

# ANNUAL SERVICE LEVEL REPORT

2015 - 2016

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## 1. CONCESSION CONTRACT

Contract Signature : 29 January 1999.  
Operational start-up : 01 April 1999.

This report covers the period from 1 April 2015 to 31 March 2016, which signifies year 16 of the Contract, and where more updated information is available the dates are reflected accordingly. Financial Information is provided from 1 January 2015 to 31 December 2015.

This report is designed and presented in accordance with Paragraph 60 of the Concession Contract.

## 2 GENERAL STATISTICS AND INFORMATION

### 2.1 Staff Information

Siza Water Organisation Chart (see annexure 1).

CATEGORY	Mar-15	Mar-16
Management, Administration and Design	22	22
Operational Staff	30	46
Customer Services and Meter Readers	10	11
<b>TOTAL</b>	<b>62</b>	<b>79</b>

### 2.2 Asset Information

Operations Assets (fixed assets)

*Network and Infrastructure	Unit	Year 2014/2015	Year 2015/2016
Total length of water mains up to and including 200mm	KM	230.79	243.00
Total length of water mains above 200mm	KM	38.26	38.26
Total length of gravity sewers	KM	188.12	188.12
Total length of sewage pumping mains	KM	23.67	23.67
Number of pumping stations (water)	U	7	7
Number of pumping stations (sewage)	U	27	27
Number of sewage treatment plants	U	3	3
Number of supply zones direct from reservoirs or booster	U	20	20
Number of supply zones fed through PRV's or directly	U	8	7
Total reservoir storage capacity (including Umgeni Reservoir Entitlement – Avondale & Terminal Reservoirs)	M <sup>3</sup>	31 500	35 900
Number of reservoirs (including partial bulk)	U	15	18
Number of boreholes drilled	U	0	22
Number of boreholes commissioned	U	0	9

Refer to Annexure 6 for Assets Summary

Description of Assets	Year 2014/2015	Year 2015/2016
<b>Vehicles</b>		
2WD	28	27
4WD	1	1
Sedan	1	0
TLB	1	1
10 Ton Truck	1	1
Water Tankers	2	2
<b>Plant &amp; Equipment</b>		
Pressure Jetting machine	2	2
Portable 500litre watertank	3	3
Portable 5000/10000 litre potable water emergency tank	80	80
Portable 5000 litre potable sewer emergency tank	2	2
Smoke Machine	1	1
Drain/Roots Cleaner	1	1
Portable Wacker	2	2
Sand Blasting .Unit	1	1
Milling Machine	1	1
Diesel Trailer	1	1
Portable Bearing Heater	1	1
CO2 Welding Machine	1	1
Welding Machine Oil Cooler	1	1
Trailer	1	2
Road Cutting Machine	2	1
Brushcutters	4	3
Mobile water pump	5	4
Mobile High Pressure Machine	2	1
Inverter Welding Machine	2	2
John Deere Tractor Mower	1	1
Jack Hammer	2	1
Honda Petrol generator	2	2
Air Compressor.	1	1

### 3 CUSTOMER SERVICE STATISTICS

#### 3.1 Definition of Service Levels

Level of Service	Service	Description of Service
Minimum Level 1	Water supply services	Informal source, few waterlines linked to regional scheme or boreholes. Purified and unpurified water.
	Sanitation services	Unventilated informally constructed pit latrines.
Basic Level 2	Water supply services	Communal standpipes. RDP Standard 25 litres per capital per day ("l.c.d") @ 200 meters. Linked to regional scheme. Purified water. Encourage private metered connections. Unmetered connections if on-site storage tank (24 hours capacity) is fed through orifice / flow restrictor. Semi-public standpipes only feasible where payment is guaranteed, otherwise supplier can disconnect.
	Sanitation services	VIP or equivalent approved by National Sanitation Steering Committee.
Intermediate Level 3	Water supply services	Metered connections, tank systems (200 litres per day ("l.d.") similar to types used in Durban Metro. 50 to 90 stands connected to each network distribution point.
	Sanitation services	In-house low volume flush toilet with septic tank and soak-away (individual upgrade from VIP). Less than 50% stands with waterborne system. Upgrading of bulk and purification plants.
Full Level 4	Water supply services	Site metered supply (100% connections.) Network bulk and purification plants must be upgraded to cope with growth.
	Sanitation services	Full waterborne system to sewage treatment plant. Network, bulk and purification plants must be upgraded to cope with growth (100% connections).

### 3.2 Service Delivery Information

#### 3.2.1 Water Service Delivery

Water Service Delivery	Mar-15			Mar-16			Movement %
	Units	Est. People/ Unit	Est. Pop	Units	Est. People/ Unit	Est. Pop	
Metered Residential Units	12 439	2.65	32 963	12 731	2.65	33 737	2%
Metered Non Residential Units	1 982	-	-	1 977	-	-	0%
Vacant Lots	698	-	-	679	-	-	-3%
Standpipe Delivery	7 600	5.00	38 000	7 600	5.00	38 000	0%
<b>Total</b>	<b>22 719</b>		<b>70 963</b>	<b>22 987</b>		<b>71 737</b>	<b>1%</b>

#### 3.2.2 Waste Water Service Delivery

Sewer Service Delivery	Mar-15	Apr-16	Movement %
Metered Residential units	11 205	11 477	2%
Metered Non-residential Units	1 791	1 787	0%
Other supply (Not Siza Water)	7 600	7 600	0%

### 3.3 Total Commercial Statistics

	2014/2015	Per month	2015/2016	Per month
Complaints	1 643	136	2 359	197
Query on account	553	46	608	51
Unallocated Payments	207	17	258	22
Investigation for new connections	171	14	109	9
New connections installed	130	11	94	8
Transfers	249	21	332	28
Terminations	7	1	22	2
<b>Total</b>	<b>2 960</b>	<b>246</b>	<b>3 782</b>	<b>317</b>

*The Drought has resulted in an increase in complaints*

### 3.3.1 Nature of Complaints

Description	2014/2015	Per month	2015/2016	Per month
Damage to property	0	0	3	0.2
Faulty/broken meter	332	27.6	262	21.8
Reinstatement incomplete	31	2.5	51	4.2
Staff attitude	0	0	0	0
Water quality	22	1.8	61	5.0
Pressure query	53	4.4	81	6.7
No water	159	13.2	437	36.4
Sewerage odour	29	2.4	33	2.7
Other	0	0	0	0
Buried meter	2	0.1	1	0.08
Burst connection	74	6.1	160	13.3
Burst pipe (connection and main)	184	15.3	166	13.8
Damaged/vandalised meter	5	0.4	30	2.5
Damaged sewer manhole	12	1	11	0.9
Damaged sewer mains	21	1.7	12	1
Damaged valves	2	0.1	8	0.6
Dirty/discoloured water	40	3.3	11	0.9
Faulty standpipe	171	14.2	88	7.3
Leaking fire hydrant	4	0.3	7	0.5
Leaking meter	15	1.2	238	19.8
Leaking standpipe	9	0.7	185	15.4
Nkobongo pilot project	226	18.8	123	10.2
Shayamoya pilot project	62	5.1	168	14
Shakashead Pilot Project	5	0.4	81	6.7
Sewer blockages	163	13.5	223	18.5
<b>Total</b>	<b>1 621</b>	<b>135.0</b>	<b>2 359</b>	<b>196.5</b>

### 3.3.2 Key Indicators

Time To Respond In Calendar Days	2013/2014	2014/2015
Query on account	3	6
Technical report	7	9
Installation complete	7	9

## 4 OPERATIONAL STATISTICS AND INFORMATION

### 4.1 Potable Water Demand

#### Water Demand

- Bulk water delivered from Umgeni Water.
- Water consumption invoiced and water losses.

#### Water Losses

- Water leaks.
- Flushing of the lines after works.
- Water not invoiced (commercial losses).

Consumption Figures	2014/2015	2015/2016	Movement %
Water invoiced	3 820 244 m3	3 068 781 m3	-20%
Water Standpipe delivery	329 617 m3	268 313 m3	-19%
Total Water delivery	4 149 861 m3	3 337 094 m3	-20%
Average Daily demand	11 369 m3	9 143 m3	-20%
Peak Daily Demand	13 858 m3	12 026 m3	-13%
Min Daily Demand	9 736 m3	7 783 m3	-20%
Sewerage Invoiced	3 191 525 m3	2 500 717 m3	-22%
Water Loss as a percentage	14%	13%	-7%

### 4.2 Sewerage & Water Volumes

Consumption Figures		2014/2015		2015/2016		Movement %
Sewerage Invoiced	m3	3 191 525	m3	2 500 717	m3	-22%
Water Invoiced	m3	4 149 861	m3	3 337 094	m3	-20%

### 4.3 New Connections

New Connections Installed		2014/2015	2015/2016	Movement %
Water	U	79	53	-33%
Sewage	U	50	41	-18%

Technical Investigation For Connections		2014/2015	2015/2016	Movement %
Water	U	90	57	-37%
Sewage	U	83	52	-37%

## 4.4 Water Quality and Monitoring

Sembcorp Siza Water does not produce potable water but purchase a bulk supply from Umgeni Water. However, it is incumbent upon the company to ensure that all water supplied to their customers meets the requirements of the SANS 241 for potable water quality. The agreement with Umgeni Water details the parameters for drinking water quality and Umgeni water supply analysis results of treated water. Sembcorp Siza Water has initiated their own sampling and testing regime to ensure the continued quality of supply. Water is sampled and analysed daily. Whilst external sampling and Compliance Testing is done by Talbot & Talbot, we currently have our own Risk Based Monitoring and Operational Monitoring and Analysis in-house to ensure blue and green drop compliance at all times. Currently the Dolphin Coast System is Blue Drop Certified and the Water Quality is in compliance with SANS 241 and according to the 2014 Blue Drop Results we are the operate the Best Water System in South Africa.

### 4.4.1 Internal Water Quality Results

Water Quality	2014/2015	2015/2016	% Variance
Average Monthly Samples	13	50	385%
Compliance with Quality	98.70%	96.00%	- 2.7%

Increased sampling owing to borehole monitoring and recycling plant

(See Water Report – March 2016 in Annexure 3 for full details.)

In addition to the above, Umgeni Water is in constant communication with Siza Water with regards to the water quality results for the following points: -

Treatment plants	-	52	(Full analysis)
Avondale	-	52	(Full analysis)
Honolulu	-	12	(Full analysis)
Terminal	-	12	(Full analysis)

### 4.4.2 Umgeni Water Quality Results

Water Quality (Umgeni Water)	2014/2015	2015/2016	% Variance
Average Monthly Samples	9	9	0%
Compliance with Quality	97%	96%	1%

### 4.4.3 Internal Waste Water Quality Results

Waste Water Quality	2014/2015	2015/2016	% Variance
Average Monthly Samples	80	374	468%
Compliance with Quality	97%	96%	-1%

Increased sampling due to ensuring optimum process for recycling plant

#### 4.4.4. Waste Water Quality – Talbot & Talbot Reports

Compliance Monitoring Talbot & Talbot	2014/2015	2015/2016	% Variance
Total Monthly Samples	5	5	0%
Compliance with Quality	97%	95%	-2%

#### 4.4.5 Sembcorp Siza Water Quality Results

Compliance Monitoring Talbot & Talbot	2014/2015	2015/2016	% Variance
Total Monthly Samples	13	15	15%
Compliance with Quality	98%	95%	-3%

Decrease in quality due to higher turbidity from Umgeni Water, quality still meets SANS standards

## 5 MAINTENANCE

### 5.1 Record of Burst and Blocked Mains

Burst Pipes and Blockages	2014/2015	2015/2016	% Variance
Burst pipes Avg/Month	2.9	3.6	24%
Peak month	6	5	-17%
Average duration of interruption (hours)	5	5	0%
Total number of bursts	35	43	23%
Sewerage blockages Avg/Month	11	15	36%
Peak month (sewerage)	15	20	33%

### 5.2 General Maintenance

During the year Sembcorp Siza Water have updated a series of maintenance schedules for all installations including pump servicing, station cleaning, garden services etc. The following is a schedule of the regular maintenance undertaken during the last year of operation. Detailed schedules are available in the Sembcorp Siza Water offices.

#### 5.2.1 Water Infrastructure Maintenance

Location	Operation Undertaken			
	Instruction Procedure & Maintenance	Garden Services	Internal Reservoir Cleaning	Pump Service Maintenance
Avondale Pumping Station	√	x	√	√
Ballito Lea Reservoir	√	√	√	x
Chakas Rock Reservoir	√	√	x	x
Etete Reservoir	√	√	x	x
Shakashead Reservoir	√	√	x	x
Shakaskraal Reservoir	√	√	x	x
Shayamoya Reservoir	√	√	x	x
Sheffield Reservoir	√	√	√	x
Tinley Manor Reservoir	√	√	√	√
Taffeni Reservoir	√	√	x	√
Zimbali Reservoir	√	√	x	x
Nkobongo Reservoir	√	√	x	x
Honolulu Reservoir	√	x	x	√
Ballito Terminal	√	x	x	x

Reservoirs are scoured at least twice a year

## 5.2.2 Waste Water Infrastructure Maintenance

### Sanitation General Maintenance

Pump Station Name	Operation Undertaken											Comments
	Daily checking & readings	Service Pump (maintenance)	Process remedial works	Garden Services	Maintenance Procedure & Instruction	Motors Repairs	Hydraulic Repairs	Diesel Repairs	Valve or NRV repairs	Control Panel Repairs	Sump Cleaning	
Willard Beach	√	√		X	√	X	X	√	X	√	X	Replaced genset exhaust
Emberton Way	√	√		X	√	X	X	X	√	√	X	Installed new genset louver
Hawkins Road	√	√		X	√	X	X	X	√	√	√	X
Salmon Bay	√	√		X	√	X	X	√	X	√	√	Replaced genset battery
Ballito Library	√	√		X	√	X	X	X	√	X	√	Replaced level controller
Simbithi	√	√		√	√	√	√		√	√	√	Installed 4 new Flygt Pumps.
Pumping Station X	√	√		√	√	√	√	√	√	√	√	Replaced level controller & new Flygt Pump
Chakas Cove	√	√		X	√	X	√	√	√	√	√	Replaced genset battery
Martinique	√	√		X	√	X	√	√	X	√	√	Replaced genset battery
Salt Rock Life Guards	√	√		X	√	X	X	X	√	√	√	2 New VSD'S
Santorini	√	√		X	√	X	X	√	X	√	X	Controller for diesel pump replaced
Sheffield Beach Village	√	√		X	√	√	X	X	√	√	X	
Hugh Dent Drive	√	√		√	√	√	X	X	X	√	√	New Pump Station
Zimbali 1	√	√		X	√	X	X	X	√	X	X	
Zimbali 3	√	√		√	√	X	X	X	X	X	X	

Pump Station Name	Operation Undertaken											
	Daily checking & readings	Service Pump (maintenance)	Process remedial works	Garden Services	Maintenance Procedure & Instruction	Motors Repairs	Hydraulic Repairs	Diesel Repairs	Valve or NRV repairs	Control Panel Repairs	Sump Cleaning	Comments
Simbithi	√	√		√	√	X	√	√	√	√	√	Replaced two genset batteries
Thompsons Bay	√	√		X	√	X	X	√	√	√	√	1 New pump
Shakaskraal	√	√		√	√	√	X	X	X	X	√	
Lali Park	√	√		√	√	X	X	X	√	√	√	1 New Pump
Shakashead	√	√		√	√	X	√	X	√	√	√	
Extension 3	√	√		√	√	X	√	√	√	√	√	1 New Flygt Pump
Compensation	√	√		√	√	X	X	X	X	√	√	
Area D SPS	√	√		√	√	X	X	X	X	X	√	Replaced level controller
Lakes SPS	√	√		√	√	X	X	√	X	X	√	New smaller Genset
Woodmead 1	√	√		√	√	X	X	X	X	X	X	
Woodmead 2	√	√		√	√	X	X	X	X	√	√	Replaced level controller
Shakaskraal WWTW	√	√	√	√	√	√	X	X	√	√	√	Replaced two genset batteries. Repair 1x Raw Sewer and 1x RAS pump
Frasers WWTW	√	√	√	√	√	√	√	X	√	√	√	Repair Grit removal, 1 x RAS Pump
Sheffield WWTW	√	√	√	√	√	X	X	X	X	√	X	

## 6 INVESTMENT PROGRAM

### 6.1 *Summary of Investments*

In 2015, most of our capex was reprioritised for drought interventions. We also highlighted that our investment program would need altering owing to the drought in our 5 Year Review document that has since been approved and adopted by Council. Should we be reimbursed for the measures we have undertaken we will then have the cash flow to support the proposed capex per our 5 Year Review submission.

### 6.2 *Key Water Projects Undertaken or Completed*

- 4162 Upgrade of 450m of 110mm Upvc water mains to the Anglican Church, Umhlali – **Completed**
- 4163 Drought Implementation Measures - **Ongoing**
- 4164 Upgrade of 180m of 110mm Upvc water mains in Sandra Road, Ballito – **Completed**
- 4165 Installation of 305m of 160mm Upvc water mains in Zimbali, – **Completed**
- 4166 Install PRV in Hewitt Road, Salt Rock – **Completed**
- 4167 Upgrade of 450m of 110mm Upvc water mains in Shakashead Phase 2 – **Completed**
- 4168 Installation of 3MG RO & UF Plants and other Modifications for the Provision of recycled water - **Ongoing**

### 6.3 *Key Waste Water Projects Undertaken or Completed*

- 7154 Installation of 1100m of 315mm sewer rising mains and upgrade of Hugh Dent SPS – **Ongoing**
- 7156 Installation of Flygt Pumps and VSD's at Simbithi SPS – **Completed**
- 7157 Upgrade of Balancing Tanks and RAS Sump – Frazers WWTW – **Completed**
- 7158 Extension of Frazers WWTW Workshop - **Ongoing**
- 7159 Installation of 160m of 160mm UPVC Class 34 sewer Gravity main in Santorini, Ballito – **Completed**
- 7160 New Fence and Alarm System for Sheffield RMU Station, Sheffield Beach – **Completed**
- 7161 Upgrade to access road for Chakas Cove SPS – **Completed**
- 7162 Installation of Gensets and VSD's at The Village SPS and Shakashead SPS – **Ongoing**
- 7163 Installation of Odour Control Unit in Lagoon Drive, Salt Rock - **Completed**

## 6.4 Investment Schedule for the Financial Year at 31 December 2015

**NB! ALL FIGURES IN THOUSANDS (000'S)**

Unit KRd Excl. VAT	2010	2011	2012	2013	2014	2015	TOTAL
Extension and Upgrading (water)	6 083	4 560	10 306	9 899	6 829	15 316	52 992
Renewal and Refurbishment (water)	245	1 421	63	-	1 226	-	2 954
Renewal of meters	70	381	380	366	22	262	-
Fire Hydrants	21	1	1	11	-	-	-
<b>Total Water</b>	<b>6 418</b>	<b>6 362</b>	<b>10 750</b>	<b>10 276</b>	<b>8 077</b>	<b>15 578</b>	<b>57 461</b>
Renewal and Refurbishment sewage	258	277	-	17	2 326	69	2 947
Extension and Upgrading sewage	6 868	13 182	9 305	3 526	6 611	9 737	49 229
<b>Total Sewage</b>	<b>7 145</b>	<b>13 460</b>	<b>9 305</b>	<b>3 543</b>	<b>8 937</b>	<b>9 806</b>	<b>52 196</b>
General Study	-	-	-	6	270	-	-
<b>Total Investment on Works</b>	<b>13 563</b>	<b>19 822</b>	<b>20 055</b>	<b>13 825</b>	<b>17 284</b>	<b>25 384</b>	<b>109 658</b>

**ANNEXURE 1 :      Organisational Chart - March 2016**



**ANNEXURE 2 : Customer Services Stats/Report - March 2016**



**CUSTOMER SERVICE MONTHLY REPORT**

**MARCH 2016**



## 1. Water Service Delivery Information

Water Service Delivery	Jan-16			Feb-16			Mar-16			
	Units	People/ Unit	Est. Pop	Units	People/ Unit	Est. Pop	Units	People/ Unit	Est. Pop	% Growth
Metered Residential Units	12,676	2.65	33,591	12,726	2.65	33,724	12,731	2.65	33,737	0.04%
Metered Non Residential Units	1,944		-	1,950		-	1,960			
Vacant Lots	685		-	678		-	679			
Standpipe Delivery	6,267	5	31,335	6,267	5	31,335	6,267	5	31,335	0.00%
Yard Connections Delivery	933	5	4,665	933	5	4,665	933	5	4,665	0.00%
<b>Estimated Population Served</b>	<b>22,505</b>		<b>69,591</b>	<b>22,554</b>		<b>69,724</b>	<b>22,570</b>		<b>69,737</b>	<b>0.02%</b>

### Comments:

- ✚ Metered Residential Units - Increase resulting from update of multiple units.
- ✚ Overall estimated population increased by 0.02% due to increased number of residential units.

### 1.1 Top 20 Consumers

TOP 20 CONSUMERS				
NAME	Average	Needed Consumption	Actual Consumption	% Achieved
Simbithi	38,273	19,136	19,408	-49%
Seaward Estates	13,427	6,713	10,914	-19%
Brettenwood	9,599	4,800	4,603	-52%
Lifestyle Centre	4,874	3,412	5,065	4%
Dunkirk Estates	7,210	3,605	4,519	-37%
Body Corp La Montagne	4,656	3,259	3,003	-35%
Fairmont Zimbali	3,917	2,742	3,943	1%
Pioneer Foods Pty LTD	5,725	4,007	3,367	-41%
Great Force Inv.14 Pty LTD	3,737	1,869	2,702	-28%
Santorini Home Owners Ass.	2,335	1,168	1,762	-25%
Body Corp Barrington Close	1,793	896	1,202	-33%
Ballito Gardens	2,281	1,141	1,158	-49%
Ballito Junction Pty LTD	1,765	1,236	1,991	13%
Alberlito Hospital	2,017	1,412	1,815	-10%
Sheffield Cove Home Owners Ass.	1,635	818	1,509	-8%
Boxers Superstore Pty LTD	1,691	1,184	2,498	48%
Brainwave Projects 1147 CC	1,430	1,001	1,576	10%
Chakas Rock Chalets	1,328	664	1,447	9%
Southern Fresh Foods (Tiffanys)	1,064	745	1,340	26%
Bogmore Home Owners Ass.	2,634	1,317	1,358	-48%
<b>TOTAL</b>	<b>111,391</b>	<b>61,123</b>	<b>75,180</b>	<b>-33%</b>



### Comments:

- ✚ Investigation confirmed an illegal use of water at Brainwave Projects. Water connection is feeding 3 sites (Farm, Ebandla Hotel and house). Customer to obtain approval from neighbouring properties for Sembcorp Siza Water to extend water servitude. PMU will have to include as project once neighbours approval is granted to customer.

## 1.2 Summary Consumption per Ward

SUMMARY CONSUMPTION PER WARD							
Ward	Area	Target	Dec-15	Jan-16	Feb-16	Mar-16	% Achieved
4	S/HEAD - SAWMILLS,BINGO FARM,SHAKASHEAD	5,499	8,974	9,575	8,981	9,067	-18%
6	Ballito,Zimbali	183,858	105,993	192,678	134,554	112,127	-39%
7,20	Etete	5,257	3,848	5,689	4,382	4,407	-16%
8	Nkobongo	913	509	586	904	777	-15%
11	Tinley Manor	4,770	2,615	6,053	3,156	2,760	-42%
22	S/Kraal,Umhlali,Foxhill, Sheffield,S/Rock	106,892	83,815	135,237	96,341	93,136	-39%
7/20/23/22/8/4	Standpipes/Yard Connections	18,985	21,134	28,057	25,202	18,508	-32%

### Comments:

- ✚ Current savings required is 50% Domestic and 30% Commercial

## 2. Billing

### 2.1 Meter Reading

- Meter reading commenced **9 March 2016** and ended on **20 March 2016**. Average days read = **29**.
- Total discrepancy = **1,06%** due to properties with no readings. Resulting from meter closed/Vacant Property/meter not in use.



## 2.2 Summary of Billing Stats – (rounded 1000) Incl.vat (excl. adjustments)

Summary of Billing Stats		Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
<b>Total Actual Income</b>	Rk	R 7,968.04	R 7,985.65	R 7,652.68	R 10,447.29	R 8,558.55	R 8,020.16
<b>Total Budgeted Income</b>	<b>Rk</b>	<b>R 9,338.49</b>	<b>R 9,123.82</b>	<b>R 9,220.01</b>	<b>R 11,173.08</b>	<b>R 9,575.80</b>	<b>R 9,226.87</b>
Variance		<b>-R 1,370.45</b>	<b>-R 1,138.17</b>	<b>-R 1,567.33</b>	<b>-R 725.79</b>	<b>-R 1,017.25</b>	<b>-R 1,206.71</b>
<b>Total Water cons</b>	M3	248,012	245,336	227,713	377,960	273,744	241,830
<b>Budgeted Consumption</b>	<b>M3</b>	<b>357,728</b>	<b>356,219</b>	<b>362,157</b>	<b>422,866</b>	<b>316,737</b>	<b>293,057</b>
Variance		<b>-109,716</b>	<b>-110,883</b>	<b>-134,444</b>	<b>-44,906</b>	<b>-42,993</b>	<b>-51,227</b>
% Variance		-31%	-31%	-37%	-11%	-14%	-17%
<b>AVG Reading Days</b>	<b>Days</b>	<b>29</b>	<b>29</b>	<b>27</b>	<b>39</b>	<b>29</b>	<b>29</b>

### Comments:

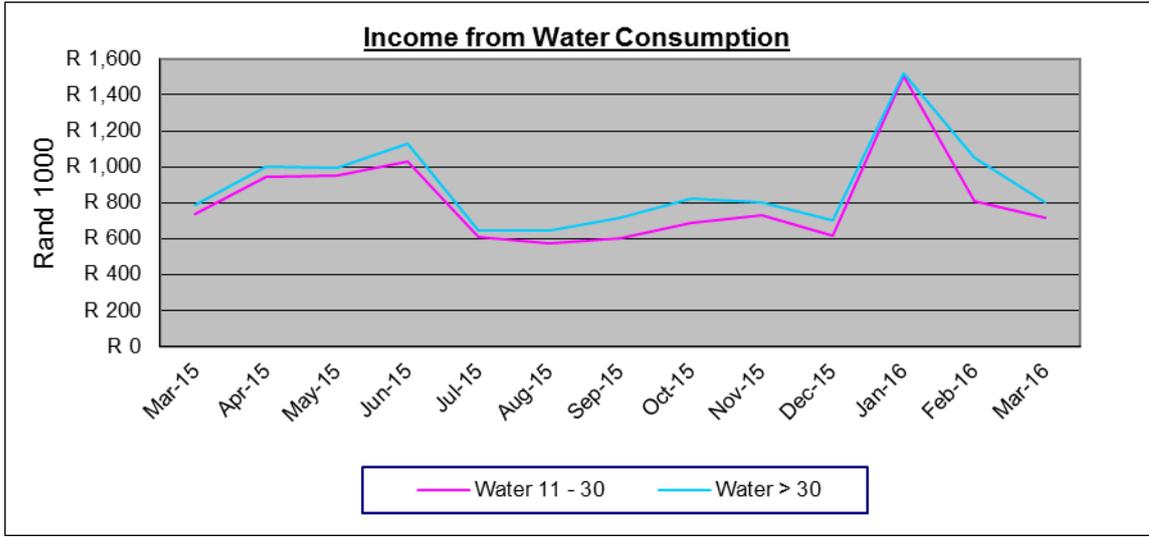
#### Water Sales volume

- Month Var. = **538.39 kl (-6%)**, against February 2016.
- Actual/Budget = **51,227 kl (-17%)**. Water restrictions impacted consumption.

## 2.3 Batch Summary – (rounded 1000) Incl.vat (excl. adjustments)

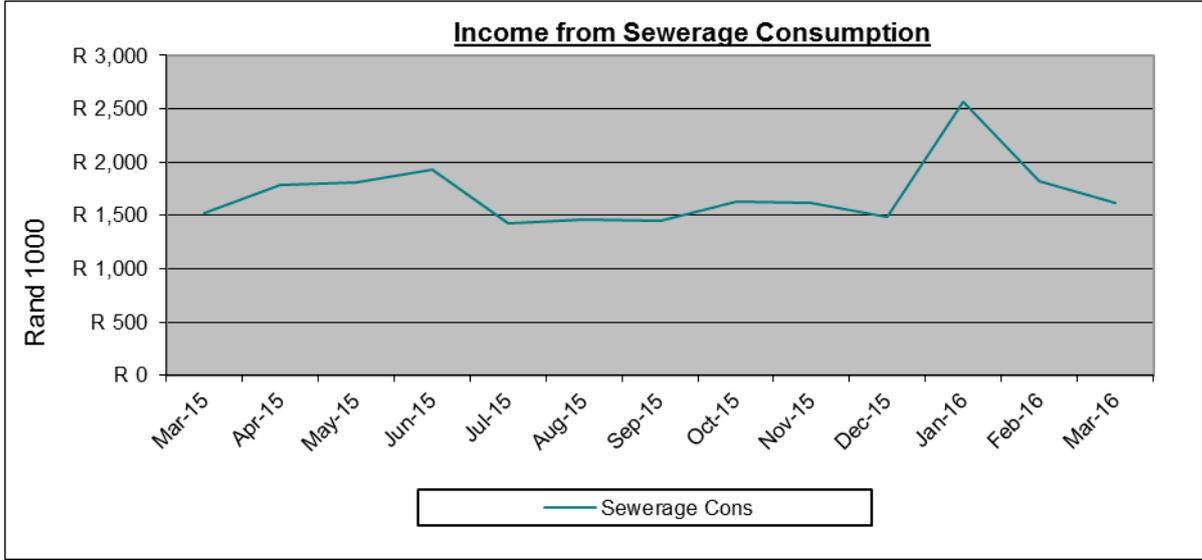
Group	Value incl. vat	Invoices	Consumption (KL)
Billing Invoices (01)	R 8,020.16	5,306	223,322
Sundry Invoices (02)	R 144.35	210	-
Standpipes (98)	R 186.69	1	18,508
<b>Total</b>	<b>R 8,351.20</b>	<b>5,517</b>	<b>241,830</b>





**Comments:**

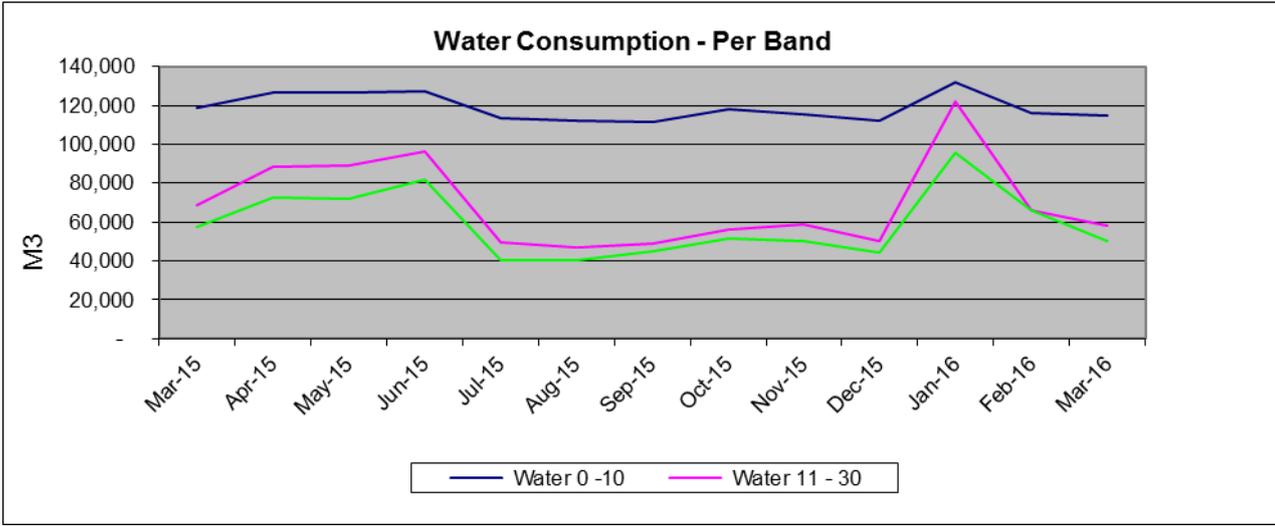
📉 6% decrease in income compared to last month.



**Comments:**

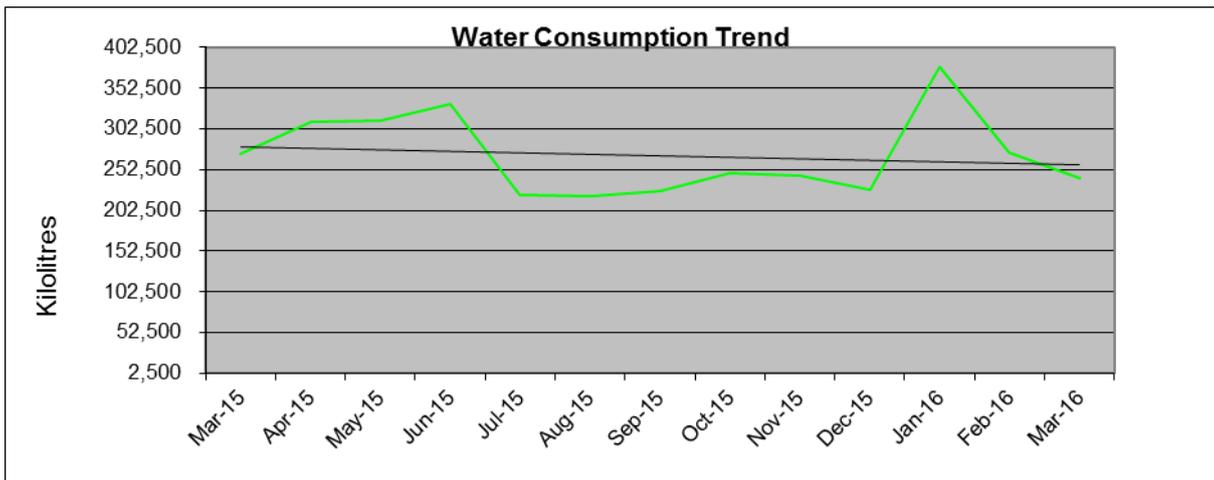
📉 4% Decrease in income compared to last month.





**Comments:**

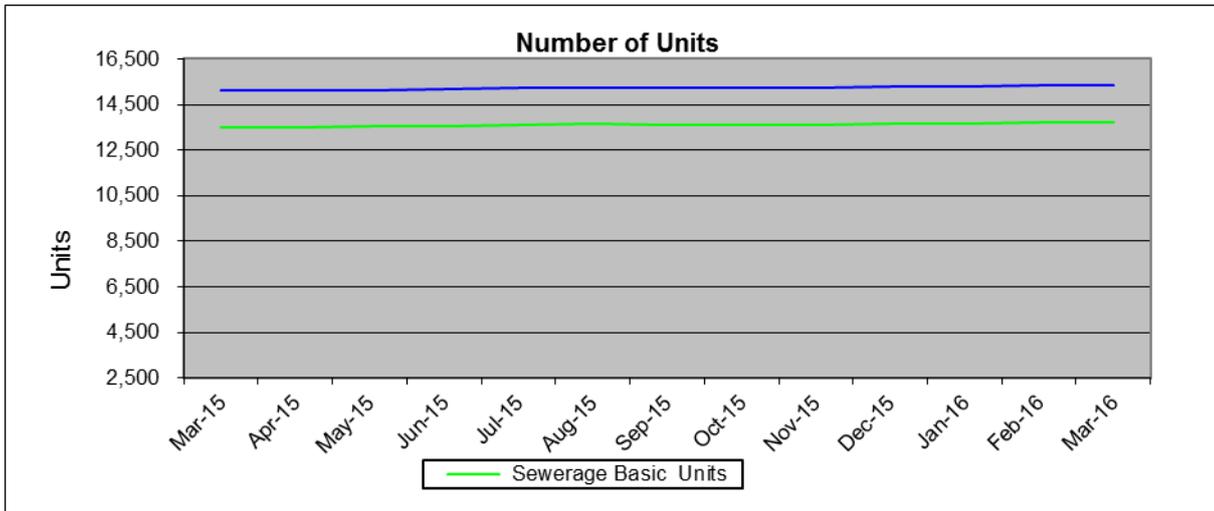
📉 Overall decrease in consumption in all bands compared to last month.



**Comments:**

📉 Decrease of **11%** compared to last year March 2015 consumption.





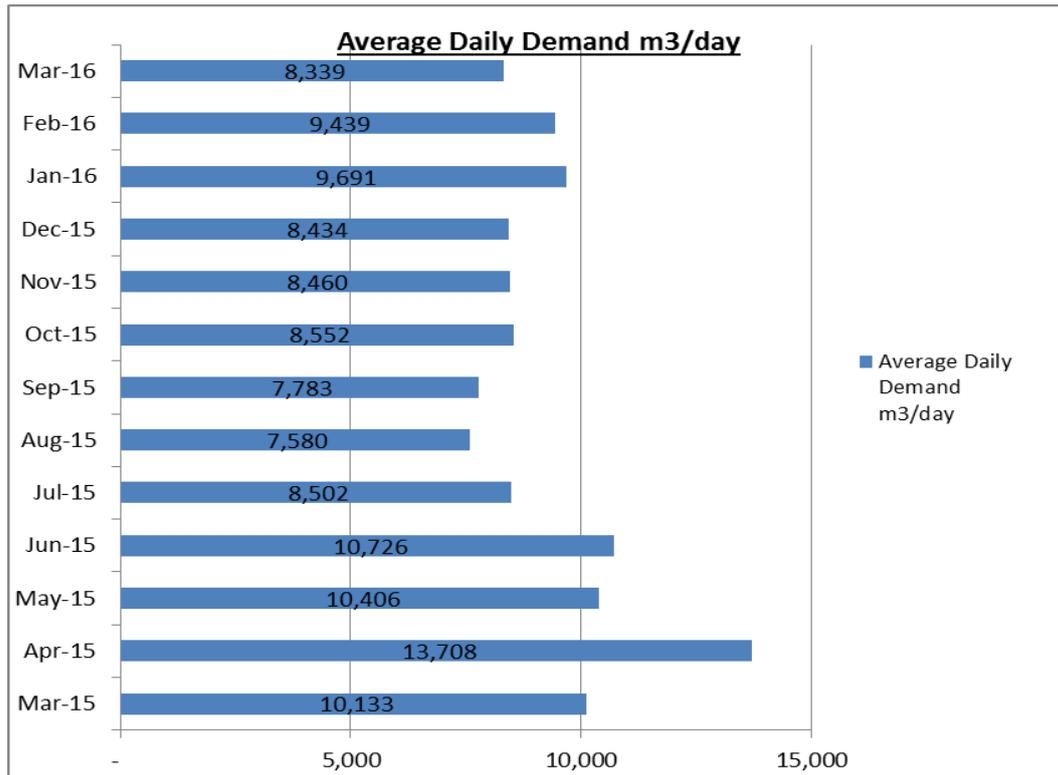
**Comments**

**Total Number Units**

- Overall increase of 16 units. Termination of accounts (-2), Vacant land account (+1) and additional units updated below,
  - Manor Estate (+10)
  - Brettenwood (+4)
  - Tongaat Hulett (+3)



**2.4 Average Daily Demand**



**Comments:**

- Daily Demand = **8,339 m3/day**, decrease in consumption compared to last month. Water restrictions affect daily consumption.

**3. Commercial Statistics**

Details	2015 Avg.	2016 Avg.	Jan-16	Feb-16	Mar-16
Query On account	48	51	44	49	60
Payment not allocated to Debtors account	24	6	8	2	9
Investigation for new connections	11	9	6	5	15
Installations Complete- <b>Residential</b> (water & sewer)	5	5	4	14	2
Installations Complete- <b>Commercial</b> (water & sewer)	4	0	1	0	0
Terminations (no new account)	1	2	1	3	2

**Comments:**

- Termination no new accounts resulted from consumers connected to yard connections in Shakashead.
- Installations for new connections are minimal, slow development



**Key Indicators (Time to respond in calendar days)**

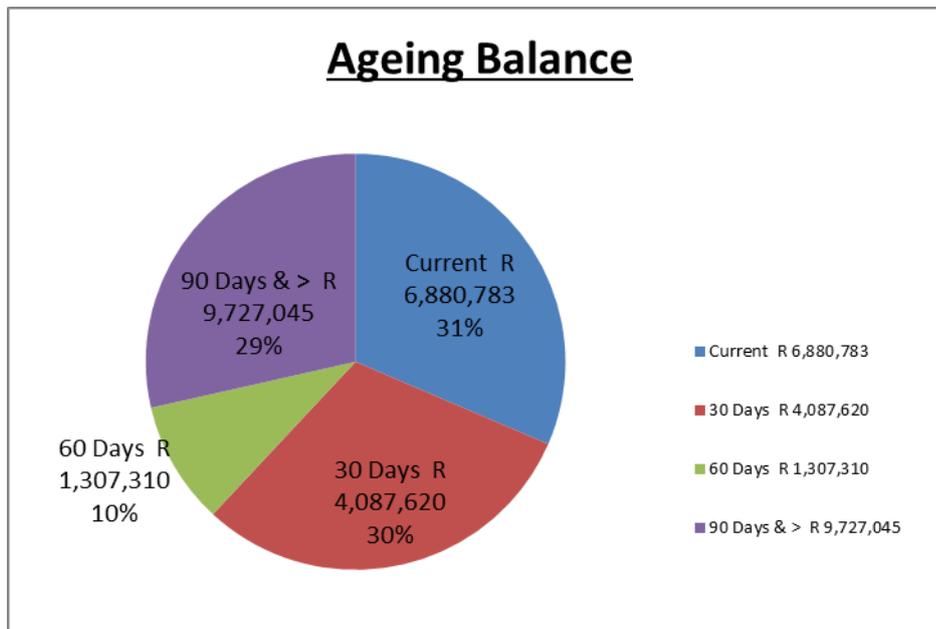
Key indicators In days	Target no.days	2015 Avg.	2016 Avg.	Jan-16	Feb-16	Mar-16	No over the limit
Query On acc	10	6	4	4	4	5	0
Technical report	10	8	10	10	10	10	1
Installation complete	10 with exceptions	9	9	9	9	8	0

**Comments:**

- ✚ Investigations –exceeding time frame as per below,
  - Application no. 1/465 – Maharaj D – ERF 865 Etete Portion 99 – awaiting customer to empty septic tank.
- ✚ Installations – None Exceeded time frame.
- ✚ Ebandla Hotel Application: Illegal connection. Customer to obtain approval from neighbours for Sembcorp Siza Water to extend servitude for water services.

**4. Debt Stats**

**4.1 Ageing Analysis at 29/03/2016 (GL Batch No 82)**



**Comments:**

- + Aged Debt 1 year > increased by 18% compared to March 2015. We are awaiting approximately R2.3m from Ilembe for settlement of account and R400K due to no Tax Clearance Certificate to submit to consumers to initiate payment. Expect to receive payment first week of April 2016 from Ilembe District Municipality.
- + Debtor Collection Period (Debtors Balance / Annual Billed Income) x 365 days = 79 Days.

**4.2 Table of Top 20 Aged Debt**

<b>Top 20 Debtors</b>				
<b>Account No.</b>	<b>Name</b>	<b>Statement Overdue Amt.</b>	<b>Category</b>	<b>Comment</b>
200016	ILEMBE DISTRICT MUNICIPALITY	R 2,028,330	Sundry	Expecting payment within the first week April 2016
1005633	ILEMBE DISTRICT MUNICIPALITY	R 273,400	Sundry	Expecting payment within the first week April 2017
105594	KWADUKUZA MUNICIPALITY	R 233,140	Commercial	Awaiting tax clearance certificate from Herman (ssw)
102136	AMBER MOUNTAIN INV.64 (PTY) LTD	R 225,862	Commercial	Handed over to attorneys, awaiting sale of property. To follow up in April 2016
1005958	EM & EM ENGINEERING	R 203,918	Commercial	Response provided to customer attorney. Will schedule restriction of water supply in April 2016
106966	UMHLALI POLICE STATION	R 156,144	Commercial	Awaiting tax clearance certificate from Herman (ssw)
101338	BRAINWAVE PROJECTS 1147 CC	R 116,389	Commercial	Identified an illegal connection, feeding neighbouring property. Water supply to be restricted in April 2016
102361	GEARWISE PROPERTIES CC.(H/O)	R 81,759	Commercial	Closed account, to be handed over to attorneys
106994	MAHARAJ T G	R 80,458	Domestic	No consumption. File to be handed over
103589	KWADUKUZA MUNICIPALITY	R 76,699	Commercial	Awaiting tax clearance certificate from Herman (ssw)
105200	NAICKER ARUMUGAM (H/O)	R 74,735	Vacant	Handed over to attorneys
1005912	Boxers Super Stores	R 71,305	Commercial	Expecting payment early April 2016
104332	ELSTERK PROP ATT A.HAVENGA(H/O)	R 71,007	Vacant	To be handed over to attorneys
101057	BODY CORP SILVERLEAF	R 66,111	Domestic	Debt rescheduling agreement not signed. Account to be handed over
107084	DUGUZA PROPERTIES(H/O)	R 61,132	Domestic	To be handed over to attorneys
105811	ROOPSINGH & SONS	R 59,380	Commercial	Handed over to attorneys
105790	BRIJLALL B D T(H/O)	R 59,272	Vacant	Handed over to attorneys
106103	KOMRIE SUGAR ESTATES CC	R 59,014	Vacant	Handed over to attorneys
101217	GABRIEL A(H/O)	R 58,996	Vacant	Handed over to attorneys
104390	AVONDALE EST BALLITO (PTY)	R 58,558	Vacant	To be handed over to attorneys
	<b>TOTAL</b>	<b>R 4,115,609</b>		

**Comments:**

- ✚ We have engaged the services of Wiesinger O'Dwyer attorneys for recovery of aged debt, 20 Debtors handed over.
- ✚ We are awaiting approx. R2.3m from Ilembe for settlement of account and R400K due to no Tax Clearance Certificate to submit to consumers to initiate payment. Ilembe expected to make payment with the first week of April 2016.
- ✚ Gearwise Properties cc – is a terminated account which was transferred from developer to Sun & Surf Body Corporate. Account was terminated on 4 November 2013, prescription period is February 2016 to March 2013. Account to be handed over to attorneys.

#### 4.3 Debt Rescheduling Agreements

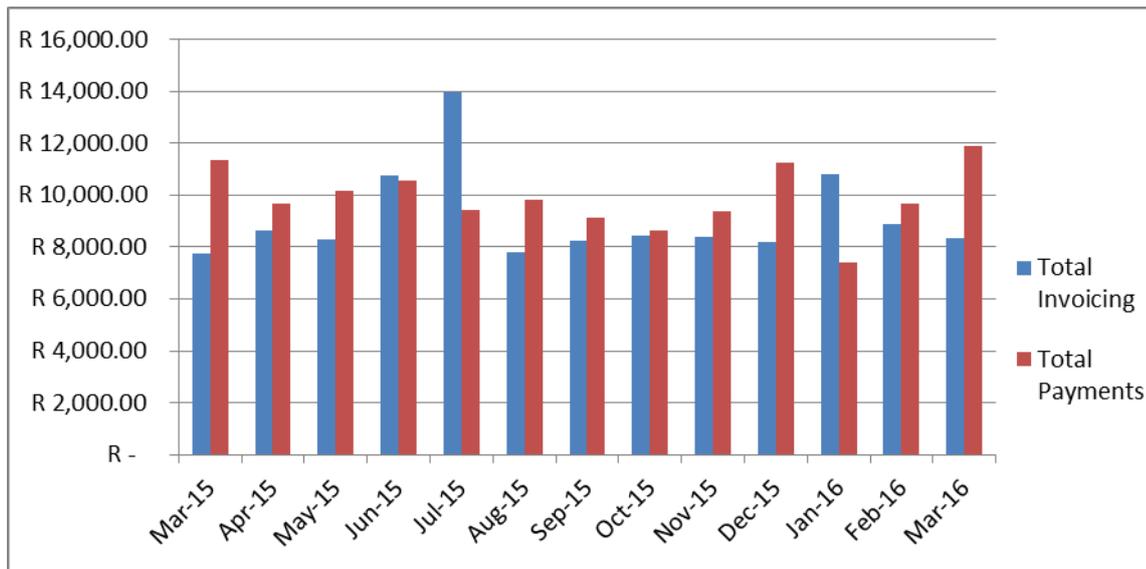
All Debt Rescheduling Agreements generated from 2015/04/01						
Account	Name	Effective Date	Agreement Status	Expiry Date	Amount	Comments
100628	YOKO TN	2016/01/15	Active	2016/01/26	R 28,519.49	Paid
100642	REDDI N (IMPULSE CURRY REST.)	2015/11/24	Active	2015/12/10	R 25,923.21	Paid
100924	SCHMIDT LOFFLER P	2016/01/06	Active	2016/01/15	R 43,281.01	4 months remaining
101057	BODY CORP SILVERLEAF	2016/03/01	Active	2016/03/08	R 106,494.00	No Agreement
101338	BRAINWAVE PROJECTS 1147 CC	2016/03/10	Active	2016/03/17	R 149,459.27	No Agreement
101760	GOVENDER N & M	2016/02/11	Active	2016/02/18	R 48,368.53	8 months remaining
102167	APPALSAMY FAMILY TRUST	2016/02/18	Active	2016/02/25	R 9,158.53	No Agreement
102464	NAIDOO A	2015/11/16	Active	2015/11/24	R 17,061.22	Instalment complete
104455	SHERIFF S	2015/12/17	Active	2015/12/25	R 2,669.78	Instalment complete
104742	HADEBE S P	2015/11/18	Closed	2015/11/26	R 3,146.57	breach of contract
105330	RAMDAYAL	2016/03/24	Closed	2016/03/31	R 3,039.67	New Agreement
106079	BHOWAN S ACTION BAR	2016/02/11	Closed	2016/03/05	R 10,158.29	Edams Error, customer debited in 01/02/2016 incorrectly. Should commence 01/03/2016
106087	PERUMALA & R G	2015/12/11	Closed	2015/12/21	R 17,324.82	Edams Error, customer installment commenced 01/11/2015 incorrectly instead of 01/01/2016 .
106106	SHAKASKRAAL PRIMARY SCHOOL	2016/02/23	Closed	2016/03/11	R 22,723.34	2 months installment
106132	MASEKO M A	2016/02/10	Closed	2016/02/18	R 7,599.33	3 month installment
1005340	MARIMUTHOO	2015/05/08	Expired	2015/06/10	R 4,601.94	Settled
1007477	FIRE KING	2016/02/22	Expired	2016/02/29	R 5,603.99	expired.
8004762	PHILLIPS	2015/11/20	Expired	2015/12/07	R 17,508.41	2 months remaining
8005359	GUMEDE	2015/11/24	Expired	2015/12/07	R 20,177.92	installment complete. Breach of contract
<b>19</b>	<b>Total</b>				<b>R 542,819.32</b>	

#### Comments:



- ✚ We have a Total of 19 Debtors on debt rescheduling. 5 Debtors have settled their agreement.
- ✚ 5 Debtors agreement still in place and payment received timeously.
- ✚ 4 Debtors have not paid the immediate payment, agreement to be deleted. Water to be restricted and account to be handed over.
- ✚ 2 Debt rescheduling agreement commenced on the incorrect dates, EDAMS to correct.

#### 4.4 Total Payments/Invoicing



#### Comments:

- ✚ Total payments received for March 2016 is **R11.8m**. An increase of **R2.2M** compared to last month.

#### 4.3 Action taken for non-payment as per Restriction procedures "Customer Rules"

(Customers are encouraged to contact office for settlement of arrears)

- ❖ Reminder Letters are issued 2 weeks after the due date for payment.
- ❖ Restriction of water supply is processed one month after due date, in the event of payment still not forthcoming.
- ❖ Accounts handed over for collections.
- ❖ Bad Debts written off.



Details	2015 Avg	2016 Avg	Dec-15	Jan-16	Feb-16	Mar-16
ITC Letters issued	543	955	790	976	1014	1000
Recovery of I.T.C Letters	265	397	338	380	410	400
% Recovery of ITC Letters	49%	42%	43%	39%	40%	46%
I.T.C Black listing	3	0	0	0	0	0
ITC Collections	R 71,661	R 217,463	R0	R 652,389	R0	R0
Restricted Flow	56	89	59	77	115	74
Reconnections	36	43	37	43	45	40
Instalment Plan Updated	1	3	2	2	4	4
Bad Debt Recovered	0	0	0	0	0	R0
Bad Debt Write Off	R 39,646	R 0	R108.867	R0	R0	R0

#### 4.4 ITC Collection

ITC COLLECTION FEEDBACK	2015 Total No.	2016 Total No.	Jan-16	Feb-16	Mar-16
Awaiting Client feedback	0	0		R -	R -
Payment Arrangement in place	8	6		R 110,698	R 74,295
Trace unsuccessful, possible handback	45	6		R 819,351	R 48,842
Tracing required	0	0		R 5,224	R -
Work in progress	3	0		R 8,739	R -
<b>TOTAL</b>	<b>56</b>	12	<b>Not available</b>	<b>R 944,013</b>	R 123,137

#### Comments:

- ✚ Files were returned, trace was unsuccessful. Only 12 debtor files remaining with ITC.
- ✚ ITC reminder notices issued together with SMS.
- ✚ Files are being handed over to Weisinger O'Dwyer attorneys.



## 5. Payment Methods

Payment method	2012	2013	2014	2015
Cash	5%	5%	5%	5%
Cheques	5%	5%	4%	1%
Direct deposit	90%	90%	91%	94%

### Comments

✚ Total payments received for the billing period = R11.8m

## 6. Customer Illegal Connections

### 6.1 Water

❖ Identified 1 Illegal connections. (Shakaskraal)

### 6.2 Sewerage

❖ None

## 7. Pre-Paid Figures.

<b>Summary of Consumption</b>			
	Jan-16	Feb-16	Mar-16
Sold (kl)	17	24	60
Metered (kl)	28,074	25,202	18,508
<b>Difference to invoice IDM</b>	<b>28,057</b>	<b>25,178</b>	<b>18,448</b>

<b>Summary of Prepaid Water Sales</b>			
	Jan -2016	Feb -2016	Mar -2016
Water Sales	R130	R190	R470
Connection Sales	R 3,360	R5,497	R6,347
Token Fee Sales	R143	R0	R0



**Summary Prepaid Payments  
from inception**

	Jan-2016	Feb-2016	Mar-2016
Total No. Full Payment Received	606	612	619
Total No. Partial payment received	24	24	24
Total Payments Outstanding	303	297	290
<b>Total Connections</b>	<b>933</b>	<b>933</b>	<b>933</b>

**Pilot Project Connections – status per project of take-up.**

Area	Connections Available Since	No. of Available Connections	No. of Connections Completed	% Completed
Nkobongo Phase - 1	30-Sep-12	150	125	83%
Nkobongo Phase - 2	04-Mar-13	98	74	76%
Shayamoya Phase - 1	04-Mar-13	100	88	88%
Shayamoya Phase - 2	25-Mar-14	255	142	56%
Shakashead	13-Feb-15	330	190	58%
<b>TOTAL</b>		<b>933</b>	<b>619</b>	<b>66%</b>

**Comments:**

- ✚ Billing Agent processed monthly invoices to Ilembe District Municipality (Acc. 0200016). **Account in arrears**, awaiting payment of approximately R2.3m.
- ✚ Total connections 933 incorporating Shakashead as per stats received from Contractor. Overall 66% of connections are completed.



## 8. Profit Improvement Plan

Profit Improvement plan	Action	Target	Jan-2016	Feb-2016	Mar-2016
<b>Increase Income</b>					
Cut off and Penalty on Arrears	Sane	120 p.a	R 27,631	R 90,734	R 50,428
Accumulative Improve completeness of data base (Basic Charges)	Kogie		R 4,133	R 21,008	R 26,519
Accumulative Number of Additional Units per annum		27 p.m	12	61	77
Number of Additional units			12	49	16
<b>Budgeted Units</b>			<b>27</b>	<b>27</b>	<b>27</b>
<b>Reduction in costs</b>					
Bad Debts reduction due to stricter controls	Sane	15% recovery p.a.	R 29,712	R 5,050	R 14,200
<b>ADDITIONAL INITIATIVES NOT CONSIDERED ABOVE</b>					
	Action	Date of action			
To create accounts not invoiced as per Registered Properties	Jessie	Nov-13			
Charge out Illegal Connections	Kogie	Aug-13			
Reducing printing cost due to bulk emailing	Kogie	14-Feb			

### Comments:

- ✚ Debt greater R1000 was restricted. Investigating possibility of performing restriction for debt less than R1000 whilst reading.
- ✚ Increase of 16 units, accumulative of 77 units due to development. Below budget of 4 units.
- ✚ Recovered 14,200 towards aged debt from ITC and debtors clerk attempts.

## 9. Customer Satisfaction Survey Results

Customer Survey Summary	Jan-16	Feb-16	Mar-16
Friendly Smile	100%	100%	100%
Helpful and Professional	100%	100%	100%
Efficiently and Appropriately	100%	100%	100%
Need and Expectations met	100%	100%	100%
Total Satisfaction Results	<b>2</b>	<b>4</b>	<b>4</b>

### Comments:

- ✚ Feedback survey results are minimal. Investigating an upgrade of current software.



**ANNEXURE 3 : Water Technical Report - March 2016**



# Technical Report

## March 2016

### Water

# Monthly Technical Report for Water - March 2016

## Maintenance

Pipework		2016 Total	Last 12 Mnths	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Burst Water Mains	u	8	42	2	4	3	8	2	3	9	1	2	1	4	3
Burst Water connections	u	44	117	12	9	0	8	5	4	12	9	14	12	15	17
Total bursts	u	52	159	14	13	3	16	7	7	21	10	16	13	19	20

### Clarification

There were three burst mains took place in the month of March 2016.1 x 40mm HDPE damaged by consumer & 2 x 75mm AC due to high pressure,These were investigated and pressure dropped from the PRV.Only one damage was charged for.

Leaks		2016 Total	Last 12 Mnths	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Leaking Water Mains	u	13	45	2	5	3	2	4	3	0	1	12	2	5	6
Leaking Water connections	u	59	156	9	6	9	6	7	12	12	25	11	23	24	12
Leaking water meters	u	31	95	4	4	14	18	9	8	0	4	3	8	13	10
Total leaks	u	103	296	15	15	26	26	20	23	12	30	26	33	42	28

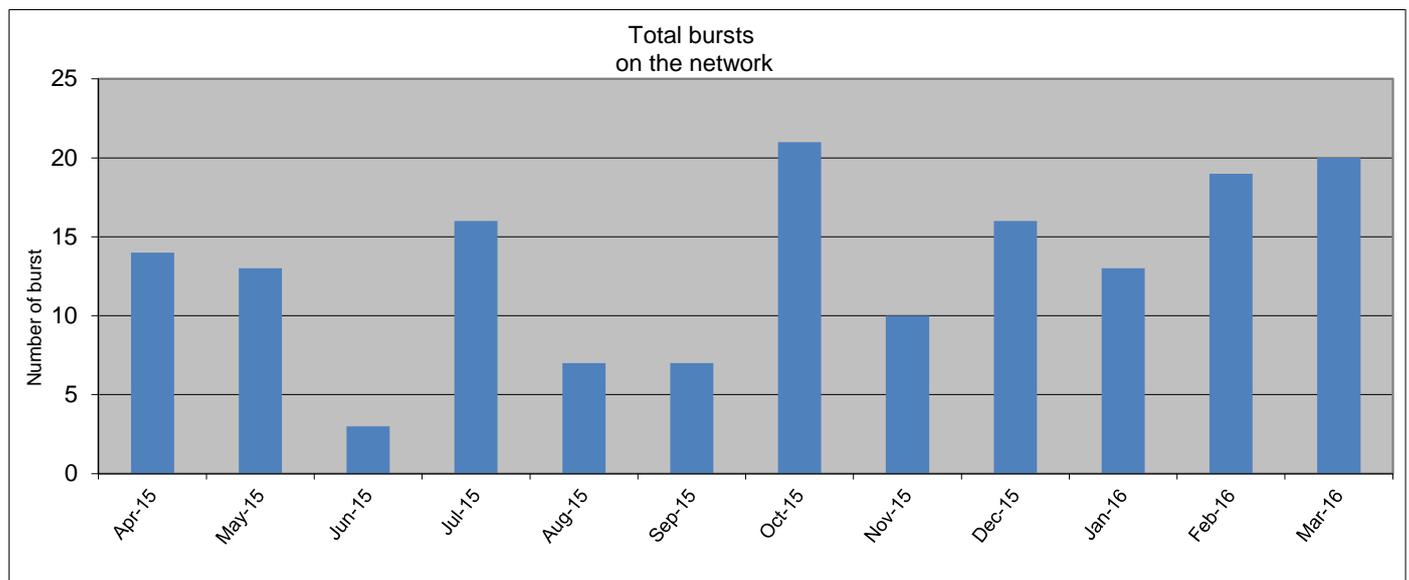
### Clarification

Most of leaks experienced were due to seasonal change,and also damages by consumers when trenching.

Network Maintenance		2016 Total	Last 12 Mnths	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Total Length of pipe (Km)	Km	807	3 228	269	269	269	269	269	269	269	269	269	269	269	269
Length of pipe inspected (Km)	Km	16	48	4.2	3.9	0.9	4.8	2.1	2.1	6.3	3.0	4.8	3.9	5.7	6.0
% Of Pipe Serviced	%	6%	15%	2%	1%	0%	2%	1%	1%	2%	1%	2%	1%	2%	2%

## Water interruptions

Duration of water interruptions		2016 Total	Last 12 Mnths	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
0 - 3 Hours	u	2	14	1	0	4	1	2	1	1	1	1	0	1	1
3 - 6 Hours	u	3	25	1	4	1	5	1	2	7	1	0	0	3	0
6 - 12 Hours	u	3	16	0	4	1	4	1	1	1	0	1	1	0	2
12 Hours Over	u	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total interruption's	u	8	55	2	8	6	10	4	4	9	2	2	1	4	3
Average duration of non supply	Hrs	18	5	1	7	2	6	2	3	5	2	5	9	3	6



Comments : The bursts were 40mm HDPE damaged by consumer,2 x 75mm AC damaged due to high pressure, These resulted 3 x interruptions and about 70 consumers were affected.

Meter changes (10% per Year)		2016 Total	Last 12 Mnths	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Meter Raised	u	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meter Relocated	u	12	25	2	0	3	0	5	0	0	2	1	1	3	8
Meter Changed*	u	53	246	8	26	24	25	26	13	21	23	27	23	15	15
Meter Stolen & Replaced	u	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	u	65	271	10	26	27	25	31	13	21	25	28	24	18	23

### Electricity usage

Pump station consumptions (Kw)		2016 Total	Last 12 Mnths	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Avondale	Kw	16309	67664	6013	6627	5319	6998	5001	4681	5532	4818	6366	5103	6396	4810
Tinley Manor X 10	Kw	13607	46714	2383	2659	2760	4064	5352	4284	3818	3574	4213	5001	6762	1844
Honolulu	Kw	9238	39243	4377	5090	4555	2421	2137	2334	3281	2609	3201	3525	2868	2845
Taffeni	Kw	11287	46983	3218	3651	3710	4473	4989	4294	4810	3414	3137	3360	3596	4331
Bogmore	Kw	6248	24142	1515	2223	1622	1716	2070	2055	2183	2061	2449	1380	2679	2189
Fig Close wps	Kw	0	0	0	0	0	0	0	0	0	0	0	0	0	0

#### Clarification

All pump station electrical usage is monitored on a monthly basis and usage at Frazers WWTW is high due to recycle plant in operation.

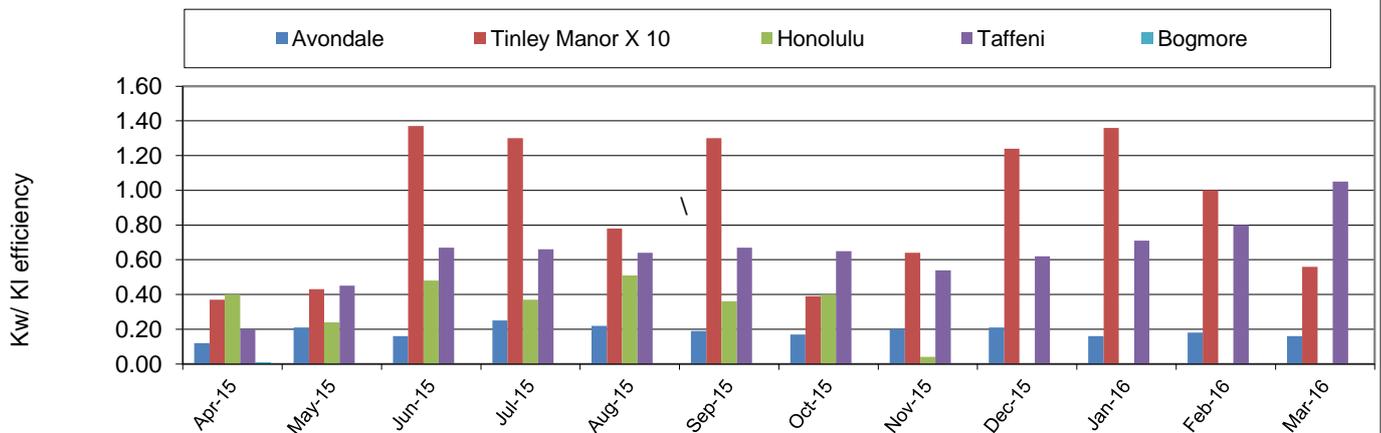
Pump station Flow		2016 Total	Last 12 Mnths	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Avondale	KI	89000	365580	51870	31250	33820	27620	22230	24340	31930	23730	29790	31300	28040	29660
Tinley Manor X 10	KI	11230	53220	6440	1030	2020	3130	7300	3300	9790	5570	3410	3680	4240	3310
Honolulu	KI	22191	344274	140441	21259	9392	6630	4230	6489	8212	61400	64030	8195	5615	8381
Taffeni	KI	13360	82210	16370	7110	5550	6780	7820	6420	7400	6320	5080	4760	4480	4120
Bogmore	KI	59005	233500	15040	21990	21090	18490	19010	18790	20620	19030	20435	20045	19280	19680
Fig Close	KI	0	0	0	0	0	0	0	0	0	0	0	0	0	0

#### Clarification

The installation of Borehole Pumps at Reservoir sites has assisted with demand at various sites. The recycle plant is now fully operational and water is being pumped into Zimbali area.

Flow rate Kw/KI		2016 AVE	Last 12 Mnths	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Avondale	Kw/KI	0.17	2.23	0.12	0.21	0.16	0.25	0.22	0.19	0.17	0.20	0.21	0.16	0.18	0.16
Tinley Manor X 10	Kw/KI	0.97	10.74	0.37	0.43	1.37	1.30	0.78	1.30	0.39	0.64	1.24	1.36	1	0.56
Honolulu	Kw/KI	0.43	4.13	0.40	0.24	0.48	0.37	0.51	0.36	0.40	0.04	0.05	0.43	0.51	0.34
Taffeni	Kw/KI	0.85	7.66	0.20	0.45	0.67	0.66	0.64	0.67	0.65	0.54	0.62	0.71	0.8	1.05
Bogmore	Kw/KI	0.11	0.51	0.01	0.01	0.01	0.01	0.11	0.01	0.01	0.01	0.01	0.07	0.14	0.11
Fig Close	Kw/KI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### Pump Station Efficiency (Kw/KI Comparison)



#### Clarification

EDAMS monthly maintenance program job cards are being issued to technicians on a regular basis for pump efficiency to be monitored.

<b>New connections</b>		2016 Total	Last 12 Mnths	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Technical Investigation	u	15	57	3	2	4	6	6	4	7	5	5	3	3	9
New Connections	u	15	52	6	7	1	5	4	3	5	3	3	5	8	2

Clarification

Investigations - 4 x Zimbali, 1 x Nkobongo , 1 x Tinley Manor, 1 x Ballito, 2 x Etete

Installations - 1 x Zimbali, 1 x Tinley Manor

<b>Safety Record</b>		2016 Total	Last 12 Mnths	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Record of IOD	u	0	1	0	0	0	0	0	0	1	0	0	0	0	0

Clarification

There was no incident for the month of March 2016. SSW has once again increased hours worked to 808 700 hours without injury including contractors.

General Comments: A 200mm line to Ballito Business Park has been completed and will be commissioned soon

**ANNEXURE 4 : Sewerage Technical Report - March 2016**



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# Technical Report

MARCH 2016

Sewer

# MONTHLY SEWER REPORT FOR MARCH 2016

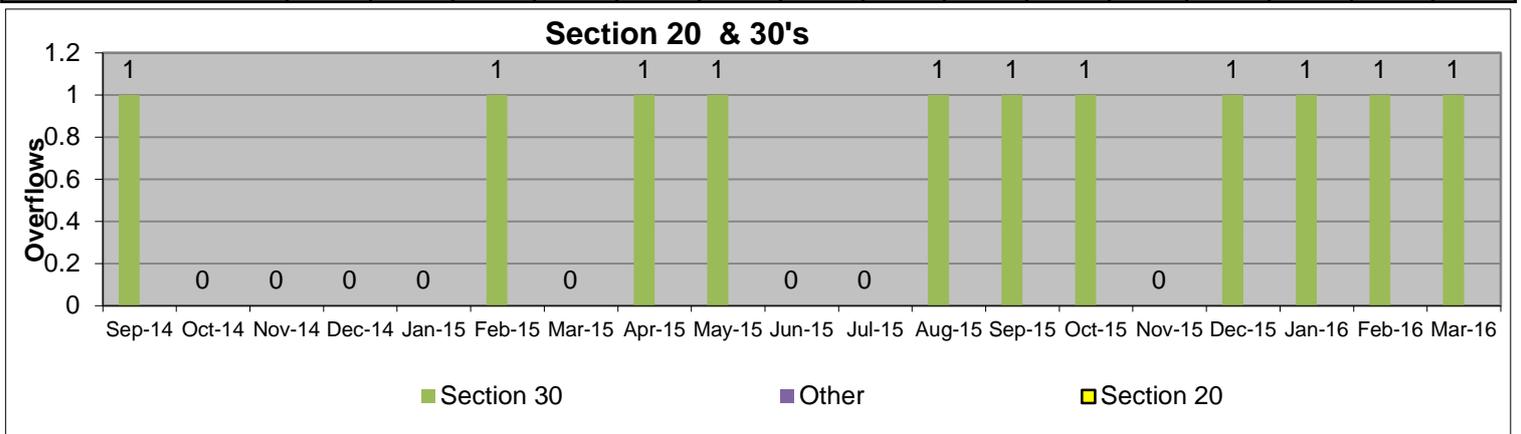
## Maintenance

Network		Total 2016	12Mnth Total	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Leaks	u	1	5	1	0	1	0	0	0	1	0	1	0	0	1
Blockages	u	49	176	11	8	14	12	23	15	15	9	20	11	18	20
Damages	u	0	4	1	1	0	1	0	0	0	1	0	0	0	0
<b>Total network maintenance</b>	u	50	185	13	9	15	13	23	15	16	10	21	11	18	21

**Clarification:** There were 20 blockages experienced during the month of March 2016: (Roots) Zimbali before Hilltop Estate, Entrance to Uluwati, Yellowwood Road, 11 Opposite BBC in Zimbali Drive, Hughdent Drive in Salt Rock, 26 Gifford Crescent, in Salt Rock, 2 x No 2 Patricia Road, Marion Place, 2 x Gazelle Road, 13a Ashley Road, 99 Hillary Drive in Ballito, 463 Jasmine Drive in Shakaskraal. (Fats) No 429 Clover Road in Shakaskraal, Santorini, Corner of Jacqueline & Leonora in Ballito, (Hard Papers) No 21 & No 562 in Shakashead,

## Section 20's & 30's at sewer pump stations

Duration of overflow		Total 2016	Last 12 Mths	Apr	May	June	July	August	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
0 - 3 Hours	u	2	3	0	0	0	0	0	0	0	0	1	0	1	1
3 - 6 Hours	u	0	3	1	0	0	0	1	1	0	0	0	0	0	0
6 - 12 Hours	u	1	2	0	0	0	0	0	0	1	0	0	1	0	0
12 Hours Over	u	0	1	0	1	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	u	3	9	1	1	0	0	1	1	1	0	1	1	1	1
Overflow due to		Total 2016	Last 12 Mths	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Mechanical Failure	u	0	1	0	1	0	0	0	0	0	0	0	0	0	0
Infiltration	u	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electricity failure	u	3	9	1	1	0	0	1	1	1	0	1	1	1	1
Other	u	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	u	3	9	1	1	0	0	1	1	1	0	1	1	1	1



**Comments :** There was 1 Section 30 during the March 2016 that resulted in a sewer overflow on Willard Beach due to a fault at SPS 10.

New connections		Total 2016	12Mnth Total	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Technical Investigation	u	11	53	4	1	6	5	7	3	6	6	4	3	2	6
New Connections	u	11	41	6	3	1	5	4	1	6	2	2	4	6	1

**Clarification:** The (6) Sewer investigations were carried out - 4 in Zimbali, 1 in Ballito and 1 in Nkobongo. The (1) sewer connections were completed (1) in Zimbali.

Gigajet usage		Total 2016	12Mnth Total	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Hrs used	hrs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meters ins/cleaned	m	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Comments** There were no blockages that were cleared by use of Gigajet high pressure jetting machine during the month of March 2016 due to the machine being refurbished.

**General Comments -**

Emberton Sewer Pump Station pump 2 Impeller and Insert ring have been renewed.

The rising main burst from Salt Rock sewer pump station has been repaired.

Sump cleaning at Shakaskraal SPS will be carried out during the month of April 2016.

Zimbali Area D pump stes 1 & 2 maintenance inspection was completed and efficiency checked.

The new Hughdent Sewer Pump Station commissioning is planned for April 2016.

The sump cleaning at Village SPS was carried out in March 2016.

The Gorman Rupp T4 pump for Lali Park SPS will be installed in April 2016.

**ANNEXURE 5 : Water Consumption Report - March 2016**

## WATER CONSUMPTION REPORT 2015/2016

	TOTAL	AVERAGE	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Recycled Water	65 189	5 432	-	-	-	-	-	-	-	-	-	13 100	32 889	19 200
Umgeni Blend	24 810	2 068	-	-	-	-	-	-	-	-	-	-	10 950	13 860
Umgeni Sales	3 605 614	300 468	396 386	326 269	338 991	286 897	267 226	260 672	286 656	261 951	300 578	313 144	287 110	279 734
Recycled Water (30 days)	65 189	5 432	-	-	-	-	-	-	-	-	-	13 100	32 889	19 200
Borehole Water(30 days)	112 164	9 347	-	-	-	4 893	10 758	2 265	8 689	10 773	17 785	20 155	17 855	18 991
<b>TOTAL WATER INPUT</b>	<b>3 782 967</b>	<b>315 247</b>	<b>396 386</b>	<b>326 269</b>	<b>338 991</b>	<b>291 790</b>	<b>277 984</b>	<b>262 937</b>	<b>295 345</b>	<b>272 724</b>	<b>318 363</b>	<b>346 399</b>	<b>337 854</b>	<b>317 925</b>
<b>SIZA BILLING VOLUME</b>	<b>3 337 094</b>	<b>278 091</b>	<b>411 252</b>	<b>312 175</b>	<b>332 511</b>	<b>221 043</b>	<b>219 821</b>	<b>225 697</b>	<b>248 012</b>	<b>245 336</b>	<b>227 713</b>	<b>377 960</b>	<b>273 744</b>	<b>241 830</b>
<b>WATERLOSS Kilolitres</b>	<b>445 873</b>	<b>37 156</b>	<b>-14 866</b>	<b>14 094</b>	<b>6 480</b>	<b>70 747</b>	<b>58 163</b>	<b>37 240</b>	<b>47 333</b>	<b>27 388</b>	<b>90 650</b>	<b>-31 561</b>	<b>64 110</b>	<b>76 095</b>
<b>WATER LOSS %</b>		<b>13%</b>	<b>-4%</b>	<b>4%</b>	<b>2%</b>	<b>24%</b>	<b>21%</b>	<b>14%</b>	<b>16%</b>	<b>10%</b>	<b>28%</b>	<b>-9%</b>	<b>19%</b>	<b>24%</b>

**ANNEXURE 6 : Sewer and Water Inventory – March 2016**



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**SUMMARY OF  
WATER AND SEWER  
INVENTORY  
APRIL 2016**

# Summary of Water and Sewer Assets

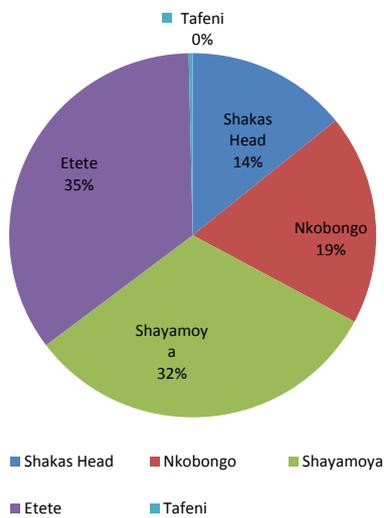
A detailed inventory can be made available on request

WATER		SEWER	
Element	Quantity	Element	Quantity
Air Valve	233	Access Roads	26
Bulk Meter	128	Aeration Tanks	6
Cells	17	Aerators	20
Control Valve	30	Air_Valves	17
Covers	16	Balancing Tank Pump	2
Ctrl Valve Chamber	30	Balancing Tank Valve	2
Hydrant	743	Building	24
Meter Chamber	103	Chlorine dosing Tank	6
Pump Electric Motor	14	Chlorine Pump	3
Relief Device	2	Clarifiers	12
Reservoir Site	14	Compact Screen	1
Scour Valve	8	Drying Beds	18
Stand_Pipes	289	Electric Motor Sewer	18
Valve	1149	Emer. Overflow Pump	1
Water Pipe	2727	Emergency Ponds	3
Water Pump	28	Fence	25
Water Pumpstation	7	Final Ponds	3
Water-Access Road	21	Generator Room	2
Water-Building	3	Genset	20
Water-Fence	20	Grit Pump	1
Water-Genset	6	Inlet Auto Screen	3
Water-Lifting Gear	2	Inlet Balancing Tank	2
Water-Panel	6	inlet channel	3
Water-Pump Chambers	2	Inlet Grit Removal	3
Water-Sump Pump	2	Inlet Manual Screen	28
Water-Telemetry	23	Inlet Pump	2
Water-Ultrasonic	24	Irrigation Pump	3
Water-VSD	4	Lifting Gear	22
Borehole Jojo	68.00	Manhole	6301
Borehole Site	25.00	Panel	36
Drought Tanks	100.00	Panel Room	6
Yard Taps	993	Pump Line	42
		Scour_Valve	4
		Sewer pipes	6324
		Sewer Pumpstation	27
		Sludge Dam	5
		Sludge Ret Pump	7
		Splitter Box	3
		Sumps	27
		Telemetry	30
		Treatment Works	3
		Ultrasonic	27
		Valves	226
		VSD	9
		Odour Control	5.00

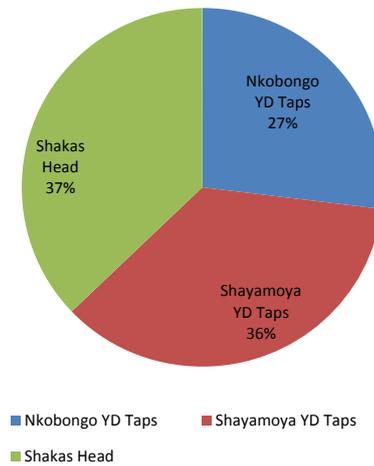
# STANDPIPES & YARD TAPS

Stand Pipes			Yard Taps		
Shakas Head	41	14%	Nkobongo YD Taps	261	27%
Nkobongo	54	19%	Shayamoya YD Taps	348	36%
Shayamoya	92	32%	Shakas Head	360	37%
Etete	101	35%			
Tafeni	1	0%			
	289	100%		969	100%

**TOTAL NUMBER OF STANDPIPES**



**TOTAL NUMBER OF YARD TAPS**

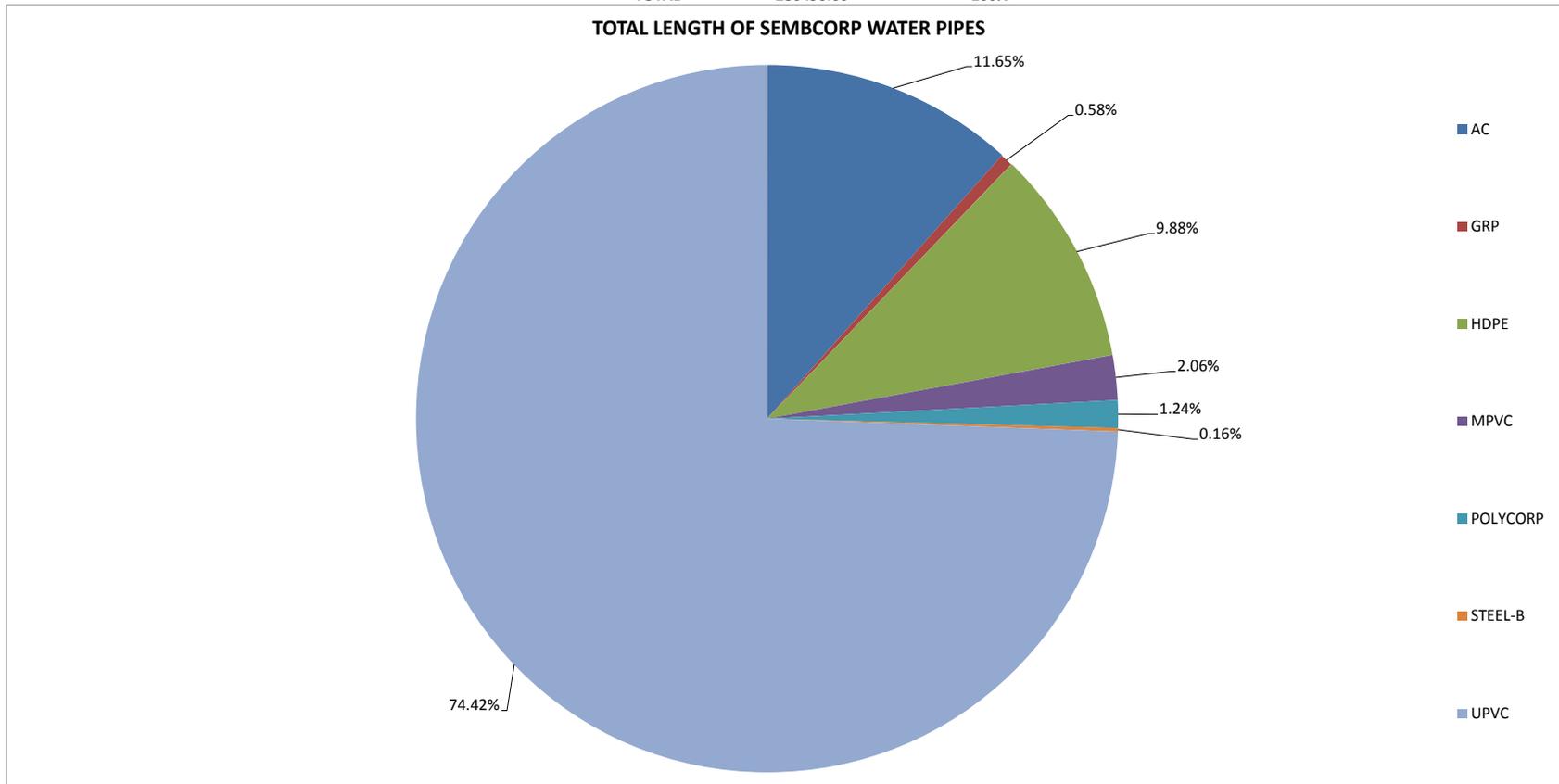


# TOTAL LENGTH OF SEMBCORP SIZA WATER PIPES

N.B THESE PIPES EXCLUDE DEVELOPERS NETWORK & DECOMMISSIONED PIPES

All pipe lengths are measured in meters (m)

AC	32687.65	11.65%
GRP	1627.36	0.58%
HDPE	27705.25	9.88%
MPVC	5790.47	2.06%
POLYCORP	3483.66	1.24%
STEEL-B	456.11	0.16%
UPVC	208740.10	74.42%
<b>TOTAL</b>	<b>280490.60</b>	<b>100%</b>



# TOTAL LENGTH OF SEMBCORP SEWER PIPES

N.B THESE PIPES EXCLUDE DEVELOPERS NETWORK & DECOMMISSIONED PIPES

All pipe lengths are measured in meters (m)

Asb.-Cement	4961.3	2.64%
GRP	3831.8	2.04%
HDPE	2345.91	1.25%
STEEL	286.67	0.15%
UPVC	176457.66	93.92%
<b>TOTAL</b>	<b>187883.34</b>	<b>100%</b>

TOTAL LENGTH OF SEMBCORP SEWER PIPES

