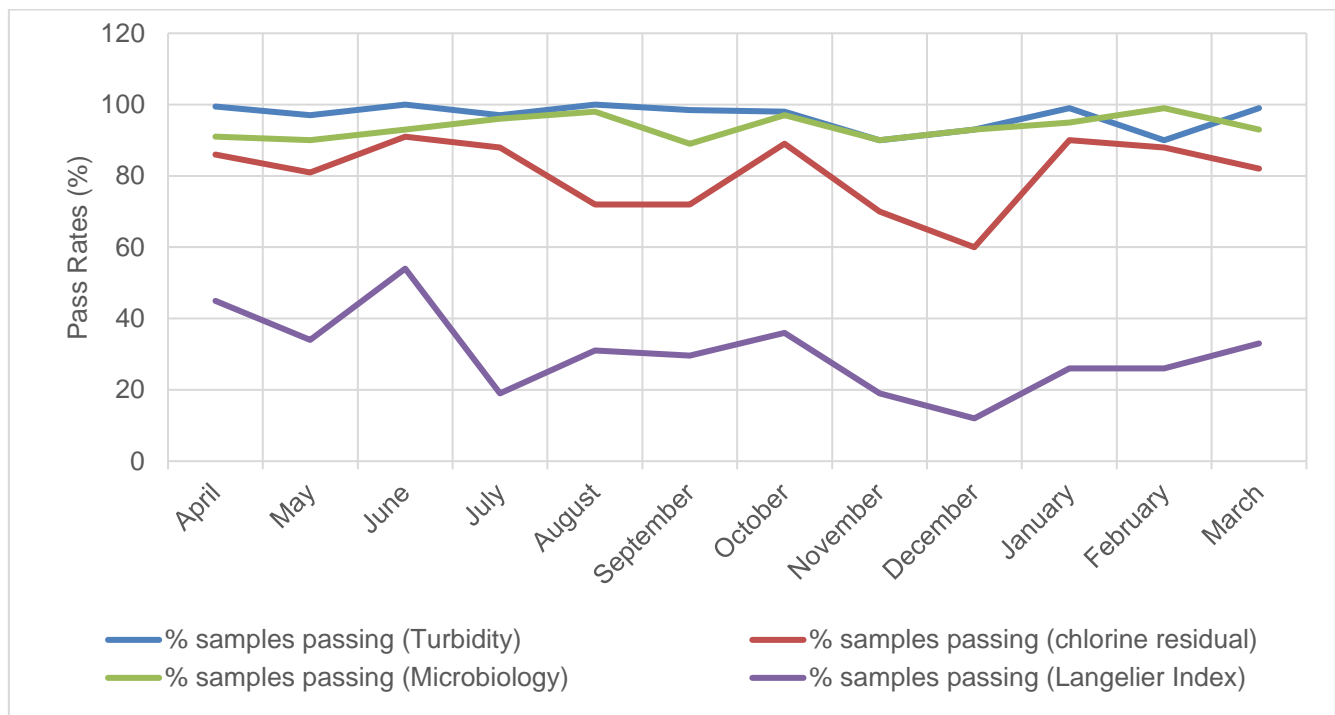
3.4 Review of Water and Effluent Quality Data

The target for quality of water produced is to achieve 98 percent passing rates for all parameters. On average, WASCO treatment plants managed to maintain residual chlorination

levels at 77.25 percent pass rates for the year, while turbidity levels were attained at 96.0 percent. Samples passing bacteriology count performed at 93.75 percent. This is mainly attributed to initial under dosing at treatment plants (less than 1mg/l), long retention times, pipe bursts that introduce soil/microbes and therefore increase chlorine demand. All these affected chlorine levels at end (user) point. Performance of pH levels was at 35.75 percent. A compact dosing skit has been installed in Mafeteng treatment plant and this type will be rolled out to other identified areas.

Here below is a pictorial presentation of the performance of the quality of treated water supplied to customers over the twelve-month period ending in March 2018.

Figure 3b: Analysis of performance of treated water (April 2017 – March 2018)

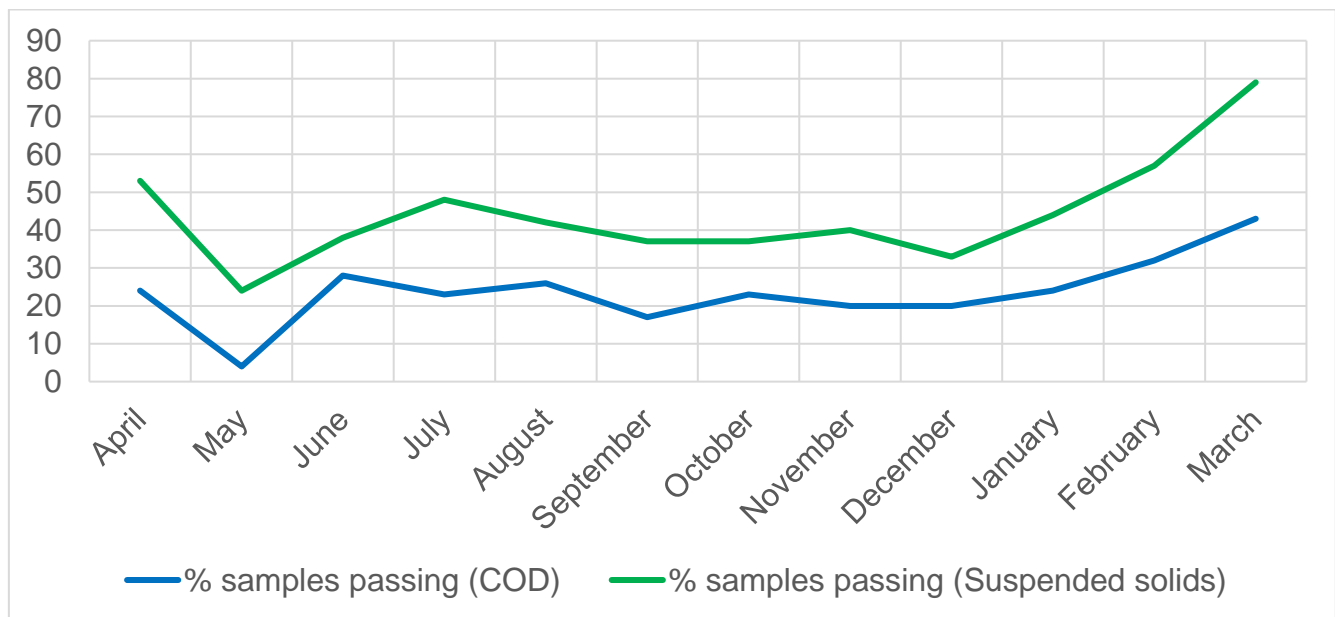


It can be seen from the graph above that performance of residual chlorine has been dropping in recent times with a slight peak at the start of the third quarter. The bacteriology and turbidity pass rates have been slightly below set targets indicating proper procedures being utilized for treatment of water at plants. Standard operating procedures were developed to regularize treatment operations and have been distributed to all centres for operators to be knowledgeable of and make good use.

All in all, the performance of COD for the year was recorded at an average of 22.25 percent. Samples passing the Suspended Solids reached a pass rate of 43.25 percent. The high failure rate is mainly attributable to old and overloaded waste water treatment facilities in most of the areas. The only remedial measure in this regard is to build new Waste Water Treatment Plants in all the requisite areas.

In order to improve the sewerage infrastructure, the masterplan for sewerage and sanitation has been completed and so far, the service areas have been assessed and the concept note has been submitted to the Ministry of Development Planning for approval. The TY Pilot Project on the introduction of new treatment technology was successfully completed.

Figure 3c: Analysis of effluent performance (April 2017 – March 2018)



It can be inferred from the above table that performance of effluent quality continues to be at very low levels highlighting infrastructural challenges of the system largely due to the old Ratjomose system as well as existing small systems in other areas (which were designed for entities like hospitals), which pulls down performance of the newly constructed MASOWE and Agric systems.

CHAPTER IV REVIEW OF THE CURRENT FINANCIAL YEAR

4.1 Review and Reconciliation of Management Accounts and Budget Estimates (April-September 2018)

Total operating expenses for the period to the end of September 2018 amounted to M93.28 million compared to the flexed budget figure of M67.94. Most expenditure items have favourable variances due to low spending and deferment of some of the activities. There is a huge gap between the cash and budget which calls for control of expenditure. There are signs of overtrading when considering the committed costs and the income generating activities.

The actual salaries for the second quarter of the year amounted to M16.59 million compared to flexed budget figure of M18.78 million resulting in favourable variance of 10 percent. Year to date expenditure has been recorded at M34.59 million. The actual expenditure on power for the second quarter is M8.63 million as compared with the budget figure to date of M9.511 resulting in a positive variance of 9 percent.

The provisional budget for overtime for the reporting period has continued to be exhausted with an adverse variance of 37%. High expenditure is experienced in winter under this budget line because of frequent bursts, which occur because of cold weather conditions that affect the Company's aged infrastructure. The other contributing factor is the meter maintenance teams who work over the weekends because they are involved in disconnections and reconnections during the normal working days.

Actual cumulative income for the period ending September 2018 amounts to M115.95 million. The second quarter revenue generated was recorded at M58.25 million. Key revenue items were water and sewerage billing at M83.58 and M13.28 million, respectively. The Company's performance for the second quarter of this fiscal year is below the flexed budget but there is an improvement of 1% when comparing the first quarter with the second quarter income. This is due to the increase of tariffs for while water which were then effected from the second month of the quarter. Consumption in units increased by 6% but this seems to be at domestic customers because the factories were affected by riots by works. This had a negative impact to the income because the Company's major consumers seems to be the factories.

Here below is a tabular presentation of the contribution of the main items of revenue for WASCO for the period ending September 2018.

Table 4a: Distribution of Income

Revenue Item	Amounts
Water Billing	83 554 928
Sewerage Billing	13 328 187
New connections (water)	5 243 116
New connections (sewer)	747 940
Other Revenue ²	13 079 266
Total Revenue	115 953 437

The Management Accounts for the first quarter show an operating profit of M22.67 million. This is due to tight budgetary control and deferment of some expenditure items. The income part has an element of interest charged from outstanding debtors balances and this distorts the records but Management has proposed a write off for disconnected customers who never applied for reconnection.

4.2 Production, consumption and sales data

Below is a detailed presentation of production, consumption and sales data for the period ending September 2018.

Table 4b: Production, Consumption Energy and sales Data (April to Sept. 2018)

Item	April	May	June	July	August	September	October	Projected Actual (2017-18)
Actual Water Production (m ³) ³	1 986 236	2 082 380	1 955 334	2 025 583	1 860 946	1 918 723	2 003 138	23 712 482
Projected Water Production (m³) - 19,769,468								

² Other Revenue in this case includes all other items such as Miscellaneous income, penalty income, Interest Income, blockage fees, delivery fees, etc

³ The credibility of production figures cannot be justified as most of plants (Esp. Maseru) do not have functional production meters and as such production figures estimated based on design capacities.

Projected Consumption (m³) – 24 353 430								
Actual Water Consumption (m³)	1 113 906	1 108 259	1 218 319	1 199 685	1 113 872	1 051 067	1 113 906	13 610 215
Non-Revenue Water (%)	50,8%	43,9%	46,8%	37,7%	40,8%	40,1%	45,2%	42,6%
Projected NRW (%)								28%
Energy Usage								
Power (KwHrs)	1 989 680	1 719 749	1 712 268	1 745 769	1 621 004	1 611 750	1 691 810	
Actual Water Sales (Maloti)	14 908 903	12 412 397	15 606 079	13 477 605	14 037 778	19 707 046	14 908 903	180 299 616
Actual Sewer Sales (Maloti)	2 748 839	2 654 221	3 204 970	2 468 971	2 894 428	2 468 245	2 748 839	32 879 348

WASCO acknowledges the issue of the correct and accurate recording of consumption at the customer level which largely influences the NRW figure. This is being dealt with for correction for proper determination in the next year. An effort would be also focused on the collection of accurate and credible data at production and consumption levels so as to be able to determine accurately the verifiable NRW target for the short and long term.

4.3 Service Coverage

The target for water and sewer connections for the year has been set at 6, 000 and 1, 000 respectively. A total of 2, 549 connections were carried out for the six-month period to the end of September 2018. There were 1, 103 connections carried out in the second quarter and as such was slightly lower than the 1, 419 connections carried out in the first quarter. Connections carried out in the second quarter were below the expected quarterly threshold of 1, 500.

For sewer, there were 106 connections carried out in the second quarter. This has been an improvement from the last quarter performance of 92. All in all, there were 198 sewer house connections carried out for the six-month period ending in September 2018. The WASCO's cash flow problems are also exacerbating the problem as suppliers are refusing to supply indicating non-payment of outstanding invoices.

Here below is a tabular presentation of house connections for water and sewer disaggregated according to the different centres in which WASCO operates:

Table 4c: Connections per Region for the Period April to September 2018

	Central		North		South		Monthly Totals	
	Water	Sewerage	Water	Sewerage	Water	Sewerage	Water	Sewerage
April	252	1	98	3	46	0	396	4
May	399	52	90	1	85	0	574	53
June	297	32	31	2	61	1	449	35
July	330	41	88	0	96	0	514	41
August	161	31	101	0	59	1	321	32
September	152	30	102	3	41	0	295	33
October	153	12	96	0	26	0	275	12
November	274	24	73	1	113	1	460	26
December	159	6	59	0	64	1	282	7
Total to-date	2177	229	798	10	591	4	3566	243
Connections Backlog	303	2	23	0	120	4	446	6

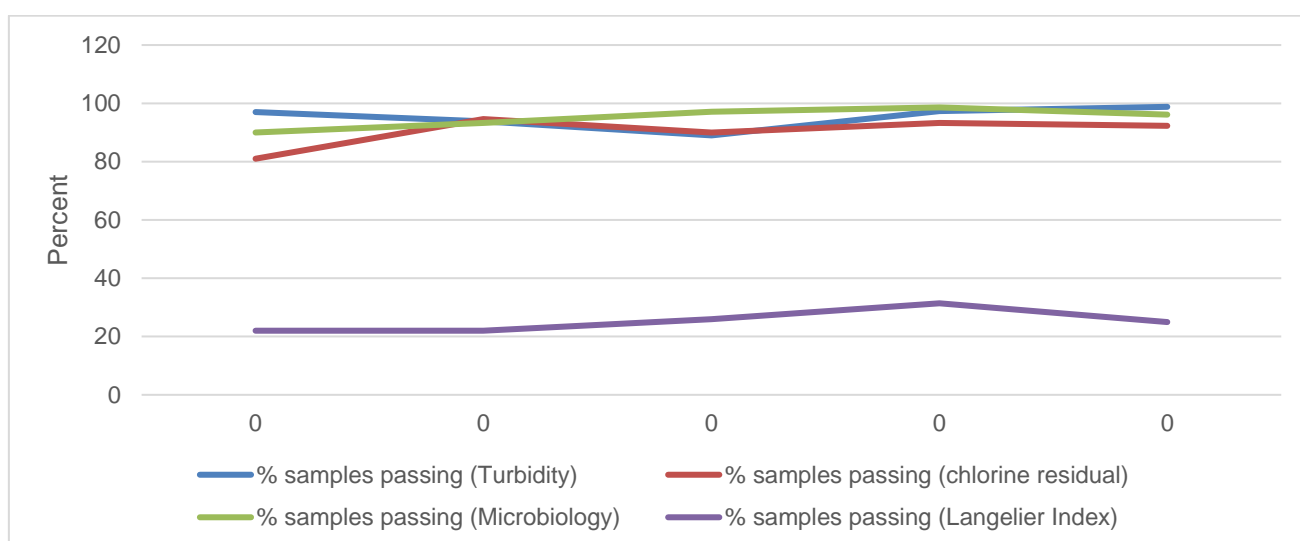
The analysis of the presented records of backlog indicate a total backlog of 466 water connections as at September 30th 2018. This low connection rate and the resultant backlog has been largely attributed to unavailability of connections materials. For sewer connections the experienced backlog is 3 paid for applications.

4.3 Water and Sewerage Quality

Performance in the quality of water produced and supplied to the public has been good on most parameters during the review period. On average, all treatment plants managed to maintain residual chlorination levels at 90.5 percent pass rates for the quarter, while turbidity was recorded at 95.5 percent and bacteriology count performed at 95.5 percent. Samples passing corrosivity tests performed at 26 percent for the period. This low performance is attributed to the fact that most of WASCO's plants do not have pH adjustment facilities.

Below is a graphical presentation of water quality for the period ending September 2018.

Figure 4a: Water Quality performance for the period April to August 2018.

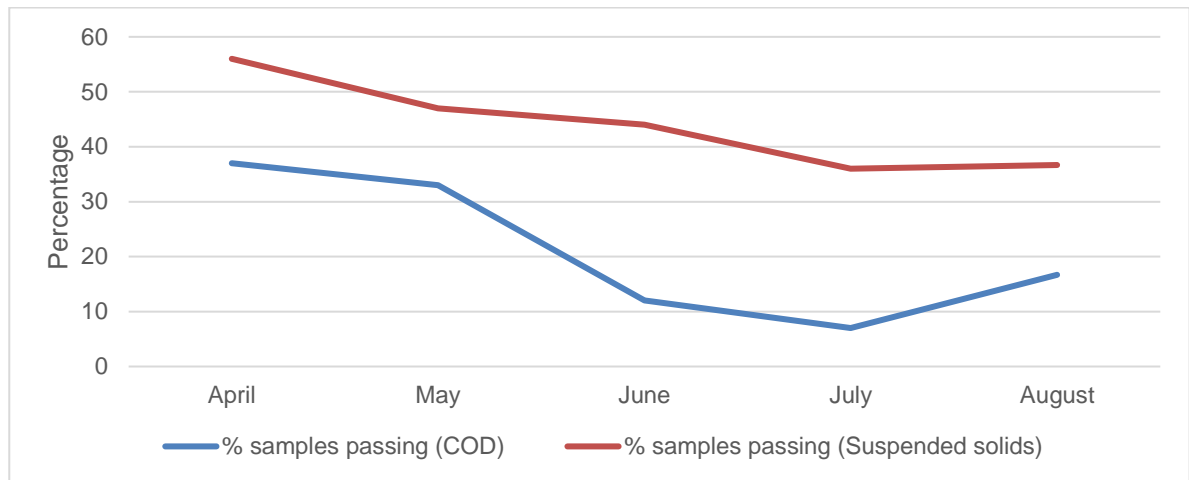


It can be inferred from the above graph that performance on all other quality parameters except for corrosivity is quite good but reaching the desired 100 percent mark. The performance of samples passing the chlorine residual test has been rather erratic for the period under review and needs to be stabilised. The low corrosivity tests pass rates reveal existing challenges that relate to dosing of lime at treatment plants which will be addressed in the next financial year.

On treated effluent, 20.5 percent pass rate was recorded for the samples passing COD standard while samples passing Suspended Solids had a pass rate of 44.5 percent. New technology was investigated and presented to management and recommendations were made but could not be implemented as this depended on the approval of a capital budget. Piloted technology (TY Plant) is yet to be rolled out to other centres of the Company as this also depended on the approval of the capital budget for the 2018/19 financial year.

Below is a graphical presentation of the performance of effluent quality for the period ending September 2018:

Figure 4b: Effluent Quality performance for the period April to August 2018.



It can be inferred from the above pictorial presentation that the pass rates for Suspended solids and Chemical Oxygen Demand have been on a downward trend since the start of the financial year. At the moment the major causes of this declining trend are being investigated and measures will be put in place to stem the trend.

CHAPTER V FORECASTS FOR THE 2019-20 FINANCIAL YEAR

5.1 Introduction

The 2019-20 budget estimates respond to the planned initiatives and activities laid out in the 2019-20 Annual Business Plan as well as the carrying out of routine operational activities aimed at delivering service to customers. The ABP and the responding budget has been developed at a time when the Company is facing severe challenges emanating from cash flow problems, increase in customer defaults and increasing costs for envisaged services as well as WASCO being forced to venture into new areas without adequate preparation time and assessment.

5.2 Priority initiatives for 2019-20

The following are priority initiatives to be implemented by WASCO in the financial year 2019-20.

- Strengthened and continued debt recovery and collection
- Robust service coverage with extensions to previously non-serviced areas
- Roll out of Pre-paid metering system
- Staff empowerment through a retention and succession strategy
- Actively dealing with recent audit queries
- Improvement of stand-by capacity to improve service reliability
- Upgrade of reticulation infrastructure through AC pipe replacements
- Full operation of the Call centre
- Enhanced public outreach and marketing activities

5.3 Statement of Approved Budget

The 2019-20 WASCO budget has been presented and laid out in terms of key revenue and expenditure drivers. The key drivers of revenue for the company include water and sewer billing, connection fees for water and sewerage, reconnection fees and application fees. Water and sewerage billing income constitute just under 80 percent of proposed income for

the 2019-20 financial year. A growth potential in the area of water and sewer connections revenue will be explored.

A more direct attempt has been made at rationalising the cost of providing service. A cost cutting drive is in place to reduce some non-essential budgetary items on the expenditure side. The following are key drivers, namely salaries and related emoluments, fees (including limited consultancies), chemical usage for water and sewer treatment, power, and plant maintenance. Base salaries constitute about 43 percent of WASCO proposed expenditure while combined budget for electricity and chemical usage sums up to approximately 14 percent of total planned expenditure.

5.4 Forecast Operating Costs

Here below is a tabular presentation of envisaged operating costs for the 2019-20 financial year. The 2018-19 Budget in regulatory format is shown in Annex E.

Table 5a: The 2019-20 Budget

ITEM	2016-17 BUDGET ALLOCATION	2017-18 BUDGET ALLOCATION	2018-19 BUDGET ALLOCATION	2019-20 BUDGET ALLOCATION
Expenditure	245,948,368	253,838,700	295,870,625	302, 470, 990
Manpower	118,013,296	110,478,227	123,689,452	138,470 057,
Power	21,361,322	25,389,287	38,046,213	33, 969, 605
Chemical Usage	8,666,792	8,493,564	8,314,132	10, 665, 335
Reticulation and plant maintenance	18,067,557	21,596,907	10,359,647	11, 556, 815
Water and Sewer connections	23,052,853	20,475,836	9,441,862	13, 897, 489
Depreciation	18,132, 892	18,010,000	20,809,505	25, 010, 000
Total Income	253,958,897	257,304,543	300,192,573	303, 516, 890
Water and Sewer Billing	201,400,000	226,337,044	254,915,416	261, 547, 958
Water and Sewer Connections	14,370,000	25,045,000	15,402,480	22, 861, 630
Other Income	2,183,858	5,922,499	31,600,539	26, 349, 113
Operating Profit/Loss	10,607,052	223,055	4,324,948	1, 045, 900

a) Water Billing income

This income is for water related consumption. Management proposes tariff increase of 8.5% and introduction of standing charge of M10.00 for Band A. the net increase from the previous year's budget is 11% because of inclusion of the proposed charge for Band A.

b) Water Tankered

This budget is for income related to clean water supplied to the public through private tankers. The projected income for 2019/20 increased by 29% when compared to 2018/19 budget because of income for Mafeteng Centre. There is a private school which will be supplied purchase water from the Centre which influenced the budget increase.

c) New Connections (Water)

This budget line is for income generated from connection of new customers. The fees are charged in line with the approved band and the Company intends to connect more customers in the coming financial year because of Ha-Foso project that is ready for households' connections. The projected income increased by 23% from the previous year's budget.

d) Tankered Sewerage

This budget line is for charges related to sewerage disposal at the Company's sewerage ponds by Private Sewerage Tankers. Major income for this budget line is from Ratjomose Treatment plant with the projected monthly income of M58,900. The statistical data proof that the budgeted income can be achieved as the average number of loads at Ratjomose alone range between 900 and 1,000. The projected income increased by 977% from 2018/19 approved budget.

e) Grant Amortisation

This budget line refers to income from assets acquired in a form of grant and it is purely non-cash item which is meant for matching the depreciation and the income generated by the asset. Maseru Waste Water Project is a recent project that influences the projected increase of 45% in 2019/2020 fiscal year.

f) Salaries

This budget line is for salaries and benefits for WASCO's staff which Management proposes to be adjusted by 5% effective 1st April 2019. About 99% of the Company's staff complement is engaged on permanent and pensionable. This proposed increase is subject to approval of the proposed tariff adjustment on water billing by the Regulator.

g) Consultancies

This budget line is meant for external consultancy which the Company intends to engage for compliance purposes. There is a need for engagement of external consultants for geodetic deformation survey for Metolong Dam. There are other environmental and laboratory related consultancy costs which have not been incorporated in this budget for compliance and accreditation that will be submitted to the Government of Lesotho to assist the WASCO with funding to pursue these initiatives. The two identified Sections as Environment and Laboratory which need to comply and be accredited with ISO standards.

h) Power

This budget line is for electricity and coal. The 25% increase is led by the fact that Lesotho Electricity Company will apply for tariff adjustment which is likely to affect the cost of electricity. Metolong Dam has so far contributed to high electricity bill and the previous year's budget seems not to be responding to the needs of individual Centres as some areas exhausted the budget in this third quarter of 2018/19.

i) Chemicals

The budget increased by 78% from the previous year due the planned acquisition of chemicals. Metolong Dam facilities contributed towards this increase because this year all the twelve (12) months will be supplied by WASCO unlike the previous year where part of supply was from the Project. Inflation was also factored as most of these chemicals are imported from South Africa.

j) Vehicle Running Costs

This budget line is for payment of External Service Providers for maintenance and care hire. It also includes monthly subscription for car tracking system which has so far added value in terms of security. The 35% increase is due to additional fleet which will not be covered by service plan in the coming financial year. The budget line includes costs for

service of yellow plant which is a challenge because labour is imported from South Africa for some of the equipment.

k) Plant

This budget line is for repairs and maintenance of the Company's plant. Costs included in this budget line are motor rewinding, plant hire and acquisition of material that is used for repairs and replacement of parts. The budget increase by 21% from the previous year's budget due to inflation and the planned quantities for the financial year.

l) Licence fees

This budget line is meant for costs associated to annual subscription of the accounting systems, billing, payroll and projects management. The increase of 349% is led reclassification of the aforementioned items from office equipment to this budget line.

CHAPTER VI PROPOSED REVENUE REQUIREMENT AND TARIFF FOR 2019-20

This chapter outlines the basis for the proposed tariff for the 2019-20 financial year.

6.1 Regulated Accounts

Following the development of a framework to fully establish and delineate all WASCO assets the company has still not been able to definitively value its assets. Stock taking and valuation of all WASCO assets still has to take place so that the true value can be incorporated into future tariff applications.

The Company will be conducting a cost of service study in the next financial year to accurately determine the cost related to service provision in the various areas of service. The result will form the basis for future tariff applications.

6.2 Weighted Average Cost of Capital

The real Weighted Average cost of Capital (WACC) has been calculated to be 6.4% while the WACC (Pre-tax) has been valued at 11.4%⁴. An excel spreadsheet showing the calculation is depicted in Annex D.

6.3 Proposed Tariffs and Charges

Volumetric Tariff and Standing Charge Adjustment

As set out in the foregoing pages which highlighted performance of WASCO on its operation and finances as well as the desire to improve service delivery, WASCO envisages total operating costs to reach M302.47 million in the 2019-20 financial year. A total revenue of M303.52 million is needed to realise an operating profit of M1.05 million.

⁴ These figures are only estimates based on a trial calculation whose variables have been extrapolated from industry estimates.

Based on the above assessment of carefully presented cost to the company for the 2018-19 financial year, Revenue Requirement of M279.04 million from the regulated business comprising M246.25 million for water and M32.79 million for sewerage. At this rate, WASCO proposed an upward adjustment of the 2019-20 tariff in the following manner:

- An 8.5% adjustment for all categories volumetric and Standing charges
- An introduction of a M10.00 standing charge for Band A

Table 6a: Comparative analysis of the proposed tariff

Band	Current Tariffs (per kl)	Increase (Per kl)	New Tariffs (Per kl)
Domestic Customers			
A: (0 – 5kl)	5.38	0.44	5.58
B: (>5 – 10kl)	9.12	0.76	9.65
C: (> 10 – 15kl)	16.04	1.34	17.15
D: (> 15kl)	22.12	1.86	23.75
Domestic Standing charge (Band A)	43.03 0.00	3.48 0.00	45.56 10.00
Non-Domestic Customers			
- Industrial, business, Government	14.6	1.22	15.29
- Schools, churches	14.47	1.21	15.29
- Stand Pipes	7.28	0.00	6.71
Non-domestic Standing charge			
- Industrial and Business	413.85	24.35	426.83
- Government and Schools	286.51	33.43	310.86
- Religious Institutions	206.93	23.14	213.42
- Schools	206.93	16.71	213.42
- Standpipes	0.00	0.00	0.00
Waterborne sewerage customers			
Sewerage to be charged on 85% of water consumed	9.7	0.00	9.7
Low-Flush Waterborne sewerage customers			
Water closet customers to be charged on 60% of water consumed.	9.7	0.00	9.7

Based on the above proposed tariffs, the following are forecasted sales based on forecasted consumption patterns of various customer categories.

Table 6b: Forecasted consumption and water sales (2018-19)

Customer	Water Unit Costs (M/kl)	Standing Charge (M/month)	Annual Sales kl/Year	Number of Connections	Total Revenue (M)
Domestic Customers					
Band A (0 - 5 kl)	5,5812	10,00	3 771 235	51 626	27 243 289
Band B (>5 - 10 kl)	9,6445	46,69	1 150 858	25 836	25 574 032
Band C (>10 - 15 kl)	17,1547	45,56	462 104	8 948	12 819 335
Band 0 (>15 kl)	23,7517	45,56	971 352	7 953	27 419 382
Total				94 363	93 056 038
Non-Domestic Customers					
Government	15,5910	310,86	1 403 409	531	23 860 649
(Business, Industry)	15,5910	426,83	5 966 115	1 904	102 768 462
Schools	15,4541	295,50	437 210	262	7 686 234
Religious Institutions	15,4541	213,42	52 560	179	1 271 428
Standpipes	7,6586	0,00	15 382	119	117 804
				2 995	135 704 358
Total			16, 288, 125	97 358	228 760 616

The forecasted effluent to be disposed into the environment and related revenue gained from provision of disposal services is presented as follows in table 6c:

Table 6c: Forecasted sewerage disposal volumes and revenue from disposal services (2018-19)

Customer Categories	Water Unit Cost (M/kl)	Sales (kl/year)	Number of Customers	Total Revenue (M)
Water borne sewerage customers	9.70	405,668	2,575	3,934,979.60
Standard Non-Domestic	9.70	2,473,934	1,584	23,997,159.80
Lesotho Brewing Company	9.70	485,403	2	4,708,409.10
Likotsi and Qoaling Clinics	48.86	34,236	3	1,672,770.96
C &Y Sewer	1.01	290,560	2	293,465.60
Total		3,689,801	4,166	34,606,785.06

6.4 The Basis and Rationale for Tariff Adjustment

The proposed tariff and standing charge adjustments primarily hinge on the need to augment revenue to meet the costs of efficiently and effectively running the Company for the provision of service.

The Implementation of the Annual Business Plan

The priorities laid out in the Annual Business Plan have been clearly articulated in the preceding chapter under section 4.2. WASCO has committed itself to address issues raised in several LEWA inspection reports and has endeavoured to include the proposed remedial measures in the 2019-20 annual business Plan.

Further rationale for this proposed adjustment of tariffs is the following:

a) Offsetting under-recovery for the 2015-16, 2016-17 and 2017-18 financial years

WASCO has not been able to fully realise the potential revenue from water and sewerage services as projected by LEWA based on the two tariff adjustments due to below par demand patterns. This has to be factored into the tariff determination for the next financial year.

b) Takeover of Metolong Dam facility and related infrastructure

The takeover of the Metolong Dam has exerted expenditure pressures on the WASCO budget. The magnitude of the facility is one factor highlighted as well as the fact that the company has to deal with maintenance of the dam wall infrastructure and related issues, a matter which is new to WASCO. Expenditure on running the Metolong Dam facility and related infrastructure has been presented as a stand-alone item to clearly highlight the substantial cost increases.

c) Offsetting the effects of inflation

The cost of obtaining operational materials from key WASCO suppliers is expected to increase by an inflationary rate of 5.2 percent in the forecast year and these costs will be borne by WASCO in the quest to provide requisite service.

d) Addressing financing costs

WASCO, in its quest to provide services to its customers has had to augment its financial resources through the services of financial institutions by way of loans. WASCO has been supported by the Government of Lesotho to obtain loans from development partners and international financing institutions and in recent times has had to approach local commercial financiers to supplement its financial resources. These loan obligations have to be serviced and are burdening the company. The projected financing costs to WASCO are estimated at approximately M7.06 million.

6.5 Affordability Analysis

This time around, the proposed adjustment of tariffs has affected all bands for domestic customers with regard to volumetric charges. As an affordability assessment, the proposed M5.38 tariff for Band A produces a total charge on M26.74 for at least 3 units consumed under this band. From the last Household Budget survey (2008) it has been established that approximately 93 percent of the population earn below the M3, 000.00 and that the average monthly income for this group is M404.00. It can be inferred that of this population a large part works and resided in urban centres of which WASCO provides services and as such earn higher than the average figure. Having said that, the M26.74 still falls below the affordability threshold (5%) for this group under Band A.

Taking into consideration that improvements have been made to the minimum wage and that the general economic growth of the country, keeping the volumetric charge for Band A keeps it within the affordable 5 percent threshold for the immediate year. This state of affairs is the same for urban communities drawing water from Stand pipes whose volumetric tariff has been kept at current rates of M6.64 per unit. The ultimate consumption of these communities and the resultant expenditure on water would still fall below the affordable threshold.

The argument of affordability is confirmed by the Per capita GDP of M6, 505⁵ determined by the Bureau of Statistics. Furthermore, adjusting volumetric and standing charges for bands C to D, is still within the affordable threshold for higher income earners based on a similar basis.

⁵ Issue No 22 of 2016 National Accounts: Bureau of Statistics