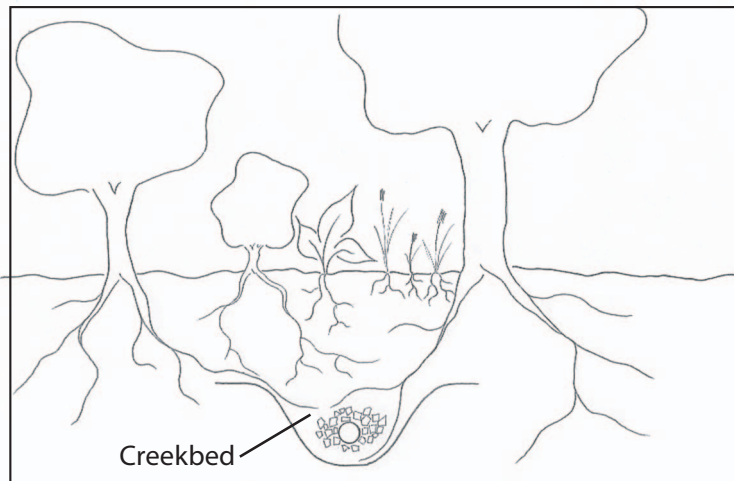


## Waterharvesting

A landscaped solution to water collection, filtering and recycling.

The primary feature of this technique is a 'dry creekbed'. This is a bed of rocks, gravels, sands and soils which can be sealed from, seeping into, or open to the landscape profile.

A system of subsurface creekbeds is used to direct stormwater and greywater irrigation to landscape growing areas, while at the same time filtering and treating the water to remove contaminants.



The creekbed environment ensures that:

*once underground, the disease-causing organisms [in the input greywater] face a hostile array of conditions such as temperature changes, lack of oxygen, lack of nutrients and a whole army of naturally occurring groundwater micro-organisms that kill or inactivate them.\**

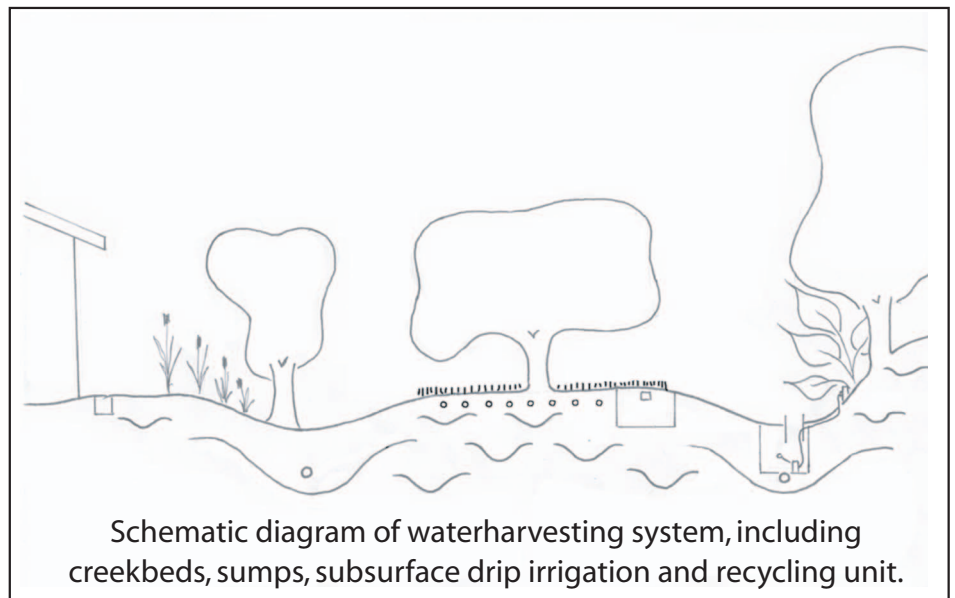
\*CSIRO Media Release March 5 2002

The design, dimensions and layout of the creekbed are flexible. Efficiency is increased as cascading creekbeds are added.

Landscaping features such as driveways, walkways, retaining walls and service trenches can be incorporated into the waterharvesting design. These can be designed to direct rainwater and irrigation runoff to creekbeds.

The placement of the features pictured right are flexible. Individual sump or creekbed design and placement is dictated by site constraints and the nature of inputs.

Special design features are used to ensure that when the system is completely full, drainage from the site is clean but otherwise identical to conventional (non-recycling) drainage systems.



Schematic diagram of waterharvesting system, including creekbeds, sumps, subsurface drip irrigation and recycling unit.

# Waterharvesting

A landscaped solution to water collection, filtering and recycling.



Creekbeds are placed during site excavation, filled with sand and rubble, and packed down to avoid subsidence.

Pipe works, delivery and collection sumps are installed.

During the installation process the system is filled with water to ensure correct operation.



The landscape itself is created over the creekbed system which has been specifically designed to work with that landscape.

Water retained by the creeks beds is available to plants via both root invasion and capillary action, which draws water out of the creekbed in the same manner as a self-watering plant pot.



The last system component to be covered is the recycling unit, after which no visible trace of the waterharvesting system remains.

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