

Rain tanks



Save on your water bills and ensure that your plants don't suffer during dry spells by harvesting rainwater. Rainwater tanks provide a renewable supply of natural, soft, clear and odourless water without harming the environment.

- Have a cover on rainwater tanks to prevent evaporation and mosquitoes from breeding.
- Have a filter to catch leaves and twigs that flow down the gutters.
- Have a raised tap, so you can fit a bucket under it and to prevent sediment from the bottom of the tank from clogging it.

Permeable surface

Most impurities are naturally filtered out of rainwater as it percolates through the soil, preventing debris and pollutants from entering ground water stores. This natural process of water purification is bypassed when rainwater falls on impermeable paved surfaces and is carried directly through stormwater drains into waterways.



Pollution carried in rainwater runoff is a concern, especially in urban areas. Stormwater flowing across streets, sidewalks and gardens picks up contaminants such as air pollution particles, spilled oil, detergents, solvents, dead leaves, pesticides, fertiliser, and bacteria from pet waste.



Natural filtration of water through soil is the simplest way to control these pollutants, and is a direct advantage of permeable paving.



Permeable paving is Water Wise. Runoff soaks into the ground, watering the garden rather than running off and polluting water ways.

Rainwater harvesting

Did you know that your roof could catch plenty of water for you?

As a guide to collection capacity, consider that each 1mm of rain = 1l of water per m² of roof area, then allow a 15% wastage factor.

As climate change progresses, Gauteng is expected to have "wetter wets and drier dries". Climate change and our wasteful water use practices are threatening our already scarce water supply.

Rainwater harvesting involves the collection, storage and distribution of rainwater from the roof.

All rainwater systems require:

- A catchment area.
- A method of storage.
- A method of moving the harvested rainwater to your garden.

When choosing a system keep in mind that all systems differ in cost and have varying advantages. Keep the following in mind when selecting a system: cost; maintenance; frequent or seasonal use; local climate; access to and storage of the unit. Also look at the drainage pattern on the site, so you can see the best collection point for runoff.

Benefits of harvesting rainwater:

- Reduction in the use of municipal water, thereby less strain on water resources.
- Lower water bills.
- Reduced flooding, erosion and pollution caused by stormwater runoff.
- More productive gardens.

Gutters



Gutters should be used to direct rainwater to storage containers, rain tanks or specific areas in your garden.

The force of rainwater directed to pot plants, ponds, or specific area of the garden needs to be softened. Place pebbles or gravel to break the force. Selected mulches around these areas can act like sponges that absorb water and then releases it slowly into the soil.



Channelling

1. Detect where the water comes from, e.g. roofs, hard surfaces, streets.
2. Decide where in the garden the water is needed.
3. Determine how to move the water there.



Direct runoff from:

- Down pipes by using channels, gullies, pipes or dry river beds.
- Paving by using swales, gaps in the curbing, sloping or angling the paving so water flows off into adjoining beds or grassed areas.
- Grassed areas by using berms, bog gardens, soak pits or green channels.

Ideas

Dry riverbeds can be created using a lined channel covered with a variety of pebbles, rocks and stones in various colours and designs. In the channel steer away from organic mulches such as bark or nutshell as these may float away in heavy rain.



Plant bulbs like *Crinum spp* and *Crocus spp* and a few water loving plants such as *Arums* in strategic clumps which allow for seasonal variations as they come up and die back down.

For a more lush look, create a green channel. This can be done by using lawn, but why not try a few dynamic options such as mondo grasses and other ornamental grasses (*Festuca* and *Liriope*), in patterns. Focus on the low growing varieties. Other ground covers such as *Vinca minor*, *Ajuga* and *Lamium* also work well.

