

RAINWATER TANK FACT SHEET

Most people install a rainwater tank primarily to harvest stormwater from their roof and conserve their mains water usage.

In addition to conserving water, a rainwater tank also helps treat stormwater and protect local streams from high storm flows by reducing the volume of stormwater and quantity of pollutants coming from a house block that would otherwise be delivered to the local stream.

What do I use my tank water for?

Garden irrigation, laundry and toilet flushing consume much of our home water use. In most cases these uses do not require the water to be of drinking quality standard that is provided by mains water.

By plumbing your rainwater tank to your toilet or laundry and substituting these mains water needs with the rainwater harvested from your roof, you can conserve mains water whilst reducing the amount of stormwater that enters our streams.

How does a rainwater tank help protect our

local streams	10%
kitchen	15%
laundry	20%
toilet	20%
bathroom	35%

Gardens & lawns

A typical home uses approximately 250,000 litres of water each year.

Why is it best that I use my rainwater tank for more than just my garden alone?

So that your tank is not too full to collect rainwater when it rains, you need to be consistently using your tank water all year round. If tank water is used for your garden alone, your tank will remain full and unused during the winter months when your garden does not require watering.

With a full tank, your capacity to capture and store the regular winter rainfall and thus benefit the local waterway is significantly reduced.

By plumbing your rainwater tank to your toilet or laundry, your tank water is used consistently all year round allowing rainfall to refill the tank more often especially

in winter. This ultimately reduces the volume of stormwater that is delivered to the stream and the quantity of pollutants that are washed with it.

The most important thing to consider when choosing a rainwater tank is to first identify what you want from your rainwater tank.

The size and type of rainwater tank you choose will vary depending on your homes water needs and the reliability you seek from your rainwater tank supply. There are a number of factors that may influence this and the following questions should be

considered when planning your tank installation:

- what is the water demand of your home?
- how many people are living in your home?
- what is your intended use of rainwater?
- what reliability do you want from your tank?
- what is the total area of roof draining into your tank?
- what is average rainfall of your area?
- do you need extras like a pressure pump, the ability to top up your tank with
- drinking water, a backflow prevention device or a first flush device?
- are the materials used on your roof suitable to collect
- rainwater?
- are there physical constraints of your property that may
- influence the type of rainwater tank you need?

Once you know how much water you can collect and how much water you are going to use then a tank size can be selected to provide the reliability of water supply that you need.

Types of rainwater tanks

Rainwater tanks come in a variety of materials, shapes and sizes and can be incorporated into building design so they don't impact on the aesthetics of the development. They can be located above ground, underground, under the house or can even be incorporated into fences or walls.

There are three main tank systems to consider and a variety of materials to choose from.

Features of these are outlined below and in the pictures above:

Tank systems:

Gravity Systems - rely on gravity to supply rainwater to the household and the garden by placing the tank on a stand at height.

Dual Supply Systems - top your rainwater tank with mains water when tank level is low ensuring reliable water supply.

Pressure Systems - use a pump to deliver rainwater to household and garden fixtures.

To reduce the amount of sediment and debris entering a tank, mesh screens and 'first flush diverters' can be fitted. A screen will filter large debris such as leaves and sticks while 'first flush diverters' store the 'first flush' of the rainfall that carries the sediment and other pollutants initially washed from your roof (see figure below).

Costs & rebates

Costs of installing a tank vary however a standard 2000Lt tank or bladder will cost anywhere from \$1000.

- Additional plumbing and/ or.....
- Above ground tanks cost approximately \$250 for a 500 litre tank.
- Below ground tanks cost between \$300-\$600 per 1000 litres of storage
- The costs of pumps start from \$200.

These costings are just a guide only

Additional plumbing and/or excavation costs vary on intended use, pipe layout, materials and site accessibility.

Saving Water

The water we use inside and outside our homes accounts for around 70 per cent of our total water consumption. Businesses use much less - about 20 per cent of water used.

Helping you save water at home

We all need to work together to save our precious drinking water, so take advantage of one of the rebates that your local council or state government offer to help you save water.

Helping businesses save water

For businesses we provide information on saving water as well as a formalised water saving process for high water users.

Rainwater tanks are more popular in Queensland right now because of the drought and level 5 water restrictions.

They are used:

- in communities without access to reticulated water sources or where good quality water supplies are limited;
- in areas where local regulations require that rainwater storage be provided for bushfire prevention purposes; and
- in urban areas, including Adelaide and regional communities, which have access to mains water.

1. The use of rainwater for drinking saves very little water and has little impact on reducing the amount of roof runoff to the street;
2. The use of rainwater tanks for garden watering will not save much water unless the tank is quite large. This is because most of our rainfall occurs over winter, when we usually do not need it for garden watering;
3. The way to maximise the use of rainwater is to interconnect it with the mains supply. Plumbing the tank directly into as many regular water-consuming areas (for example, the toilet, laundry and kitchen) is also a good option. (Note: Interconnecting rainwater with the mains supply must be done in an approved manner to avoid the risk of contaminating the mains supply.
4. Increasing the size of the rainwater tank does not deliver a corresponding increase in the amount of rainwater used over an average year. This is a common misconception. Of greater importance are the rate of water use, the annual rainfall and the amount of roof area connected to the tank.

Is rainwater safe?

YOU SHOULD CHECK WITH YOUR LOCAL COUNCIL ON ANY RESTRICTIONS TO USING YOUR TANK FOR DRINKING PURPOSES.

Overflows

Some Councils require these to be connected to the gutter. Care must be taken to where the water is discharged since it has the potential to impact the footings of the tank (especially if it is discharged to the garden).

Storage tanks – to store rainwater

available tank materials include plastic, steel, concrete and fibreglass. The tank should have a durable, watertight, opaque exterior and a clean, smooth interior. A tight fitting top cover prevents evaporation, mosquito breeding and keeps

insects, rodents, birds and children out of the tank.

This fact sheet has been compiled using information from council and state government sources.