**7.4.3 Flood Hazard Overlay code**

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| **Performance outcomes** | **Acceptable outcomes** | **Complies** | **Justification for Compliance** |
| **Built Form** |  |  |
| **PO1** Development is resilient to flood events by ensuring design and built form to account for the potential risks of flooding.  | **AO1.1**Habitable floors (including extensions and/or redevelopment) are built to at least the Minimum Habitable Finished Floor Level (MHFFL) specified for the subject lot.Note**—**Refer to Schedule 4 – Flood Mapping (MHFFL). For the avoidance of doubt, the freeboard allocated (0.55m within designated Flood Hazard Areas) includes an allowance (0.25m) for the underside of the lowest component of flooring used (such as the underside of floor bearers or suspended slab) to also be constructed above flood waters.**AO1.2**The design and layout of buildings used for residential purposes minimise risk from flooding by providing parking and other low intensity, non-habitable uses at ground level.Note—The high-set ‘Queenslander’ style house is a resilient low-density housing solution in floodplain areas. The use of floor area below the MHFFL for non-habitable use is acceptable (such as for storage, car garaging, laundries or bathrooms) where residents are aware of the risk of loss of property from flood inundation and the possible implications for increased insurance premiums. It is acceptable for a slab to be placed underneath a high-set dwelling for non-habitable purposes.Note—Higher density residential development should also ensure only non-habitable rooms (e.g. garages laundries) are located on the ground floor.**AO1.3**The maximum building height for a dwelling is 8.5m.**AO1.4** The maximum site coverage for residential outbuildings does not exceed 5% of the total site area.Note—The Queensland Development Code specifies acceptable setbacks from property boundaries. Residents must also be aware of the risk of property loss associated with development residential outbuildings in areas subject to flood. **AO1.5**Boundary fences do not impede the flow of floodwater.Note—Fences should be designed to allow flow of floodwaters but remain in situ so as not to create a hazard.**AO1.6**Non-residential uses and structures:1. area built above the minimum habitable finished floor level; or
2. allow for flow through of flood waters.

**AO1.7**Materials stored on-site:1. are those that are readily able to be moved in a flood event.
2. where capable of creating a safety hazard by being shifted by flood waters, are contained in order to minimise movement in times of flood.

Note—Non-residential uses and structures, need not comply with the minimum habitable finished floor levels for non-habitable rooms/areas, however in this instance businesses should be aware of the flood risk they are subject to. To help mitigate this risk businesses should ensure that they have the necessary continuity plans in place to account for the potential need to relocate property prior to a flood event (e.g. allow enough time to transfer stock to the upstairs level of a building or off site.) Advice on the use of flood resilient building materials is also available from Building Codes Queensland. [www.hpw.qld.gov.au/SiteCollectionDocuments/WaterResilientProductsAndBuildingTechniquesForRebuildingAfterAFlood.pdf](http://www.hpw.qld.gov.au/SiteCollectionDocuments/WaterResilientProductsAndBuildingTechniquesForRebuildingAfterAFlood.pdf) |  |  |
| **Development siting and layout** |  |  |
| **PO2** Development siting and layout, responds to flooding potential and maintains personal safety at all times. | Where not located in the Limited Residential Precinct refer to Schedule 4 – Flood hazard overlay map (Limited Residential Precinct)**AO2.1**New Lots are:1. located outside the overlay area;
2. are demonstrated to be above the flood level identified for the sire; or
3. located on the highest part of the site to minimise entrance of floodwaters.

Note—If part of the site is outside the Flood hazard overlay map, this is the preferred location for all lots (excluding part or other relevant open space and recreation lots).Note**—**Buildings subsequently developed on the lots created will need to comply with the relevant building assessment provisions under the Building Act 1975.**AO2.2**Road and/or pathway layout ensures residents are not physically isolated from the adjacent flood free urban areas6 and provides a safe and clear evacuation route path:1. by locating entry points into the reconfiguration above the flood level and avoiding cul-de-sacs or other non-permeable layouts.
2. by direct and simple routes to main carriageways that allow trafficable access up to a maximum flood depth of 300mm.

**AO2.3**Signage is provided on site (regardless of whether land is in public or private ownership):1. indicating the position ad path of all safe evacuation routes off the site.
2. if the site contains or is within 100m of a floodable waterway, hazard warning signage and depth indicators are also provided at key hazard points, such as at floodway crossings or entrances to low-lying reserves.
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| **Effects on flood behaviour** |  |  |
| **PO3**Development directly, indirectly and cumulatively avoids any increase in water flow velocity or flood level, and does not increase the potential for flooddamage either on site or on other properties7. | **AO3.1** Development does not block or divertfloodwaters in a manner that increases flood level or velocity on site or on other properties.Note—Berms/mounds are considered to be an undesirable built form outcome and are not supported.**AO3.2** Works do not involve any physical alteration to a watercourse or floodway including vegetation clearing.**For operational works where located within the Residential Resilient Precinct or Limited Residential Precinct:****AO3.3** Development involves no net increase in filling on site.Note—Fill associated with building work must comply with the relevant sections of the building assessment provisions. Onsite compensatory cut and fill would achieve the ‘No net increase’ requirement.**For operational works in all other****zones/precincts:****AO3.4** Works (including buildings and earthworks) either:1. do not involve a net increase in filling greater than 500m³ (compacted); or
2. do not result in any reductions of on-site flood storage capacity and contain within the subject site any changes to depth/duration/velocity of flood waters; or
3. do not change flood characteristics outside the subject site in ways that result in:
	* 1. loss of flood storage.
		2. loss of/changes to flow paths.
		3. acceleration or retardation of flows; or any reduction in flood warning times elsewhere on the floodplain.
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| **Hazardous materials** |  |  |
| **PO4**Development avoids the release of hazardous materials or contaminants into floodwaters. | **Material Change of Use:****AO4.1** Materials manufactured or stored on site are not hazardous or noxious, or comprise materials that may cause a detrimental effect on the environment if discharged in a flood event;OR**AO4.2** Where a MHFFL is adopted (refer to Schedule 4 – Flood hazard overlay map Maps R8 B1b, B3b, C2b, C3b and C3f), structures used for the manufacture or storage of hazardous materials are:1. located above the MHFFL level; or
2. designed to prevent the intrusion of floodwaters.

**AO4.3** If a specific MHFFL for the site is not adopted8, hazardous materials and their manufacturing equipment are located on the highest part of the site to enhance flood immunity and are designed to prevent the intrusion of floodwaters.Note—Refer to the Work Health and Safety Act 2011 and associated Regulation and Guidelines, the Environmental Protection Act 1994 and the relevant building assessment provisions under the Building Act 1975 for requirements related to the manufacture and storage of hazardous substances. |  |  |
| **Disaster management responses** |  |  |
| **PO5**The development supports, and does not unduly burden, disaster management response or recovery capacity and capabilities. | **AO5.1**Development does not:1. increase the number of people calculated to be at risk from flooding
2. increase the number of people likely to need evacuation.
3. shorten flood warning times.
4. impact on the ability of traffic to use evacuation routes, or unreasonably increase traffic volumes on evacuation routes.
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| **Community infrastructure** |  |  |
| **PO6**Development involving community infrastructure (defined as Sensitive Land Uses and Community Oriented Uses under this planning scheme):1. remains functional to serve community need during and immediately after a flood event.
2. is designed, sited and operated to avoid adverse impacts on the community or environment due to the impacts of flooding on infrastructure, facilities or access and egress routes.
3. retains essential site access during a flood event.
4. and is able to remain functional even when infrastructure or services may be compromised in a flood event.
 | **Where not located within the Resilient****Residential Precinct:****AO6.1** Sensitive Land Uses and CommunityOriented Uses are not located on land inundated during a 1% AEP flood event.OR**AO6.2** Sensitive Land Uses and CommunityOriented Uses incorporate an area on site above the MHFFL with sufficient space to accommodate the likely population of the development in safety for a relatively short time until flooding subsides or people can be evacuated.AND**AO6.3** Sensitive Land Uses and CommunityOriented Uses have direct access to low hazard evacuation routes as defined in Table 7.4.3.6.AND**AO6.4** Any components of infrastructure that are likely to fail to function or may result in contamination when inundated by flood, such as electrical switch gear and motors, telecommunications connections, or water supply pipeline air values are:1. located above the MHFFL for the site.
2. designed and constructed to exclude floodwater intrusion/infiltration.

AND**AO6.5** Infrastructure is designed and constructed to resist hydrostatic and hydrodynamic forces as a result of inundation by a flood.**AO6.6** The following uses are not located on land inundated during a 0.5% AEP flood event:1. emergency shelters
2. police facilities.

**AO6.7** The following uses are not located on land inundated during a 0.2% AEP flood event:1. correctional facilities
2. emergency services
3. power station
4. major switch yards.
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