



Local Planning Policy 34: Wetlands and Waterways	
Local Planning Policy	Relevant Delegation: Approval Services



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1. Introduction and Purpose

Wetlands and waterways are important features of our natural environment. They provide a variety of hydrological, ecological and social functions, including:

- a) Flood protection by directing and storing stormwater
- b) Improvement of water quality through nutrient uptake and trapping of contaminants and sediment
- c) Water supplies for drinking, public purposes and agriculture
- d) Maintaining healthy aquatic and riparian ecosystems, biodiversity and ecological connectivity for native fauna
- e) Opportunities for passive and active public recreation
- f) Amenity and sense of place
- g) Mental and physical wellbeing
- h) Aboriginal and cultural heritage
- i) Contributing to increased property values.

It is important to protect and enhance the hydrological, ecological and cultural values of the City's wetlands and waterways through the establishment and management of wetland buffers and waterway foreshore areas, during the planning and development process. In doing so, compatible land uses and related development activities can occur whilst maintaining the many benefits associated with wetlands and waterways, so that they can be enjoyed by current and future generations, as well as by native wildlife.

Many waterways and wetlands within the City of Kalamunda are contained within private land holdings which means there is a varied approach to management and rehabilitation of these water systems. All water systems are interconnected through tributaries, catchments, soil moisture, permeability, groundwater, and surface water flows, and thus management of one area can impact the function of a whole hydrological system.

This policy has been developed to provide clear policy and guidance around the management of wetlands, their buffers, waterways and their foreshores, to ensure consistent and sustainable management of these sensitive ecosystems as part of the planning process.

2. Application of the Policy

This Policy applies to all strategic planning, subdivision and development proposals, located within 50 m of a wetland or waterway, or with the potential to adversely impact a wetland or waterway.

3. Statutory Authority / Legal Status

This local planning policy has been prepared under and in accordance with the *Planning and Development Act 2005*, Schedule 7; Part 15 – Matters which may be dealt with by planning scheme, and the *Planning and Development (Local Planning Scheme) Regulations 2015* Schedule 2, Part 2 cl.4 – Procedure for making a local planning policy.

(a) Relationships to Commonwealth legislation

This policy should be read in conjunction with:

- i. *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

(b) Relationships to WA State Legislation, Regulations, policies, and guidelines

This policy should be read in conjunction with:

- i. *Environmental Protection Act 1986* provides for significant environmental impacts (Part IV) and clearing of native vegetation (Part V)
- ii. *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*
- iii. *Rights in Water and Irrigation Act 1914* provides for the regulation, management, use and protection of water resources
- iv. *Biodiversity Conservation Act 2016* provides for the protection of flora, vegetation and fauna
- v. *Biodiversity Conservation Regulations 2018*
- vi. Environmental Protection (Environmentally Sensitive Areas) Notice 2005 relating to exemptions for clearing of native vegetation
- vii. *Planning and Development Act 2005* promotes and efficient and sustainable use and development of land in the State.
- viii. *Draft State Planning Policy 2.9 Planning for Water Policy* provides for the protection and enhancement of wetlands and waterways
- ix. *Environmental Guidance for Planning and Development (GS 33)* provides for the protection and enhancement of wetlands and waterways
- x. *Operational Policy: Identifying and Establishing Waterway Foreshore Areas* provides for the protection and enhancement of waterways

Where this policy conflicts with any State and Commonwealth legislation, the legislation will prevail.

(c) Relationship to Local Planning Scheme

This policy is a planning policy prepared, advertised and adopted pursuant to the *Planning and Development (Local Planning Schemes) Regulations 2015*: Schedule 2, Part 2, cl. 4. The policy augments, and is to be read in conjunction with, the provisions of Clause 67 of the *Planning and Development (Local Planning Schemes) Regulations 2015*.

(d) **Relationship to Local Planning Policies**

This policy has due regard to, and should be read in conjunction with, other City of Kalamunda local planning policies.

(e) **Relationship to Local Laws**

This policy has due regard to, and should be read in conjunction with, other City of Kalamunda local laws.

4. Objectives

The key objectives of this policy are to:

- a) To ensure sustainable long-term management of wetlands and waterways
- b) To provide clear guidance where development is proposed near a wetland or waterway including determination of buffer/ foreshore distances and guidance on permitted and prohibited activities within the buffer/ foreshore.
- c) To protect wetlands and waterways from impacts of development and enhance their hydrological, ecological, and social values
- d) To avoid increasing the risk of property damage in flood prone or flood risk areas
- e) Improvement of water quality from the built environment for the benefit of the natural environment.

5. Policy Statement

1. Any strategic planning, subdivision, and development proposals located within 50 m of a wetland or waterway, or with the potential to adversely impact a wetland or waterway will be referred to the Department of Water and Environment Regulation for comment.
2. Where a waterbody is both a wetland and a waterway, the greater buffer/ foreshore distance may apply.

Wetlands

1. Wetlands are defined in Appendix 1. For the purpose of this Policy, wetlands do not include constructed dams.
2. Geomorphic wetlands are mapped and classified into different management categories, by the Department of Biodiversity, Conservation and Attractions, as listed in Table 1.

3. Wetlands associated with the Directory of Important Wetlands in Australia are also mapped by the Department of Biodiversity, Conservation and Attractions. Where a wetland is mapped under the Directory of Important Wetlands in Australia and has not been designated a management category as a geomorphic wetland, a 50m buffer shall be applied, or alternatively, a site-specific wetland assessment undertaken to determine an appropriate management category. This assessment should be completed using *A methodology for the evaluation of wetlands on the Swan Coastal Plain, Western Australia* (DPaW 2017).
4. Wetland buffers are required to be established surrounding the mapped boundary of Conservation Category Wetlands and Resource Enhancement Wetlands. The required buffer widths to each of these are specified in Table 1, which shall extend from the outer edge of the mapped wetland boundary.
5. Noting that the available State wetland mapping is broad and not site specific, the City reserves the right to request a wetland site assessment to accurately define the wetland boundary or management category, where the mapped wetland boundary does not appropriately reflect the wetland values. This assessment should be completed using *A methodology for the evaluation of wetlands on the Swan Coastal Plain, Western Australia* (DPaW 2017) in consultation with the Department of Biodiversity, Conservation and Attractions.

Table 1: Wetland category descriptions and buffer distances.

Category	Wetland Management Category Objective (Hill <i>et al</i> 1996)	Buffer Distance (unless varied in accordance with Clause 6)
Geomorphic Wetland-Conservation Category Wetland	To preserve wetland (natural) attributes and functions.	50 m
Geomorphic Wetland-Resource Enhancement Wetland	To restore wetlands through maintenance and enhancement of wetland functions and attributes.	30 m
Geomorphic Wetland-Multiple Use Wetland	To use, develop and manage wetlands in the context of water, town, and environmental planning.	No buffer requirement.

6. Where the applicant can demonstrate that wetland hydrological, ecological and social functions will be maintained and enhanced, the local government may grant a variation/ reduction to the buffer distances outlined in Table 2.
7. In determining permissible land uses and/or activities within the wetland buffer, the City will have regard to the Environmental Protection Authority's *Environmental Guidance for Planning and Development (GS 33)*.
8. Permissible activities or actions as part of, or as a result of, development proposals within the wetland buffer include:
 - a) Rehabilitation of disturbed areas, including vegetation restoration, weed control and erosion control measures
 - b) Retention of all native vegetation
 - c) Passive recreation such as footpaths, where native vegetation is not adversely impacted
 - d) Conservation fencing and gates to controlled undesired access.
9. Prohibited activities or actions as part of, or as a result of, development proposals within the wetland buffer include:
 - a) Filling or excavation of the wetland of wetland buffer
 - b) Fertiliser or chemical application
 - c) Drainage into or out of the wetland
 - d) Stormwater infrastructure, such as drainage basins
 - e) Groundwater or surface water abstraction
 - f) Liquid or solid waste disposal
10. The City may approve prohibited land uses and/or activities within the wetland buffer where it can be demonstrated by the proponent that the land use and/or activity will not have a detrimental impact to the hydrological, ecological and social values of the wetland and the land use and/or activity is supported by an endorsed Wetland Management Plan or Urban Water Management Plan.
11. Where livestock occurs or is proposed adjacent to a wetland, the wetland shall be protected via fencing along the outer edge of the wetland buffer, controlled watering points and livestock density control in accordance with *Stocking rate guidelines for rural small holdings, Swan Coastal Plain and Darling Scarp and surrounds, Western Australia* (DPIRD 2000).

12. Land uses adjoining wetland buffers shall be sensitive to the hydrological, ecological, and social values of the wetland and wetland buffer area, such as:
- a) Providing a 'hard edge' between areas of native vegetation/ rehabilitation and turfed areas to prevent turf creep and weed invasion.
 - b) Locating land uses with high potential for site contamination or nutrient export away from the wetland and wetland buffer area.
 - c) Incorporating public open space adjacent to the wetland buffer to maximise social and cultural integration with the wetland values.



Waterways

1. Waterways are defined in Appendix 1.
2. Waterways are mapped at a regional scale by the Department of Water and Environment Regulation.
3. Waterway foreshore areas are determined by several biophysical characteristics that contribute to the health and function of the waterway ecosystem. The width of a waterway foreshore should therefore reflect the biophysical characteristics of the waterway.
4. Planning applications for proposals adjacent to waterways shall be accompanied by a biophysical assessment to determine an appropriate foreshore width, undertaken in accordance with the Department of Water's (now Department of Water and Environment Regulation) *Operational Policy: Identifying and Establishing Waterway Foreshore Areas and the Water and Rivers Commission's* (now Department of Water and Environment Regulation) *Determining Foreshore Reserves*.
5. The biophysical assessment shall be undertaken by a suitably qualified professional and shall include:
 - a) The extent, type and condition of the riparian and terrestrial native vegetation associated with or influencing the waterway.
 - b) Flood prone land and areas subject to waterway channel changes, including the floodway and flood fringe.
 - c) Riverine landform (topography and geomorphology).
 - d) Landforms, soil types and soil characteristics that influence the extent of foreshore vegetation, erosion and the movement of nutrients and contaminants (including acid sulfate soils).
 - e) Aquatic and riparian flora and fauna and their habitat.
 - f) Land use compatibility.
 - g) Heritage - archaeological and ethnographic sites.
 - h) Mapping of biophysical features and proposed foreshore boundary over recent aerial imagery.
 - i) Justification as to the location and extent of the proposed foreshore boundary.
6. In the absence of a biophysical assessment, the City may agree to a conservative foreshore width that adequately protects and enhances the hydrological, ecological, and social values of the waterway. In determining a conservative foreshore width, the

City may rely on recent, high-quality aerial imagery, as well as a site visit to ensure waterway values will be adequately protected and enhanced.

7. The foreshore width to a waterway shall not be less than 15 m in width, measured each side of the waterway, extending outwards from the high water line.
8. Permissible activities or actions as part of, or as a result of, development proposals within the waterway foreshore include:
 - a) Rehabilitation of disturbed areas, including vegetation restoration, weed control and erosion control measures
 - b) Retention of all native vegetation
 - c) Passive recreation such as footpaths, where native vegetation is not adversely impacted
 - d) Conservation fencing and gates to controlled undesired access.
9. Prohibited activities or actions as part of, or as a result of, development proposals within the waterway foreshore include:
 - a) Filling or excavation of the waterway or foreshore area
 - b) Fertiliser or chemical application
 - c) Drainage into or out of the waterway
 - d) Stormwater infrastructure, such as drainage basins
 - e) Groundwater or surface water abstraction
 - f) Liquid or solid waste disposal
10. The City may approve prohibited land uses and/or activities within the waterway foreshore where it can be demonstrated by the proponent that the land use and/or activity will not have a detrimental impact to the hydrological, ecological and social values of the waterway.
11. Prohibited activities or actions listed under Clause 9 apply to the construction of dams along watercourses;
 - a) Unless authorised or exempt under the *Rights in Water and Irrigation Act 1914*, and

b) The proponent has demonstrated that adverse impacts to the waterway are minimised and managed in accordance with *Water Quality Protection Note no. 53* (DWER 2019).

12. Where livestock occurs or is proposed adjacent to a waterway, the waterway shall be protected via fencing along the outer edge of the waterway foreshore, controlled watering points and livestock density control.



Management of Wetland Buffers and Waterway Foreshores

1. Strategic planning proposals and subdivision applications that incorporate, or have the potential to impact, wetlands and waterways are to include the following information¹ within a Local Water Management Strategy/ Urban Water Management Plan (respectively), in accordance with *Better Urban Water Management* (DoW 2008):
 - a) Spatial representation of the location of wetlands, their buffers, waterways, and their foreshores;
 - b) Spatial representation of the location of flood storage areas and stormwater treatment and infiltration areas, as well as information regarding volume inflows and outflows;
 - c) Information demonstrating;
 - i. No flows less than and equal to 1 year average recurrent interval rainfall event are to reach the wetland or wetland buffer;
 - ii. No flows up to 5 year average recurrent interval rainfall event are to reach the wetland or wetland buffer without treatment; and
 - iii. Peak flows greater than 5 year and up to 100 year ARI events are to be attenuated at pre-development rate.
 - d) A water monitoring program in accordance with *Water monitoring guidelines for better urban water management strategies and plans* (DoW, 2012)
2. Where a waterway or wetland has been identified on a site the City may, as a condition of development or subdivision approval, require a Foreshore/ Wetland Management Plan and Construction Environmental Management Plan to maintain and improve the ecosystem condition.
3. The Foreshore Management Plan or Wetland Management Plan is to include the following information:
 - a) A flora, vegetation and fauna survey that has been undertaken within the previous five years and during a suitable season for species/ ecological community identification.
 - b) Plans showing the defined foreshore/wetland buffer area and any land uses and/or activities approved by the City within and adjacent to the foreshore/ buffer area.

¹ Additional information requirements may apply in accordance with *Better Urban Water Management* (DoW 2008) and to the satisfaction of the Department of Water and Environment Regulation.

- c) Plans showing existing vegetation, proposed revegetation areas (where degraded vegetation is identified), and landscaping planting areas.
 - d) Revegetation information is to include weed and pest control, a planting list of native species, planting densities, monitoring program, completion criteria, contingency measures, and reporting.
 - e) Erosion and sediment control measures
 - f) Access control measures and physical demarcation of the buffer/ foreshore boundary, such as conservation fencing, formalised paths (where appropriate), gates, and informative signage.
 - g) Management of acid sulfate soils (where disturbance may occur)
 - h) Timing, roles and responsibilities for implementation and ongoing management.
 - i) Any other information relevant to the management of the wetland, such as transfer of land and vesting, as the local government requires.
4. A Construction Environmental Management Plan is to consider the management of construction activities adjacent to the wetland buffer and waterway foreshore and is to include the following information:
- a) Protection of vegetation to be retained
 - b) Dieback management
 - c) Drainage management
 - d) Erosion and sedimentation management
 - e) Acid sulfate soils management
 - f) Waste management
 - g) Dust management.
5. Development applications that propose a land use/activity with the potential to export nutrients to a wetland or waterway shall be accompanied by a Nutrient Management Plan that includes the following information:
- a) Management actions and objectives consistent with water sensitive urban design principles and best management practices
 - b) Erosion and sedimentation management
 - c) Mechanisms to protect the water regimes waterway or wetland including water quality and water levels.
6. Wetland buffers and waterway foreshore areas are required to be established by the applicant/landowner, to the standards specified in any associated, approved management plans. Following practical completion, the landowner may be required, as

a condition of approval, to maintain the wetland buffer/ waterway foreshore for a minimum of two years and/or until all completion criteria specified within any associated management plans are achieved to the City's satisfaction.

Requirements for vesting of land and drainage easements

1. Following the approved maintenance period, and as part of a condition of subdivision approval, the wetland, wetland buffer, waterway and foreshore may be required to be ceded to the Crown free of cost, and without payment of compensation by the Crown.
2. Drainage easements and reserves are to be determined having regard to the scale of the subdivision or development, the degree to which the subdivision or development will generate the need for an easement or reserve, whether the wetland or waterway forms part of a planned or expanding area of public open space network, and the requirements for access for maintenance.
3. Where the land is ceded the City will be responsible for the ongoing management of the wetland, wetland buffer, waterway and waterway foreshore area, in perpetuity.

Additional legislative requirements

1. Many wetlands and waterways have Aboriginal heritage significance. Applicants should understand and comply with any requirements under the *Aboriginal Heritage Act 1972* (including proposed amendments).
2. Environmental values associated with wetlands and waterways may be afforded protection under the *Environment Protection Act 1986*, the *Biodiversity Conservation Act 2016* and the *Environment Protection and Biodiversity Conservation Act 1999*. Applicants should understand and comply with any requirements under these Acts.
3. Under the *Rights in Water and Irrigation Act 1914* (RIWI Act) a licence or permit may be required for taking water; or for activities that may damage, obstruct or interfere with water flow or the beds and banks of watercourses and wetlands. Applicants should understand and comply with any requirements under the RIWI Act.

Appendix 1- Definitions

Completion criteria:

The criteria by which to determine if a task was completed properly. Completion criteria are specified within management plans and are agreed to by the City, Department of Biodiversity, Conservation and Attractions and/ or Department of Water and Environmental Regulation, prior to endorsement of a management plan.

Development::

As defined in the *Planning and Development Act 2005*

Flood prone land (as defined in *Draft State Planning Policy 2.9 Planning for Water*):

Land susceptible to inundation by the probable maximum flood event. Generally used interchangeably with floodplain.

Floodway (as defined in *Draft State Planning Policy 2.9 Planning for Water*):

The area of land that would be affected by river flooding in a one percent (1 in 100) Annual Exceedance Probability flood event for a waterway. This area is generally a high flood risk area where floodwaters are flowing fast and deep.

Flood fringe (as defined in *Draft State Planning Policy 2.9 Planning for Water*): the area of land that would be affected by river flooding in a one percent (1 in 100) Annual Exceedance Probability flood event but not designated as floodway.

Habitat (as defined under the *Biodiversity Conservation Act 2016*):

Habitat means the biophysical medium or media —

(a) occupied (continuously, periodically or occasionally) by an organism or group of organisms; or

(b) once occupied (continuously, periodically or occasionally) by an organism, or group of organisms, and into which organisms of that kind have the potential to be reintroduced.

Ramsar Wetlands:

Includes a wetland on the 'List of Wetlands of International Importance' kept under the Ramsar Convention. Actions that may result in significant impacts to Ramsar Wetlands require referral and approval under the EPBC Act.

Riparian vegetation (as defined in *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*):

The distinctive vegetation associated with a wetland or watercourse (waterway).

Waterway (as defined in *Draft State Planning Policy 2.9 Planning for Water*):

Any river, creek, stream or brook, including its foreshore area or reserve, floodplain, estuary and inlet. This includes systems that flow permanently, for part of the year or occasionally; and parts of the waterway that have been artificially modified.

Water Quality:

The physical (temperature, colour, light, sediment suspended in the water), chemical (dissolved oxygen, acidity (pH), salinity, nutrients and other contaminants) and biological (bacteria and algae) characteristics of both water and sediment.

Wetland (as defined in *Draft State Planning Policy 2.9 Planning for Water*):

An area of seasonally, intermittently or permanently waterlogged or inundated land, whether natural or otherwise, and includes a lake, swamp, marsh, spring, dampland and sumplands. For the purpose of this Policy, wetlands do not include constructed dams.

Wetland buffer (as defined in *Draft State Planning Policy 2.9 Planning for Water*):

An area of terrestrial land immediately surrounding a wetland that provides spatial separation between the wetland and adjacent land use(s).

Legislation	
Adopted	
Reviewed	
Next Review Date	