

INFO SHEET

If your property is flood-prone, there are specific planning scheme and Building Act 2016 considerations for a new or renovated dwelling.

This information sheet provides general information on how Council identifies flood-prone areas and how flood hazards are regulated in the planning and building system.

The Flood-Prone Areas Overlay applies to areas of Sorell, Midway Point and the Southern Beaches. It is based on Council's modelling of a 1% AEP rain event, which approximates a rain event that has a 1% probability of occurring in any given year (i.e., once every 100 years).

Flood studies and mapping

Council has flood studies for Sorell, Midway Point and the Southern Beaches. The studies show the likely extent of flooding in a large, 1% AEP rain event.

AEP stands for Average Exceedance Probability. AEP is the probability of a storm event of a given (or larger) flood occurring in any one year.

A 1% AEP rain event has a 1% probability of occurring in any one year. This is approximate to a event that on average has a probability of occurring once every 100 years. Importantly, AEP is a probability and does not mean that if no flooding has occurred for 99 years that there will be a flood in the next year. There are also examples of two 1% AEP events occurring at the same place in the one year.

The study has incorporated the latest climate change scenarios and projections.

Areas subject to flooding are generally areas of major overland flow from large rain events, rather than sheet runoff or other nuisance type flooding from smaller rain events. Information on managing issues associated with natural sheet run-off is available on the Council website.

As the modelling is taken at one point in time, the overlay cannot be relied upon as definitive proof that a property is or is not subject to flooding during a 1% AEP event.

Planning and building regulation in flood-prone areas

A flood hazard report prepared by a suitably qualified person is usually required for development. The purpose of the flood hazard report is consider if the proposal can achieve and maintain a tolerable level of risk, having regard to considerations such as floor height and the depth and velocity of flood flows . The study also considers potential impacts to infrastructure and adjoining land.

A flood hazard report will often classify the potential impact of flooding on development and people into one of six hazard classifications that are set out in the Australian Rainfall and Runoff Guidelines 2016.

Some forms of use or development, such as outbuildings, are exempt from the need for a flood hazard report for planning purposes but may still be regulated under the building approval system.

In the building system, additional requirements for flood-prone areas are set by the Director's Determination for Riverine Inundation Hazard Areas.

Melbourne Water have published a *Flood Resilient Guide to Retrofitting Your Home* which can be downloaded from www.melbournewater.com.au

The Director's Determination requires that building work or demolition work is categorised as notifiable work or permit work and enables a building surveyor to consider flood risks independent of the planning system.

Who can prepare a flood hazard report?

Flood hazard reports are prepared by specialised flood engineers using various software packages to model flood hazards. While there is no specific or minimal qualification, a person needs to be suitably qualified and experienced.

We suggest you ask consultants to provide you with details of their experience and qualifications along with their professional indemnity.

Strategies to Minimise Flood Risk

Common design and engineering solutions to minimise flood risk include:

- raising the floor level by at least 300 mm above the 1% AEP flood level;
- constructing non-habitable rooms at ground level or with pier construction that allows water to flow through;
- cut-off drains to direct runoff away;
- designing the driveway to minimise water entering from a road;
- avoiding excavation;
- installing gate valves on sewer lines to prevent sewer main blockages backing up into your house; or

- water resistant construction materials or other flood resistant or flood resilient construction strategies.

How is coastal inundation from storm surge and high tide considered?

Flooding due to coastal inundation is subject to different requirements in the planning and building systems. Please refer to www.planbuild.tas.gov.au for more information.

Why is the 1% ARI used in flood modelling

When designing new subdivisions the minimum level of service for stormwater is to provide a piped network that conveys a 5% AEP event (i.e., a 1 in 20 event) and a overland flow path that conveys a 1% AEP event. The overland flow path can consist of creeks, drains, roads, open space and other land and should provide a safe path for large events. It is common practice throughout Australia to not design for events greater than 1% AEP due largely to the much higher cost and the lesser probability of even larger rain events. The 1% AEP event is however changing in response to climate change and climate change scenarios are to be reflected in flood hazard reports.

More information

More information on flood mapping, understanding flood risk and Council's role in managing stormwater, including overland flow, is available on the Council website.

