



## **GBCSA Opinion Piece – Cape Town Water**

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*(Manfred used this same material in a presentation at the SAPOA breakfast on 1 Feb 2018)*

The Western Cape and Cape Town, the mother city, are experiencing the worst drought in history and thousands of jobs are being lost in agriculture and other industries reliant on water. Cape Townians are having to pull together like never before to save water. As an employee of the GBCSA, I have the privilege of being part of a movement whose purpose is to inspire a built environment in which people and planet thrive, and I have seen incredible transformation in the property sector as companies embark on innovative efforts to reduce their impact on the environment and are saving millions of litres of potable water every year.

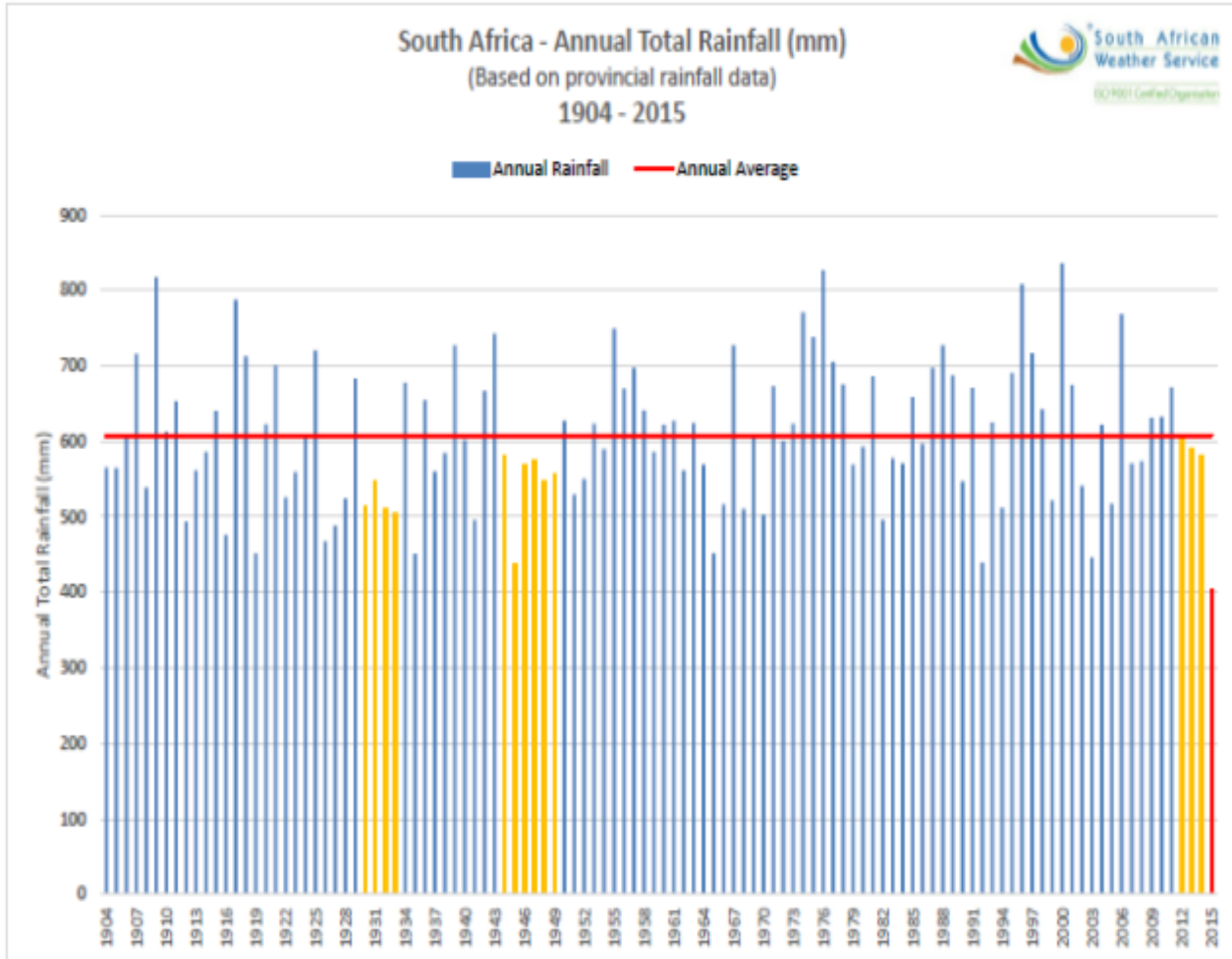
But how then, has the Western Cape and the City of Cape Town got itself into this position, and what do we as South Africans need to do to pull ourselves out of this position and move towards a thriving planet? This is what I would like to explore with you in this article.

The critical focus is on dam levels and expected rainfall, which is clearly essential to gauging what supply remains available for the city to distribute to its residents. However, one must consider the contributing factors to the current situation in the Western Cape. This should be done with the view of getting ourselves out of this dire situation and to avoiding this in future - in the Western Cape and the rest of South Africa.

### 1. Consecutive years of low rainfall

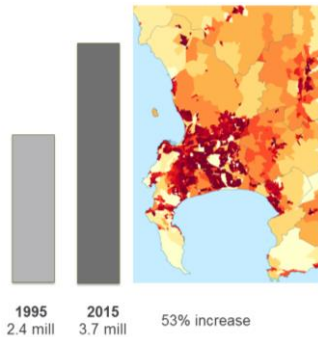
It is important to take note of years where there has been consecutive below average rainfall levels – one year below average does not spell drought. The last time South Africa experienced consecutive years of below average rainfall was in the 1930s and the 1940s, but now for the past 5 years we have experienced below average rainfall. This means dam levels are not able to recover after the rainfall season. The Western Cape has had particularly low levels, but this is not unique to the Western Cape.

To illustrate, see following graph:



## 2. Population Growth in Cape Town

Consumption is clearly based on how many residents live in and visit a city. If this number grows, consumption will grow, and this must be planned for when considering water storage capacity. Cape Town, similar to the other South African metros, has seen steep population growth in the past 20 years, experiencing an increase of 53% from 1995 to 2015 as indicated in this image:



### 3. Culture of overconsumption and wastefulness

Cape Townians, despite the City’s strong environmental consciousness, are not immune to a global culture of over consumption and wastefulness. In the past hundred years, human culture has been affected so much by a consumer mindset, in which overconsumption and wastefulness are prevalent. Our approach to water has been the same – we waste millions of litres of clean, potable water, whether it is for swimming pools we use for 3 months in the year, or when our sprinklers water the roadway, or when we let millions of pipes leak into the ground. But it’s not just clean water; all water is usable and reusable for some purpose. Our attitude and behavior towards water needs to change, forever.



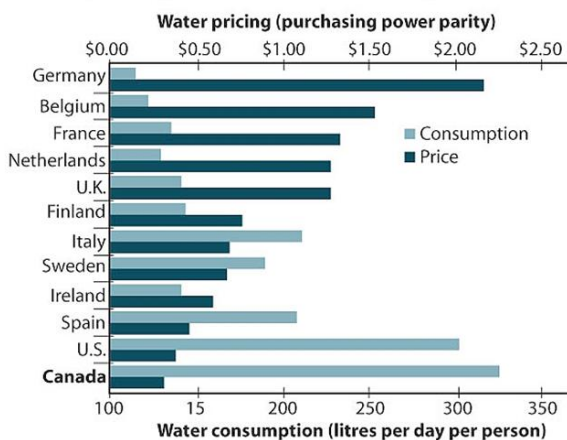
### 4. Price of Water

In South Africa, the price of potable water from municipalities is far too cheap for the middle to upper LSM consumers and industry. It means that we do not value a precious resource enough, and we cannot make investments into water related infrastructure have a good return on investment. It is clear from international research that in countries where water is priced more highly, consumption levels are lower. On the graph below, it is evident that water is most expensive and consumption is lowest, when compared to other countries. South Africa must price water much higher to industry and middle to higher LSM residents. This will not only reduce consumption in South Africa, but also allow municipalities to appropriately fund maintenance and future investment into water infrastructure.

### Water pricing versus water consumption



**WATER IS FAR TOO CHEAP**



Source: Polaris Water Project

Now if you combine these factors, we arrive at the crisis the city of Cape Town finds itself in. And so, it is important to consider these factors in combination. Rainfall is not in our control, so it is really the other 3 factors that we must act on immediately, to address the short-term crisis, but also to change the long term trajectory of water availability in South Africa, and in the property sector in particular.



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#### Take action now!

Cape Townians, whether at home or in their places of work or learning, need to take action – firstly, as an emergency response to possibly avoid and prepare for Day Zero, and secondly to make plans for a long-term shift in how we use water.

The city of Cape Town is working incredibly hard to communicate and convince residents to change their consumption behavior, but thus far only about 50-60% of residents are responding and changing their behavior adequately. If the



remaining 40% cut their consumption to required levels we can avoid Day Zero, but if not, we are likely to hit Day Zero. It is very difficult to change behavior, especially in a short space of time. Personally, having gotten our household consumption down below 50 litres/person/day from December 2017 onwards, we have as a family not experienced much difficulty and discomfort as a result. The City, as well as many other organisations such as WWF, have provided many resources to make it easier to save water at home. Click on following links:

<http://www.capetown.gov.za/Family%20and%20home/education-and-research-materials/graphics-and-educational-material/water-saving-resources>

<http://www.wwf.org.za/?23981/wednesday-water-file-01>

What residents don't always realise about the 50 litres/person/day is that this is your total water consumption for the day - including at work or school etc. In other words, the target for home should be less than what is consumed elsewhere during the day. You need to monitor what you are consuming away from home, and add it to your total daily consumption to measure yourself against the City's 50 litres/person/day target. What we also don't acknowledge enough, is that millions of South Africans, because of apartheid, have had to - and still do - live without clean running water in a home. We can learn a lot from communities that have lived in such dire conditions for many years, and take this opportunity to also consider how we can change their situation permanently while we come up with water solutions for the City.

Businesses, schools, homes etc. need to all prepare for Day Zero – how will you continue to function with no water from council? Yes, certain areas, such as the CBD and hospitals will not be disconnected (details pending from the city), but it is still advisable to make plans for Day Zero. We are aiming to avoid Day Zero completely, but we should nevertheless be prepared in case it does happen. From a business perspective, the solutions are unique to your business, but if you have no idea, the best would be to speak to your landlord, and or to other similar businesses. There is already a strong sense of community growing around this crisis, allowing businesses to work together to come up with solutions.

Lastly, we want to strongly encourage that you take steps to permanently change your approach to how you use and re-use water. Clean potable water is a scarce resource, that will become even scarcer, and as such we need to make a permanent shift to sustainable water usage.