

# Stormwater Retention

## Introduction

Council has policies requiring all new buildings north of Seacombe Road, exceeding an area of 20sqm, incorporate the provision of stormwater retention. This includes any new house, additions to existing houses, some existing houses affected by land divisions and minor structures (such as sheds, garages, verandahs, dependant accommodation etc.). This requirement also applies to Commercial and Industrial developments.

The main aim of these policies is to re-use (i.e. 'retain') stormwater within the property (i.e. 'on-site'). This will assist to help reduce flood risk for properties downstream, improve water quality, and conserve potable water use.

Installing specially plumbed, minimum-sized retention tanks is the most beneficial way of meeting the water retention requirement.

The use of a retention tank for additional water supply has to be plumbed to either a toilet(s) and to all cold water outlets in the laundry, and/or water heater.

## Alternative Solutions

The installation of a retention tank is one way of achieving the intent of the Development Plan Principles of Development Control. Alternative designs solution may also achieve the intent of the PDC. Alternative solutions shall be assessed on their individual merits.

It should also be noted the requirment for the installation of retention tanks may exceed the minimum sought uner the National Construction Code (NCC). If this is the case, the Building Rules Assessment of an application, may exempt the installation of an additional 1000L rainwater tank requirement.

## Development applications

All development applications lodged with local councils for new houses and relevant extensions/alterations for houses need to include

details of how they will meet the water saving requirements. If retention tanks are to be used, details of the size, location, whether the tank is to be on a stand or at ground level, area of roof catchment to the tank and plumbing details for the installation of the tank must be included on the plans.

The Council policies state 'that on land north of Seacombe Road, all new buildings (including new homes and minor domestic structures) and building extensions of 20 square metres or more in floor area, shall incorporate on-site stormwater retention systems which ensure that the first 15 mm of rainfall within any 24 hour period is retained on site. Where such retention systems rely on the use of infiltration, and testing shows that site soils will not permit infiltration of retained stormwater within a 24 hour period, provision of additional storage shall be provided either within an infiltration trench or tank which has sufficient capacity to contain runoff from 15 mm of rainfall and discharges over a period of at least 2 hours and no greater than 24 hours.'

Council considers that this performance requirement is met for residential dwellings through the installation of plumbed-in rainwater tanks of 3000 litre capacity for roof area of less than 150m<sup>2</sup> and 5000 litre for roof areas greater than 150m<sup>2</sup> (with at least 80% of connected roof area). Further, all impervious pavement surfaces should drain to a complying infiltration trench or "rain garden", unless constructed of "permeable pavement".

## Minor Domestic Structures

The provision of water saving requirements also applies to minor domestic stuctures being applied for, greater than 20sqm. The following tank sizes may be used as a guide in order to satisfy these requirements, including slow discharge to stormwater system (or infiltration trench) in accordance with performance requirement:

Roof Area	Tank size required
Up to 40sqm	600L
Over 40sqm	Roof area (sqm) x 0.015 (e.g. 50sqm outbuilding x 0.015 = 750L tank.

# Stormwater Retention



*Applicable for development applied for on or after 8 August 2019*

Alternative solutions for dwellings, dwelling additions and minor domestic structures will be considered on its merits by Council's Development Engineer.

## Plumbed rainwater tanks

If rainwater tanks are to be used to satisfy the stormwater retention requirement, new homes should be designed to ensure that rainwater from not less than 80% of the roof is:

- Collected by gutters and downpipes
- Stored in a rainwater tank; and
- Plumbed to a toilet(s) and all laundry cold water outlets, and/or a water heater.

## Are there any other requirements for the rainwater tank?

- An overflow device must be fitted; and
- A mosquito proof, non-degradable screen must be attached to protect the water quality.

## Plumbing requirements

The plumbing aspects of the policy are regulated by the South Australian Water Corporation (SA Water) in accordance with the Waterworks Act 1932 and Waterworks Regulations 1996. SA Water require all plumbing work to comply with AS/NZS 3500:2003, the National Plumbing and Drainage Code and any SA Variations published by SA Water. The technical requirements for rainwater tanks are contained in Section 14 of AS/NZS 3500:2003 Part 1 and the SA Water Variations

A licensed plumber must:

- Install the piping system delivering the rainwater to the water closet, water heater or cold water laundry outlets and
- Complete a Certificate of Compliance certifying that the installation has been installed in accordance with AS/NZS 3500 and the SA Variations. The Certificate of Compliance must be provided to SA Water and the home owner within 7 days of completion of the work.

## When must the rainwater tank be installed?

Regulation 83A of the Development Regulations 2008 states that all new Class 1a buildings (i.e. dwellings and dwelling additions) are required to have all connections made for the supply of water from **all sources** prior to the occupation of the dwelling. That is, all sources of water identified in the development approval (mains, rainwater tank, third pipe scheme) must be connected before the dwelling is occupied.

## Installation of new rainwater tanks to existing houses.

Under Schedule 3 of the Development Regulations 2008, a new rainwater tank to an existing dwelling (and any supporting structure) does not require Development Approval if it meets the following requirements:

- is part of a roof-drainage system; and
- has a total floor area not exceeding 10 square metres; and
- is located wholly above ground; and
- has no part higher than 4 metres above the natural surface of the ground.

Irrespective of whether a tank requires Development Approval or not, the overflow from rainwater tanks should always be directed to the street, a rear of allotment drain if provided, or a complying soil infiltration device. If the tank is to be supported by a stand, care should be taken to ensure that there is adequate support for the stand as a 1000 litre tank will weigh over 1 tonne when full. It is recommended that a licensed builder be consulted to provide advice on adequate support for the stand.

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## For more information

Details of the requirements are included in the South Australian Appendix to the Building Code of Australia Volume Two (BCA) and the South Australian Housing Code (SAHC).

- Planning SA, Building Policy Branch,  
[www.dwlbc.sa.gov.au](http://www.dwlbc.sa.gov.au)  
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- SA Water, Development Services,  
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