

Ken Rain

Irrigation

Warehouse

“Your Environment Improvers”

Office - (08) 85225550 Fax. (08) 85224401

E-Mail:- ken@harringtonassociates.com.au Web:- www.harringtonassociates.com.au

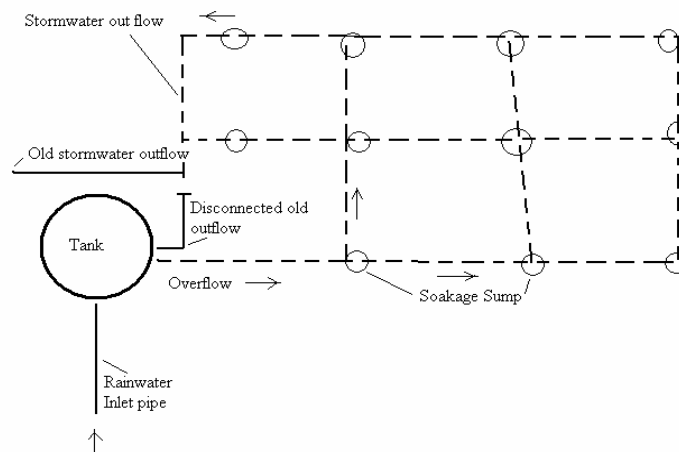
Fact Sheet .3.

Sub soil recharge systems to drought proof your garden.

A lot of people are putting in tanks to supply water to the house and for watering the garden. Overflow from the tank is usually wasted by being plumbed to the kerb to run away. In a lot of areas, the sub soil is drying out due to being covered over with paving, roofed areas and the like and the natural rain, when it does rain, doesn't always have a large area to slowly soak into the soil.

Recharge your sub soil with a rain water recharge system. Instead of letting the overflow from your tank or roof run to waste, get it back into the soil in the garden and allow it to soak in deeply, to improve the drought tolerance of the garden and reduce cracking of your home.

There are several products on the market that come in a clip together form to build up a system or a simple D.I.Y. version as below, will work quite effectively.



General layout of a subsoil recharge system.

How large should I make the system?

This will depend on your water storage capacity and how much overflow the system will need to cope with. Soil types will also need to be considered. Sandy soils drain very quickly so only a few soakage sumps will be required, while with a clay type soil the water will fill a sump very quickly and flow to the next sump while the water soaks in very slowly. Some sandy soils may only require a grid of soakage trenches without sumps.

Size will also depend on whether the system will be installed all over the garden or just in the bed or lawn areas.

System Layout.

In an existing garden, the simplest system is a grid over the lawn area. For a new garden a grid over the area that will be covered with trees and shrubs is probably more beneficial, but the lawn can still be done as well.

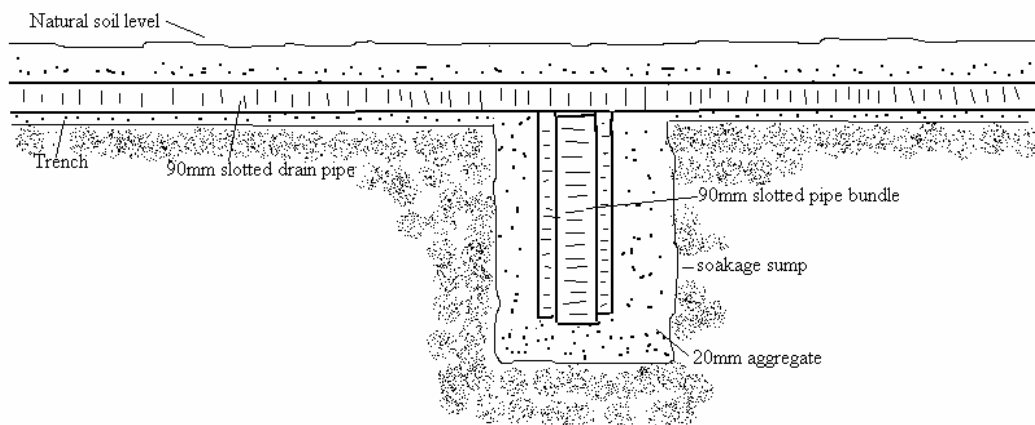
Layout a rough grid pattern approximately 1.5 -2 metres apart over the area to be used. If working on a slope, work across the slope as much as possible to collect the runoff down the slope in the trenches.

Installation

Bore holes for the soakage sumps at the intersections of the grid, approximately 450mm wide by 600 -1000mm deep. Dig trenches between the soakage sumps approximately 300 - 400mm deep.

Cut lengths of 90mm slotted drain pipe approximately 500mm long, duct tape three together in a bundle.

Place some 20mm aggregate in the bottom of each sump hole, centre the pipe bundle in the middle of the hole and back fill around the pipe bundle with 20mm aggregate, with the open top of the pipe bundle at the level of the trench bottom.



Pipe bundle and trench layout

Place a thin, even cover of 20mm aggregate on the bottom of the trenches.

Lay the 90mm slotted drain pipe in the trenches, ensuring the pipe goes directly over the pipe bundle in each sump hole.

Back fill the trench with 20mm aggregate to cover the slotted drain pipe.

On sloping sites the trench may be filled to the top with aggregate in the garden beds to reduce further run off.

Plumb the final outlet to the kerb or easement as per the standard tank overflow.