



# *Coastal hazards - Urban Planning Policy Options*

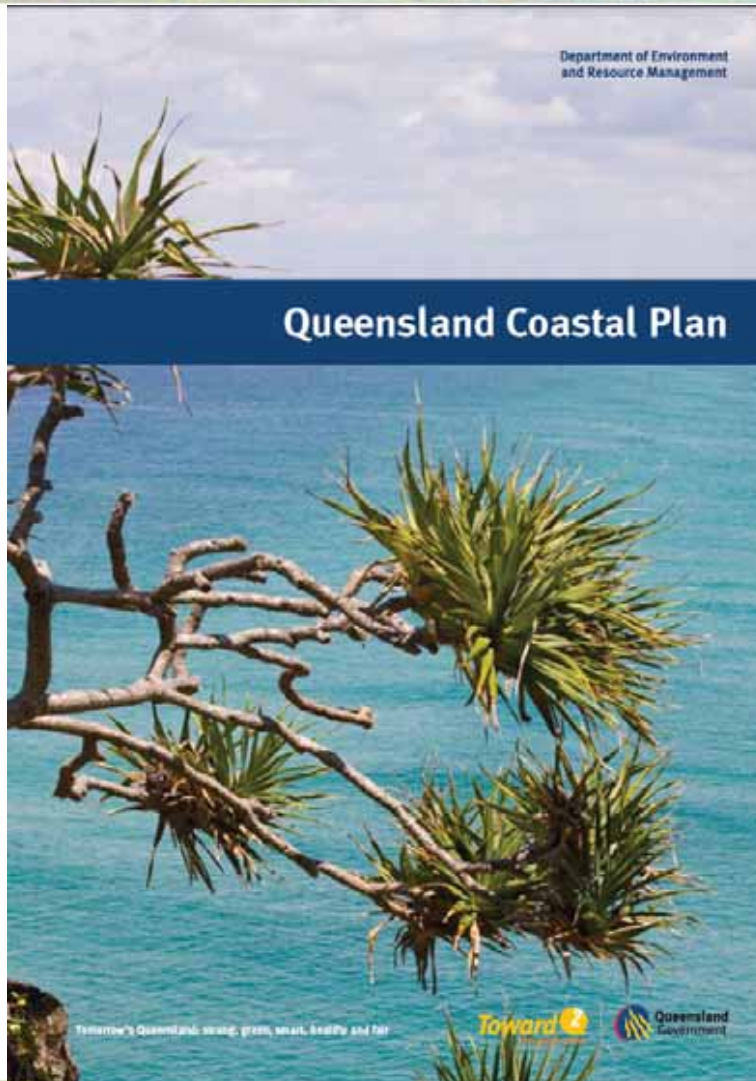
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Queensland's Climate Change Strategy



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## Coastal hazard policy

# Coastal hazards defined

- We take coastal hazards to include:
  - permanent inundation from coastal erosion and sea level rise
  - Temporary inundation from storm tides (medium & high risk areas)
- Coastal hazard areas includes those at risk presently and areas projected to be at risk at 2100
- The IPCC 'business as usual' A1FI emissions scenario has been adopted as the basis for coastal hazards planning
- In Queensland this translates to a 0.8m sea level rise and 10% increase in the 1:100 ARI storm event



# Current coastal planning regime

- Planning for coastal hazards in Queensland, particularly coastal erosion, dates from the late 1970s – followed major storms
- Existing 2001 State Coastal Management Plan includes policies intended to avoid new development in areas of coastal hazard – recognised potential impacts of climate change
- While arguably a State planning policy, it lacks clear direction and relies on local government to identify hazard areas
- Until 2009, State planning policies essentially had ‘have regard to’ status under planning law



# New coastal planning regime

- New Coastal Plan includes 'directive' State planning policies to mitigate the exposure of communities to coastal hazards.
- Key policy outcomes include:
  - No new urban areas to be designated in coastal hazard areas (exceptions for far north & industrial zones)
  - No new permanent development to be approved in erosion prone areas (i.e. permanent inundation areas)
  - Existing urban areas in high risk coastal hazard areas to be subject to adaptation planning (phased in over five years)
  - After five years, intensification of existing land use not permitted unless supported by adaptation plan

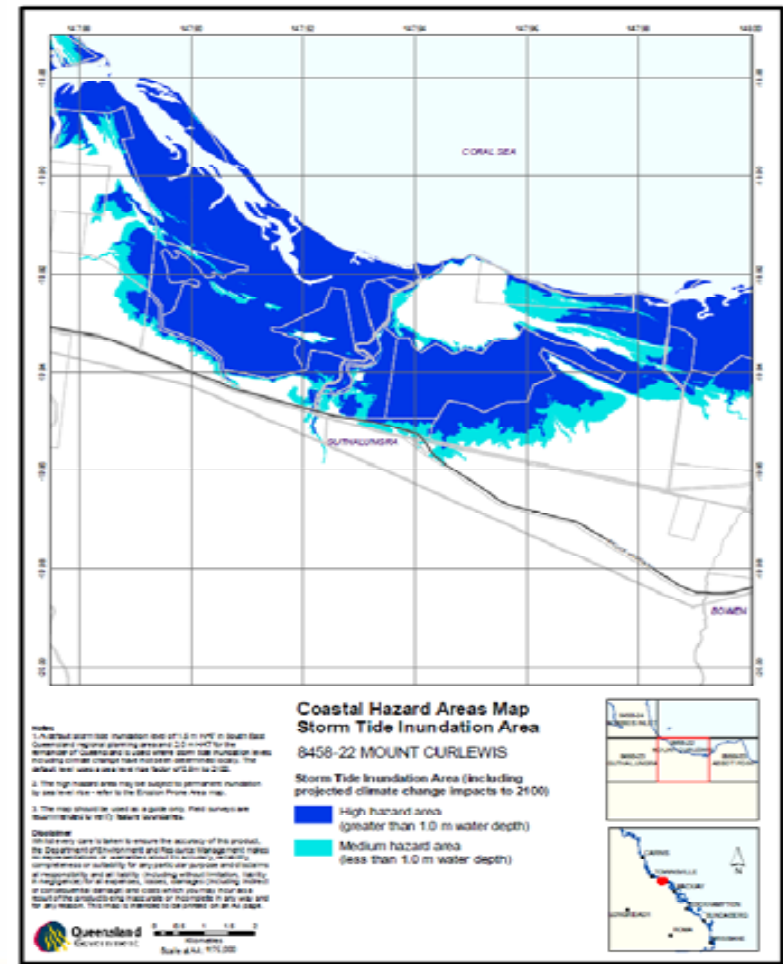
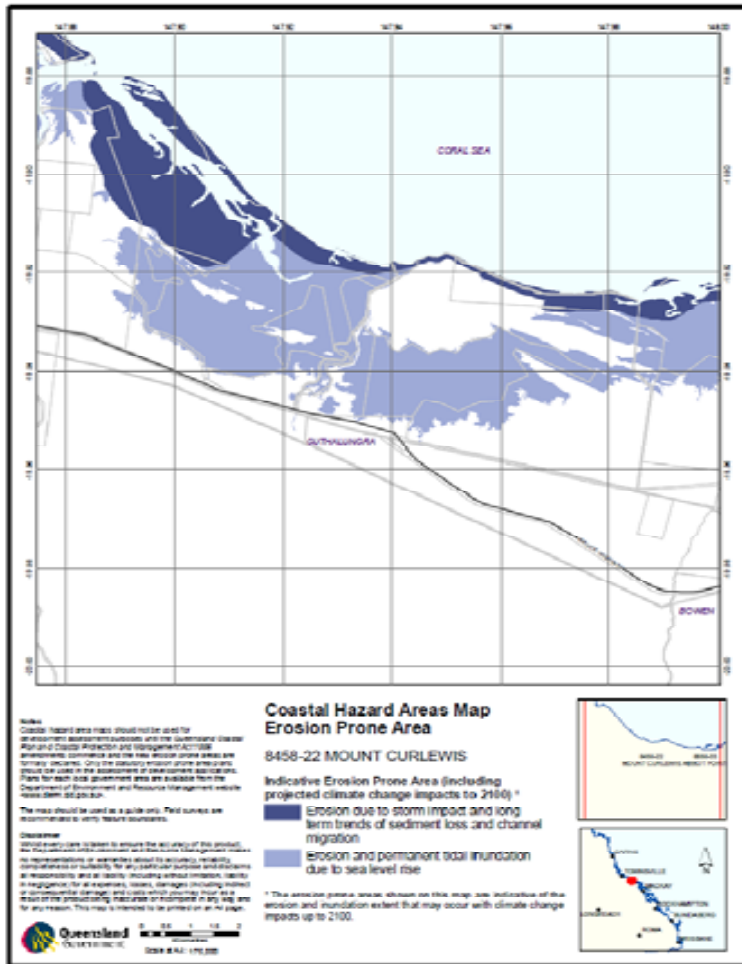


# New elements of the Queensland Coastal Plan

- Coastal Plan includes:
  - a State planning policy made under the Sustainable Planning Act 2009.
  - A development assessment code for inclusion in local planning instruments
- Coastal plan is published with coastal hazard mapping derived from digital elevation data, digital aerial imagery and digital elevation modelling



# Coastal hazard area mapping



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# Where development may occur in coastal hazard areas

Development in coastal hazard areas complies if:

- coastal-dependent development
- temporary, readily relocatable, or able to be abandoned
- essential community service infrastructure
- redevelopment without intensification





# Development in coastal hazard areas

Land use	Hazard category at 2100 and development requirements	
	High hazard	Medium hazard
	<p>Description:</p> <ul style="list-style-type: none"> <li>• permanent inundation</li> <li>• inundation during defined storm tide event greater than 1 metre</li> </ul>	<p>Description:</p> <ul style="list-style-type: none"> <li>• inundation during defined storm tide event less than 1 metre</li> </ul>
<p><b>Existing urban areas</b></p> <ul style="list-style-type: none"> <li>• <i>built-up urban areas</i></li> <li>• <i>committed for urban development</i> <ul style="list-style-type: none"> <li>◦ future urban zones</li> <li>◦ master plan areas</li> <li>◦ urban development areas</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• after 3 to 5 years—adaptation plan required.</li> <li>• interim - assessment to mitigate risk</li> </ul>	<ul style="list-style-type: none"> <li>• assessment to mitigate risk</li> </ul>
<p><b>Greenfield urban footprint areas (uncommitted)</b></p> <ul style="list-style-type: none"> <li>• <i>investigation areas</i></li> <li>• <i>future development areas</i></li> </ul>	<ul style="list-style-type: none"> <li>• no new urban development, except for coastal dependent, industrial and small-medium scale tourist development</li> <li>• assessment/adaptation plan to mitigate risks</li> </ul>	<ul style="list-style-type: none"> <li>• no new residential development</li> <li>• assessment to mitigate risks.</li> </ul>
<p><b>Non-urban areas</b></p> <ul style="list-style-type: none"> <li>• <i>rural</i></li> </ul>	<ul style="list-style-type: none"> <li>• no new urban area designation, except for coastal dependent, industrial and small-medium scale tourist development</li> <li>• risk assessment/adaptation plan to mitigate risk</li> </ul>	<ul style="list-style-type: none"> <li>• no new urban area designation, except for coastal dependent, industrial and small-medium scale tourist development</li> <li>• assessment/to mitigate risk</li> </ul>

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# Adaptation plans guideline

## Components

- Adapted from Australian and New Zealand Risk Management Standards (AS/NZS ISO 31000)
- Local scale hazard risk assessment (based on QCP hazard maps)
- Identification of current and future 'assets' at risk (private, commercial, community)
- Identification of adaptation options (e.g. avoid, defend, retreat) and implementation timing
- Cost-benefit analysis of adaptation options
- Community consultation
- Selection of adaptation option
- Implementation program and financial plan
- Adaptation strategy monitor and review (10 year minimum)

Adaptation plans to be embedded or reflected in local government land use, community and financial plans.



# Assistance available

- Guidelines for adaptation planning and ongoing technical support
- High resolution digital elevation data for councils, government agencies and planning and development professionals
- Maps define the coastal zone, coastal management district, coastal hazard areas, nature conservation areas and maritime and aquaculture development areas
- Guidelines to support council planning and development decision making

