



Department of **Planning,
Lands and Heritage**



Greater Bunbury Region Scheme Floodplain Management Policy 2017

December 2017





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Published by the
Western Australian Planning Commission
Gordon Stephenson House
140 William Street
Perth WA 6000

Locked Bag 2506
Perth WA 6001

Published December 2017

website: www.dplh.wa.gov.au
email: info@dplh.wa.gov.au

tel: 08 6551 8002
fax: 08 6551 9001
National Relay Service: 13 36 77

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1. Introduction

- 1.1 State and local governments have a responsibility to minimise the potential for flood damage resulting from decisions relating to land use and development on defined river floodplains. Additionally, landowners have the right to expect that adjacent land use and development will not increase the risk or impact from major river flooding on their lives and properties.
- 1.2 In response to community, industry and government expectations that flood damage should be minimised, the Western Australian Planning Commission (WAPC) and local governments may seek advice from the Department of Water and Environmental Regulation as required when considering planning applications on land within defined river floodplains.
- 1.3 This policy has been prepared to formalise the consideration of floodplain development requirements by the responsible authorities.
- The flood studies and mapping undertaken by the Department of Water and Environmental Regulation to inform this policy have taken into consideration potential flooding from climate change, as well as storm surge alone, sea level rise alone or a combination of these occurring together.
- The policy applies when preparing and amending local planning schemes, amending the Greater Bunbury Region Scheme, as well as when considering subdivision and development applications on floodplains for rivers and the Leschenault Estuary within the Greater Bunbury Region Scheme area.
- 1.4 This policy will form part of the State Planning Framework and the WAPC is required, where possible, to ensure that its determinations under the Greater Bunbury Region Scheme are consistent with this policy.

2. Background

- 2.1 In recognition of increasing development pressures on land along the Preston, Collie, Brunswick and Capel rivers, Eedles Gully and the Leschenault Estuary, their floodplains were taken into account in the preparation of the *Greater Bunbury Strategy (2013)* and Greater Bunbury Region Scheme. This policy relates principally to the floodplain and management areas for these water bodies, which include floodways, flood fringe areas and levee bank buffer areas. Major river flooding is a natural phenomenon and therefore not totally predictable.
- 2.2 This policy should be read in conjunction with *State Planning Policy 3.4: Natural Hazards and Disasters (April 2006)* and *State Planning Policy 2.6: State Coastal Planning (July 2013)*.

3. Application

- 3.1 This policy applies to the Greater Bunbury Region Scheme area, and more specifically to land:
- within the 1 per cent AEP (annual exceedance probability) of flooding
 - floodplains defined in **Figure 1**, based on hydraulic modelling
 - within the 100 metre-wide Preston River levee bank buffer areas defined in **Figure 1**
 - generally below 4.0 metres AHD (Australian Height Datum), as stated in the appropriate latest information available, adjacent to the Leschenault Estuary, and
 - generally within 200 metres of watercourses or a section of a watercourse, for which a floodplain has not been defined by floodplain mapping, but where the WAPC or local government considers that there is likely to be floodplain development requirements.



- 3.2 The provisions of this policy should be applied in considering amendments to the Greater Bunbury Region Scheme, local planning schemes and associated amendments, and in considering subdivision and development applications within the scheme area.

4. Objectives

- 4.1 To ensure future development provides an acceptable level of flood protection for health and safety of people, damage to property and community infrastructure.
- 4.2 To assist the natural flood carrying capacity of floodplains by ensuring any use or development maintains the free passage and temporary storage of floodwaters.
- 4.3 To maintain and protect water quality and waterways as natural resources in accordance with *State Planning Policy 2.0: Environment and Natural Resources Policy* (June 2003).

5. Policy statement

- 5.1 Local government local planning schemes
- 5.1.1 Flood risk should be considered by local government in preparing local planning schemes and amendments, and in land use planning decisions, to avoid adverse impacts of flooding through inappropriately located land use and development.
- 5.1.2 Local governments should ensure local planning schemes and amendments are compatible with the objectives and specific requirements of this policy.
- 5.1.3 Land affected by flooding, including floodplain, floodway and flood fringe areas, should be shown on local planning scheme maps (for example, as special control areas) or on maps adopted as policy under the relevant local scheme.
- 5.1.4 There is a presumption against the rezoning of land for more intensive land uses, such as residential, industrial and rural-residential within a defined floodway or levee bank buffer area. Planning assessment is required to prove that land is suitable for development and is to take into account an assessment of current, future and residual flood risk.
- 5.2 Subdivision of land
- 5.2.1 Subdivision applications for land entirely within a floodway or levee bank buffer areas will generally not be approved, to avoid creating the potential for additional development and further obstructions to major river flooding or substantial property damage, should a levee bank breach occur during a major flood.



5.2.2 The WAPC may consider approving subdivision applications within a floodplain, floodway or levee bank buffer area where the subdivision is for:

- the use of land which will not create the potential for additional development
- a boundary realignment, rationalisation of landholdings, or
- lots created for flood management purposes that will not create the potential for additional development.

The proponent would need to demonstrate to the WAPC's satisfaction that the flood risk is suitably managed in line with the objectives of this policy, and not result in the potential to detrimentally affect the existing flooding regime.

5.3 Development

5.3.1 Development applications for land within a floodway or floodplain where no floodway is defined, should not be approved where it is considered the development may constitute an obstruction during flooding. The proponent would need to demonstrate to the WAPC's satisfaction that the flood risk is suitably managed in line with the objectives of this policy.

5.3.2 The replacement of existing dwellings within a floodway may be considered an exception to this policy, provided:

- the existing dwelling is demolished or relocated to an area of lower flood risk
- the effective width of obstruction of the replacement dwelling to river flows is no greater than the effective width of the existing dwelling, and
- the proposed dwelling achieves a minimum habitable floor level of 0.5 metre above the relevant 1 per cent AEP flood level on the appropriate latest available information.

5.3.3 Development applications for land within flood levee bank buffer areas should not be approved, to avoid creating substantial property damage should a levee bank breach occur during a flood.

5.3.4 Notwithstanding clause 5.3.3 of this policy, development may be considered acceptable within flood levee bank buffer area, provided:

- the proposed development area is filled to provide 1 per cent AEP flood protection
- habitable buildings are set back 20 metres from the bottom of the levee bank, and
- non-habitable buildings and development (for example, sheds, pergolas and swimming pools) are set back 10 metres from the bottom of the levee bank.

5.3.5 Public works, for example bridges or community facilities such as a tourist lookout, may be permitted within a floodway or flood levee bank buffer area, subject to a suitable risk based approach to the works design that considers flood risk, potential property damage and obstruction to river flood flow and the future development potential within the floodplain area.

5.3.6 Development of land outside of the floodway and adjacent to the Leschenault Estuary will be subject to the minimum habitable floor levels specified by the best available inundation risk information.



6. Referral and applications

- 6.1 The WAPC and relevant local governments, in considering planning schemes and amendments that include land partly or wholly within the areas of land subject to this policy, will consult, as required, and have due regard to the advice and recommendations of the Department of Water and Environmental Regulation.
- 6.2 The WAPC, prior to determining applications for subdivision or development on land partly or wholly within the areas of the land subject to this policy, will consult, as required, and have due regard to the advice and recommendations of the Department of Water and Environmental Regulation.
- 6.3 Local governments, prior to determining applications for development on land within the floodplain and floodways and, where it considers necessary, development within the flood fringe, will consult, as required, and have due regard to the advice and recommendations of the Department of Water and Environmental Regulation.
- 6.4 In providing advice on local planning schemes, amendments, subdivision and development applications, the appropriate agency will have regard for:
- the site and floor level of any proposed development
 - landfill associated with any proposed development
 - whether any proposed development is likely to impede flood flows and detrimentally impact on the existing flooding regime of the general area
 - whether any proposed development is likely to be affected by flooding, considering frequency, duration and depth of flood flows
 - possible structural and potential flood damage, and
 - any potential difficulty in providing evacuation routes during floods.

7. Implementation

- 7.1 This policy will be implemented by the WAPC and relevant local governments, which will have due regard to advice received from the Department of Water and Environmental Regulation on floodplain development issues through the:
- administration of the Greater Bunbury Region Scheme
 - administration of local government local planning schemes and advice provided to the Department of Planning, Lands and Heritage regarding proposals to prepare or amend local planning schemes, and
 - subdivision and development control processes.
- 7.2 The defined floodplains, including floodway and flood fringe areas shown in **Figure 1**, will be updated and extended following future flood studies for the rivers within the Greater Bunbury Region Scheme.
- 7.3 The WAPC will, after this policy has been in operation for a period of five years, or sooner if appropriate, undertake a review of the policy and amend it if necessary.



Appendix 1: Glossary of Terms

Flood fringe refers to the area of the floodplain, outside of the floodway, where development could be permitted provided it is compatible with flood hazard and building conditions provide an adequate level of flood protection. These areas are generally covered by still or very slow moving waters during a 1 per cent AEP flood.

Floodplain refers to land that is subject to inundation by floods up to and including the probable maximum flood event – that is, flood-prone land.

Floodway refers to the river channel and a portion of the floodplain where a significant flow and/or storage of water occurs during floods. If the floodway is even partially blocked then the natural flooding regime of the area may be detrimentally impacted with flood levels being raised and affecting areas which may not have been previously affected

Levee bank buffer area refers to the strip of land adjacent to the Preston River levee bank that would be prone to potential high velocity flood flows in the event of a breach of the levee bank.

Modelling of the 1 in 100 AEP flood in the Preston River shows that this magnitude of flood is contained within the levee banks which extend from the Leschenault Estuary to just downstream of Picton Bridge. The Water Corporation operates and maintains the Preston River levee banks to cater for a 1 per cent AEP flood. It should be noted that the floodplain mapping on **Figure 1** shows the extent of 1 per cent AEP flooding with the Preston River levee banks removed.

Major Flood is where extensive rural areas and/or appreciable urban areas are flooded.



Figure 1: Greater Bunbury Region Scheme: Floodplain Management Policy map

