Part E –General Controls – Environmental Controls

Chapter E23: Riparian Land Management

Contents

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1 INTRODUCTION

The many watercourses of the Wollongong Local Government Area (LGA) flow to the coast, through a range of landscapes. Over time, the majority of these watercourses and associated riparian lands have undergone varying modifications and changes due to urban development and rural uses.

Effective riparian land management is key to bed and bank stability, water quality, biodiversity and environmental corridor function to promote the long-term health of the catchments within which these watercourses flow.

The riparian land within and beside watercourses provides, or has the potential to provide, a number of important environmental and other quality of life related functions, including:

- habitat for a diversity of plant and animal species;
- movement corridors for wildlife;
- conveyance of flood flows;
- reduction of bank and channel erosion;
- maintenance of water quality;
- a protective buffer between development and watercourses;
- visual amenity; and
- nature-based recreation.

Protecting and properly managing riparian land is vital to reduce the pressure on, and threats to, watercourses and their associated ecosystems, and to support the biodiversity of the Wollongong LGA in the long term.

2 BACKGROUND

The development controls contained in this Chapter are based on the principles and recommendations contained in the *Riparian Corridor Management Study* (NSW Department of Infrastructure, Planning and Natural Resources, 2004) (RCM Study) prepared for Wollongong City Council. This study and its recommendations are based on the local characteristics of the Wollongong LGA and seek to ensure that the long term functioning of each waterway and riparian lands align with its assessed environmental value or category.

The method used to categorise watercourses in the RCM Study and this Chapter is different to that of the NSW Natural Resource Access Regulator's (NRAR's) *Guidelines for Controlled Activities on Waterfront Land – Riparian Corridors* (2018). The NRAR Riparian Corridor Guidelines are general, Statewide guidelines that categorise all watercourses uniformly based on their location within a catchment. By contrast the RCM Study provides width values based on an integrated approach to multiple waterway objectives which are specifically relevant to the characteristics of the catchment within which each watercourse is located. Importantly, the merit-based approach adopted by the RCM Study considers the geomorphology and strategic importance of each watercourse within its landscape context, having regard to both its existing condition and its potential long-term environmental functioning, including its potential to function as a linkage between areas of high conservation value.

3 PURPOSE

The purpose of this Chapter is to provide Council's minimum requirements for development to minimise any adverse impact on riparian lands as a result of development. This includes development on land in or adjacent to mapped watercourses, and development which involves watercourse crossings.

4 LAND TO WHICH THIS CHAPTER APPLIES

This Chapter of the DCP applies to all lands within the Wollongong LGA.

5 DEVELOPMENT TO WHICH THIS CHAPTER APPLIES

This Chapter applies to any development requiring development consent under Part 4 or approval under Part 5 of the *Environmental Planning and Assessment Act 1979* that is proposed to take place on land within, over or adjacent to:

- any Category 1, Category 2 or Category 3 watercourse mapped within Council's published DCP Riparian Corridors mapping layer (www.wollongong.nsw.gov.au/about/maps) or as confirmed by Council; and
- any watercourse that flows west from the escarpment that has not been included within Council's published DCP Riparian Corridors mapping layer. These watercourses are to be considered as Category 1 watercourses.

This Chapter must also be considered in the Neighbourhood Planning process for the West Dapto Release Area as detailed in Chapter D16: West Dapto Release Area of this DCP. Endorsed site specific provisions of Chapter D16 or other site specific chapters override the general provisions of this chapter, and will be used for the assessment of Development Applications.

This Chapter does not apply to development for the following purposes in residential zones of the Wollongong LGA:

a The erection or demolition of a dwelling-house or dual occupancy building not involving the subdivision of land, or

b Alterations and additions to an existing dwelling-house or dual occupancy building, or

c Ancillary facilities associated with an existing dwelling-house or dual occupancy building.

For the above types of development, Council's planning provisions including Chapter E13: Floodplain Management and Chapter E14: Stormwater Management of this DCP apply.

6 OBJECTIVES

The objectives of this DCP Chapter are to:

a Protect watercourses, banks and riparian corridors and improve their environmental, ecological and hydrological function and stability;

b Protect and enhance native riparian vegetation and associated habitat;

c Protect and enhance the viability of threatened ecological communities and threatened species;

d Minimise the number and environmental impact of new waterway crossings to maximise connectivity;

e Enhance the aesthetic qualities and educational values of local creek landscapes;

f Ensure riparian management is compatible with, and does not adversely affect, floodplain risk management objectives in urban areas;

g Maintain or improve water quality; and

h Protect and enhance the cultural values of riparian corridors.

7 RELATED LEGISLATION

The following legislation is related to this Chapter:

- *Environmental Planning and Assessment Act 1979*
- *Water Management Act 2000*
- *Water Management (General) Regulation 2018*
- *Biodiversity Conservation Act 2016*
- *National Parks and Wildlife Act 1974*
- *Fisheries Management Act 1994*
- *Coastal Management Act 2016*
- *Chapter 2 Coastal Management of State Environmental Planning Policy (Resilience and Hazards) 2021*
- *Local Government Act 1993*
- *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth).

8 RELATIONSHIP TO CLAUSE 7.4 OF WOLLONGONG LOCAL ENVIRONMENTAL PLAN 2009

The objective of clause 7.4 Riparian Lands of Wollongong Local Environmental Plan 2009 is to ensure that development does not adversely impact upon riparian lands. The requirements of this Chapter are intended to ensure that developments meet this objective.

Clause 7.4 of Wollongong Local Environmental Plan 2009 applies to "riparian land" shown on the Wollongong Local Environmental Plan 2009 Riparian Land Map (www.wollongong.nsw.gov.au/about/maps).

The watercourses mapped as "riparian land" under Wollongong Local Environmental Plan 2009 have a corresponding mapped category under this DCP Chapter as described in section 9.1 below.

9 RELATIONSHIP TO OTHER DCP CHAPTERS AND COUNCIL MANUALS

This Chapter is referred to in:

- Chapter B2: Residential Subdivisions
- Chapter B5: Industrial Development
- Chapter B6: Development in the Illawarra Escarpment
- Chapter D16: West Dapto Release Area
- Chapter E6: Landscaping
- West Dapto Open Space Design Manual

and is related to:

- Chapter E13: Floodplain Management
- Chapter E14: Stormwater Management
- Chapter E15: Water Sensitive Urban Design
- West Dapto Open Space Technical Manual.

10 DEVELOPMENT CONTROLS

10.1 Watercourse Categorisation

10.1.1 The category of each watercourse within the Wollongong LGA is provided in Council's Riparian Corridors map within the Constraints and Planning DCPs layer of Council's public mapping system.

The watercourses have been categorised into one or more of the following, depending upon the nature and function of each watercourse:

- Category 1 – Environmental Corridor
- Category 2 – Terrestrial and Aquatic Habitat
- Category 3 – Bank Stability and Water Quality
- Predominantly piped or heavily engineered.

10.1.2 Watercourses that flow west from the escarpment have not been included in the Riparian Corridors map but are to be considered as Category 1 watercourses.

10.1.3 This Chapter does not have any particular controls for development within, over or adjacent to watercourses mapped as predominantly piped or heavily engineered. Chapter E14: Stormwater Management of this DCP needs to be considered for these types of developments.

10.2 Riparian Corridor Width Requirements

10.2.1 The riparian corridor consists of:

- the channel which comprises the bed and banks of the watercourse (to the highest bank), and
- the core riparian zone measured from the top of the highest bank on either side of the watercourse; and
- the vegetated buffer (where applicable) adjoining the core riparian zone (see Figure 1 below).

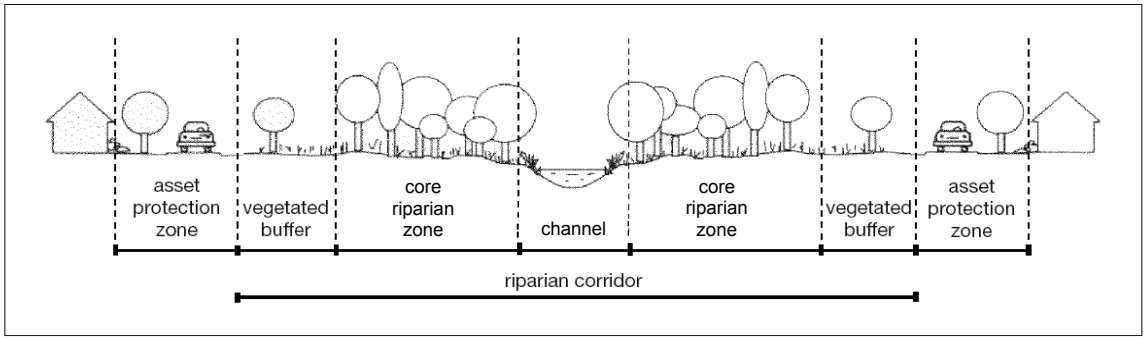

Figure 1. Diagram of a typical riparian corridor for a Category 1 or Category 2 watercourse (not to scale).

10.2.2 Any development to which this Chapter applies must be designed to achieve the minimum total riparian corridor width requirement for the specific watercourse category as set out in Table 1 below. The core riparian zone width is measured from the top of the highest watercourse bank away from the watercourse.

Table 1 Minimum Width Requirements for Riparian Corridors

Watercourse Category	Minimum Core Riparian Zone Width (each side of watercourse)	Minimum Vegetated Buffer Width (each side of watercourse)	Minimum Total Riparian Corridor Width
Category 1	40 metres	10 metres	100 metres + channel width
Category 2	20 metres	10 metres	60 metres + channel width
Category 3	10 metres	–	20 metres + channel width

10.2.3 The minimum width requirements set out in Table 1 may exceed those stipulated in General Terms of Approval from the Department of Planning and Environment, a Controlled Activity Approval or within guidelines published by the Department of Planning and Environment.

10.2.4 The minimum width requirements set out in Table 1 may result in riparian corridor widths extending beyond land that has been zoned C3 Environmental Management.

10.2.5 Except as provided by clause 9.6 of this Chapter, no development other than environmental management works is to take place within the applicable minimum total riparian corridor width specified in Table 1.

10.2.6 Any variation to the minimum widths set out in Table 1 are to be addressed as a variation to a control in the DCP as outlined at Part 8 of Chapter A1: Introduction of this DCP and if approved environmental/biodiversity compensation will be required within the development site.

a When considering a variation request, the following matters will, at a minimum be considered:

i Whether the variation will result in any adverse impact on the functions of the riparian corridor (including as a result of edge effects over time) or flood hazard risk or increased risk from any other hazard; and

ii Whether reasonable alternative design options exist which would enable the minimum width requirements set out in Table 1 to be achieved.

10.3 Riparian Corridor Design and Management

10.3.1 Any development to which this Chapter applies shall be designed, sited and managed to meet the specific riparian corridor objectives for the relevant watercourse category as set out in Table 2.

10.3.2 The land within the riparian corridor is to be restored/revegetated as part of a proposed development in accordance with the approved Vegetation Management Plan (VMP) (refer to clause 9.9 for VMP requirements).

Table 2 Objectives and Design Guidance for Watercourse Categories

Watercourse Category	Watercourse Objectives	Design, Siting and Management Measures
Category 1 – Environmental Corridor	Maximise the protection of terrestrial and aquatic habitat to: • provide a continuous corridor width for the movement of flora and fauna; • provide extensive habitat (and connectivity between habitat nodes) for terrestrial and aquatic fauna; • maintain the viability of native riparian vegetation; • manage edge effects at the riparian/urban interface; • provide bank stability; and • protect water quality.	• Provide a continuous riparian corridor that also provides linkages to stands of remnant vegetation where applicable. • Restore/rehabilitate the vegetation, geomorphic structure, hydrology and water quality of the riparian corridor to its original (pre-European) condition as far as practicable. • Locate infrastructure and utility services (ie power, water, sewerage and water quality treatment ponds etc) outside of the core riparian zone and vegetated buffer. Encroachment into the vegetated buffer may be possible if unavoidable and the impact on riparian functions is minimised. Any infrastructure and utility services within the vegetated buffer are to be sited to retain existing trees and the location and construction methods are to be determined by a consulting arborist. Tree locations are to be survey accurate. • Provide a suitable interface between the riparian area and urban development (roads, cycleways, playing fields, open space) to minimise edge effects. • Minimise the number of road crossings • Maintain riparian connectivity by the use of piered crossings in preference to pipes or culverts. • Any watercourse crossings within mapped Key Fish Habitat must have regard to the Fish Passage Guidelines developed by NSW Fisheries. • Minimise the impact of cycleways/shared paths, walking tracks and general access points by using ecologically informed design principles. • Locate flood compatible uses (eg playing fields) outside of the riparian corridor. • Manage and treat stormwater run-off outside the riparian corridor before discharge into the watercourse.

Table 2 Objectives and Design Guidance for Watercourse Categories (continued)

Watercourse Category	Watercourse Objectives	Design, Siting and Management Measures
Category 2 – Terrestrial and Aquatic Habitat	Maintain/restore the natural functions of a watercourse to: • maintain the viability of native riparian vegetation; • provide suitable habitat for terrestrial and aquatic fauna; • provide bank stability, and • protect water quality.	• Restore/rehabilitate the vegetation, geomorphic structure, hydrology and water quality of the riparian corridor to its original (pre-European) condition as far as practicable. • Locate infrastructure or utility services (ie power, water, sewerage and water quality treatment ponds etc) outside of the core riparian zone and vegetated buffer. Encroachment into the vegetated buffer may be possible if unavoidable and the impact on riparian functions is minimised. Any infrastructure and utility services within the vegetated buffer are to be sited to retain existing trees and the location and construction methods are to be determined by a consulting arborist. Tree locations are to be survey accurate. • Provide a suitable interface between the riparian area and urban development (roads, cycleways, playing fields, open space) to minimise edge effects. • Minimise the number of road crossings. • Maintain riparian connectivity by the use of piered crossings in preference to pipes or culverts. • Any watercourse crossings within mapped Key Fish Habitat must have regard to the Fish Passage Guidelines developed by NSW Fisheries. • Minimise the impact of cycleways/shared paths, walking tracks and general access points by using ecologically informed design principles. • Locate flood compatible uses (eg playing fields) outside of the riparian corridor. • Manage and treat stormwater run-off outside the riparian corridor before discharge into the watercourse.

Table 2 Objectives and Design Guidance for Watercourse Categories (continued)

Watercourse Category	Watercourse Objectives	Design, Siting and Management Measures
Category 3 – Bank Stability and Water Quality	Minimise sedimentation and nutrient transfer to: • provide bank stability; • protect water quality, and • protect native vegetation.	• Emulate a naturally functioning watercourse with a suitable riparian corridor width. • Provide suitable vegetated habitat refuges for terrestrial and aquatic fauna, wherever possible. • Treat stormwater run-off outside the riparian corridor before discharge into the riparian zone, wherever possible. • Implement weed management and restore areas with appropriate native vegetation and densities.

Note: Category 3 often applies to open channels with very little remnant vegetation.

10.4 Bush Fire Asset Protection Zones

10.4.1 Any bush fire Asset Protection Zone (APZ) is required to be located and managed within the defined limits of the development site and outside of the minimum total riparian corridor width (see Figure 1).

10.5 Fencing

10.5.1 Fencing is to be restricted to the outer edge of the total riparian corridor width.

10.5.2 The design of fencing shall comply with the requirements stated in the Floodplain Management Chapter contained in Part E of this DCP.

10.5.3 Any proposed fence adjoining the riparian corridor is to be designed to avoid steep batters and should be of an open, permeable style to maintain views to and from the riparian area.

10.6 Watercourse Crossings

The objective of this clause is to minimise the total number of watercourse crossings in the LGA and require all watercourse crossings to achieve specified environmental outcomes.

10.6.1 Minimum Riparian Corridor Width Requirements

All proposed watercourse crossings for roads, cycleways/shared paths and utility infrastructure must comply with the minimum riparian corridor width requirements in Table 1 of clause 9.2 by spanning the applicable minimum riparian corridor width (see Figure 2 below).

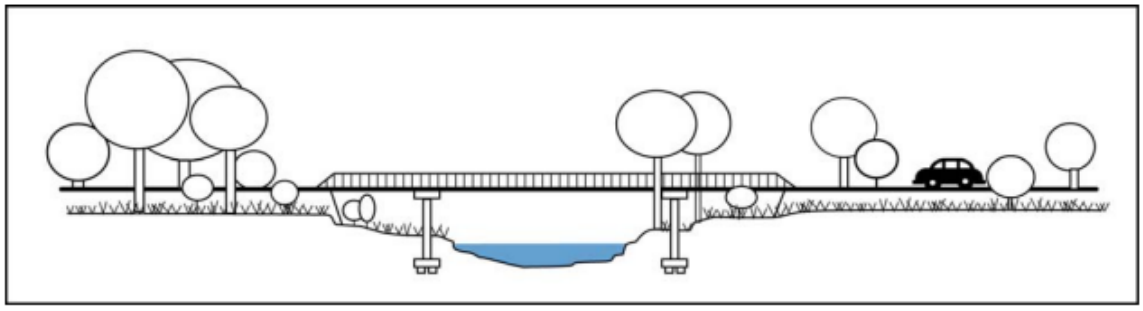

Figure 2. Diagram of a bridge crossing spanning a watercourse and riparian corridor (not to scale) (source: Office of Water 2012).

10.6.2 Encroachments for Essential Public Road Infrastructure

A. Despite clause 9.6.1, watercourse crossings of Category 1 or 2 watercourses and which fulfill the definition of 'essential watercourse crossing for public road infrastructure' in this Chapter, may encroach within the minimum riparian corridor width providing that:

a The crossing of a Category 1 or 2 watercourse uses a single span or piered bridge design; and

b Bridge piers or foundations are located outside the existing low flow channel of the watercourse; and

c The crossing is as close to perpendicular as practical to the natural watercourse; and

d Any works required within the riparian corridor incorporate soft engineering solutions and natural channel design techniques, particularly to preserve natural ecological stream functions (aquatic and terrestrial) including fish passage; and

e The design incorporates sufficient unobstructed width on both sides of the watercourse (ie from top of bank) and vertical clearance between the underside of the bridge and the top of bank to facilitate dry passage for the greatest range of ground dwelling fauna as possible (from reptiles to small macropods), during a 2% AEP (or 1 in 50 AEP) flood event.

f The design provides access for maintenance, and where applicable, pedestrian connectivity. For any shared path, a minimum 2.5 metre width is required and the overall design must meet the requirements of the relevant Australian Standards and AUSTROADS Guides.

g Where the watercourse crossing is new (ie is not replacing and upgrading an existing crossing), appropriate compensatory riparian restoration will be provided at a suitable location as part of the development within the same catchment.

B. Despite clause 9.6.1, watercourse crossings over Category 3 watercourses and which fulfill the definition of 'essential watercourse crossing for public road infrastructure' in this Chapter, may use a:

- single span,
- piered bridge, or
- box culvert design

and encroach within the minimum riparian corridor width providing that:

a Bridge piers or foundations are located outside the existing low flow channel of the watercourse; and

b The shape and sizes of precast elements are designed to optimise dry passage for a range of ground dwelling fauna (from reptiles to small macropods) during a 5% AEP (1 in 20 AEP) flood event.

c The base of box culverts of watercourses in mapped Key Fish Habitat are to be set so that it does not block the passage of fish.

d The design provides access for maintenance, and where applicable, pedestrian connectivity.

e Where the watercourse crossing is new (ie is not replacing and upgrading an existing crossing), and/or results in an impact to existing riparian vegetation, appropriate compensatory riparian restoration will be provided at a suitable location as part of the development within the same catchment.

10.6.3 Co-location of Roads, Cycleways/Shared Paths and Utility Infrastructure

Roads, cycleways/shared paths and utility infrastructure should be co-located within single crossings unless doing so in a particular circumstance will lead to greater impacts to the ecological functioning of the riparian corridor than not co-locating the infrastructure.

10.7 Stormwater/Water Quality Treatment

a Water quantity and quality treatment systems such as stormwater detention basins are to be constructed and located outside the riparian corridor.

b Sediment and litter capture and management must be undertaken outside the riparian corridor.

10.8 Restoration Works

a Works to stabilise the watercourse bed or bank are to be carried out with soft engineering methods. Designs must aim to maintain or mimic existing or natural hydraulic, hydrologic, geomorphic and ecological functions of the watercourse, including regeneration and/or rehabilitation of appropriate local native riparian vegetation and ecological amenity.

b Stream bank stability is to be promoted by retaining and establishing well vegetated riparian zones. Restoration works within the riparian corridor must be coordinated through Council or in some cases, the NSW Natural Resources Access Regulator directly.

c All works involving soil disturbance are to be carried out in accordance with the NSW Landcom publication titled *Managing Urban Stormwater: Soils and Construction, 4th edition (March 2004).*

10.9 Vegetation Management Plan

a A Vegetation Management Plan (VMP) must be submitted with any Integrated Development Application or Development Application lodged for any proposed development this Chapter applies to.

b The VMP must be prepared in accordance with Council's published *Vegetation Management Plan Guidelines for Development Applications and Unauthorised Works* (available via www.wollongong.nsw.gov.au); and in the case of Integrated Development, the VMP must also be prepared in accordance with the Natural Resources Access Regulator's *Guidelines for Vegetation Management Plans on Waterfront Land*.

c The VMP must identify maintenance access points and trails.

d The VMP must be in accordance with the relevant Council adopted Floodplain Risk Management Study and Plan with respect to the restoration of vegetated (riparian) corridors and associated flood behaviour. Otherwise, the VMP must consider a flood study for the specific development to ensure the proposed vegetation densities do not adversely increase the flood affectation upon surrounding properties in the locality.

e Where the riparian corridor width is in adjoining lots with different ownership and separate development applications for each lot are proposed, the preparation and implementation of a VMP submitted with a development application is to be coordinated with the adjoining lot landowner(s).

f For any land proposed to be transferred to Council, all necessary revegetation or other works are to be completed in accordance with the approved VMP to the satisfaction of Council, prior to Council accepting the transfer of the land.

10.10 General

a Subdivisions and new development should front onto the riparian corridor and not back onto it, perimeter roads are encouraged for this purpose.

b For subdivisions, where relevant, the bush fire assessment report must assess whether the creation of riparian corridors and the implementation of the VMP will result in the creation of potential future and unmapped Bush Fire Prone Land and assess the bush fire risk for future development.

c Services should be located outside of the riparian corridor.

d Access to the watercourse for maintenance and passive recreation should be planned in strategic locations where the existing vegetation will not be impacted and the stream bed and bank stability will not be compromised. The integration of infrastructure to accommodate self-directed recreational activities such as walking, running and cycling will create activity and opportunities for passive surveillance and encourage social interaction in a natural setting.

11 DEVELOPMENT APPLICATION INFORMATION REQUIREMENTS

The following information and matters must be provided/addressed with a Development Application to which this Chapter applies:

a A **Site Plan** which shows the siting and design of existing and proposed buildings, including any outbuildings or ancillary structures such as garages, sheds, pergolas and pools. The site plan shall be at a scale of 1:100, 1:200 or 1:500, depending upon the size of the subject development site.

Note: The siting, design and landscape treatment of the proposal should maximise the habitat values (if any) and minimise disruption to the connectivity of riparian habitats.

b A **Survey Plan** or a detailed **Site Analysis Plan** must show the following:

- 'Top of bank' and centreline of the watercourse.
- The setback distances between existing and proposed buildings/structures and the top of bank.
- Plotting of the riparian corridor buffer according to the watercourse category and widths as identified in table 1.
- Existing contour levels at two metre intervals.
- All areas that exceed a slope class of 18°.
- A suitable scale (ie 1:100, 1:200 or 1:500 scale), depending on the size of the overall landholding.

c A **Tree Survey Plan** (ie prepared by a registered surveyor) which shows the location and species type of existing trees and understorey shrubs within the site, including the riparian corridor.

d A **Vegetation Management Plan** (VMP) which indicates how the natural qualities of the riparian corridor have been retained or are proposed to be restored as far as possible through the retention or reinstatement of natural levels and native vegetation and/or the removal of trees (eg willows) and other non-native plants/vegetation.

e Any Asset Protection Zone required should be clearly shown on the Site Plan and Site Analysis Plan, and the recommendations considered in the Tree Survey Plan and VMP.

f All plans and documents are to be consistent.

g An Integrated Development Application is required if any of the following additional approvals are needed to allow the development:

i Controlled Activity Approval issued under the *Water Management Act 2000*;

ii Permit issued under the *Fisheries Management Act 1994*;

iii Aboriginal Heritage Impact Permit issued under the *National Parks and Wildlife Act 1974*.

DEFINITIONS

Adjacent to any Category 1, Category 2 or Category 3 watercourse: Means land within the width of the riparian corridor for the relevant watercourse category as set out in section 9.2 plus an additional ten metres landward away from the outer edge of the riparian corridor.

Adjacent to mapped watercourses: Means land within the width of the riparian corridor for the relevant watercourse category as set out in section 9.2 plus an additional ten metres landward away from the outer edge of the riparian corridor.

Channel width: The perpendicular width between the top of bank on each side of a watercourse.

Compensatory riparian restoration: Restoration work with locally indigenous plant species on an area of riparian land located on Council owned land within the same catchment that is generally of similar size as the difference in square metres between the riparian corridor width provided as part of critical public road bridge design, and what would have been required by Table 1 were it not for the exemption provided by clause 9.6.

Core riparian zone (CRZ): Means the minimum land space measured from the top of the highest bank to be fully vegetated with well-structured local provenance native vegetation (including trees, shrubs and groundcovers). Refer to Figure 1.

Essential watercourse crossing for public road infrastructure: A watercourse crossing identified within the current West Dapto Development Contributions Plan or within Chapter D16 of the Wollongong Development Control Plan 2009 or adopted as part of a Council endorsed Neighbourhood Plan or Planning Proposal.

Low flow channel: The channel within a watercourse in which water is contained during periods of dry weather, base or environmental flow when the watercourse is not in flood. The low flow is usually not constant but varies with groundwater levels and long term weather conditions.

Riparian corridor: Refers to any land (and its associated vegetation) that adjoins, directly influences, or is influenced by a watercourse. Its outer limit is measured from the top of a watercourse bank away from the watercourse centreline. It includes a core riparian zone (CRZ) and a vegetated buffer.

Riparian vegetation: Is vegetation that grows within the riparian corridor including on water surfaces, below water surfaces, on watercourse banks, and along the edges of watercourses.

Soft engineering: The practice of using sustainable ecological principles and natural elements to resolve a situation and minimise the impact on the environment. This may include the use of vegetation and stones or other natural materials to stabilise or reduce the erosion of a watercourse bank and soften or enhance the watercourse aesthetic.

Top of bank or **highest bank**: Is where the channel changes to the floodplain.

Utility infrastructure: Infrastructure required for the provision of water, electricity, sewerage and telecommunications services.

Vegetated buffer: A vegetated buffer extends an additional 10m from the CRZ and applies to Category 1 and 2 watercourses. The vegetated buffer serves to protect the CRZ from edge effects such as weed invasion, micro-climate changes, litter, trampling and pollution.

Waterbody (artificial): Means an artificial body of water, including any constructed waterway, canal, inlet, bay, channel, dam, pond, lake or artificial wetland, but does not include a dry detention basin or other stormwater management construction that is only intended to hold water intermittently.

Watercourse: Means any river, creek, stream or chain of ponds, whether artificially modified or not, in which water usually flows, either continuously or intermittently, in a defined channel with bed and banks, but does not include a waterbody (artificial).

Watercourse crossing: Means a structure designed and constructed to provide access for vehicles, trains, cyclists, pedestrians, livestock or utilities over or through a watercourse. This includes bridges, culverts and causeways.