

Practical ways to reduce daily water use

This week our third study article for the 2018 Thrive EnviroQuiz competition, written by sustainability advocate **ANNABEL RYDER**, explores practical ways to reduce daily water use.

Included are 10 questions that may be asked during the inter-schools quiz on Friday September 7.

The previous article explored different types of water and how to re-think water usage, and this week's article looks at how water usage behaviours must change over the short to medium to longer term, to help reduce daily consumption to within and even below the current Level 6B allowance of 50 litres a person a day.

With dam levels currently at just 20% (of which the last 10% is unusable) and the upward creep of total daily water usage to some 100 million litres daily above the City's 450 Mln litre daily target, it is more important than ever that during this winter, everyone saves more water each day.

The threat of Day Zero next summer remains very real, given April's rainfall patterns, and ensuring we have sufficient water supply to last through to April-May 2019 is critically dependent on everyone's daily actions to save even more water, wherever they are.

The City of Cape Town's infographic gives an indication as to how a household might use its current water allowance of 50 litres a person a day.

It also gives ideas as to how to reduce water usage by making different choices, for example using water-

less hand gel as opposed to washing hands.

Remember, this 50 litres daily allowance is total water usage, wherever you are, at home, work, and school or on holiday. Thinking of the different types of water, it is very clear that there are certain activities that have to use the municipal SANS 241 standard tap water in order to be safe and hygienic.

Ranked in some indicative order of being able to "survive", these are drinking (3L), cooking (1L), teeth and hands (2L) and dish-washing (9L), and of course pets (1L) if you have any. So some 16 litres of the daily 50L allowance must come from SANS 241 standard tap water. But that still leaves some 34 litres a person a day, with scope to save even more water.

However, given that "water-scarcity" is the new normal, we all need to start exploring more sustainable, longer-term ways to save water and to store and re-use water in our homes, schools, offices and shopping malls.

Be curious – it is time to re-think some of our everyday assumptions about water availability and water uses, and the systems we have in place to manage water.

Waste is a concept that until recently hasn't really been applied to water – we tend to think of waste as recycling versus landfill waste. Now think about toilet flushing, critical for health and hygiene – do you really want to use almost 20%, or 9L of your 50L daily allowance on flushing?

Start immediately (if you haven't already) using captured grey water to bucket flush the toilet by catching

"used" water from the shower and basins. And start researching water-less toilet systems, such as compost toilets, that with a little effort, will provide rich compost – or humanure – for your garden.

There is scope for some really great innovation to re-design toilets, basins, showers, and how water and waste flows between them. For example, for completely waterless body cleaning, an innovative dry hygiene solution called DryBath@cleaning gel, was invented by a young South African entrepreneur, Ludwick Marishane.

Award-winning research at UCT is exploring the value of urine, and how this "liquid gold" which contains high concentrations of nitrogen, phosphorus and potassium, can be recycled and converted into fertilisers and even bricks. Meanwhile, you can dilute your pee with shower water in ratio three parts water to one part urine, to use as liquid fertiliser in your garden, and you can make your own water saving 1L shower from an old PET bottle.

Longer term changes in our daily behaviours may require some retrofitting of for example, bathrooms, water pipes in and out of our homes and provision for rainwater collection. But this need not be expensive and over time, it will pay for itself as well as having more localised water security.

Did you know that for every 1mm rain on a flat 1m² roof space, you will collect 1 litre of water?

For example, the average double garage is 40m²; meaning that every 1mm of rain will yield 40 litres of water which can easily



■ A new toilet-sink combo

be collected using inexpensive plastic tubing and attaching this to the gutter or downpipe with a zip tie.

Install rain chains, collect rainwater in tanks, lead it via plastic tubing to fill up your swimming pool, use it to bucket flush the toilet, to water lawns and gardens, for composting, or as pets / livestock drinking water, rather than letting it disappear down the storm-water drain, wasted.

Become a Water Warrior (not a Worrier) – and please don't waste this winter's rainwater. Remember, no water should be allowed to leave our homes after a single-use. Reduce, reuse, recycle.

In the next article we will look at household waste and how to reduce and reuse our waste.

For further reading on a cheap rainwater harvesting system visit <https://www.country-life.co.za/leisure/arts-crafts/diy-rainwater-harvesting>

To make your own 1L shower

using an old PET bottle visit <http://capetownshower.org/diy-instructions.html>

● Questions

1. At what percentage of total storage capacity are local dam levels?
2. How many litres per day of fresh SANS241 water is assumed use for toilet flushing?
3. What is the waterless toilet system mentioned?
4. Name three ways rainwater can be harvested.
5. What is the by-product of a compost toilet?
6. How can single use of water be eradicated from our daily lives?
7. How much rainwater would a flat 50 m² roof produce from 10mm rain?
8. Name two examples of waterless products mentioned.
9. Which valuable elements are naturally found in urine?
10. Name three uses for collected rainwater.

See answers on page 9

STANDING OUT.

Knight Frank



■ 49 BAVIAANSKLOOF ROAD, HOUT BAY / BAVIAANSKLOOF ESTATE R6,450,000

CONGRATULATIONS ELKE LOSSKARN

This sole mandate was sold in less than a week of listing



Hout Bay / Beach Estate - R2,595,000
Elke Losskarn 072 372 1047 RL4626



Hout Bay / Tarragona - R7,900,000
Helen Hays 082 636 8827 RL4325



Hout Bay Valley - R14,950,000
Julian Wannell 076 309 5049 RL4415



Hout Bay - R28,000/pm
Wendy Cuninghame 083 895 2020 RL4587

Pop in to our office at Victoria Mall, Victoria and Empire Roads, Hout Bay

Knight Frank Knows Property | kfproperty.co.za

Call us 021 790 8897

for an Expert Market Appraisal

Practical water saving

Thrive's **Annabel Ryder** looks at top tips to save water in and around the house.

- Check for leaks – do the water metre test and fix the leaks;
- Install aerators or low-flow restrictors in your taps;
- Reduce volume per flush by placing 500ml plastic bottle filled with sand in cistern, to displace water;
- Install a pressure reducing valve to reduce the amount of water released through taps;
- Record your monthly water usage and make graphs – try each month to reduce your use further.

Kitchen

- Wash fruits and vegetables in a half-filled basin, and re-use water on plants and lawn. Consider adding Milton or apple cider vinegar to water wash;
- Use waterless recipes and methods of cooking such as steaming vegetables and one-pot meals. Cook in bulk and freeze to reduce washing up;
- Use leftover lemon halves to clean sinks and stoves;
- Thaw frozen food in a refrigerator and not under running water;
- Reuse ice for watering plants and for drinking, boil-

ing or cooking. Do the same with leftover water in school water bottles.

Bathroom

- Turn off the tap when you shave, brush teeth, wash hands or hair;
- If it's yellow let it mellow – wherever you are. Bicarb or Wee Pong will remove the smell;
- BLOB Shower using the tap on/off method. Lather up with taps off and then rinse. Make a simple, cheap 1L shower head.

Laundry

- Weekly air-dry bedlinen outside and just wash pillowcases to reduce number of loads;
- Refresh and re-wear. Air-dry clothes by hanging them. Deodorise and spray clothes lightly with essential oil spray such as tea tree and lavender;
- Research. A Sputnik wonder wash pressure washing machine uses 6L water for 2.2kg load and no electricity.

Household cleaning

- Scrape dishes clean or wipe waste off with kitchen roll (rather than rinsing) before washing. Group dishes together for one wash only per day;

- Only use full loads for dishwasher and washing machine;
- Use a washing up bowl (not running water) to wash and rinse dishes. Re-use rinse water to clean very dirty pans;
- Purchase water-efficient devices and water saving appliances – look for the Water Efficiency Labelling Standards water rating label;
- Lightly spray and mop tiled floors with water-vinegar solution.

Garden

- Capture and/or re-direct rainwater from the gutter into your pool or towards your garden and lawn. Invest in a pool cover and lawn dressing to retain water moisture;
- Replant sunny areas with water wise, indigenous, drought-resistant plants; try to create shadier cover to protect the soil;
- Leave the leaves to decompose into the soil – Nature knows no waste;
- Add organic compost and mulch to your soil to slow evaporation and to "hold in" water moisture.
- Create water basins around the base of shrubs / trees;
- Leave grass to grow to a minimum 2cm and aerate the grass to allow rainwater to penetrate the soil.