

## TABLE OF CONTENTS

TABLE OF CONTENTS.....	1
1. CONCESSION CONTRACT.....	2
2 GENERAL STATISTICS AND INFORMATION .....	2
2.1 Staff Information .....	2
2.2 Asset Information.....	2
3.1 Definition of Service Levels .....	4
3.2 Service Delivery Information.....	5
<b>3.2.1 Water Service Delivery.....</b>	<b>5</b>
<b>3.2.2 Waste Water Service Delivery .....</b>	<b>5</b>
3.3 Commercial Statistics .....	5
<b>3.3.1 Nature of Complaints.....</b>	<b>6</b>
<b>3.3.2 Key Indicators.....</b>	<b>6</b>
4 OPERATIONAL STATISTICS AND INFORMATION .....	7
4.1 Potable Water Demand .....	7
4.2 Sewerage & Water Volumes .....	7
4.3 New Connections .....	7
4.4 Water Quality and Monitoring.....	8
<b>4.4.1 Internal Water Quality Results.....</b>	<b>8</b>
<b>4.4.2 Umgeni Water Quality Results.....</b>	<b>8</b>
<b>4.4.3 Internal Waste Water Quality Results.....</b>	<b>8</b>
<b>4.4.4 Waste Water Quality – Talbot Talbot Reports .....</b>	<b>8</b>
<b>4.4.5 Sembcorp Siza Water Quality Results.....</b>	<b>9</b>
5 MAINTENANCE.....	10
5.1 Record of Burst and Blocked Mains .....	10
5.2 General Maintenance .....	10
<b>5.2.1 Water Infrastructure Maintenance.....</b>	<b>10</b>
<b>5.2.2 Waste Water Infrastructure Maintenance .....</b>	<b>11</b>
6 INVESTMENT PROGRAM .....	12
6.1 Summary of Investments.....	12
6.2 Key Water Projects Undertaken or Completed.....	12
6.3 Key Waste Water Projects Undertaken or Completed.....	12
6.4 Investment Schedule for the Financial Year at 31-12-2014.....	13
ANNEXURE 1 : Organisational Chart - March 2015.....	14
ANNEXURE 2 : Customer Services Stats/Report - March 2015.....	14
ANNEXURE 3 : Water Technical Report - March 2015.....	14
ANNEXURE 4 : Sewerage Technical Report - March 2015 .....	14
ANNEXURE 5 : Water Consumption Report - March 2015 .....	14
ANNEXURE 6 : Sewer and Water Inventory – March 2015.....	14

## 1. CONCESSION CONTRACT

Contract Signature : 29/01/1999.  
Operational start-up : 01/04/1999.

This report covers the period from 1 April 2014 to 31 March 2015, which signifies year 15 of the Contract, and where more updated information is available the dates are reflected accordingly.

It is designed and presented in accordance with Article 60 of the Concession Contract.

## 2 GENERAL STATISTICS AND INFORMATION

### 2.1 Staff Information

Siza Water Organisation Chart (see annexure 1).

CATEGORY	Mar-14	Mar-15
Management, Administration and Design	17	22
Operations, including Supervisors	34	30
Customer Services and Meter Readers	10	10
<b>TOTAL</b>	<b>61</b>	<b>62</b>

### 2.2 Asset Information

Operations Assets (fixed assets)

Network and Infrastructure	Unit	Year 2013/2014	Year 2014/2015
Total length of water mains up to and including 200mm	KM	212.57	230.79
Total length of water mains above 200mm	KM	36.32	38.26
Total length of gravity sewers	KM	182.42	188.12
Total length of sewage pumping mains	KM	23.67	23.67
Number of pumping stations (water)	U	6	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	16	20
Number of supply zones fed through PRV's or directly	U	15	8
Total reservoir storage capacity (including Umgeni Reservoir Entitlement – Avondale & Terminal Reservoirs)	M <sup>3</sup>	30 500	31 500
Number of reservoirs (including partial bulk)		15	15

Refer to Annexure 6 for Assets Summary

**Operation Assets (moveable assets)**

Description of Assets	Year 2013/2014	Year 2014/2015
<b>Vehicles</b>		
2WD	24	28
4WD	2	1
Sedan	1	1
TLB	1	1
10 Ton Truck	1	1
Water Tankers	0	2
<b>Plant &amp; Equipment</b>		
Pressure Jetting machine	2	2
Portable 500litre water tank	4	3
Portable 5000 litre potable water emergency tank	8	80
Portable 10000 litre water tank	0	2
Portable 5000 litre potable sewer emergency tank	5	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	1
Road Cutting Machine	1	2
Brushcutters	4	4
Mobile water pump	3	5
Mobile High Pressure Machine	2	2
Inverter Welding Machine	2	2
John Deere Tractor Mower	1	1
Jack Hammer	2	2
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-14			Mar-15			Movement %
	Units	Est. People/ Unit	Est. Pop	Units	Est. People/ Unit	Est. Pop	
Metered Residential Units	11 884	2.65	31 493	12 439	2.65	32 963	5%
Metered Non Residential Units	1 894	-	-	1 982	-	-	-
Vacant Lots	746	-	-	698	-	-	-
Standpipe Delivery	7 055	5.00	35 275	6 573	5.00	32 865	-7%
Yard Connection Delivery	145	5.00	725	627	5.00	3 135	332%
<b>Estimated Population Served</b>	<b>67 493</b>			<b>68 963</b>			<b>2%</b>

#### 3.2.2 Waste Water Service Delivery

Sewer Service Delivery	Mar-14	Mar-15	Movement %
Metered Residential units	10 670	11 205	5%
Metered Non residential Units	1 706	1 791	5%
Other supply (Not Siza Water)	7 200	7 200	2%

### 3.3 Commercial Statistics

	2013/2014	Per Month	2014/20105	Per month
Complaints	1 745	145	2 960	246
Query on account	2 166	181	553	46
Unallocated Payments	188	16	207	17
Investigation for new connections	132	11	171	14
New connections installed	134	11	130	11
Transfers	271	23	249	21
Terminations	51	4	7	1
<b>Totals</b>	<b>4 687</b>	<b>391</b>	<b>4 277</b>	<b>356</b>

### 3.3.1 Nature of Complaints

Description	2013/2014	Per Month	2014/20105	Per month
Damage to property	0	0	0	0
Faulty/broken meter	238	20	332	28
Reinstatement incomplete	42	4	31	3
Staff attitude	0	0	0	0
Water quality	21	2	22	2
Pressure query	53	4	53	4
No water	143	12	159	13
Sewerage odour	27	2	29	2
Other	184	15	0	0
Buried meter	2	0	2	0
Burst connection	46	4	74	6
Burst pipe (connection and main)	205	17	184	15
Damaged/vandalised meter	4	0	5	0
Damaged sewer manhole	19	2	12	1
Damaged sewer mains	18	2	21	2
Damaged valves	5	0	2	0
Dirty/discoloured water	10	1	40	4
Faulty standpipe	204	17	171	14
Leaking fire hydrant	8	1	4	0
Leaking meter	8	1	15	1
Leaking standpipe	6	1	9	1
Nkobongo pilot project	248	21	226	19
Shayamoya pilot project	16	1	62	5
Sewer blockages	200	17	163	14
Sewer manhole overflows	38	3	27	2
<b>Totals</b>	<b>1 745</b>	<b>145</b>	<b>1643</b>	<b>136</b>

### 3.3.2 Key Indicators

Time To Respond In Calendar Days	2013/2014	2014/2015
Query on account	2	3
Technical report	6	7
Installation complete	7	7

## 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	2013/2014	2014/2015	Movement %
Water invoiced	3 868 323 m3	3 820 244 m3	-1%
Water Standpipe delivery	312 513 m3	329 617 m3	5%
Total Water delivery	4 180 836 m3	4 149 861 m3	-1%
Average Daily demand	11 454 m3	11 369 m3	-1%
Peak Daily Demand	13 847 m3	13 858 m3	0%
Min Daily Demand	9 751 m3	9 736 m3	0%
Sewerage Invoiced	3 205 271 m3	3 191 525 m3	0%
Water Loss as a percentage	15%	14%	-7%

### 4.2 Sewerage & Water Volumes

Consumption Figures	2013/2014	2014/2015	Movement %
Sewerage Invoiced	3 205 271 m3	3 191 525 m3	0%
Water Invoiced	4 180 836 m3	4 149 861 m3	-1%

### 4.3 New Connections

New Connections Installed		2013/2014	2014/2015	Movement %
Water	U	70	79	13%
Sewage	U	42	50	19%

#### 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

##### 4.4.1 Internal Water Quality Results

Water Quality	2013/2014	2014/2015	% Variance
Average Monthly Samples	13	13	0%
Compliance with Quality	99%	98%	-1%

(See Water Report – March 2013 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)

##### 4.4.2 Umgeni Water Quality Results

Water Quality (Umgeni Water)	2013/2014	2014/2015	% Variance
Average Monthly Samples	9	9	0%
Compliance with Quality	98%	97%	-1%

##### 4.4.3 Internal Waste Water Quality Results

Waste Water Quality	2013/2014	2014/2015	% Variance
Average Monthly Samples	90	90	0%
Compliance with Quality	98%	97%	-1%

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

Compliance Monitoring Talbot & Talbot	2013/2014	2014/2015	% Variance
Total Monthly Samples	5	5	0%
Compliance with Quality	98%	97%	-1%



#### 4.4.5 Sembcorp Siza Water Quality Results

Compliance Monitoring Talbot & Talbot	2013/2014	2014/2015	% Variance
Total Monthly Samples	13	13	0%
Compliance with Quality	98%	97%	-1%

## 5 MAINTENANCE

### 5.1 Record of Burst and Blocked Mains

Burst Pipes and Blockages	2013/2014	2014/2015	% Variance
Burst pipes Avg/Month	4.1	2.9	-29%
Peak month	8	6	-25%
Average duration of interruption (hours)	4	5	-20%
Total number of bursts	50	35	-30%
Sewerage blockages Avg/Month	10.5	11	-5%
Peak month (sewerage)	14	15	7%

### 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	x	√
Ballito Lea Reservoir	√	√	x	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	x
Tinley Manor Reservoir	√	√	√	√
Tafeni Reservoir	√	√	x	√
Zimbali Reservoir	√	x	x	x
Nkobongo Reservoir	√	√	x	x
Honolulu Reservoir	√	x	x	√
Ballito Terminal	√	x	x	x

## 5.2.2 Waste Water Infrastructure Maintenance

### Sanitation General Maintenance

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
Willard Beach	√	√	DECOMMISSIONED	X	√	X	√	√	√	√	X
Emberton Way	√	√		X	√	X	√	X	X	X	√
Hawkins Road	√	√		X	√	X	√	X	X	X	√
Salmon Bay	√	√		X	√	X	√	X	X	X	X
Ballito Library	√	√		X	√	X	√	X	X	X	√
Pumping Station X	√	√		√	√	X	√	√	√	√	√
Chakas Cove	√	√		X	√	X	√	√	√	X	√
Martinique	√	√		X	√	X	√	√	X	√	√
Salt Rock Life Guards	√	√		X	√	√	X	X	X	X	√
Santorini	√	√		X	√	X	X	X	X	√	X
Sheffield Beach village	√	√		X	√	X	√	X	X	√	√
Hugh Dent Drive	√	√		X	√	X	√	X	X	X	√
Zimbali 1	√	√		X	√	X	X	X	X	X	X
Sheffeld Gardens	√	√		X	√	X	X	X	X	X	X
Zimbali 3	√	√		X	√	X	X	X	X	X	X
Simbithi	√	√		√	√	X	√	X	X	√	√
Thompsons Bay	√	√		X	√	X	X	X	X	X	√
Shakaskraal	√	√		√	√	X	√	X	X	√	√
Lali Park	√	√		√	√	X	√	X	X	√	√
Shakashead	√	√		√	√	X	√	X	√	√	√
Extension 3	√	√		√	√	X	X	X	X	√	√
Compensation	√	√		√	√	X	X	√	X	√	X
Shakaskraal WWTW	√	√		√	√	√	√	√	X	X	√
Frasers WWTW	√	√		√	√	√	√	√	X	X	√
Sheffield WWTW	√	√		√	√	√	X	X	X	X	X
Area D SPS	√	√	X	√	√	X	X	√	X	√	
Lakes SPS	√	√	X	√	√	X	X	X	X	√	
Woodmead 1	√	√	X	X	√	X	X	X	X	√	
Woodmead 2	√	√	X	X	√	X	X	X	X	√	

## 6 INVESTMENT PROGRAM

### 6.1 *Summary of Investments*

Sembcorp Siza Water has continued to invest in its Capex Program in 2014. We also have had to amend part of the 2015 Capex Program due to the drought that is currently affecting our area. Capex to assist with drought measures were implemented whilst some planned Capex were shelved. We are hoping that we will be able to resume with the original Capex at a later stage in the year or include into the 2016 Budget.

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

- 4156 Installation of water mains, yard taps and prepaid water meters for 246 houses in Shayamoya Phase 2 – **Completed**
- 4157 Upgrade of 950m of 200mm and 160mm Upvc water mains from Santorini to Hill Lane, Salt Rock - Phase 1 - **Completed**
- 4158 Recommissioning of Old Avondale 1MG Reservoir - **Completed**
- 4159 Relocation of Standpipes and installation of drainage systems, Shayamoya, Etete, Shakashead & Nkobongo – **Completed**
- 4160 Upgrade of 1120m of 200mm and 160mm Upvc water mains from Hill Lane to Dolphin Crescent, Salt Rock - Phase 2 – **Completed**
- 4161 Installation of water mains, yard taps and prepaid water meters for 360 houses including Bulk Meter Chambers in Shakashead – **Completed**
- 4162 Upgrade of 450m of 110mm Upvc water mains to the Anglican Church, Umhlali – **Ongoing**
- 4164 Upgrade of 180m of 110mm Upvc water mains in Sandra Road, Ballito - **Ongoing**

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

- 7148 Replacement of 80m of 160mm sewer gravity mains – 23 Compensation Beach Road – **Completed**
- 7149 Installation of Volumetric Flow Meters Frazers WWTW – **Completed**
- 7150 Upgrade of sewer rising mains at Chakas Cove SPS - **Completed**
- 7151 Installation of Flyght pumps at Chakas Cove and Martinique SPS - **Completed**
- 7152 Installation of VSD's at Hawkins, Salmon Bay, Emberton and Lali Park SPS – **Completed**
- 7153 Removal of Sludge from Sludge Ponds at Frazers WWTW - **Completed**
- 7154 Installation of 1100m of 315mm sewer rising mans and upgrade of Hugh Dent SPS – **Ongoing**
- 7155 Installation of VSD's and Genset at Thompsons Bay SPS – **Completed**
- 7156 Installation of Flyghts Pumps and VSD's at Simbithi SPS – **Ongoing**
- 7157 Upgrade of Balancing Tanks and RAS Sump – Frazers WWTW - **Ongoing**

## 6.4 Investment Schedule for the Financial Year at 31-12-2014

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

Unit KRd Excl. VAT	2009	2010	2011	2012	2013	2014	TOTAL
Extension and Upgrading (water)	8 792	6 083	4 560	10 306	9 899	6 829	46 468
Renewal and Refurbishment (water)	1 456	245	1 421	63	-	1 226	4 410
Renewal of meters	600	70	381	380	366	22	-
Fire Hydrants	452	21	1	1	11	-	-
<b>Total Water</b>	<b>11 299</b>	<b>6 418</b>	<b>6 362</b>	<b>10 750</b>	<b>10 276</b>	<b>8 077</b>	<b>53 182</b>
Renewal and Refurbishment sewage	6 237	258	277	-	17	2 326	9 115
Extension and Upgrading sewage	16 480	6 868	13 182	9 305	3 526	6 611	55 972
<b>Total Sewage</b>	<b>22 717</b>	<b>7 145</b>	<b>13 460</b>	<b>9 305</b>	<b>3 543</b>	<b>8 937</b>	<b>65 107</b>
General Study	-	-	-	-	6	270	-
<b>Total Investment on Works</b>	<b>34 016</b>	<b>13 563</b>	<b>19 822</b>	<b>20 055</b>	<b>13 825</b>	<b>17 284</b>	<b>118 290</b>

- ANNEXURE 1 :           Organisational Chart - March 2015**
- ANNEXURE 2 :           Customer Services Stats/Report - March 2015**
- ANNEXURE 3 :           Water Technical Report - March 2015**
- ANNEXURE 4 :           Sewerage Technical Report - March 2015**
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