



**Western Cape
Government**

BETTER TOGETHER.

UNDERSTANDING THE WATER CRISIS - AND TAKING ACTION

01 February 2018

Deputy Director General: Economic Operations | Rashid Toefy



**WE FACE MAJOR
ENVIRONMENTAL, ECONOMIC AND
SOCIAL CHALLENGES**



Global water use
DOUBLES
every 20 years.

It's time to set

**some
limits**

The scales have
tipped on global
climate change
action





THE PRESSURE IS RISING

Near capacity in 2014

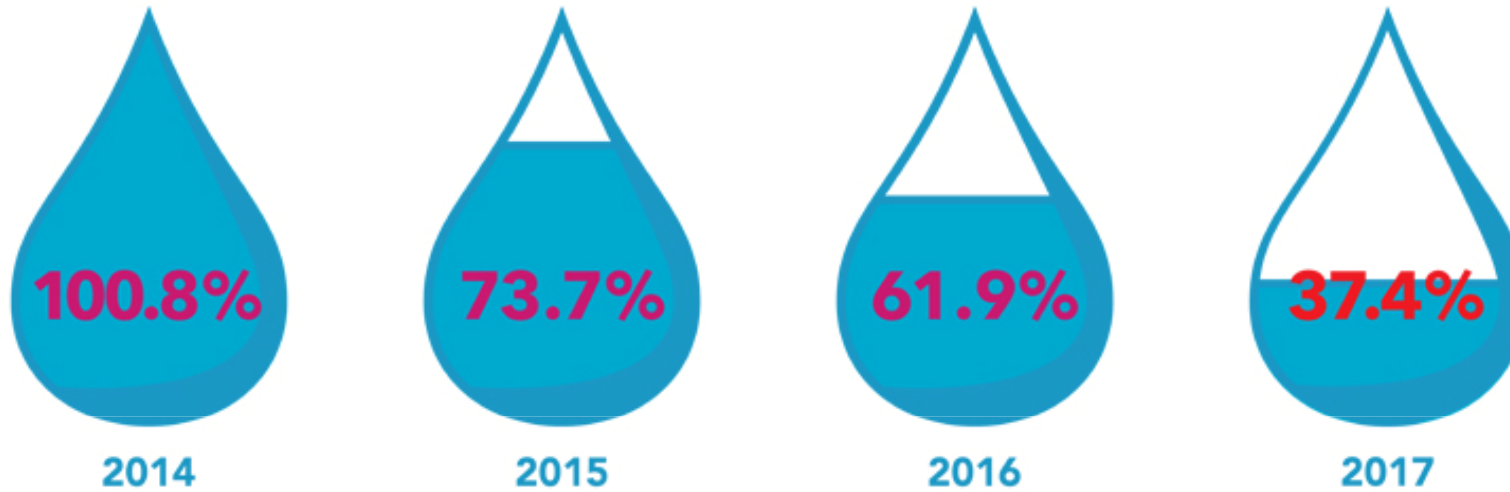


How did we get here?



THEEWATERSKLOOF DAM - 20 JAN 2017

Annual major Dam levels – September 25th each year





Economic impacts of water crisis

- **Low water supply**
- **Uncertain water supply**
- **No water supply**
- **Variable water quality**
- **Knock on high costs of water**

Reduced productivity

Delaying investment

Unplanned infrastructure investments

Increase in cost of inputs

Decreased competitiveness

Profit loss

Employee retrenchment

Importing products previously sourced locally

Reputational loss as a supplier

Reputational loss as a destination

Change management required for new normal

Increase in unemployment

Increase in prices of goods and services for all

Food security

Closing down of businesses

Decrease in rates & taxes

Decline in GVA

Loss of confidence in investing in WC

Categorisation of Municipalities: Risk Levels

High Risk

- Langeberg Local Municipality
- Matzikama Local Municipality
- Bergrivier Local Municipality
- Drakenstein Local Municipality
- Stellenbosch Local Municipality
- Knysna Local Municipality
- Kannaland Local Municipality
- Saldanha Bay Local Municipality
- Swartland Local Municipality
- City of Cape Town Metropolitan Municipality

Medium Risk



- Cederberg Local Municipality
- Witzenberg Local Municipality
- Theewaterskloof Local Municipality
- Hessequa Local Municipality
- Bitou Local Municipality
- Laingsburg Local Municipality
- Beaufort West Local Municipality
- Oudtshoorn Local Municipality

Low Risk

- Cape Agulhas Local Municipality
- Mossel Bay Local Municipality
- George Local Municipality
- Breede Valley Local Municipality
- Prince Albert Local Municipality
- Overstrand Local Municipality
- Swellendam Local Municipality

Cape Town and the Western Cape

Legend

-  Severe Water Restrictions
-  Moderate Water Restrictions
-  No Water Restrictions

ATLANTIC OCEAN



INDIAN OCEAN



**WHAT ARE WE
DOING TO
ADDRESS IT?**



**INVEST
CAPE TOWN**
COLLABORATE | ENABLE | PROMOTE

PRESSURE MANAGEMENT



- More than 116 pressure management zones have been created
- Design underway for further 29 pressures management zones
- Throttling of bulk water valves is being done where benefits are identified
- They are spread throughout the City and no specific areas are targeted
- This will lead to outages in certain areas for approximately 10 hours a day





ACTIVE DETECTION & REPAIRS

- Dedicated leak detection team (Includes EPWP and Rand Water graduates)
- Creation of 75 new positions to reduce response times to burst pipes and meter faults / leaks.
- Injection of R22m into this programme this year to improve response time



Vandalized hydrants and dumping in chambers



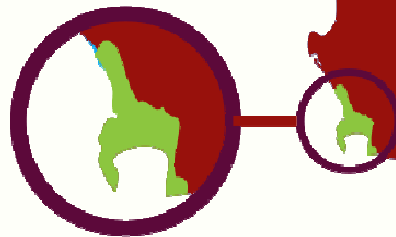
ONE OF THE LOWEST WATER LEAKAGE RATES IN THE WORLD

Cape Town
Municipality

16%

National
Average

36%



WATER MANAGEMENT DEVICES

- Up until end of 2016/2017 220 000 WMDs had been installed
- Approximately 22 000 WMDs installed since mid-September 2017 focused on high water users
- Now being installed at rate of more than 2000 per week
- As of January all domestic properties using more than 10500kl/m to be fitted





ENFORCEMENT

The water inspectorate continues to issue fines for all water restriction contraventions.



INVEST
CAPE TOWN
COLLABORATE | ENABLE | PROMOTE



TREATED EFFLUENT RE-USE FOR INDUSTRY

- More than 200 users have permanent connections
- More than 70 Industries are collecting treated effluent at WWTW and standpipe points
- Mostly used for irrigation and industrial purposes:
 - Golf courses
 - City Parks
 - Schools and Farmers
 - City Departments
 - Industries etc.



AUGMENTATION

A close-up photograph of two hands holding glass beakers. The beaker on the left contains clear water, while the beaker on the right contains a cloudy, white liquid. The background is blurred, showing a person in a blue shirt.

The City of Cape Town has been working towards a diversified supply for some time, but due to the expense of options other than surface water, the projects have progressed to pilot stage, rather than production.

The full augmentation plan runs until June 2022.

- Short-term, temporary desalination (16 MLD)
- Groundwater abstraction (peak at 150 MLD)
- Springs
- Water re-use
- Permanent desalination

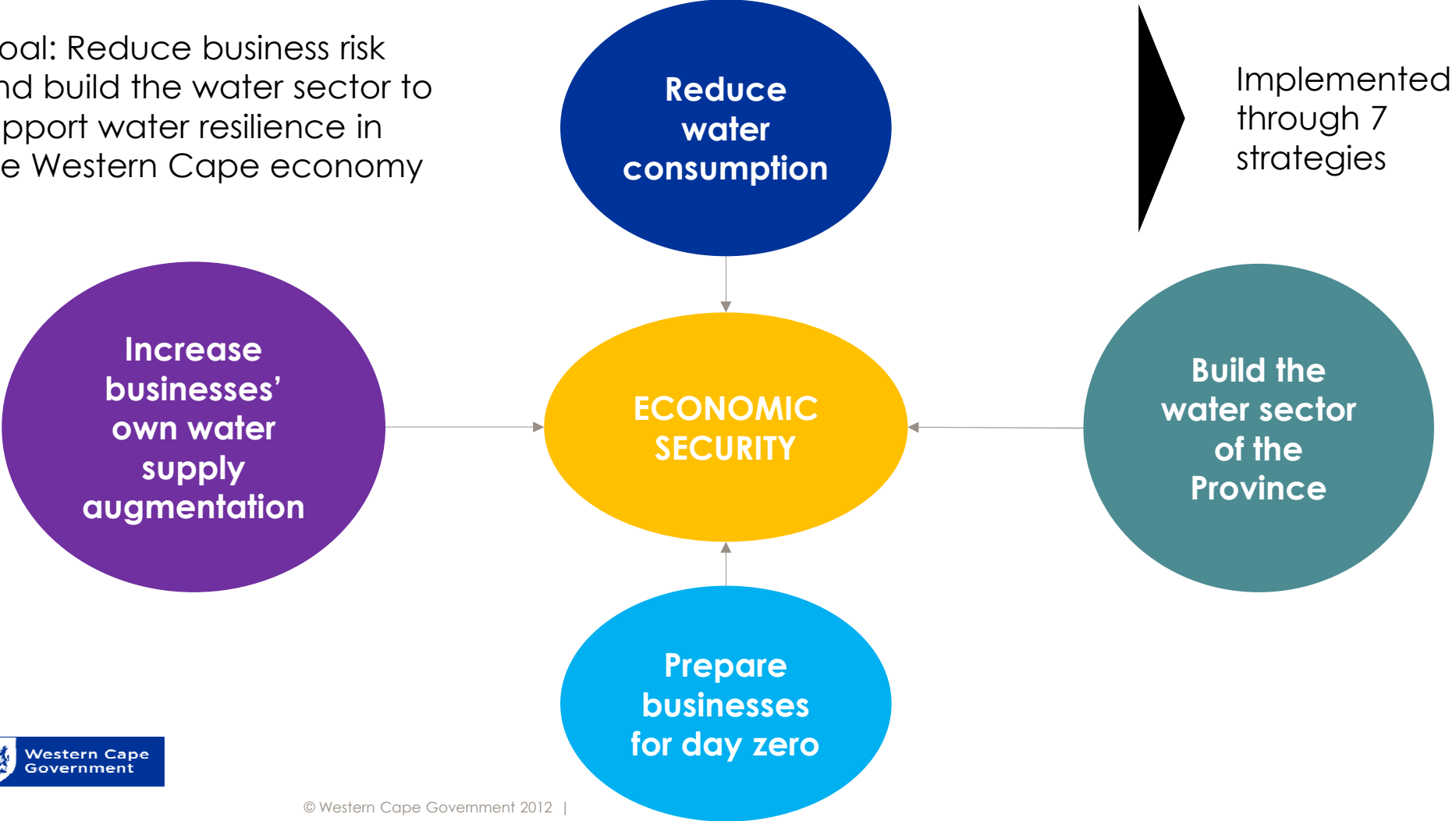
DESALINATION PLANTS

MONWABISI, 22 JANUARY 2018



Economic security workstream goal & objectives

Goal: Reduce business risk and build the water sector to support water resilience in the Western Cape economy



WCG Response: Continuity plan for WCG run facilities & operations

- **Demand management interventions**

- All critical service delivery WCG facilities (2 988 facilities) in order to contribute to avoiding a “dry-taps” scenario in any areas of the Province. Incl
 - Schools: water tracking (leaks), water restrictors & awareness
 - Health services - approx. 600 health facilities
 - Education – approx. 1500 schools

- **Supply-side interventions** - ensure essential supplies of drinking water - hygiene & fire safety purposes in key facilities to secure vital facilities
- **Water BCP of departments and entities** (400 total)

50 FOR 150

If we all use 50 litres for 150 days, we have a chance of making it to the next rainy season, without having to turn off the taps.

Don't wait for Level 6b water restrictions, to reduce your use.

LET'S BEAT DAY ZERO WITH 50ℓ OR LESS PER DAY



This is a guide for 50ℓ per person per day. Your actual usage will depend on your appliances and personal preferences.

FOR MORE VISIT CAPETOWN.GOV.ZA/THINKWATER

FOLLOW @CITYOFCT ON FACEBOOK AND TWITTER



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

Making progress possible. Together.

www.capetown.gov.za/thinkwater

www.defeatdayzero.co.za

www.greencape.co.za

www.wwf.org.za



INVEST
CAPE TOWN
COLLABORATE | ENABLE | PROMOTE

Water dashboard

DAY ZERO 16 | 04 | 2018

THE DAY THE TAPS
WILL BE TURNED
OFF

Day Zero is based on the previous week's daily consumption average of 580ml/day.

NOTE: Level 6b water restrictions are in effect from 1 February, which requires all to drop their daily use to 50 litres pp/day or less. To find out what you can do, visit www.capetown.gov.za/thinkwater

THE CITY

The City's progress on securing alternative water sources.



62%

THE DAMS

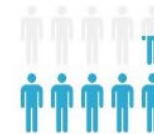
Combined level of dams supplying the city. For more info click here.



26.3%

CAPETONIANS

Percentage of residents using 87l or less per day.



55%



**WHAT CAN
INDUSTRY DO?**



**INVEST
CAPE TOWN**
COLLABORATE | ENABLE | PROMOTE

Select business and industry innovations

- Saldanha fish canning
- PPC and construction industry
- Tourism and Film Industry – Water war room, crisis communication plan
- Events – Cycle Tour and OMTOM
- Film Industry...
 - Eg. Project in place to digitize the film permitting process in key municipalities
- **What else can we do ?**
- **What else are you doing ?**



WATER FOOTPRINT

Virtual water embedded in products



650 Barley
litres of water for one pound (500 g)



650 Wheat
litres of water for one pound (500 g)



1400 Sorghum
litres of water for one pound (500 g)



2500 Millet
litres of water for one pound (500 g)



650 Toast
litres of water for one package (500 g)



750 Cane Sugar
litres of water for one package (500 g)



90 Tea
litres of water for one pot (750 ml)



840 Coffee
litres of water for one pot (750 ml)



2500 Burger
litres of water for one burger (150 g beef)



4650 Beef
litres of water for one steak (300 g)



1000 Milk
litres of water for one litre



2500 Cheese
litres of water for one big piece (500 g)

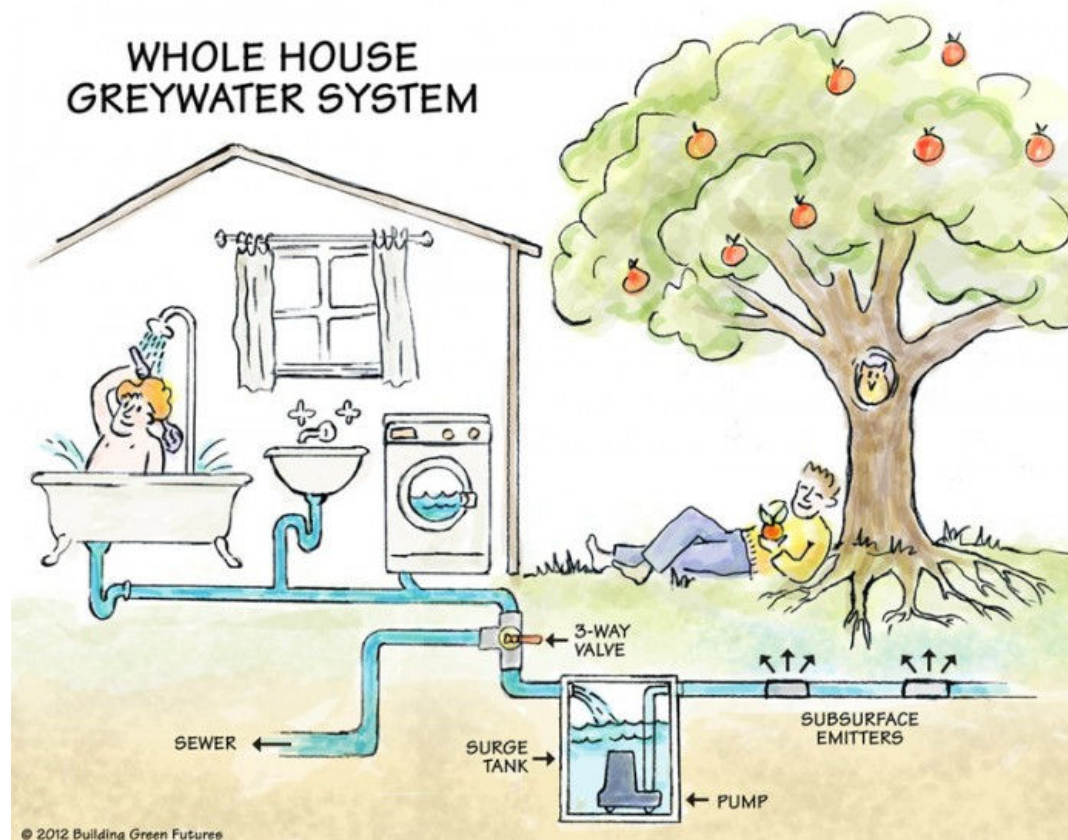
Washing clothes

Essentials only!

80 liters per **wash*** and delicate wash is most efficient



Greywater systems



What we need from all municipalities, businesses and academic institutions

- Reduce water use as much as possible
- Implement own water supplies where possible
- Help in communicating the severity of the drought & urgency to reduce water use – to businesses, competitors, suppliers, customers, and employees (to activate in places of work & at home)
- Use and signpost support available to businesses
- Institute training and development on water saving – we are here to help

(<https://www.westerncape.gov.za/110green/water>)



Changing all the
lightbulbs won't solve
the problem either...

*...we have to think and
act in radically different
ways...*

ACT NOW

