PART 25 - RAINWATER TANKS

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Purpose

To specify the standards for the installation of a rainwater tank.

The local government must decide whether the rainwater tank is to be used for:

- external use only, or
- external use and internal connection for the flushing of all water closets (WCs) and for the cold water tap of laundry washing machines.

Application

In accordance with the *Standard Building Regulation 1993*, section 51C, this standard applies to all new *Class 1* buildings in a service area for a retail water service under the *Water Act 2000*, in all or part of a local government area where the local government requires the installation of rainwater tanks.

The standard does not apply to alterations to existing *Class 1* buildings.

Referral Agency

There is no Referral Agency for this standard, however, the local government must decide alternative solutions.

Other Relevant Legislation

- Plumbing and Drainage Act 2002
- Building Act 1975
- Standard Building Regulation 1993
- Public Health Regulation 2005
- Local government planning schemes

Referenced Standards

AS/NZS 3500:2003 Plumbing and Drainage

Definitions

Rainwater Tank – means a covered tank used to collect rainwater from a building roof. It may be made of galvanised steel, concrete, fibreglass, plastic, or other materials.

External use – means the use of collected rainwater for outdoor application, such as gardening, irrigation, ponds, filling swimming pools and outdoor cleaning.

Class 1 - means one or more buildings which in association constitute—

- (a) Class 1a —a single dwelling being—
 - (i) a detached house; or
 - (ii) one of a group of two or more attached dwellings, each being a building, separated by a *fire-resisting* wall, including a row house, terrace house, town house or villa unit; or
- (b) Class 1b —a boarding house, guest house, hostel or the like-
 - (i) with a total area of all floors not exceeding 300 m² measured over the enclosing walls of the Class 1b; and
- (ii) in which not more than 12 persons would ordinarily be resident, which is not located above or below another dwelling or another Class of building other than a *private garage*.

PERFORMANCE **CRITERIA**

ACCEPTABLE SOLUTIONS

Rainwater tank capacity and water quality protection measures

- **P1** A rainwater tank must have sufficient capacity to provide an acceptable contribution to meet water use demand having regard to:
 - (a) whether the water is used for external, or internal and external use:
 - (b) local rainfall pattern;
 - (c) roof catchment area; and
 - (d) area available to site the rainwater tank.

- **A1** (a) i. The rainwater tank has a minimum capacity specified by the local government; or
 - ii. where the local government has not specified a minimum capacity, a storage capacity of at least 3000 litres where used for external use only, or 5000 litres where used for external and internal use.
 - (b) The rainwater tank must be installed in such a way that it receives the rainfall from a roof catchment area of at least 50 square meters.
 - Where rainwater tank water is (c) required to be used internally, it is connected to all toilet cisterns and to washing machine cold taps.
- **P2** A rainwater tank must have suitable measures to prevent contaminants from entering the rainwater tank having regard to the nature and level of contaminants within the locality.
- **A2** A screened downpipe rainhead is installed on each downpipe. The screen mesh has openings no smaller than 4mm and no larger than 6mm and is designed to shed leaves.
- **P3** A rainwater tank must have suitable measures to prevent mosquitos breeding in the tank and vermin entering the tank.
- A rainwater tank is provided at every opening of the tank with: (a) mosquito-proof screens of brass, copper, aluminum or stainless steel gauze, having a mesh size of not more than 1 mm aperture mesh and are installed in a way that does not cause

or accelerate corrosion; or

- (b) flap valves;
- **P4** Where a rainwater tank is Α4

An automatic or manual interchange

A3

PERFORMANCE CRITERIA

used for sanitary flushing and laundry use, a means of allowing alternate use of water from the rainwater tank or the reticulated water supply must be installed.

A5

P5 Water from a rainwater tank must not contaminate the potable water within a reticulated water supply.

System materials

P6 Materials used in a rainwater tank must be suitable for its intended use.

ACCEPTABLE SOLUTIONS

device that allows alternate use of water from the rainwater tank or the reticulated water supply must be installed to ensure that there is a continual supply of water for sanitary flushing and laundry use.

A suitable backflow prevention device must be installed to protect the potable water within the reticulated water supply in accordance with AS/NZS 3500:2003 Plumbing and Drainage.

- A6 (a) Polyethylene tanks shall be in accordance with AS/NZS4766(Int):2002 polyethylene storage tanks for water and chemicals.
 - (b) Galvanised steel sheet shall comply with AS1397:2001 steel sheet and strip - hot-dipped zinc-coated or aluminium/zinc-coated, and have a minimum coating of 550 g/m2.
 - (c) Stainless steel shall comply with ASTM A240/A240M-05 standard specification for chromium and chromium-nickel stainless steel plate, sheet, and strip for pressure vessels and for general applications.
 - (d) Concrete tanks shall comply with AS3735:2001 concrete structures containing liquids.

Rainwater tank stands

P7 Where a rainwater tank is supported on a stand or other structure, the supporting structure must be capable of withstanding any loads likely to be imposed on it.

A7 A rainwater tank stand or other supporting structure must comply with AS/NZS1170.1:2002 permanent, imposed and other actions and AS/NZS1170.2:2002 wind actions.

Local Governments with identified rainwater tank areas in accordance with the *Standard Building Regulation 1993* section 51C

Local Government	Tanks required in whole or part of area (if part, refer to council map)	Tank capacity	External use only, or external and internal