

FREQUENTLY ASKED QUESTIONS

What does the Defined Flood Level (DFL) mean?

The defined flood level (DFL) is the height which is reasonably expected flood waters may rise. (This term is used in Section 8 (5) of the *Building Regulation 2021* and Section 8.1(b) of the TLPI). The same criteria have been in effect since 2012.

I am building a house. If I refer to only one layer of information, which should it be?

The Flood Information Portal (FIP) generates a report that provides the TLPI – flood hazard overlay and underlying DFL data. This is the primary source data for consideration in any planning or building development.

My property is in an 'undetermined area'. What does this mean?

Undetermined Areas and Special Areas in the FIP are those areas that are likely to be affected by floodwater at some level. This may be due to an overland flow path (a gully that fills and flows when it rains) through to complete land inundation in various flood events. Changes as a result of development mean that further investigation and modelling is required in these areas to determine a clear flood impact. Owners of land that is subject to Undetermined or Special Areas are encouraged to contact Council to apply for a Detailed Flood Advice Report if they have plans to develop the land.

The FIP shows flood water over my property in 2011, but that's not correct. Can this be fixed?

The FIP has a help button that provides an opportunity for feedback. The feedback captured in the FIP will be collated and assessed to determine portal or report improvements and model updates. If you have evidence of flood impacts that are different to those represented in the event models, the feedback area of the FIP is the place to provide that information.

What does the Hazard layer mean?

The Hazard layer provides a reference to how 'dangerous' the flood water can be. For example, can a small vehicle or child withstand the intensity of the water? The flood hazard level is taken into consideration as part of the planning and development assessment process.

How have ground levels been determined?

Ground levels have been determined by combining various aerial survey models from 2015 and 2018 datasets. Ground levels are shown using AHD. Ground levels will be updated in the future as new LiDAR becomes available.

Will this affect my insurance?

Council notified the Insurance Council of Australia (ICA) of the FIP and the detail of flood modelling that has been undertaken. The ICA utilise their own data to determine flood extent and hazard and apply premiums accordingly. Where possible, Council will urge the ICA to utilise the models provided in the FIP to ensure consistency in application of controls.



How do they come up with the flood levels?

The 2011, 2013 and 2017 flood models are calibrated events. Calibration involves inputting rainfall data and river conditions at the time to into the model and comparing the modelling against known flood levels. This provides a high level of confidence and accuracy in the flood levels.

'Design events' undergo a similar process where specific rainfall data is input to simulate various flood events from high probability (63% AEP) through to low probability/high impact (1% AEP). The effect of climate change is a further consideration that has been modelled and represented in the 1% AEP + CC model.

The Queensland Government determined that climate change must be a consideration under state government planning regulations.

What is a flood model?

A flood model is a visual representation of rainfall events ranging from high probability (frequent rain events) through to low probability rain events that have a high extent and impact. The model aids to determine areas of the floodplain that are affected by flood water and the level to which they are affected. The flood level impacts are represented in the TLPI as low, medium and high flood hazard. The level of assessment of proposed development may depend on the defined flood hazard.

What does it mean by Freeboard?

Freeboard is the additional measure applied above the defined flood level. The finished floor level of a habitable building is the defined flood level plus an additional 300mm.

My property didn't flood in 2011, 2013 or 2017 but is affected by the DFL/flood hazard overlay! What does this mean?

The DFL is an amalgamation of the 2011 flood event level east of Grantham and the 1% AEP model. The State Planning Policy requires flood mapping used to regulate development to be consistent with the highest known level or the 1% AEP.



DEFINITIONS

Depth	The height of flood water shown at AHD. The depth is the measurement from the surface of the water down to the ground level.
Velocity	The speed of the water measured in metres per second.
Flood Water Level	The water height level measured at AHD.
Flood Intensity	The depth of the water multiplied by the velocity determines the flood intensity. Water that is deep and fast has a high intensity.
Flood Hazard	The hazard is a determination of how safe or unsafe the water is to a child or vehicle. This measure has been determined through real testing - Australian Disaster Resilience Handbook 7 <i>Managing Floodplain: A guide to Best Practice in Flood Risk Management in Australia</i> (AIDR 2017) Guideline 7-3 Figure 6.
Temporary Local Planning Instrument - flood overlay	The TLPI specifies the required development response at locations within the flood hazard overlay. Not all areas affected by flooding are captured in the mapped extent but may be affected as shown by the indicative flood extent.



ACRONYMS

AEP	<p>Annual Exceedance Probability the chance of a mapped design event occurring or being exceeded in any one year. This is expressed as a percentage, e.g.:</p> <ul style="list-style-type: none">• A 1% AEP flood event is likely to occur once every 100 years, but there is a 1% chance of this type of flood occurring in any one year. There is a low probability of this type of flood event occurring, but when it does it has a high extent and impact.• A 63% AEP flood event is likely to occur on average every 1.6 years, but there is a 63% chance of this type of flood occurring in any one year. There is a high probability of this type of flood event occurring, but when it does it has a smaller extent and impact.
AHD	<p>Australian Height Datum is the official national vertical datum for Australia, adopted in 1971. It is the height above mean sea level shown in metres.</p>
DFL	<p>Defined Flood Level - the level to which it is reasonably expected flood waters may rise. (This term is used in Section 8 (5) of the <i>Building Regulation 2021</i> and Section 8.1(b) of the TLPI.)</p>
DFE	<p>Defined Flood Event – a flood event that would result in the extent of flooding shown on the flood hazard overlay maps in the TLPI.</p>
FFL	<p>Finished Floor Level - the required height of a floor in a habitable building. The FFL is the DFL + 300mm freeboard.</p>
LiDAR	<p>Light Detection and Ranging – a tool which uses light to measure distances for mapping the ground and physical features on the ground. It can be used to enable the creation of 3D digital models.</p>
TLPI	<p>Temporary Local Planning Instrument – the relevant TLPI is the <i>Temporary Local Planning Instrument 2022 Flood Regulation</i>.</p>