

## Information sheet

# SELECTING A RAINWATER TANK IN VICTORIA

### What can I use a rainwater tank for?

Rainwater tanks are generally NOT recommended for drinking from in urban areas, due to traffic and industry emissions that can settle on roofs. In order to get good use out of a rainwater tank and maximise their value we strongly recommend that the tank be connected for indoor usage with your toilet or washing machine. In this way you can use the tank all year round and particularly during the winter months when out door use is at a minimum.

**Garden watering:** Garden use varies from less than 25% to more than 50% of total household water use in Victoria. Tank water for the garden will mostly be used in the summer when rainfall is low, so it needs to be large enough to store the water in advance. At least a 4,000 - 5,000 litre (L) tank is recommended for garden watering. Where space is an issue, you may wish to consider a different style of tank or installing two smaller tanks.

**Toilet flushing:** A toilet can use up to 12L per flush so installing a tank to toilet system can lead to major water savings. An average person uses 30L of water in the toilet per day or 210L per week.



We recommend a system with an automatic diversion directly from mains water if the rainwater tank is empty. We do not recommend a trickle top up system as this legally changes the whole tank to mains water which means it cannot be used on the garden during water restrictions.

**In the laundry:** You can save a large amount of water by connecting your washing machine to your tank.

Washing machines can use up to 150L per load and most households do 5-6 loads of washing per week. A four star front loading washing machine only uses 47L per load.



### What size tank will I need?

A good rule of thumb is it should hold a minimum of four weeks supply. For instance if you use 2,000L of tank water each week in the garden, toilet and laundry combined, then you should aim for a 8,000L tank. This will mean that the tank will only be empty through extended dry periods.

### Where should I locate my tank?

**Under ground:** Installing a rainwater tank underground can save space in your yard but costs around twice as much as above ground options. They need to be made from stronger materials and structures and often require weighting or concrete reinforcement. Because underground tanks are lower than the ground level you will need a pump.

**Above ground:** The traditional round tank and some of the following space efficient options are the most popular.

**Under the house:** For houses on stumps or stilts a space saving option is to put the tank under the house or beneath decking. There are rainwater bladders available which are durable and can be installed with ease.



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### Against the wall:

Another space saving option is tanks that go against walls or even act as garden walls. Some models can be joined together to make up larger water storages.



### What material should the tank be made from?

**Polyethylene:** Plastic tanks respond well to bumps and are non-corrosive. These are often the cheapest tanks.

**Colorbond steel:** These tanks come with corrosive resistant coatings to prevent rust. There should be at least two metres of plastic pipe between a steel tank and copper, brass or bronze fittings as they can cause corrosion.

**Fibreglass:** Often more expensive, fibreglass tanks are durable and resist corrosion. Purchasing a tank which is manufactured with sufficient pigment to prevent light entering the tank is recommended to prevent algae from developing.

**Concrete:** These tanks are strong and heavy which means they can be installed underground. New concrete tanks may need to be flushed clean because they can release excess lime leading to a high Ph in the water. Some concrete tanks require a lining to be installed.

### How much rainfall will I get?

The pattern of rainfall is important, if you have very regular rainfall all year round, you can use a smaller tank. Average rainfall across Victoria varies from 200mm to well over 1000mm per year. For information on rainfall in your local area, contact the Bureau of Meteorology at [www.bom.gov.au](http://www.bom.gov.au) and check out the rainfall maps.

### How much water will I collect?

You can find out the amount of rainwater you will collect as each square meter (m<sup>2</sup>) of roof area collects 1L of water for every 1 millimetre (mm) of rainfall received.

This is determined by the area of roof connected to the tank via the storm water down pipe. As an example:

- An average house has a roof area of approximately 160m<sup>2</sup>.
- Assume that 50% of this roof area can be easily connected to a rainwater tank i.e. 80m<sup>2</sup>
- Each m<sup>2</sup> of roof area collects 1L of water for every 1mm of rainfall received.
- If you have 10mm of rain, the water collected by the tank is 800L (80m<sup>2</sup> x 10mm = 800L).

**Rule of thumb guide:** roof collection versus tank capacity for an area receiving 600mm of rain per year, courtesy of EME Group.

