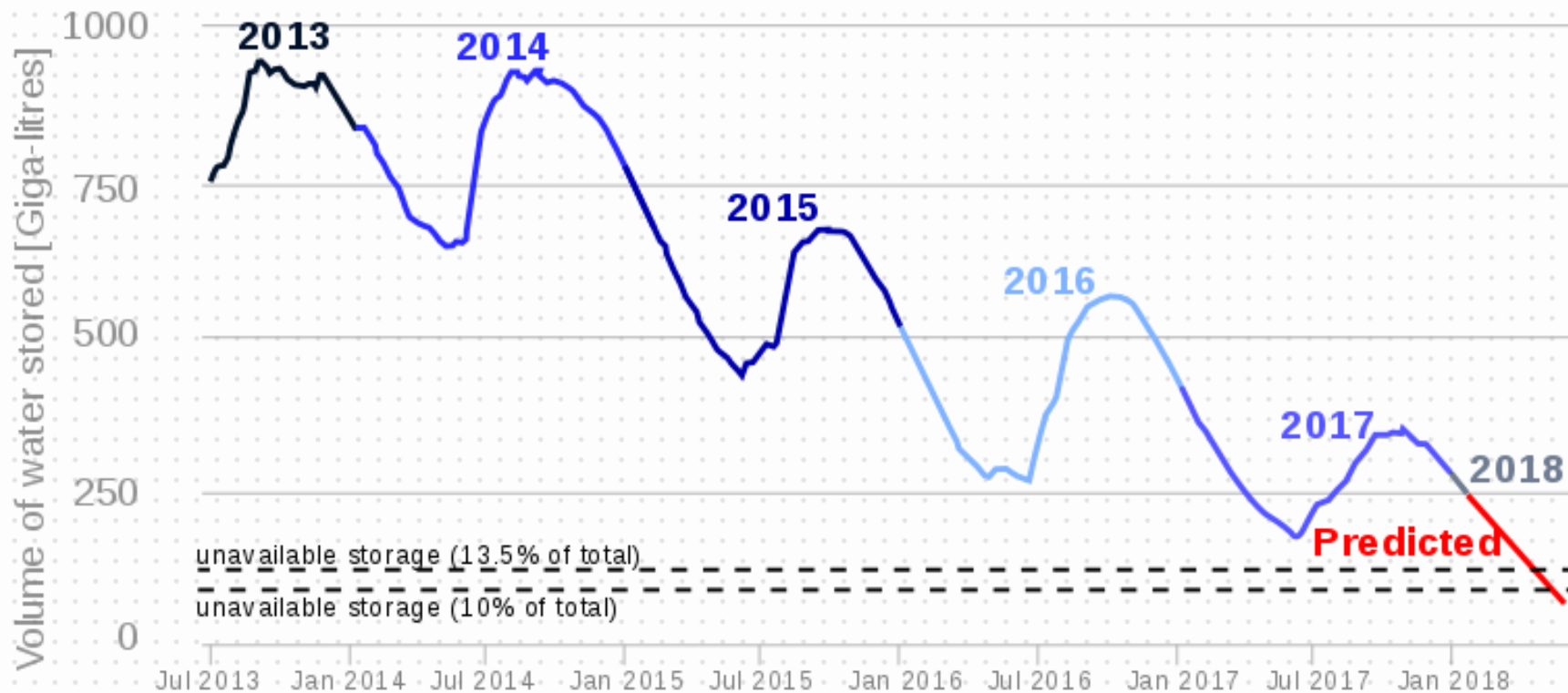


LET CAPE TOWN LEAD THE WAY ON HOW WE THINK ABOUT WATER

FREDRIK AGERHEM
MARCH 1, 2018

CURRENT SITUATION – WILL THERE BE A DAY ZERO?

CAPE TOWN'S DAMS



DAY ZERO

Communication in order for residents to understand the need for water savings.

Jan 16 – Day 0 as **April 21**

Jan 22 – Day 0 as **April 12**

Jan 30 – Day 0 as **April 16**

5 Feb – Day 0 as **May 11**

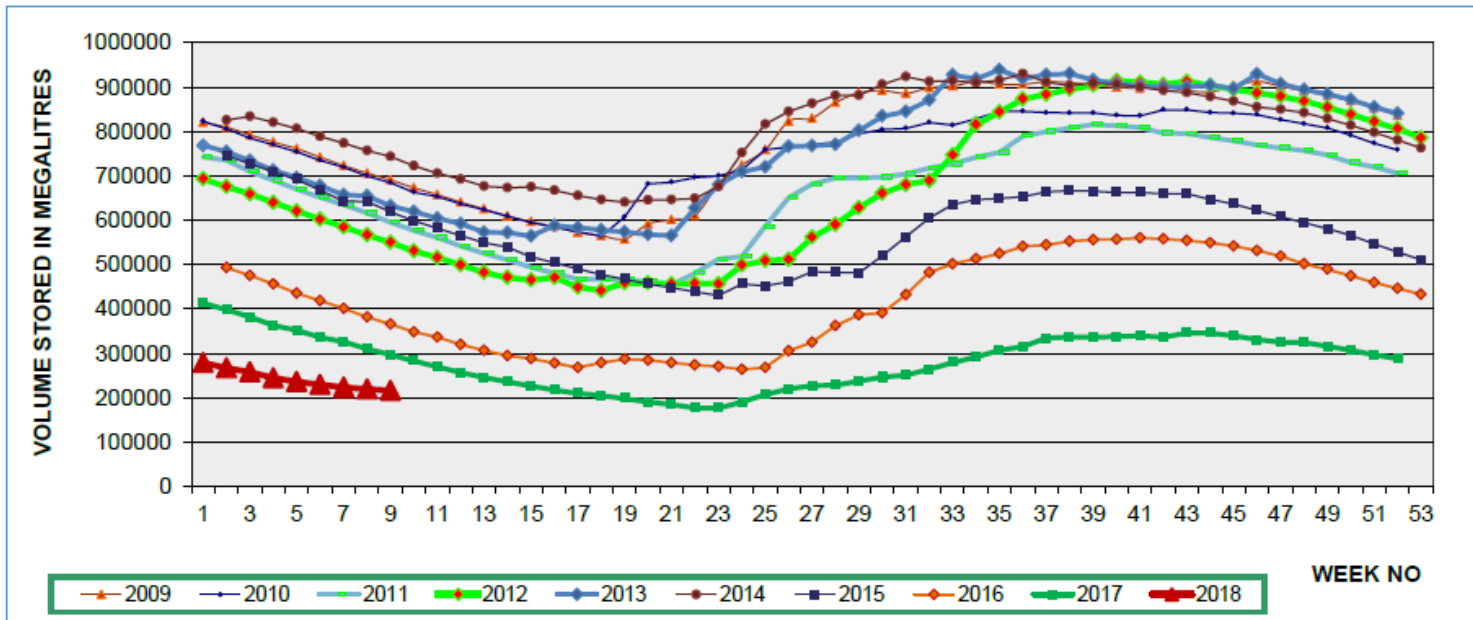
13 Feb – Day 0 as **June 4**

20 Feb – Day 0 as **July 9**

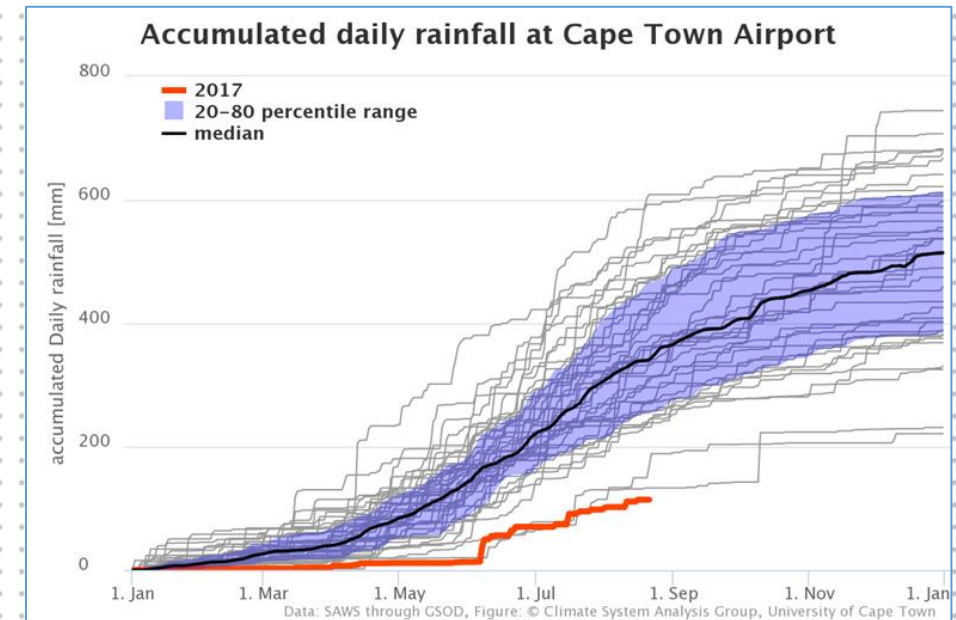
Target is 450 MLD. Current Consumption around 500MLD

CURRENT SITUATION – NEW NORMAL OF “OLD SUPPLY SYSTEM”

CAPE TOWN'S DAMS

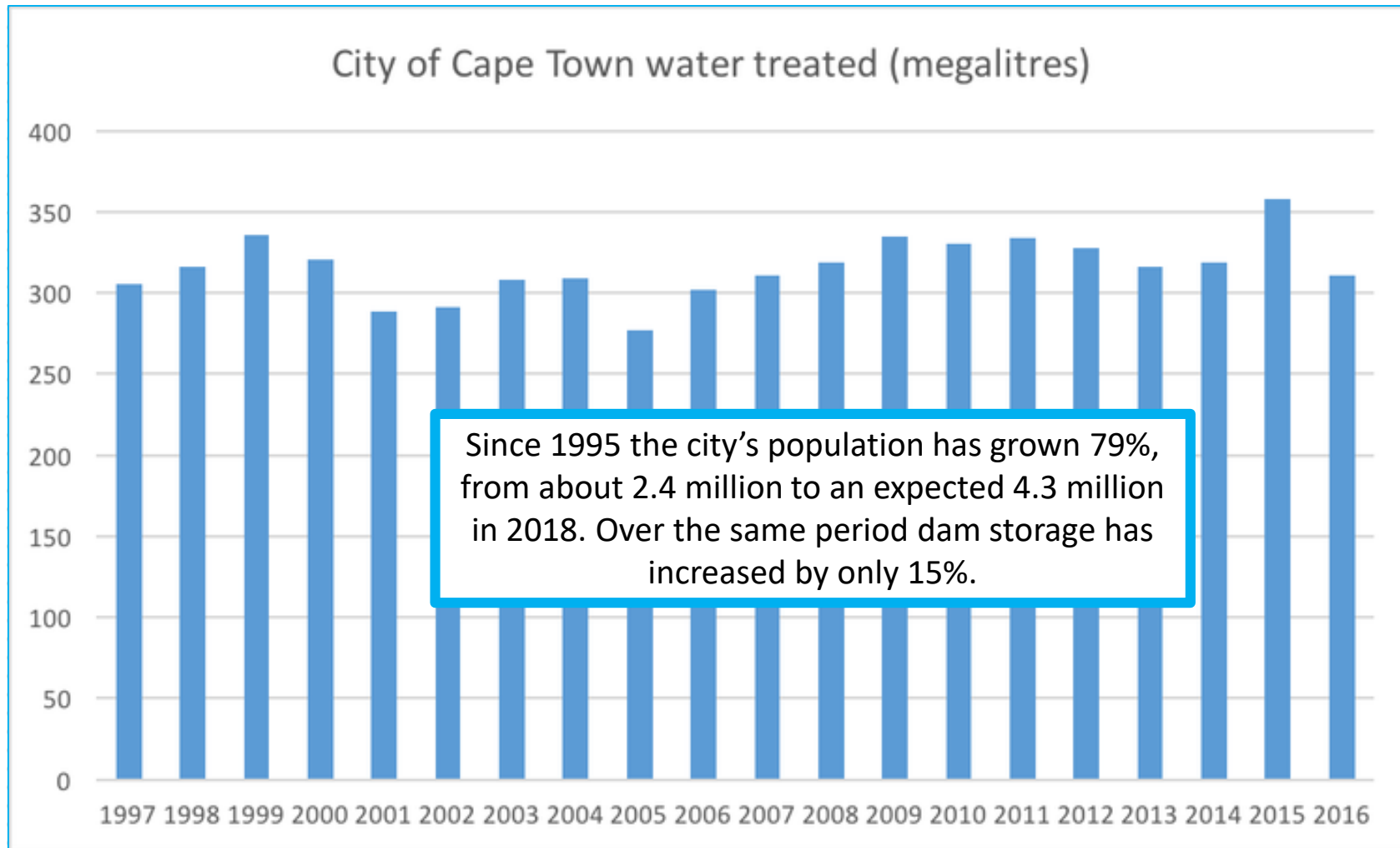


CAPE TOWN RAINS



“CAPE TOWN HAS NOT EXPERIENCED A DROUGHT LIKE THIS IN 300 YEARS”

CURRENT SITUATION – POPULATION GROWTH VS. INVESTMENTS



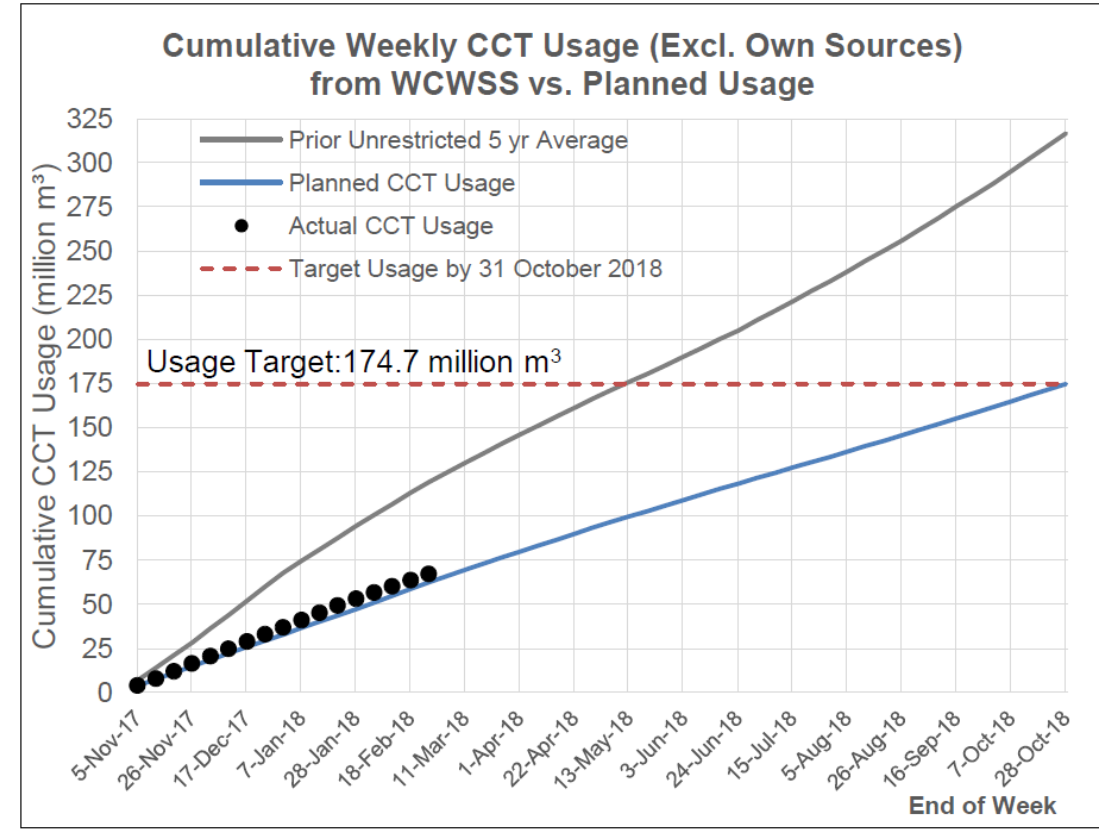
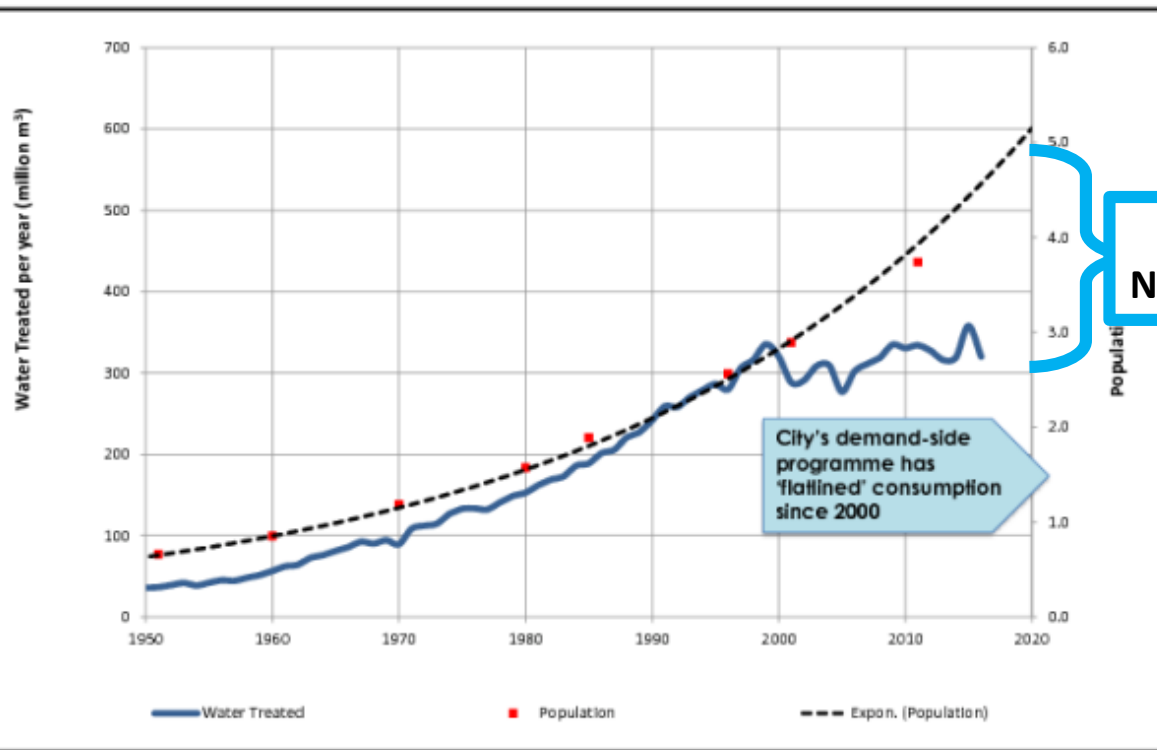
Cape Town has since year 2000 initiated mitigation efforts on how to decouple water use and economic development

- Adaptation to “new normal”
 - Year 1990: 383l/day/person
 - Year 2000: 273l/day/person
 - Year 2010: 235l/day/person
 - Year 2018: 186l/day/person

<https://www.groundup.org.za/article/facts-and-myths-about-cape-towns-water-crisis/>

CURRENT SITUATION – MITIGATION BY REDUCED CONSUMPTION

Population Growth and Water Use Efficiency



CCT = City of Cape Town

WCWSS = Western Cape Water Supply System

WHAT IS BEING DONE?

CITY OF CAPE TOWN

- VALUE/PRICE
- SHAMING (MAP)
- ADVERTISING
- DESALINATION
- CATCHMENT AREAS
 - FYNBOS
 - INVASIVE ALIEN PLANTS
- PRESSURES
- LEAKS
- INCREASED BUDGET
- ETC...

HOTELS AND B&B

- PAY A HIGHER PRICE
- LINEN AND TOWELS
- POOL (SALT WATER)
- POOL COVERED
- DESALINATION
- EFFICIENT FAUCETS
- EFFICIENT TOILETS
- ETC...

FARMERS

- REDUCED ALLOCATIONS
- USING NUTRIENT RICH SOIL
- MULCHING
- DRIP LINE IRRIGATION
- ETC...

RESIDENTS/TOURISTS

- PAY A HIGHER PRICE
- 50 L/DAY/PERSON
 - 2 MINUTE SHOWER
 - HAND SANITIZER
- NO CAR WASH
- NO IRRIGATION
- LEAKS
- FAUCETS
- ETC...

NON REVENUE WATER LOSS IS AT 22% (SA – 37%), DESALINATION IS ON TRACK


EXAMPLE 1: INFORMATION TECHNOLOGY – SHAMING



WATERVIEWER – ALL METERED WATER CONSUMPTION INFORMATION IN CAPE TOWN IS PUBLISHED

EXAMPLE 2: INFORMATION TECHNOLOGY – ENCOURAGING

CALCULATE YOUR DAILY USE



SHOWER
Choose one shower per day.
TOTAL: 20 l

Stop/start shower = 5 l

–

0

+

Stop/start with hair wash = 10 l

–

0

+

2-minute-shower = 20 l

–

1


+

Sponge bath (basin) = 3 l

–

0

+



TOILET
Choose your flush for the day.
TOTAL: 4.50 l

One normal flush = 9 l

–

0

+

Half flush = 4,5 l

–

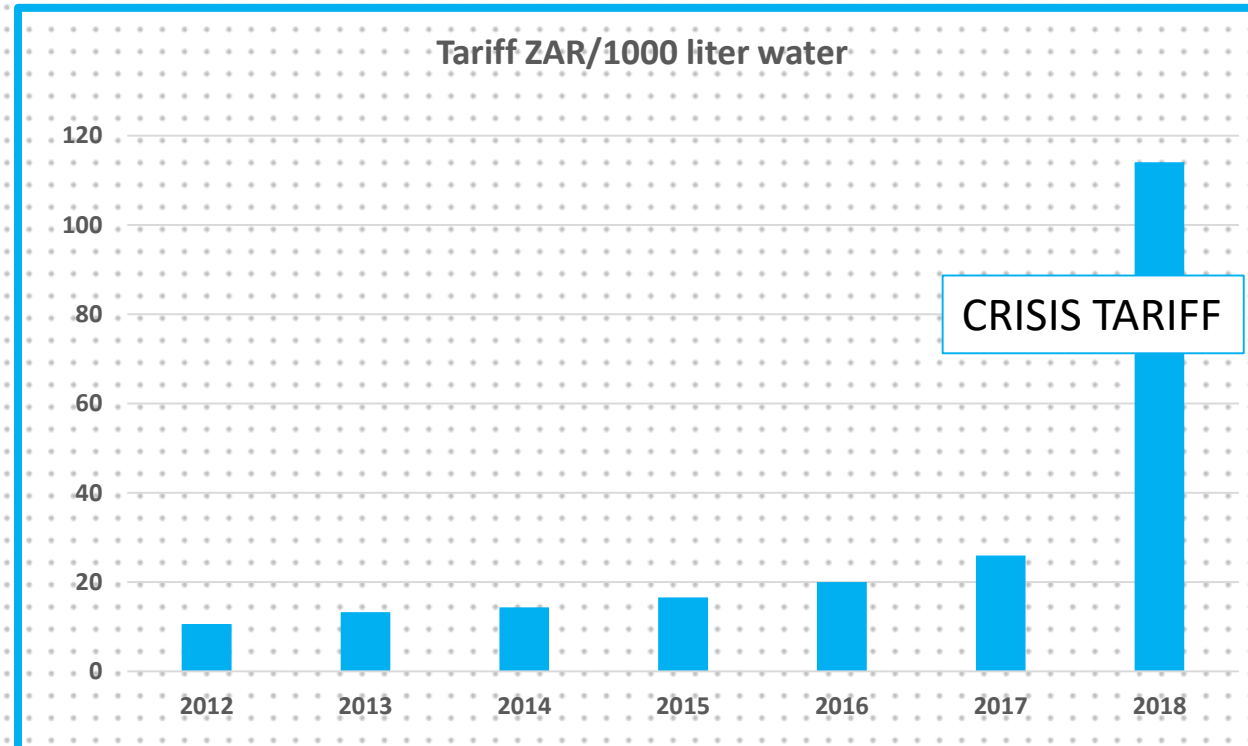
1

+

<http://coct.co/thinkwater/calculator.html>

WATER CALCULATOR – HOW MUCH WATER AM I USING?

EXAMPLE 3: TARIFF INCREASES



Tariffs for a household using 10-20 000 liters/month

50 liters/day/person is a household consumption around 6000 liters/month

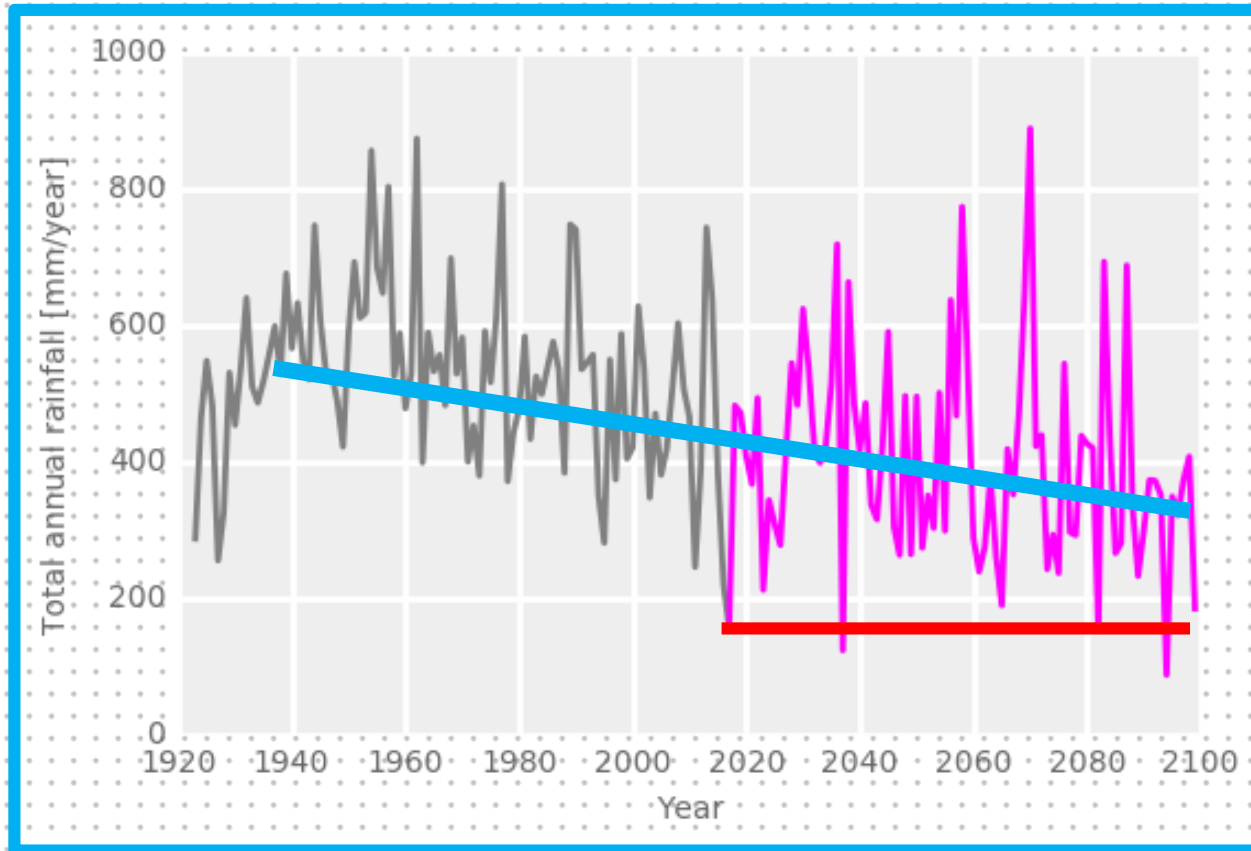
THE BASE FOR FEE COLLECTION IS SIMULTANEOUSLY REDUCED BY THE WATER SAVING SCHEME, THUS THE LOCAL GOVERNMENT HAS PROPOSED A DROUGHT FEE

CAPE TOWN IS A SHOWCASE FOR NEW NORMAL

- + MAJOR GLOBAL TOURIST ATTRACTION
 - 10 million tourists
 - 300 000 jobs
 - 7,5 % of Cape Town GDP
- + 1ST WORLD CITY
- + TRANSPARENCY AND REACH
- + INFORMATION IS AVAILABLE
- + DATA IS AVAILABLE (CONSUMPTION)
- + TECHNOLOGIES CAN BE IMPLEMENTED

THE WORLD LOVES CAPE TOWN AND CAPE TOWN NEEDS THE WORLD

WHAT TO EXPECT IN CAPE TOWN?

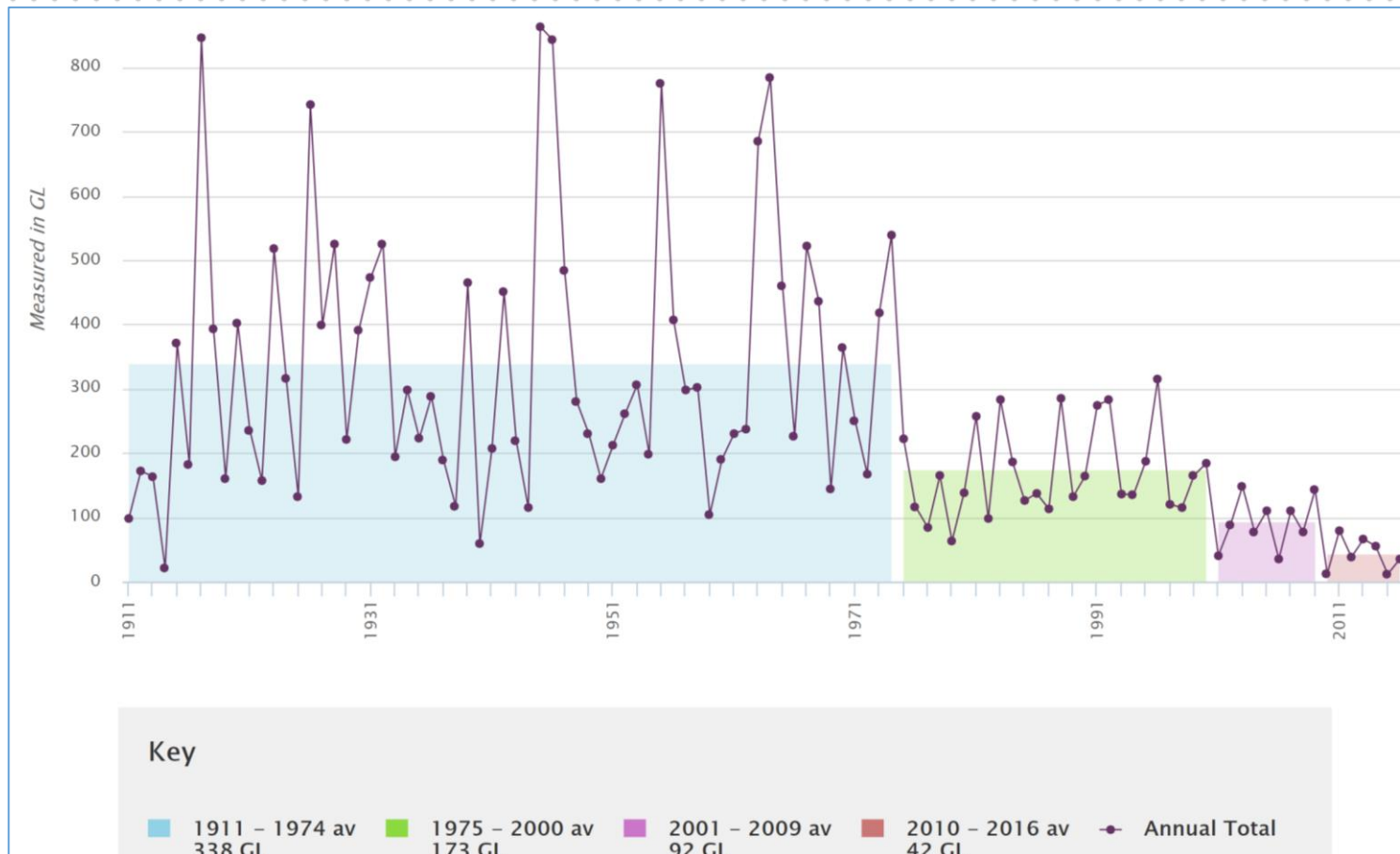


**NEW NORMAL
(WITHOUT DESALINATION)**

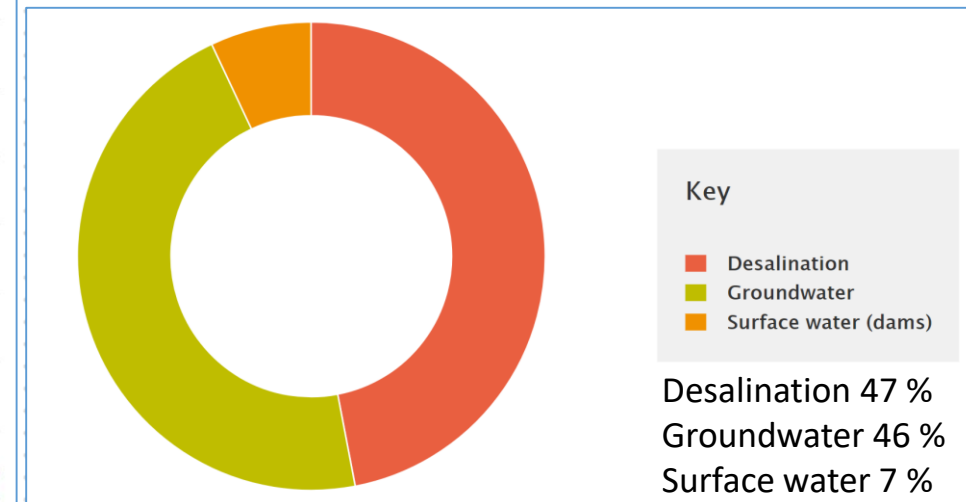
**DAY 0 LEVEL
(WITHOUT DESALINATION)**

**THE NEW NORMAL IS A CONTINUED VARIATION OF RAINFALL, WITH LIKELY MORE DRY YEARS TO 2100
WE NEED TO ADAPT (CONSUMPTION AND SUPPLY), BUT NOT BE ALARMED**

...OR FOCUS ON WATER SUPPLY LIKE IN PERTH



Water supply 2016
94 GL



Despite the severe water supply situation Perth is still one of the highest water using cities in Australia, the average water use in 2015-16 per person was 350 liters/day

NEW NORMAL?

VALUE WATER!





THANK YOU