

## 8.2.7. Flood hazard overlay code

### 8.2.7.1. Application

This code applies to the assessment of development if it is identified as an applicable code for development, as specified in the assessment benchmarks column in the tables of assessment located in Part 5 of the planning scheme.

When using this code, reference should be made to section 5.3.2 and where applicable, section 5.3.3 located in Part 5.

All subject matter in this code is applicable to the development assessment, unless the following circumstance arises:

- (1) The heading of a specific benchmarks for assessment table specifies otherwise; or
- (2) A heading within a specific benchmark for assessment table specifies that the outcomes apply to a specific type of development or to development at a specific location; or
- (3) A performance outcome or acceptable outcome specifies that the outcomes apply to a specific type of development or to development at a specific location.

In the circumstance where point (2) or point (3) above arises the following applies:

- (1) the development assessment outcomes apply only to the type of development specified or only to development at the location specified; and
- (2) the development must still be assessed against all other general subject matter of the code.

In this planning scheme:

- (1) the defined flood event for all catchments is the one (1) per cent annual exceedance probability (AEP) flood;
- (2) the defined flood level is the mapped area of the inundation of the defined flood event identified by an overlay;
- (3) the declared freeboard is 300 millimetres; and
- (4) the defined flood hazard level is the combination of the defined flood level, plus the declared freeboard height of 300 millimetres.

Editor's notes:

- Where flood modelling has been undertaken, Council will make available the height of the defined flood level for any particular location upon request.
- Some undeveloped parts of the planning scheme area may be affected by local flooding, for which Council does not have detailed flood modelling. Applicants are advised to undertake their own investigations prior to undertaking development.
- Applicants must be aware that in flood prone areas, storm tide hazard may also affect land.

### 8.2.7.2. Purpose

The purpose of the flood hazard overlay code is to ensure that development in flood hazard areas avoids, or minimises and mitigates risk to life, property, community and the environment during floods, to an acceptable level.

### 8.2.7.3. Overall outcomes

The purpose of the code will be achieved through the following overall outcomes:

- (1) known areas of flood risk, and the probability of future flooding, are identified;
- (2) development does not occur in areas at risk from flood inundation unless undertaken in a manner that minimises and mitigates the risk to life, property, community and the environment during floods, to an acceptable level;
- (3) matters of State or local environmental significance are not adversely impacted on in order to achieve hazard minimisation or mitigation;

- (4) development does not increase flood risk for land upstream and downstream of the development site and the hydraulic connectivity and capacity of flood hazard areas are not adversely affected by development;
- (5) emergency services, community facilities and infrastructure required during a flood emergency are located above flood hazard areas and they are designed to function effectively during and immediately after flood events;
- (6) development does not create an unacceptable burden on disaster management response or recovery capacity and capabilities;
- (7) no further fragmentation of land occurs within flood hazard areas;
- (8) where possible, development intensity in flood hazard areas is progressively reduced over time; and
- (9) development avoids the storage of hazardous materials in a flood hazard area.

#### 8.2.7.4. Specific benchmarks for assessment

**Table 8.2.7.4.1 — Outcomes for development that is accepted subject to requirements and assessable development**

Performance outcomes	Acceptable outcomes
Location, design, siting, operation	
<b>PO1</b> The development is sited and designed such that risk to people and property from flood inundation is avoided or minimised.	<b>AO1.1</b> The finished floor level of all habitable rooms is located at or above the defined flood hazard level.  <b>AO1.2</b> If the development involves an addition or extension to an existing building(s): (a) it does not result in an increase in the number of dwellings on the site; (b) the total number of bedrooms in any existing dwelling does not exceed four (4); and (c) all buildings are constructed in accordance with the <i>Queensland Development Code – MP3.5 — Construction of buildings in flood hazard areas</i> .
<b>PO2</b> The development is located and designed such that all buildings, structures and driveways on the site do not obstruct the free drainage of flood waters after a flood.	<b>AO2.1</b> All buildings, structures and driveways are constructed: (a) on a single building pad which is above the defined flood level; or (b) so that spaces between buildings, structures and driveways are able to drain freely.
<b>PO3</b> All water, sewer, electricity and telecommunications infrastructure servicing the development maintains effective functioning during and after a flood.	<b>AO3.1</b> All water, sewer, electricity and telecommunications infrastructure: (a) is located above the defined flood level; or (b) is designed to exclude water intrusion and resist hydrodynamic and hydrostatic forces from damaging the infrastructure.
<b>PO4</b> Development does not cause adverse impacts	<b>AO4.1</b> The development does not involve the following:

Performance outcomes	Acceptable outcomes
<p>on property, infrastructure or the natural environment (on-site or off-site) due to flooding.</p> <p>Editor's note: To assist with demonstrating compliance with this performance outcome, a report should be prepared by an appropriately qualified person which demonstrates to the satisfaction of the assessment manager, that the development does not cause adverse impacts external to the site due to:</p> <ul style="list-style-type: none"> <li>(a) reductions of flood storage capacity; or</li> <li>(b) changes to depth, duration and velocity of flood waters; or</li> <li>(c) changes to flood flow paths; or</li> <li>(d) reductions in flood warning times elsewhere on the floodplain.</li> </ul>	<ul style="list-style-type: none"> <li>(a) new buildings or structures or additions to existing buildings or structures (including any impermeable parts thereof) located below the defined flood hazard level if: <ul style="list-style-type: none"> <li>(i) having an enclosed space having a volume exceeding fifty (50) cubic metres; or</li> <li>(ii) if resulting in a net increase in building materials resulting in a volume exceeding fifty (50) cubic metres; or</li> </ul> </li> <li>(b) a net increase in filling on the site greater than fifty (50) cubic metres; or</li> <li>(c) filling material with a height greater than one-hundred (100) millimetres; or</li> <li>(d) block or solid walls or fences.</li> </ul>
<p><b>P05</b></p> <p>Development avoids the release of hazardous materials into floodwaters.</p>	<p><b>AO5.1</b></p> <p>All areas associated with the manufacturing and storage of hazardous materials in excess of 2,500 litres or 2,500 kilograms, are located above the defined flood hazard level.</p>
<p><b>P06</b></p> <p>Development is located to minimise susceptibility to and potential impacts of flooding.</p>	<p><b>AO6.1</b></p> <p>Underground vehicle parking areas are designed to prevent the intrusion of floodwaters by the incorporation of a bund or similar barrier above the defined flood hazard level.</p>
<p><b>P07</b></p> <p>Development involving temporary or moveable residential structures (for example caravan parks and camping grounds) is located to minimise susceptibility and potential impacts of flooding.</p>	<p><b>AO7.1</b></p> <p>Development involving temporary or moveable residential structures is located on the highest part of the site and in an area where there is at least twenty-four (24) hours flood warning time to enable safe evacuation.</p>
<p><b>P08</b></p> <p>Development does not change the flood characteristics of the area, taking into account the cumulative impact of development outside of the site.</p>	<p><b>AO8.1</b></p> <p>Development does not result in changes to downstream flood characteristics including:</p> <ul style="list-style-type: none"> <li>(a) loss of flood storage;</li> <li>(b) increased scour and erosion;</li> <li>(c) loss of or changes to flow paths;</li> <li>(d) flow acceleration or retardation;</li> <li>(e) increase in the depth and duration of flood waters; and</li> <li>(f) reduction in flood warning times.</li> </ul> <p>Editor's note — in reference to all acceptable outcomes nominated above, Council may require the preparation of a flood study to demonstrate compliance with these acceptable outcomes. This is to be prepared in accordance with Schedule SC7.6.</p>
<p><b>P09</b></p> <p>Development for essential public services, community activities and other important public assets and infrastructure are able to function effectively during and immediately after a defined flood event.</p>	<p><b>AO9.1</b></p> <p>The uses listed in Table 8.2.7.4.1.1 below are not located on land below the defined flood event and they have at least one flood free access road during the flood event.</p>

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	<p><b>Table 8.2.7.4.1.1</b></p> <table> <tr> <th>Use (description)</th><th>Defined flood event level per cent annual exceedance probability</th></tr> <tr> <td>Emergency services (other)</td><td>0.2</td></tr> <tr> <td>Emergency/evacuation shelters</td><td>0.5</td></tr> <tr> <td>Emergency services (fire and police stations)</td><td>0.5</td></tr> <tr> <td>Hospitals and associated facilities</td><td>0.2</td></tr> <tr> <td>Stores of valuable record or items of historic/cultural significance</td><td>0.2</td></tr> <tr> <td>Air services</td><td>0.5</td></tr> <tr> <td>Telecommunications facilities</td><td>0.5</td></tr> <tr> <td>Power stations</td><td>0.2</td></tr> <tr> <td>Major electricity infrastructure</td><td>0.2</td></tr> <tr> <td>Substations</td><td>0.5</td></tr> <tr> <td>Utility installation (sewage treatment plant)</td><td>1.0</td></tr> <tr> <td>Utility installation (water treatment plant)</td><td>0.2</td></tr> <tr> <td>Retirement facility, residential care facility and community residence</td><td>0.5</td></tr> <tr> <td>Community activities (including child care centres and educational establishments)</td><td>0.5</td></tr> <tr> <td>Regional fuel storage</td><td>0.5</td></tr> <tr> <td>Food storage warehouse</td><td>0.5</td></tr> </table> <p>Note — 0.5 per cent annual exceedance probability and 0.2 per cent annual exceedance probability mapping is only available for some areas within the region. The applicant will be required to provide sufficient detail in the form of a flood impact report for development within areas that are not mapped in accordance with Schedule SC7.6</p>	Use (description)	Defined flood event level per cent annual exceedance probability	Emergency services (other)	0.2	Emergency/evacuation shelters	0.5	Emergency services (fire and police stations)	0.5	Hospitals and associated facilities	0.2	Stores of valuable record or items of historic/cultural significance	0.2	Air services	0.5	Telecommunications facilities	0.5	Power stations	0.2	Major electricity infrastructure	0.2	Substations	0.5	Utility installation (sewage treatment plant)	1.0	Utility installation (water treatment plant)	0.2	Retirement facility, residential care facility and community residence	0.5	Community activities (including child care centres and educational establishments)	0.5	Regional fuel storage	0.5	Food storage warehouse	0.5
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<p><b>PO10</b></p> <p>Development avoids the release of hazardous materials into floodwaters.</p>	<p><b>AO10.1</b></p> <p>In high and extreme flood hazard areas, the manufacture or storage of hazardous materials in bulk does not occur.</p>																																		
<b>Trafficable access</b>																																			
<p><b>PO11</b></p> <p>Development has safe access to and from the</p>	<p><b>AO11.1</b></p> <p>Trafficable access to and from the development in</p>																																		

Performance outcomes	Acceptable outcomes																																
site during a defined flood event.	<p>local creek catchments is in accordance with Table 8.2.7.4.1.2 below.</p> <p><b>Table 8.2.7.4.1.2 – Trafficable access requirements local catchments</b></p> <table><tr><th rowspan="2">Use category</th><th rowspan="2">Max access inundation depth and velocity</th><th colspan="2">Defined flood event per centum annual exceedance probability</th></tr><tr><th>Major road</th><th>Minor road</th></tr><tr><td>Rural</td><td>0.5 metres 1.2 metres per second</td><td>2</td><td>10</td></tr><tr><td>Residential</td><td>0.3 metres 1.2 metres per second</td><td>2</td><td>10</td></tr><tr><td>Commercial</td><td>0.5 metres 1.2 metres per second</td><td>2</td><td>10</td></tr><tr><td>Industrial</td><td>0.5 metres 1.2 metres per second</td><td>2</td><td>10</td></tr><tr><td>Community recreation</td><td>0.3 metres 1.2 metres per second</td><td>2</td><td>10</td></tr></table> <p>Editor's note — local creek catchment flood modelling detailing annual exceedance probability (AEP) events is only available for some areas. The applicant may be required to provide sufficient detail in the form of a flood impact report for development within areas that are not mapped.</p> <p>Editor's note — major road - refer to Capricorn Municipal Development Guideline</p> <p>Editor's note — minor road - refer to Capricorn Municipal Development Guideline</p> <p><b>AO11.2</b></p> <p>Trafficable access to and from the development within the Fitzroy River hazard areas are in accordance with Table 8.2.7.4.1.3.</p> <p><b>Table 8.2.7.4.1.3 – Trafficable access requirements Fitzroy River flood hazard areas</b></p> <table><tr><th rowspan="2">Use category</th><th rowspan="2">Max access inundation depth and velocity</th><th colspan="2">Defined flood event per centum annual exceedance probability</th></tr><tr><th>Major road</th><th>Minor road</th></tr></table>	Use category	Max access inundation depth and velocity	Defined flood event per centum annual exceedance probability		Major road	Minor road	Rural	0.5 metres 1.2 metres per second	2	10	Residential	0.3 metres 1.2 metres per second	2	10	Commercial	0.5 metres 1.2 metres per second	2	10	Industrial	0.5 metres 1.2 metres per second	2	10	Community recreation	0.3 metres 1.2 metres per second	2	10	Use category	Max access inundation depth and velocity	Defined flood event per centum annual exceedance probability		Major road	Minor road
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	Rural	0.5 metres 1.2 metres per second	1	2
	Residential	0.3 metres 1.2 metres per second	1	2
	Commercial	0.5 metres 1.2 metres per second	1	2
	Industrial	0.5 metres 1.2 metres per second	1	2
	Community recreation	0.3 metres 1.2 metres per second	1	2
<p>Editor's note — where Fitzroy River flood mapping overlaps local creek catchment mapping, trafficable access requirements for Fitzroy River flood hazard areas prevail.</p> <p>Editor's note — time of isolation during defined flood event is extended.</p>				
<b>PO12</b> New lots and development associated with reconfiguring a lot does not create an unacceptable risk of adverse impact to people, property, and infrastructure due to flood inundation	<b>AO12.1</b> Development does not result in an increase in the number of lots in flood hazard areas.			

Table 8.2.7.4.2 — Additional outcomes for assessable development

Performance outcomes	Acceptable outcomes
<b>Location, design, siting, operation</b>	
<b>PO13</b> Development for non-residential purposes is able to provide a safe refuge for people and for the storage of goods during times of flood inundation.  Editor's note: This area can be used on a daily basis as an office, storage area or the like.	No acceptable outcome is nominated.
<b>PO14</b> Development and actions to minimise or mitigate flood hazard do not adversely impact matters of State or local environmental significance.	No acceptable outcome is nominated.