

16th February 2018

Joint water advisory: Cape Town and Western Cape government and business entities



If we work together, and we plan properly, we can avoid 'Day Zero', and emerge stronger than before

At present Cape Town and the Western Cape are experiencing its worst drought in 400 years.

Level 6b restrictions have been implemented in order to ensure that consumption is reduced to a level where 'Day Zero' can be avoided.

Businesses have an important role to play in achieving this objective. By reducing your water consumption, or by making use of non-potable and other non-municipal water, you will help ensure that the City of Cape Town's target of 450 million litres per day is not exceeded.

But as any good business person would know, planning for the future is absolutely essential. Now is the time to put in place your business continuity plans, so that you are secure now and into the future. Climate change is a reality that many places around the world are either already facing, or will soon face.

If we work now to build resilient businesses, we will emerge from this drought as a leading green economy in the years ahead. And in doing so, we will be an even more inspiring place to do business.

To help you, we have compiled answers to frequently asked questions that you may have on the drought and its impact on your business.

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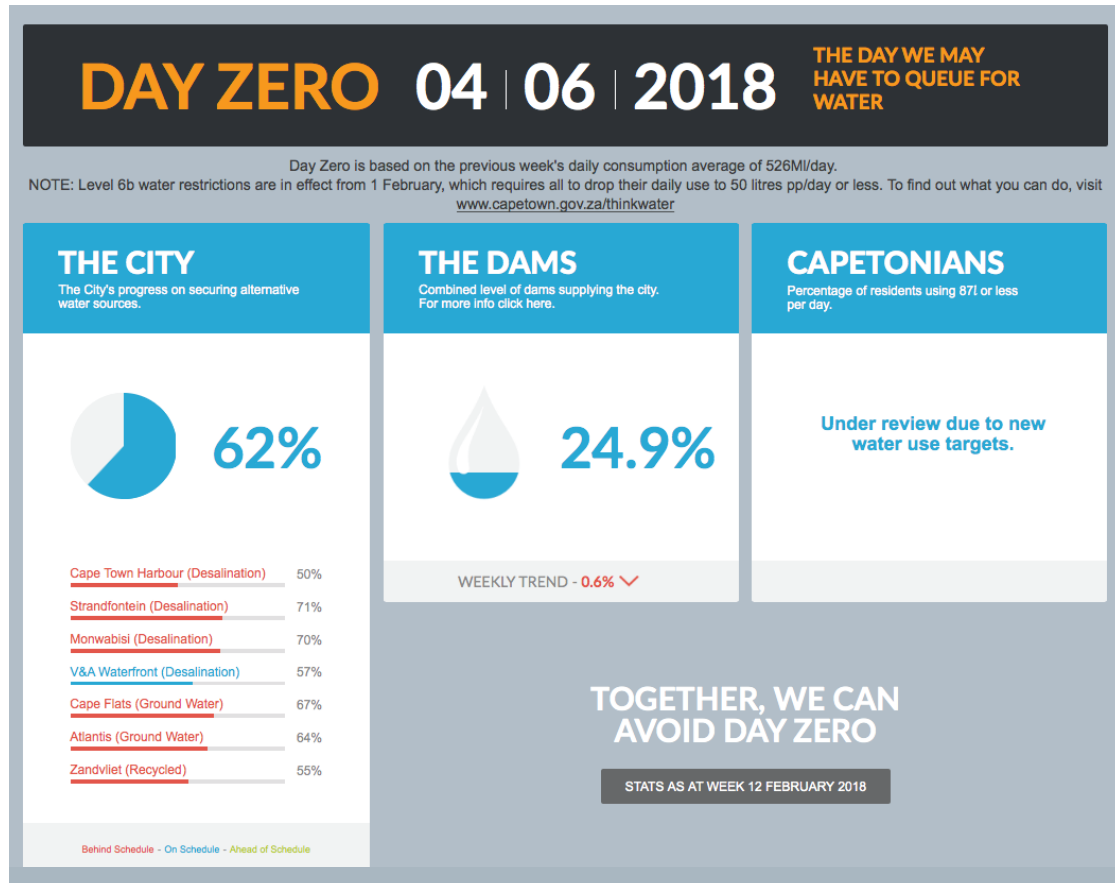
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? Frequently asked questions

1. How serious is the drought?

This is the worst drought in the region since records began. The drought can only be broken by 3-4 years of good rain. Various restriction levels have been implemented by municipalities. The effect of the drought is long term.

- City of Cape Town's weekly dam level and consumption dashboard – updated weekly
<http://www.capetown.gov.za/dayzerodashboard>



- UCT's Climate Science Analysis Group (CSAG) rainfall monitoring (ensure to click on 2015, 2016 and 2017 blocks)
<http://www.csag.uct.ac.za/current-seasons-rainfall-in-cape-town/>
- Western Cape's dam levels, email Lourencio at Lourencio.Pick2@westerncape.gov.za for latest dam levels

The City of Cape Town is implementing its Critical Water Shortages Disaster Plan (currently in phase 1), which will guide people through the coming months as we face the most severe water shortages to date.

2. What is Government doing to address the drought?

All tiers of government are actively responding to the drought crisis through restrictions, reducing their own consumption, awareness raising and augmenting water supply, amongst other interventions. For the latest updates please refer below:

- City of Cape Town's drought updates – updated weekly
<http://www.capetown.gov.za/thinkwater>
- Western Cape Government drought page, including restrictions by municipality
<https://www.westerncape.gov.za/general-publication/latest-western-cape-dam-levels>
- The Western Cape Government's Business Continuity Planning Report <https://www.westerncape.gov.za/general-publication/water-business-continuity-plan-western-cape-government-services>

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3. What can my business do?

- Use municipal drinking water only for essential washing, cooking and drinking purposes, and only use indoors
- Check and fix all leaks on your property

Start your business' sustainable water journey today to:

- Improve the understanding of your water use and risks;
- Increase your water efficiency;
- Reuse the water you use on-site;
- Access alternative supplies of water; and
- Work with other businesses to build a more resilient water future together.

Below follows descriptions of the listed areas

a. Understand water uses and risks

- You cannot manage what you do not measure.
- This is the first step on the sustainable water journey, and perhaps the most important. Businesses need to get a handle on what their water usage is, where it is being used and for what purposes. This can be done by conducting water audits, by installing smart-meters and/or sub-metering your business property. Metering has proven to be an incredibly effective strategy at identifying leaks, so that they can be fixed quickly. Metering alone has helped businesses reduce their consumption significantly due to the identification of leaks and the subsequent behaviour changes. It is also important to note that large water users (using more than 10 000 000 litres per annum) are required to report their water use to the City of Cape Town.
- Understanding how much water is being used, where and how will help you create a resilience plan with the greatest impact. Furthermore, it is important to evaluate the quality of water required for your various uses, for example, potable water is not required for flushing toilets and therefore alternative water sources could be explored. You also need to evaluate where your biggest risk from a lack of water may arise. If you (or your suppliers or customers) do not have access to water, how will this impact on your business?
- Once your current consumption has been benchmarked, the next step is to create targets for your organisation, linking them to individual users and interventions.
- Below are tools and case studies that can assist you in this process, categorised into sectors.

<https://www.greencape.co.za/content/focusarea/drought-business-support>

| Commercial sector | Hospitality sector | Health care facilities | Industrial sector | Agricultural sector |
|--|---|---|---|---|
| <p>The Green Building Council of South Africa's energy and water benchmarking tool provides a guideline for the calculation of your office building's water (and energy) use. https://www.gbcsa.org.za</p> <p>The dti also financed a detailed report "Baseline water use determination and target setting in the commercial sector".</p> | <p>The AquaSmart Hotels tool is available on the Water Research Council (WRC) website. Note, it consists of two excel workbooks, the first is the tool itself and the second is a database where water consumption can be stored.</p> | <p>For implementing water efficiency measures in health care facilities, refer to technical memorandum on water use in hospitals.</p> | <p>Industrial water use is highly process specific and therefore varies greatly. This is reflected in the range of Natsurvs undertaken by the Water Research Council (WRC) to consider the benchmarks for different industries ranging from laundry to abattoirs. A summary of the Natsurvs is included here with the full details of the Natsurvs available on the WRC website https://www.greencape.co.za/assets/Uploads/Natsurv-summary.pdf.</p> <p>For businesses that are interested in undergoing an audit of their water (and/or energy, materials or waste) usage, the National Cleaner Production Centre (NCPC) offers free Resource Efficiency and Cleaner Production (RECP) assessments. If you are interested apply on their website. For information on water benchmarks in the beverage industry please visit: https://www.greencape.co.za/assets/Uploads/Natsurv-summary.pdf</p> | <p>For businesses in the agriculture sector, the GreenAgri website provide a great overview of available options. http://www.greenagri.org.za/tips-and-tools/tips/water-management/</p> |

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b. Water efficiency interventions

- Once your business has identified where its water is being utilised, the next step is implementing water efficiency technologies, fittings, processes and behaviours.
- Toilets, taps and showers typically consume 40-60% of the total annual potable water use in domestic and commercial areas. Therefore, these fixtures are a high impact target area to address when looking to reduce water consumption. They are also relatively easy and cost effective to retrofit with water saving fixtures.

These interventions will again vary significantly by sector, but some generic examples are included below.

Water efficient fittings (typically easy to retrofit):

- Hold-flush or dual flush toilets;
- Waterless urinals;
- Cistern displacement item (older toilets);
- Low-flow aerated taps;
- Low-flow shower-heads;
- High efficiency pre-rinse spray valves;
- Water efficient dishwashers and washing machines; and
- Automatic switch off devices / motion sensor devices – e.g. for cleaning conveyor belts.

Water efficient practices:

- Fix leaks and faulty / leaking equipment and service equipment on a regular basis;
- Uncomplicated reporting procedure for staff to report leaks;
- Optimise the operation of cooling systems;
- Sweeping or mopping floors rather than spraying down floors;
- Implement water wise gardening and do not irrigate with potable water;
- Only operate dishwashers and washing machines when fully loaded; and
- Staff training and guest awareness programmes.

| Commercial sector | Hospitality sector | Industrial Sector | Households and small enterprises |
|---|--|--|--|
| <p>Many of the water efficient fitting examples included above are relevant for offices, and are easy and cheap to install. For further suggestions, refer to the Alliance for water efficiency.</p> <p>Fournos Group, Tanaz Hair and Virgin Active also highlight some of the interventions they undertook when Gauteng faced drought conditions in 2015.</p> <p>This short ENC report highlights some of these interventions that include: more efficient cleaning and less frequent backwashing of pools. The US EPA has also developed an extensive guideline for best management practice in commercial buildings. Detailed dti report on “baseline water use determination and target setting for the commercial sector”.</p> | <p>There are a number of guidelines for the hospitality sector, including: Best Practice Guidelines for Water Usage for Hotel Industry developed by the water supplies department of Hong Kong. Green Hotelier also provides an overview of water efficiency interventions that should be considered, their Water Management and Responsibility in Hotels article. http://www.greenhotelier.org/know-how-guides/water-management-and-responsibility-in-hotels/. In recognition of the severity of the drought, 120 hotel leaders in FEDHASA CAPE signed a water pledge on 5 October 2017 to reduce water consumption (through various measures) and to share water use data. FEDHASA CAPE has also established a water-wise task team to assist members in developing water wise policies and implementation plans. http://fedhasa.co.za/ and have included representatives from the conferencing and restaurant sub-sectors. Here is an article on how the city's top hotels are taking action in the drought climate. https://www.dailymaverick.co.za/article/2017-10-24-capewatergate-how-the-citys-top-hotels-are-taking-action-in-the-drought#.</p> | <p>There is a wide range of industrial sector examples of water savings in manufacturing processes. Coca-Cola Beverages SA (CCBSA) have been able to reduce the amount of water required to produce one litre of soft drink from 2.13 litres in 2010 to 1.7 litres in 2016. Internationally, a wide range of interventions have successfully implemented in a wide range of companies. These include Ford, Kimball Office, MillerCoors, Cascade Tissue Group and BASF. https://www.fmanet.org/blog/2013/07/27/5-manufacturers-reduce-water-use</p> | <p>For households and small enterprises that are interested in getting to grips with water efficient fittings, JG Afrika's Domestic Water Saving Fixtures Report provides a great overview of possible interventions. This report proposes a DIY water efficient fixture installation guide for domestic / commercial water users to reduce potable water consumption (and associated costs) in homes and offices. https://www.greencape.co.za/assets/Uploads/Domestic-Water-Saving-Fixtures-Report-.pdf</p> |

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c. On-site re-use

Once water use has been clearly assessed and efficient processes implemented, the third step is to consider onsite re-use. The primary intention of re-use is to cascade water use between processes where fit-for-purpose quality water is required. Depending on the intended use, the wastewater may require treatment prior to re-use, and may either be treated to potable or non-potable standard. Grey water from commercial and residential properties can be re-used on-site either outdoors (for garden irrigation) or indoors for toilet flushing if treated. Current technologies for outdoor use range from simple low-tech adaptors to automated systems incorporating basic treatment and irrigation systems.

Types of wastewater

| Type | Description |
|---------------------|---|
| Industrial effluent | This is any wastewater generated by an industrial activity. |
| Greywater | Relatively clean wastewater from hand basins, showers, baths and laundries. |
| Blackwater | Sanitation (toilet) water. |

Industrial water re-use is an established and growing sector. For example, Ford has invested more than \$21-million in a Wastewater Treatment Plant at its Silverton, Pretoria facility. The processes involved in treating industrial process water are complex, but are incentivised by the City of Cape Town through their [industrial water rebate \(section 11.16 of their Water and Sanitation Tariff Policies\)](#). This allows businesses to recover some of the capital costs they undertake to improve industrial effluent's quality and quantity. For more information contact the City of Cape Town.

d. Alternative water-supply

In a drought as extreme as the current one, it may be prudent to explore alternative sources of water to secure your business' continuity. However, these should not be pursued before the first three steps of the process have been exhausted. Below are the options available to households and businesses (noting that potable water supply remains the responsibility of the municipality unless a business becomes a water services intermediary). The Water By-law requires that only municipal water can be used for 'domestic' use i.e. personal hygiene, cooking and drinking. At present the City of Cape Town is permitting large water users in the commercial and industrial sectors (i.e. not residents at this stage) to go 'off-grid' provided they enter into a contract with the City as a Water Services Intermediary:

| Alternative sources of water available to households and businesses | |
|---|--|
| Rainwater or storm-water harvesting | Rainwater harvesting should be explored as a possible option to supplement supply, but treated with caution. The Western Cape is predominantly a winter rainfall region, and without significant storage, the captured rainfall may not last long into the summer. However it is a good option to explore if you have significant hard surfaces (roofing and paving) where rainwater could be funneled and captured. To consider how much water you can collect consider that each square metre of roof area collects 1 litre of water for every 1 millimetre of rainfall received. http://cip.csag.uct.ac.za/webclient2/waterharvest/ The Bayside Mall presents an interesting case where both rainwater and stormwater are being harvested for toilet flushing and irrigation. CTM has also successfully installed at least two rainwater harvesting projects. In addition, CTM plans to consider rainwater harvesting on all new developments as well as part of renovations of existing stores. Utilise the Water Harvesting Tool to help you assess the viability of using rainwater to supplement your supply. |
| Water storage | Businesses should protect themselves from the risk of municipal water not being available or intermittent through the installation of on-site water storage. It is also important to note that Cape Town's Water By-law (2010) section 52d require businesses to have some water storage on site. http://www.capetown.gov.za/policies |
| Groundwater or borehole use | Groundwater or boreholes are a reliable means of accessing water, however the access to this water is limited and carefully regulated. There are effectively three categories of groundwater use: <ul style="list-style-type: none">• Schedule 1 (of the National Water Act): This is for domestic and non-commercial use only. You will need to register your use with your municipality and ensure that you don't exceed the extraction limit of 10 kl/day. This water is typically used for watering residential gardens or common amenity areas• General Authorisation: This is when you are extracting more than the Schedule 1 limit noted above or you intend to utilise this water for commercial purposes, but your usage is below your area's general authorisation limit and therefore doesn't require a water use license. The limits, as outlined in the General Authorisation for the Taking and Storing of Water, are very location-specific due to the varying nature of different aquifers. For example, in most of Cape Town, you can extract up to 400 kl/hectare /year without requiring a water use licence, however in Saldanha Bay and Swartland your general authorisation limit is 150 kl/hectare/year. It is also important to note that some areas have a zero general authorisation level, and any water extraction above schedule 1 will require a water use license. You may also not extract more than 40 000 kl/year for one property, regardless of the area you are in. If you meet all of the criteria outlined in the General Authorisation, then you must register your groundwater use with DWS, which can take a few weeks.• Water use license: A water use license can be applied for through the DWS's online Electronic Water Use Licence Application and Authorisation System (e-WULAAS). Please note that this process can take some time, with the department committing to a 300 working day deadline from submission of all required documentation to notification of application decision. The WCG is in the process to work closely with DWS to shorten the licence application process. http://164.151.129.107/ewulaasprod/ |

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Alternative sources of water available to households and businesses

| | |
|----------------------------|--|
| Treated municipal effluent | Municipal wastewater is typically treated to “river quality” and returned to rivers or the sea. However, there is growing recognition of the usefulness of this resource for businesses and industry. While the water has been treated to a safe standard it is not potable, thus not fit for human consumption. The water can, however, be used for irrigation and could also be treated further, if need be for other uses. The City of Cape Town is promoting the use of treated effluent and you can apply to collect this water from your nearest Waste Water Treatment Works (contact details are on the map). If you are a large enough user, you can also be connected to the treated wastewater pipeline. Treated effluent water is also substantially cheaper than municipal water so may be a financially sound manner to decrease your business’ use of municipal water. The application form can also be downloaded here, https://www.greencape.co.za/assets/Uploads/Application-for-TE-Standpipes-or-WWTW-collection-rev1.pdf . |
|----------------------------|--|

e. Water partnerships and stewardship

This drought cannot be fought alone, and it requires everyone in society to work together to ensure that we become more water resilient. There are some great examples of what can be accomplished when organisations collaborate to ensure the scarce water resources are used effectively. [Strategic Water Partners Network South Africa](#) highlights projects done by a range of stakeholders including: Anglo American, CocaCola, Eskom, Nestlè, SAB and Sasol. WWF-SA’s Water Balance Programme links corporate water users to the health of our natural infrastructure through positive investment into critical catchments. These investments are used to clear invasive alien vegetation to balance the participant’s operational water use, as well as to mobilise the collective action necessary to ensure the sustainability of these interventions.

GreenCape aims to help businesses collaborate and support each other on their water resilience efforts through the sharing of case studies, reports and industry events. [Please share](#) your water journey with GreenCape so that they can publicise it and [sign-up to become a member](#) to ensure you receive all the latest correspondence on GreenCape’s events and reports.

4. What technologies are available which my business can install to assist my business to reduce the water use?

Visit the 110% Green website for the supplier database: <https://www.westerncape.gov.za/110green/build-water-sector> And / or contact GreenCape who can provide businesses with supplier specific information for your particular need water@greencape.co.za

5. When is day zero?

Day zero (phase 2 of the City of Cape Town’s disaster management plan) is the stark reality we face when most taps will be turned off and residents will have to queue for water.

Day zero is not a static date and is dependent on a number of factors – to note:

- More rainfall, day zero moves out – to a later estimated timeframe;
- Increased temperature and wind speed, greater evaporation - day zero moves in – to a closer estimated timeframe;
- Increased supply of water available and accessible, day zero moves out – to a later estimated timeframe; and
- Increased water consumption - day zero moves in – to a closer estimated timeframe

<http://www.capetown.gov.za/dayzerodashboard>

The City of Cape Town has modelled that day zero may kick in when the WCWSS dams Cape Town System Dams (Combined: Wemmershoek, Voelvlei, Steenbras, Theewaterskloof and Berg River Dams) are down to 13.5%. It is hard to extract water from the dams when they are below 10%. Currently (22 January 2018) they’re at 27%.

The details related to the private sector’s water availability during the City’s disaster management (phase 2, day zero) are still being developed.

The key areas of uncertainty for businesses should day zero arrive, and which are under discussion, are:

- which economic areas will be protected from water reticulation shut downs;
- what systems would be in place to enable businesses not in the protected areas to collect water for business use and how the volumes would allowed be calculated; and
- whether large businesses could provide ‘sub-points of distribution (PODs)’ i.e. where they could allocate their employees’ daily water rations (25lpppd). Without these, many employees may not be able to attend work as they will need to queue for their daily allocation.

6. Is there a contingency/action plan in place for day zero?

Each municipality is developing its own business continuity plan (BCP). For the City’s contingency plan please visit:

<http://www.capetown.gov.za/thinkwater>

<https://www.westerncape.gov.za/general-publication/water-business-continuity-plan-western-cape-government-services>

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Businesses are all encouraged to develop their own BCPs. Points for businesses to consider in developing business continuity plans:

- Work out your needs – actual minimum vs historic use;
- Reduce water consumption to as low as possible (while maintaining production);
- What are you doing to store or capture more water? (e.g. rainwater tanks, capturing stormwater into pools etc.);
- What else are you doing to provide own water supplies? (e.g. boreholes, desalination, water from air);
- Are you treating the stored or other water supplies in any way? (Unless you treat the water to a potable standard, you can only use it for non-potable water functions);
- What is your plan for emergency potable water supplies – i.e. for drinking, cooking and basic hygiene?;
- What is your plan for sanitation? (If your system has no water or low water pressure, the normal toilet facilities will be compromised);
- What is your plan for water in case a fire breaks out?;
- Have you engaged with your insurance company with regards to cover should a fire occur?;
- For how many people can you supply for should the water mains be switched off? (direct and sanitation use);
- If the system cannot supply enough for all employees, have you mapped out which functions are critical and which functions can be performed at home?; and
- Have you engaged with your suppliers to check that they have done their own business continuity planning?

7. How does the City plan to augment its immediate water supply requirements?

The City of Cape Town has seven projects that have been awarded and are under development - these are Monwabisi, Strandfontein, V&A Waterfront, and Cape Town Harbour desalination plants; the Atlantis and Cape Flats Aquifer projects; and the Zandvliet water recycling project. The City aims to bring 200MI of additional water on line by the end of 2018. The City's Water Outlook 2018 report provides further detailed information. See: <https://www.westerncape.gov.za/110green/facts-and-myths-about-cape-town-s-water-crisis>

8. Logistical challenges of day zero: The City has planned to have 189 water collection points for day zero. How do you arrange these points in a 2 400km square city?

The locations of the collection points have been selected based on:

- location of water supply pipes and valves;
- location of critical infrastructure such as hospitals and clinics;
- population density from area to area; and
- location of informal settlements.

Every water collection site will have several standpipes, depending on the size and shape of the site. These are connected to the City water infrastructure and every standpipe will have two taps with flexible hoses connected to the taps.

9. How will people collect water? Can one person collect for the whole household? What about people who don't have cars? And people who are frail? What about people living in blocks of flats without lifts?

People will have to get themselves to and from water collection points. Special provisions will be made to ensure that vulnerable groups are able to access water. Many of the other details will be communicated in the near future.

10. What must my business do when day zero hit the Province?

If day zero occurs, it won't hit the Province all at once, but will be specific to the town or municipality that you reside in. Each business should prepare its own disaster continuity plan, considering if the business shuts down altogether, skeleton staff, working from home etc. (Please see above)

11. What water will businesses be able to receive from the City if we reach day zero?

The City is exploring the idea of protecting certain economic areas from water cuts. The criteria for identifying these areas are still being developed.

12. What initiatives are in place by Government/municipalities to monitor business water use, similar to the way municipalities monitor residential/household water use?

Government is also reviewing the billing records of all its customers, including business, looking for a decrease in consumption. The latest National gazette requires a 45% water saving across all urban areas. While baselines do not exist for all sectors to assess efficiency levels, some modelling is being done on commercial and retail spaces looking at average consumption on the basis of total square metres. GreenCape has collated water benchmarks available for certain sectors.

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13. Is there a limit or restriction placed on business water usage? And would these restrictions be different for the various sectors or industries?

All business users are supposed to reduce their water consumption by 45% off a 2015 baseline in the City and off a 2010 baseline in urban areas. Businesses in the City may apply for exemption if they can provide evidence to show that they have reduced their water consumption by 45% since 2010, that they are best in class (globally) in terms of water use efficiency and / or if their production will have to be significantly or totally cut by the requirements. Agriculture is under restrictions ranging from 50 – 80% across the province (officially 60% from Jan 2018 for those in the Western Cape Water Supply System aka the Berg River Catchment Management Area), but the national government may cut off water flows once irrigation boards or farmers have reached their allocation limit.

14. Will any penalties or restrictions be enforced on businesses that exceed the water usage limit?

The City has approved Level 6B water restrictions from February 2018. Level 6 restrictions entail a ban on all use of municipal drinking-quality water for outside and non-essential purposes. Existing tariffs are being changed (we will publish the revised commercial and industrial tariffs once known), and excessive water consumption fines will be levied against high water users.

Managers of commercial properties and industry are requested to reduce their monthly water consumption by 45% with immediate effect. Commercial water users can reduce their consumption by installing water-efficient plumbing fittings and water-saving devices. CCT intends to impose harsh penalties for commercial and agricultural users that have not reduced water consumption. Fines are expected to be in the region of R5 000 - R10 000. Commercial and agricultural users who do not reduce their water usage will be fined or have water management devices installed on their properties, in line with the City's Water By-law.

Level 6B water restrictions (from 1 February 2018) will include the following:

- Residential units using more than 6000 litres per month will be fined or have water management devices installed on their properties;
- Non-residential properties need to reduce usage by 45% compared with the corresponding period in 2015 (pre-drought);
- Agricultural users need to reduce usage by 60% compared with the corresponding period in 2015 (pre-drought); and
- Borehole water use for outdoor purposes is discouraged in order to preserve groundwater resources.

Also note key update in the National Department of Water & Sanitation Government Gazette of 12 January 2018:

- Taking water from groundwater resources for domestic and industrial water use is curtailed by 45% in the Berg -Olifants and Breede- Gouritz water management areas;
- Taking water from groundwater resources for agricultural water use is curtailed by 60% in the Berg -Olifants and Breede -Gouritz water management areas;
- The curtailments in the points above are measured against the water demand of the users as per their five (5) year average for the period 2010/11-2014/15;
- Direct the Western Cape Provincial Head to cease any further releases from the system dams once an agricultural bulk water user association, irrigation board and /or individual water users have depleted their curtailed seasonal bulk volumes;
- All water use sectors groups and individuals taking water from any water resource (surface or groundwater) regardless of authorisation type, the Berg Olifants and Breede Gouritz Water Management Areas, shall install electronic water recording, monitoring or measuring devices to enable monitoring of extractions, storage and use of water by existing lawful users and establish links with any monitoring or management system as well as keeping of records of the water used; and
- Records of metered volumes extracted shall be provided with effect from the date of publication of this notice in a format specified by the Department and continue such recording, and reporting data weekly to the Department by Monday 12h00 to metering@dws.gov.za.

The table below indicate the new commercial and industrial tariffs:

| Commercial / Industrial Tariffs | | |
|------------------------------------|---|---|
| Water Steps (1kl = 1 000 litre) | Level 4 (2017/18) Until 31/01/2018 Rands (incl VAT) | Level 6 (2017/18) From 01/02/2018 Rands (incl VAT) |
| Water | R27,97 | R57 |
| Sanitation (standard) | R21,50 | R44,18 |

15. Are there any plans for water shedding for business? And when do you envisage this to be implemented?

There are no plans at this stage for water shedding as this would have a disastrous impact on the water infrastructure, rather water rationing has been implemented which is effectively extreme pressure reduction that may result in intermittent supply in certain areas over peak times.

During phase 2 / day zero, however, 75% of the City's water reticulation network would need to be shut off. The City is identifying which economic areas would be protected from the shut downs.

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16. Is it illegal to sell non-potable water?

Water use is regulated and determined by DWS, and as such a water use licence is required. Water cannot be sold, but firms may sell the bottling or charge for the transport of non-potable water that comes from underground sources or springs. The water is 'free' – you pay for the transport or bottling.

You are able to recoup the expenses incurred in the course of transporting and pumping wastewater (includes treated effluent and basement water). Non-potable water is water from alternative sources, (e.g. ground water, surface water, rain water) that is untreated and not necessarily safe for human consumption, i.e. not from the municipal supply. Waste water is water that has been used and is of variable quality (e.g. grey water, industrial effluent).

17. What financial assistance is there for businesses to deal with the impacts of the drought?

There are limited incentives and financing options available to businesses outside of their normal channels. This is however, currently being investigated by a number of financiers. They are a few funds available: <http://cdicapital.co.za/DISF/> and the Critical Infrastructure Fund.

18. Is there a list of suppliers to assist my business, i.e. plumbers, borehole drillers, water tank suppliers

Either 110% Green <https://www.westerncape.gov.za/110green/build-water-sector> or GreenCape (after a meeting/discussion) water@greencape.co.za

19. What is water rationing?

Water rationing is the start of the City of Cape Town's Critical Water Shortages Disaster Plan (phase 1). It will last as long as is necessary to ensure we all have access to basic water supply and until dam levels increase sufficiently or alternative water supply measures become available.

Cape Town is divided into pressure zones. Pressure controls the flow rate of water and is managed by manipulating pressure valves in the reticulation network. Water rationing has been undertaken through pressure reduction, across Cape Town to forcibly lower daily water use. You may experience irregular supply during early mornings (05:00 – 09:00) and early evenings (17:00 – 21:00). If an area is using above the daily water limit, rationing will continue until the limit is reached. Some areas may be without water for short periods of time, but service will be restored as soon as possible.

Unfortunately, City of Cape Town cannot provide rationing timetables in advance as they need to manage the water system flexibly to avoid infrastructure damage.

20. What are some of the water rationing guidelines?

There is a list of water rationing guidelines, but a few are highlighted below:

Make sure you:

- Check that your fire extinguishers are in legal working condition. If possible, increase the number of fire extinguishers;
- Check that your multi-storey building's water supply system (pumps and rooftop storage) is in working order and complies with the Water By-law (2010);
- Close your taps when they're not in use to prevent damage when the supply returns;
- Check what your insurance covers;
- Cut your water use during peak water use times, e.g. shower (for no longer than one minute) or do your washing later in the evening. Keep non-drinking water for flushing toilets;
- Store between 5 and 10 litres of drinking water for essential use only during rationing; and
- Keep additional water for pets.

Do not:

- Flush wet wipes and sanitary pads down toilets as these cause blockages;
- Leave your taps open when you have a loss of water supply;
- Shower for longer than one minute;
- Store excessive amounts of municipal drinking water; and
- Use alternative sources of water for outdoor use at all. Only use it indoors for flushing.

High-pressure solar water heaters are not at risk of damage from low water pressure or short water outages. If installed correctly, they can withstand a few days without water, with no adverse effect on the pump or the panel. Contact: Email: water@capetown.gov.za; online through the City of Cape Town's Service Requests tool; SMS 31373 (max of 160 characters); Whatsapp: 063 407 3699

21. What are water management devices and how do they work?

A water management device (WMD) replaces a standard water meter and is programmed to provide a daily allocation of water for you to use on your property.

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Why water management devices?

The City of Cape Town started the water management device programme to help indigent households that are struggling to pay their water bills and to manage water wastage from household plumbing leaks. If you live in an indigent household, a WMD can help you to manage your water consumption and, in most cases, completely avoid having any water and sanitation charges.

In an effort to force consumption down during the drought crisis, as stipulated in the water restrictions, WMDs are being installed on the properties of excessive water users in both indigent and non-indigent households.

If you do not live in an indigent household, you can also apply to have a WMD installed but you will not receive the same benefits from the City as indigent households using WMDs receive.

You will need to be registered as an indigent before you apply for a water management device as an indigent household.

How WMDs work

This is how your water management device will generally work:

- It switches on at a fixed time each morning (e.g. 4 am);
- It generally restricts your water to 350 litres a day and 10.5 kilolitres a month – although a different amount can be agreed between you and the City;
- It switches off when the household has used its daily water quota;
- It resets the next morning to release the daily amount; and
- Any amount not used is carried over to the next day during that calendar month.

It's very important to understand that if a WMD is installed on your property, you won't be able to use more water than your daily limit in one day. If you use all your water for the day and run out or if you have a leak on your property, you will have to wait until the next day to receive more water.

We recommend always having a supply of drinking water on hand (e.g. in a bucket or preferably a sealed storage container) in case you reach your daily limit sooner than expected. Fill up your container with a fresh supply of water every morning.

WMDs for indigent households

If you are indigent, a water management device can assist you in the following ways:

- The device helps you manage your water consumption and provides you with a daily allocation of free water (or a greater amount by agreement);
- Qualifying indigent households are provided with an additional allocation of 4.5 kl water per month free of charge (in addition to the 6 kl allocation of free water provided to all households);
- The device allows you to limit or completely avoid all water and sanitation charges;
- Council will fix or replace all faulty plumbing in your house free of charge (once-off repairs);
- Council will write off all your water and sewerage arrears – no limit (once-off); and
- Council will install the WMD free of charge.

WMDs installed for excessive water users

If a WMD is installed at your property due to excessive water usage, the following will apply:

- You will have to pay for the installation of the WMD yourself.
- You may be fined for any previous consumption in excess of any applicable water restriction consumption limits.

WMDs for non-indigent households

You can still apply for a WMD if you do not live in an indigent household but please note the following conditions:

- The City is currently prioritising the roll-out of WMDs to indigent households and excessive water users.
- You will have to pay for the installation of the WMD yourself.
- We will not fix your household water leaks for free or write off your water and sewerage arrears as is done for qualifying indigent households.

What happens if you need extra water?

If you need extra water temporarily, you have to let the City know at least 48 hours in advance to make a special arrangement. However, this can only be made in exceptional circumstances such as burials.

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What to do if you run out of water:

- Close all taps and wait until the supply is restored the next day;
- Do not immediately call the 24-hour call centre;
- Wait until the next day to see if the water supply is restored, and only then call the 24-hour call centre if your supply is still off;
- If a water management device has been installed through the indigent process and you would like to increase your daily water supply, you will need to make an application to increase daily water supply from the WMD meter. The approval of the application is based on the combined household income as well as any applicable water restrictions;
- If a water management device has been installed because your property was identified as an excessive user, you will need to make an application to increase the current quota of water supplied.

Any extra water you use will be charged at the normal tariff and added to your water and sanitation bill at the end of the month.

22. What further support is available to businesses?

- All drought updates, overview of key actions to reduce water use and install own water supplies, communication material, supplier database, etc. designed to support businesses: <https://www.westerncape.gov.za/110green/water>
- For technical information, case studies and much more business support in responding to the water crisis and building the water sector: <https://www.greencape.co.za/content/focusarea/drought-business-support>
- City information updates for businesses: <http://www.capetown.gov.za/thinkwater>
- Water technology and service providers are encouraged to submit their info for inclusion on the suppliers list: <https://www.westerncape.gov.za/110green/build-water-sector>
- Tourism, trade and investment water queries: water@wesgro.co.za

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