Rainwater tank design - getting the size right

Installing a rainwater tank is a great way of reducing the demand on potable water use and protecting local streams by reducing the frequency of storm flows.

The amount of potable water saved will depend on the following components:
- Rainfall
- Size of tank
- Area of roof
- Reuse demand (volume and timing)

The ideal size of a tank needs to be calculated for maximum efficiency – it is not a case of buying the largest rainwater tank you can afford!

To help you size the tank the Alternative Technology Association have developed a new tool – The Tankulator. This is a free online calculator to help determine the best size for your rainwater tank. You will need to provide some simple information and your postcode as it takes into account rainfall data for your area. Link - http://tankulator.ata.org.au/index.php

Using the water in the tank

Capturing and storing water within can significantly reduce a household’s potable water usage and reducing flows into the waterways from storm events. To achieve both benefits you need to make sure the water in the tank is used.

By maximizing the amount of water you use each day to ensure the tank has reserve space for future rain events. So make sure your take is connected to:
- Garden irrigation
- Laundry
- Toilet flushing

Tip – installing a water tank can help you meet Victoria’s 5 Star Standard for new buildings

Types of tanks

- Plastic (Polyethylene) – most common type, easy to move, many shapes and colours
- Fiberglass – Above ground, many shapes and colours
- Steel and stainless steel – above ground, selected colours, many shapes
- Bladder tanks – many shapes and sizes, can be placed under house
- Concrete – underground, many shapes


Thinking outside the square

This photo is taken in Warrnambool, where a Roof Water Harvesting Project was undertaken by Wannon Water in partnership with Warrnambool City Council, Cove Land Developments Pty Ltd, and the Australian and Victorian Governments.

This Project was carried out in conjunction with a 142-lot residential subdivision.

The roof water from the houses is captured, treated and put back into the cities potable water supply.

For more information see – http://www.clearwater.asn.au/content/warrnambool-roofwater-harvesting-project

Links to more information

- Little Stringybark Creek Project – This video clip outlines the opportunities of keeping excess stormwater in the catchment rather than discharging it to the creek, rainwater tanks are used as one of a range of methods to capture stormwater for re-use - http://www.clearwater.asn.au/content/little-stringybark-creek