Combining rainwater with greywater

You can successfully combine harvested rainwater and greywater to irrigate your garden. Certain system suppliers can install a trickle feed from a rainwater tank to introduce water into the greywater system at a slow rate. Ask your system supplier what services and follow-up maintenance are included in their package.

4 You can combine your harvested rainwater and grey water to irrigate your garden.

Be Smart!

Save our City!

Save our Environment!

Save Potable Water!

Be part of the solution and install a rainwater harvesting system today!

Useful information

CITY OF CAPE TOWN CALL CENTRE

Tel: 0860 103 089
Water conservation tips and information, alternative water usage, bursts, blockages and water by-law transgressions

BOREHOLE WATER ASSOCIATION OF SOUTHERN AFRICA

Tel: 011 447 0851
For a list of borehole contractors in your area

DEPARTMENT WATER AFFAIRS

Tel: 012 336 8125/8046
Aquifer/groundwater quality information

KIRSTENBOSCH BOTANICAL GARDEN

Tel: 021 799 8783
Water-wise gardening tips/information

WATER BY-LAW

Government Gazette 6378: 01/09/06

OTHER PAMPHLETS IN THIS RANGE:

- Introduction to alternative water resources (pamphlet no 1 of 4)
- Boreholes/wellpoints (pamphlet no 2 of 4)
- Greywater re-use (pamphlet no 3 of 4)

City of Cape Town Call Centre:
0860 103 089

SMS: 31373 (up to 160 characters)
E-mail: WaterTOC@capetown.gov.za

CITY OF CAPE TOWN | ISIXEKO SASEKAPA | STAD KAAPSTAD

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WATER AND SANITATION

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RAINWATER HARVESTING

Alternative Water Resources

Pamphlet no 4 of 4

Be part of the solution
Our water, our pride

Introduction

Against a global rainfall average of 870 mm per year, South Africa receives a pitiful 450 mm, making it the world's 30th driest country.

It has been predicted that the Western Cape will be the first region to run out of water, unless steps are taken now to manage the demand for water more efficiently.

Why should you harvest rainwater?

Collecting and using your own water resource through rainwater harvesting is your insurance policy against short-term water shortages. You can obtain 500 ℓ of water if 5 mm of rain is collected on a 100 m^2 roof.

A rainwater tank may be connected for garden irrigation, washing, bathing, showering or topping up the pool. Rainwater tanks may also be plumbed to feed toilet cisterns, reducing the considerable amount of water used daily for flushing.

The use of rainwater tanks in summer rainfall areas can be more beneficial than in winter rainfall areas. However, a 5 000 ℓ tank used primarily for toilet flushing in winter rainfall areas could save up to 15% in water annually.

A rainwater harvesting system can:

- Save valuable potable water
- Save you money and
- Relieve the strain on our natural environment

The basic rainwater harvesting system

The basic rainwater harvesting system is very simple to install. Gravity takes rainwater collecting on your roof to water tanks via your downpipes. Some kind of rainwater filtering system is usually installed to prevent suspended particles from entering the tanks. Your system supplier will specify the suitable size and number of rainwater tanks required according to individual user needs. The rainwater is then pumped from the rainwater tanks to the whole household, or to the garden for irrigation.

The positioning of your rainwater tanks

You can install your tanks either to stand against a wall of your house under the roof eaves, or unobtrusively anywhere in your garden by using an underground piping system, which may be supplied by your rainwater system supplier.

Your roof as a collection surface

The most efficient roof surface for harvesting rainwater is a metal roof, which may be corrugated iron, flat iron sheet or IBR (inverted box rib) profile. Tiled roofs may also be used, but are not as efficient as metal for collecting rainwater. You cannot harvest rainwater from a thatched roof.

Here are some average calculations for the two roof types:

- 11 mm of rainfall on metal roofs can produce 1 000 ℓ of harvested rainwater for every 100 m^2 of roof area.
- 16 mm of rainfall on tiled roofs can produce 1 000 ℓ of harvested rainwater for every 100 m^2 of roof area.

The right size water tank for you

The right size rainwater storage tank depends on your unique circumstances.

The following factors may all influence your decision:

- The number of people using water in the household
- The roof area from which you are harvesting
- The type of roof from which you are harvesting

The average tank size ranges from 1 500 ℓ to 2 500 ℓ and 5 000 ℓ. Your rainwater harvesting system supplier will assess your individual circumstances and water needs, and advise you on the size and number of water tanks you will need.

Save on municipal sewerage effluent charges

The municipality charges for water and sewerage according to a block-tariff system. You are being charged for sewerage based only on the volume (number of kilolitres) of water that you consume, namely on 70% of the water that runs through the meter.

By using rainwater, the water flow through your meter will be reduced, with considerable water account savings for the homeowner.

Rainwater used for human consumption

Due to possible suspended particles in the water, and increased acid levels in rainwater as a result of air pollution, it is not advisable to use rainwater for human consumption.

1 You can place your rainwater tank anywhere in your garden where it is unobtrusive and out of sight.
2 The rainwater is pumped from your tank to your household or garden.
3 Use your rainwater to keep your garden green and healthy.