

# Natural hazards, risk and resilience

## Why are natural hazards, risk and resilience of interest to the state?

A natural hazard is a naturally occurring event that may cause harm to people, damage to property and infrastructure, and impact our economy and the environment. Taking appropriate account of the potential impacts of natural hazards through effective land use planning and development decisions can significantly reduce the likelihood and severity of impacts of certain natural hazards including flood, bushfire, landslide, storm tide inundation and coastal erosion.

The financial, social and human costs placed on all levels of government, industry and the community, to respond to and recover from natural disasters, justifies the restriction of development in vulnerable areas. There is a shared responsibility to manage the impact these natural hazards may have on people, property, the economy, the environment and infrastructure.

The effects of climate change are projected to impact on the extent, frequency and intensity of natural hazards. For example, projected sea level rises will increase the extent of coastal hazards, progressively cause the permanent inundation of low lying land and extend the risk of storm tide inundation to new areas. Similarly, increased temperatures will increase the likelihood, intensity, and extent of areas affected by bushfires, lengthen fire seasons and reduce the opportunity for hazard reduction between fire seasons.

The state's interest in natural hazards, risk and resilience seeks to ensure natural hazards are properly considered in all levels of the planning system. This includes avoiding or mitigating the risks associated with natural hazards to an acceptable or tolerable level, increasing community resilience, and decreasing the burden for emergency management.

The key to achieving these outcomes is an integrated, evidence-based process that enables local government and the community to plan for their local circumstances, and that contributes to achieving a safer and more resilient Queensland.

Land use planning provisions are one component of an integrated disaster management strategy. Other risk management strategies include building controls, mitigating infrastructure, early warning systems, community education and awareness, and disaster management.



# State interest – natural hazards, risk and resilience



The risks associated with natural hazards, including the projected impacts of climate change, are avoided or mitigated to protect people and property and enhance the community's resilience to natural hazards.

**All of the following state interest policies must be appropriately integrated in planning and development outcomes, where relevant.**

- (1) Natural hazard areas are identified, including:
  - (a) bushfire prone areas
  - (b) flood hazard areas
  - (c) landslide hazard areas
  - (d) storm tide inundation areas
  - (e) erosion prone areas.
- (2) A fit-for-purpose risk assessment is undertaken to identify and achieve an acceptable or tolerable level of risk for personal safety and property in natural hazard areas.

**Bushfire, flood, landslide, storm tide inundation, and erosion prone areas:**

- (3) Land in an erosion prone area is not to be used for urban purposes, unless the land is located in:
  - (a) an urban area in a planning scheme; or
  - (b) an urban footprint identified in a regional plan.
- (4) Development in bushfire, flood, landslide, storm tide inundation or erosion prone natural hazard areas:
  - (a) avoids the natural hazard area; or
  - (b) where it is not possible to avoid the natural hazard area,

development mitigates the risks to people and property to an acceptable or tolerable level.

- (5) Development in natural hazard areas:
  - (a) supports, and does not hinder disaster management capacity and capabilities
  - (b) directly, indirectly and cumulatively avoids an increase in the exposure or severity of the natural hazard and the potential for damage on the site or to other properties
  - (c) avoids risks to public safety and the environment from the location of the storage of hazardous materials and the release of these materials as a result of a natural hazard
  - (d) maintains or enhances the protective function of landforms and vegetation that can mitigate risks associated with the natural hazard.
- (6) Community infrastructure is located and designed to maintain the required level of functionality during and immediately after a natural hazard event.
- (7) Coastal protection work in an erosion prone area is undertaken only as a last resort where coastal erosion or inundation presents an imminent threat to public safety or

existing buildings and structures<sup>5</sup>, and all of the following apply:

- (a) The building or structure cannot reasonably be relocated or abandoned.
- (b) Any erosion control structure is located as far landward as practicable and on the lot containing the property to the maximum extent reasonable.
- (c) Any increase in coastal hazard risk for adjacent areas from the coastal protection work is mitigated.

**Erosion prone areas within a coastal management district:**

- (8) Development does not occur unless the development cannot feasibly be located elsewhere and is:
  - (a) coastal-dependent development; or
  - (b) temporary, readily relocatable or able to be abandoned development; or
  - (c) essential community infrastructure; or
  - (d) minor redevelopment<sup>6</sup> of an existing permanent building or structure that cannot be relocated or abandoned.
- (9) Development permitted in policy 8 above, mitigates the risks to people and property to an acceptable or tolerable level.

<sup>5</sup> Note: The monetary value of an existing building or structure should be more than the cost of associated coastal protection works.

<sup>6</sup> Note: Minor redevelopment in an erosion prone area in a coastal management district, includes replacing an existing permanent building/structure with a building/structure that is the same, or substantially the same, in location and size, and monetary value of the existing building or structure is more than the cost of the associated coastal protection works. Examples of minor redevelopment may include adding less than 50 metres<sup>2</sup> to an existing building footprint, or an additional storey to a single storey building.

## Assessment benchmarks – natural hazards, risk and resilience

These performance outcomes apply to the following development applications, to the extent the SPP has not been identified in a local planning instrument as being appropriately integrated.

### A development application for a material change of use, reconfiguration of a lot or operational works on premises in any of the following:

- (1) bushfire prone areas
- (2) flood hazard areas
- (3) landslide hazard areas
- (4) storm tide inundation areas
- (5) erosion prone area.<sup>7</sup>

### All of the following requirements are assessment benchmarks for the development:

#### Erosion prone areas within a coastal management district<sup>8</sup>:

- (1) Development does not occur in an erosion prone area within a coastal management district unless the development cannot feasibly be located elsewhere and is:
  - (a) coastal-dependent development; or
  - (b) temporary, readily relocatable or able to be abandoned development; or
  - (c) essential community infrastructure; or

- (d) minor redevelopment<sup>9</sup> of an existing permanent building or structure that cannot be relocated or abandoned.
- (2) Development permitted in (1) above, mitigates the risks to people and property to an acceptable or tolerable level.

#### Bushfire, flood, landslide, storm tide inundation, and erosion prone areas outside the coastal management district:

- (3) Development other than that assessed against (1) above, avoids natural hazard areas, or where it is not possible to avoid the natural hazard area, development mitigates the risks to people and property to an acceptable or tolerable level.

#### All natural hazard areas:

- (4) Development supports and does not hinder disaster management response or recovery capacity and capabilities.

- (5) Development directly, indirectly and cumulatively avoids an increase in the severity of the natural hazard and the potential for damage on the site or to other properties.

- (6) Risks to public safety and the environment from the location of hazardous materials and the release of these materials as a result of a natural hazard are avoided.

- (7) The natural processes and the protective function of landforms and the vegetation that can mitigate risks associated with the natural hazard are maintained or enhanced.

Further information in relation to these requirements is detailed in the natural hazards, risk and resilience guidance material.

<sup>7</sup> Note: There are specific assessment benchmarks which apply for erosion prone areas in the coastal management district, separate to other natural hazards.

<sup>8</sup> Note: These assessment benchmarks apply only where the chief executive is not identified as a referral agency under the Planning Regulation 2017.

<sup>9</sup> Note: see footnote 6