



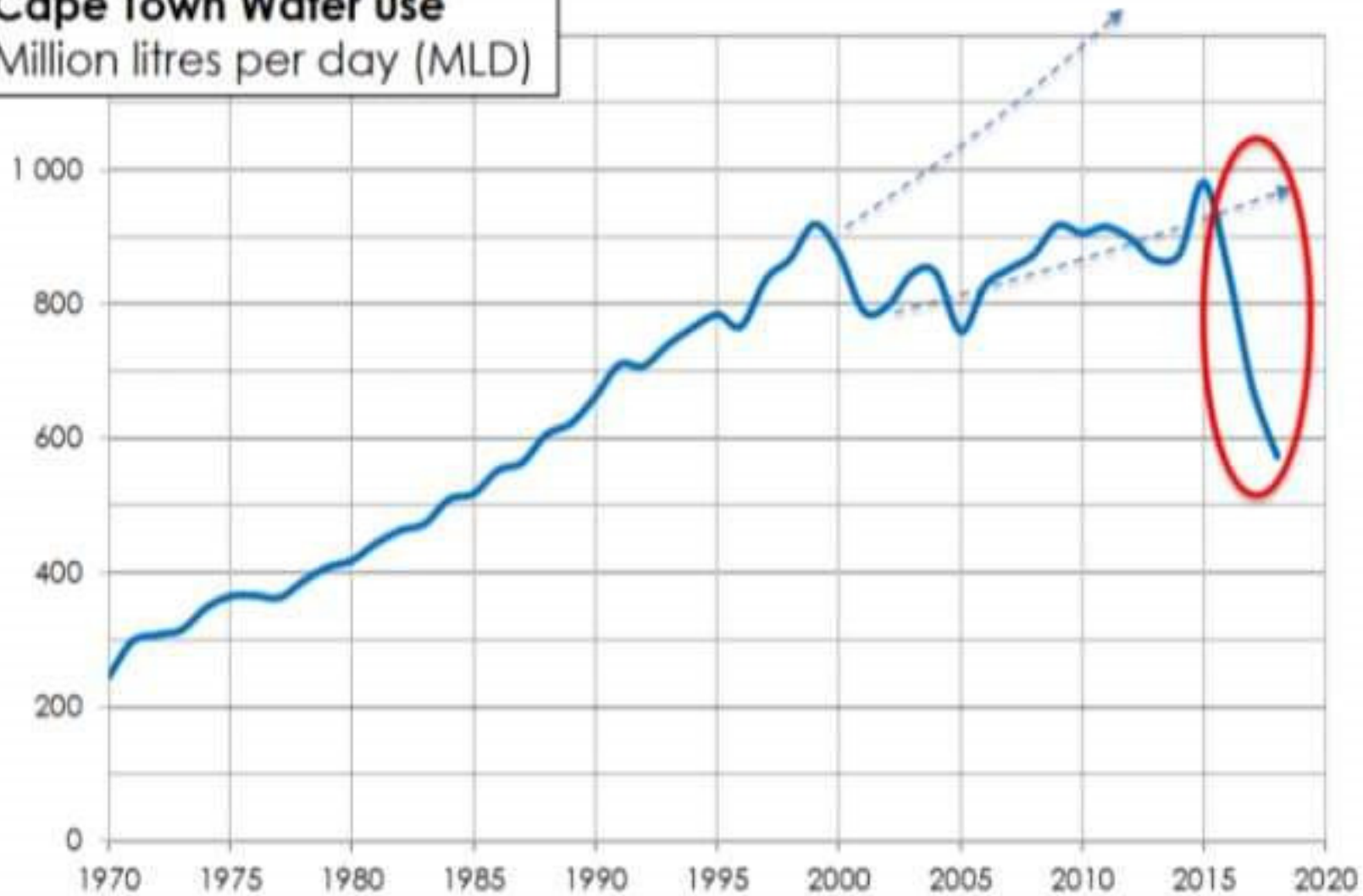
CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

Sustaining Municipal Operations in the Midst of a Drought

Louise Muller
City of Cape Town
4 June 2019

Making progress possible. **Together.**

Cape Town Water use Million litres per day (MLD)

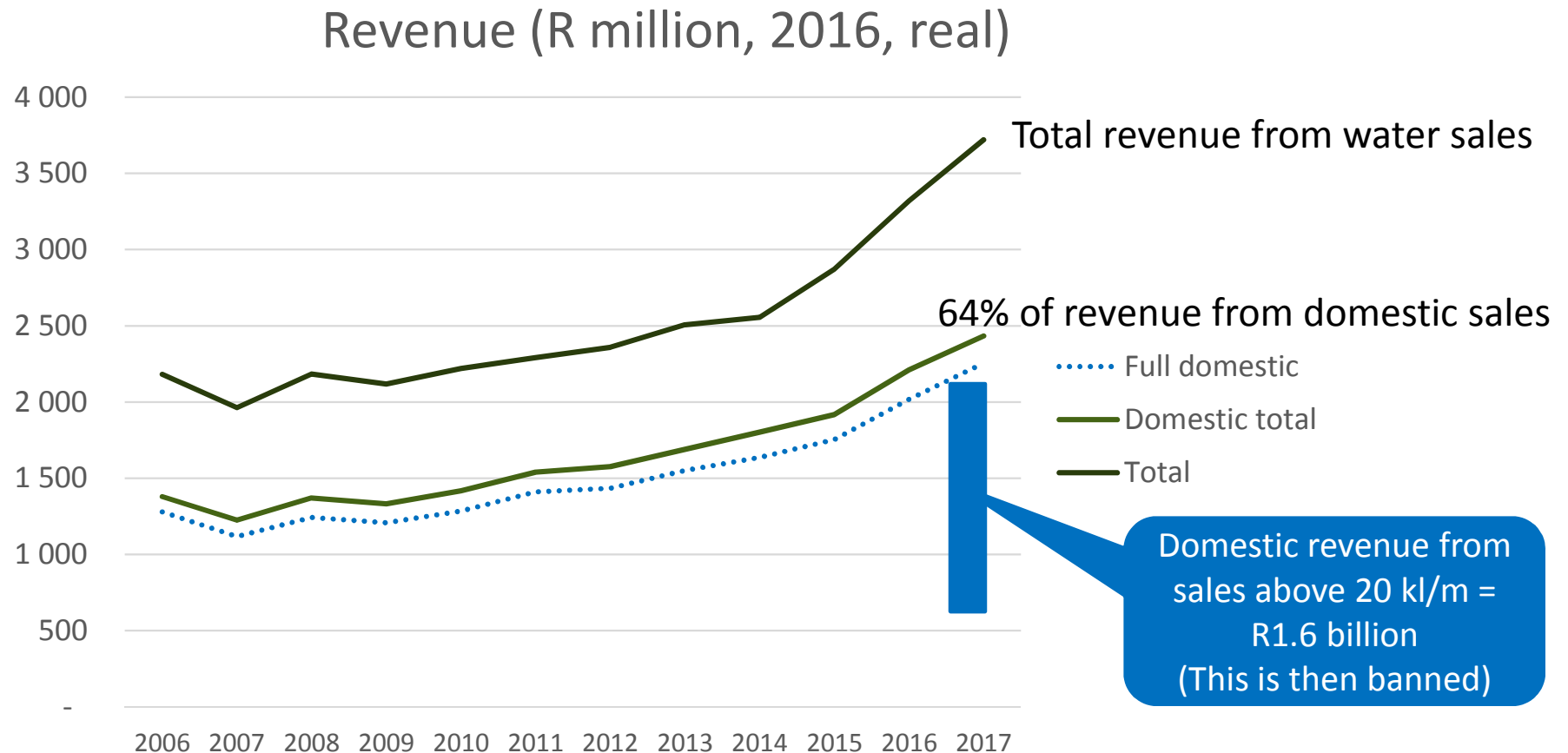


Water use as measured by the treated water supplied (includes losses), average for each year



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

High dependence on domestic revenue (64%)

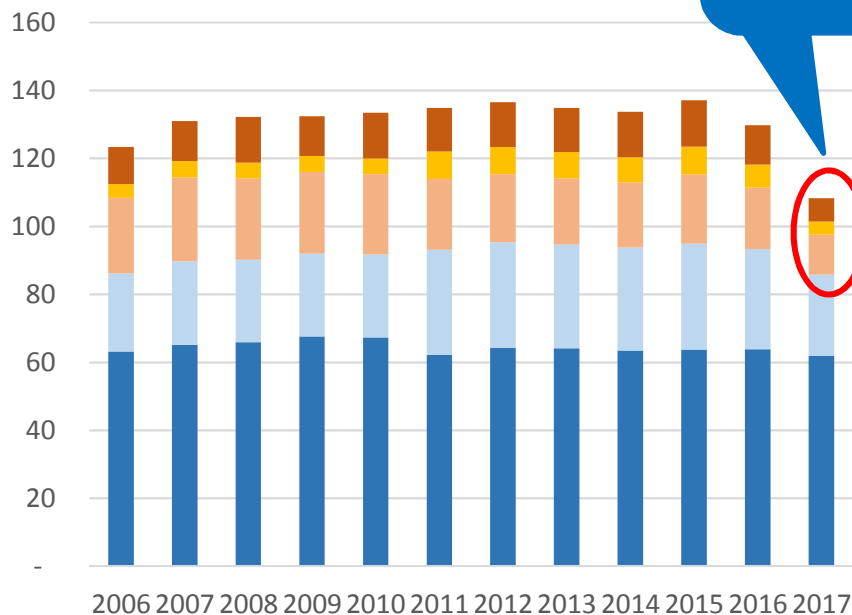


Results in high revenue dependence on customers in the upper consumption bands (>20 kl/month)

12 year perspective

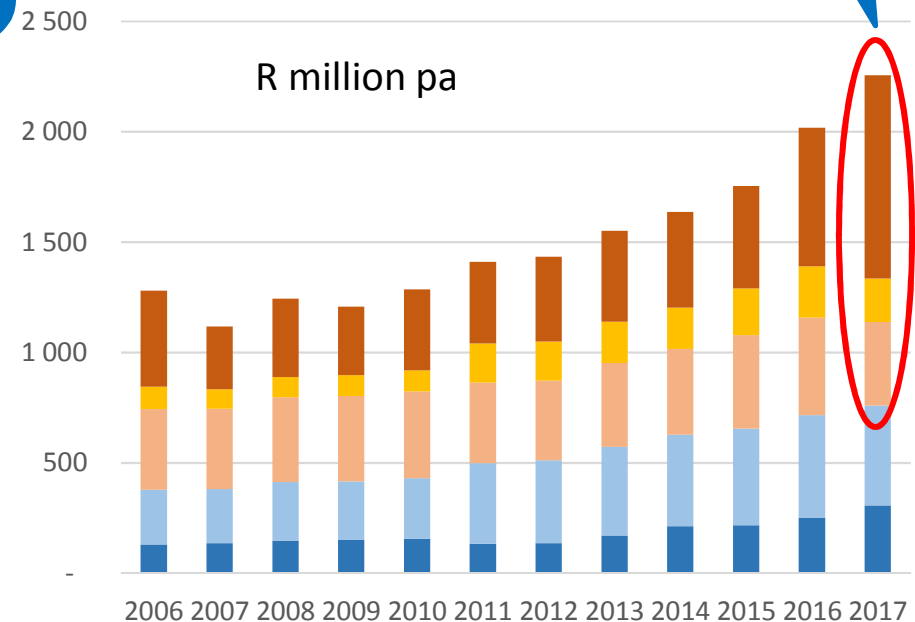
million kl pa

Domestic full sales by tariff band



Band 1&2 <10 Band 3 10-20 Band 4 20-35
Band 5 35-50 Band 6 >50

Revenue by tariff band (R million, 2016 Rands)



Band 1&2 <10 Band 3 10-20 Band 4 20-35
Band 5 35-50 Band 6 >50

Level 5 restrictions, with the intention to eliminate all domestic consumption > 20 kl/month

reduces revenue by about R1.7 billion

Level 5 restrictions introduced 3 September 2017

- “All water users are required to use no more than 87 litres of municipal drinking water per person per day in total irrespective of whether you are at home, work or elsewhere”
- Single residential properties (domestic full tariff category) consuming more than 20 000 litres per month will be fined. (In practice, users pay cost for **installation of mandatory flow limiters**).

Revenue impact R1.7 billion IF all domestic consumption > 20 Ml/day eliminated over the whole year. (Water only)

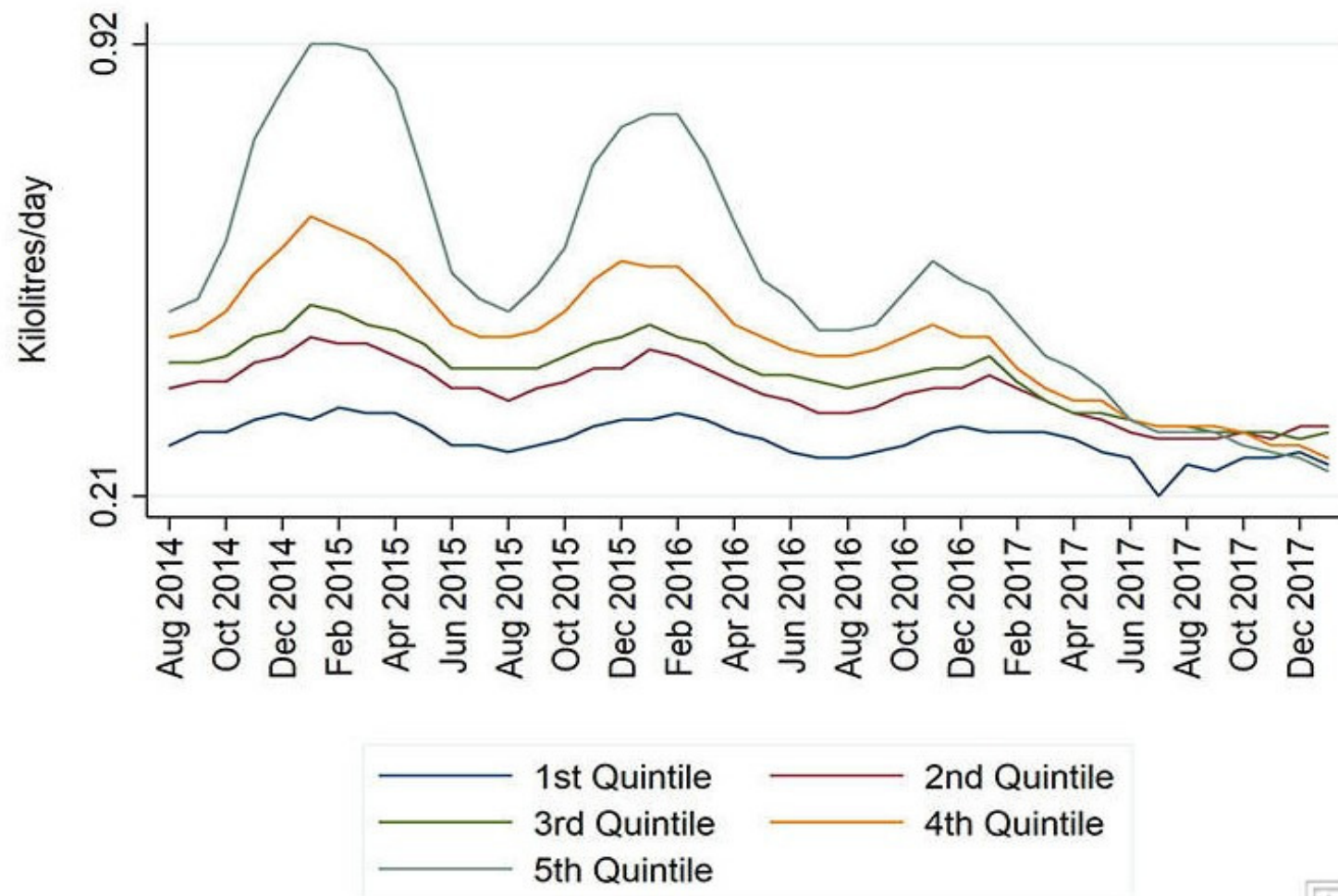
Using a “level 4 tariff” (40% reduction)

With Drought, increased tariffs, reduced water consumption maximum to 50 litres per person per day



STAD KAAPSTAD

The graph below shows how, by this January, wealthier households have reduced their consumption to the levels of poorer households.



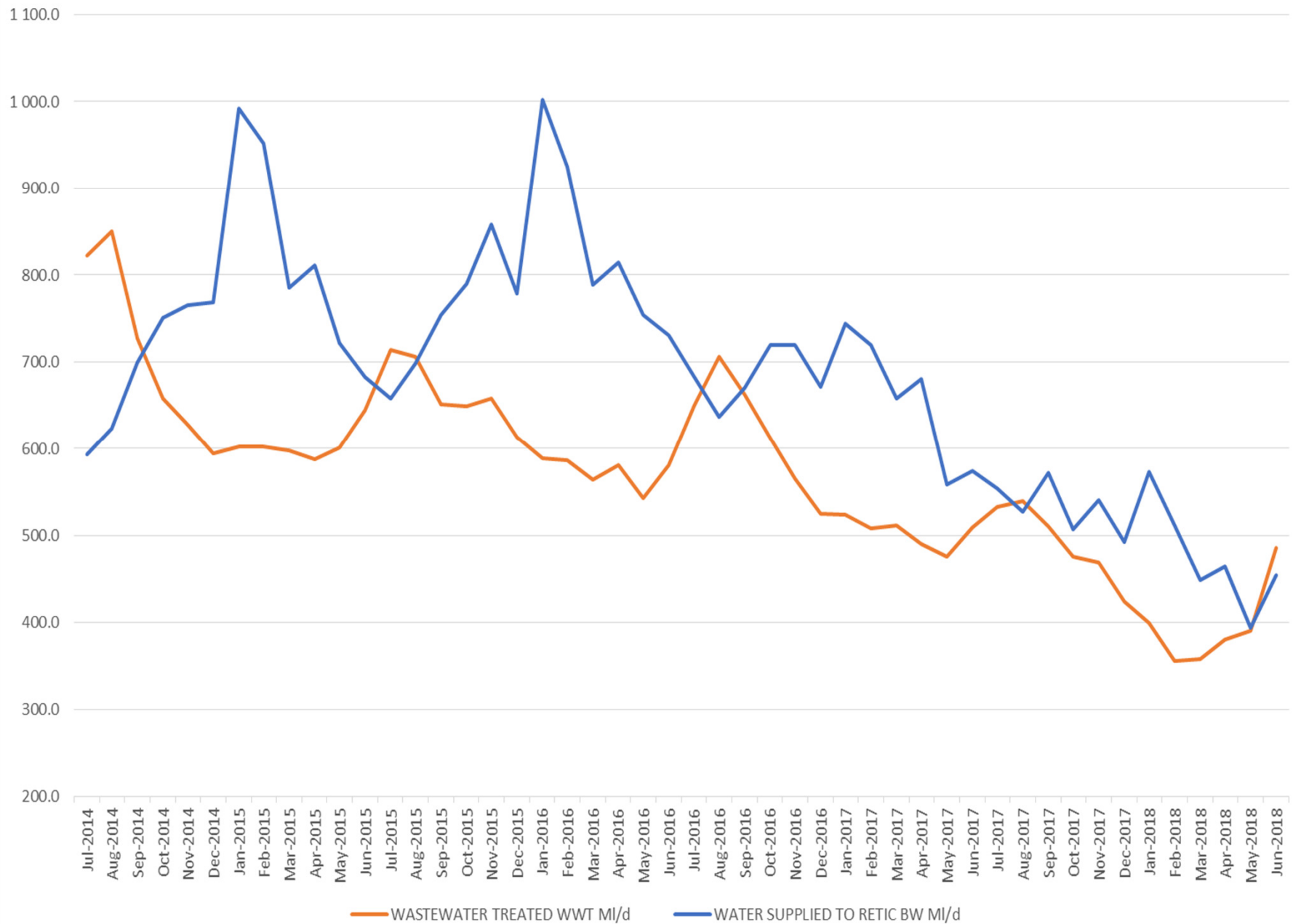
In four years, wealthier households in Cape Town have reduced their water usage to that of lower income homes, who have much less scope for reducing an already low consumption level.

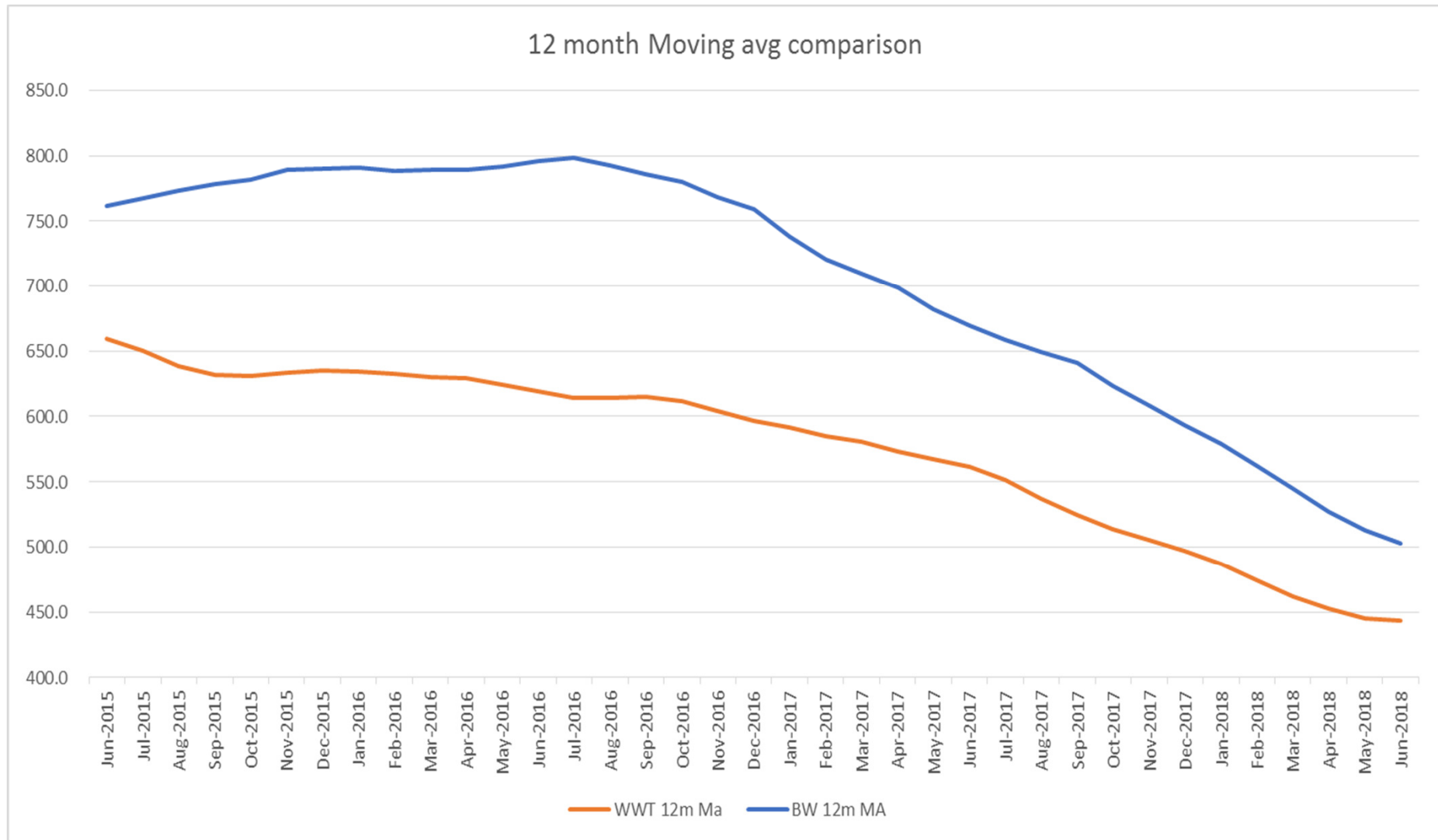
Estimated revenue shortfall (water and sanitation): R1.6 billion with reduction in treated volume to 500 MI/day from 1 January 2018

	BUDGET	ACTUAL	FORECAST	FORECAST	
	12 months	Jul-Oct	Nov-Dec	Jan-Jun	
	Revenue				SHORTFALL
	R million	R million	R million	R million	
Water Sales - Domestic Full	2 436	715	327	794	600
Water Sales - Industrial/Commercial	728	228	108	274	117
Water Sales - Domestic Cluster	272	40	19	48	165
Water Sales - Miscellaneous	159	46	22	55	38
Water Sales - Government	108	24	12	29	43
Water Sales - Schools/Sports	103	26	13	32	32
Water Sales - Bulk Tariff Consumption	70	23	11	28	8
Major revenue items (sale of water)	3 877	1 103	512	1 260	1 002
					million (Water)
					+R600 million (Sanitation)

Average effective tariffs assumed to remain constant. Size of impact under-estimated

WWT vs BW SUPPLIED TO RETIC







Day Zero Dashboard

www.capetown.gov.za/dayzerodashb
[oard](http://www.capetown.gov.za/dayzerodashb)

Dam Levels

www.capetown.gov.za/damlevels

Cape Town Water Map

www.capetown.gov.za/watermap



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

Ongoing Communication on Water Usage

CITY OF CAPE TOWN

14 JANUARY 2019

MEDIA RELEASE

Cape Town keeps its average consumption for previous month under 600 million litres

The City of Cape Town is encouraged by water usage over the past month and the continued wise use of water during the drought recovery period. Read more below:

Although dam levels have been declining somewhat as expected, due to the hot and windy weather of summer, water consumption over the past month has remained on the conservative side, which is helping Cape Town through the drought recovery period by reducing the impact on the dams.

The average water usage, which has remained under 600 million litres of collective usage per day for the period (the Level 3 restrictions stipulate collective usage of 650 million litres per day), is likely due to the water-wise behavioural shifts which occurred during the drought crisis period; and to the closure of some businesses and industry over the festive season. This reduction has balanced the water usage associated with the arrival of visitors to Cape Town. The City also engaged with some hospitality industry partners prior to the peak season to encourage them to continue water-wise messages in their establishments.

'Restrictions remain on a fairly strict drought recovery level as a precaution to deal with rainfall uncertainty in 2019 and 2020.

'We encourage Cape Town's water ambassadors to maintain their water-wise approach during the drought recovery phase and as the metro moves towards becoming a more water-sensitive city in the near future. We see 2019 as a recovery year after having successfully emerged from the severe and unprecedented drought. Based on our own assessment, we will continue to follow a conservative approach in light of the rainfall uncertainty over the coming two years. This is not only a period of recovery for our dams, but also for our economy as a whole as well as for our residents and businesses who truly made huge sacrifices to help us get Cape Town through the drought,' said the City's Mayoral Committee Member for Water and Waste Services, Councillor Xanthea Limberg.

Overview of dam levels and consumption:

14 January 2019

The levels of the dams which supply Cape Town declined by 1,1% over the past week to 63,1% of storage capacity. This is compared to dam levels of 28,8% at the same time last year.

The average water consumption increased by 25 million litres per day to 595 million litres per day for the past week, which is well within the Level 3 usage range of 650 million litres of collective usage per day. This increase is likely due to many formal residential households returning to Cape Town after the festive season as well as the start of the new school year.

7 January 2019

DAM STORAGE (%)

63.1

WEEKLY DAM LEVEL
CHANGE (%)

-1.1 ↓

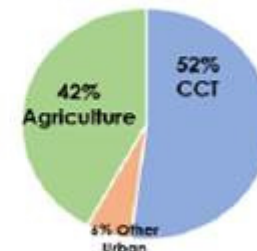
decrease since last week

AVG DAILY WATER USAGE
(FOR THE PAST WEEK)
ALL WATER SOURCES (MI/d)

595

(Target 650MI/d)

Weekly Percentage Water Usage Breakdown
from Major Dams



DAM STORAGE (%)

64.3

WEEKLY DAM LEVEL
CHANGE (%)

-1.5 ↓

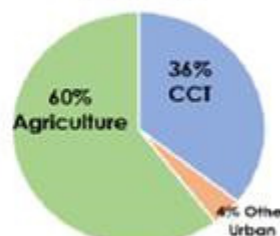
decrease since last week

AVG DAILY WATER USAGE
(FOR THE PAST WEEK)
ALL WATER SOURCES (MI/d)

570

(Target 650MI/d)

Weekly Percentage Water Usage Breakdown
from Major Dams



31 December 2018

DAM STORAGE (%)

65.7

WEEKLY DAM LEVEL
CHANGE (%)

-0.3 ↓

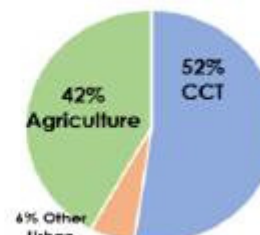
decrease since last week

AVG DAILY WATER USAGE
(FOR THE PAST WEEK)
ALL WATER SOURCES (MI/d)

551

(Target 650MI/d)

Weekly Percentage Water Usage Breakdown
from Major Dams



24 December 2018

DAM STORAGE (%)

66.1

WEEKLY DAM LEVEL
CHANGE (%)

-2.2 ↓

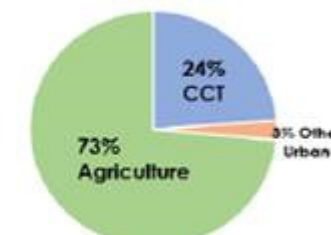
decrease since last week

AVG DAILY WATER USAGE
(FOR THE PAST WEEK)
ALL WATER SOURCES (MI/d)

583

(Target 650MI/d)

Weekly Percentage Water Usage Breakdown
from Major Dams



CITY OF CAPE
ISIXEKO SASEK
STAD KAAPSTA

IMPLICATIONS OF ALTERNATE FINANCIAL OPTIONS



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

Sanitation funded from Rates

- Options included:
 - Separate Rate-in-the-Rand
 - Prohibited by MPRA
 - Include in the Rate-in-the-Rand
 - VAT Implications
 - Tariff per “band of property value”
 - Under consideration
 - Impacted by each General Valuation Roll implemented
- Investigation into Alternate Revenue Source:
 - Storm water tariff
 - Significant implications:
 - Reduce rates income
 - Understand the impact of water storage tanks, boreholes, etc.
 - Need to consider redirecting clean storm water to waste water treatment works

Credit Control and Debt Collection Policy implications

- Auditor-General raised the issue of Indigent Households being granted 10,5kl per household per month
- The wording of the Policy did not allow for additional water usage, unless the household opted in
- Water Management Devices had been implemented in many places, but not all
- All charges outside of the Credit Control and Debt Collection Policy limitations had to be reconsidered, and reversed.
- Implications:
 - Decrease debt outstanding BUT
 - “Technical Water losses” increase

Conclusion

- **Water tariffs** should be designed so as to promote and encourage water **demand management** and conservation. This means that tariffs should have a component related to volume (**the more you use, the more you pay**) and have a tiered structure (higher rates of use attract a higher unit tariff)
- **Sanitation charges** need to be able to take consumer-level conservation efforts into account without compromising on the funding of the service.
- In the context of storm water, conservation is achieved through preservation of the service (i.e. disincentivising contaminants and reducing run-off).





CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

Thank You

For queries contact Louise.Muller@capetown.gov.za

Making progress possible. Together.