



CHAPTER 5 – OVERLAY CODES

PART 2 WATERWAYS OVERLAY CODE

Division 1 Applicability of the Waterways Overlay Code

1.1 This code applies to development:-

- (1) that is located¹ in the following areas shown on Overlay Code Map 2 Waterways,
 - (a) waterway corridors including:-
 - (i) **stream health** class a to f,
 - (ii) estuarine stream buffers,
 - (iii) unassessed streams;
 - (b) sub-catchment of stream health class a & b;
 - (c) Declared Fish Habitat Areas ;
 - (d) Ramsar Wetlands;
 - (e) Coastal Wetlands, and
- (2) referred to as "code assessable" in Tables 5.2.1 or 5.2.2 below.

Division 2 Assessment Tables for the Waterways Overlay Code

2.1 Assessment Categories for the Waterways Overlay Code

The assessment categories are identified for development in Column 2 of Tables 5.2.1 or 5.2.2, as follows:-

- (1) Table 5.2.1 Material Change of Use and Associated Works² for uses listed in Column 1; or
- (2) Table 5.2.2 Other Development not associated with a Material Change of Use³ listed in Column 1.

NOTE: Zones also affect assessment categories. See zone maps to determine the zone of the land. Also see Chapter 1, Part 1, Division 4, Section 4.8(3) explaining how the higher assessment category prevails.

- 2.2 Relevant Assessment Criteria for Development Affected by the Waterways Overlay Code
 - (1) The relevant assessment criteria in the overlay code are referred to in Column 3 of Tables 5.2.1 and 5.2.2.
 - (2) For development requiring code assessment, the relevant assessment criteria are applicable codes.

Table 5.2.1: Assessment Categories and Relevant Assessment Criteria for the Waterways Overlay Code – Material Change of Use and Associated Works²

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COLUMN 1 Use ⁴	COLUMN 2 Assessment category	COLUMN 3 Relevant assessment criteria - applicable code for code assessable development			
Detached House	Waterway Corridor				
Associated Unit Bed & Breakfast Accommodation	Exempt - if on land zoned Residential A, Residential B, Future Urban or Home Industry.				
Display Home	Code assessable – if exempt criteria are not complied with.	Waterways Overlay Code			
Duplex Dwelling	Sub-catchment of Stream Health Class a & b				
Estate Sales Office Home Business	Exempt - if clearing <i>vegetation</i> over an area less than 2000m ² .				
Domestic Storage	Code assessable – if clearing <i>vegetation</i> over an area 2000m ² or greater.	Waterways Overlay Code			
	Declared Fish Habitat Areas, Ramsar Wetlands or Coastal Wetlands				
	Code assessable	Waterways Overlay Code			
All other defined and undefined	Waterway Corridor				
uses	Code assessable	Waterways Overlay Code			
	Sub-catchment of Stream Health Class a & b				



COLUMN 1 Use ⁴	COLUMN 2 Assessment category	COLUMN 3 Relevant assessment criteria - applicable code for code assessable development	
	Exempt - if clearing <i>vegetation</i> over an area less than 2000m ² .		
	Code assessable – if clearing <i>vegetation</i> over an area 2000m ² or greater.	Waterways Overlay Code	
	Declared Fish Habitat Areas, Ramsar Wetlands or Coastal Wetlands		
	Code assessable	Waterways Overlay Code	

Note: Development made exempt under the Waterways Overlay Code may still require the approval of the State Government under the *Water Act 2000* and the *Vegetation Management Act 1999*.

Table 5.2.2:Assessment Categories and Relevant Assessment Criteria for the Waterways
Overlay Code – Other Development not Associated with a Material Change of
Use³

	036			
	COLUMN 1 Type of development	COLUMN 2 Assessment category	COLUMN 3 Relevant assessment criteria - applicable code for code assessable development	
	Reconfiguring a Lot	All Mapped Areas		
		Code assessable	 Waterways Overlay Code 	
	Operational Work for Reconfiguring a Lot	All Mapped Areas		
		Code assessable	Waterways Overlay Code	
	Operational Work for Clearing of <i>Vegetation</i> not associated with Reconfiguring a Lot	Sub-catchment of Stream Health Class a & b		
		Exempt - if clearing <i>vegetation</i> over an area less than 2000m ² .		
		Code assessable – if clearing <i>vegetation</i> over an area 2000m ² or greater.	Waterways Overlay Code	
	LOI	Waterway Corridor, Declared Fish Habitat Areas, Ramsar Wetlands or Coastal Wetlands		
		Code assessable	Waterways Overlay Code	
	Operational Work for Site Earthworks	Sub-catchment of Stream Health Class a & b		
	not associated	Exempt		
	with Reconfiguring a Lot	Waterway Corridor		
		Exempt - if filling or excavating 5m ³ or less.		
		Code assessable - if filling or excavating more than 5m ³ .	Waterways Overlay Code	
		Ramsar Wetlands, Coastal Wetlands or Declared Fish Habitat Areas		
		Code assessable	Waterways Overlay Code	
	Building Work (other than <i>minor</i>	Sub-catchment of Stream Health Class a & b		
	building work)	Exempt		
		Waterway Corridor		
		Exempt - if		
		1. zoned Residential A, Residential B, Future Urban or		
		Home Industry		
		OR		
		2. resulting in no net increase in the <i>footprint</i> .		
		Code assessable - if exempt criteria are not complied with. Declared Fish Habitat Areas, Ramsar Wetlands or Coastal	Waterways Overlay Code Wotlands	
		Code assessable	Waterways Overlay Code	
	Minor Building	Exempt ⁵	Waterways Overlay Code	
	Work			
	All other	Exempt		
	development			

Note: Development made exempt under the Waterways Overlay Code may still require the approval of the State Government under the *Water Act 2000* and the *Vegetation Management Act 1999*.



Division 3 Compliance with the Waterways Overlay Code

3.1 Assessable development that is consistent with the specific outcomes contained in Division 5, Table 5.2.3 complies with the Waterways Overlay Code.

Division 4 Overall Outcomes for the Waterways Overlay Code

- 4.1 The overall outcomes are the purpose of this code.
- 4.2 The overall outcomes sought by the Waterways Overlay Code are the following:-
 - (1) Aquatic Biodiversity
 - (a) *Waterway* corridors with a *stream health* class a or b are protected from any decline in ecosystem health;
 - (b) *Waterway* corridors with a *stream health* class c or d have no net worsening of ecosystem health, and in most cases ecosystem health is enhanced by development;
 - (c) *Waterway* corridors with a *stream health* class of e, f or g are rehabilitated and enhanced by development; and
 - (d) Waterway corridors are protected from degradation or loss of biodiversity values;
 - (e) All feeder streams of drinking water reservoirs to be stream health class c or better; and
 - (f) Cedar Creek, a popular recreational area, to be *stream health* class c or better.

(2) Coastal Wetlands

- (a) The habitats of migratory wader birds are protected;
- (b) Tidal flats (intertidal and supratidal) are buffered from the impacts of development; and
- (c) Coastal wetlands values are not degraded.
- (3) Riparian Vegetation
 - (a) Riparian *vegetation* is protected from all forms of development which may disturb or degrade its condition or function in any way;
 - (b) The condition or ecological functions of riparian *vegetation* are managed, where practical, against threats from livestock and domestic animal access; and
 - (c) Biodiversity values of riparian *vegetation* along *waterways* and corridors are not degraded further and, where practicable, enhanced.

(4) Hydrology and Flooding

- (a) Development retains the natural hydrological characteristics of *waterways* indicated on the Overlay Code Map 2 Waterways;
- (b) The natural drainage morphology of *waterways* is maintained;
- (c) Adverse changes to runoff coefficients in sub-catchments are minimised; and
- (d) Downstream risks associated with flooding do not increase.

Stream Stability and Stream Geomorphology

- (a) The risk of downstream or upstream erosion of the bed or **banks** of a **waterway** corridor through altered hydrology, development or unnatural disturbance of the bed and **banks** is not increased; and
- (b) Eroded sections of *waterway* corridors are rehabilitated where practical.

(6) Amenity and Landscape

- (a) The natural scenic, amenity and landscape values of waterway corridors are maintained or enhanced; and
- (b) Naturally vegetated riparian corridors occurring along *waterway* corridors indicated on the *Overlay Code Map 2 Waterways* are made continuous to the extent practicable

Fisheries Habitat

- (a) The condition of fisheries habitat areas are protected or enhanced.
- (8) Nutrient Inputs

(7)

(a) Direct or point sources of nutrients are minimised.

Specific Outcomes for the Waterways Overlay Code

- The specific outcomes and probable solutions for the Waterways Overlay Code are contained in Table 5.2.3. The elements covered by the specific outcomes are:-
 - (1) *Waterway* Corridors and Sub-catchments
 - (2) Ramsar Wetlands and Coastal Wetlands;
 - (3) **Declared Fish Habitat Areas** and buffers;
 - (4) Fencing of *Waterway* Corridors

5.1

Division 5

Specific Outcomes for Assessable Development	Probable Solutions				
Waterway Corridors and Sub-catchments	Vaterway Corridors and Sub-catchments				
SO 1 Water quality and ecological values of corridors and sub-catchments of <i>waterways</i> with <i>stream health</i> class a and b are retained or improved.	 PS 1.1 The following activities: (1) physical disturbance of stream bed and banks including diverting, channelling, filling and excavating; or (2) earthworks; or (3) construction; or (4) removal of vegetation do not occur within:- 				
	 (a) 150m from the edge of the geomorphic stream channel of any waterway corridor with a stream health class a or b where the modal slope of the land within 150m of the waterway is greater than 20%; or 				
	(b) 100m from the edge of the geomorphic stream channel of any waterway corridor with stream health class a or b where the modal slope of the land within that 100m of the waterway corridor is no more than 20% AND				
	PS 1.2 Areas within 100m of the <i>geomorphic stream channel</i> of any <i>waterway</i> with a <i>stream health</i> class a or b are revegetated in accordance with <i>Planning Scheme Policy PSP31 Demonstrating Compliance with the Biodiversity and Waterways Overlay Codes.</i>				
SO 2 The <i>waterway</i> corridors with <i>stream health</i> class c, d, e and f are managed in a way that maintains or improves the ecological values and water quality.	PS 2.1 The following activities do not occur within 50m of the edge of the <i>geomorphic stream channel</i> of any <i>waterway</i> with a <i>stream health</i> class c, d, e and f:-				
	 physical disturbance of stream bed and banks, including diverting, channelling, filling and excavating of stream bed and banks; or 				
	 (2) earthworks; or (3) construction; or (4) removal of <i>vegetation</i>. 				
	PS 2.2 Areas within 50m of the geomorphic stream channel are revegetated in accordance with <i>Planning</i> <i>Scheme Policy PSP31 Demonstrating Compliance with the</i> <i>Biodiversity and Waterways Overlay Codes.</i>				
SO 3 Clearing of <i>vegetation</i> within <i>waterway</i> corridors and sub catchments results in no net loss of <i>vegetation</i> .	PS 3 No solution provided.				
Ramsar Wetlands , Coastal Wetlands and Declared Fish Habitat Areas					
SO 4 The Ramsar wetlands, Coastal Wetlands and Declared Fish Habitat Areas are protected and degraded areas are revegetated.	PS 4.1 Revegetation and rehabilitation of the Ramsar wetlands, Coastal Wetlands and Declared Fish Habitat Areas is undertaken in accordance with Planning Scheme Policy PSP31 Demonstrating Compliance with the Biodiversity and Waterways Overlay Codes. AND				
	PS 4.2 Clearing of native <i>vegetation</i> or filling or excavation does not occur within the <i>Ramsar wetlands, Coastal Wetlands</i> and <i>Declared Fish Habitat Areas</i> .				
Fencing of Waterway Corridors					
SO 5 Livestock access to <i>waterway</i> corridors, including <i>stream banks</i> and <i>bed</i> , is controlled on allotments less than 10ha in size.	PS 5.1 Uncontrolled livestock access to <i>waterways</i> and their associated buffers is prevented through the construction and maintenance of stock-proof fencing. AND				
	PS 5.2 Watering points for stock are located outside of the <i>waterways</i> and their associated buffers.				

Table 5.2.3: Specific Outcomes and Probable Solutions for Assessable Development



Schedule A to the Waterways Overlay Code – Additional Defined Terms

For purposes of this code, the following meanings apply to critical terms used in the code:-

Definitions of landform elements described in this code and related planning scheme policies are taken directly from the Australian Soil and Land Survey Handbook - Field Handbook (2nd Ed., 1990), McDonald, Isbell, Speight, Walker & Hopkins. Inkata Press, Melbourne.

Detailed explanations of *Stream Health* Classes definitions described in this code and related planning scheme policies are found in *The Stream Health Manual* (2004), U. Nolte & P. Loose. Pine Rivers Shire Council.

Defined terms are shown in the text of this code in *bold italics*.

(1) Clearing

Damaging or destroying **vegetation** by ring barking, topping, lopping, poisoning, burning, flooding, draining, or otherwise injuring **vegetation** including cutting down or pushing over. In addition to this, damage to the root zone by compaction, excavation or filling within the drip zone or 10xDBH* (whichever is greater) of the **vegetation** that may destroy or seriously affect the **vegetation**. Partial clearing such as the removal of understorey or thinning of native **vegetation** or the removal of dead habitat trees is classed as clearing for the purpose of this code.

This does not include:-

- (a) maintaining existing open pastures, lawns or created gardens; and
- (b) grazing of native pasture by stock.

* DBH = Diameter of the tree when measured at breast height (1300mm above ground level)

(2) Coastal Wetlands

Tidal *wetlands*, estuaries, salt marshes, melaleuca swamps (and other coastal swamps), mangrove areas, marshes, lakes or minor coastal streams regardless of whether they are of a saline, freshwater or brackish nature (s 10 *Coastal Protection and Management Act 1995*). The mapped area on *Overlay Code Map 2 - Waterways* includes a 100m buffer.

(3) Declared Fish Habitat Areas

An area declared under a regulation to be a Fish Habitat Area. Fish Habitat Areas are declared to protect critical wetland habitats that sustain fisheries – Sections 120 and 121, *Fisheries Act 1994* giving statutory protection to key habitats to ensure long term fisheries production. The mapped area on *Overlay Code Map 2 - Waterways* includes a 100m buffer.

(4) Drainage Depression

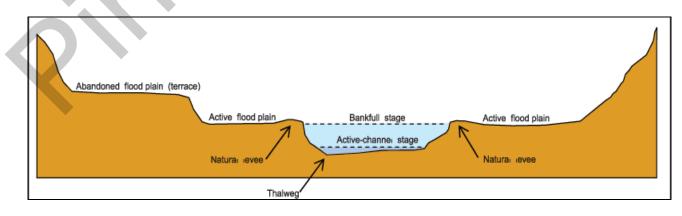
Level to gently inclined, long, narrow, shallow open depression with smoothly concave cross-section, rising to moderately inclined side slopes, eroded or aggraded by sheet wash. (McDonald et. al. 1990, Pg. 30)

(5) Footprint

The portion of the site covered by a building or other roofed structure.

(6) Geomorphic Stream Channel

A linear, generally sinuous open depression, in parts eroded, excavated, built up and aggraded by channelled stream flow and comprising a *stream bed* and a *stream bank*. In general the edge of the channel is associated with the edge of the flood plain. (McDonald et. al. 1990, Pg. 33)





(7) Gully

Open depression with short, precipitous walls and moderately inclined to very gently inclined floor or small stream channel, eroded by channelled stream flow and consequent collapse and water-aided mass movement. (McDonald et. al. 1990, p31)

(8) Modal Slope

The most common class of slope occurring within a landform pattern. (McDonald et. al. 1990, Pg. 35)

(9) Ramsar Wetland

International convention identifying *wetland* areas of international significance. Within Pine Rivers, areas of Bramble Bay and the mouth of the Pine River have been identified as Ramsar *wetlands*. The mapped area on *Overlay Code Map 2 - Waterways* includes a 100m buffer.

(10) Stream Bank

Very short, very wide slope, moderately inclined to precipitous, forming the marginal upper parts of a stream channel and resulting from erosion or aggradation by channelled stream flow. (McDonald et. al. 1990, Pg. 25)

(11) Stream Bed

Linear, generally sinuous open depression forming the bottom of a stream channel eroded and locally excavated, aggraded or built up by channelled stream flow. Parts that are built up include bars. (McDonald et. al. 1990, Pg. 33)

(12) Stream health

The ecological condition of the stream, river or creek.

(13) Tidal Flat

Large area subject to inundation by water that is usually salt or brackish, aggraded by tides. An intertidal flat is frequently inundated. A supratidal flat is seldom inundated. (McDonald et al 1990 Pg. 34)

(14) Vegetation

All shrubs, trees, herbs and grasses.

(15) Waterway

A tidal or non-tidal channel or water body, whether natural, artificially improved or artificial, in which water flows permanently or intermittently, including a watercourse, canal or estuary. This term does not include a closed conduit conveying stormwater.

(16) Wetland (viz., Swamp in McDonald et al. 1990)

Almost level closed or almost closed depression with a seasonal or permanent water table at or above the surface, commonly aggraded by overland stream flow and sometimes biological (peat) accumulation. (McDonald et. al. 1990, Pg. 33)

¹ This overlay code does not apply if the proposed development is outside the mapped areas.

- Table 5.2.1 refers to material change of use and associated works undertaken at the same time as the material change of use. Also, see *planning scheme* explanatory notes giving examples that explain the type of development involved in different proposals.
- ³ Table 5.2.2 refers to other development including works not undertaken at the same time as the material change use. Also, see *planning scheme* explanatory notes giving examples that explain the type of development involved in different proposals.
- ⁴ For defined uses see Chapter 7, Part 2, Use Definitions Schedule.
- ⁵ Exempt building work may still require a building development approval from a building certifier under the Building Act.



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