STORMWATER MANAGEMENT IN URBAN DEVELOPMENT

Purpose
To ensure that stormwater in urban development, including retention and reuse, is managed to mitigate the impacts of stormwater on the environment, property and public safety, and to provide cooling, local habitat and amenity benefits.

Application
This clause applies to an application under a provision of a zone to subdivide land, construct a building, or carry out works, other than the following applications:

- An application under a provision of the Farming Zone, Green Wedge Zone, Green Wedge A Zone, Low Density Residential Zone, Public Conservation and Resource Zone, Road Zone, Rural Activity Zone, Rural Conservation Zone, Rural Living Zone, Urban Floodway Zone or Urban Growth Zone.
- A VicSmart application.
- An application to subdivide land in a residential zone for residential purposes.
- An application to construct or extend a dwelling, fence or residential building in a residential zone.
- An application for development associated with the use of land for agriculture or earth and energy resources industry.
- An application to construct a building or carry out works associated with one dwelling on a lot.
- An application to alter, extend or make structural changes to an existing building provided the gross floor area of the building is not increased by more than 50 square metres.
- An application to construct a building with a gross floor area not exceeding 50 square metres.
- An application to construct or carry out works with an area not exceeding 50 square metres.
- An application to subdivide land into lots each containing an existing building or car parking space.
- An application to construct a building or to construct or carry out works on a lot if all of the following requirements are met:
  - The lot was created in accordance with a permit granted under this planning scheme.
  - The application for that permit was assessed against the requirements of this clause.
- An application for land affected by a development plan or incorporated plan that was approved or incorporated in this planning scheme before the approval date of Amendment VC154.
- An application lodged before the approval date of Amendment VC154.
- An application for an amendment of a permit under section 72 of the Act, if the original permit application was lodged before the approval date of Amendment VC154.

Operation
The provisions of this clause contain:

- Objectives. An objective describes the desired outcome to be achieved in the completed development.
- Standards. A standard contains the requirements to meet the objective.
A standard should normally be met. However, if the responsible authority is satisfied that an application for an alternative solution meets the objective, the alternative solution may be considered.

**Requirements**

An application to subdivide land:

- Must meet all of the objectives of Clauses 53.18-4 and 53.18-6.
- Should meet all of the standards of Clauses 53.18-4 and 53.18-6.

An application to construct a building or construct or carry out works:

- Must meet all of the objectives of Clauses 53.18-5 and 53.18-6.
- Should meet all of the standards of Clauses 53.18-5 and 53.18-6.

An application must be accompanied by details of the proposed stormwater management system, including drainage works and retention, detention and discharges of stormwater to the drainage system.

**Stormwater management objectives for subdivision**

To minimise damage to properties and inconvenience to the public from stormwater.

To ensure that the street operates adequately during major storm events and provides for public safety.

To minimise increases in stormwater and protect the environmental values and physical characteristics of receiving waters from degradation by stormwater.

To encourage stormwater management that maximises the retention and reuse of stormwater.

To encourage stormwater management that contributes to cooling, local habitat improvements and provision of attractive and enjoyable spaces.

**Standard W1**

The stormwater management system should be:

- Designed and managed in accordance with the requirements and to the satisfaction of the relevant drainage authority.
- Designed and managed in accordance with the requirements and to the satisfaction of the water authority where reuse of stormwater is proposed.
- Designed to meet the current best practice performance objectives for stormwater quality as contained in the *Urban Stormwater - Best Practice Environmental Management Guidelines* (Victorian Stormwater Committee, 1999).
- Designed to ensure that flows downstream of the subdivision site are restricted to pre-development levels unless increased flows are approved by the relevant drainage authority and there are no detrimental downstream impacts.
- Designed to contribute to cooling, improving local habitat and providing attractive and enjoyable spaces.

The stormwater management system should be integrated with the overall development plan including the street and public open space networks and landscape design.

For all storm events up to and including the 20% Average Exceedence Probability (AEP) standard:

- Stormwater flows should be contained within the drainage system to the requirements of the relevant authority.
- Ponding on roads should not occur for longer than 1 hour after the cessation of rainfall.
For storm events greater than 20% AEP and up to and including 1% AEP standard:

- Provision must be made for the safe and effective passage of stormwater flows.
- All new lots should be free from inundation or to a lesser standard of flood protection where agreed by the relevant floodplain management authority.
- Ensure that streets, footpaths and cycle paths that are subject to flooding meet the safety criteria \( da \cdot V_{ave} < 0.35 \text{ m}^2/\text{s} \) (where, \( da = \) average depth in metres and \( V_{ave} = \) average velocity in metres per second).

The design of the local drainage network should:

- Ensure stormwater is retarded to a standard required by the responsible drainage authority.
- Ensure every lot is provided with drainage to a standard acceptable to the relevant drainage authority. Wherever possible, stormwater should be directed to the front of the lot and discharged into the street drainage system or legal point of discharge.
- Ensure that inlet and outlet structures take into account the effects of obstructions and debris build up. Any surcharge drainage pit should discharge into an overland flow in a safe and predetermined manner.
- Include water sensitive urban design features to manage stormwater in streets and public open space. Where such features are provided, an application must describe maintenance responsibilities, requirements and costs.

Any flood mitigation works must be designed and constructed in accordance with the requirements of the relevant floodplain management authority.

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**Stormwater management objectives for buildings and works**

To encourage stormwater management that maximises the retention and reuse of stormwater.

To encourage development that reduces the impact of stormwater on the drainage system and filters sediment and waste from stormwater prior to discharge from the site.

To encourage stormwater management that contributes to cooling, local habitat improvements and provision of attractive and enjoyable spaces.

To ensure that industrial and commercial chemical pollutants and other toxicants do not enter the stormwater system.

**Standard W2**

The stormwater management system should be designed to:

- Minimise the impact of chemical pollutants and other toxicants including by, but not limited to, bunding and covering or roofing of storage, loading and work areas.
- Contribute to cooling, improving local habitat and providing attractive and enjoyable spaces.

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**Site management objectives**

To protect drainage infrastructure and receiving waters from sedimentation and contamination.

To protect the site and surrounding area from environmental degradation prior to and during construction of subdivision works.
**Standard W3**

An application should describe how the site will be managed prior to and during the construction period and may set out requirements for managing:

- Erosion and sediment.
- Stormwater.
- Litter, concrete and other construction wastes.
- Chemical contamination.

**Decision guidelines**

Before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

- Any relevant water and stormwater management objective, policy or statement set out in this planning scheme.
- The capacity of the site to incorporate stormwater retention and reuse and other water sensitive urban design features.
- Whether the development has utilised alternative water sources and/or incorporated water sensitive urban design.
- Whether stormwater discharge from the site will adversely affect water quality entering the drainage system.
- The capacity of the drainage network to accommodate additional stormwater.
- Whether the stormwater treatment areas can be effectively maintained.
- Whether the owner has entered into an agreement to contribute to off-site stormwater management in lieu of providing an on-site stormwater management system.