

RAINWATER TANKS

Water is our most precious natural resource and something that most of us take for granted. We are increasingly becoming aware of the importance of water to our survival and its limited supply, especially in such a dry continent as Australia.

Rainwater tanks can provide a renewable supply of natural, soft, clear and odourless water that can be used for a range of purposes. In many areas of the Great Lakes it represents the primary source of household water.

Is the rainwater safe to drink?

Generally yes. Providing the rainwater is clear, has little taste or smell and is from a well maintained water catchment system it is probably safe and unlikely to cause any illness for most users.

The microbiological quality of rainwater collected in domestic tanks will be poorer than that of many public water supplies. However, providing systems are well maintained the risk of harmful organisms being present is low.

Rainwater tanks in urban areas

Those who use rainwater in urban areas should be aware of potential risk associated with chemical and microbiological contamination. Collection of rainwater for human consumption in areas affect by heavy traffic, incinerators or heavy industry is not recommenced.

What if I have a weakened immune system?

People with special health needs such as those who have a severely weakened immune system including some people HIV, AIDS, dialysis patients, transplant recipients and cancer patients should talk to their doctor about potential risks from drinking rainwater.

Rainwater can be disinfected by bringing to a rolling boil, and allowed to cool before drinking.

Fluoride

Rainwater does not contain fluoride. Where rainwater is the major source of water for drinking and cooking, advice about alternative sources of fluoride should be sought from your local dentist, school or community dental service or from the Australian Dental Association.

How can water quality be protected?

The provision of good quality water depends on correct design and installation of the tank, followed by sensible maintenance of the rainwater tank and catchment area. The collection of rainwater involves "LOW maintenance not NO maintenance".

The Tank

Tanks are available in a wide range of materials including galvanised steel, concrete, fibreglass or plastic. All of these materials can be suitable providing the tanks have been manufactured specifically for the collection of rainwater.

The Catchment

In general, house and shed roofs are used as catchment areas. Rainwater can be collected from most types of roofs.

First flush devices

First flush devices prevent the first portion of roof run-off from entering the tank and will reduce the amount of dust, bird droppings and leaves etc that can accumulate on roofs from being washed into tanks. The use of these devices is recommended.

Alternatively the tank inlet should be disconnected so that the first run-off of rain after a dry spell is not collected.

Tank Maintenance

Proper maintenance of the tank, catchment system, roof, gutters and inlet is essential to ensure a safe supply of water and is best carried out before seasons when heavy rain is expected. Roof catchments and gutters should be inspected and cleared of leaves and other debris every three or four months. If mosquitoes are detected in a tank the entry point should be located and closed.

Desludging

Tanks should be examined for accumulation of sludge at least every 2 – 3 years. If sludge is present in the tank it should be removed by siphon or by complete emptying of the tank (desludging).

Disinfection

Regular disinfection should not be necessary. However, if you suspect that water in the tank is contaminated, it can be chlorinated by adding powdered swimming pool chlorine or liquid chlorine. You should not use stabilised chlorine.

Choosing a rainwater tank

The size of the tank required to meet household needs will depend on a number of factors including rainfall, roof area, demand and acceptable level of security.

What if I need more water from another source?

Rainwater may be supplemented by water from other sources such as rivers, creeks, dams or bores. However, water from these sources may require additional treatment, such as filtration and disinfection, to maintain water quality.

If you top up your tank from a water carter you should ensure that you are being supplied with clean (potable) drinking water from a clean tank.

Do I need development consent to install a rainwater tank?

Council's requirements regarding an installation of rainwater tank can be obtained by reading Development Control Plan No 28 Exempt and Complying Development – page 24 Water Tanks

Rainwater Use

Rainwater can provide an alternative source of water in urban areas by using it for toilet flushing, residential garden irrigation, washing cars, filling ornamental ponds, washing machine, and topping up swimming pools

Where there is reticulated drinking (potable) water NSW Health does not advise using rainwater for drinking, cooking or other kitchen purposes or personal washing, such as baths, showers and hand basins.

The use of rainwater tanks in urban areas has a number of environmental benefits. A major environmental benefit is the retention of roof water on site and subsequent reuse or infiltration, subsequently reducing the volume of stormwater discharging during rainfall events.

Additional Information

- Your local Public Health Unit – for information on water quality look under Health Dept of NSW in the white pages or visit www.health.nsw.gov.au/public-health/phus/phus.html for addresses and phone numbers or more detailed information visit
- Your family doctor – to discuss any specific health concern
- Guidance on the Use of Rainwater Tanks – a book with detailed information about managing and using rainwater tanks. Published by the National Environment Health Forum in 1998 (ISBN 0 642 320160). Available from AusInfo Bookshops on Tel 02 9242 8500 and copies can be printed from the NSW Health website: www.health.nsw.gov.au/public-health/ehb/water/rainwater.html
- Analytical Laboratories – for advice on chemical, microbiological and algal testing of water. If you wish to have some water tested look in the yellow pages under the heading ‘analysts’