

Wagga Wagga Special Activation Precinct



Stage 1 Delivery Plan
July 2022



The Wagga Wagga Special Activation Precinct builds on the Riverina region's reputation as NSW's 'food bowl' and existing transport links.

Acknowledgement of Country

We acknowledge the Wiradjuri people who are the traditional land owners of the Wagga Wagga Region. The Wiradjuri is the largest Aboriginal nation in NSW, living in Condobolin, Peak Hill, Narrandera and Griffith. There are significant populations at Leeton and smaller groups at West Wyalong, Parkes, Dubbo, Forbes, Cootamundra, Cowra and Young.

The Wiradjuri lands were signposted with scar trees and these and any other remaining artefacts will be identified and respected in the development of the Special Activation Precinct.

We wish to design places where Aboriginal people are socially, culturally and economically included. We also acknowledge all the Aboriginal and Torres Strait Islander families in our community and acknowledge their physical and spiritual connections to their land.



Cover image:
Riverinal Oils, Wagga Wagga



Aerial overlooking the city of Wagga Wagga and the Murrumbidgee River
Courtesy of Destination NSW

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Introduction



Canola fields in Wagga Wagga



This section provides an overview of Special Activation Precincts, the role of a delivery plan and how to use this document.

- 1.1 What is a Special Activation Precinct?
- 1.2 What is the role of Regional Growth NSW Development Corporation?
- 1.3 What is a delivery plan?
- 1.4 Vision and aspirations for Wagga Wagga Special Activation Precinct
- 1.5 Wagga Wagga Special Activation Precinct Master Plan
- 1.6 Approval pathways
- 1.7 Activation Precinct Certification process
- 1.8 Proposal documentation requirements
- 1.9 Proposal referrals and concurrences

1.1 What is a Special Activation Precinct?

Special Activation Precincts are dedicated areas within regional NSW which have been identified by the NSW Government. They bring together planning and investment support services to drive jobs and economic activity.



Foundations for Special Activation Precincts



Government-led studies



Streamlined planning



Government-led development



Infrastructure investment



Business Concierge

Special Activation Precincts will create jobs, attract businesses and investors and fuel economic development to meet the needs of regional communities.

The planning and delivery of Special Activation Precincts is underpinned by extensive environmental and infrastructure investigations which inform the master plan.

Special Activation Precincts offer streamlined planning approvals, government-funded infrastructure and business support services to reduce the time and cost of setting up business.

Special Activation Precincts offer businesses confidence with the right planning framework and infrastructure investment in place.



Livestock Marketing Centre
Courtesy of Wagga Wagga
City Council

1.2 What is the role of Regional Growth NSW Development Corporation?



Regional Growth NSW Development corporation will support investors and businesses, cutting red tape with simplified approval processes to enable businesses to set-up faster in Special Activation Precincts in regional NSW.

The Regional Growth NSW Development Corporation (the corporation) offers business concierge services for end-to-end development within Special Activation Precincts. The corporation's goal is to deliver commercially successful Special Activation Precincts that boost economic development and job growth in regional NSW.

Infrastructure and services are embedded upfront into the master planning process. The corporation works collaboratively with businesses to set up true triple helix partnerships and help all stakeholders achieve the Special Activation Precinct vision and aspirations.

A key component is fast track planning which is facilitated by the issuance of Activation Precinct certificate by the issuing authority. The corporation is the issuing authority for development for the purposes of subdivision and for development where the corporation is not the applicant for development consent. An Activation Precinct certificate is required for all development applications or applications for a Complying Development Certificate within a Special Activation Precinct.

The Activation Precinct Certification process is summarised in Section 1.7 of this document.



- 1 Services**
Physical and digital enabling infrastructure, utilities and services
- 2 Approvals**
Streamlined planning and environmental approvals
- 3 Investment**
Industry investment and attraction incentive packages and management
- 4 Partnerships**
Triple helix partnerships and collaboration

1.3 What is a delivery plan?

A delivery plan is a statutory document, referenced by the *State Environmental Planning Policy (Precincts-Regional) 2021* (Precincts-Regional SEPP), and is required before any development can occur within a Special Activation Precinct. A delivery plan must be consistency with the relevant master plan.

The Wagga Wagga Special Activation Precinct Delivery Plan (delivery plan) has been prepared by the corporation) consistent with the Wagga Wagga Special Activation Precinct Master Plan (master plan). It sets out criteria for applications for an Activation Precinct certificate, including the:

- precinct design principles
- precinct revegetation strategy
- infrastructure planning and delivery
- subdivision design objectives
- assessment criteria for change of land uses and the construction of new buildings and structures.

Who will use this delivery plan?

This delivery plan will be used by:

- the corporation, the issuing authority and consent authorities to evaluate or assess development proposals and provide advice to investors
- land owners, proponents and businesses to understand development and infrastructure obligations
- the community to understand the criteria and monitoring applied to development within the Wagga Wagga Special Activation Precinct (the precinct).

The following planning framework facilitates the streamlined planning process for Special Activation Precincts (see Section 1.7 for more detail).



Precincts-Regional SEPP 2021

- zone
- objectives
- land uses



Wagga Wagga Special Activation Precinct master plan

- vision and aspirations
- principles
- precinct-wide performance measures

We are here



Wagga Wagga Special Activation Precinct (Stage 1) delivery plan

- built form and landscape design guidelines
- precinct-wide mapping
- landscape strategy
- precinct and site-based assessment criteria and solutions

Where does this delivery plan apply?

Under clause 3.10 of the Precincts-Regional SEPP, an issuing authority can only issue an Activation Precinct certificate for land if there is a master plan and delivery plan that applies to the land concerned.

This delivery plan applies to stage 1 of the precinct. Future delivery plans will be prepared by the corporation when required for future development.

Notwithstanding, this delivery plan provides transitional provisions for the part of the land not included within stage 1 in Chapter 6, to ensure that development or the expansion of existing and transitional development on land not included within stage 1 can still occur where it is considered appropriate by the issuing authority.

Figure 1 Stage 1 of the Wagga Wagga Special Activation Precinct



How to use this delivery plan

1

Introduction (this section)

This chapter sets the context for the precinct, including the broader legislative framework. It also sets out how this delivery plan should be navigated for development proposed within in the precinct, and the process development proposals will go through to obtain an Activation Precinct certificate.



Read this section to understand:

- the broader legislative framework
- how to use the delivery plan
- the Activation Precinct Certification process.

2

Precinct design principles

This chapter sets out the overarching design outcomes to ensure a high quality public realm through landscaping and design that is representative of an advanced industry and business precinct.



Read this section to understand:

- the overarching design outcomes for the precinct aligned with the master plan guiding principles and the design considerations which are incorporated into the master plan's performance criteria.

3

Precinct revegetation strategy

This chapter sets out the precinct revegetation strategy which identifies the high value biodiversity to be protected, enhanced and incorporated into the site layout and design, as well as the riparian corridors and landscape principles for development interfacing with these areas.



Read this section to understand:

- the landscape context and where the areas of biodiversity, vegetation and riparian corridors are to inform planning and designing for your site
- the principles for protecting and enhancing areas of high biodiversity value and riparian corridors
- the species list when undertaking:
 - revegetation of strategic sites, corridor greening, rehabilitation of riparian corridors and vegetation corridor enhancements
 - landscaping on private sites.

4

Infrastructure

This chapter sets the context of the infrastructure needs and expectations for the precinct.



Read this section to understand:

- what enabling infrastructure is being delivered in the precinct
- the objectives and principles guiding infrastructure planning and design within the precinct
- the site specific expectations for providing infrastructure.

5

Subdivision design guidelines

This chapter sets the subdivision design objectives for planning a subdivision within the precinct.



Read this section to understand:

- planning a subdivision within the precinct, including the design objectives for topography, environment, environmental hazards, design and landscaping, stormwater and drainage, accessibility and infrastructure and services.

6

Assessment criteria

This chapter sets out the performance criteria for evaluating whether a proposal is consistent with the master plan and delivery plan.



Read this section to understand:

- the performance-based planning approach to evaluating development proposals
- the requirements which must be considered when planning and designing your site
- the requirements which a development proposal will be evaluated against to determine whether it is consistent with the master plan and delivery plan.

7

Monitoring, reporting and compliance

This chapter sets out the monitoring, reporting and compliance program for the precinct.



Read this section to understand:

- how the corporation will evaluate whether the precinct is on track to meet its targets, objectives and outcomes
- how businesses will contribute to precinct wide monitoring and reporting.

8

Mapping

This chapter sets out all the mapping relevant to Chapter 6.



Read this section:

- in conjunction with the assessment criteria for site specific development.

What parts of this delivery plan should I look at?¹

✓ Applies



Check to determine whether the controls are triggered. For example, check Chapter 8 – Mapping to determine if your site has mapped biodiversity values or cultural heritage on the land, and whether the land is affected by flooding or bushfire.

Development type ^{2, 3, 4, 5}	Chapter 4 Infrastructure	Chapter 5 Subdivision	Chapter 6 Assessment criteria									Chapter 8 Mapping
			6.1.1 Land uses	6.1.2 General controls	6.1.3 Specific development requirements i.e. large lots (minimum 1 hectare), Solar energy farms	6.1.4 Sustainability	6.2 Rural Activity Zone	6.3.1 Environment i.e. landscape character and visual impact, heritage, biodiversity, vegetation and riparian corridors, groundwater	6.3.2 Environmental hazards i.e. flood risk management, bushfire protection, managing development on contaminated land	6.3.3 Environmental impact management i.e. potentially hazardous and offensive development, air quality and odour, noise, biosecurity	6.4 Savings and transitional provisions	
Change of use	→		✓	→		✓						✓
Subdivision	✓	✓										✓
Development on a small lot (less than 1 hectare) subsequent to and consistent with a subdivision under this delivery plan			✓	✓		✓						✓
Development on a small lot (less than 1 hectare)	✓		✓	✓		✓		→	→			✓
Development on a large lot (minimum 1 hectare)	✓		✓	✓	✓	✓		→	→			✓
Development on land identified for rail and intermodal	✓		✓	✓	✓	✓				→		✓
Development on land identified as a commercial node	✓		✓	✓		✓		→	→			✓
Solar energy farm	✓		✓	✓	✓	✓		→	→			✓
Works to or within the curtilage of a heritage item			→	→			→	✓				
Potentially hazardous industry and potentially offensive industry	✓		✓	✓	✓	✓		→	→	✓		✓
Development that is a scheduled activity listed in Schedule 1 of the POEO Act	✓		✓	✓	→	✓	→			✓		✓
Development that may involve emissions (i.e. air, odour, noise)	✓		✓	✓	→	✓	→	→	→	✓		✓
Demolition, damage or removal of structures or buildings				→	→		→					
Development in the Rural Activity Zone	✓						✓	→	→	→	✓	✓
Out of sequence development ⁶	✓		✓	✓	✓	✓		→	→	→		✓

¹ This table is a guide only. Other parts of this delivery plan may apply than those identified, due to the scale and nature of the development proposal. The Issuing Authority will confirm applicable parts of this delivery plan as part of Step 3–Pre-lodgement in the Activation Precinct Certification process.

² More than one development type may apply to the development proposal. Where more than one development type applies, all applicable controls will apply.

³ Should a development proposal not be listed, the relevant parts of this delivery plan will be determined by the issuing authority.

⁴ Building alterations (internal), minor building alterations (external) and demolition are required to meet specific complying development clauses of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.

⁵ Development identified as exempt development under the Regional-Precincts SEPP does not require a development application and therefore does not need an evaluation against this delivery plan. The *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008* does not apply to land in the precinct except as provided by the Regional-Precincts SEPP.

⁶ Out of sequence development is development in advance of the enabling infrastructure for the precinct.

1.4 Vision and aspirations for Wagga Wagga Special Activation Precinct

As NSW's Southern gateway supporting Australia's richest food and agricultural region, the precinct will be a sustainable hub of high value production and manufacturing supporting advanced industries and businesses which are connected to the world.

The precinct offer investors, businesses and the community:



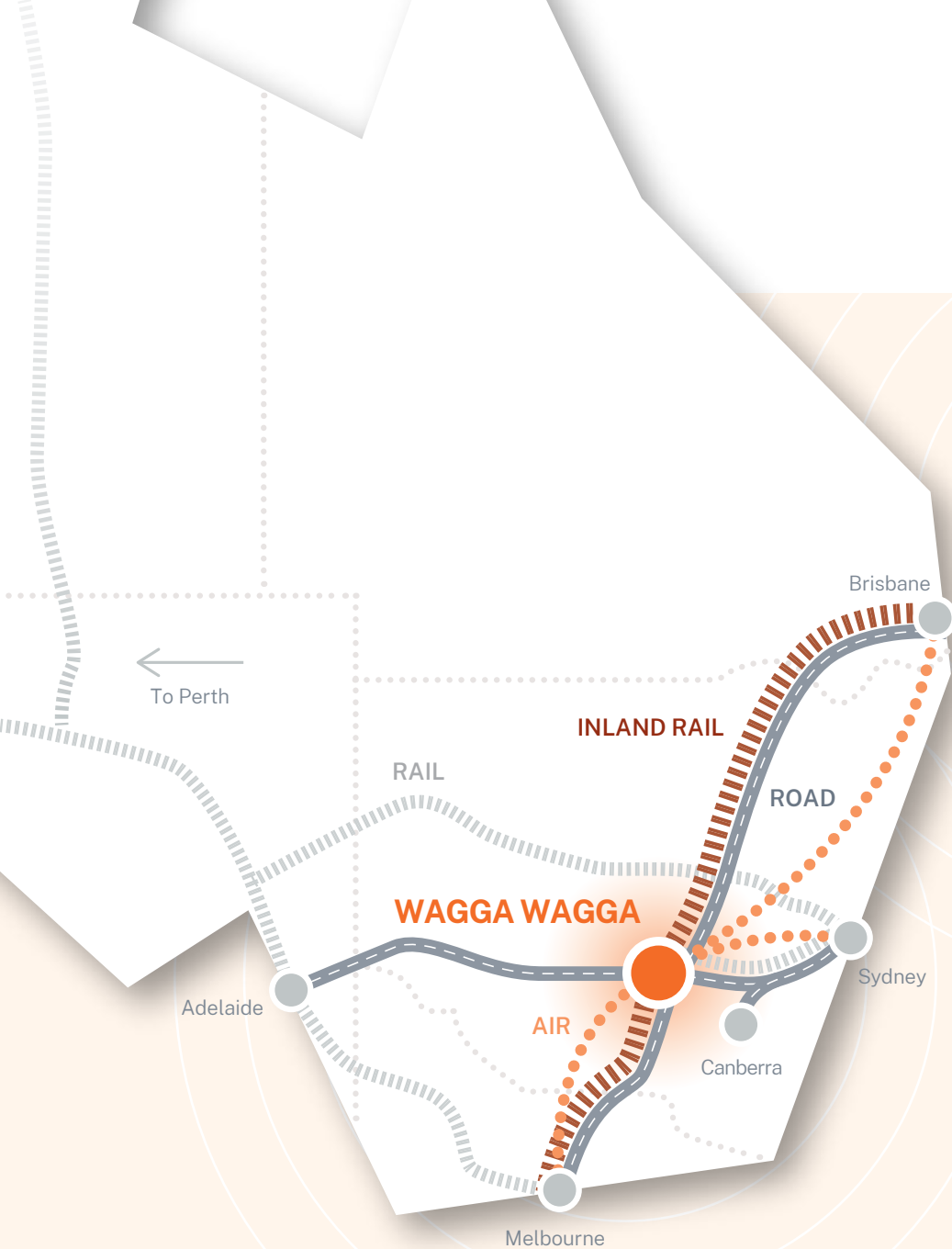
the Riverina's newest and most advanced enterprise precinct, producing high value food and manufacturing products for global and national markets



a streamlined planning and development process in NSW



a United Nations Industrial Development Organization eco-industrial park and a leading circular economy precinct.



1.5 Wagga Wagga Special Activation Precinct Master Plan

The master plan was published by the NSW Government in May 2021. It identifies the vision and principles for the precinct, provides land use provisions and criteria for environmental considerations such as air quality, noise, biodiversity and water management. The Precincts-Regional SEPP requires a delivery plan is consistent with the master plan.

The investigation area has been assessed by technical experts, ecologists, engineers, stakeholders and urban planners. Ongoing input and feedback from the community, landowners, businesses, and other key stakeholders has also informed the master planning process.

The precinct is a 4,424 hectare site north of Wagga Wagga city centre, incorporating the existing Bomen Business Park.

The master plan identifies a rural landscape buffer surrounding an industrial core leveraging the existing hub and major logistics infrastructure in line with aspirations for the precinct including:

- freight and logistics
- advanced manufacturing
- agribusiness
- innovation, skills and education
- renewable energy and recycling.

The master plan also identifies the layout and nature of infrastructure, and other key features such as the potential locations of commercial nodes to support workers in the precinct and important heritage areas for protection and celebration.

The master plan also identifies key road networks and environmental constraints and opportunities such as buffers, green infrastructure, stormwater basins and stormwater flow paths.



1



Economic development

- A nationally significant economic precinct
- Future-proofing with in-built capacity to evolve
- Strategically managed growth

2



Place and landscape

- Industry in the landscape
- A good neighbour
- Quality design, respectful of the landscape

3



Environment and sustainability

- Eco-industrial precinct
- Circular economy
- Net zero emissions
- Water security and quality
- A safe precinct

4



Community

- A connected, green place
- Connection to Country

5



Infrastructure and transport

- Digital connectivity
- Integrated utilities
- Great access for all modes

Bomen
Image courtesy of Wagga
Wagga City Council

Figure 2 Wagga Wagga Special Activation
Precinct Structure Plan

Industrial precinct

A consolidated industrial precinct in the valley between the Olympic Highway and Byrnes Road, located to avoid areas of environmental importance, better leverage access to existing infrastructure and provide suitable buffers to surrounding residential communities.

Rural Activity Zone

A 2,987ha Rural Activity Zone provides a long-term strategy for reducing land use conflict by acting as a buffer between industry and denser residential areas. No additional residential uses, or large-scale solar farms are permitted in this zone.

Regional Enterprise Zone

The 1,314ha Regional Enterprise Zone allows for a broad range of industrial and employment uses.

Potential commercial nodes

Potential locations for retail and business services required to service the needs of the precinct employment population.

Infrastructure

Potential new streets, services and infrastructure to support sustainable growth over time.



Rail infrastructure

Possible future expansion of rail siding infrastructure

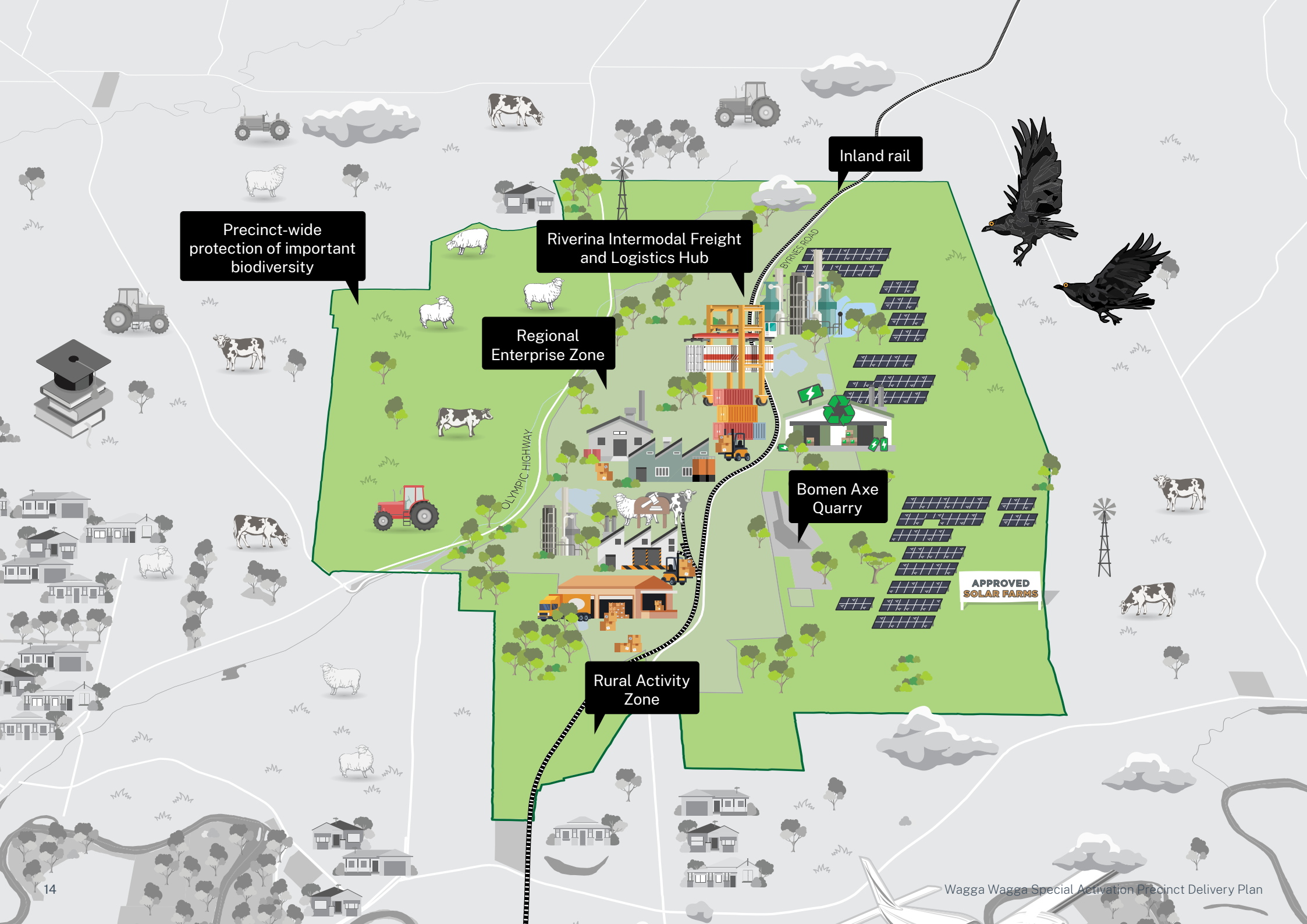
Riverina Intermodal Freight and Logistics Hub

Protection of sensitive sites

Controls for the protection of sensitive sites and strategies for the interpretation and celebration of Wiradjuri culture and history.

Staged development

The precinct will provide for an estimated 40 years of demand and will be staged over time, with development being concentrated in the southern part of the precinct initially and growing towards the north.



Precinct-wide protection of important biodiversity

Riverina Intermodal Freight and Logistics Hub

Regional Enterprise Zone

Bomen Axe Quarry

Rural Activity Zone

Inland rail

BOMES ROAD

OLYMPIC HIGHWAY

APPROVED SOLAR FARMS

Master plan at a glance

Demand

The precinct will provide for an **estimated 40 years of demand** and will be staged over time, with development being concentrated in the southern part of the precinct initially and growing towards the north.

SEPP

The **Precincts-Regional SEPP** replaces the *Wagga Wagga Local Environmental Plan 2010* for land within the precinct.

Framework

A **new planning framework** provides for most development to be Exempt or Complying Development, where it meets the requirements of the *State Environmental Planning Policy (Precincts -Regional) 2021* (Precincts-Regional SEPP), master plan and the delivery plan.

Performance

Detailed performance criteria for noise, air quality and odour.

Greening

Strategies for greening the precinct – revegetation, connecting habitat and greening riparian corridors, roads and private lots.

Protection

Controls for protecting water resources, driving sustainability and protecting biodiversity.

Built form

Controls for built form, land uses, community and social infrastructure and safety.

Jobs

Expected to deliver between 3,400 and 6,050 jobs by 2040 and between 4,150 and 7,550 jobs by 2060.

Victory Memorial Gardens,
Wagga Wagga



1.6 Approval pathways

The Precincts-Regional SEPP proposes to simplify planning and environmental approvals. Any development within a Special Activation Precinct must be consistent with the master plan for the Special Activation Precinct.

Many industrial and employment uses that would require a development application under the current planning framework are intended to be undertaken as complying development within Special Activation Precincts. Complying development will not be advertised and will not require an Environmental Impacts Statement or Statement of Environmental Effects.

Numerous technical studies, investigations and strategies have informed the performance criteria in the master plan, and design guidelines and assessment criteria in the delivery plan. This has allowed for most development to be complying under the Precincts-Regional SEPP.

Where a proposed development does not meet the requirements for qualifying as complying development, a development application will be required. Where a development application is required, development consent must be obtained from the consent authority under Part 4 of the *Environmental Planning and Assessment Act 1979*. The consent authority must have regard to the master plan and the delivery plan when determining the development application.

The Planning Secretary is the consent authority for development in the Regional Enterprise Zone.

If the Precincts-Regional SEPP identifies development as exempt, it does not require a development application.

1.6.1 Activation Precinct certificates

Although a streamlined planning process (i.e. complying development pathway) is available, an Activation Precinct certificate will be required from the corporation prior to issue of a Complying Development Certificate. The requirement for an Activation Precinct certificate is regulated under the *Environmental Planning and Assessment (EP&A) Regulation 2021* and must accompany all development applications or applications for a Complying Development Certificate within a Special Activation Precinct. The Activation Precinct certificate provides an assurance that a proposal is consistent with the relevant land use table, master plan and delivery plan.

The corporation will issue an Activation Precinct certificate if it decides the proposed development is consistent with the master plan and delivery plan.

In the precinct complying development must:

- not be located on land identified as an environmentally sensitive area
- not be located land on which a heritage item or Aboriginal object or place of Aboriginal heritage significance is located
- be consistent with the relevant provisions of the Building Code of Australia
- not be for the purpose of remediation work within the meaning of *State Environmental Planning Policy (Resilience and Hazards) 2021*
- not be carried out in a pipeline corridor
- not be a major hazard facility
- be carried out in accordance with the relevant provisions of the Blue Book
- be installed in accordance with the manufacturer's specifications, if applicable
- for the erection of a building, not be carried out within 1 metre of a public sewer without written approval from the authority / asset manager
- not involve the removal of asbestos.

1.7 Activation Precinct Certification process

The Activation Precinct Certification process provides a streamlined planning pathway for economic development to help our regions grow while providing certainty and confidence to businesses.

Business concierge

The business concierge will support streamlined and coordinated planning and environmental approvals for investors and businesses.

Through the business concierge, applicants have the option of progressing parallel environmental approvals and licences, and other approvals, licences and permits required for a proposed development.

Applicant-driven process

Potential investors, or applicants play a crucial role in streamlining the development approval process.

The Activation Precinct Certification provides for investors to decide:

- when they will prepare any required technical documentation
- when they will lodge the application for an Activation Precinct certificate
- whether they will seek to process other required approvals and licences in parallel with the Activation Precinct Certification process.

The business concierge offer a coordinated service to investors to undertake additional approval and licence processes in parallel with the Activation Precinct Certification process.

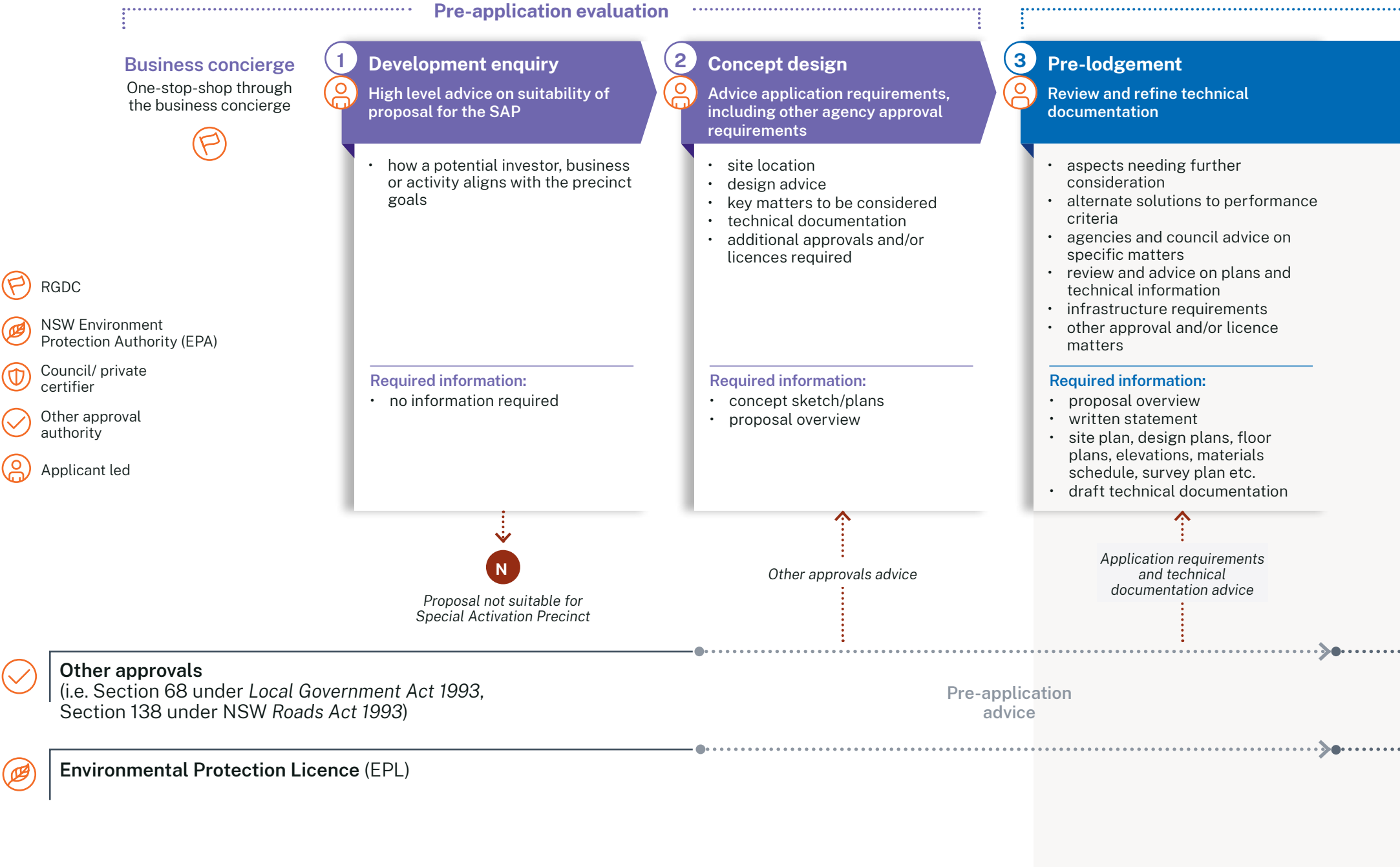
The corporation will engage with other government agencies, regulatory bodies and the council to discuss any additional approval requirements at Step 2 – Concept design.

It will be at the investors discretion when they choose to initiate the other approval and/or licence requirements.

View from Riverina Oils,
Wagga Wagga



Activation Precinct Certification process



Application evaluation and determination

4 Application

Lodge application

- complete checklist
- application form
- accept application or request information
- give written notice of application to utility providers (i.e. land near electricity transmission and distribution networks, pipeline areas, and level crossings and rail corridors) for comment within 14 days

Required information:

- application form
- technical documentation

5 Evaluation and determination

30 day evaluation period commences once application is accepted

- ensure consistency with master plan and delivery plan
- on basis of submitted plans and technical documentation
- consider any submissions received from any utility providers

Activation Precinct Certificate

- 3 year currency period
- stamped and dated technical documentation attached
- may include requirements for consistency
- Corporation gives copy of APC to other agencies and council

Application for development approval



Other approvals

Approval granted either unconditionally or subject to conditions



Complying Development Certificate

Lodge with council/private certifier
Follow process under EP&A Act



Development Application

Lodge with DPIE.
Follow process under EP&A Act



Construction Certificate

Lodge with council/private certifier.
Follow process under EP&A Act



Environment Protection Licence

Lodge with EPA (can be lodged prior to development consent). EPL may only be granted after CDC or consent is issued.

Optional parallel assessment pathways

Information request
Evaluation period pauses

Refine for consistency
Evaluation period stops and starts again

Applicant liaises with corporation on modifications after APC issued

Lodgement and assessment

1

Development enquiry

The corporation will provide high level advice on the suitability of the proposal for the precinct, including how the proposal aligns with the precinct goals and advice on the design and development outcomes before the development is conceptualised.

2

Concept design

The corporation will provide advice on what is needed to prepare an application.

The corporation will undertake a concept design evaluation and provide advice on:

- a preferred site if one is not already identified
- any key matters that will need consideration, including design
- advice on alternate solutions to the assessment criteria, where relevant
- technical documentation requirements
- any additional approvals, licences and permits.

The corporation will also coordinate other government agencies, regulatory bodies and council to provide advice on the application requirements for any other approvals and/or licences that may be required.

The concept design step may involve multiple meetings and/or advices.

Development Specific Checklist

The corporation will advise on the Activation Precinct Certification Application requirements in accordance with the relevant delivery plan. Through the business concierge the corporation will prepare a Development Specific Checklist which sets out the application requirements and technical documentation needed for the proposed development, to support the lodgement of an application for an Activation Precinct certificate.



The information needed for the concept design evaluation includes:

- concept design plans/sketches
- proposal overview.

3

Pre-lodgement

A pre-lodgement allows applicants to discuss their proposal with the corporation in more detail. A pre-lodgement provides the opportunity for a pre-evaluation to identify where changes may be required to ensure consistency with the master plan and delivery plan.

Pre-lodgement is to promote decision-ready applications to support a streamlined planning pathway for development consistent with the master plan and delivery plan.

It gives all parties (i.e. the corporation, applicant and other government agencies, regulatory bodies and council) the opportunity to:

- identify design, planning or operational aspects of proposals which may need further consideration or amendment
- discuss any alternate solutions to meet the performance criteria provisions
- review draft technical documentation that will be required for the formal lodgement of an application in accordance with the Development Specific Checklist
- work through any specific issues (i.e. biodiversity, flooding, stormwater constraints etc.)
- work through issues and application requirements for relevant approvals and licences.

More than one pre-lodgement may be required, and pre-lodgements may be in the form of meetings and/or written advice.



The supporting information needed for a pre-lodgement generally includes:

- proposal overview
- written statement
- site plan, floor plans, elevations and sections, materials schedule, survey plan
- draft technical documentation that will be required as part of the application in accordance with the Development Specific Checklist.

4

Application

The corporation will confirm an application has been made in the approved form (against the Development Specific Checklist).

If an applicant takes a parallel approval pathway, the relevant application forms, technical documentation and fee can be progressed at the same time as their application for the Activation Precinct certificate.

Activation Precinct Certificate

An Activation Precinct certificate will be issued for development that is consistent with the master plan and delivery plan.

In most instances, the corporation will be responsible for issuing the Activation Precinct certificate unless they are the applicant, in which case the Planning Secretary will be the issuing authority.

The issuing authority will determine whether a development is consistent with the master plan and delivery plan based on the submitted *technical documentation*.

If the development is consistent with the master plan and delivery plan, the issuing authority will issue an Activation Precinct certificate, which will provide that:

- the proposed development is consistent with the master plan and delivery plan
- the determination is based on the attached stamped and dated technical documentation (referred to as *Activation Precinct certificate material*)
- any requirements that must be addressed prior to an application being made for a Complying Development certificate (i.e. the submission of an environmental management plan with the corporation).

If the issuing authority is of the opinion that the development is not consistent with the master plan and delivery plan for the land, the applicant will be given an opportunity to modify the application to ensure that it is consistent.

An Activation Precinct certificate is valid for three years.

Once a Certificate has been issued, relevant approvals must still be obtained. The pathways for consent to be granted are:

- **Complying Development** under the *Environmental Planning and Assessment Act 1979* through the issuing of a Complying Development Certificate (from the relevant council or an accredited certifier)
- **Development Application or State Significant Development application** under Part 4 of the *Environmental Planning and Assessment Act 1979*.

Complying Development

In most instances a Complying Development Certificate (Building Approval) will be required for development within a Special Activation Precinct and can be issued by either the local council or an accredited certifier.

The council or accredited certifier will evaluate and determine an application for a Complying Development Certificate in accordance with the *Environmental Planning and Assessment Act 1979* and Environmental Planning and Assessment Regulation 2021. Section 4.28 of the *Environmental Planning and Assessment Act 1979* requires the council or registered certifier to consider and determine:

- whether or not the proposed development is complying development
- whether or not the proposed development complies with the relevant development standards.

A local environmental plan does not apply to land within a Special Activation Precinct.

The issuing authority will evaluate the application against the delivery plan development standards and issue an Activation Precinct certificate if the proposed development is consistent with the master plan and delivery plan.

The consent authority will need to ensure that the proposed development the subject of an Activation Precinct certificate is substantially the same as the proposed development the subject of the application for development consent or an application for a Complying Development Certificate.

Development consent must be obtained under Part 4 of the *Environmental Planning and Assessment Act 1979* where a proposed development that involves a permitted land use does not meet the criteria to be complying development under the Precincts-Regional SEPP.

Charles Sturt University, Wagga Wagga



Timeframes	Modifications to proposals	Updated or changed Activation Precinct certificate
<p>The 30 day evaluation period commences only when an application for an Activation Precinct certificate is taken to be made in the form approved by the corporation and satisfies the requirements under clause 11(3) of the Precincts-Regional SEPP.</p> <p>Neither the day on which the application for an Activation Precinct certificate is lodged nor the following day are to be taken into consideration in calculating the number of days in the evaluation period.</p> <p>The corporation may request more information. The evaluation period excludes any period between a request for additional information and the applicant's response to the information request.</p>	<p>There may be circumstances when an applicant wishes to:</p> <ul style="list-style-type: none"> make changes to their development proposal (i.e. design changes) either: <ul style="list-style-type: none"> during the Activation Precinct Certification evaluation and determination step between receiving an Activation Precinct certificate and making an application for a Complying Development Certificate and during the complying development approval process or seek written confirmation from the issuing authority that the development proposal the subject of an application for a Complying Development Certificate is substantially the same as the development the subject of the Activation Precinct certificate that applies to the land. <p>For modifications made after an Activation Precinct certificate is issued, the applicant will need to give written notice to the issuing authority seeking the issuing authority's confirmation that the development, as amended or modified, is substantially the same as the development proposal the subject of the Activation Precinct Certificate. An updated or new Activation Precinct certificate would not be issued.</p> <p>A new application for an Activation Precinct certificate will be required for a modified development proposal that the corporation considers to not be substantially the same as the development proposal the subject of the current Activation Precinct certificate.</p>	<p>There may be circumstances where an applicant seeks an updated or changed Activation Precinct certificate after the issuing authority has issued it, to:</p> <ul style="list-style-type: none"> correct a minor error, an incorrect description or miscalculation within the Activation Precinct certificate seek modifications to any requirements included as part of the Activation Precinct certificate modify the Activation Precinct certificate to reflect any amended or modified design changes to the development proposal, provided the development is substantially the same. <p>Any changes to the Activation Precinct certificate should be sought prior to the applicant making an application for a Complying Development Certificate.</p> <p>In the instance where the applicant seeks changes to be made to an Activation Precinct certificate during the complying development approval process and a changed Activation Precinct certificate is issued, a new application for a Complying Development Certificate would need to be made with the changed Activation Precinct certificate.</p>

Other potential licences and approvals

Environment Protection Licence

Environment Protection Licences (EPLs) are required for some development or activities.

These are issued by the NSW Environment Protection Authority (EPA) under the *Protection of the Environment Operations Act 1997*.

As part of the business concierge service, the corporation will coordinate and engage with the EPA during the Activation Precinct Certification process. This will ensure that a proposed development is designed and planned for consistency with the master plan and delivery plan and to also satisfy the requirements for an EPL.

The corporation will engage with the EPA on whether an EPL will be required during Step 2 – Concept design. If an EPL is required, advice from the EPA will be sought on the:

- requirements for the proposed development under the *Protection of the Environment Operations Act 1997*
- the application requirements for making an application for an EPL.

The corporation will engage with the EPA on the pre-evaluation of the proposed development and draft technical documentation during Step 3 – Pre-lodgement. The corporation will coordinate and engage with the EPA to resolve any issues upfront to promote a decision ready application for an EPL.

Once the development proposal and technical documentation are considered to be decision-ready, the applicant will be able to apply for the EPL at the same time as an Activation Precinct certificate.

Where possible, the EPA will assess the licence application in parallel with the corporation's evaluation of the application for an Activation Precinct certificate. The EPA cannot issue a licence until development consent is obtained.

Section 68 approvals

Section 68 of the *Local Government Act 1993* specifies a range of activities where approvals are required from the local council, known as 'Section 68 approvals'. Section 68 approvals are generally required where an activity is carried out on council land, assets or requires connection into local council infrastructure. Categories of activities relate to:

- temporary structures and places of public entertainment
- water supply, sewerage and stormwater work
- management of waste
- community land
- other activities.

Section 68 approvals cannot be applied for as part of the application to the council for a Complying Development Certificate.

As part of the Activation Precinct Certification process the corporation will engage with the local council to provide advice on approval requirements during Step 2 – Concept design.

The applicant will be able to make an application for a Section 68 approval when they make the application for an Activation Precinct certificate.

Section 138 approvals

Section 138 of the *NSW Roads Act 1993* requires that all activities undertaken within the local council's road reserve (or other roads authority) be approved by the roads authority prior to the activities being undertaken.

As part of the Activation Precinct Certification process the corporation will engage with the relevant roads authority to provide advice on approval requirements during Step 2 – Concept design.

The applicant will be able to make an application for a Section 138 approval when they make an application for an Activation Precinct certificate.

Solar farm in Wagga Wagga



Potentially hazardous industry or potentially offensive industry

For developments that are a potentially hazardous or a potentially offensive industry, through the business concierge the corporation will engage with the Department of Planning and Environment early as part of Step 2 – Concept design or Step 3 – Pre-lodgement to identify whether the potentially hazardous industry or potentiality offensive industry is low, medium or high risk, and confirm whether the proposed development will be complying development or require a development application.

For complying development involving potentially hazardous industry or potentially offensive industry where the corporation is the issuing authority, the corporation will seek the approval of the Planning Secretary to issue an Activation Precinct certificate during Step 5 – Evaluation and determination.

Other referrals and concurrences

The corporation will work with applicants to identify upfront any requirements for referrals or concurrences as part of the Development Specific Checklist.

Additional information may need to be provided to meet the requirements of other referrals or concurrences during the Activation Precinct Certification process.

The corporation will engage with other government agencies, regulatory bodies and the council to streamline these processes, including identifying any other referral and concurrence requirements during Step 2 – Concept design.



Agriculture at
Charles Sturt University

1.8 Proposal documentation requirements

All applications for an Activation Precinct certificate should adequately address the master plan and delivery plan requirements. Proposals should include the following information to demonstrate consistency with the master plan and delivery plan.

What supporting documents will I need for my application?⁷

✓ Required

→ May be required

Type ^{8, 9}	Change of use	Subdivision	Development on a small lot (less than 1 hectare) subsequent to and consistent with a subdivision under this Delivery Plan	Development on a small lot (less than 1 hectare)	Development on a large lot (minimum 1 hectare)	Development on land identified as a Commercial Node	Rail and intermodal development	Solar energy farm	Works to or within the curtilage of a heritage item	Potentially hazardous industry or potentially offensive industry	Development that is a scheduled activity listed in Schedule 1 of the POEO Act ¹⁰	Development that may involve emissions (i.e. air, odour, noise)	Demolition, damage or removal of structures or buildings	Development in the Rural Activity Zone	Out of sequence development
Application form	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Development Specific Checklist	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Architectural plans															
Elevations and sections	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
Floor plans	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓
Landscape plan	→	✓	✓	✓	✓	✓	✓	✓	→	✓	✓	✓		✓	✓
Photo montage			→	→	→	→			→						
Proposed subdivision plan		✓													
Schedule of colours, materials and finishes	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
Shadow diagrams			→	→	→	→									
Site plans	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Survey plan	→	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Any other plans that demonstrate how the proposal addresses the assessment criteria	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→

- ✓ Required
- May be required

Type^{8,9}

General

Change of use	Subdivision	Development on a small lot (less than 1 hectare) subsequent to and consistent with a subdivision under this Delivery Plan	Development on a small lot (less than 1 hectare)	Development on a large lot (minimum 1 hectare)	Development on land identified as a Commercial Node	Rail and intermodal development	Solar energy farm	Works to or within the curtilage of a heritage item	Potentially hazardous industry or potentially offensive industry	Development that is a scheduled activity listed in Schedule 1 of the POEO Act ¹⁰	Development that may involve emissions (i.e. air, odour, noise)	Demolition, damage or removal of structures or buildings	Development in the Rural Activity Zone	Out of sequence development
Cost estimate report for development with a value of: <ul style="list-style-type: none"> \$0-\$150,000: prepared by the applicant or a suitably qualified person greater than \$150,000 - \$3 million: prepared by suitably qualified person greater than \$3 million: detailed cost report prepared by a registered quantity surveyor 	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Owner's consent	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Party wall consent	→		→		→	→	→	→	→	→	→	→	→	→
Plan of management									✓	✓	✓			✓
Political donations and gifts disclosure statement	→	→	→	→	→	→	→	→	→	→	→	→	→	→
Statement of consistency	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

6.1.2 General controls

Erosion and sediment control plan	→	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Geotechnical report where development: <ul style="list-style-type: none"> has potential to adversely affect surrounding properties during excavation or construction of subsurface structures involves excavation of a certain volume, within proximity to a property boundary or depth below ground level are located on land with certain site constraints (i.e. steep slopes) 	→	→		→	→	→	→		→	→	→		→	→
Maintenance plan for stormwater treatment	→	✓	✓	✓	✓	✓	✓	→	✓	✓	✓			✓

✓ Required
→ May be required

Type^{8,9}

	Change of use	Subdivision	Development on a small lot (less than 1 hectare) subsequent to and consistent with a subdivision under this Delivery Plan	Development on a small lot (less than 1 hectare)	Development on a large lot (minimum 1 hectare)	Development on land identified as a Commercial Node	Rail and intermodal development	Solar energy farm	Works to or within the curtilage of a heritage item	Potentially hazardous industry or potentially offensive industry	Development that is a scheduled activity listed in Schedule 1 of the POEO Act ¹⁰	Development that may involve emissions (i.e. air, odour, noise)	Demolition, damage or removal of structures or buildings	Development in the Rural Activity Zone	Out of sequence development
Proposed potable water and non-potable water demand and percentage to be delivered via onsite water systems	→		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
Proposed sewer outflow requirements	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
Stormwater drainage plan	→	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓			✓
Structural engineers report													✓		
Traffic and parking study	→	→		→	→	→	→			→	→	→		→	✓
Traffic impact assessment	→	→		→	→	→	→			→	→	→		→	✓
Voluntary planning agreement															✓
Waste management plan	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Water pollution impact assessment	→		→	→	→	→	→	→		→	→	→		→	→

6.1.4 Sustainability

Confirmation of proposed building rating/certification (e.g. Green Star), if applicable	→		→	→	→	→	→	→	→	→	→	→			→
Proposed electricity demand and consumption and percentage proposed to be delivered via renewables (onsite and offsite)	✓		✓	✓	✓	✓	✓	✓	→	✓	✓	✓			→
Proposed gas demand and percentage to be delivered via hydrogen, if applicable	→		→	→	→	→	→	→	→	→	→	→			→
Identification of resource flows	✓		✓	✓	✓	✓	✓	✓	→	✓	✓	✓			✓
Statement demonstrating alignment with the UNIDO Eco-Industrial Park Framework	✓		✓	✓	✓	✓	✓	✓	→	✓	✓	✓			✓

✓ Required
→ May be required

Type^{8,9}

	Change of use	Subdivision	Development on a small lot (less than 1 hectare) subsequent to and consistent with a subdivision under this Delivery Plan	Development on a small lot (less than 1 hectare)	Development on a large lot (minimum 1 hectare)	Development on land identified as a Commercial Node	Rail and intermodal development	Solar energy farm	Works to or within the curtilage of a heritage item	Potentially hazardous industry or potentially offensive industry	Development that is a scheduled activity listed in Schedule 1 of the POEO Act ¹⁰	Development that may involve emissions (i.e. air, odour, noise)	Demolition, damage or removal of structures or buildings	Development in the Rural Activity Zone	Out of sequence development
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6.3.1 Environment

Aboriginal cultural heritage assessment		→		→	→	→		→	→	→	→	→		→	→
Arborists report		→		→	→	→		→	→	→	→	→		→	→
Biodiversity impact statement		→		→	→	→		→		→	→	→		→	→
Biodiversity assessment report		→		→	→	→		→		→	→	→		→	→
Groundwater management plan	→				→					→	→			→	→
Heritage impact statement	→	→		→	→	→		→	✓	→	→	→		→	→
Hydrogeological report		→			→					→	→			→	→
Species impact statement		→			→			→		→	→	→		→	→

6.3.2 Environmental hazards

Bushfire safety authority														→	
Bushfire hazard assessment		→		→	→	→	→	→	→	→	→	→		→	→
Certificate confirming development conforms to relevant bushfire specifications and requirements	→	→		→	→	→	→	→		→	→	→	→	→	→
Contamination / remediation action plan	→	→		→	→	→	→	→		→	→	→		→	
Fire safety upgrade report	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
Flood risk management report	→	→		→	→	→	→	→		→	→	→		→	→
Site based flood emergency response plan	→		→	→	→	→	→	→		→	→	→		→	→

Type^{8, 9}

6.3.3 Environmental impact management

	Change of use	Subdivision	Development on a small lot (less than 1 hectare) subsequent to and consistent with a subdivision under this Delivery Plan	Development on a small lot (less than 1 hectare)	Development on a large lot (minimum 1 hectare)	Development on land identified as a Commercial Node	Rail and intermodal development	Solar energy farm	Works to or within the curtilage of a heritage item	Potentially hazardous industry or potentially offensive industry	Development that is a scheduled activity listed in Schedule 1 of the POEO Act ¹⁰	Development that may involve emissions (i.e. air, odour, noise)	Demolition, damage or removal of structures or buildings	Development in the Rural Activity Zone	Out of sequence development
Site-specific air quality impact assessment											→	✓			
Emergency disposal and biosecurity protocol											→			→	
Odour impact assessment											→	✓			
Noise impact assessment											→	✓			
Preliminary hazard analysis										✓					

7 This table is a guide only and should be read together with Chapter 6. The issuing authority will prepare a Development Specific Checklist for each development proposal which will set out the specific documentation requirements.

8 More than one development type may apply to the development proposal. Where more than one development type applies, all applicable documentation requirements may apply.

9 Should a development proposal not be listed, the relevant documentation requirements will be determined by the issuing authority at the pre-lodgement stage.

10 A full list of documentation required for a development that is scheduled under the POEO Act will be provided during the pre-application evaluation or pre-lodgement meeting in the Activation Precinct Certification Process.

Environmental management plans

Where the issuing authority requires, a site-based environmental management plan may need to be prepared by a suitably qualified person in consultation with relevant government agencies to ensure that appropriate environmental management practices are followed during a project's construction and operation. The site-based environmental management plan should identify the environmental impacts, and management activities and controls related to managing and minimising environmental issues, including how the environmental management activities and controls will be monitored and reviewed.

Depending on the nature, scale and/or location of the development proposal, environmental issues may relate to:

- flora and fauna
- rehabilitation
- noise emissions
- air quality and odour emissions
- energy efficiency and energy consumption
- water consumption
- stormwater management
- erosion and sedimentation
- flood emergency response plan
- traffic, parking and access
- waste management
- aboriginal cultural heritage
- historic heritage
- site security
- emergency disposal and biosecurity protocol
- any other matters as may be required by the master plan or delivery plan.

Where necessary a site-based environmental management plan may be required to be provided to the corporation before an application for a complying development certificate is submitted. Where a development requires a development application, the site-based environmental management plan will become a condition of consent.

The requirements for the site-based environmental management plan will vary depending on the nature and scale of the proposed development.

Businesses that set themselves up in the Wagga Wagga Special Activation Precinct will have access to new industrial roads, freight rail links, digital connectivity, a fast-tracked planning process and the certainty of being located in a government precinct.

Riding bikes along the Murrumbidgee River, Wagga Wagga



1.9 Proposal referrals and concurrences

Proposed development may be referred to other government agencies, regulatory bodies and the council as part of the Activation Precinct Certification. The following referrals and concurrences may be required and should be consulted with early in the Activation Precinct Certification process prior to making an application for an Activation Precinct certificate. The concierge can provide contact details for relevant Authorities.

Does the application include any aspects that need to be referred or consulted on?

If any of the following matters are relevant to the application, the application will require referral or consultation with the respective Authority.

Development	Consult with	Separate licence or approval may be required ^{11, 12}	Written confirmation required	Authority
Specific development				
Hydrogen development, or other renewable energy development where required	✓	✓	✓	Safe Work NSW, Fire and Rescue NSW, the Department of Planning and Environment – Industry Assessments, and the EPA where the proposal may meet the relevant definition in Schedule 1 of the POEO Act
Demolition	✓	✓		Safe Work NSW
Access				
Vehicular access	✓	✓		Roads Authority under section 138 of the <i>Roads Act 1993</i>
Transport infrastructure and utilities				
Development on land that interfaces with or adjoins an existing or future transport asset	✓	✓	✓	Roads Authority or Rail Authority
Development requiring rail access	✓	✓	✓	Rail infrastructure provider
Connections to utilities and services including: <ul style="list-style-type: none"> • water • wastewater • electrical • telecommunications and • other utilities and services as required such as gas, hydrogen reticulation (including future hydrogen), recycled water etc 	✓	✓		Relevant utility suppliers: <ul style="list-style-type: none"> • Electricity supply – Essential Energy • Gas supply – APA Group (APA) • Water supply – Riverina Water • Sewerage and drainage – Council under section 68 of the <i>Local Government Act 1993</i>
Development with trade waste	✓	✓		Council or the Department of Planning and Environment
Development within 20 metres of a pipeline corridor	✓	✓	✓	Pipeline Operator
Development near electricity transmission and distribution networks	✓	✓	✓	Electricity Supply Authority

Development	Consult with	Separate licence or approval may be required ^{11, 12}	Written confirmation required	Authority
Heritage				
Development cannot avoid impacts to Aboriginal cultural heritage	✓	✓	✓	Heritage NSW
Works proposed to be carried out on or within the curtilage of an item listed on the State Heritage Register	✓	✓	✓	Heritage NSW
Carrying out works on a local heritage item	✓	✓	✓	Council
Biodiversity, vegetation and riparian corridors				
Clearing native vegetation Note: At such time that there is a biodiversity certification order, clearing native vegetation not approved under a biodiversity certification will require referral. Note: At such time that there is a biodiversity certification order, clearing native vegetation not approved under a biodiversity certification will require referral.	✓	✓	✓	The regulator of clearing
Reduced setbacks to riparian corridors	✓	✓	✓	NSW Office of Water
Groundwater				
Development within 750 metres of an existing registered bore for stock, domestic, irrigation and/or water supply use	✓	✓	✓	NSW Office of Water
Bushfire protection				
Development of bushfire prone land for a special fire protection purpose	✓	✓		Bushfire safety authority will be required in accordance with section 100B of the <i>Rural Fires Act 1997</i>
Environmental impact management				
Potentially hazardous industry and potentially offensive industry	✓	✓	✓	Department of Planning and Environment
Development that is a scheduled activity under the POEO Act	✓	✓		Environment Protection Authority
Intensive agriculture, waste disposal or resource management facilities and any other development that may impact on biosecurity	✓	✓	✓	Department of Primary Industries

Generally, it will be at the applicant's discretion when they choose to initiate the other approval and/or licence requirements.

Where possible, other approvals and licences may be able to be assessed in parallel with the corporation's evaluation of the application for an Activation Precinct certificate. However, there may be limitations on when an approval or licence may be able to be determined and issued. For instance, the EPA cannot issue a licence until development consent is obtained.

In some instances, an approval may also need to be obtained prior to the determination of an application for an Activation Precinct certificate. For example, the Planning Secretary must provide approval to the corporation to be able to issue an Activation Precinct certificate for potentially hazardous or offensive industry.

¹¹ The relevant authority will provide advice as part of consultation early in the Activation Precinct Certification process on whether an approval will be required.

¹² Advice will be provided as part of consultation with relevant authorities on whether any other approvals and/or licences will need to be obtained.

2

Precinct design principles



Crow sculpture, Riverina Museum



These precinct design principles outline the overarching design outcomes for the precinct.

- 2.1 Understanding the context of the precinct
- 2.2 Precinct design principles

The precinct design principles ensure a high quality public realm representative of an advanced and functional industry and business precinct.

The precinct provides the opportunity to shape a new international benchmark by blending smart design, ecological sustainability and worker and visitor amenity.

Chapter 2 – precinct design principles, is made up of the following sections:

2.1 Understanding the context of the Wagga Wagga Special Activation Precinct

which provides an understanding of the existing character of the precinct including its landforms, vegetation, items of cultural importance and vistas and views both within and from surrounding locations.

2.2 Precinct design principles

which provides the overarching design aspirations and outcomes for the precinct, aligned with the master plan's guiding principles and the design considerations which have been incorporated into each performance criteria.

2.1 Understanding the context of the precinct

The Wagga Wagga Special Activation Precinct is 4,424 hectares and located 8 kilometres north-east of Wagga Wagga city centre.

The precinct is located on the \$10.8 billion inland rail infrastructure project, providing freight routes to both Brisbane and Melbourne. The precinct is the largest industrial precinct in NSW and one of the largest along the whole route.

The precinct incorporates the existing Bomen Business Park, which employs over 1500 workers. Land uses within the existing Bomen Business Park vary from intensive uses such as food processing, recycling and manufacturing, intensive agriculture and freight and logistics, to low impact facilities associated with warehousing, engineering and distribution services.

The precinct is highly accessible by road and rail to Australia's major cities and sea ports. Wagga Wagga Airport is also located 10 kilometres to the southeast.

The Olympic Highway runs north-south through the western part of the precinct and is a State route providing heavy vehicle access from Melbourne to Brisbane.

Other key roads within the precinct include Merino Road, which was recently constructed by Council and connects the Sturt Highway with Olympic Highway. It also provides access to the precinct from the Hume Highway.

The future establishment of the Inland Rail project and Riverina Intermodal Freight and Logistics (RiFL) Hub within the precinct will strengthen its accessibility and enhance the precinct's capacity for supporting freight and logistics for local businesses.

Much of the precinct has been cleared and is used for grazing and broad acre cropping, and industrial purposes. Within this highly modified landscape, patches of remnant native vegetation and planted native trees exist.

The precinct is generally isolated from any surrounding areas of biodiversity with connectivity mostly restricted to roadside corridors which were recorded in areas adjacent to Olympic Highway and Trahairs Road. These corridors include mostly native planted vegetation, recorded Miscellaneous Ecosystems (Native Plantings) and generally comprised of indigenous endemic species. Connectivity for highly mobile species also occurs in the south-western portion of the site associated with River Red Gum Woodland linking to Dukes Creek and more broadly Gobbagombalin Lagoon and the Murrumbidgee floodplain.

The traditional owners of the Wagga Wagga region are the Wiradjuri people who have lived in the area for more than 40,000 years. Important Wiradjuri places, artefacts and vegetation are located within the precinct, including the Bomen Axe Quarry.



01

The Regional Enterprise Zone is similar in area to the previous General Industrial Zone under the Wagga Wagga Local Environmental Plan. The boundary of the Regional Enterprise Zone has however, been reshaped so that it is located between Olympic Highway, the Inland Rail and Byrnes Road. Large industrial built forms are intended to be concentrated to the middle of the precinct, which also then improves infrastructure servicing delivery. Aesthetically, whilst the built form is driven by functionality, good urban design principles must be applied

to ensure buildings respond positively to their context. The reshaped boundary also serves to avoid impacts on areas of environmental importance, including the groundwater protection zone.

The Rural Activity Zone that surrounds the Regional Enterprise Zone has also been formed to provide a transition between the industrial uses and the surrounding rural and residential uses to mitigate land use conflict.

- 01 Wagga Wagga Special Activation Precinct area
- 02 Bomen Industrial Estate
- 03 Bomen Road looking west



02



03

2.2 Precinct design principles



Precinct design principles will guide development outcomes to ensure that the precinct is characterised by a high quality public realm which is functional and creates a strong sense of place.

1

Create a strong connection to place

This will be achieved by:

- 1.1 Responding to and integrating with the natural terrain and topography and natural features.
- 1.2 Responding to the regional 'enterprise' functions and rural setting of the precinct.
- 1.3 Promoting development in visually sensitive locations to make a positive contribution to the views into the precinct.
- 1.4 Responding to the local materials and colours in the landscape.



2

Recognise and celebrate the precinct's history and its Connection to Country

This will be achieved by:

- 2.1 Aspects that related to Wiradjuri Country are led or co-led by Aboriginal people including traditional owners, elders, artists.
- 2.2 Telling and sharing stories of local people and place through artworks and signage.
- 2.3 Dual naming of elements within the precinct.
- 2.4 Developing Aboriginal design iconography in artworks and the landscape design as part of precinct branding and identity.
- 2.5 Celebrating the importance of the Bomen Axe Quarry and other culturally important places.



3

Ensure an active and connected place

This will be achieved by:

- 3.1 Ensuring development and local streets, pathways and public spaces integrate active transport access to, from and within the precinct.
- 3.2 Designing for shared-use paths along key streets, roads and other places.
- 3.3 Incorporating universal design and access requirements.
- 3.4 Developing a network of streets and open spaces and creating nodes, rest points and high-amenity pedestrian and cycling linkages that are safe for all users and encourage active transport.
- 3.5 Incorporating passive recreation infrastructure at strategic locations for use by employees that is interesting and in keeping with design themes of the precinct.



4

Develop landscape responsive and climate resilient streets and places

This will be achieved by:

- 4.1 Designing and specifying plants and materials that are suited to the local climatic conditions, robust and resilient to the longer term effects of climate change.
- 4.2 Ensuring connected shade is provided in key locations, especially in areas of high walking and cycling activity, car parking and communal spaces.
- 4.3 Planting tall, native trees that are a mix of species and ensure a balance of hard and soft surfaces.
- 4.4 Designing to maximise micro-climate opportunities, including solar access during winter and shading in summer.
- 4.5 Siting, designing and locating development to avoid or mitigate the risk from natural hazards to people, property and infrastructure.



5

Ensure green infrastructure integration across the precinct

This will be achieved by:

- 5.1 Acknowledging the role green infrastructure has in mitigating the impacts of climate change, stormwater management, and biodiversity and habitat protection.
- 5.2 Maintaining and enhancing existing natural systems through practical water sensitive urban design (WSUD) solutions.
- 5.3 Creating and strengthening green open space corridors along the street network and environmental corridors.
- 5.4 Using drainage and other corridors as elements of the green infrastructure network ensuring a multi-functional approach.



6

Protect and enhance the biodiversity and habitat across the precinct

This will be achieved by:

- 6.1 Identifying the existing natural systems to be protected, integrated and incorporated into the precinct.
- 6.2 Protecting the riparian corridors throughout the precinct and beyond.
- 6.3 Promoting the ecological values of environmentally sensitive elements to build an appreciation amongst all who use and visit the precinct.
- 6.4 Promoting environmental stewardship of the precinct's values and features.
- 6.5 Ensuring areas of existing biodiversity and habitat are connected to other green.



7

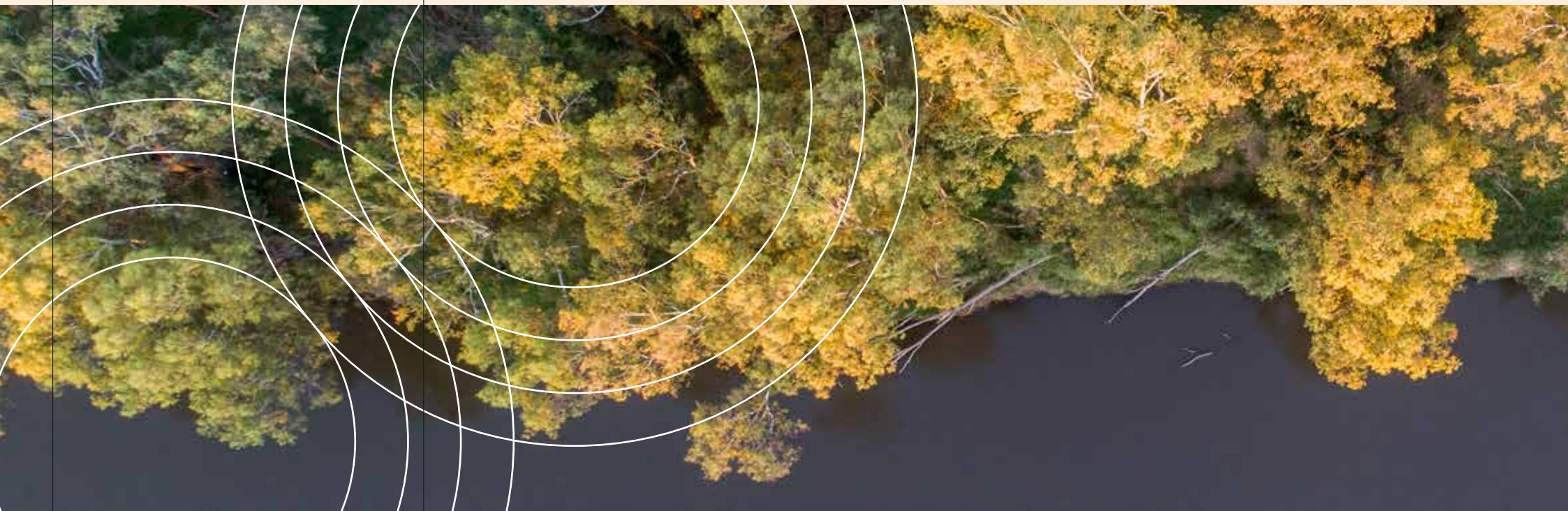
Designing for form to follow function to support industry operations and efficiencies

This will be achieved by:

- 7.1 Ensuring building design and site layout is functional to support the unique operational requirements of industries and businesses in the precinct.
- 7.2 Providing an attractive and visually interesting built form that engages with the natural site characteristics and streetscape.
- 7.3 Creating a range of suitable lot sizes to meet the needs of different industries and businesses.
- 7.4 Providing appropriate access, landscaping and built form outcomes in the context of the lot size.

3

Precinct revegetation strategy



Vegetation along the Murrumbidgee River



The precinct revegetation strategy identifies trees and grasslands to be retained and incorporated into landscape areas, vegetated setbacks, landscape treatments for green infrastructure for the public domain, where possible. It also identifies the riparian corridors and potential design objectives for development interfacing with these areas, as well as the landscaping treatments and plantings appropriate for the precinct.

- 3.1 Aims
- 3.2 Biodiversity, vegetation and riparian corridors
- 3.3 Green infrastructure
- 3.4 Planting palates

3.1 Aims

The precinct revegetation strategy provides the landscape strategy for the precinct and:

- **identifies the priorities for conservation, restoration and enhancement of biodiversity, vegetation and riparian corridors** in the landscape, and establishes principles for development and management which will help to complement and enhance the landscape character
- **provides the green infrastructure plan** to support ecological function and provide amenity through biophilia along road reserves and infrastructure corridors
- **provides the planting requirements and species list.**

3.2 Biodiversity, vegetation and riparian corridors

3.2.1 Biodiversity and vegetation character

Much of the precinct exists on cleared land that is used for agricultural, industrial and residential purposes. Within this highly modified landscape, patches of remnant native vegetation and planted native trees occur.

The precinct is generally isolated from any surrounding areas of biodiversity value. Connectivity is mostly restricted to roadside corridors in areas adjacent to the Olympic Highway and Trahairs Road. These corridors are formed mostly from native planted vegetation and generally comprise of indigenous endemic species. Connectivity for highly mobile species also occurs in the south-western portion of the site associated with River Red Gum Woodland linking to Dukes Creek and more broadly Gobbagombalin Lagoon and the Murrumbidgee floodplain.

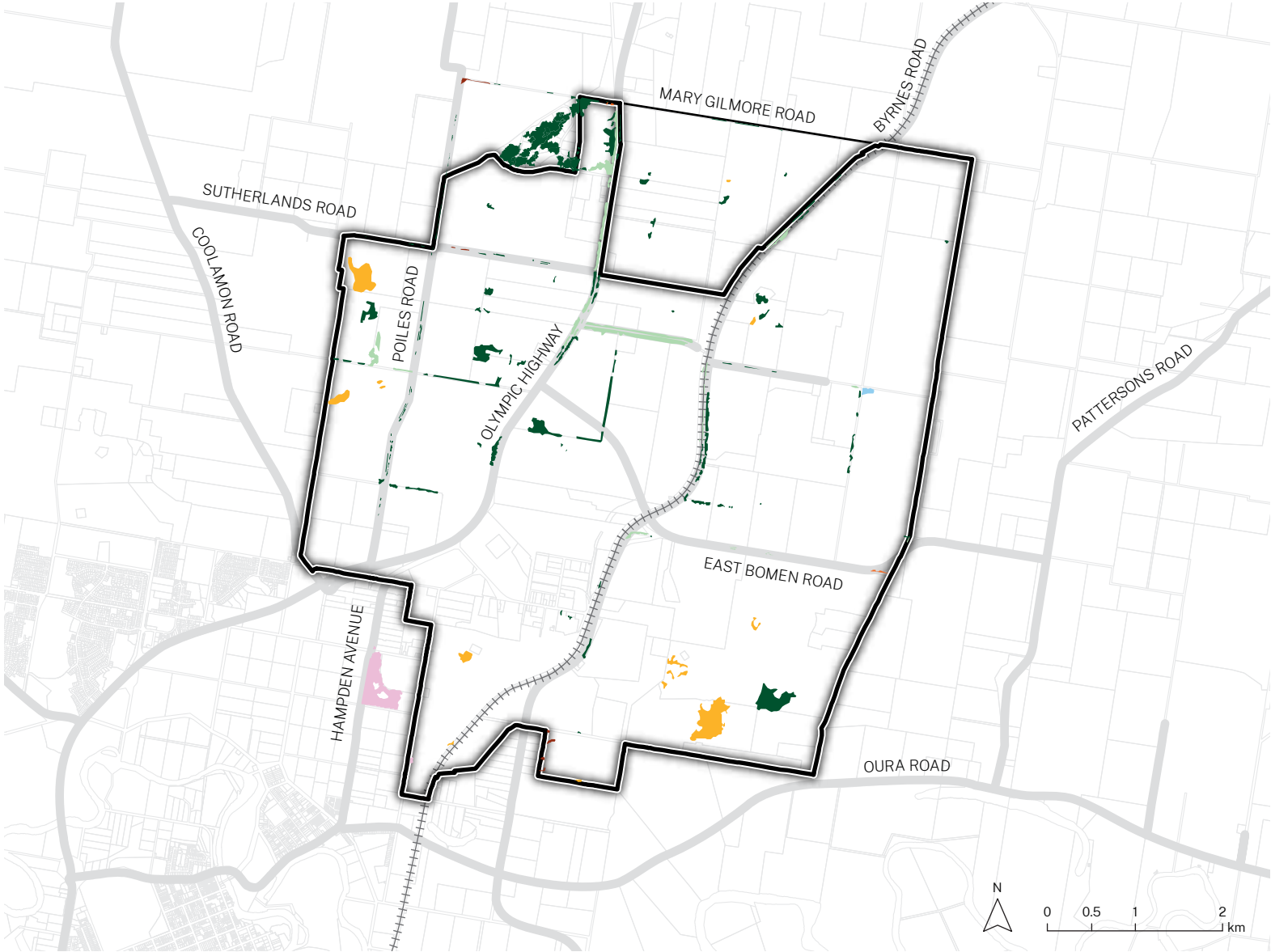
Native vegetation occurs over approximately 2.9 per cent of the precinct. The predominant vegetation communities recorded within the precinct are:

PCT 9 River Red Gum – wallaby grass tall woodland wetland	on the outer River Red Gum zone mainly in the Riverina Bioregion (Moderate condition) recorded in low-lying floodplain and riparian areas associated with tributaries of Dukes Creek and as isolated patches in proximity to the Murrumbidgee floodplain.
PCT 267 White Box – White Cypress Pine – Western Grey Box shrub/grass/forb woodland	in the NSW South Western Slopes Bioregion (Moderate condition and Scattered Trees) recorded in elevated areas such as foot slopes and low rises.
PCT 277 Blakely's Red Gum – Yellow Box grassy tall woodland	of the NSW South Western Slopes Bioregion (Moderate condition and Scattered Trees) recorded on lower slopes, plains and valley flats in some instances associated with ephemeral overland flow paths.
PCT 312 Yellow Box – grassy tall woodland	on valley flats in the upper slopes of the NSW South Western Slopes Bioregion and South Eastern Highlands Bioregion (Moderate condition) recorded in flat low-lying areas.
PCT 346 White Box – Blakely's Red Gum – White Cypress Pine shrubby woodland	on metamorphic hills in the Wagga Wagga – Cootamundra region of the NSW South Western Slopes Bioregion (Scattered Trees) recorded on rocky hill crests.

Figure 3 Vegetation types

Figure 3 shows the vegetation types the precinct.
Photographic representation is contained in Section 3.4.

- Stage 1 delivery plan boundary
- Rail
- Vegetation communities**
 - PCT 267 White Box – White Cypress Pine – Western Grey Box shrub/grass/ forb woodland
 - PCT 267 White Box – White Cypress Pine – Western Grey Box shrub/grass/ forb woodland (Scattered Trees)
 - PCT 277 Blakely’s Red Gum – Yellow Box grassy tall woodland
 - PCT 277 Blakely’s Red Gum – Yellow Box grassy tall woodland (Scattered Trees)
 - PCT 312 Yellow Box
 - PCT 346 White Box – Blakely’s Red Gum – White Cypress Pine shrubby woodland (Scattered Trees)
 - PCT 9 River Red Gum – wallaby grass tall woodland wetland



3.2.2 Riparian and watercourse character

The precinct is located north east of Wagga Wagga town centre on the fringe of the Murrumbidgee River floodplain. The precinct is located within portions of the Dukes Creek catchment (a tributary of the Murrumbidgee River) and the Eunanoreenya (also referred to as the Eunony Valley) tributary of Wheel of Fortune Creek, which is also a tributary of the Murrumbidgee River.

A substantial distance upstream of the precinct on the Murrumbidgee River is Burrinjuck Dam, which is the headwater for the Murrumbidgee River. Blowering Dam is also upstream of the precinct on the Tumut River (a major tributary of the Murrumbidgee River).

There are two main creek systems with very limited existing riparian corridors within the precinct:

- **Dukes Creek**
(flowing north to south-west, to the Murrumbidgee River)
- **Wheel of Fortune Creek and its tributaries**
(flowing north-south to the Murrumbidgee River).

Much of Dukes Creek is ephemeral and portions only flow during or immediately after a reasonable volume of rainfall. Likewise, much of the Eunanoreenya Valley tributary of Wheel of Fortune Creek is ephemeral and many areas identified as creeks in published information have no distinguishable creek bed or banks and instead are conveyed as shallow overland flow.

The upper catchment also contains a series of large former wool combing ponds which are not currently used for water management purposes.

3.2.3 Landscape principles

The revegetation principles described below represent the overarching outcomes for biodiversity, vegetation and riparian corridors for the precinct.

Revegetation principle 1: Protect remaining areas of woodland and paddock trees and improve their condition

Areas of high value biodiversity across the precinct should be protected and enhanced through minimising the removal of remnant vegetation and improving their condition wherever possible, and increasing the number of trees in the precinct.

1

Revegetation principle 1: Retain and protect remnant vegetation

Remnant vegetation must be retained and protected where possible. Revegetation principle 1 can be achieved by designed development so that it:

- 1.1 Retains and protects existing areas of remnant vegetation, including Tier 1 and Tier 2 paddock trees, by incorporating these into site landscape design
- 1.2 Defines new vegetated and landscaped areas that may form a green corridor or vegetation corridor on the site or provides additional connectivity to existing vegetated areas
- 1.3 Mitigates potential urban heat island impacts
- 1.4 Reflects the plant community types of the precinct as well as climate ready species and assist broader efforts to enhance habitat connectivity and biodiversity values across the precinct in accordance with Figure 4.

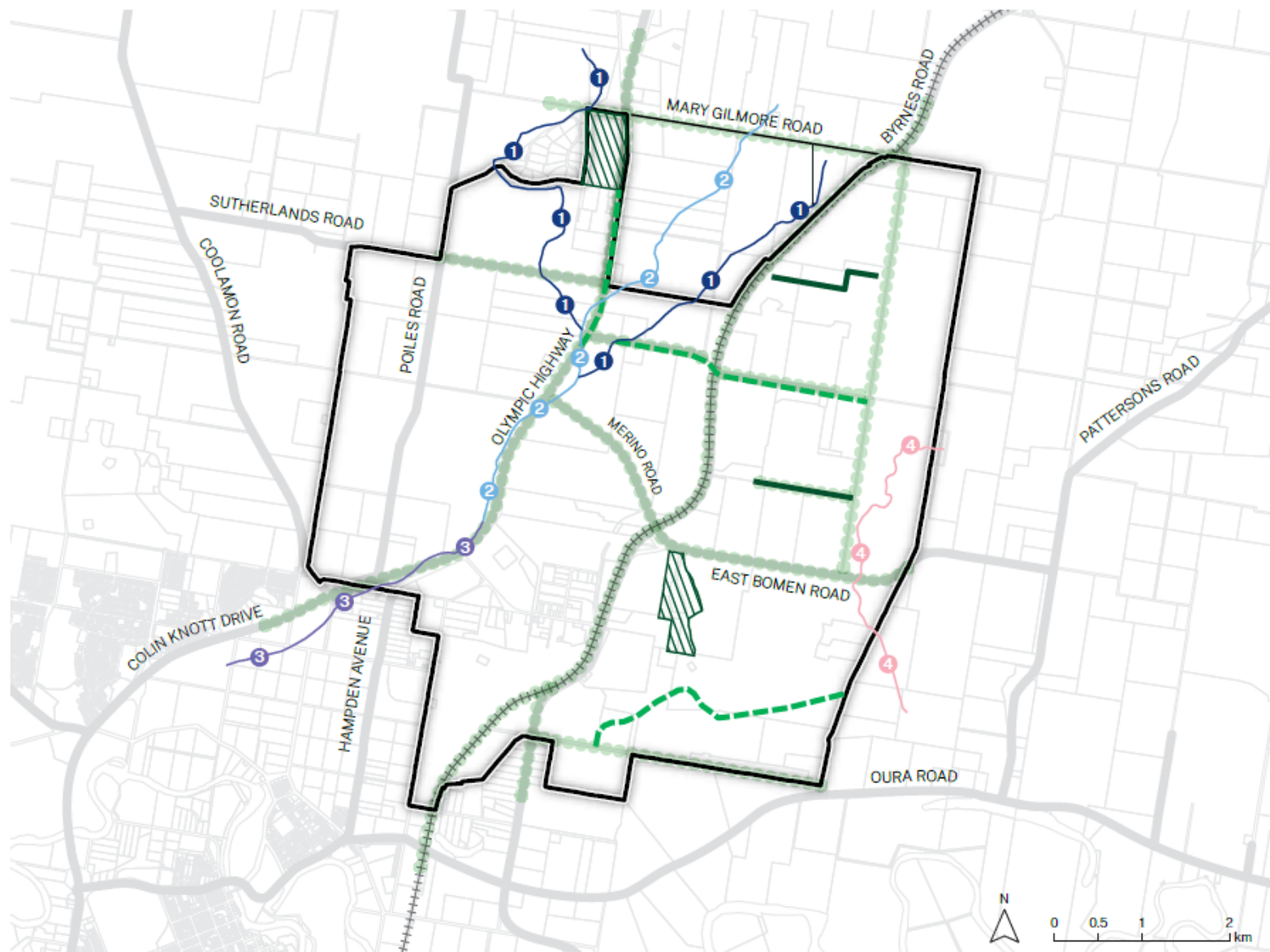
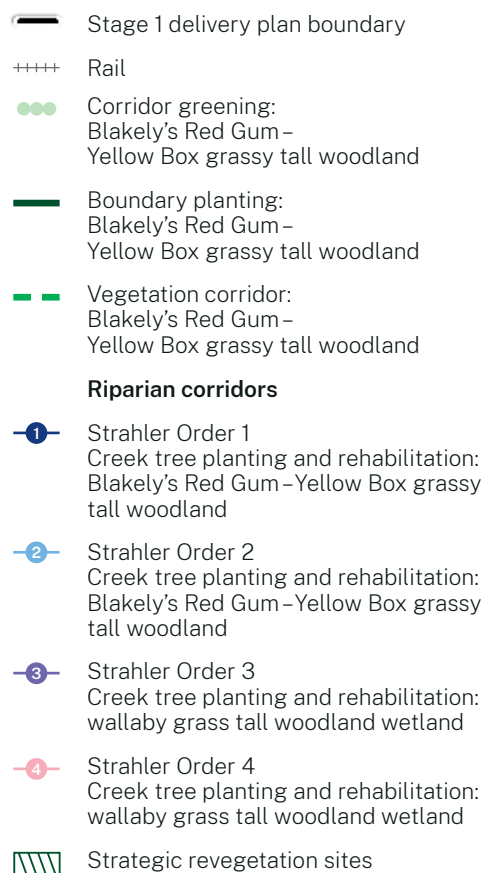
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Revegetation principle 2: Preserve and revegetate riparian corridors

Riparian corridors must be preserved and revegetated where possible. Revegetation principle 2 can be achieved by designing development so that it:

- 2.1 Minimises disturbance and direct and indirect impacts on riparian corridors by integrating the setbacks from watercourses in accordance with the *Water Management Act 2000*
- 2.2 Protects and enhances ecological processes within riparian corridors which contribute to improving water quality within the precinct
- 2.3 Revegetates creek-lines, tributaries and Dukes Creek (including tall trees and middle-level strata) to contribute towards achieving the environmental outcomes for the precinct and to enhance views over the precinct in accordance with Figure 4.

Figure 4 Revegetation types



3.3 Green infrastructure

Public realm landscape treatments need to be a considered design response taking into account locational and environmental factors, particularly resilience against a changing climate, robustness and cost effectiveness for maintenance.

The green infrastructure plan aims to create a strong and responsive sense of place for the precinct. Site-based landscaping in the precinct will be complemented by precinct wide green infrastructure.

3.3.1 Introduction

The green infrastructure network including the following feature areas and roads:

- **Gateway treatments** including three different levels of priority and landscape design treatment:
 - Premier arrival precinct
 - Secondary arrival precinct
 - Tertiary arrival precinct.
- **Road typologies** including three different levels of priority and landscape design treatment:
 - Premier boulevard
 - Premier avenue
 - Avenue.
- **Green infrastructure** that should be developed for the purpose of environmental protection and enhancement, active transport and visual amenity:
 - Trahairs Road
 - Green infrastructure spine.

The green infrastructure plan for the precinct is shown on Figure 5.

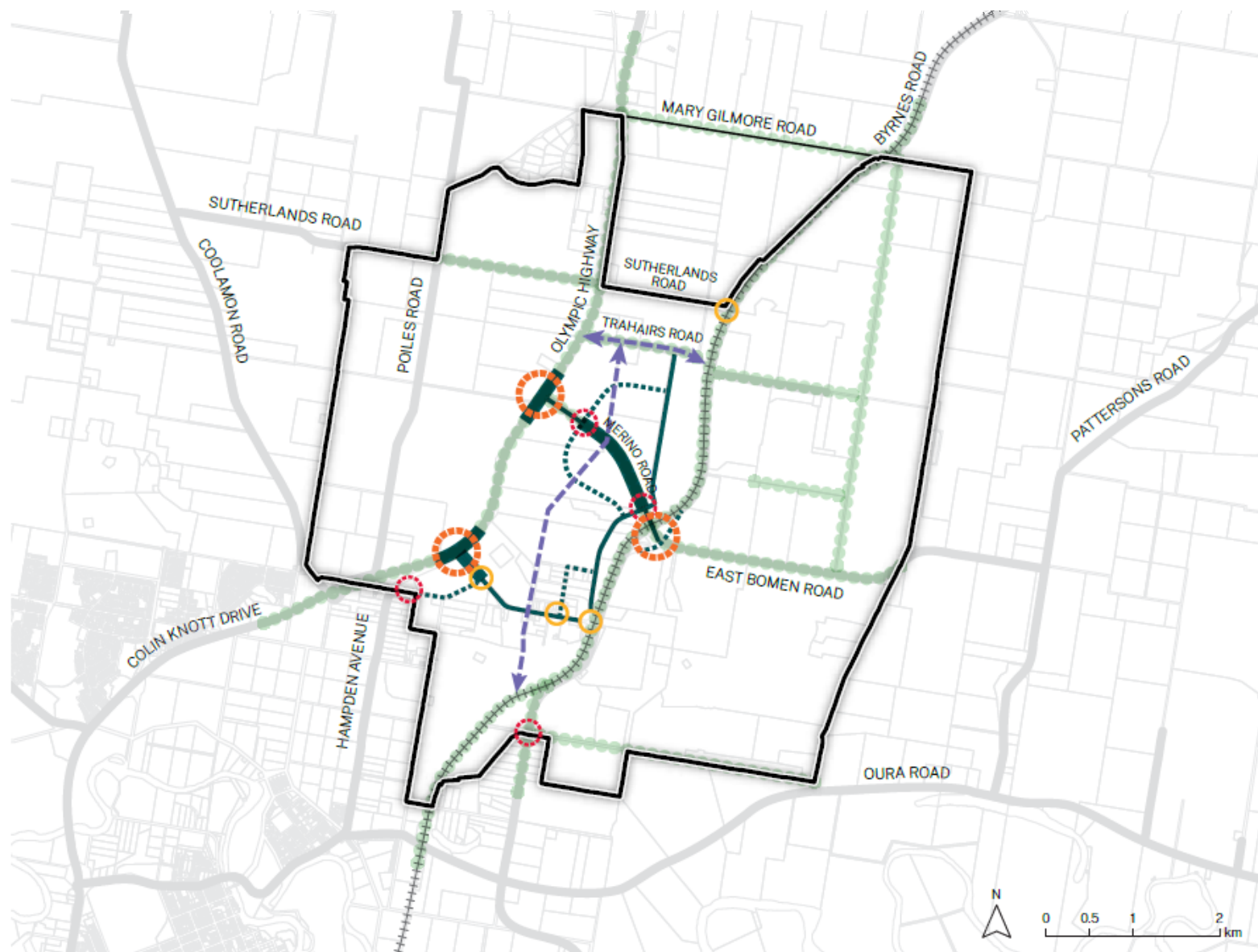
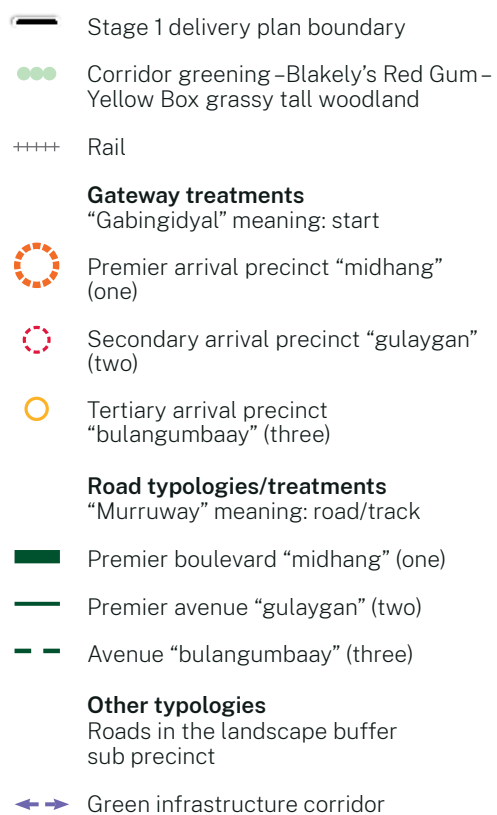


Green infrastructure creates a strong and responsive sense of place.

Grounds around Civic Theatre, Wagga Wagga



Figure 5 Green infrastructure plan



3.3.2 Landscape treatments

Landscape treatments for the different feature areas and roads are provided in table below. Some treatments are newly defined while other concepts describe elements that can be retrofitted to existing roads and infrastructure so these spaces better reflect the precinct design principles.

These landscape treatments should be applied when carrying out works at the feature areas and roads within the precinct.

Softscape treatment pallets are also included that are strongly linked to the context of the site.

Landscape treatments

Type	Applies to	Description
Gateway Treatments – “gabingidyal” (meaning start)		
PREMIER ARRIVAL PRECINCT ‘midhang’	<ul style="list-style-type: none"> Primary arrival points into the precinct from major transport route including Olympic Highway at Merino Road and Bomen Road and Byrnes Road at East Bomen Road 	<ul style="list-style-type: none"> Tree planting and vegetated buffers along the Olympic Highway are to be established and maintained outside the road reserve of the highway and not interfere with the Safe Intersection Sight Distance (SISD) requirements in accordance with the Austroads documentation at intersections with the highway Design elements that reference the cultural and landscape context of the precinct at a broad scale to be legible from a vehicle at speed May utilise Wiradjuri design elements and language in a contemporary way incorporated with new infrastructure Landscape to include repetitive planting of large native trees with mass endemic understorey planting (may include revegetation) Species which are endemic and characteristic of Blakely’s Red Gum – Yellow Box Grassy Tall Woodland are recommended and include: <ul style="list-style-type: none"> Acacia paradoxa (S) Acacia decora (S) Acacia rubida (S) Aristida ramosa (G) Austrostipa bigeniculata (G) Austrostipa scabra subsp. Scabra (G) Callitris glaucophylla (T) Calotis lappulacea (G) Chrysocephalum apiculatum (G) Craspedia variabilis (G) Cymbopogon refractus (G) Dianella revoluta var. revoluta (G) Dichondra repens (G) Dillwynia sericea (S) Eucalyptus blakelyi (T) Eucalyptus melliodora (T) Geranium solanderi var. solanderi (G) Hardenbergia violacea (G)

Continued on the following page

Type	Applies to	Description
PREMIER ARRIVAL PRECINCT 'midhang' (continued)		<ul style="list-style-type: none"> – Indigofera australis (S) – Lomandra filiformis subsp. Coriacea (G) – Lomandra longifolia (G) – Lomandra multiflora subsp. Multiflora (G) – Panicum effusum (G) – Poa sieberiana (G) – Themeda australis (G) – Wahlenbergia communis (G) – Xerochrysum viscosum (G) <ul style="list-style-type: none"> • Spacing requirements: Trees (T) 1 tree/22m², Shrub (S) 1 shrub/5m², average Groundcover (G) is based on 1 plant/40cm with larger species (i.e. Lomandra longifolia) needing larger spaces and smaller species (i.e. Wahlenbergia communis) planted more densely
SECONDARY ARRIVAL PRECINCT 'gulaygan'	<ul style="list-style-type: none"> • Other key entries to the precinct including Merino Road, Dorset Drive, RiFL Road roundabout • At roadways typically providing connectivity throughout the precinct 	<ul style="list-style-type: none"> • Design elements that reference the cultural and landscape context of the precinct that include more detailed design work to be legible at a pedestrian / cyclist level • May utilise Wiradjuri design elements and language at a small scale and integrated into other landscape features (for example symbols shotblast into paving, small totems/logos, small sculptural items on walls) • Simplistic iconography in pathways and changes in materiality • Landscape to include key feature trees mixed with native plantings. Understorey shrubs/grasses to include flowering varieties • Species include: <ul style="list-style-type: none"> – Acacia spathulifolia 'Gold Carpet' (S) – Anigozanthos cultivars (G) – Banksia spinulosa 'Birthday Candles' (S) – Brachychiton populneus (T) – Brachychiton rupestris (T) – Callistemon 'Little John' (S) – Carex appressa (G) – Correa reflexa (S) – Corymbia citriodora (T) – Corymbia ficifolia (T) – Corymbia maculata (T) – Enchylaena tomentosa (T) – Eucalyptus camaldulensis (T) – Eucalyptus cinerea (T) – Eucalyptus leucoxylon 'Euky Dwarf' (T) – Eucalyptus leucoxylon subspecies megalocarpa (T) – Geijera salicifolia (S) <p><i>Continued on the following page</i></p>

Type	Applies to	Description
SECONDARY ARRIVAL PRECINCT 'gulaygan' (continued)		<ul style="list-style-type: none"> - Hibbertia scandens (G) - Myoporum parvifolium (G) - Rhodanthe anthemoides (G) - Themeda triandra (G) - Tristaniopsis laurina (T) - Westringia fruticosa (S) <ul style="list-style-type: none"> • Spacing requirements: Trees (T) 1 tree/5m², Shrub (S) 1 shrub/5m², Groundcovers (G) 3 groundcover species/1m²
TERTIARY ARRIVAL PRECINCT 'bulangumbaay'	<ul style="list-style-type: none"> • Other entries to the precinct including junctions and roundabouts along key roadways, important pedestrian nodes and trail heads • Could be considered for entry into individual large key sites and incorporate standard/business specific requirements 	<ul style="list-style-type: none"> • Simple design elements and navigational signage • Simplistic iconography in pathways and changes in materiality • Landscape to include key feature trees mixed with native plantings. Understorey shrubs/grasses to include flowering varieties • Species include: <ul style="list-style-type: none"> - Acacia spathulifolia 'Gold Carpet' (S) - Anigozanthos cultivars (G) - Banksia spinulosa 'Birthday Candles' (S) - Callistemon 'Little John' (S) - Carex appressa (G) - Correa reflexa (S) - Corymbia citriodora (T) - Corymbia ficifolia (T) - Corymbia maculata (T) - Dianella caerulea (G) - Dianella longifolia (G) - Dianella revoulta (G) - Eucalyptus cinerea (T) - Eucalyptus leucoxylon 'Euky Dwarf' (T) - Eucalyptus leucoxylon subspecies megalocarpa (T) - Hibbertia scandens (G) - Rhodanthe anthemoides (G) - Themeda triandra (G) - Tristaniopsis laurina (T) - Westringia fruticosa (S) • Street tree spacing requirements: Trees (T) 1 tree/5m² • Retrofitted build outs along Bomen Road: Shrub (S) 1 shrub/5m², Groundcovers (G) 3 groundcover species/1m²

Type	Applies to	Description
Road Treatments – “gabingidyal” (meaning start)		
PREMIER BOULEVARD ‘midhang’	<ul style="list-style-type: none"> Primary roadways / major transport connection throughout the precinct (newly constructed) including Merino Road, Olympic Highway (connections only) and Bomen Road / Olympic Highway connection Bomen Axe Quarry entry and arrival precinct 	<ul style="list-style-type: none"> Double carriageway separated by a landscaped median Canopies to be wide and connect wherever possible High-quality mix of mass native and non-native understorey planting Species for avenue style planting include: <ul style="list-style-type: none"> Clear-trunked feature trees suitable for blossom nomads and Glossy-black Cockatoo foraging: <ul style="list-style-type: none"> Casuarina glauca Corymbia maculata Eucalyptus camaldulensis Eucalyptus cladocalyx Eucalyptus citriodora Eucalyptus sideroxylon Endemic native species aligning to Blakely’s Red Gum – Yellow Box Grassy Tall Woodland community recorded in adjacent areas: <ul style="list-style-type: none"> Eucalyptus blakelyi Eucalyptus melliodora Grass and forb species suitable for understorey planting: <ul style="list-style-type: none"> Carex appressa Cenchrus purpurascens Dianella revoluta var. revoluta Imperata cylindrica Lomandra longifolia Patersonia occidentalis Poa labillardieri Avenue style planting should adopt a planting density of 1 tree every 8m per row based on mature canopy width (average of 9m across all species) to ensure continuous canopy. Rows to consist of 4 to 5 trees. Forb/groundcover species should be planted densely at 9 Forb/groundcover every m². Navigational and artistic signage elements Natural stone walling and steel elements Considers visitor experience and marketing of the precinct Irrigated at key points

Type	Applies to	Description
PREMIER AVENUE 'gulaygan'	<ul style="list-style-type: none"> • Important roadways typically providing connectivity throughout the precinct (newly constructed and existing) and at proposed commercial/activity centre frontages • Can include retrofitted design elements • RiFL Road, Dorset Drive, Bomen Road 	<ul style="list-style-type: none"> • Wide road with landscape areas either side • Tree species and landscape to consider the existing plantings and “up-lift” the streetscape look and feel • Retains good-quality existing landscape and public infrastructure elements in existing streets • New build outs to provide more space for landscaping, amenity and activity in existing streets • High-quality mix of mass native and non-native understorey planting at key locations • Medium sized key feature trees include: <ul style="list-style-type: none"> – <i>Corymbia citriodora</i> – <i>Corymbia ficifolia</i> – <i>Brachychiton populneus</i> – <i>Brachychiton rupestris</i> – <i>Eucalyptus cinerea</i> – <i>Eucalyptus leucoxylon</i> 'Euky Dwarf' – <i>Eucalyptus leucoxylon</i> subspecies <i>megalocarpa</i> – <i>Lophostemon confertus</i> – <i>Stenocarpus sinuatus</i> – <i>Tristaniopsis laurina</i> • Species for understorey planting include: <ul style="list-style-type: none"> – <i>Acacia decora</i> – <i>Acacia spathulifolia</i> 'Gold Carpet' – <i>Anigozanthos</i> cultivars – <i>Banksia spinulosa</i> 'Birthday Candles' – <i>Callistemon</i> 'Little John' – <i>Carex appressa</i> – <i>Correa reflexa</i> – <i>Craspedia variabilis</i> – <i>Enchylaena tomentosa</i> – <i>Geijera salicifolia</i> – <i>Hibbertia scandens</i> – <i>Myoporum parvifolium</i> – <i>Rhodanthe anthemoides</i> – <i>Themeda triandra</i> – <i>Westringia fruticosa</i> • Medium sized tree planting spacing should be 1 tree every 6 m to achieve a continuous canopy without overcrowding for each row. Rows to consist of 2 to 3 new medium-sized trees. Understorey species should be planted at a density of 6 plants for every m². • Medium level of maintenance through use of more native plantings • Navigational signage elements • Natural stone walling and steel elements • Swale and other WSUD elements in build outs • Irrigated at key points only

Type	Applies to	Description
AVENUE ‘bulangumbaay’	<ul style="list-style-type: none"> Roadways throughout the precinct providing alternative connectivity, access and bypass routes including Old Bomen Road, Loop Road and local roads Consider treatment for key large site access 	<ul style="list-style-type: none"> Single row of native trees on either side of the road Drought tolerant under-storey planting endemic to the area requiring minimal maintenance Species include: <ul style="list-style-type: none"> Eucalyptus blakelyi (T) Eucalyptus melliodora (T) Eucalyptus sideroxylon (T) Aristida ramosa (G) Austrostipa bigeniculata (G) Austrostipa scabra subsp. scabra (G) Austrostipa verticillata (G) Chrysocephalum apiculatum (G) Cymbopogon refractus (G) Dianella revoluta var. revoluta (G) Hardenbergia violacea (G) Maireana enchylaenoides (S) Panicum decompositum (G) Panicum effusum (G) Poa sieberiana (G) Rytidosperma caespitosum (G) Rytidosperma setaceum (G) Themeda australis (G) Spacing requirements: Trees (T) 1 tree/10m², Shrub (S) 1 shrub/5m², Groundcovers (G) 6 groundcover species/1m² Non-irrigated (by water truck during establishment) Wayfinding signage only

Type	Applies to	Description
Other typologies		
Green infrastructure corridor	Green corridors shown on Figure 5	<ul style="list-style-type: none"> Species to be planted in green corridors are a continuation of the Blakely's Red Gum – Yellow Box Grassy Tall Woodland species proposed for the Premier Boulevard “midhang” given this area is adjoining and include: <ul style="list-style-type: none"> Acacia paradoxa (S) Acacia decora (S) Acacia rubida (S) Aristida ramosa (G) Atriplex semibaccata (G) Austrostipa bigeniculata (G) Austrostipa scabra subsp. scabra (G) Austrostipa verticillata (G) Bothriochloa macra Callitris glaucophylla (T) Calotis lappulacea (G) Cheilanthes sieberi subsp. sieberi (G) Chrysocephalum apiculatum (G) Craspedia variabilis (G) Cymbopogon refractus (G) Dianella revoluta var. revoluta (G) Dichondra repens (G) Digitaria divaricatissima (G) Dillwynia sericea (S) Enteropogon acicularis (G) Eucalyptus blakelyi (T) Eucalyptus melliodora (T) Geranium solanderi var. solanderi (G) Hardenbergia violacea (G) Indigofera australis (S) Lomandra filiformis subsp. coriacea (G) Lomandra multiflora subsp. multiflora (G) Maireana enchylaenoides (S) Panicum decompositum (G) Panicum effusum (G) Poa sieberiana (G) Rytidosperma caespitosum (G) Rytidosperma setaceum (G) Themeda australis (G) Wahlenbergia communis (G) Xerochrysum viscosum (G) Spacing requirements: Trees (T) 1 tree/10m², Shrub (S) 1 shrub/5m², Groundcovers (G) 6 groundcover species/1m²

Type	Applies to	Description
Corridor greening	<ul style="list-style-type: none"> Corridor greening is proposed for areas identified in Figure 4 which have not already been assigned a revegetation strategy or landscape treatment 	<ul style="list-style-type: none"> Blakely's Red Gum – Yellow Box Grassy Tall Woodland (Box Gum Woodland) community is proposed for revegetation across all vegetation corridors Species lists for Box Gum Woodland are provided in section 3.4.1 Spacing requirements vary across treatment areas from fully vegetated to sparsely vegetated. Grassy woodland spacing has been proposed as the default planting density: Trees (T) 1 tree/10m², Shrub (S) 1 shrub/5m², Groundcovers (G) 6 groundcover species/1m²
Vegetation corridors protection and enhancement	<ul style="list-style-type: none"> Three vegetation corridors have been proposed for biodiversity focused revegetation: <ul style="list-style-type: none"> Olympic Highway in northern section of the SAP Trahairs Road Bomen North of Bavin Road, North Wagga Wagga 	<ul style="list-style-type: none"> Blakely's Red Gum – Yellow Box Grassy Tall Woodland (Box Gum Woodland) community is proposed for revegetation across all vegetation corridors. Species lists for Box Gum Woodland are provided in section 3.4.1 Spacing requirements vary across treatment areas from fully vegetated to sparsely vegetated. Grassy woodland spacing has been proposed as the default planting density: Trees (T) 1 tree/10m², Shrub (S) 1 shrub/5m², Groundcovers (G) 6 groundcover species/1m²
Creek tree planting and rehabilitation	<ul style="list-style-type: none"> Species palates and planting densities have been based on Strahler Order of waterways identified for rehabilitation. Riparian buffers for revegetation have been calculated in general accordance with Table 14 of the Biodiversity Assessment Method 2020 	<ul style="list-style-type: none"> Species palates, densities and riparian buffers have been assigned based on Strahler order. A tributary of Wheel of Fortune Creek in the south-east corner of SAP is Strahler Order 4 and requires a 40m riparian buffer for revegetation on either side of the waterway and River Red Gum Woodland species palate Two unnamed tributaries of Dukes Creek in north-west corner of SAP are Strahler Order 1 and require a 10m riparian buffer for revegetation on either side of waterway and Box Gum Woodland species palate Northern sections of Dukes Creek are Strahler Order 2 and require a 20m riparian buffer for revegetation on either side of waterway and is a transitional area. A combination of Box Gum Woodland and River Red Gum Woodland species are proposed Southern sections of Dukes Creek are Strahler Order 3 and requires a 30m riparian buffer for revegetation on either side of the waterway and River Red Gum Woodland species palate Species lists and planting densities are provided in section 3.4.1

Type	Applies to	Description
Boundary planting revegetation	<ul style="list-style-type: none"> • Windbreak/visual screening 	<ul style="list-style-type: none"> • In Northern Boundary Planting area canopy, subcanopy and shrub species aligning to Blakely's Red Gum – Yellow Box Grassy Tall Woodland community are proposed • Canopy and sub-canopy species include: <ul style="list-style-type: none"> – Eucalyptus albens – Eucalyptus blakelyi – Eucalyptus conica – Eucalyptus melliodora – Eucalyptus microcarpa – Allocasuarina luehmannii – Callitris endlicheri – Callitris glaucophylla • Shrub species include: <ul style="list-style-type: none"> – Acacia dealbata – Acacia deanei – Acacia paradoxa – Acacia decora – Acacia rubida – Cassinia longifolia • Spacing requirements: Canopy and sub-canopy species are 1 plant/3m², Shrubs at 1 shrub/2m² • Dense planting proposed to provide visual screen and windbreak
Revegetation of strategic sites	<ul style="list-style-type: none"> • Biodiversity focused revegetation of sparsely vegetated area near Brucedale Drive, Brucedale 	<ul style="list-style-type: none"> • Endemic species aligning to Blakely's Red Gum – Yellow Box Grassy Tall Woodland (Box Gum Woodland) community • Species lists for Box Gum Woodland are provided in section 3.4.1 • Spacing requirements: Trees (T) 1 tree/20m², Shrub (S) 1 shrub/5m², Groundcovers (G) 6 groundcover species/1m²

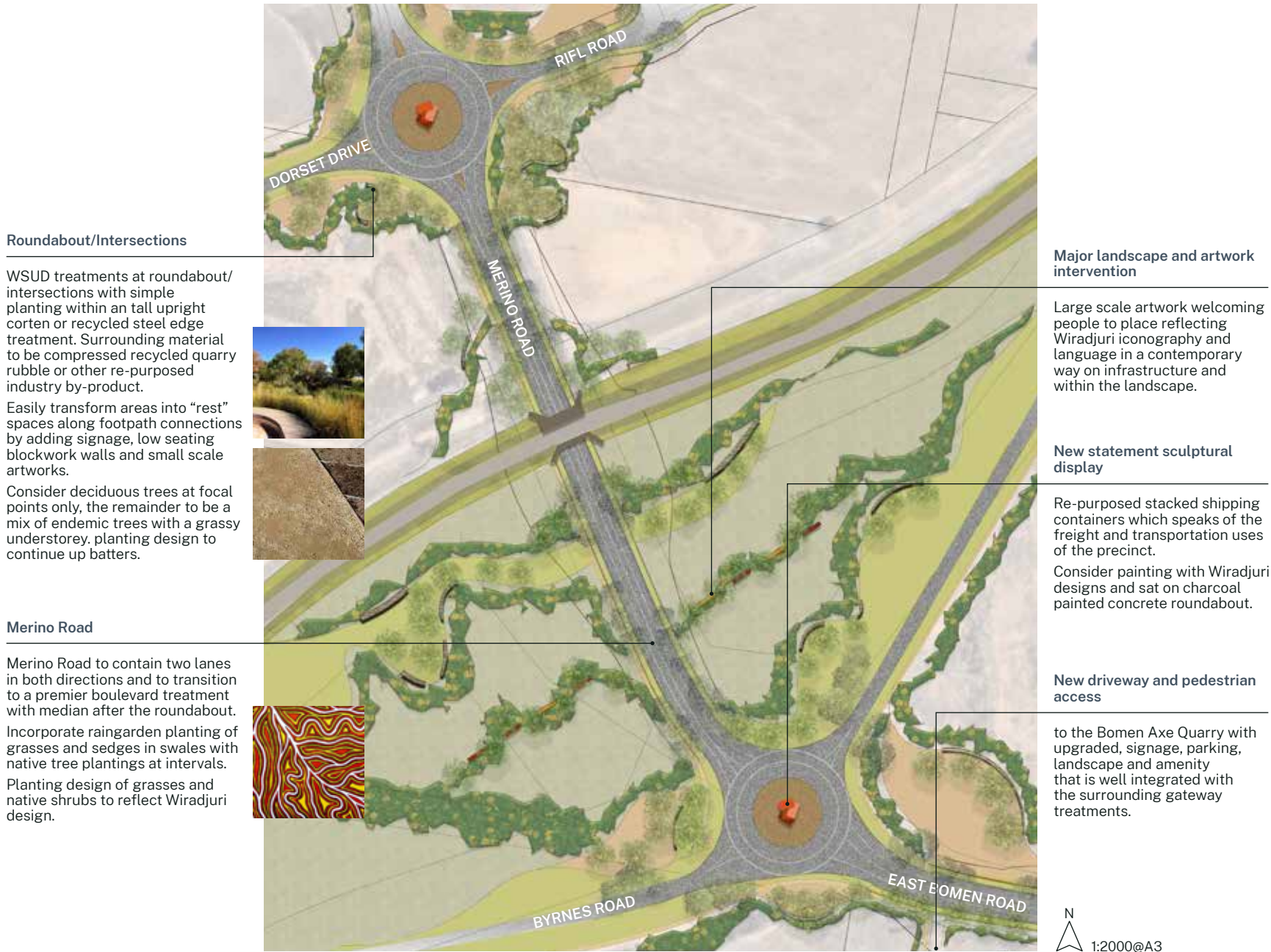
3.3.3 Landscape concept designs

The following section provides landscape concept designs for feature areas and the roads within the precinct.

Premier arrival gateways “midhang”

Premier arrival gateways comprise the primary arrival points into the precinct from major transport routes including Olympic Highway at Merino Road and Bomen Road and Byrnes Road at East Bomen Road. The works and landscape planting should contribute to the arrival experience and be a contemporary reflection of the industry and indigenous culture of the precinct tying into the Bomen Axe Quarry located close by.

Figure 6 Concept design for East Bomen Road/Merino Road entrance precinct



The entry to the precinct from Olympic Highway is designed to be experienced from vehicles (potentially slowing the design speed) at a large scale. Embossed steel planters, scarred timbers and rendered walls among strong groupings of contrasting planting types and colours should be considered.

Wiradjuri language is embedded within the landscape.



Figure 7 Concept design for Olympic Highway and Merino Road Junction



Secondary arrival gateways “gulaygan”

Secondary arrival gateways comprise other key entries to the precinct including Merino Road, Dorset Drive and RiFL Road roundabout and are located at roadways typically providing connectivity throughout the precinct. Merino Road transitions into a Premier Avenue with a median with two lanes of traffic in either direction.

The new roundabout contains low-level planting, compacted recycled rubble and signage.

Figure 8 Concept design for the new Merino Road roundabout

Secondary landscape gateway

Planting in blue / green colours to contrast with the steel and rendered walling.

Medium sized sculptural opportunities at rest / nodal points along pathways.

WSUD treatments at roundabout/ intersections with simple planting within an tall upright corten or recycled steel edge treatment. Surrounding material to be compressed recycled quarry rubble or other re-purposed industry by-product.

Easily transform areas into “rest” spaces along footpath connections by adding signage, low seating blockwork walls and small scale artworks.

Consider deciduous trees at focal points only, the remainder to be a mix of endemic trees with a grassy understorey. planting design to continue up batters.



Wayfinding signage

to be located within roundabout

1:1000@A3 

Tertiary arrival gateways “bulangumbaay”

Tertiary arrival gateways comprise other entries to the precinct including junctions and roundabouts along key roadways, important pedestrian nodes and trail heads and should be considered for entry into individual large key sites and incorporate standard / business specific requirements.

Along Bomen Road retrofitted infrastructure and landscaping will narrow the appearance of the roadway, without changing kerb lines, and improve safety, crossability and amenity for workers and visitors to the precinct.

Figure 9 Concept design for Bomen Road node –retrofitted design elements



Figure 10 Retrofitted build-outs detail

Consider utilising the re-purposed shipping container concept as public seating, kiosk, bike parking/storage spaces at key locations such as this temporary pavilion design

New retrofitted build-outs blow up detail

- To be constructed out of rubber or concrete slotted and upright solid kerbing to provide a WSUD / raingarden function and maintain drainage along the water table.
- Infill stencilled concrete and tgsi's for dda accessibility narrow the roadway (but not the travel lanes) making it easier to cross at this location and lower the design speed.
- New linemarking and painted bike lanes further narrow the appearance of bomen road.
- Raingarden planting to add amenity including eucalypt species and is passively irrigated.
- The node “address” is elevated through these techniques.



Premier boulevards “midhang”

Premier boulevards comprise primary roadways / major transport connections throughout the precinct including Merino Road, Olympic Highway (connections only) and Bomen Road / Olympic Highway connection, as well as the Bomen Axe Quarry entry and arrival precinct.

Merino Road is intended to transition to a premier boulevard treatment, south of the Loop Road roundabout.

Planting within the swales/median should also assist in alleviating any level differences.

Figure 11 Concept design for Merino Drive



Premier avenue “gulaygan”

Premier avenues comprise important roadways typically providing connectivity throughout the precinct (newly constructed and existing) and at proposed commercial node frontages and include RiFL Road, Dorset Drive, Bomen Road.

Figure 12 Concept design for Bomen Road –retrofitted design elements



Avenue “bulangumbaay”

Avenues comprise roadways throughout the precinct providing alternative connectivity, access and bypass routes including Old Bomen Road, Loop Road and local roads.

Medium quality design treatment (not for the entire length of the road) is punctuated with grass surface for greening and locally sourced compacted quarry rubble.

This type of roadway should provide a shared use path on one side of the road with a single row of shade-providing native trees on either side of the road. Planting beds underneath groupings of trees comprise drought tolerant under-storey planting with minimal maintenance will reflect a more naturally occurring environment.

Figure 13 Concept design for the Loop Road

Drought tolerant under-storey planting is low maintenance and doesn't require irrigation.
Wayfinding signage only with minimal furniture and artwork.



N
1:1000@A3

Corridor greening

Trahairs Road

Trahairs Road contains big trees and is one of the most intact vegetation corridors in the Precinct. Preserving this vegetation is important for biodiversity, visual screening and place making.

Figure 14 Trahairs Road –a wide green corridor in this location is an important structural element



Figure 15 Location plan



Green infrastructure spine

A 50m green infrastructure corridor running north-south includes an enhanced treed corridor. Indicative corridor alignment shown on Figure 5.

Figure 16 A multi-functional corridor and local cross section



Figure 17 Location plan



3.4 Planting palates

Species planting palates are provided in this section for biodiversity-focused revegetation and landscaping.

The list includes a number of species that are reflective of the existing natural environment in the precinct as well as climate ready species.

Each type of planting is described in detailed below.

3.4.1 Biodiversity focused revegetation

Biodiversity-focused revegetation planting includes revegetation of strategic sites, corridor greening, rehabilitation of riparian corridors and vegetation corridors protection and enhancements.

Species lists have been tailored to two biodiversity targets:

1. River Red Gum Forested Wetland
2. Box Gum Woodland.

1 River Red Gum Forested Wetland planting is proposed for riparian areas as determined by riparian revegetation buffers and Strahler order (see table on the following page). Species lists have been determined based off aligning Plant Community Types (PCTs) recorded within the study area (being PCT 9 River Red Gum –wallaby grass tall woodland wetland on the outer River Red Gum zone mainly in the Riverina Bioregion) as well as PCTs which align to River Red Gum Forested Wetland which were not recorded however known to occur locally.



2 Box Gum Woodland planting is proposed for majority of the site including non-riparian areas and high order tributaries. At a landscape scale, the Wagga SAP study area is highly modified with less than five per cent of the site supporting native vegetation (WSP, 2020). As such, a conglomerate species palate is proposed to encompass Plant Community Types which align to the Threatened Ecological Community, White Box Yellow Box Blakely's Red Gum Woodland (Box Gum Woodland).



Species included were either recorded during field surveys or known to occur in PCT 267, 277, 312 and/or 347 or are species known to occur in Box Gum Woodland and derived native grasslands (Department of the Environment and Heritage, 2006) and are locally endemic to the Wagga Wagga area.

Planting densities for each biodiversity target have been determined based off benchmarks for each PCT, vegetation formation and average survival rate of plantings (being approximately 80 per cent).

For transitional areas, a combination of species and average of planting densities for each biodiversity target is proposed.

Planting densities

Strahler order	Riparian revegetation buffer	Biodiversity target	Planting requirements
1	10	Box Gum Woodland	Trees: 1 tree/10m ² Shrub: 1 shrub/5m ² Grasses/sedges/forbs: 6 groundcover species/1m ²
2	20	River Red Gum / Box Gum Woodland	Trees: 1 tree/10m ² Shrub: 1 shrub/5m ² Grasses/sedges/forbs: 6 groundcover species/1m ²
3	30	River Red Gum	Trees: 1 tree/20m ² Shrub: 1 shrub/10m ² Grasses/sedges/forbs: 10 groundcover species/1m ²
4	40	River Red Gum	Trees: 1 tree/20m ² Shrub: 1 shrub/10m ² Grasses/sedges/forbs: 10 groundcover species/1m ²
5	50	River Red Gum	Trees: 1 tree/20m ² Shrub: 1 shrub/10m ² Grasses/sedges/forbs: 10 groundcover species/1m ²

Shrubs



Acacia delbata
'Silver Wattle'



Acacia paradoxa
'Kangaroo Thorn'



Maireana enchylaenoides
'Wingless Bluebush'



Cassinia longifolia

Species lists

Form	Scientific name	Common name
River Red Gum		
Trees	<i>Eucalyptus camaldulensis</i> subsp. <i>camaldulensis</i>	River Redgum
Shrubs	<i>Acacia delbata</i>	Silver Wattle
Shrubs	<i>Exocarpus strictus</i>	Dwarf Cherry
Grasses/sedges/forbs	<i>Alternanthera nana</i>	Hairy Joyweed
Grasses/sedges/forbs	<i>Anthosachne scabra</i> var. <i>scaber</i>	Wheat Grass
Grasses/sedges/forbs	<i>Bothriochloa macra</i>	Redlegs
Grasses/sedges/forbs	<i>Carex inversa</i>	-
Grasses/sedges/forbs	<i>Carex tereticaulis</i>	-
Grasses/sedges/forbs	<i>Cynodon dactylon</i>	Couch
Grasses/sedges/forbs	<i>Dichondra repens</i>	Kidney Weed
Grasses/sedges/forbs	<i>Einadia nutans</i> subsp. <i>nutans</i>	Climbing Saltbush
Grasses/sedges/forbs	<i>Haloragis aspera</i>	Rough raspwort
Grasses/sedges/forbs	<i>Hemarthria uncinata</i>	Mat Grass
Grasses/sedges/forbs	<i>Juncus flavidus</i>	-
Grasses/sedges/forbs	<i>Lachnagrostis filiformis</i>	-
Grasses/sedges/forbs	<i>Marsilea drummondii</i>	-
Grasses/sedges/forbs	<i>Oxalis perennans</i>	-
Grasses/sedges/forbs	<i>Panicum decompositum</i>	Native Millet
Grasses/sedges/forbs	<i>Persicaria prostrata</i>	Creeping Knotweed
Grasses/sedges/forbs	<i>Poa labillardierei</i> var. <i>labillardierei</i>	Tussock
Grasses/sedges/forbs	<i>Pratia concolor</i>	Poison Pratia
Grasses/sedges/forbs	<i>Rumex brownii</i>	swamp Dock
Grasses/sedges/forbs	<i>Rytidosperma caespitosum</i>	Ringed Wallaby Grass
Grasses/sedges/forbs	<i>Rytidosperma duttonianum</i>	A Wallaby Grass
Grasses/sedges/forbs	<i>Senecio cunninghamii</i> var. <i>cunninghamii</i>	Bushy Groundsel
Grasses/sedges/forbs	<i>Vittadinia gracilis</i>	Woolly New Holland Daisy
Grasses/sedges/forbs	<i>Wahlenbergia fluminalis</i>	River Bluebell

Form	Scientific name	Common name
Box Gum Woodland / River Red Gum transitional areas		
Trees	<i>Eucalyptus blakelyi</i>	Blakely's Red Gum
Trees	<i>Eucalyptus camaldulensis</i> subsp. <i>camaldulensis</i>	River Redgum
Trees	<i>Eucalyptus melliodora</i>	Yellow Box
Sub-canopy	<i>Allocasuarina luehmannii</i>	Bulloak
Sub-canopy	<i>Callitris endlicheri</i>	Black Cypress Pine
Sub-canopy	<i>Callitris glaucophylla</i>	White Cypress Pine
Shrub	<i>Acacia dealbata</i>	Silver Wattle
Shrub	<i>Acacia deanei</i>	Green Wattle
Shrub	<i>Acacia paradoxa</i>	Kangaroo Thorn
Shrub	<i>Acacia decora</i>	Western Silver Wattle
Shrub	<i>Acacia rubida</i>	Red-stemmed Wattle
Shrub	<i>Exocarpus strictus</i>	Dwarf Cherry
Shrub	<i>Maireana enchylaenoides</i>	Wingless Bluebush
Grasses/sedges/forbs	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
Grasses/sedges/forbs	<i>Alternanthera nana</i>	Hairy Joyweed
Grasses/sedges/forbs	<i>Anthosachne scabra</i> var. <i>scaber</i>	Wheat Grass
Grasses/sedges/forbs	<i>Aristida behriana</i>	Bunch Wiregrass
Grasses/sedges/forbs	<i>Aristida ramosa</i>	Purple Wiregrass
Grasses/sedges/forbs	<i>Atriplex semibaccata</i>	Berry Saltbush
Grasses/sedges/forbs	<i>Austrostipa bigeniculata</i>	-
Grasses/sedges/forbs	<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Speargrass
Grasses/sedges/forbs	<i>Austrostipa verticillata</i>	Slender Bamboo Grass
Grasses/sedges/forbs	<i>Bothriochloa macra</i>	Redlegs
Grasses/sedges/forbs	<i>Bulbine bulbosa</i>	Native Leek
Grasses/sedges/forbs	<i>Calotis lappulacea</i>	Yellow Burr-daisy
Grasses/sedges/forbs	<i>Calotis scabiosifolia</i> var. <i>scabiosifolia</i>	Rough Burr-daisy
Grasses/sedges/forbs	<i>Carex inversa</i>	-
Grasses/sedges/forbs	<i>Carex tereticaulis</i>	-

Form	Scientific name	Common name
Box Gum Woodland / River Red Gum transitional areas (continued)		
Grasses/sedges/forbs	<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>	Rock Fern
Grasses/sedges/forbs	<i>Chloris truncata</i>	Windmill Grass
Grasses/sedges/forbs	<i>Chrysocephalum apiculatum</i>	Everlasting
Grasses/sedges/forbs	<i>Convolvulus graminetinus</i>	Bindweed
Grasses/sedges/forbs	<i>Craspedia variabilis</i>	Common billy buttons
Grasses/sedges/forbs	<i>Cymbopogon refractus</i>	Barbed Wire grass
Grasses/sedges/forbs	<i>Cynodon dactylon</i>	Couch
Grasses/sedges/forbs	<i>Dianella revoluta</i> var. <i>revoluta</i>	Flax-lily
Grasses/sedges/forbs	<i>Dichondra repens</i>	Kidney Weed
Grasses/sedges/forbs	<i>Digitaria divaricatissima</i>	Umbrella Grass
Grasses/sedges/forbs	<i>Dillwynia sericea</i>	Showy Parrot-pea
Grasses/sedges/forbs	<i>Einadia nutans</i> subsp. <i>nutans</i>	Climbing Saltbush
Grasses/sedges/forbs	<i>Elymus scaber</i>	Wheatgrass
Grasses/sedges/forbs	<i>Geranium solanderi</i> var. <i>solanderi</i>	Native Geranium
Grasses/sedges/forbs	<i>Grona varians</i>	Slender Tick-trefoil
Grasses/sedges/forbs	<i>Haloragis aspera</i>	Rough Raspwort
Grasses/sedges/forbs	<i>Hardenbergia violacea</i>	Native Sarsparilla
Grasses/sedges/forbs	<i>Hemarthria uncinata</i>	Mat Grass
Grasses/sedges/forbs	<i>Juncus flavidus</i>	-
Grasses/sedges/forbs	<i>Lachnagrostis filiformis</i>	-
Grasses/sedges/forbs	<i>Marsilea drummondii</i>	-
Grasses/sedges/forbs	<i>Oxalis perennans</i>	-
Grasses/sedges/forbs	<i>Panicum decompositum</i>	Native Millet
Grasses/sedges/forbs	<i>Panicum effusum</i>	Hairy Panic
Grasses/sedges/forbs	<i>Persicaria prostrata</i>	Creeping Knotweed
Grasses/sedges/forbs	<i>Poa labillardierei</i> var. <i>labillardierei</i>	Tussock
Grasses/sedges/forbs	<i>Poa sieberiana</i>	Snow Grass
Grasses/sedges/forbs	<i>Pratia concolor</i>	Poison Pratia
Grasses/sedges/forbs	<i>Rumex brownii</i>	Swamp Dock
Grasses/sedges/forbs	<i>Rytidosperma caespitosum</i>	Ringed Wallaby Grass

Form	Scientific name	Common name
Box Gum Woodland / River Red Gum transitional areas (continued)		
Grasses/sedges/forbs	<i>Rytidosperma duttonianum</i>	A Wallaby Grass
Grasses/sedges/forbs	<i>Rytidosperma setaceum</i>	Smallflower Wallaby Grass
Grasses/sedges/forbs	<i>Rytidosperma auriculatum</i>	Lobed Wallaby Grass
Grasses/sedges/forbs	<i>Salsola australis</i>	-
Grasses/sedges/forbs	<i>Senecio cunninghamii</i> var. <i>cunninghamii</i>	Bushy Groundsel
Grasses/sedges/forbs	<i>Themeda australis</i>	Kangaroo Grass
Grasses/sedges/forbs	<i>Vittadinia cuneata</i>	Fuzzweed
Grasses/sedges/forbs	<i>Vittadinia gracilis</i>	Woolly New Holland Daisy
Grasses/sedges/forbs	<i>Wahlenbergia communis</i>	Tufted Bluebell
Grasses/sedges/forbs	<i>Wahlenbergia fluminalis</i>	River Bluebell
Grasses/sedges/forbs	<i>Wahlenbergia luteola</i>	-
Grasses/sedges/forbs	<i>Xerochrysum viscosum</i>	Sticky Everlasting

Grasses/sedges/forbs



Austroanthonia spp.
'Wallaby Grass'



Austrostipa scabra
'Speargrass'



Themeda australis
'Kangaroo Grass'



Cynodon dactylon
'Couch'

Form	Scientific name	Common name
Box Gum Woodland		
Trees	<i>Eucalyptus albens</i>	White Box
Trees	<i>Eucalyptus blakelyi</i>	Blakely's Red Gum
Trees	<i>Eucalyptus conica</i>	Fuzzy Box
Trees	<i>Eucalyptus melliodora</i>	Yellow Box
Trees	<i>Eucalyptus microcarpa</i>	Grey Box
Trees	<i>Eucalyptus sideroxylon</i>	Mugga Ironbark
Sub-canopy	<i>Allocasuarina luehmannii</i>	Bulloak
Sub-canopy	<i>Callitris endlicheri</i>	Black Cypress Pine
Sub-canopy	<i>Callitris glaucophylla</i>	White Cypress Pine
Shrub	<i>Acacia dealbata</i>	Silver Wattle
Shrub	<i>Acacia deanei</i>	Green Wattle
Shrub	<i>Acacia paradoxa</i>	Kangaroo Thorn
Shrub	<i>Acacia decora</i>	Western Silver Wattle



Acaena novae-zelandiae
'Bidgee-widgee'



Dianella revoulta
'Flax Lily'



Oxalis perannas



Bulbine bulbosa
'Native leek'

Form	Scientific name	Common name
Box Gum Woodland (continued)		
Shrub	<i>Acacia rubida</i>	Red-stemmed Wattle
Shrub	<i>Cassinia longifolia</i>	-
Shrub	<i>Hibbertia obtusifolia</i>	Hoary Guinea Flower
Shrub	<i>Maireana enchylaenoides</i>	Wingless Bluebush
Grasses/sedges/forbs	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
Grasses/sedges/forbs	<i>Alternanthera nana</i>	Hairy Joyweed
Grasses/sedges/forbs	<i>Aristida behriana</i>	Bunch Wiregrass
Grasses/sedges/forbs	<i>Aristida ramosa</i>	Purple Wiregrass
Grasses/sedges/forbs	<i>Atriplex semibaccata</i>	Berry Saltbush
Grasses/sedges/forbs	<i>Austrostipa bigeniculata</i>	-
Grasses/sedges/forbs	<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Speargrass
Grasses/sedges/forbs	<i>Austrostipa verticillata</i>	Slender Bamboo Grass
Grasses/sedges/forbs	<i>Bothriochloa macra</i>	Redlegs
Grasses/sedges/forbs	<i>Bulbine bulbosa</i>	Native Leek
Grasses/sedges/forbs	<i>Calotis lappulacea</i>	Yellow Burr-daisy
Grasses/sedges/forbs	<i>Calotis scabiosifolia</i> var. <i>scabiosifolia</i>	Rough Burr-daisy
Grasses/sedges/forbs	<i>Carex inversa</i>	-
Grasses/sedges/forbs	<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>	Rock Fern
Grasses/sedges/forbs	<i>Cheilanthes austrotenuifolia</i>	Rock Fern
Grasses/sedges/forbs	<i>Chloris truncata</i>	Windmill Grass
Grasses/sedges/forbs	<i>Chrysocephalum apiculatum</i>	Everlasting
Grasses/sedges/forbs	<i>Convolvulus graminetinus</i>	Bindweed
Grasses/sedges/forbs	<i>Craspedia variabilis</i>	Common billy buttons
Grasses/sedges/forbs	<i>Cymbopogon refractus</i>	Barbed Wire grass
Grasses/sedges/forbs	<i>Dianella revoluta</i> var. <i>revoluta</i>	Flax-lily
Grasses/sedges/forbs	<i>Dichelachne micrantha</i>	Shorthair Plumegrass
Grasses/sedges/forbs	<i>Dichondra repens</i>	Kidney Weed
Grasses/sedges/forbs	<i>Digitaria divaricatissima</i>	Umbrella Grass
Grasses/sedges/forbs	<i>Dillwynia sericea</i>	Showy Parrot-pea
Grasses/sedges/forbs	<i>Elymus scaber</i>	Wheatgrass
Grasses/sedges/forbs	<i>Geranium solanderi</i> var. <i>solanderi</i>	Native Geranium

Form	Scientific name	Common name
Box Gum Woodland (continued)		
Grasses/sedges/forbs	Grona varians	Slender Tick-trefoil
Grasses/sedges/forbs	Hardenbergia violacea	Native Sarsparilla
Grasses/sedges/forbs	Lomandra filiformis subsp. coriacea	-
Grasses/sedges/forbs	Microlaena stipoides var. stipoides	Weeping Lovegrass
Grasses/sedges/forbs	Oxytes brachypoda	Large Tick-trefoil
Grasses/sedges/forbs	Panicum decompositum	Native Millet
Grasses/sedges/forbs	Panicum effusum	Hairy Panic
Grasses/sedges/forbs	Poa sieberiana	Snow Grass
Grasses/sedges/forbs	Rumex brownii	Swamp Dock
Grasses/sedges/forbs	Rytidosperma caespitosum	Ringed Wallaby Grass
Grasses/sedges/forbs	Rytidosperma setaceum	Smallflower Wallaby Grass
Grasses/sedges/forbs	Rytidosperma auriculatum	Lobed Wallaby Grass
Grasses/sedges/forbs	Rytidosperma racemosum	-
Grasses/sedges/forbs	Salsola australis	-
Grasses/sedges/forbs	Senecio bathurstianus	-
Grasses/sedges/forbs	Senecio quadridentatus	Cotton Fireweed
Grasses/sedges/forbs	Themeda australis	Kangaroo Grass
Grasses/sedges/forbs	Vittadinia cuneata	Fuzzweed
Grasses/sedges/forbs	Vittadinia gracilis	Woolly New Holland Daisy
Grasses/sedges/forbs	Wahlenbergia communis	Tufted Bluebell
Grasses/sedges/forbs	Wahlenbergia luteola	-
Grasses/sedges/forbs	Wurmbea dioica subsp. dioica	Early Nancy
Grasses/sedges/forbs	Xerochrysum viscosum	Sticky Everlasting

3.4.2 Landscape planting

Landscaped areas create a distinctive, memorable experience for users.

The formal plant palette includes a number of species that are reflective of the natural Wagga Wagga area and applies to:

- formal entry thresholds
- street interfaces
- car parks
- other small open space areas for visitors and staff within developments.

The following table outlines the preferred plant species to be used within formal planting areas within the precinct.



01 Blackwood trees
02 Red-flowing Gum



03



04



05



06



07



08



09



10



11

- 03 Native Frangipani
- 04 Bottle Tree
- 05 Jacaranda
- 06 Crepe Myrtle
- 07 Coastal Rosemary
- 08 Kangaroo Paws
- 09 Blue Flax Lily
- 10 Ruby Salt-bush
- 11 Lily Turf



Landscaping in
Wagga Wagga town

Form	Scientific name	Common name	Minimum size
Trees	<i>Acacia melanoxylon</i>	Blackwood	100L
Trees	<i>Brachychiton populneus</i>	Kurrajong	100L
Trees	<i>Brachychiton rupestris</i>	Bottle Tree	100L
Trees	<i>Corymbia ficifolia</i>	Red-flowering Gum	100L
Trees	<i>Eucalyptus camaldulensis</i>	River Red Gum	100L
Trees	<i>Eucalyptus leucoxylon</i> 'Euky Dwarf'	Euky Dwarf	100L
Trees	<i>Eucalyptus sideroxylon</i>	Mugga Ironbark	100L
Trees	<i>Fraxinus angustifolia</i> 'Raywoodi'	Claret Ash	100L
Trees	<i>Geijera salicifolia</i>	Wilga	100L
Trees	<i>Hymenosporum flavum</i>	Native Frangipani	100L
Trees	<i>Jacaranda mimosifolia</i>	Jacaranda	100L
Trees	<i>Koelreuteria paniculata</i>	Golden-rain Tree	100L
Trees	<i>Lagerstroemia</i> Indian Summer 'Natchez'	Crepe Myrtle	100L
Trees	<i>Lagerstroemia indica</i>	Crepe Myrtle	100L
Trees	<i>Pyrus calleryana</i> 'Aristocrat'	Aristocrat Pear	100L
Trees	<i>Pyrus ussuriensis</i>	Manchurian Pear	100L
Trees	<i>Tristanopsis laurina</i>	Water Gum	100L
Shrubs	<i>Acacia pycnantha</i>	Golden Wattle	200mm
Shrubs	<i>Brachycome multifida</i>	Cut-leaf Daisy	200mm
Shrubs	<i>Callistemon citrinus</i>	Crimson Bottlebrush	200mm

Form	Scientific name	Common name	Minimum size
Shrubs	<i>Callistemon 'Little John'</i>	Dwarf Bottlebrush	200mm
Shrubs	<i>Callistemon sieberi</i>	River Bottlebrush	200mm
Shrubs	<i>Enchylaena tomentosa</i>	Ruby Saltbush	200mm
Shrubs	<i>Eremophila nivea</i>	Silky Eremophila	200mm
Shrubs	<i>Buxus sempervirens</i>	English Box	200mm
Shrubs	<i>Westringia fruticosa</i>	Coast Rosemary	200mm
Grasses/sedges/forbs	<i>Anigozanthos cultivars</i>	Kangaroo Paws	200mm
Grasses/sedges/forbs	<i>Dianella caerulea</i>	Blue Flax Lily	200mm
Grasses/sedges/forbs	<i>Dianella longifolia</i>	Smooth Flax Lily	200mm
Grasses/sedges/forbs	<i>Dianella revoulta</i>	Flax Lily	200mm
Grasses/sedges/forbs	<i>Grevillea juniperina</i>	Juniper Grevillea	200mm
Grasses/sedges/forbs	<i>Grevillea rosmarinifolia</i>	Rosemary Grevillea	200mm
Grasses/sedges/forbs	<i>Hardenbergia violacea</i>	Happy Wanderer	200mm
Grasses/sedges/forbs	<i>Liriope muscari</i>	Lily Turf	200mm
Grasses/sedges/forbs	<i>Lomandra longifolia</i>	Lomandra	200mm
Grasses/sedges/forbs	<i>Myoporum parvifolium</i>	Creeping Boobialla	200mm
Grasses/sedges/forbs	<i>Themeda triandra</i>	Kangaroo Grass	200mm
Lawns	<i>Cynodon dactylon</i>	Couch Grass	Roll out or seeded
Lawns	<i>Pennisetum clandestinum</i>	Kikuyu Grass	Roll out or seeded
Lawns	<i>Stenotaphrum secundatum</i>	Buffalo Grass	Roll out or seeded

References

Department of the Environment and Heritage (2006) White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland Ecological Community Species List, Available: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and derived native grassland ecological community species list (awe.gov.au)

Department of the Environment and Heritage (2006a) White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grasslands, Available: White box-yellow box -Blakely's red gum grassy woodlands and derived native grasslands -DAWE

NSW Department of Planning and Environment (2020) WAGGA WAGGA Special Activation Precinct-Biodiversity Development Assessment Report Stage 1 Rev E, prepared by WSP

4

Infrastructure



Aerial of Bomen
Courtesy of Matt Beaver Photography

4



This section provides an overview of the precinct enabling infrastructure and the principles for planning and designing infrastructure for a proposed development.

It applies to infrastructure projects, subdivisions and development.

- 4.1 Precinct enabling infrastructure
- 4.2 Infrastructure design principles

Timely planning and delivery of infrastructure is essential in supporting development and facilitating growth of businesses within the precinct.

Chapter 4 outlines the obligations and considerations for the planning, designing and delivering infrastructure within the precinct. It identifies the:

4.1 Precinct enabling infrastructure

which provides an overview of the regional infrastructure facilitating development within the precinct.

A high-level overview of the precinct enabling infrastructure is provided based on the reference design. This may change as part of the detailed investigations. For example, the exact location of the infrastructure may vary depending on site characteristics.

4.2 Infrastructure design principles

which provides the principles for planning and designing infrastructure projects, subdivisions and development.

This section should also be read in conjunction with other national, state and local regulatory standards and guidelines, for a complete picture of the requirements to successfully deliver infrastructure within the precinct.

4.1 Precinct enabling infrastructure

The staging and delivery of infrastructure across the precinct will be flexible and responsive to the timing of growth and land take up. The corporation is delivering infrastructure for the precinct to create opportunities within the Regional Enterprise Zone, with consideration given to future proofing the precinct.

Regional infrastructure typically services the precinct as a whole and extends across all or part of the precinct. It will typically be planned and coordinated by the corporation and delivered either by the corporation, utility providers or State agencies, or as a joint venture with private landowners or developers.

This form of infrastructure is likely to include:

- **main road upgrades** and new transport infrastructure, roundabouts, intersections, street lighting and other civil structures as required
- **development of a trunk utility corridor**
- **utilities** including water, recycled water, sewerage and optic fibre along main roads and within the trunk utility corridor
- **energy** generation plants
- **precinct wide stormwater detention basins** and water quality treatment devices that form part of the broader catchment network
- **gas and hydrogen transmission** and distribution network along main roads and within the trunk utility corridor
- **public green corridors and trails**
- **active and public transport.**

4.1.1 Enabling works

In general, new infrastructure should expand from the existing assets. As such, development across the precinct will stem from Bomen Business Park in the southern region initially and expand towards the north.

The corporation will ensure the enabling works are planned, designed and constructed in accordance with relevant standards from federal, state, and local authorities and service providers.



The corporation will deliver the following infrastructure:

- upgrades to Merino Road
- new internal road from the new Merino Road roundabout to Dorset Drive
- new internal road from the new Merino Road roundabout to RIFL Road
- upgrade to the existing Olympic Highway intersection with Bomen Road
- new street lighting at new or upgraded intersections, along Merino Road and RIFL Road
- shared user path and landscaping upgrades along some existing roads
- a 10 metre wide trunk utilities corridor for improved access to utility, future business-to-business connections and to enable circular economies
- upgrade the existing Sewage Treatment Facility recycled water network
- new potable water network to be integrated with upgraded existing water mains, pump stations and reservoirs
- new sewerage system including network and pump stations to the upgraded existing sewage mains and pump stations
- new advanced recycled treatment to convert treated effluent to Class A recycled water
- new water recycling reticulation network for the precinct, tie in with potable water network for top-up
- new stormwater detention basins, bioretention basins, overland flow swales and transverse culverts to manage overland flows
- expansion of the existing gas network
- two new 11 Kilovolt underground distribution feeders from Essential Energy Bomen Zone substation into the precinct
- spare underground electrical conduits to allow for further 11 Kilovolt distribution feeders to be added in future
- telecommunication conduits to allow for a future optic fibre network to be installed and future data centre hub.

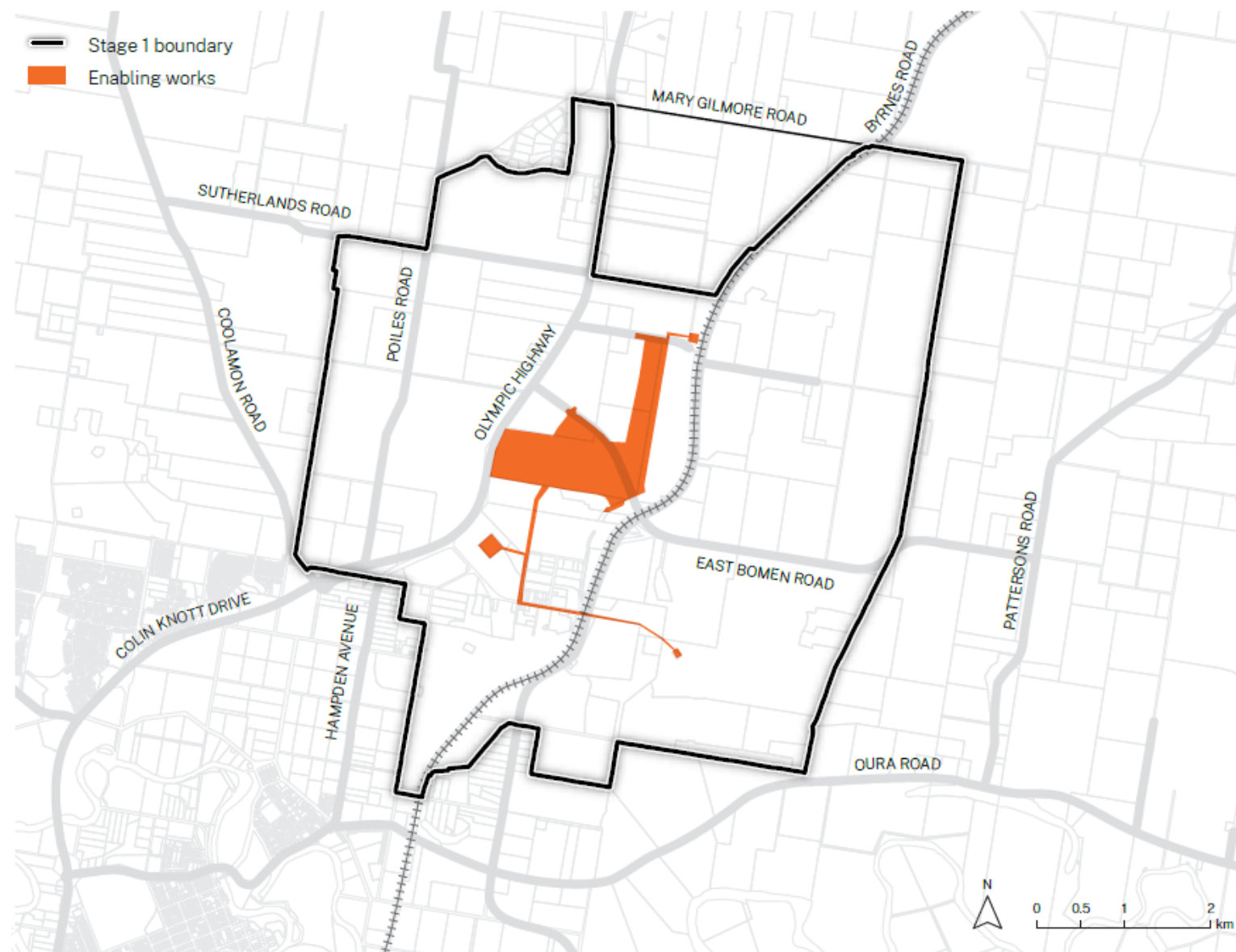
4.1.2 Infrastructure in advance of enabling works

The precinct will respond to emerging needs and demands. Proposals for out-of-sequence development may be considered if it appropriately contributes to infrastructure investment.

Variations may be considered where there is demand for a proposal and the delivery is possible in terms of:

- capacity of the network and branch infrastructure
- cost effectiveness of delivering other enabling infrastructure needed to support the out-of-sequence development
- ability and willingness of parties to contribute to the cost of the infrastructure.

Figure 17 Enabling works



4.2 Infrastructure design principles



Precinct design principles will guide planning projects, subdivisions and development across the precinct.

Local infrastructure specifically suits a single development, allotment or subdivision and includes:

- roads required to service new development, including new road connections and property access driveways
- water supply including works to connect to the precinct stormwater systems
- on site stormwater detention
- stormwater management to be provided within a site including works to connect to the precinct stormwater systems (up to and including 1% AEP flows)
- electricity supply including internal and external works to connect to the precinct infrastructure
- telecommunications including internal and external works to connect to the precinct networks

- wastewater networks including internal and external works to connect to the precinct infrastructure
- potable water and recycled water networks including internal and external works to connect to the precinct infrastructure
- gas and/or hydrogen pipelines that connect a development into the precinct network.

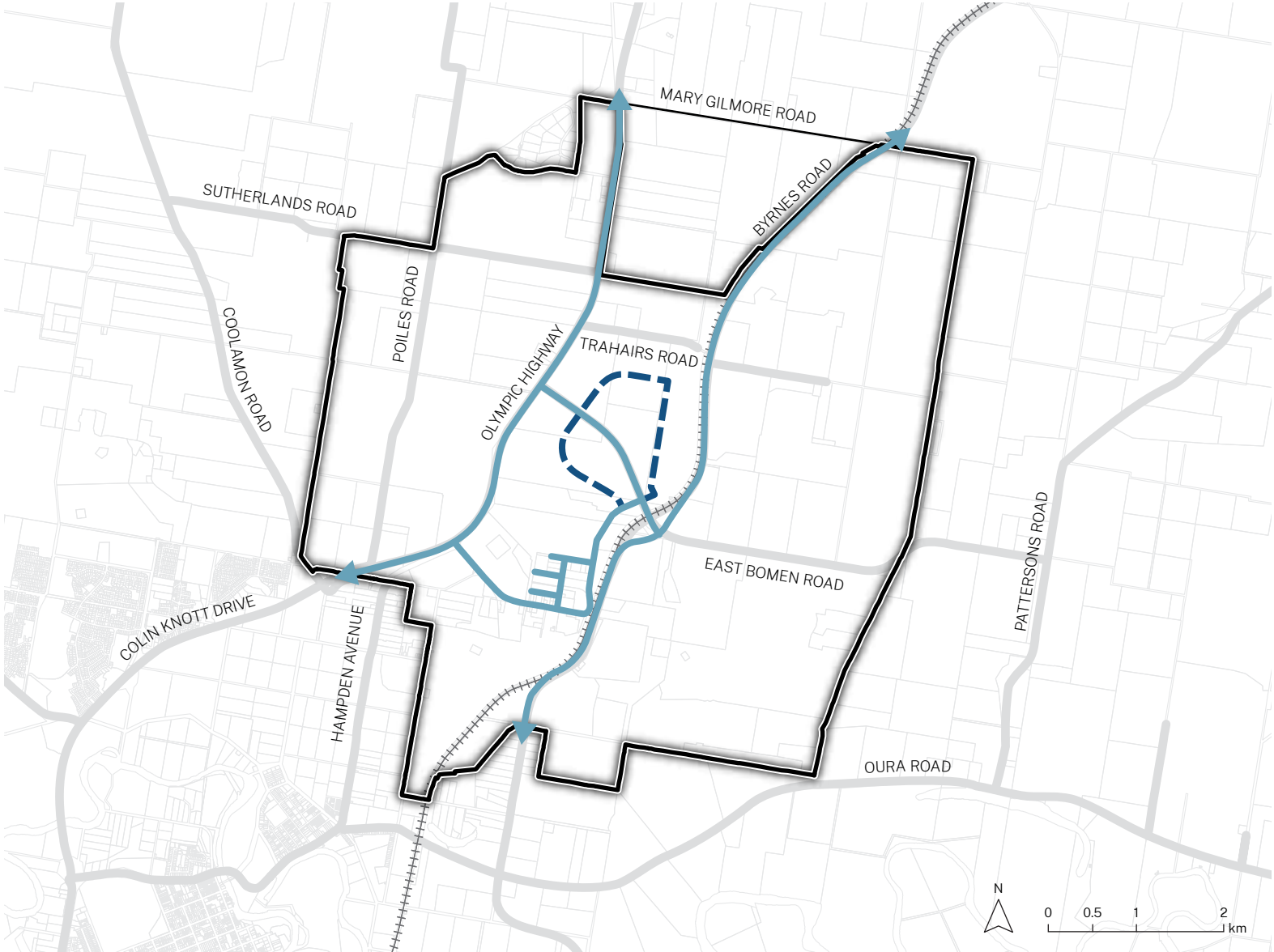
The design of infrastructure within the precinct will be based on the following principles.

4.2.1 Roads

- accommodate a B-Triple/A-Double design vehicle
- roundabouts are to be mountable where required
- cul-de-sacs and temporary turning heads allow continuous turning of heavy vehicles without the need for multi-point movements
- road levels set equal to or above the 1% Annual Exceedance Probability (AEP) overland flooding
- pavement design takes into consideration the high centripetal axle loads expected due to large truck turning movements
- all rail crossings are to be grade separated with bridges across the rail line to allow for double-stacking of containers and meet safety requirements as well as those of ARTC
- make use of recycled materials as part of the new pavement profile for either road subbase or on the shared use path
- works on classified roads are generally limited to intersection upgrades and landscape treatments. These works are to be undertaken in consultation with Transport for NSW (TfNSW)
- street networks consider the NSW Heavy Vehicle Access Policy Framework
- preferred truck routes include Merino Road, Dorset Drive, Bomen Road, Internal Roads A and B and RIFL Road, as shown in Figure 18.

Figure 18 Heavy truck routes

- Stage 1 boundary
- Existing heavy vehicle route
- New heavy vehicle route



The following table provides the road standards for existing roads and roads to be upgraded as part of the enabling regional infrastructure within the precinct.

Name	Road type	Road classification	Target design speed (km/h)	Number of lanes	Minimum widths (m)			Shared user path width	Kerb type
					Road reserve	Carriageway (Including shoulder)	Verge (typical)		
Bomen Road	Premier Boulevard	Collector	60	2 lanes	30	20	5m, 5m	2.5m both sides	Barrier
	Premier Avenue	Collector	60	2 lanes	30	20	5m, 5m	3m LHS	Barrier
Old Bomen Road	Avenue	Local	60	2 lanes	29	13	10m, 6m	2.5m LHS	Barrier
Merino Road	Premier Boulevard	Distributor	70	Dual carriageway with 4 lanes	54.3	23	16.9m, 7.5m	3m LHS, 2.5m RHS	N/A
	Premier Avenue	Distributor	70	4 lanes	38.5	17	16.9m, 4.6m	3m LHS	N/A
Rifl Road	Premier Avenue	Collector	60	2 lanes	35	15	10m, 8m	1.5m RHS	Barrier
Dorset Drive	Premier Avenue	Collector	60	2 lanes	29	13	10m, 6m	2.5m LHS	Barrier
Loop Road (Internal Roads A & B)	Avenue	Local Collector	70	2 lanes	29	13	10m, 6m	2.5m LHS	Barrier

The following table details the requirements for local roads within the precinct.

Road type	Road classification	Target design speed (km/h)	Number of lanes	Minimum widths (m)			Shared user path width	Kerb type	Landscaping
				Road reserve	Carriageway	Verge			
Local road within the Regional Enterprise Zone	Local	60	2 lanes	29	13	10m, 6m	2.5m one side	Barrier	Avenue Plantings
Local road for Commercial Nodes	Local	50	2 lanes	20	10.2	3.9m, 3.9m	1.5m one side	Barrier	Avenue Plantings
Local road within the Rural Activity Zone	Local	80	2 lanes	23	8.5	10m, 4.5m	N/A	N/A	Avenue Plantings

Road sections

The following section provides the road sections for the road types within the precinct.

Merino Road

Merino Road is central to the Precinct and, unlike other major roads, connects east-west. This makes Merino Road an important access route to virtually all corners of the Precinct. Direct property access is generally not permitted, however may be considered for large sites. Short and long term improvements to the environmental function and amenity of Merino Road are required, including street trees, swales, and a shared path on at least one side. Duplication provides an opportunity for a central median and to manage level changes.

Figure 19 Merino Road –indicative cross section showing future widening and public realm

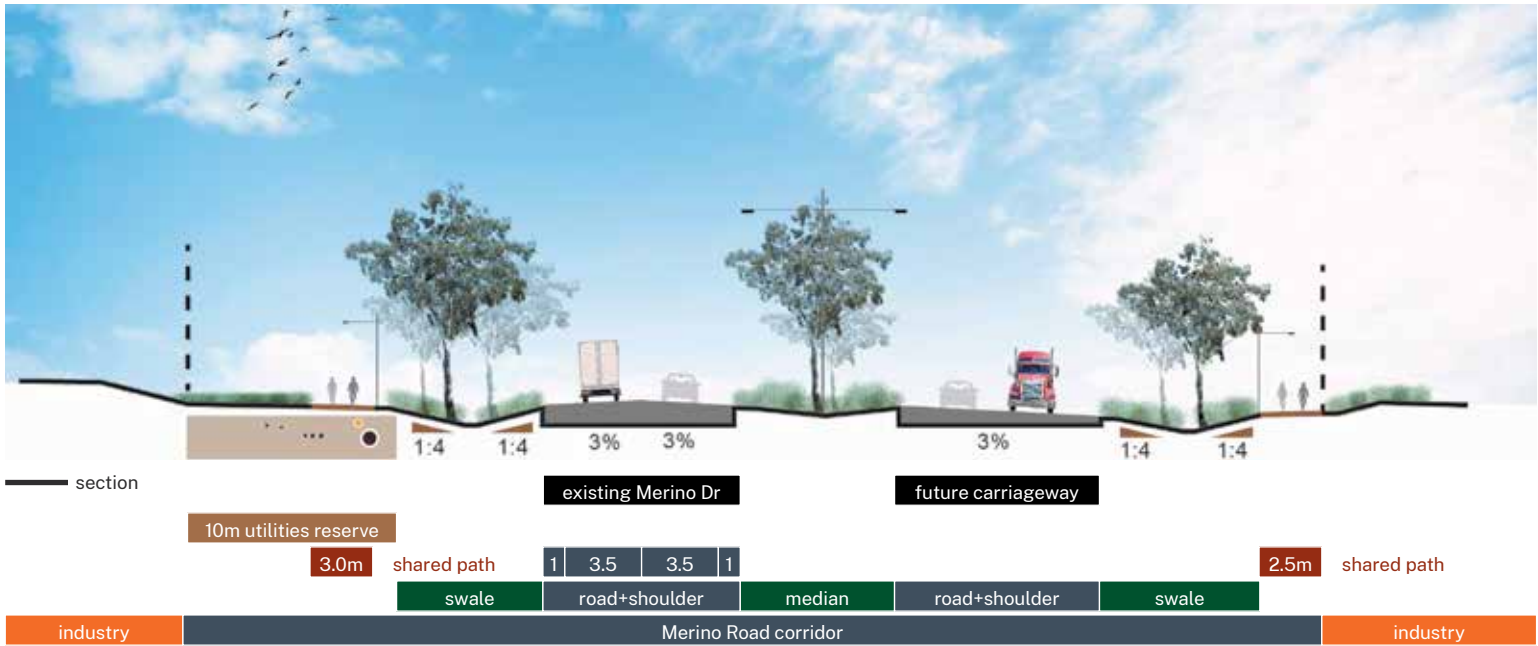


Figure 20 Location plan



Bomen Road

Bomen Road will continue to be an important road in the precinct servicing existing businesses and saleyards from North Wagga Wagga and the town centre. Its wide roadway can be retained for maximum flexibility, but with new shared paths, lighting, street trees and build outs at street corners making it easier and safer to walk in this area, and improving the amenity and image of Bomen.

Figure 21 Bomen Road –making Bomen Road a functional and attractive street

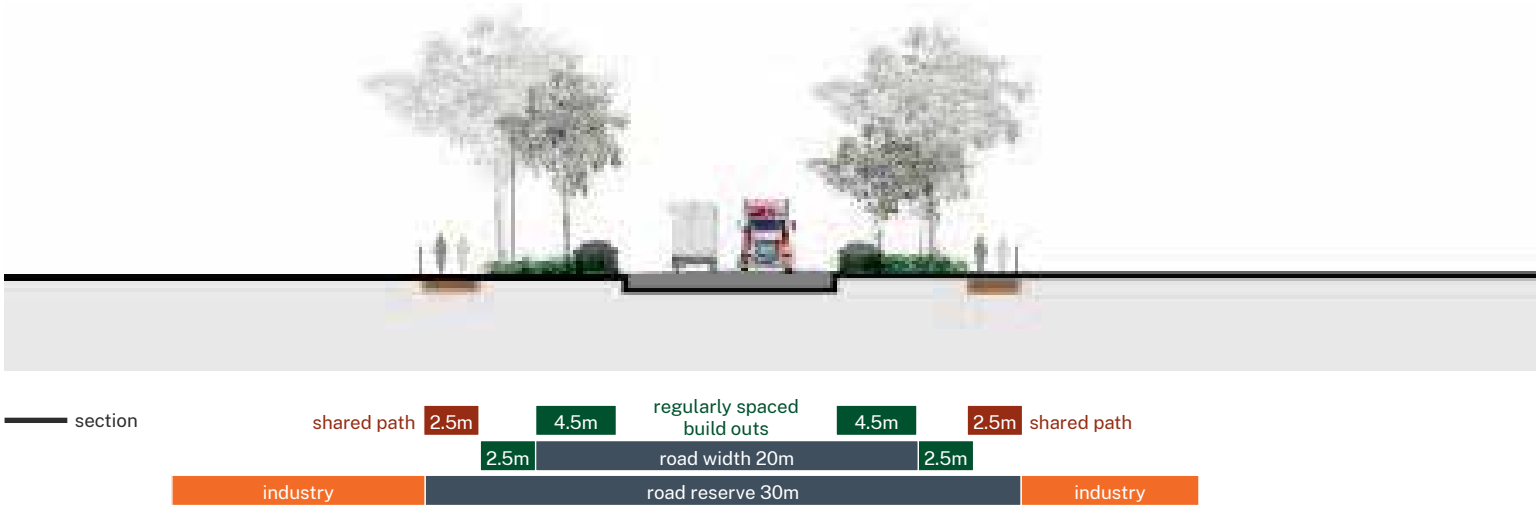


Figure 22 Location plan



Local industry roads

Local industry roads in a reserve of 29m provides for truck access, with street trees, footpaths and services also easily accommodated.

Figure 23 Local road –Industrial road cross section

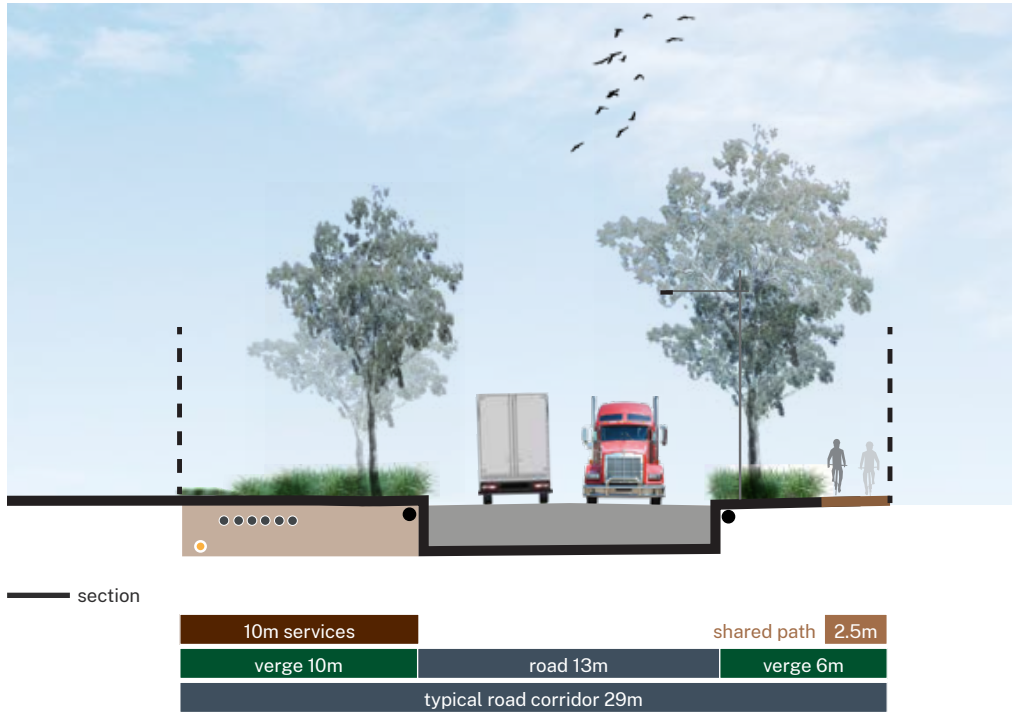


Figure 24 Location plan





4.2.2 Rail

- rail infrastructure within the precinct is designed and installed in accordance with Specifications, Standards and Procedures listed in the ARTC Track and Civil Code of Practice
- ensure all design, materials, equipment, workmanship and installations relating to rail infrastructure complies with the latest revision of the ARTC Engineering Standards and Australian Standards as relevant
- rail sidings and spurs to incorporate appropriate horizontal and vertical clearances for double-stacked freight trains along the alignment
- ensure for orderly and coordinated provision of rail infrastructure and associated facilities within the precinct.



4.2.3 Stormwater

Stormwater quantity

- stormwater infrastructure includes on-site management measures, along with precinct wide measures that form part of the broader stormwater and flood management strategy for the precinct
- on site detention which connects to the regional detention basins includes the provision of lot scale detention to maintain pre-development flowrates for all events up to and including the 1% AEP event and regional detention basins that will account for the differential between the 1% AEP and the 0.5% AEP runoff (the 0.5% AEP generally reflects the 1% AEP plus climate change)
- no increase to peak discharges from overland flows or local stormwater runoff from the pre to post development case scenario
- kerb and gutter with piped drainage network for local and local collector roads
- longitudinal drainage swales are provided for the conveyance of stormwater along distributor road alignments. Diversion swales are provided to direct runoff to the regional treatment and detention facilities
- cross drainage culverts sized to provide a 0.5% AEP flood immunity at waterway crossings to maintain natural flow paths.

Stormwater quality

- the stormwater quality strategy is shown conceptually in Figure 26
- regional measures include gross pollutant traps as a means of primary treatment and bioretention filters at the base of the regional detention basins to target finer sediment and nutrients
- proposed lot scale treatment includes rainwater tanks to capture roof runoff for landscape irrigation and internal re-use. Where relevant, site runoff from certain industrial uses may need additional on-site treatment to achieve precinct water quality objectives
- impacts to groundwater resources will be managed by treating runoff from the developed catchments and, where relevant, site runoff from certain industrial sites may need additional on-site treatment to achieve precinct water quality objectives
- during construction, erosion and sediment controls will be required in accordance with Blue Book guidelines such as Managing Urban Stormwater Soils and Construction - Volume 1 (Urban Development), or 2A (Installation of Services) or 2D (Main Roads).



4.2.2 Electrical

- utilisation of residual spare capacity (currently ~20MVA) in the Essential Energy Bomen Zone substation for the initial stages of the precinct
- the design of future energy networks will support security of supply by making use of dual feeders and ring main units (RMU)
- electrical connections are designed in accordance with Essential Energy standards.

Figure 25
Stormwater Quantity Strategy
Arrangements

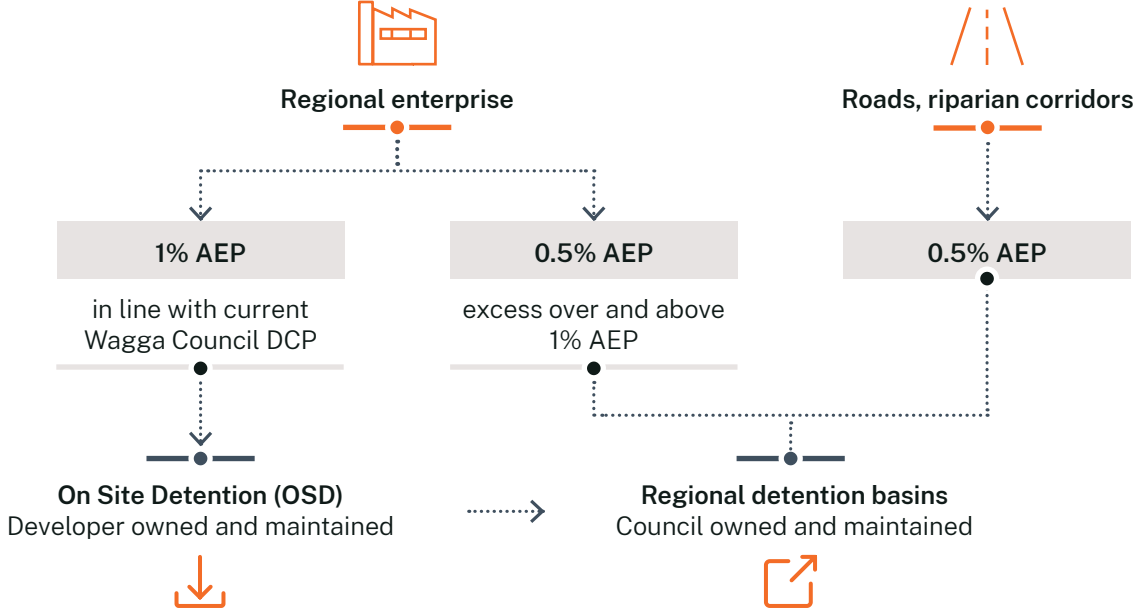
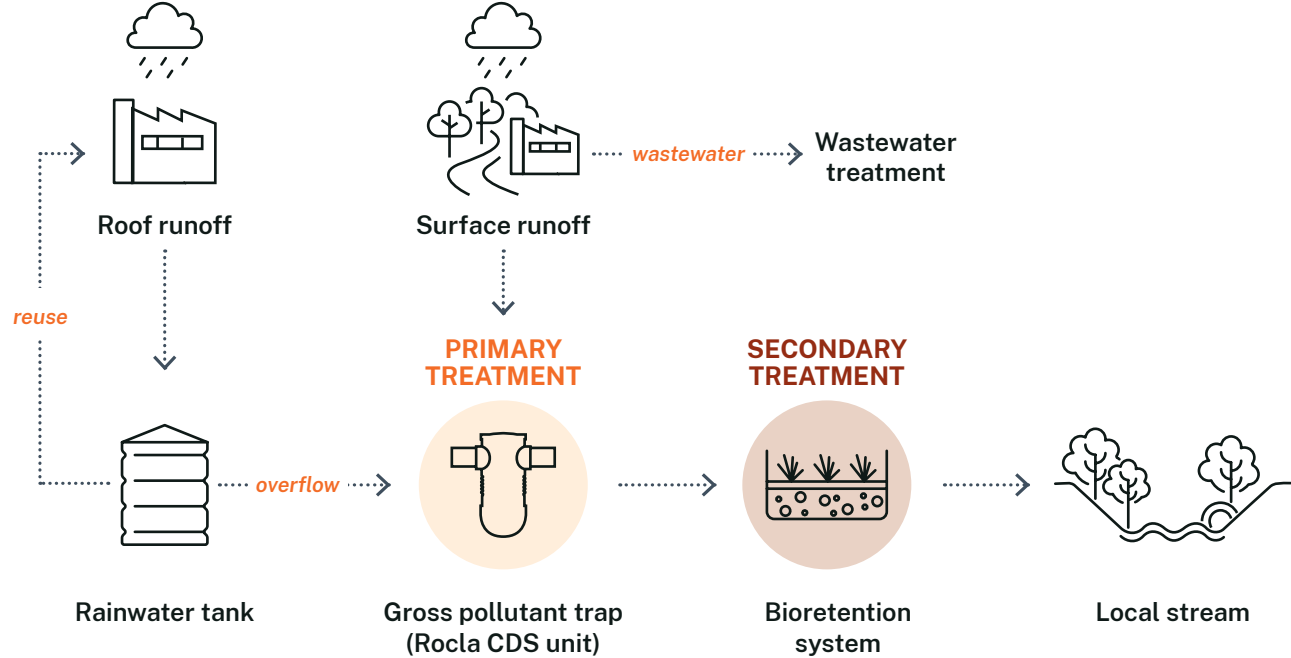


Figure 26
Stormwater Quality Strategy





4.2.5 Lighting

- smart lighting is to be delivered as part of the precinct lighting design
- smart lights are to use a mix of sensors and internal programming to automatically adjust lighting levels in response to changing conditions. Sensors can be used to detect movement and communicate with each other over a basic mesh network
- features such as maintenance factor harvesting, dimming and trimming and general presence detection are readily available
- street lighting will be provided along Merino Road corridor, along with the following intersections:
 - RIFL Access Road and Internal Road B
 - Dorset Drive and Internal Road A
 - Bomen Road and Olympic Highway.



4.2.6 Water

- water demand for the precinct has been designed for an overall peak demand of 18.96 ML/day based on 1.8 kL/d/ET
- the initial precinct water network will utilise additional spare capacity in the East Bomen Reservoir until such time as an upgrade to the East Bomen Reservoir is required to provide a total of 18 ML
- potable water storage and reticulation is designed in accordance with Riverina Water standards
- water mains are designed and sized to ensure pipeline velocities less than or equal to 1.5 m/s during peak flows.



4.2.7 Wastewater

- a wastewater network will be delivered in the first stage of the precinct and will prioritise the use of a gravity trunk network and maximise the areas serviced by gravity connections
- the design will minimise the number of pumps in the trunk network and minimise the area (developable lots) requiring local pumps to discharge into the trunk network
- discharge to the wastewater network will require a trade waste agreement with Wagga Wagga City Council
- the corporation will provide trunk sewerage infrastructure developed in stages as growth occurs.



4.2.8 Recycled water

- recycled water demand is estimated to be 1.29 ML/d for the precinct
- recycled water produced should meet Class A quality
- recycled water will be supplied through the creation of an initial 1.0 ML/d Advanced Water Recycling Facility (AWRF) (and associated storages and pump stations) at the upgraded BISTIF sewerage treatment plant. Further upgrades to the AWRF will be made in 1.0 ML/d increments as demand grows.
- recycled water customers will be responsible for building their recycled water infrastructure connecting to the proposed trunk network
- recycled water reticulation to be designed in accordance with WASA (Water Services Association of Australia) standards.



4.2.9 Gas

- gas demand for the precinct is estimated to be approximately 7 TJ/d
- an upgrade of the existing 250 kPa gas distribution network within the precinct is proposed, with gas pipelines to be extended throughout the precinct
- gas network to be designed in accordance with APA standards and guidelines.



4.2.10 Telecommunications

- multiple conduits are to be installed within the services corridor to enable optic fibre installations for future smart infrastructure
- where appropriate, all infrastructure should be provided with digital connectivity access to allow for ease of performance monitoring and communication between networks to improve operational efficiency.



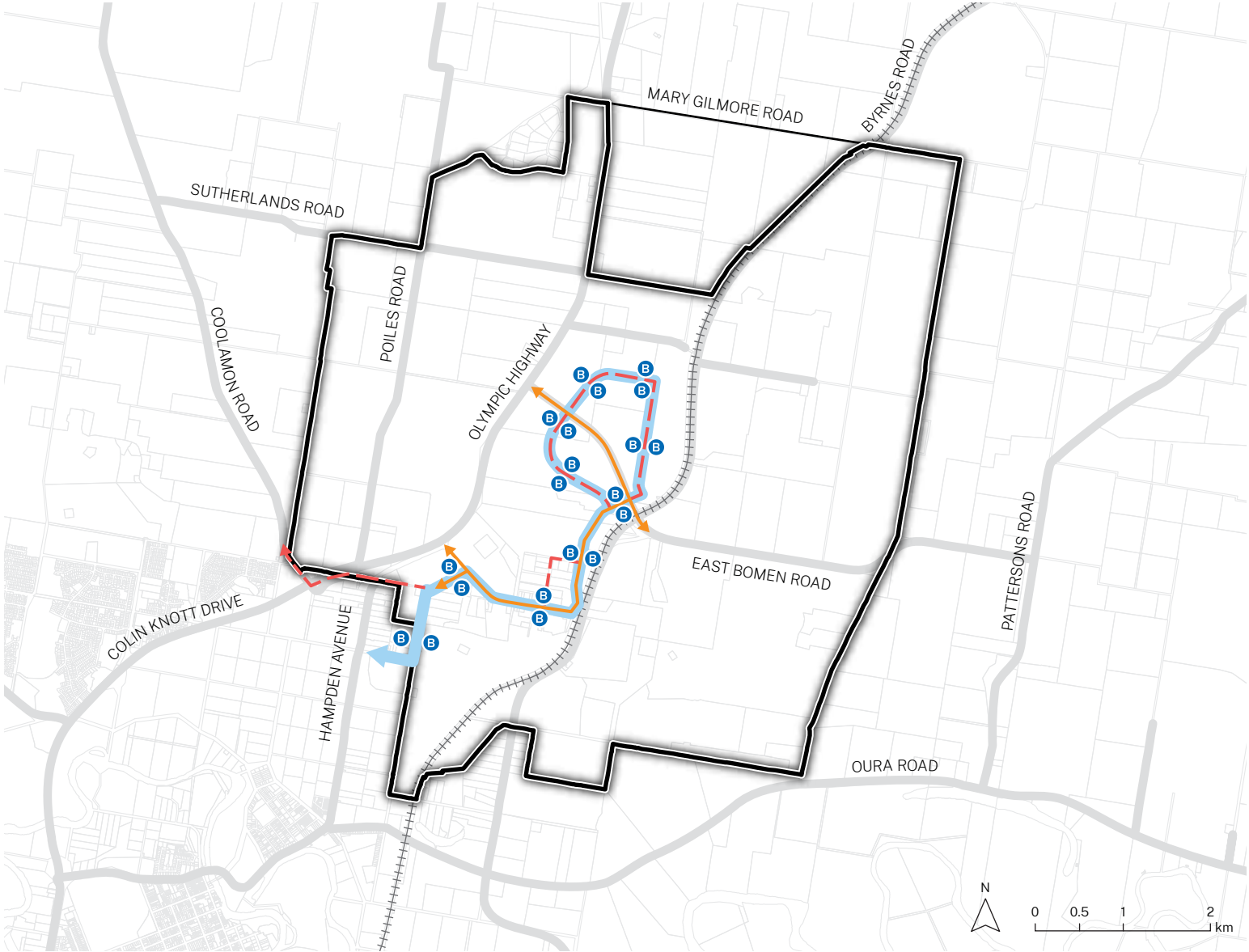
4.2.11 Active and public transport

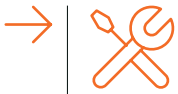
- all streets within the precinct will feature a shared use path, separated from the road carriageway, for active transport and safety purposes. These shared use paths will be able to accommodate both pedestrians and cyclists.
- shared use paths will be 2.5 metres in width, except for Merino Road which will comprise a 3 metres wide shared path, and bitumen sealed
- in some areas of the precinct avenue plantings either side of a shared use path will be established to provide shade for users
- rest areas and signage will be established along shared use paths
- any pedestrian or cycle paths constructed on private land will be covered by a free and unrestricted right of way on the title and connect with adjacent pathways to create a continuous path along the streetscape
- individual site layouts will provide clear lines of sight for entry points and public shared use paths.
- public transport stops will be integrated into road verges in appropriate locations
- each commercial node is to provide bus route connections, which link efficiently with existing network.
- taxi zones are to be located at each commercial node. A specific pick up and drop off zone should be easily visible and accessible for all users with appropriate signage and lighting provided.

Figure 27 Active and public transport

- Stage 1 delivery plan boundary
- Indicative bus stop location
- Public transport route
- Share path on both sides of the road
- Share path on one side of the road

Note: Any crossing of Olympic Highway to be signaled or grade separated.





4.2.12 General utilities and services corridor

- a services corridor(s) will be provided to support new underground services required to activate the precinct including:
 - recycled water main
 - medium pressure gas pipeline
 - water main
 - provision for high voltage electricity
 - provision for future telecommunications
 - provision for future Hydrogen
 - spare space in the corridor for unknown future pipes/conduits.
 - provision for a circular economy easement
- the new underground services will be organised inside the services corridor in accordance with the NSW Streets Opening Coordination Council Guide 2018
- the services corridor will be approximately 10 metres in width and is to be accommodated within the road reserve
- the services corridor to be grassed or covered with low level plantings that can easily and cost effectively be removed and replaced if required. No trees should be planted above the services corridor but may be in the vicinity, providing the appropriate authority's protection measurements for the assets are implemented. If trees are in the vicinity of services, root barriers are required to protect the asset as well as any extra protection deemed by the asset authority
- the design, operation, maintenance and protection of new utilities will be in accordance with the specifications of the different asset owners for the entire precinct.
- every asset will have the required space as per the asset owner specifications and enough clearance from other services to protect and allow maintenance activities, as well as easy access for replacement, if required
- the sequencing and staging of the services will be as per the specification of the various asset owners, and in coordination with the overall construction program
- consultation with APA must be carried out if the high-pressure gas pipeline corridor needs to be crossed to complete any upgrade in the precinct (installing a new service or relocating an existing one). APA will provide guidelines on how to work around this asset, precautions and protections required as well as the minimum safe working distance to be maintained at all stages
- utilities and services must be integrated with precinct infrastructure and where possible, integrated or aligned with road or active transport networks.

4.2.13 Other considerations

Other considerations should include:

Cost effectiveness

- the costs and standards for infrastructure design and construction should address the appropriate lifespan. Designs should achieve efficiencies in maintenance without over scoping and unnecessarily increasing development costs within the precinct.

Future proofing

- infrastructure planning should accommodate the anticipated demand for each stage, without compromising future development potential, or significant capital investment costs for upgrading or replacing infrastructure ahead of its planned lifespan. Infrastructure should be fit-for-purpose and provide value for money
- infrastructure design should embrace innovation and future change, without introducing onerous construction and operation costs.

Smart Infrastructure

- smart infrastructure and smart technology should be implemented where possible.
- infrastructure should be established and designed in accordance with the NSW Government's Smart Infrastructure policy.

Asset management standards

- infrastructure design is to consider consistency of componentry to access spares, technical familiarity and efficiency, along with quality of construction, maintenance periods and asset longevity.

4.2.14 A collaborative approach

multiple conduits are to be installed within the services corridor to enable optic fibre installations for future smart infrastructure

where appropriate, all infrastructure should be provided with digital connectivity access to allow for ease of performance monitoring and communication between networks to improve operational efficiency.

5

Subdivision design guidelines



Wagga Wagga town and the Murrumbidgee River



These subdivision design guidelines outline the objectives for planning a subdivision within the precinct.

5.1 Planning your subdivision

These subdivision design guidelines ensure ordered and timely subdivision within the precinct and infrastructure is planned, designed and implemented in advance of need.

5.1 Planning your subdivision

This section provides the design objectives for planning your subdivision. This includes objectives for topography, environment, environmental hazards, design and landscaping, accessibility and infrastructure and services.

The design objectives should be applied to the context of the development proposal. Where a specific design objective cannot be met, then applicants should demonstrate how the proposed design of the development will achieve the relevant precinct design principles in Chapter 2.

5.1.1 Topography

The natural landform and setting contribute to a sense of place. Subdivision is responsive to the setting and natural site features, and established subdivision patterns.

The Bomen Business Park and the broader precinct enjoys a beautiful landscape setting, with rolling hills and fertile valleys. Nearby residents continue to enjoy a rural outlook and the precinct's rural setting continues to be a large part of the area's character. It is important that the design and landscape of the subdivision protects the rural outlook and the precinct's rural setting.



Topography objectives

- 01** Be responsive to and integrate with the natural terrain and topography, natural features such as drainage lines and waterways.
- 02** Avoid excessive earthworks and favours cutting of the land over filling of the land. Where practical site works to allotments should be undertaken as part of the subdivision.
- 03** Ensure adequate provision for drainage in relation to cut and fill practices.

5.1.2 Environment

Environmental values and constraints across the site include vegetation, biodiversity corridors, riparian corridors and cultural heritage, as shown in Chapter 8 – Mapping. These values and constraints should be considered and either avoided or appropriately incorporated into the subdivision design.



Environment objectives:

- 01** Development avoids impacts to Aboriginal cultural heritage and is undertaken in accordance with the precinct's Aboriginal Cultural Heritage Management Plan.
Note: Access to the precinct's Aboriginal Cultural Heritage Management Plan can be obtained from the corporation.
- 02** The design and layout of streets, lots, landscaping and infrastructure:
 - retains in place and integrates scarred trees, identified artifact sites and other indigenous cultural heritage places of importance within areas of environmental significance and green space that is publicly accessible
- considers the Wiradjuri planning principles provided in the master plan and the elements shown in Figure 6: Important considerations for the planning of Wiradjuri Country of the master plan
- incorporates storytelling and memory, such as interpretative signage.
- 03** Be responsive to areas of high value biodiversity and integrate precinct biodiversity and green corridors, riparian corridors and strategic revegetation sites.
- 04** Minimise the need for vegetation clearing.
- 05** Increase lot sizes where sites have a significant slope or site constraints.
- 06** Provide building envelopes on the subdivision plans that are responsive to the environmental values and constraints on the site.

5.1.3 Environmental hazards

This section applies to land subject to environmental hazards and conditions of flooding or bushfire as shown in Chapter 8 – Mapping and areas of contaminated land recorded on the Wagga Wagga City Council's Contaminated Lands Register. The design and construction of a subdivision should recognise, and be designed within, the environmental hazards of the site.



Environmental hazards objectives:

- 01** Avoid increasing the risks associated with natural hazards including bushfire and flooding.
- 02** Ensure subdivision for commercial or industrial purposes provides suitable building areas outside the 1% AEP event with climate change as shown in Map 8.3.
- 03** Subdivision layout does not result in isolation or create evacuation challenges for users. The issuing authority may require a site-based flood emergency response plan prepared by a suitably qualified person.
- 04** Minimise the risk to life, property and the environment in the event of a bushfire, including the lives of emergency services personnel and make adequate provision for access for emergency personnel, vehicles and equipment.
- 05** Lot sizes and dimensions can accommodate development and minimise risk to life and property from environmental hazards, including bushfires. Each lot created contains a suitable area for the development, including an appropriate asset protection zone to protect the property from the threat of bushfire.
- 06** Development on bushfire prone land to which these objectives apply comply with the requirements of:
 - Planning for Bush Fire Protection 2019 (or as updated); and
 - AS 3959:2009 (or as updated) – Construction of Buildings in Bush Fire Prone Areas or the NASH Standard for Steel Framed Construction in Bush Fire Prone Areas.

5.1.4 Design and landscaping

Subdivision design can influence the ability of future development to achieve good solar access. The orientation of lots can inform the preferred location of future buildings to maximise solar access on the lots.

Site landscaping should be informed by the site's natural features and landscape and, where possible, retain and protect existing areas of remnant vegetation. It should reflect the bioregion and vegetation typologies of the precinct and assist broader efforts to enhance habitat and biodiversity across the precinct in accordance with Chapter 3 – Precinct revegetation strategy.



Design and landscaping objectives:

- 01** Create a range and mix of allotment sizes that respond to site constraints and opportunities and avoid or minimise future land use conflicts.
- 02** Lot orientation, size and frontages should be suitable to accommodate water and energy efficient development, setbacks, landscaping, storage space, vehicle access and manoeuvring and parking.
- 03** Maximising lot orientation to take advantage of solar orientation in gaining thermal efficiencies. Where possible provide shade to the northerly and westerly elevations of buildings in summer and adequate solar access in winter.
- 04** Achieve good public domain outcomes through landscaping consistent with species lists included in Chapter 3 – Precinct revegetation strategy.
- 05** Where practical, integrate stormwater management measures within the design of landscaped areas.
- 06** Integrated water cycle management and water sensitive urban design principles should be incorporated including grassed vegetation swales, natural drainage corridors, sand filters, gross pollutant traps and constructed wetlands.

5.1.5 Stormwater and drainage

Industrial sites have high impervious area ratios which result in greater runoff volumes. Consider existing downstream drainage systems and their capacity to receive the changed runoff volumes and patterns from the site, while maintaining existing flows to support habitats.



Stormwater and drainage objectives:

- 01** Provide stormwater detention facilities to capture rainwater and surface runoff to ensure post development flows do not exceed pre-development flows, for storm events up to and including the 1% AEP.
- 02** All new and existing roads have collector pits and an underground pipe system to carry water to the discharge point for each lot. Interallotment drainage will also be required to collect drainage from higher lots and avoid uncontrolled discharge onto lower lying properties.
- 03** Lots are designed to allow for appropriate stormwater management by either kerb and gutter or swale drainage.
- 04** Stormwater runoff from public areas is to be treated through communal water sensitive urban design measures to ensure water pollution is avoided and contribute to the following precinct-wide pollution load reduction targets:
 - Total Suspended Solids (TSS) by 80%
 - Total Phosphorus (TP) by 60%
 - Total Nitrogen (TN) by 45%
 - Gross pollutants by 90%.

5.1.6 Accessibility

Good subdivision offers connectivity and has a legible hierarchy of roads and through routes. Roads should offer a choice of routes for pedestrian and vehicles, and integrate to adjoining streets, neighbourhoods and local facilities or shops with minimal use of dead-end and cul-de-sac roads.



Accessibility objectives:

- 01** Local roads should connect to the broader precinct road network. Local roads are designed and constructed in accordance with the table in section 4.2 in Chapter 4 – Infrastructure (Roads).
The issuing authority may require a traffic impact assessment prepared by a suitably qualified person which considers impacts of the proposal in terms of the design and location of the road/s, and the likely nature, volume or frequency of traffic generated by the development.
- 02** Provide all lots with safe, legal and practical vehicle access and manoeuvring areas for the largest design vehicle anticipated to require access to the subdivision and individual lots including emergency service vehicles.
- 03** Minimise the number of lots created that do not have substantial frontage / direct access to a public road.
- 05** The internal road pattern facilitates ‘through-roads’ with cul-de-sacs avoided unless dictated by topography or other constraints.
- 06** Services corridor must be easily accessible as required by Chapter 4 – Infrastructure.
- 07** Integrate shared use paths and public transport stops at appropriate locations.
- 08** Road reserves, road carriage way, road verges and shared paths are sized and designed to the relevant road function in accordance with Chapter 4 – Infrastructure (Roads) and “Guide for Traffic Generating Development”, Roads and Traffic Authority of NSW, October 2002.
- 09** Roadside vegetation is provided within road verges in accordance with Chapter 3 – Precinct revegetation strategy.
Alternate species for roadside vegetation within a development can be accommodated if it can be demonstrated that alternate species:
 - are native to the area; and
 - have similar water consumption and drought tolerance characteristics to the equivalent vegetation type set out within

5.1.7 Infrastructure and services

Figure 5 identifies the location of infrastructure corridors to integrate with movement corridors and linkages and, in conjunction with topographical constraints, achieve appropriate complementary subdivision design.



Infrastructure and services objectives:

- 01** Protect and maintain existing major infrastructure (i.e. electricity and gas) through easements.
 - 02** A services corridor of approximately 10 metres width accommodated between the kerb and boundary to allow for the following underground services, as appropriate to the proposed development:
 - gravity and pressure sewer mains
 - recycled water main
 - medium pressure gas pipe
 - water main
 - provision for future telecommunications
 - provision for future hydrogen
 - spare space in the corridor for unknown future pipes / conduits
 - provision for a circular economy easement.
 - 03** Services corridor must be easily accessible as required by Chapter 4 – Infrastructure.
 - 04** The developer shall be responsible for providing utilities and services connections to allotments including:
 - water
 - wastewater
 - electrical
 - gas
 - telecommunications.
 - 05** Stormwater infrastructure includes on-site measures that form part of the precinct stormwater strategy provided in Chapter 4 – Infrastructure.
 - 06** The location of infrastructure does not adversely impact existing site conditions.
- Note: The relevant utility suppliers should be consulted at the earliest possible time in relation to providing utilities and service connections to allotments. The following suppliers maintain or supply electricity, gas and water to Wagga Wagga:
- electricity supply – Essential Energy
 - gas supply – APA Group
 - water supply – Riverina Water.
- Note: Council should be consulted on connections to utility services including for sewerage, drainage and approval under section 68 of the *Local Government Act 1993*. The process for seeking approval from the Council should commence at the earliest possible time and should run in parallel with the Activation Precinct Certification process where possible.

6

Assessment criteria



Riverina Oils, Wagga Wagga



This section documents the criteria used to evaluate development proposals for change of land uses and construction of new buildings and structures.

- 6.1 Regional Enterprise Zone
- 6.2 Rural Activity Zone
- 6.3 Precinct-wide
- 6.4 Savings and transitional provisions

The Wagga Wagga Special Activation Precinct master plan identifies guiding principles which underpin the planning for the precinct and applications for Activation Precinct certificates necessary for development consent:

1



Economic development

- A nationally significant economic precinct
- A future-proofed precinct
- A strategic approach to managing growth

2



Place and landscape

- Industry in the landscape
- A good neighbour
- Quality design

3



Environment and sustainability

- Eco-industrial precinct
- Circular economy
- Net Zero emissions
- Water security and quality
- A safe precinct

4



Community

- A connected green place
- Connection to Country

5



Transport and infrastructure

- Digital connectivity
- Integrated utilities
- Great access for all transport modes

Under the Precincts-Regional SEPP, an Activation Precinct certificate can only be issued where a development is consistent with the master plan and delivery plan. Section 3 – Controls of the master plan sets out the aims and performance criteria for development within the precinct, to ensure the principles are realised. This delivery plan provides the detailed development controls (referred to as assessment criteria) that will facilitate the delivery of the precinct. The assessment criteria align with the aims and performance criteria provided by the master plan in line with the guiding principles and long-term vision.

Cooking students sourcing ingredients from the kitchen garden at Food I Am, Wagga Wagga
Courtesy of Destination NSW



Performance-based planning approach

This delivery plan adopts a performance-based approach to evaluate development proposals. This provides flexibility for achieving desired outcomes across the precinct and allows for innovative on-site solutions where appropriate. It also considers the differing risk levels for development and provides clarity for proponents and the community regarding the evaluation of alternative solutions.

Performance criteria sets the desired outcomes for the precinct in line with the guiding principles and long-term vision for the precinct. They are organised around the following sections:

6.1 Regional Enterprise Zone

contains the assessment criteria for development within the Regional Enterprise Zone, including:

- land use controls which set out the desired land uses for areas of land identified as Industrial Core, Rail and Intermodal and Commercial Nodes
- general controls that apply to all development such as requirements for setbacks, building design, car parking and access, transport infrastructure and utilities, stormwater, earthworks, landscaping, service and storage areas and signage, except for building alterations (internal), minor building alterations (external) and demolition which are required to meet specific complying development clauses under the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008
- specific development requirements for development on large lots, rail and intermodal development and solar energy farms
- sustainability controls related to the requirements of an Eco-Industrial Park.

6.2 Rural Activity Zone

contains the assessment criteria for development within the Rural Activity Zone, including:

- controls that apply to development in rural areas
- specific development requirements for certain types of development in rural areas
- business signage controls.

6.3 Precinct-wide

contains the assessment criteria for all development within the precinct, including:

- environment controls for protecting the rural landscape character, protecting and enhancing land with high biodiversity values, and protecting cultural heritage places, sites and objects
- environmental hazards controls that apply to land subject to environmental hazards including flooding, bushfire and contaminated land
- environmental impact management controls for development that may have an environmental impact, be hazardous or offensive, requires an environment protection licence or may emit noise, odour and substances into the air.

6.4 Savings and transitional provisions

provides assessment criteria for development or extensions to existing land uses that were existing before the commencement of the master plan, and to buildings on land not included within stage 1 can occur where appropriate.

Acceptable solutions for achieving the performance criteria are provided in Column A. There may be more than one way of achieving the performance criteria. Where an alternate solution is proposed, column B (referred to as merit assessment) provides the merit objectives which must be met.

'Performance criteria' provide the overarching performance outcomes that are being sought for a particular parameter i.e. setbacks, building design, landscaping etc.



'Acceptable solutions' provide the solutions for achieving the performance criteria.



'Merit assessment' provide the flexibility to provide alternate solutions for achieving the performance criteria and set out the objectives which must be considered if proposing an alternate solution.



'Unacceptable outcomes' list the outcomes that will not be supported.

The assessment criteria should be considered in the context of the development proposal. Where an alternate solution is proposed or a specific acceptable solution cannot be met, applicants should demonstrate how the proposed development will achieve the objectives provided in the merit assessment column.

6.1 Regional Enterprise Zone

The Regional Enterprise Zone provides for a consolidated industrial precinct for a range of industrial and employment uses in the valley between the Olympic Highway and Byrnes Road, located to avoid areas of environmental importance and leverage existing infrastructure.

This section provides the assessment criteria for planning and designing a site within the Regional Enterprise Zone, including requirements for site layout and built form, car parking and site access, transport and utilities infrastructure, management of on-site stormwater and earthworks, landscaping and signage, certain types of development envisaged for the precinct, and sustainability.

6.1.1 Land uses

The Precincts-Regional SEPP provides the land use table and objectives for each zone within the precinct including the:

- Regional Enterprise Zone
- Rural Activity Zone
- SP2 Infrastructure Zone
- RE1 Public Recreation Zone and
- E2 Environmental Conservation Zone.

The Wagga Wagga Special Activation Precinct Structure Plan which is provided in the master plan sets out the long term strategic planning intent for the precinct (Figure 2). It identifies particular areas of land within the Regional Enterprise Zone for example, where particular types of industrial development (i.e. rail and intermodal related land uses) and other key features such as the potential locations for commercial nodes to support workers in the precinct are expected to be located.

This section sets out the desired land use intent for the particular areas identified by the Wagga Wagga Special Activation Precinct Structure Plan as Industrial Core, Rail and Intermodal and Commercial Nodes within the Regional Enterprise Zone, as shown in Map 8.1).



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

Industrial Core

The following assessment criteria identify the desired land uses for land included in the Industrial Core, as shown in Map 8.1.

PC1 Development within the industrial core is focused on generating economic development through circular economy industry clusters, export-orientated businesses and regionally-relevant industries.	A1.1 Consultation with Safe Work NSW, Fire and Rescue NSW, the Department of Planning and Environment's Industry Assessments and the EPA is undertaken for: a. hydrogen development and b. other renewable energy opportunities where required. Note: The master plan provides that hydrogen development will be a permissible land use within the Regional Enterprise Zone. This includes production, storage and refuelling activities.	Not applicable	U1.1 Sensitive land uses (such as Centre-based child care facilities) that would compromise existing or future envisaged industrial development within the Industrial Core.
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Rail and Intermodal

The following assessment criteria identify the desired land uses for land included in the Rail and Intermodal area, as shown in Map 8.1.

PC2 The Riverina Intermodal Freight and Logistics Hub (RiFL) is protected as a freight and logistics industry cluster including an intermodal terminal that allows the transfer of containers between road and rail, provides complementary and adjacent industrial development including warehousing and transport businesses and rail siding.	A2.1 Land identified for rail and intermodal or future expansion of rail-siding as shown in Map 8.1, is for transport related facilities and industries requiring access or proximity to the railway. Generally, these areas are required for activities such as: • loading and unloading of freight and containers • storage and repair of containers • servicing of and repairs to locomotives and rolling stock • warehousing • heavy vehicle servicing and parking and/or • transport and rail-dependent industries.	Not applicable	U2.1 Land uses that could otherwise be established outside of the RiFL or future expansion of rail-siding infrastructure area, particularly where there is land and infrastructure capacity. U2.2 Land uses and buildings that would prevent the 24 hour operation of rail and road freight movements and transfer activities. U2.3 Development that prevents or impacts the continuous movement of freight along rail corridors in the precinct.
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Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

Commercial Nodes

The following assessment criteria identify the desired land uses for the Commercial Nodes, as shown on Map 8.1.




PC3 Commercial, retail and business land uses are provided within commercial nodes to service the needs of the precinct's employment population.	A3.1 Desired commercial, retail and business land uses which provide amenity and support for the employees of the precinct as shown in Map 8.1 comprise of one or more of the following: Artisan food and drink industry, business premises (e.g. hairdressers), community facility, educational establishment (e.g. TAFE establishment), emergency services facility, function centre, industrial retail outlet, industrial training facility, medical centre, neighbourhood shop, office premise, pub (e.g. tavern), recreation facility (indoor) (e.g. gym), restaurant or cafe, truck depot. Note: Given the proximity of some of the Commercial Nodes to emission generating land uses (i.e. Commercial Node located adjacent to the rail line / livestock saleyards), the issuing authority may require additional studies to be prepared by suitably qualified persons that demonstrate the environmental impacts can be managed and mitigated (e.g. noise, air quality and odour). Note: The master plan provides that an Activation Precinct certificate should only be issued for retail and business services where: <ul style="list-style-type: none"> • the uses are required to service the needs of the precinct's employment population • the uses will not compromise the intent of the zone and the precinct by introducing more sensitive uses and generating pedestrian or vehicle traffic in areas otherwise identified for a broad range of industrial uses • the uses would not be better located in other places, such as the Wagga Wagga City Centre • the use is, where possible, co-located with other retail and business uses and open space to form concentrated nodes of activity throughout the precinct • the use is located in, or very close to, one of the Commercial Nodes as identified in the delivery plan. 	Not applicable.	U3.1 Commercial land uses that are better located within the Wagga Wagga city centre or would effectively compete with the city centre. U3.2 Commercial and retail uses are of a scale and nature that would compromise existing and future industrial development within the industrial core. U3.3 Recreation facilities (indoor) that do not service the needs of the precinct employment population i.e. play centres for children.
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6.1.2 General controls

This section provides the assessment criteria that applies to development within the Regional Enterprise Zone. It is noted that where works are permitted for building alterations (internal), change of use of premises, minor building alterations (external) and demolition the specific complying development clauses of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008* will apply.

6.1.2.1 Setbacks

Effective setbacks from the street, side and rear boundaries (as required) and between buildings on a site are essential to allow for space between buildings for access, transitions in landforms, reduction in building massing and soft landscaped elements (drainage, biodiversity, vegetation protection). Careful spacing of buildings will also aid in establishing a precinct character, site operations and functionality and fire safety.

Performance criteria			
	Acceptable solutions How to achieve it	Merit assessment Objectives for considering alternate solutions	Unacceptable solutions What we do not want to see
Setbacks			
The following assessment criteria identify the desired land uses for land included in the Industrial Core, as shown in Map 8.1.			
PC4 Development contributes to good public domain outcomes by providing suitable setbacks from the street.	A4.1 Buildings are set back a minimum 10 metres from the front site boundary. A4.2 For sites that have a side or rear boundary fronting Merino Road, buildings should not be positioned a minimum of eight metres from any site boundary fronting Merino Road.	B4.1 Reduced setbacks may be considered where good public domain outcomes are achieved in accordance with Chapter 2 – Precinct design principles.	Not applicable.

6.1.2.2 Building design

Development should be aesthetically pleasing, responsive to its context and embody the guiding principles and vision for the precinct.

Creating bold yet integrated buildings is a core part of the vision for the precinct. Buildings designed for ‘form to follow function’ will define the precinct, represent it’s aspirations and set an international benchmark in design and delivery.

It is also important that building design and form responds to, and assists in blending the precinct into the landscape, minimising visual impacts where sites are more highly visible as shown in Map 8.2.



Acceptable solutions
How to achieve it



Merit assessment
Objectives for considering
alternate solutions



Unacceptable solutions
What we do not want to see

Building height			
PC5 Buildings: <ul style="list-style-type: none"> a. respond to the natural topography of the site and b. minimise any impacts on surrounding areas. 	A5.1 Where sites are more highly visible from surrounding rural and residential areas as shown in Map 8.2, development ensures: <ul style="list-style-type: none"> a. building heights prevent skylining of the building above the horizon when viewed from important views such as Eunony Valley or Brucedale b. buildings are located perpendicular to Byrnes Road (rather than parallel) to reduce the visibility of the building profile from across the valley for sites on the eastern side of Byrnes Road c. cut instead of fill is utilised so that buildings sit within the landscape, where feasible d. buildings do not obstruct or detract from views between the Bomen Axe Quarry site and The Rock Nature Reserve and e. roof forms and rooftop plant (other than any required stacks) located above 263 metres AHD are avoided for buildings on the Byrnes Road site (as identified in Map 8.2). 	B5.1 Development minimises its visual impact where sites are more highly visible as shown in Map 8.2, in accordance with Chapter 2 –Precinct design principles.	U5.1 Development on the former wool combing ponds site and the Byrnes Road site as shown in Figure 7: Landscape Strategy for minimising visual impact in the master plan, exceed a maximum height of 15 metres.



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

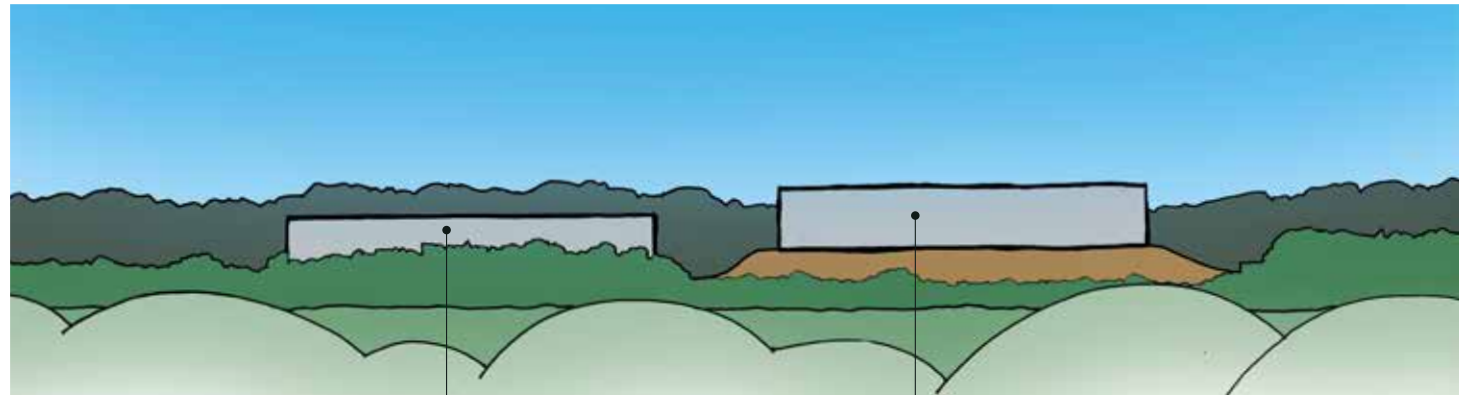
How to achieve it

Objectives for considering alternate solutions

What we do not want to see

PC5 Continued

- A5.2** Where roof mounted solar PV is located on buildings east of Byrnes Road, it is acceptably screened from surrounding elevated areas including Brucedale or Eunony Valley through:
- parapets of sufficient height to screen visibility and
 - positioning solar PV on a part of the roof structure that is not visible from sensitive vantage points.



Buildings cut into the site, positioned below the horizon and background vegetation, and screened to the front by additional landscaping.



Buildings that are elevated on sites, exposed to full view and that skyline above horizons are not contextual design responses.



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

Environmental design

PC6 Buildings:

- a. are oriented to accommodate energy efficient development to take advantage of solar orientation in gaining thermal efficiencies
- b. incorporate natural ventilation as the primary measure for cooling buildings and reducing thermal loads and
- c. maximise natural daylight.

A6.1 Buildings are designed to maximise the north and south exposure.

A6.2 Buildings are designed to minimise east and west facing orientation or provide adequate shading.

A6.3 Glazing is provided to northern sides to benefit from winter solar access, particularly for offices and other parts of buildings where people work and inhabit.

A6.4 Landscaping provides valuable shade throughout summer and allows for the use of the winter sun.

- A6.5** Shade structures are integrated into the façade such as awnings, screens, light shelves, canopies and louvres to:
- a. minimise penetration of sunlight into any part of a building between 10am and 3pm between 21st November – 21st March
 - b. provide shade and rain protection in areas where people will congregate outdoors.
- A6.6** Buildings are orientated to maximise natural cross flow ventilation and incorporate adequate openings.
- A6.7** Natural ventilation is used to cool buildings by incorporating:
- a. windows or doors to allow for cross ventilation
 - b. roof ventilation measures to allow for heat to rise and disperse and/or
 - c. indirect evaporative cooling and/or economy cycle ventilation where natural ventilation is prohibited due to process / manufacturing requirements.

B6.1 Building design considers natural climate control design elements to improve building energy efficiencies, natural ventilation and maximise natural daylight in accordance with Chapter 2 – Precinct design principles.

Not applicable.



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

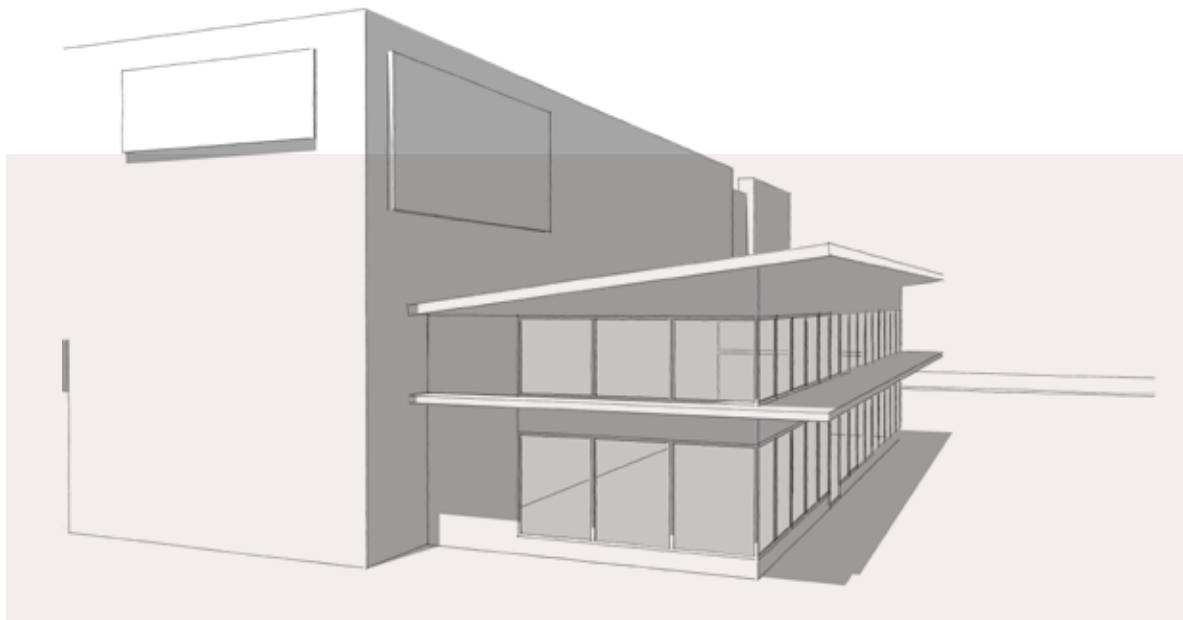
What we do not want to see

PC6 Continued

- A6.8** Buildings:
- a. incorporate thermal insulation (including buildings that are not air conditioned) and
 - b. incorporate light coloured external finishes with a roof solar reflective index greater than 64 to minimise the heat island effect and/or
 - c. may incorporate external cladding and insulation to concrete pre-cast or tilt-up panels to minimise heat gain, isolate thermal mass internally and minimise heat radiation to the interior.
- A6.9** Natural daylight is maximised to workspaces and areas people inhabit by incorporating skylights, courtyards, light wells or roof lighting strips to all warehouse and process/manufacturing areas.

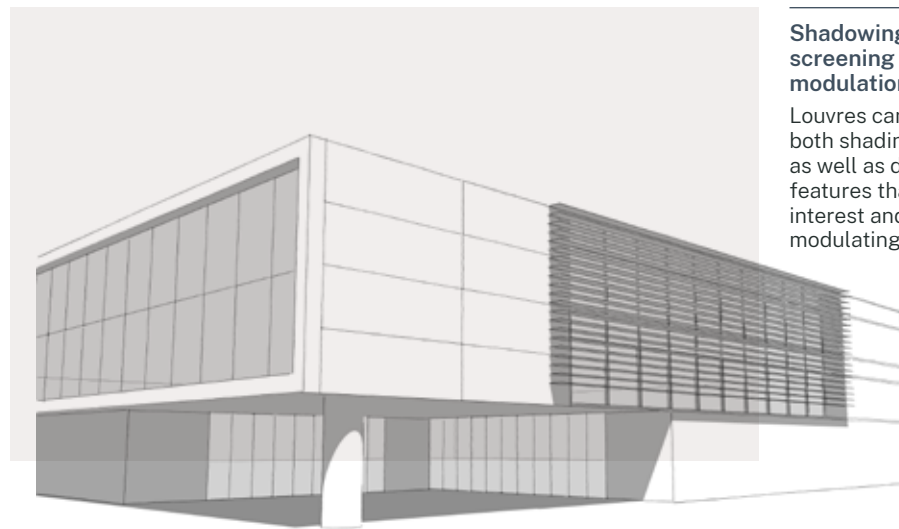
Awnings

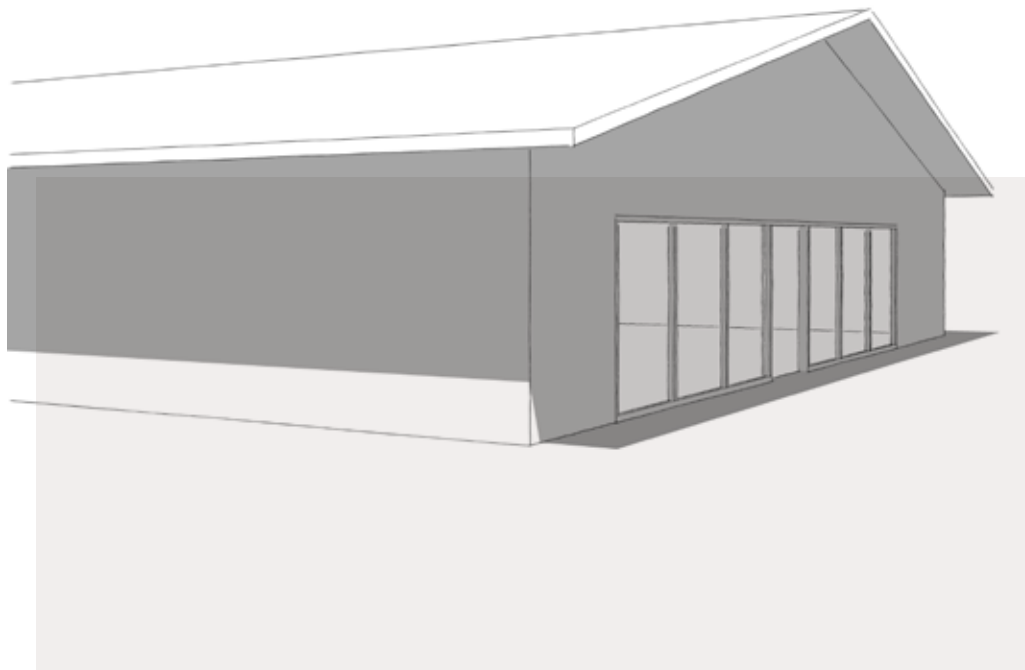
Use of awnings to glazed facades provides shadowing to improve environmental performance, but also adds interest to facade.



Shadowing of screening and modulation

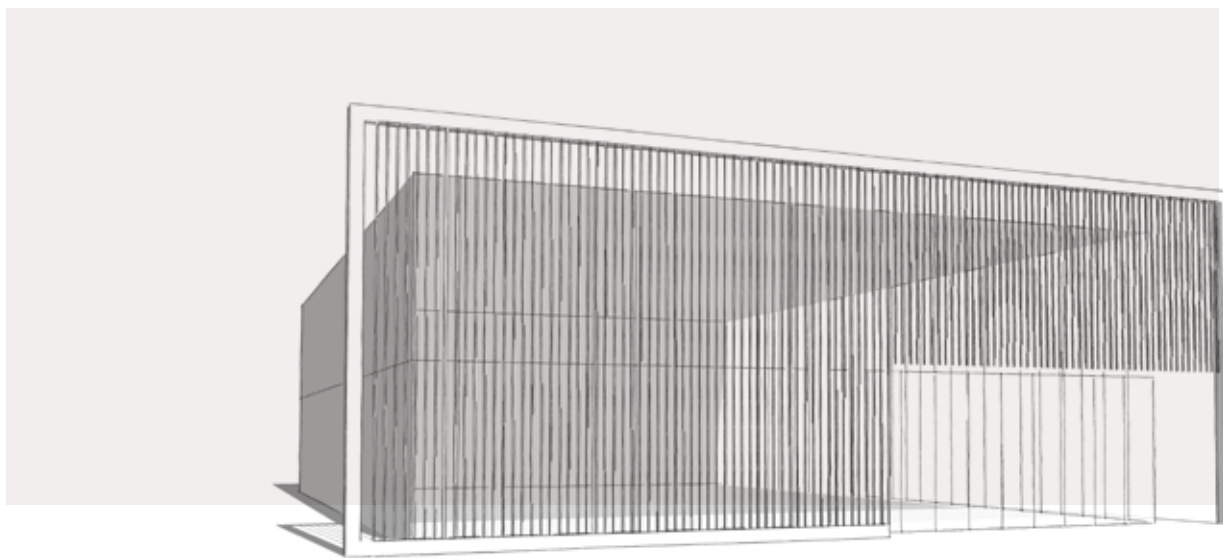
Louvres can act as both shading devices, as well as design features that add interest and aid in modulating facades.





Eaves

Deep eaves to buildings provides for shadowing of glazing and walls surfaces to help reduce heat loads.



Rain screen

Rain screens can be a striking architectural features, whilst also providing screening to glazed facades to aid environmental performance.

**Bomen Business Park,
Wagga Wagga, NSW**

Awnings provide optimal shade structure toward building entrance and puts emphasis on the architectural frontage, creating a complementary pattern.



**Bomen Business Park,
Wagga Wagga, NSW**

Louvers and textural elements on the building façade allow the flow of air and can protect the building from debris and rain flow. These elements are key in creating a visually appealing façade and breaking down the built form into recognisable features.





Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

Building size, footprint and layout

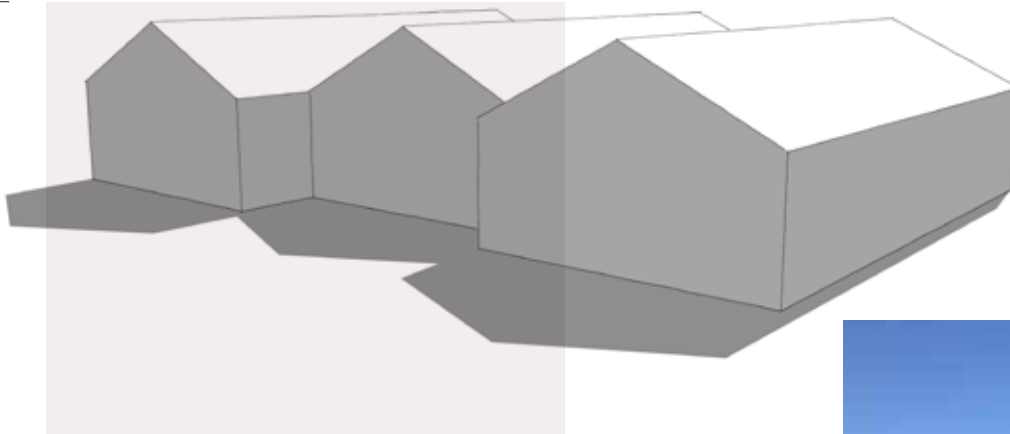
- PC7** Building size, footprint and layout is functional and responds to the site characteristics and aims to reduce overall bulk and scale.
- A7.1** Buildings consist of a simple shape in plan, reflective of intended function without ornamentation or irregular shapes.
- A7.2** Buildings:
- provide façade variation using different materials
 - are broken into smaller elements
 - use modulation and/or
 - use a variation in roof forms.
- A7.3** Smaller or lower building elements such as offices and showrooms are positioned to the front of the site to reduce the visual bulk of larger building elements.
- A7.4** Buildings are designed to be scalable, adaptable and expand over time.
- A7.5** Building layout and design enhances crime prevention through passive and active surveillance achieved through:
- passive surveillance of street and public areas
 - visibility of parking areas from adjacent properties and the public street
 - building design which limits the ability for unauthorized entry
 - clear demarcation between the public and private realm
 - eliminating public areas with minimal or no surveillance and
 - building design and site layout which avoids entrapment areas.

- B7.1** Buildings are designed to minimise intrusion into the landscape through careful building placement, design and landscaping, in accordance with Chapter 2 – Precinct design principles.

Not applicable.

Simple forms

Larger buildings broken down into multiple elements assists in reducing bulk and scale. Note importance of reducing roof forms.



East Wagga Wagga, NSW

Building footprint is broken up into multiple appealing elements. Different roof levels break down the scale and bulk of building frontage. Complementary colours allow a visual flow and cohesive appearance. Landscaping in front of building reduces the building intrusiveness and complements variations of texture, colour and visual effect.



Bomen Business Park, Wagga Wagga, NSW

Different roof levels add element to façade and break down the bulk of building frontage. Landscaping is complementary to the existing street frontage and adds a softer appeal, reducing industrial texture and adding natural colours.



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

Facades and main entrance

PC8 Buildings:

- a. address the street with clear views to the main entrance
- b. contribute to the precinct's character through built form and
- c. express the intended function of the development.

A8.1 The primary street frontage incorporates:

- a. the main building entry
- b. simple and bold elements to create visual interest and an easy to see entrance for all users
- c. a comfortable pedestrian environment through maintaining a human scale to building forms and through the use of canopies
- d. direct access from on-site car parking for visitors, workers and customers
- e. direct access to end-of-trip facilities including secure bike storage and amenities and
- f. business signage and wayfinding signage into the main building entry.

A8.2 The main building entry is designed as a focus point and includes:

- a. glazing to at least 50 per cent of the main office building entry
- b. use of glass, screen printed, sandblasted or cast panels, colour or super graphic backed glass or high performance 'low-e' glass and/or
- c. solar shading devices such as louvres, mesh screens, awnings, timber screens and devices for climbing plants.

A8.3 Glazing is shaded by awnings or building elements to avoid reflection.

A8.4 Facades that are visible from streets, communal driveways and other public spaces and vantage points feature textured building elements, which are consistent with the function and form of the building.

B8.1 Facades along the primary street frontage:

- a. express the intended function of the building and its component uses
- b. present a resolved form and design and represent the uses in each part of the building
- c. form a coherent whole as part of a complex of buildings
- d. include identifiable entrances that are scaled appropriately
- e. include external shading and passive design features with a distinct function integrated within the building façade vernacular
- f. provide interest to the building design and contribute to an attractive precinct and
- g. contribute to breaking down the scale and massing of building forms when viewed from streets and other public areas.

Not applicable.



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

PC8 Continued

- A8.5** Long expanses of uninterrupted walling is avoided by using a combination of the following:
- articulating the facade
 - regular openings (doors or windows)
 - integrating a variety of materials, textures and finishes (at least three) along the length of the facade or
 - including an awning or canopy along the whole or substantive part of the facade to provide depth and shadowing.
- A8.6** Colour palettes involve a range of subtle and natural colour tones that aid in buildings blending into the landscape, with:
- highlight colours used in strategic locations and
 - a 70/20/10 application to buildings including:
 - 70 per cent of the building is in tonal and recessive colours to assist large buildings to blend into the broader landscape. This would apply to most areas of large industrial buildings, stores, etc. Appropriate colours include Woodland Grey, Bushland, Jasper, Pale Eucalypt and Wilderness.
 - 20 per cent of the building is in a colour used to highlight and express architectural features building entrances or principal office areas etc. Allowable colours include lighter or darker tonal colours to the colours stated above.
 - 10 per cent of the building is in bolder colours including corporate colours.

Modulated facade

Modulating facades into consistent rhythms aids in breaking up massing and scale whilst also being a design feature.



Modulation of facades

Modulating facades through articulation and provision of depth assists in breaking up bulk and massing of buildings.



East Wagga Wagga, NSW

Facades are composed of simple elements and natural earthy tones that complement the existing streetscape. Glazed windows are a prominent component and used as a focal point, drawing visual appeal. The different levels on the building front break up the long expanses of walling. Onsite carparking is visible but does not detract from the facade appeal.



Shadowing of screening and modulation

Louvres can act as both shading devices, as well as design features that add interest and aid in modulating facades.



6.1.2.3 Car parking and access

Creating identifiable and clear access to each development via a primary vehicle access allows for legible development. Any business branding or signage should be integrated into the primary vehicle access point to support wayfinding for visitors and workers in the precinct.

Separation of vehicle access points is encouraged to ensure a clear distinction between heavy vehicle access to the site, as well as staff and visitor access to primary car parking and administration areas. This will minimise vehicle and pedestrian conflicts and increase user safety. Additional vehicle access may be permitted if it avoids any safety issues from both the public right of way and internal to the site, and aids in separating heavy vehicle / servicing traffic from car, cyclist and pedestrian movements.

Appropriate car parking is required for all private developments on site to service their anticipated demand.



Acceptable solutions
How to achieve it



Merit assessment
Objectives for considering
alternate solutions



Unacceptable solutions
What we do not want to see

Performance criteria

Car parking and access

Note: The issuing authority may require a traffic and parking study prepared by a suitably qualified person.

PC9 Ensure the safe and efficient movement of vehicles entering and exiting the development without adversely affecting the existing and future service and safety levels of the road.	<p>A9.1 Provide suitable staff, visitor and service access/es to the site.</p> <p>A9.2 Ensure vehicular access/es have a suitable separation distance to all other access drives (including those on adjacent properties) and do not adversely impact on the safety and efficiency of the surrounding road network.</p> <p>A9.3 Ensure the primary vehicle access provides access to the main visitor car park and the main building/s.</p> <p>A9.4 Design for the maximum design vehicle expected to access the site.</p> <p>A9.5 Design all vehicle accesses in accordance with the relevant Council standards and guidelines and Australian Standards 2890.1:2004.</p> <p>A9.6 All vehicles must enter and exit the development site in a forward direction.</p>	Not applicable.	Not applicable.
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Note: The Roads Authority should be consulted on access and egress requirements and approval under section 138 of the *Roads Act 1993*. The process for seeking approval from the Roads Authority should commence at the earliest possible time and should run in parallel with the Activation Precinct Certification process where possible.



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

PC10 Vehicular access is compatible with the surrounding road network.

A10.1 Vehicular access to the land is provided by a road other than a Classified Road.

Note: The Roads Authority should be consulted on access and egress requirements and approval under section 138 of the *Roads Act 1993*. The process for seeking approval from the Roads Authority should commence at the earliest possible time and run in parallel with the Activation Precinct Certification process.

Note: To maintain freight efficiency to and within the precinct, direct vehicular or pedestrian access from the road reserve of the Olympic Highway, Merino Road and Byrnes Road is restricted.

B10.1 Vehicular access is designed to ensure that development does not compromise the effective, and ongoing operation and function of any adjoining Classified Roads.

B10.2 Development is designed to consolidate the access of multiple tenancies or lots to reduce the number of accesses to any Classified Road.

Note: Where access is proposed from a classified road it is recommended that in principal support for the development be obtained from TfNSW prior to the lodgement of an application for an Activation Precinct certificate. Issue of an Activation Precinct certificate does not guarantee approval under section 138 of the *Roads Act 1993* for any proposed vehicular access to a classified road.

U10.1 Vehicular access designed such that the safety, efficiency and ongoing operation of the Classified Road is adversely affected.

U10.2 Multiple, single service access drives to a Classified Road.

PC11 Adequate car parking is provided on site that is safe and conveniently integrated within the site.

A11.1 Visitor car parks are located next to the main building entry.

A11.2 Movement of pedestrians throughout the car park is clearly delineated and visible for all users of the car park to minimise conflict with vehicles.

A11.3 Car parking is provided at a rate applicable to the proposed use or uses on the land, as contained within the RTA Guide to Traffic Generating Developments, 2002.

A11.4 5% of the car parks are designed, constructed and wired to be 'Electric Vehicle ready' in convenient and visible locations.

A11.5 All car parking, access and manoeuvring areas, and internal roadways are designed in accordance with Australian Standard 2890.1:2004 and Australian Standard 1428.1:2021.

B11.1 Car parks are designed:

- having regard to the activities proposed on the land and the intensity of the use
- in accordance with the Australian Standards for efficient and safe vehicle circulation and parking
- to provide adequate space for parking and manoeuvring of vehicles (including bicycles)
- to reduce pedestrian and vehicle conflicts
- to be safe and conveniently integrated within the site and
- to minimise the visual impact of on-site parking through landscaping.

U11.1 Development that does not provide adequate parking.

U11.2 Large, uninterrupted areas of car parking visible from streets without any landscaping.



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

PC11 Continued

- A11.6** Car parking spaces for disabled persons are provided in accordance with the Access to Premises Standards, the Building Code of Australia and Australian Standard 2890.1:2004.
- A11.7** Car parking is constructed of asphalt or concrete with parking bays and circulation aisles clearly delineated.
- A11.8** Design of the car park ensures that passive surveillance is possible and, where appropriate, incorporate active measures such as cameras and security patrols.

- B11.2** A reduced rate of parking (including a reduced rate of EV parking) may be appropriate if it can be demonstrated that:
- the development has operational management or specific activities that warrant a reduced demand or
 - the development has formal access to car parking in other locations.

Note: The issuing authority may require a traffic and parking study to be prepared by a suitably qualified person to demonstrate the reduced rate of parking is appropriate.

- B11.3** Large expanses of car parking can be considered where it can be demonstrated that the visual impact is reduced through:
- landscaping beds at least 5 metres in width to the edges of the site which screen large portions of the car park from views from roads and public spaces and
 - regular landscaped areas and tree plantings are included within the design to break-up the expanse of paved area, provide shade and reduce the heat island effect of the space.



Acceptable solutions

Merit assessment

Unacceptable solutions

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

Performance criteria

PC12 Development provides adequate space for parking and manoeuvring of service and heavy vehicles.

A12.1 On-site loading facilities are provided to accommodate the anticipated heavy vehicle demand for the site.

A12.2 Loading dock circulation areas for service and heavy vehicles are:

- a. integrated into the design of developments
- b. separated from staff/visitor car parking areas and waste storage and collection areas
- c. located away from the circulation path of other vehicles
- d. located at the rear or sides of the buildings behind the front building line and
- e. screened from the street.

A12.3 Access, parking, manoeuvring and loading facilities for industrial development are designed in accordance with Australian Standard 2890.2-2004 (or the like) and Performance Based Standards 'An introduction for road managers' (National Heavy Vehicle Register – May 2019).

A12.4 Adequate space is provided on site for reversing of heavy vehicles in designated loading bays and loading docks.

B12.1 The design of parking and manoeuvring areas for service and heavy vehicles accessing the site meets the day to day needs of the business and does not create any safety risks or impacts on the public road network.

Note: The issuing authority may require a traffic and parking study to be prepared by a suitably qualified person to demonstrate the design and space for parking and manoeuvring of service and heavy vehicles is adequate.

U12.1 Loading, unloading or servicing within the public right of way.



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

PC13 Safe and convenient pedestrian and cycling paths are provided which connect to the precinct's network of shared use paths.

A13.1 End of journey facilities are provided on site for staff, including:

- a. secure, highly visible and conveniently located bike racks
- b. shower facilities and
- c. lockers.

A13.2 Pedestrian and cyclist access is:

- a. provided from the street frontage to the main building entry and
- b. a minimum 1.5 metres wide.

A13.3 Pedestrian and cyclist access is designed for universal access and to the relevant Australian Standards 1428.1-2009 and *Disability Discrimination Act 1992* Standards and Guidelines relating to site and building access for people with disabilities and mobility difficulties.

A13.4 All cycle routes and facilities are consistent with the relevant requirements of "Austroads Cycling Aspects of Austroads Guides" and Roads and Maritime Services' "Bicycle Guidelines" including line-marking, signage and logos and Council policies regarding bicycle access.

B13.1 The design of the site ensures that pedestrian and cyclist needs are adequately and safely accommodated.

No applicable.

6.1.2.4 Transport infrastructure and utilities

The planning and delivery of transport infrastructure and utilities across the precinct needs to be flexible and responsive, depending on the timing of growth and land take up within stages, in accordance with Chapter 4 - Infrastructure.

Road infrastructure in the precinct should cater for the largest design vehicle anticipated to access the precinct and should ensure the safe and efficient movement of vehicles throughout the precinct.

All new development within the precinct will be required to connect to key infrastructure including water, wastewater, electrical, telecommunications and other utilities and services as necessary. Where development is located near existing transport infrastructure or utilities, appropriate measures should be incorporated to protect the existing transport infrastructure or utilities.



Acceptable solutions
How to achieve it



Merit assessment
Objectives for considering
alternate solutions



Unacceptable solutions
What we do not want to see

Performance criteria

Streets and movement

PC14 Development ensures a safe and efficient road network is provided for all users within the precinct.

A14.1 Development occurs when the servicing road network and intersection capacities can accommodate the anticipated additional traffic volumes of the development.

B14.1 Upgrades to a road or intersection, or development in advance of road provision safely cater for the anticipated traffic flows or specific vehicle types servicing the development and demonstrate that:

- road and lane widths allow for two-way movement and turning movements of the largest design vehicle
- provide adequate turning paths for the largest design vehicle at intersections and for property access
- road widths are set to minimise kerbside restrictions and regulatory signage
- sufficient width is provided for drainage functions
- there is either sufficient space for shared infrastructure, or provision of infrastructure within the road reserve is not required due to its location elsewhere or within an easement on adjacent private property

U14.1 Roads are not suitable to service the development in terms of traffic volumes or vehicle types.

U14.2 Roads are designed and/or constructed in a manner that is not suitable for asset transfer to the relevant public authority.



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

PC14 Continued

- f. life cycle costs for construction and maintenance are minimised
- g. provide adequate on-street parking, where required
- h. provide a shared use path
- i. provide street tree planting in accordance with Section 3.4 – Species list and
- j. provide lighting in accordance with Section 4.2.5-Lighting and the relevant Australian Standards.

Note: A traffic impact assessment prepared by a suitably qualified person is required and considers the principles in Chapter 4 – Infrastructure and the suitability of the proposal in terms of the design and location of the road, and the likely nature, volume or frequency of traffic generated by the development.

Transport asset

PC15 Development on land that interfaces with an existing or future transport asset is designed to protect the safety, function and performance of the transport asset.

A15.1 Development on land within or adjoining a transport asset is undertaken in accordance with:

- a. the Guidelines for External and Developer-led Works Affecting Transport Assets and
- b. Part 3, Division 2 of the Precincts-Regional SEPP.

Note: The Precincts-Regional SEPP prevents an Activation Precinct certificate from being issued unless the issuing authority has consulted with the Rail Authority for the rail corridor for certain development in rail corridors.

The Roads Authority and/or the Rail Authority should be consulted at the earliest possible time during the Activation Precinct Certification Process and relevant approvals obtained where required.

Not applicable.

U15.1 Development impacts the safety, function or performance of transport assets.



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

Utilities and services

PC16 Adequate services are available to facilitate development.

A16.1 Development sequencing and staging is consistent with the infrastructure provision and capacity for the precinct in accordance with Chapter 4 – Infrastructure.

A16.2 Development makes provision for and connects to the key infrastructure in accordance with Chapter 4 – Infrastructure and Wagga Wagga City Council's relevant guidelines and policies, including as required:

- water
- wastewater
- electrical
- telecommunications and
- other utilities and services as required such as gas, hydrogen reticulation (including future hydrogen), recycled water etc.

Note: The relevant utility suppliers should be consulted at the earliest possible time.

The following suppliers maintain or supply electricity, gas and water to Wagga Wagga:

- electricity supply – Essential Energy
- gas supply – APA Group and
- water supply – Riverina Water.

Note: Council should be consulted on connections to utility services including for sewerage, drainage and approval under section 68 of the *Local Government Act 1993*. The process for seeking approval from the Council should commence at the earliest possible time and run in parallel with the Activation Precinct Certification process where possible.

B16.1 A reduced design standard or design approach may be acceptable if the infrastructure is intended to be temporary whilst other development is established or the permanent infrastructure is being built, provided the design does not present a risk to life or property.

B16.2 Development may occur in advance of infrastructure provision being in place, provided it can demonstrate that:

- capacity and loads for all utilities and services is known for future connection to infrastructure and
- the development is a catalyst project that cannot be accommodated within existing land areas currently able to be serviced by existing infrastructure or
- the applicant contributes to the provision of infrastructure, at a rate commensurate to the bringing forward of such infrastructure.

B16.3 Alternative locations for key infrastructure are identified as a result of further investigations and feasibility assessment.

U16.1 Development that compromises the planned and orderly delivery of infrastructure throughout the precinct, either due to location, sequencing, or demand generation.



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

PC16 Continued

Note: Information will be required on the proposed sewer outflow requirements including general sewer and trade waste.

For trade waste, nominate the expected material/ chemical composition. Depending on the trade waste, a separate approval may be required from Council or the Department of Planning and Environment.

PC17 Development protects existing and proposed utilities and services corridors.

A17.1 Development is appropriately designed, constructed, operated and maintained to protect existing and proposed utility and services corridors in accordance with:

- a. Chapter 4 – Infrastructure
- b. Part 3, Division 2 of the Precincts-Regional SEPP and
- c. relevant requirements for development adjacent to or likely to affect utility and services corridors within the Transport and Infrastructure SEPP.

Not applicable.

U17.1 Development that impacts on existing and proposed utilities and services corridors.

PC18 Development does not compromise the safe operation and maintenance of the high-pressure gas pipeline.

A18.1 A safety management study is required for development within the pipeline Measurement Length in accordance with Australian Standards 2885 for Pipelines – Gas and Liquid Petroleum which demonstrates that the proposal does not create an unacceptable risk to life or property and does not compromise the safe operation of the gas pipeline.

Note: The Measurement Length is 463 metres measured radially either side of the pipe.

Not applicable.

Not applicable.



Acceptable solutions

Merit assessment

Unacceptable solutions

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

Performance criteria

PC18 Continued

- A18.2** The following developments require the prior approval of the relevant pipeline operator to be located within the pipeline Measurement Length:
- a. child care centre-based facility
 - b. educational establishment
 - c. function centre
 - d. health services facility
 - e. highway service centre
 - f. service station
 - g. shop;
 - h. neighbourhood shop.
- A18.3** Development is not located on or in the pipeline easement without prior written confirmation from the relevant pipeline operator.
- A18.4** Any new road / service crossings for a development should be consolidated and perpendicular to the pipeline.
- A18.5** Where linear open space is impractical for industrial or commercial developments, the pipeline should be located within the front setback.
- A18.6** Development does not create additional lots (less than 2ha) over the pipeline easement. All lots that include the pipeline easement should ensure the building envelope is a sufficient size to accommodate the likely buildings to be constructed on the lot.
- A18.7** Development does not involve civil works within 20 metres of the pipeline or 20 metres of the pipeline easement boundaries for a high pressure gas pipeline, without prior written confirmation from the relevant pipeline operator.



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

PC18 Continued

- A18.8** Landscape plans depicting any planned landscaping within 3 metres of the pipeline must be submitted for approval by the pipeline operator.
- A18.9** The design of any infrastructure services shall minimise encroachment on the gas pipeline easement.
- A18.10** Buildings, structures, roadway, pavement, pipeline, cable, fence, on-site wastewater treatment (or irrigation area), or any other improvement on or under the land within the gas transmission pipeline easement must not be constructed without prior consent from the pipeline operator.

6.1.2.5 Stormwater

Stormwater infrastructure should integrate with the broader stormwater and flood management strategy. Stormwater runoff should also be retained on site, treated where necessary with discharge not to exceed pre-development flows or concentrations.

Best practice water cycle management initiatives are encouraged to reduce onsite potable water usage.

Water sensitive urban design (WSUD) techniques are to be used to reduce stormwater runoff, such that precinct stormwater system connections are limited to the design capacity of the site.



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

Stormwater

PC19 Stormwater generated on-site is appropriately managed to ensure minimal nuisance, danger and damage to people, property and the environment.

A19.1 Sites to provide a minimum 30 per cent pervious surfaces to capture rainwater and surface water runoff and maintain pre-development flow rates for all events up to, and including, the 1% AEP.

Note: pervious surfaces may include:

- tree planting
- mulched garden beds with planting
- planting for screening purposes
- pervious surface treatments, including compacted rubble, decorative gravels and inorganic mulches/sands
- drainage areas and WSUD treatments
- grasslands and rehabilitated/revegetated areas
- planting to any existing creek lines or surrounding remnant vegetation.

A19.2 On-site stormwater detention infrastructure is:

- a. provided to capture rainwater and surface runoff and maintain pre-development flow rates for all events up to, and including, the 1% AEP at a specified capacity per lot and
- b. constructed and operated in accordance with the Wagga Wagga City Council, Engineering Guidelines for Subdivisions and Development Standards.

Note: Further information in relation to specified capacity per lot can be obtained from the corporation.

Note: Where development is subsequent to and consistent with an approved subdivision which provides subregional stormwater detention infrastructure, site specific detention is not required.

B19.1 When sites include less than 30 per cent pervious surfaces, on-site stormwater detention infrastructure is provided to capture rainwater and surface runoff and maintain pre-flow rates for all events up to, and including, the 1% AEP at a capacity nominated by a Stormwater Management Plan prepared by a suitably qualified person.

B19.2 Onsite stormwater infrastructure is designed, constructed and operated:

- a. to not impede or necessitate alterations to the precinct-wide stormwater infrastructure
- b. to not impact on flood risk management requirements
- c. in accordance with the Wagga Wagga City Council, Engineering Guidelines for Subdivisions and Development Standards and
- d. to ensure that the detention capacity is in accordance with Australian Rainfall and Runoff (Engineers Australia, 2019) and Managing Urban Stormwater: Council Handbook (EPA, 1997) guidelines.

U19.1 Suitable onsite stormwater detention infrastructure is not provided.

U19.2 Onsite stormwater detention infrastructure impacts precinct-wide stormwater infrastructure or flood risk management requirements.



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

PC20 Development integrates best-practice water cycle management initiatives with both quantity and quality aspects for water management.

A20.1 Development provides the following onsite rainwater capture, storage facilities and re-use of water in irrigation, industrial processes, toilet flushing, evaporative cooling or for other non-drinking purposes:

- a. for development with a building footprint less than 6,000 square metres a rainwater tank with a minimum of 10,000 litres or
- b. for development with a building footprint greater than 6,000 square metres onsite rainwater storage tanks equivalent to a minimum of 1.65 litres storage per square metre of gross floor area.

Note: Information is required to be provided on the proposed potable water and non-potable water demands and percentage to be delivered via onsite water systems for the proposed development.

B20.1 Development demonstrates equivalent or better alternatives for integrating best-practice water cycle management initiatives in order to reduce potable water use.

U20.1 Development does not seek to reduce potable water use.

PC21 Protect, maintain and restore:

- a. water quality and waterway health through the design and management of the stormwater and wastewater management systems
- b. the ecological condition of aquatic systems (including but not limited to wetlands and riparian lands) over time and
- c. native vegetation to promote aquatic ecosystem functioning.

A21.1 Development incorporates WSUD measures through the design of stormwater drainage, onsite detention and landscaping.

A21.2 Site-based stormwater quality control measures are provided on site and:

- a. ensure water pollution is avoided and
- b. contribute to the following precinct-wide pollution load reduction targets:
 - Total Suspended Solids (TSS) by 80%
 - Total Phosphorus (TP) by 60%
 - Total Nitrogen (TN) by 45%
 - Gross pollutants by 90%.

Note: Development that meets the relevant water quality targets for the receiving waters to support the NSW Water Quality and River flow objectives (WQOs) are considered to satisfy this control.

B21.1 Development provides onsite end of pipe treatment devices where it can be demonstrated that WSUD measures are not feasible.

B21.2 If discharges are unavoidable, a water pollution impact assessment commensurate with the potential risk and in accordance with the National Water Quality Guidelines must be prepared, consistent with Section 45 of the *Protection of the Environment Operations Act 1997* (POEO Act) and in consultation with the Environment Protection Authority where required. The assessment must at a minimum:

U21.1 Any discharge of wastewater and/or contaminated stormwater to watercourses or waterways.



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

PC21 Continued

A21.3 All stormwater treatment measures are designed having consideration for ongoing operation and maintenance.

Note: A maintenance plan for stormwater treatment measures will be required for all development proposals that include stormwater treatment measures.

- predict the expected frequency and volume of discharges
- characterise the quality of any discharges in terms of the concentrations of all pollutants present at non-trivial levels
- assess the potential impacts of the proposed discharges on the environmental values of the receiving waterways consistent with the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG, 2018)
- demonstrate that all practical and reasonable measures to avoid or minimise water pollution are considered and implemented and
- propose appropriate discharge criteria based on the potential water quality impacts and the practical measures available to minimise pollution (e.g. treatment performance).

Note: Under section 120 of the POEO Act, it is an offence to pollute waters. However, sections 121 and 122 of the POEO Act provide a defence against a prosecution under section 120 where the pollution was regulated by a licence or regulation which was complied with fully.


The definition of 'water pollution' in the POEO Act sets out general and specific circumstances that constitute pollution. At its broadest, this means a prohibition on placing anything in waters that changes their chemical, biological or physical nature.

Development that is a scheduled activity under the POEO Act, or requires an environment protection licence to discharge water, must first seek to avoid any discharges. If discharges are unavoidable, development must comply with POEO Act requirements.

6.1.2.6 Earthworks

Site layout and design should seek to maintain the natural topography of the land and avoid the removal of vegetation by minimising earthworks on site. Where earthworks are required, they should be appropriately integrated the natural topographic pattern, building design and landscaping to screen from view.

Soil erosion from building sites, especially sloping sites is a major pollutant of watercourses and stormwater drainage systems. Reasonable measures are to be implemented to preserve the existing vegetation, prevent soil loss and rehabilitate the site through interim and long term revegetation strategies.

Performance criteria	 Acceptable solutions How to achieve it	 Merit assessment Objectives for considering alternate solutions	 Unacceptable solutions What we do not want to see
Earth works and retaining walls			
PC22 To: <ul style="list-style-type: none"> a. protect and minimise disturbance to natural landforms and design buildings and siteworks that respond sensitively to the natural topography b. take into account the stability of land having regard to its topography, geology and soils as part of site planning principles c. minimise disturbance of vegetation that stabilises land, particularly on sloping sites and d. encourage reuse of fill material from within the precinct. 	<p>A22.1 Design and site layout minimises the need for cut and fill.</p> <p>Note: A geotechnical report prepared by a suitably qualified geotechnical engineer is to be submitted where earthworks are proposed greater than 1 metre in height.</p> <p>A22.2 Development ensures vegetation is protected on the site, particularly where it is important to site stability.</p> <p>A22.3 Level transitions are managed between lots and not at the interface to the public domain. Finished ground levels adjacent to the public domain or public road dedication are no greater than 1 metre above the finished road level (or public domain level).</p> <p>A22.4 Excavation and fill up to one metre may be permitted to allow for the establishment of a level construction pad providing excavation is adequately retained and drained in accordance with engineering requirements.</p> <p>A22.5 Where a level difference exceeds 1 metre or adjoins the public domain or public road dedication, the resulting landscape setback must be increased to accommodate tiered retaining walls.</p>	<p>Not applicable.</p>	<p>U22.1 Larger retaining walls located in areas identified as being of high visual amenity as shown in Map 8.2.</p> <p>U22.2 Filling, excavation or retaining walls that impact on areas of high value biodiversity, the root systems of paddock trees or the amenity and functionality of adjoining properties.</p> <p>U22.3 Filling, excavation or retaining walls located within easements.</p>



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

PC22 Continued

A22.6 More than two rows of retaining walls may be acceptable where it can be demonstrated that the retaining walls are:

- integrated into the landscape through a terraced edge separated by a planted area of no less than 3 metres to accommodate landscaping or
- suitably screened from views beyond the site by other buildings, structures or landscaping and
- not located within an area identified as being in a visually sensitive location as shown in Map 8.2.

A22.7 Retaining walls are separated by a planted area of no less than three metres in accordance with Section 3.4 – Planting palates.

Note: All retaining walls proposed for the site are to be identified in the application for the proposed Activation Precinct certificate.

Erosion and sediment control

PC23 Protect waterways, drainage systems and groundwater quality, flows and drainage patterns during demolition, construction and ongoing operation phases of development.

A23.1 An Erosion and Sediment Control Plan is prepared by a suitably qualified person in accordance with Managing Urban Stormwater: Soils and Construction prepared by Landcom (Blue Book) prior to applying for a Complying Development Certificate.

Note: Under section 120 of the POEO Act, it is an offence to pollute waters. However, sections 121 and 122 of the POEO Act provide a defence against a prosecution under section 120 where the pollution was regulated by a licence or regulation which was complied with fully.

The definition of 'water pollution' in the POEO Act sets out general and specific circumstances that constitute pollution. At its broadest, this means a prohibition on placing anything in waters that changes their chemical, biological or physical nature.

Not applicable.

Not applicable.

6.1.2.7 Landscaping

Landscaping should maintain the character of the precinct and enhance the surrounding environment. Landscaping should be informed by the site's natural features and, where possible, retain and protect existing areas of remnant vegetation. It should reflect the bioregion and vegetation typologies of the precinct and enhance habitat and biodiversity in accordance with Chapter 3 – Precinct revegetation strategy. Landscaping should be used to revegetate creek lines, prevent erosion and to soften building mass and scale, and areas of car parks, wherever possible.



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

Landscaping

Note: A landscape plan prepared by a qualified architect or consultant will be required for all development proposals that illustrates the proposed landscape design for the development proposal.

PC24 Landscaping creates a distinctive and memorable experience for users and are used in high-visitation areas.

A24.1 Landscaped areas to the primary street frontage, main entrance driveway, street interfaces, car parks and other open space areas provided for customers and staff within developments include:

- a. mulch to a depth of 75mm
- b. irrigated garden beds to a minimum width of 1500mm, except for any garden bed to the primary street frontage along the front fence is to be a minimum 2 metres width
- c. plant species in accordance with Section 3.4 – Planting palates.

A24.2 Car park landscaping:

- a. provides one semi-mature tree at a minimum between every 5 car spaces or one tree every 3 spaces, evenly through the parking areas
- b. is located adjacent to the edge of all car parks and pathways
- c. includes plant species in accordance with the planting palate in Section 3.4.2 – Landscape planting
- d. retains existing vegetation of ecological value and
- e. uses recycled water or on-site stormwater for irrigation.

B24.1 Landscape responsive streets and places are developed, in accordance with Chapter 2 – Precinct design principles.

Not applicable.



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

PC24 Continued

- A24.3** Irrigated semi-mature trees are provided along both sides of the driveway with tree height and spread at maturity considering the height of the largest design vehicle to use the driveway.
- A24.4** WSUD measures are integrated into landscape design such as irrigating garden beds using stormwater captured on-site and recycled water.

PC25 Landscaping:

- retains and protects areas of high value biodiversity in the site landscape design
- builds on the ecology, habitat and biodiversity of the precinct and wider region
- uses revegetation practices and includes a mix of endemic plant species and plants native to the precinct and
- uses perimeter buffer planting to screen development from surrounding vistas, and longer distance views from settlements across valleys.

- A25.1** Landscape design integrates the following areas:
- remnant vegetation, including paddock trees and
 - precinct biodiversity corridors, riparian corridors and strategic revegetation sites.
- A25.2** New vegetated and landscaped areas that form a green corridor are integrated into the landscape design on the site and provide additional connectivity to existing vegetated areas.
- A25.3** Where feasible, vegetation clearing is minimised.
- A25.4** The planting palate in Section 3.4.1 – Biodiversity focused revegetation is used to inform the species selection and minimum species size for the site.

- B25.1** Landscaping contributes to enhanced public domain outcomes consistent with Chapter 2 – Precinct design principles and Chapter 3 – Precinct revegetation strategy.

Not applicable.

**Bomen Business Park,
Wagga Wagga, NSW**

Landscaping is present along the primary street frontage while adding shade and visual appeal to the location.



Native vegetation



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

Fencing

PC26 Fencing is integrated with the development and is suitable for its intended purpose.

A26.1 Primary street frontage fences:

- a. are open in character and of a contemporary, high-quality fence style consisting of either hardwood timber, corten steel, vertical aluminium blade or laser-cut aluminium or steel
- b. are a maximum of 2.1 metres in height
- c. incorporate complementary gates
- d. are integrated with the main entrance and
- e. may incorporate customised panels or features to reflect the intended character of the built form and landscaped areas.

A26.2 Side and rear fences are a maximum of 2.1 metres in height.

A26.3 Areas requiring solid fencing for screening should:

- a. be recessive and use corrugated, powder coated metal panels with a matte finish, in dark grey
- b. be minimised to areas adjacent to the proposed building or service areas
- c. be softened and screened by low and medium height landscaping within a bed of at least one metre in depth and
- d. allow for drainage underneath to avoid flooding and ensure drainage paths are maintained.

B26.1 Fencing is designed to enhance the visual amenity of the precinct and ensure that drainage flow paths are maintained, in accordance with Chapter 2 – Precinct design principles.

U26.1 Security fencing, cyclone mesh and chain wire fencing forward of the building line and not suitably screened with landscaping.

**Bomen Business Park,
Wagga Wagga, NSW**

Aluminium vertical panel fence is open in character, integrating the façade and main entrance of building and sits at a suitable height (less than 2.1 meters). It adds texture and additional elements to streetscape, flowing with existing integrated vegetation.



**Bomen Precinct,
Wagga Wagga, NSW**

Steel Colourbond fence in dark grey, less than 2.1 meters high, it allows a modern street façade softened and screened by landscaping for enhanced visual amenity.



**Bomen Business Park,
Wagga Wagga, NSW**

Traditional wire fence creates a visual separation between landscaping and the carpark while utilising an open character that flows seamlessly into the existing street frontage.



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

Lighting

PC27 Ensure lighting:

- a. is energy efficient and maximises on site comfort, safety and security and
- b. avoids impacts to surrounding sensitive receivers.

A27.1 Development achieves compliance with Australian Standards 4282:2019 for outdoor lighting.

A27.2 Development ensures lighting is located, directed and shielded to avoid glare directly to surrounding habitable areas such as Brucedale and Eunony Valley.

A27.3 Main building entry lighting includes:

- a. solar lit bollards or pole top lights along the main building entrance path
- b. controlled uplighting (timer) to selected trees along the primary vehicle access
- c. appropriately illuminated (backlighting, uplighting) business signage, as required and
- d. security and sensor lighting, as required.

A27.4 Car park lighting:

- a. is designed to ensure safe and continuous access to the main building entrance/s
- b. includes solar lit bollards or pole top lights along pedestrian path/s
- c. includes security and sensor lighting, as required.

B27.1 Lighting is provided along the main building entry, primary vehicle accesses and in car parks which contribute to the achievement of a safe night-time environment for staff and visitors as well as supporting an active and connected precinct, in accordance with Chapter 2 – Precinct design principles.




U27.1 Development that does not mitigate lightspill to sensitive receivers that are adjacent or within direct line of sight.

U27.2 Development that creates dark corners or pockets, risking user safety.

U27.3 Development that does not appropriately light pedestrian pathways creating slip or trip hazards and risking user safety.

6.1.2.8 Service and storage areas

Service and storage areas are important to the operation of any development and should be both functional and practical. The location and siting of service and storage areas should be considered early in the development of concept plans.

Performance criteria	 Acceptable solutions How to achieve it	 Merit assessment Objectives for considering alternate solutions	 Unacceptable solutions What we do not want to see
Service and storage areas			
PC28 Service and storage areas: <ul style="list-style-type: none"> a. are functional and practical and b. do not detract from the visual amenity or operational efficiency of the precinct or surrounding areas. 	A28.1 Service and storage areas are: <ul style="list-style-type: none"> a. located behind the main building line and to the rear or side of buildings, where possible; b. appropriately sealed or treated; and c. screened from view so that they are not visible or prominent from public vantage points. <p>Note: Screening can use a range of approaches including landscaping, perforated metal screens, fencing and other creative approaches that integrate screening into the site appearance so as not to be a dominant element of the site's presentation to a street.</p> A28.2 Service and storage areas include a dedicated area set aside for waste storage and collection based on calculated waste and recycled material generation rates for the particular business, building size, and potential future expansion. <p>Note: The issuing authority may require a waste management plan to be prepared which details the waste management and minimisation activities to be carried out during operation of the premises / development.</p>	Not applicable.	U28.1 Waste collection within the public right of way. U28.2 Waste collection within the site's car parking and pedestrian movement areas where user safety is at risk or compromised. U28.3 Poor waste management practices, risky processing or waste handling behaviour that could lead to land or water contamination or pose risks to people and the environment.



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

PC28 Continued

A28.3 Waste storage and collection areas are:

- flexible in their design to allow for source separation and future changes in the operation, tenancies and uses
- located away from primary street frontages, where applicable
- suitably screened from public areas to reduce the impacts of noise, odour and visual amenity
- designed and located to ensure the access and manoeuvring area is suitable for the collection vehicle and allow the vehicle to enter and exit the site in a forward direction, where possible and
- provide grease traps where there is a likelihood of liquid waste entering the drainage systems.

A28.4 Where possible, service and storage areas are located and sized to take into account potential synergies with neighbouring businesses as part of a circular economy where waste transfer to and from sites can occur in an efficient manner.

A28.5 Communal storage / collection facilities are located and sized:

- where the design makes it difficult for all tenants to have ready access to a collection point or
- where the site characteristics restrict vehicle entry.




A28.6 Service and storage areas include space and facilities for bin washing that are bunded and connected to a treated wastewater system.

6.1.2.9 Signage

Business identification signage should be integrated into the building and site design. Signage should be considered at the primary access and on the building (where appropriate) to assist in wayfinding. Business identification signage across the precinct should be of a high quality (avoiding visual clutter), reflective of the precinct's goals, and consistent in approach.

Wayfinding signage will enhance the experience and functionality of each business within the precinct, as well provide an avenue for connection to country through Wiradjuri design and storytelling.

It is important that Wiradjuri design elements and storytelling within any wayfinding signage is prepared in consultation with the local Indigenous community so that it accurately and respectfully presents the history and culture of the Wiradjuri people.

Performance criteria			
	Acceptable solutions How to achieve it	Merit assessment Objectives for considering alternate solutions	Unacceptable solutions What we do not want to see
Business identification signage			
PC29 Business identification signage visible from the public realm contributes to legible, coherent and visually attractive identification of businesses and locations throughout the precinct.	A29.1 Business identification signage: <ul style="list-style-type: none"> a. is limited to one logo/company badge /name per tenancy b. is made from suitable materials such as acrylic letters/logos or recycled materials that maintain a high quality visual appearance for the anticipated life of the sign c. is integrated with the building design by virtue of the location of signage panels and colour and materiality of any visible structural supports d. is located within the overall building frontage or corner and does not extrude beyond any roof line e. is no more than 10 per cent of the building facade f. is visible from the primary street frontage and g. complies with Australian Standard 1319-1994. 	B29.1 Additional business identification signage may be appropriate where it can be demonstrated that it is: <ul style="list-style-type: none"> a. complementary to the scale of the allotment and buildings on the site b. compatible with the signage that is within the streetscape c. needed to provide directions and identification to additional entries on the site, particularly if located on another street frontage d. needed to aid in identifying key building entry points to particular elements of the land use activity (such as reception and other departments), or separate buildings on the site and e. consistently sized and designed as a suite with a common appearance and materiality. 	U29.1 Signage that: <ul style="list-style-type: none"> a. is roof mounted or applied to roof materials b. flashes, moves or is animated in any way and/or c. incorporates LED screens.U31.2 Large and obtrusive signage that detracts from the visual character of the precinct. U29.2 Proliferation of signage along site frontages. U29.3 Provision of third-party advertisements within the precinct.



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

PC29 Continued

A29.2 The site is limited to one freestanding pylon signage being of a height of the building/s it relates to, with a maximum height of 8 metres, maximum width of 2.5 metres and maximum advertising area of 20 square metres per advertising face (or 40 square metres where on both sides) and limited to advertisements for all relevant businesses on the site (including where multiple tenancies apply).

A29.3 The site is limited to one entry signage per access to a maximum height of 1.5 metres and a length of four metres and located within either a landscaped garden bed or mulched area and integrated as part of the site fencing.

A29.4 Where illuminated:

- a. include illumination, time automation and overrides as required
- b. include sensors to control lighting in concert with natural daylighting
- c. utilise the most energy efficient LED fittings including light colour control, dimming and output.

Note: The Roads Authority must be consulted early in the Activation Precinct Certification process with regards to signage greater than or equal to 20 square metres or higher than 8 metres above the ground within 250 metres of, and visible from, a classified road, and appropriate approvals obtained where required.

**Bomen Business Park,
Wagga Wagga, NSW**

Entry signage less than 1.5 meters squared and integrated within site fencing, complementary to existing elements. Minimal colour and small scale with not detract from façade or landscaping.



**Bomen Business Park,
Wagga Wagga, NSW**

Signage is limited to company logo/name and is made from suitable material, maintaining a high visual quality. Located on the building frontage and easily visible from the primary street frontage. Less than 10 per cent of the building façade, yet complementary to existing colours and elements.




6.1.3 Specific development requirements

This section provides assessment criteria that apply to specific development and uses, including development on large lots, rail and intermodal development and solar energy farms within the Regional Enterprise Zone.

The following provisions of the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 will apply to the specified development on land in the Regional Enterprise Zone:

- building alterations (internal) – clauses 5.1–5.2
- minor building alterations (external) – clauses 2.53–2.54
- demolition – Part 7 Demolition Code Note: A licence is required to conduct certain types of demolition work. Consultation with Safe Work NSW should be undertaken early in the Activation Precinct Certification process and appropriate licences obtained where required.

6.1.3.1 Development on large lots (minimum 1 hectare)

Performance criteria	 <i>Acceptable solutions</i> How to achieve it	 <i>Merit assessment</i> Objectives for considering alternate solutions	 <i>Unacceptable solutions</i> What we do not want to see
Large lots (minimum 1 hectare)			
PC30 Side and rear setbacks provide appropriate spacing between lots.	A30.1 A minimum five metre setback is provided to side and rear boundaries. A30.2 A minimum three metre width of landscaping: <ol style="list-style-type: none"> is provided from side and rear fences and comprises locally sourced, minimum 100L (formal) sized native trees with middle level strata shrubs native to the area in accordance with Section 3.4–Planting palates between the trees. 	B30.1 Reduced setbacks may be considered where good public domain outcomes are achieved through the provision of landscaping in accordance with Chapter 2–Precinct design principles.	Not applicable.



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

Wayfinding signage

PC31 Wayfinding signage is used and designed to assist visitors, staff and customers to navigate large sites with multiple buildings and access points.

A31.1 Wayfinding signage is located at key vehicle and pedestrian entry points, building entries and other key sites such as Wiradjuri keep sites or locations of cultural significance retained on the site.

A31.2 Wayfinding signage:

- a. is designed as a suite and integrated into the landscaping design
- b. is appropriately sized to suit all users navigating the site
- c. remains visible during all hours of the day and night
- d. provides for all users through their positioning, size and content
- e. is constructed of hardy and sustainable materials sourced locally, including use of stone and timber.

A31.3 Wayfinding signage incorporates Wiradjuri design elements, including:

- a. integration of Aboriginal design iconography in artworks
- b. dual naming of locations and features
- c. identification of sites with cultural importance such as providing information on their location and distance from each relevant sign and
- d. integration of sculpture, asphalt, concrete or landscape patterns, message sticks and wall surfaces.

B31.1 Development enhances the experience and functionality of businesses within the precinct through wayfinding signage which incorporates Wiradjuri design and storytelling.

U31.1 Signage that:

- a. is roof mounted or applied to roof materials
- b. flashes, moves or is animated in any way and/or
- c. incorporates LED screens.

U31.2 Large and obtrusive signage that detracts from the visual character of the precinct.

U31.3 Proliferation of signage along site frontages.

**Tonsley,
South Australia**

Wayfinding signage should be easily identifiable from a distance, and clear in messaging.



**MAB, Tonsley,
South Australia**

Wayfinding signage can also tell the history and other useful information for a place, including where sites of indigenous cultural significance exist.

6.1.3.2 Rail and intermodal development



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

Rail and intermodal

PC32 Development in the rail and intermodal area preserves opportunities for rail and transport infrastructure crucial to maintaining the precinct's competitive advantage as a rail-focused freight and logistics hub.

A32.1 Development is established to take advantage of proximity to appropriate transport routes and does not adversely impact on the safe and efficient functioning of the rail corridor as well as integrated rail and road transport routes.

Note: Development requiring rail access shall consult with the relevant rail infrastructure provider as part of preparing the application for an Activation Precinct certificate.

A32.2 Rail spurs and sidings, including the uploading, loading or discharge of freight carried by road or rail are designed by a suitably qualified engineer in accordance with appropriate design and structural standards.

A32.3 Development that consists of the construction or installation of any of the following items are designed by a suitably qualified engineer in accordance with the appropriate design specifications and structural standards:

- a. a bridge used for a purpose other than a road
- b. a rail-mounted crane, crane rails for a rail mounted crane or a fixed crane
- c. a ship loader, unloader, or cargo handling facilities
- d. a dry bulk storage silo
- e. road and rail terminal facilities
- f. a stacker-reclaimer, stacker or reclaimer
- g. wharves and berthing infrastructure
- h. a conveyor system.

A32.4 Industrial development and support services:

- a. take advantage of the access to key rail and road networks; and
- b. maximise opportunities for the clustering and co-location of synergistic developments, including supporting infrastructure.

Not applicable.

Not applicable.

6.1.3.3 Solar energy farms



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

Solar energy farms

- PC33** Solar energy farms are appropriately located to:
- protect important sensitive view corridors and
 - minimise any off-site visual impacts on surrounding areas, including the potential for any glare or reflection
 - reduce impact on land that was previously used for agricultural purposes.

A33.1 Development for Solar energy farms are appropriately located in accordance with Section 3.1.1 Land use (Performance Criteria F) in the master plan and as shown in Figure 4: Permissibility of solar energy farms in the master plan.

A33.2 Landscaping is provided for screening of Solar energy farms which comprises:

- a minimum 15 metre wide privately owned and maintained landscaped buffer to the perimeter of the site, as well as an access road at the perimeter of the solar arrays
- tree species with dense canopies and a minimum mature height of eight metres and
- locally sourced, minimum 100 litre (formal) sized native trees with middle level strata shrubs native to the area in accordance with Section 3.4 – Planting palates between the trees.

A33.3 Solar energy farms are designed to run with the existing land form to reduce earthworks and are not positioned on land with a slope greater than 10 per cent.

A33.4 The visual appearance of all ancillary infrastructure (including paint colours) blends in as far as possible with the surrounding landscape.

A33.5 Development provides a decommissioning and rehabilitation plan to ensure that the land is rehabilitated and restored to existing condition or better following completion of the development.

Note: The preparation of a landscape plan prepared by a qualified landscape architect or consultant that illustrates the proposed landscape design will be required.

Note: Landscaped buffers should be informed by the site's natural features and landscape and reflect the bioregion and vegetation typologies of the precinct in accordance with Chapter 3 – Precinct revegetation strategy.

Not applicable.

Not applicable.



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

PC34 Solar energy farm design and operations are resilient to flood events.

A34.1 Development ensures solar panels and supporting electrical services are located outside the flood planning area as shown in Map 8.5.

B34.1 Suitable mitigation is undertaken to avoid flood impact on solar panels and other infrastructure in the flood planning area as shown in Map 8.5, including locating equipment above the flood planning level.




Note: A flood risk management report that demonstrates how flood risk will be managed and mitigated prepared by a suitably qualified engineer will be required.

U34.1 Site design and operations that can result in avoidable damage or disruption from flood events.

6.1.4 Sustainability

The master plan has been prepared to ensure that development maximises sustainability opportunities to achieve 'Eco-Industrial Park' recognition in accordance with the United Nations Industrial Development Organisation (UNIDO) framework. An Eco-Industrial Park is a place where businesses work together to achieve enhanced environmental, economic and social performance through collaboration. This collaboration could involve the physical exchange of materials, energy, water and by-products, creating a circular economy where one business' 'waste' becomes another's input.

This section sets out the assessment criteria for maximising sustainability and circular economy opportunities within the Regional Enterprise Zone.

Performance criteria	 Acceptable solutions How to achieve it	 Merit assessment Objectives for considering alternate solutions	 Unacceptable solutions What we do not want to see
Sustainability			
PC35 Development supports and contributes to the principles of the UNIDO for Eco-Industrial Park framework and a carbon neutral precinct.	A35.1 Development demonstrates a commitment to contributing towards the Wagga Wagga Special Activation Precinct accredited ISO14001 EMS framework. A35.2 If required, the applicant commits to contributing data in accordance with the precinct EMS framework. Note: Access to the Wagga Wagga Special Activation Precinct accredited ISO14001 EMS framework can be obtained from the corporation.	B35.1 The applicant: <ul style="list-style-type: none"> a. commits to developing an ISO14001 EMS framework within 12 months from the date of approval or provides a copy of an existing ISO14001 EMS accreditation for the development and b. commits to contributing data in accordance with the precinct EMS framework. 	U35.1 Development does not demonstrate a commitment to the principles of the UNIDO Eco-Industrial Park framework and a carbon neutral precinct.
Note: The EMS framework is scalable depending on the size and nature of businesses within the precinct. For small businesses, a commitment to the EMS framework and annual data for energy and water consumption would be required e.g. by supplying electricity bills.			
PC36 Development supports energy efficiency through the use of renewable energy.	A36.1 Development: <ul style="list-style-type: none"> a. maximises energy capture and reuse through roof top mounted solar PV b. utilises an equivalent or better alternative onsite renewable energy generation system and/or c. utilises / connects to an offsite renewable energy resource. Note: Information on the proposed electricity demand and consumption and percentage proposed to be delivered via renewables (onsite and offsite) will be required. Note: Information on the proposed gas demand and percentage to be delivered via hydrogen will be required in circumstances that the development proposes to utilise hydrogen as a renewable energy resource.	Not applicable.	Not applicable.



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

PC37 Opportunities for establishing a circular economy are enabled through infrastructure and the co-location of industries requiring transport and utility/service connections.

- A37.1** Where possible, development:
- a. design and layout considers shared infrastructure such as driveways, car parking and service and storage areas, where applicable
 - b. provides space for required service corridor easements in accordance with Chapter 4 – Infrastructure
 - c. contributes to the clustering of like land uses with similar transport, utility and service infrastructure needs, where applicable and
 - d. takes advantage of existing and proposed shared systems relating to resource handling and storage, fuel or water storage, on-site energy generation, resource processing and the use of bi-products from other businesses.

Not applicable.

Not applicable.



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

<p>PC38 To minimise the overall environmental impacts of waste by:</p> <ul style="list-style-type: none"> a. encouraging development to facilitate ongoing waste avoidance b. encouraging development to embed circular economy principles into its planning and operations c. requiring on-site waste separation and other design and siting standards which assist waste collection and management d. encouraging building designs and construction techniques that minimise waste generation e. maximising opportunities to reuse and recycle building and construction materials as well as other waste in the ongoing use of a premise and f. reducing the demand for waste disposal. 	<p>A38.1 Development has:</p> <ul style="list-style-type: none"> a. identified basic resource flows within and outside the precinct that will contribute to reducing waste to landfill and promote the use of recycled and reclaimed materials or b. waste and resource management systems in place which aim to reduce waste to landfill and maximise the use of recycled and reclaimed materials. <p>Note: The identification of resource flows is scalable depending on the size and nature of the business i.e. may be simply demonstrated through a diagram.</p> <p>Note: The issuing authority may require a waste management plan to be prepared which details the waste management and minimisation activities to be carried out during operation of the premises / development.</p> <p>A38.2 Development incorporates the use of recycled or reclaimed materials in construction where possible.</p> <p>Note: The issuing authority may require a waste management plan to be prepared which details the waste management and minimisation activities to be carried out during demolition and/or construction of the development.</p>	<p>Not applicable.</p>	<p>U38.1 Development that maximises waste to landfill.</p>
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6.2 Rural Activity Zone




The Rural Activity Zone performs an important function in providing for sufficient separation from industries to sensitive land uses, as well as maintaining the attractive rural landscape setting. This section provides the assessment criteria that needs to be considered when planning and designing a site within the Rural Activity Zone, including requirements for site layout, site access, built form and signage.

6.2.1 Controls that apply to development in rural areas

Maintaining an open and largely uninterrupted landscape character with buffer areas is important. The master plan has created the Rural Activity Zone as a buffer to the Regional Enterprise Zone, while enabling the Rural Activity Zone to have productive uses and activities.

Development in the Rural Activity Zone should consider the landscape setting, existing vegetation, natural drainage paths, and opportunities to incorporate new tree and vegetation plantings that contribute to the biodiversity, vegetation and riparian corridors for the precinct.

Planning for sites should also take into consideration the flatter locations more suitable for buildings, key vistas and viewing points as shown in Map 8.2, given these sites are likely to be highly visible both to Olympic Highway and surrounding residential areas.

Performance criteria	 Acceptable solutions How to achieve it	 Merit assessment Objectives for considering alternate solutions	 Unacceptable solutions What we do not want to see
Development in rural areas			
PC39 Development in rural areas is compatible with the site context and designed and sited to minimise conflict between the industrial development located within the Regional Enterprise Zone and surrounding residential areas.	<p>A39.1 Provide a minimum 10 metre privately owned and maintained landscaped buffer to site boundaries.</p> <p>Note: Landscaped buffers should be informed by the site's natural features and landscape and reflect the bioregion and vegetation typologies of the precinct in accordance with Chapter 3 – Precinct revegetation strategy.</p> <p>A39.2 Use landscaping and other screening options to help integrate new uses and developments into the rural landscape.</p> <p>A39.3 Traditional rural fencing, such as post and wire are encouraged. Use vegetation barriers where needed to provide visual screening between adjoining properties.</p> <p>A39.4 Uses must be capable of operating within capacities of available existing utilities and services and/or provide appropriate onsite utilities and services where required.</p>	Not applicable.	Not applicable.



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

PC39 Continued

- A39.5** Provide adequate facilities for additional traffic in terms of vehicle access and movements, parking areas, and loading and unloading of goods.
- A39.6** In the case of larger projects, the issuing authority may require the applicant to demonstrate that the roads in the locality are of satisfactory construction and condition to accommodate the size, weight and volume of vehicles that could be generated by the use, and that the local traffic conditions are suitable.
- A39.7** Provide satisfactory arrangements for storage and disposal of waste.



Box Gum Woodland

Traditional rural fencing and retention of vegetation along the road corridor acts as a natural landscaped buffer contributing to a visually appealing rural landscape setting.

6.2.2 Specific development requirements

This section provides assessment criteria that apply to specific development and uses within the Rural Activity Zone.

It is noted that the Precincts-Regional SEPP provides that the following provisions of the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 apply to development specified as exempt development on land in the Rural Activity Zone in the precinct:

- for land in the Rural Activity Zone—clauses 2.9–2.14, 2.27–2.30, 2.30A, 2.30B, 2.35, 2.36, 2.46A–2.48, 2.51, 2.52, 2.54A–2.56, 2.71–2.72B, 2.75, 2.76, 2.79, 2.80, 2.98, 2.99, 2.104 and 2.105
- for land in the Rural Activity Zone but only in relation to existing residential premises—clauses 2.17, 2.18, 2.21, 2.22, 2.39, 2.40, 2.42A, 2.42B, 2.57–2.62, 2.69, 2.70, 2.73 and 2.74.

These same development standards will apply to the specified development within the Rural Activity Zone even if the development is complying development or requires a development application.

The following provisions of the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 will apply to the specified development on land in the Rural Activity Zone:

- Demolition – Part 7 Demolition Code.

Note: A licence is required to conduct certain types of demolition work. Consultation with Safe Work NSW should be undertaken early in the Activation Precinct Certification process and appropriate licences obtained where required.

- Farm buildings are designed and sited in accordance with clauses 2.31 and 2.32
- Stock holding yards not used for the sale of stock are designed and sited in accordance with clauses 2.32A and 2.32B
- Grain silos and grain bunkers are designed and sited in accordance with clauses 2.32C to 2.32F
- Fuel tanks and gas storage are designed and sited in accordance with clauses 2.42AA and 2.4AB.



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

Solar energy farms

- PC40** Solar energy farms are appropriately located to:
- protect important sensitive view corridors and
 - minimise any off-site visual impacts on surrounding areas, including the potential for any glare or reflection.
 - reduce impact on land that was previously used for agricultural purposes.

- A40.1** Solar energy farms:
- incorporate a minimum 15 metre privately owned and maintained landscaped buffer to the perimeter of the site, as well as an access road at the perimeter of the solar arrays
 - arrays are not positioned west of the western ridgeline adjacent to Poyles Road
 - are designed to run with the existing land form to reduce earthworks and are not positioned on land with a slope greater than 10 per cent and
 - the visual appearance of all ancillary infrastructure (including paint colours) blends in as far as possible with the surrounding landscape.

- A40.2** Development provides a decommissioning and rehabilitation plan to ensure that the land is rehabilitated and restored to existing condition or better following completion of the development.

Note: The preparation of a landscape plan prepared by a qualified landscape architect or consultant that illustrates the proposed landscape design will be required.

Note: Landscaped buffers should be informed by the site's natural features and landscape and reflect the bioregion and vegetation typologies of the precinct in accordance with Chapter 3 – Precinct revegetation strategy.

Not applicable.

Not applicable.

6.2.3 Business identification signage

Business identification signage in the Rural Activity Zone should reflect the type of development in this zone and be consistent with the building and landscaping.



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

Business signage

PC41 Business identification signage is appropriate to the character of the Rural Activity Zone.

A41.1 Business identification signage is limited to entry signage at the road entry which includes a maximum:

- a. height of 2 metres
- b. width of 1.5 metres and
- c. advertising area of 2 square metres.

B41.1 Additional signage may be appropriate where it can be demonstrated it is:

- a. complementary to the scale of the site and Rural Activity Zone
- b. needed to provide directions and identification to additional entries or buildings on the site and
- c. does not adversely impact the safety and efficiency of the surrounding road network.

U41.1 Signage that:

- a. is illuminated
- b. flashes, moves or is animated in any way and/or
- c. incorporates LED screens.

U41.2 Large and obtrusive signage that detracts from the visual character of the precinct.

U41.3 Provision of third-party advertisements within the precinct.

6.3 Precinct-wide




6.3.1 Environment

This section provides the assessment criteria related to protecting and enhancing the rural landscape character, cultural heritage places, sites and objects and land with high biodiversity values within the precinct.

An Environmentally Sensitive Areas map is contained within the Precincts-Regional SEPP for the Wagga Wagga Special Activation Precinct identifying land of environmental importance where complying development cannot occur. The master plan seeks to protect and enhance these biodiversity values.

6.3.1.1 Landscape character and visual impact

The precinct enjoys a beautiful landscape setting, with rolling hills and fertile valleys. The landscape design for the development proposal should be developed with regard to the natural features of the site in which the development is proposed.

Performance criteria	 Acceptable solutions How to achieve it	 Merit assessment Objectives for considering alternate solutions	 Unacceptable solutions What we do not want to see
Landscape character			
PC42 Protect the rural landscape character and natural topography and features such as drainage lines and waterways of the precinct.	A42.1 Development is designed and sited to: <ul style="list-style-type: none"> a. retain and enhance areas of remnant vegetation communities, vegetation corridors and riparian corridors as shown in Map 8.3 in accordance with Chapter 3 – Precinct revegetation strategy b. maintain significant landscape features such as the rocky outcrops c. maintain existing mature trees where possible or provide a reasonable strategy for replanting mature trees d. identify Indigenous heritage features which should be retained in place on site and e. avoid or minimise alteration to natural features such as drainage lines and waterways, hill tops and ridgelines. 	Not applicable.	U42.1 Development that does not integrate site specific solutions.

Rocky outcrops

The Rocky Outcrops provide a focal point for the surrounding area and sites should be managed to avoid any potential adverse impacts and ensure the stability of the landscape is maintained.



Box Gum Woodland

Retention of Box Gum Woodland within a sites landscaping will contribute to a visually appealing rural landscaped setting



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

PC43 Protect and enhance the rural landscape character of the precinct adjacent to major arterial roads, rural land and existing creek lines

A43.1 A minimum 10 metre privately owned and maintained landscaped buffer applies to all lots adjacent to the Olympic Highway and Byrnes Road.

Note: Landscaped buffers should be informed by the site's natural features and landscape and reflect the bioregion and vegetation typologies of the precinct in accordance with Chapter 3 – Precinct revegetation strategy.

Note: Where a property includes a riparian corridor that runs in parallel to the Olympic Highway, and a privately owned and maintained landscaped buffer is also required, only the riparian buffer is required to be provided.

Not applicable.

Not applicable.

Visual impact

PC44 Minimise the visual impact of development and provide the areas of Brucedale, Cartwrights Hill, North Wagga Wagga and Eunony Valley with an outlook to trees and landscape.

A44.1 The former wool combing ponds site (as shown in Figure 7: Landscape strategy for minimising visual impact in the master plan) should integrate landscape buffer plantings across the site to maintain a vegetated appearance, screening and softening any built form on the site when viewed from the Eunony Valley and should comprise of:

- expanding existing vegetation around the perimeter of the site boundary to the same depth to those existing and
- planting of buffer vegetation between bench levels in a north-south direction aligned to the contours of the land.

A44.2 The Byrnes Road site (as shown on Figure 7: Landscape strategy for minimising visual impact in the master plan) should comprise of a minimum 10 metre privately owned and maintained landscape buffer along the southern and eastern boundaries of the site to provide an effective screen to any building structures on the site from Eunony Valley views.

A44.3 Sites to the north of Trahairs Road include planting for screening purposes of buildings and structures in accordance with Chapter 3 – Precinct revegetation strategy.

Note: The preparation of a landscape plan prepared by a qualified landscape architect or consultant that illustrates the proposed landscape design will be required.

Note: Landscaped buffers should be informed by the site's natural features and landscape and reflect the bioregion and vegetation typologies of the precinct in accordance with Chapter 3 – Precinct revegetation strategy.

Not applicable.

U44.1 Development that obstructs views in areas identified as being in a visually sensitive location, as shown in Map 8.2.

6.3.1.2 Heritage

Heritage items and conservation areas have special qualities that make them significant. The land identified to be reserved for heritage, culture and habitat on Figure 3: Wagga Wagga Special Activation Precinct Structure Plan in the master plan is to be retained as a place of significance.

Development needs to take care to protect the particular themes, features or characteristics that make the item or area significant by:

- celebrating and protecting the precinct's history and landscape values, particularly its occupation by First Australians and their connection to the land
- ensuring Aboriginal culturally significant places and artefacts are protected, maintained and enhanced and
- promoting development and precinct design that recognises its Connection to Country.



Acceptable solutions
How to achieve it



Merit assessment
Objectives for considering
alternate solutions



Unacceptable solutions
What we do not want to see

Wiradjuri cultural heritage

PC45 Aboriginal culturally significant places, sites and objects are protected.

A45.1 Development avoids impacts to Aboriginal cultural heritage and is undertaken in accordance with the precinct's Aboriginal Cultural Heritage Management Plan.

Note: Access to the precinct's Aboriginal Cultural Heritage Management Plan can be obtained from the corporation.

A45.2 The design and layout of development, streets, lots and infrastructure retains (in place) and integrates scarred trees, identified artifact sites and other indigenous cultural heritage places of importance within areas of environmental significance and green space that is publicly accessible.

A45.3 Development promotes the history and landscape values of the site by considering story-telling and memory through site layout, building design and/or interpretative signage.

B45.1 Where development cannot avoid impacts to Aboriginal cultural heritage, development undertakes an Aboriginal cultural heritage assessment.

Note: Part 6 of the *National Parks and Wildlife Act 1974* (NPW Act) provides specific protection for Aboriginal objects and declared Aboriginal places by establishing offences of harm. Harm is defined to mean destroying, defacing or damaging an Aboriginal object or declared Aboriginal place, or moving an object from the land. Anyone proposing to carry out an activity that may harm an Aboriginal object or a declared Aboriginal place must investigate, assess and report on the harm that may be caused by the activity they propose. The Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW provides guidance on the process to follow when investigating and assessing whether Aboriginal cultural heritage values and objects are present and the harm a proposed activity may cause to them. It also includes the requirements for an Aboriginal cultural heritage assessment report.

Where necessary an Aboriginal Heritage Impact Permit will be required after development consent is granted. The application for an Aboriginal Heritage Impact Permit may be commenced before development consent is granted.

U45.1 Aboriginal culturally significant places and sites are harmed, except where an Aboriginal Heritage Impact Permit has been issued.



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

PC45 Continued

Note: The Aboriginal Cultural Heritage Management Plan provides further guidance on how development may promote the history and landscape values of the precinct.

- A45.4** Development avoids indirect impacts to Bomen Axe Quarry by ensuring:
- development to the north, east and southeast of Bomen Axe Quarry does not exceed existing building heights
 - development along the outside western boundary of the Bomen Axe Quarry incorporates native tree plantings to block views of the regional enterprise zone west of Byrnes Road and
 - development protects views from Bomen Axe Quarry to Kangal.

Historic heritage

PC46 Protect the heritage significance of historic buildings including associated fabric, settings and views by avoiding impacts and allowing for the ongoing use.

- A46.1** Approval is given under section 58 for a matter or thing referred to in section 57 of the *Heritage Act 1977* for carrying out works on or within the curtilage of an item listed on the State Heritage Register.
- Note: An exemption may apply depending on the nature of the proposed works.
- Heritage NSW must be consulted for any works proposed to be carried out on or within the curtilage of an item listed on the State Heritage Register as part of the Activation Precinct Certification process.
- The process for seeking approval under section 58 of the *Heritage Act 1977* should commence at the earliest possible time and should run in parallel with the Activation Precinct Certification process where possible.
- Note: A statement of heritage impact will be required for carrying out works on or within the curtilage of an item listed on the State Heritage Register.
- A46.2** A statement of heritage impact is prepared in accordance with the Statements of Heritage Impact published by the NSW Heritage Office for carrying out works on or within the curtilage of a local heritage item.
- Note: Council should be consulted for any works proposed to be carried out on or within the curtilage of an item listed as a local heritage item as part of the Activation Precinct Certification process.




Not applicable.

U46.1 Historic buildings are damaged or destroyed.

6.3.1.3 Biodiversity, vegetation and riparian corridors

The precinct is generally isolated from any surrounding areas of biodiversity value and connectivity is mostly restricted to roadside corridors. Development should be designed and sited to maximise opportunities for biodiversity and habitat creation through on site landscaping and open space.

The preservation and enhancement of riparian habitats and natural waterways is important for environmental outcomes in the precinct.

			
Performance criteria	Acceptable solutions How to achieve it	Merit assessment Objectives for considering alternate solutions	Unacceptable solutions What we do not want to see
Biodiversity			
PC47 Protect and enhance native vegetation and areas of high value biodiversity through landscaping and open spaces.	<p>A47.1 Development is to be sited, designed and managed to:</p> <ul style="list-style-type: none">a. avoid and minimise impacts on threatened species by avoiding and minimising the clearing of native vegetation andb. protect and enhance areas of high value biodiversity as shown in Map 8.3. <p>A47.2 Development retains trees and grasslands where possible, and incorporates them into site landscaped areas.</p> <p>Note: The issuing authority may require a written advice statement to be prepared by a suitably qualified person which confirms that the development proposal will not directly or indirectly impact on areas of high value biodiversity.</p> <p>Note: The issuing authority may require an arborists report to be prepared by a suitably qualified arborist where any Tier 1 and/or Tier 2 trees are to be removed or may be affected by the development proposal.</p> <p>Note: A landscape plan will be required for all development proposals.</p> <p>Note: At such time that there is a biodiversity certification order, applicants will be required to ensure they meet any conditions of the biodiversity certification order and implement the terms of any biodiversity certification agreements.</p> <p>Note: Development consent is required under the Regional-Precincts SEPP for clearing of native vegetation on land identified within an environmentally sensitive areas as outlined in the Wagga Wagga Activation Precinct Environmentally Sensitive Areas map.</p>	<p>B47.1 Where development is likely to impact native vegetation and areas of high value biodiversity, it demonstrates:</p> <ul style="list-style-type: none">a. there is no feasible alternative andb. planting of additional native species in other locations on the site will be undertaken at a rate of 10:1 in accordance with Section 3.4.1 – Biodiversity focused revegetation. <p>Note: A suitably qualified person must prepare a report that identifies any potential adverse impact the proposed development may have on the following:</p> <ul style="list-style-type: none">a. a native vegetation communityb. the habitat of any threatened species, population or ecological communityc. a regionally, state or nationally significant species of plant, animal or habitatd. a habitat corridore. a wetlandf. the biodiversity values within a reserve, including a road reserve or a stock route andg. a description of any proposed measures to be undertaken to ameliorate any such potential adverse impacts.	<p>U47.1 Avoidable removal of areas of high value biodiversity or Tier 1 and Tier 2 trees.</p>



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

Note: Biodiversity Offsets Scheme (BOS) under the *Biodiversity Conservation Act 2016* applies to:

- local development (assessed under Part 4 of the *Environmental Planning and Assessment Act 1979*) that triggers the BOS threshold or is likely to significantly affect threatened species based on the test of significance in Section 7.3 of the *Biodiversity Conservation Act 2016*
- state significant development and state significant infrastructure projects, unless the Secretary of the Department of Planning and Environment and the environment agency head determine that the project is not likely to have a significant impact
- biodiversity certification proposals
- clearing of native vegetation in urban areas and areas zoned for environmental conservation that exceeds the BOS threshold and does not require development consent and
- clearing of native vegetation that requires approval by the Native Vegetation Panel under the *Local Land Services Act 2013*.

At such time that there is a biodiversity certification agreement, the BOS credit obligation is taken to be retired, and the Activation Precinct certificate can be issued without further burden on applicants.

Riparian corridors

PC48 Contribute to the preservation and enhancement of natural waterways and riparian habitats in order to improve water health and protect the area's character and biodiversity.

A48.1 Development:

- avoids or minimises alteration to natural features such as drainage lines and waterways
- makes provision for buffer areas in accordance with the *Water Management Act 2000* and as set out in the master plan for the preservation and maintenance of riparian corridors and habitat protection as shown in Map 8.6 and
- revegetates riparian corridors and associated buffer areas in accordance with Chapter 3 – Precinct revegetation strategy.

Note: The issuing authority may require a report to be prepared by a suitably qualified person which identifies any potential adverse impacts on waterways and riparian habitats and a description of the proposed measures that may be undertaken to ameliorate any potential adverse impact.

Note: A landscape plan prepared by a qualified architect or consultant will be required for all development proposals that illustrates the proposed landscape design for the development proposal.




B48.1 Reduced setbacks to riparian corridors may be considered in accordance with the requirements of the *Water Management Act 2000*.

Note: Consultation with the NSW Office of Water in undertaken early in the Activation Precinct Certification process and appropriate approvals obtained where required.

Not applicable.

6.3.1.4 Groundwater

There are some important groundwater areas located in the south-western and eastern parts of the precinct's rural buffer. The controls in this section provide protection for groundwater.

Performance criteria	 Acceptable solutions How to achieve it	 Merit assessment Objectives for considering alternate solutions	 Unacceptable solutions What we do not want to see
Groundwater			
<p>PC49 Protect groundwater quality, flows and drainage patterns during demolition, construction and ongoing operation phases of development.</p> <p>Note: Where applicable, a development must obtain the appropriate water licence in accordance with the <i>Water Management Act 2000</i> and consider the relevant Water Sharing Plan.</p>	<p>A49.1 Development that the issuing authority considers has potential to contaminate groundwater is supported by a Groundwater Management Plan prepared by a suitably qualified person. The Groundwater Management Plan is prepared in accordance with best practice groundwater management requirements in developing site specific usage, drainage, and mitigation measures for the site.</p> <p>A49.2 Development proposals that will temporarily or permanently interfere with groundwater flows and impacts the water table will require a hydrogeological report to be prepared by a suitably qualified hydrogeological and/or geotechnical engineer.</p> <p>Note: The master plan provides that the following land uses are not appropriate within the groundwater protection zone as shown in Figure 15: Groundwater protection zone unless the issuing authority is satisfied the development is unlikely to adversely impact existing groundwater sources, is unlikely to adversely impact future extraction from groundwater sources for domestic and stock water supplies and is designed to prevent adverse environmental impacts, including the risk of contamination of groundwater sources from onsite storage or disposal facilities:</p> <ul style="list-style-type: none"> a. industries b. intensive livestock agriculture 	<p>Not applicable.</p>	<p>U49.1 Extraction of groundwater.</p> <p>U49.2 Direct seepage of untreated stormwater or industry liquids into the ground.</p>



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

PC49 Continued

- c. rural industries
- d. sewerage systems
- e. turf farming
- f. waste or resource management facilities
- g. water supply systems
- h. works comprising waterbodies (artificial).

Note: Under section 120 of the POEO Act, it is an offence to pollute waters. However, sections 121 and 122 of the POEO Act provide a defence against a prosecution under section 120 where the pollution was regulated by a licence or regulation which was complied with fully.

The definition of 'water pollution' in the POEO Act sets out general and specific circumstances that constitute pollution. At its broadest, this means a prohibition on placing anything in waters that changes their chemical, biological or physical nature.

A49.3 Development within 750 metres of an existing registered bore for stock, domestic, irrigation and/or water supply use must ensure that the proposed works do not create an aquifer interference activity as designated within the *Water Management Act 2000*.

Note: Consultation with the NSW Department of Primary Industries-Water in undertaken early in the Activation Precinct Certification process and appropriate licences or approvals obtained where required.

Note: The *Water Management Act 2000* defines an aquifer interference activity as that which involves any of the following:

- the penetration of an aquifer
- the interference with water in an aquifer
- the obstruction of the flow of water in an aquifer, NSW Aquifer Interference Policy 2 | DPI-NSW Office of Water, September 2012;
- the taking of water from an aquifer in the course of carrying out mining or any other activity prescribed by the regulations; and
- the disposal of water taken from an aquifer in the course of carrying out mining or any other activity prescribed by the regulations.

6.3.2 Environmental hazards

The design and construction of development should recognise environmental hazards and constraints of the site. This section applies to land that is subject to environmental hazards including flooding, bushfire and contaminated land within the precinct.




6.3.2.1 Flood risk management

The Murrumbidgee River's floodplain reaches a small part of the precinct's southern extent. Tributaries of this river that are located within the precinct, being Wheel of Fortune Creek and Dukes Creek, are lower order streams with far less extensive floodplains than the Murrumbidgee however are areas of both environmental value and can be natural hazards in times of flood.

The rehabilitation and enhancement of riparian corridors will largely contain the extent of the Defined Flood Event to within the waterway/swale across the precinct.

Within the Regional Enterprise Zone, the rehabilitation and enhancement of riparian corridors is part of the enabling works for the precinct. Therefore, development should not occur within the riparian corridor and its buffer to remain clear of the flood planning area.

The assessment criteria in this section apply to land that is identified as flood prone on Map 8.3.

Performance criteria	 Acceptable solutions How to achieve it	 Merit assessment Objectives for considering alternate solutions	 Unacceptable solutions What we do not want to see
Flood risk management			
PC50 Development is compatible with the flood function and the flood hazard of the land.	A50.1 Building, floor and developable lot surface levels within the flood planning area are provided above the flood planning level. Note: Further information in relation to the flood planning level can be obtained from the corporation. A50.2 The following land uses are located above the flood planning level: <ul style="list-style-type: none"> a. aquaculture b. industries c. intensive livestock agriculture d. liquid fuel depots e. highway service centres f. rural industries g. service stations h. sewerage systems 	B50.1 Development may be considered appropriate where it is unable to meet the minimum levels but is supported by a flood risk management report that demonstrates how flood risk will be managed and mitigated.	U50.1 Buildings and other structures located within areas of higher risk. U50.2 Buildings (and the operations within them) or supporting structures with a high capital value of machinery or materials being at risk of damage from flooding. U50.3 The following sensitive development are not located on flood prone land: <ul style="list-style-type: none"> a. centre-based child care facilities b. educational establishments c. emergency services facilities and d. information and education facilities.



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

PC50 Continued

- i. turf farming
- j. waste or resource management facilities
- k. water supply systems or
- l. freight transport facilities.

Note: Section 3.3.5 of the master plan provides that the above listed land uses are not permitted within land mapped within the flood planning area unless it can be demonstrated that risks can be suitably managed (e.g. through freeboard levels).

PC51 Development will not significantly alter flow distributions and velocities to the detriment of other properties or the environment of the floodplain.

- A51.1** There is no filling in the flood planning area as shown in Map 8.3.
- A51.2** The use of structural controls (including fences) that physically alter the flow behaviour is avoided.

B51.1 Filling in the flood planning area or development which may result in alterations to flow behaviour are carefully designed through a flood risk management report (including site specific flood study and mitigation assessment).

U51.1 Large scale bulk earthworks to make land available for development below the flood planning level.

U51.2 The use of large-scale mitigation infrastructure on private land that substantially alters the natural flow of floodwaters across the precinct.

PC52 Development will not increase the potential for hazardous material to pollute the environment during flood events.

Note: Hazardous material is any item or agent (biological, chemical, radiological, and/or physical) that has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors.

- A52.1** Hazardous materials are:
 - a. stored above the flood planning level as shown in Map 8.3 and/or
 - b. stored or contained in a way that is designed to avoid release of the materials during floods.

Note: Further information in relation to the flood planning level can be obtained from the corporation.

Not applicable.

U52.1 Release of hazardous materials during flooding events (including rarer flood events than the Defined Flood Event). This includes pollutants such as onsite effluent or tailings treatment or chemical storage.



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

PC53 Development on land subject to Murrumbidgee River flooding as shown on Map 8.3 will not adversely affect the safe and efficient evacuation from the land or impact the capacity of existing evacuation routes for the surrounding area.

A53.1 Development on land subject to Murrumbidgee River flooding does not result in isolation or create evacuation challenges for users.

Note: The issuing authority may require a site-based flood emergency response plan to be prepared by a suitably qualified person.

Each flood emergency response plan should include as a minimum:

- a map showing the extent of flooding on the site (up to and including the PMF) for both local tributary flood events as well as flooding from the Murrumbidgee
- a map showing a rising evacuation route to an emergency evacuation shelter
- a map showing marshalling points on the site in the event of a flood (that can be displayed throughout the site)
- a summary poster of actions required in a flood (A3 poster) to be displayed around the site
- details of:
 - pre-flood planning
 - during flood actions – including trigger levels for action that are linked to data from an easily accessible water level gauge (and associated actions) and
 - post flood recovery actions
- reference to any relevant aspects of the latest version of the *Wagga Wagga City Flood Emergency Sub Plan* (the current version being November 2020, recommended and endorsed October 2021).

Not applicable.

Not applicable.




6.3.2.2 Bushfire protection

Development must conform to the specifications and requirements of the current version of Planning for Bush Fire Protection 2019 (PBP) or latest version thereof published by the NSW Rural Fire Service within a bushfire prone area.

The Wagga Wagga City Council LGA –Bush Fire Prone Land Map will identify whether the precinct is bushfire prone land. Map 8.4 of the delivery plan aligns with the Wagga Wagga City Council LGA –Bush Fire Prone Land Map, however, provides further detail in relation to the bushfire hazard. In particular, it identifies the grass fire hazard across the precinct, as well as vegetation hazard based on the:

- vegetation corridors, including the northern section of the Olympic Highway in the precinct, Trahairs Road and the area to the north of Bavin Road, North Wagga Wagga
- strategic revegetation sites, shown on Figure 10: Vegetation and biodiversity principles in the master plan
- riparian corridors and their associated buffers, which are expected to be rehabilitated as part of the future development of the precinct and
- mapped PCT vegetation communities across the precinct.

The following bushfire protection assessment criteria are in accordance with the requirements for PBP.

Performance criteria	 Acceptable solutions How to achieve it	 Merit assessment Objectives for considering alternate solutions	 Unacceptable solutions What we do not want to see
Bushfire protection			
PC54 Development on Vegetation Category 3 (grasslands) as shown in Map 8.6 includes asset protection from the grass fire hazard.	<p>A54.1 Where development is not within 50 metres of Vegetation Category 3 (grasslands) no further assessment is required.</p> <p>Note: As land within the Regional Enterprise Zone develops and clearing occurs, the grass fire risk will change. In instances where there is no longer a grass fire hazard within 50 metres of the development, due to clearing and development of land in the precinct, then no further assessment of the grass fire hazard will be required. Representations are made to the issuing authority that demonstrate that the proposed development is not within 50 metres of grassland.</p> <p>A54.2 Development within 50 metres of grassland must comply with the requirements of:</p> <ol style="list-style-type: none"> the latest version of PBP; and <i>Rural Fires Act 1997</i> (including requirements for bushfire safety authority for development for a ‘special fire protection purpose’). 	Not applicable.	Not applicable.



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

PC55 Development on Vegetation Category 3 (excluding grasslands) as shown in Map 8.4 includes asset protection from the bushfire hazard.

- A55.1** Where development is not within 100 metres of Vegetation Category 3 (excluding grasslands), no further assessment is required.
- A55.2** Development within 100 metres of Vegetation Category 3 (excluding grasslands) as well as land identified as access constrained must comply with the requirements of:
- the latest version of PBP and
 - Rural Fires Act 1997* (including requirements for bushfire safety authority for development for a 'special fire protection purpose').
- Note: A certificate will be required to be provided by a person who is recognised by the NSW Rural Fire Service as a qualified consultant in bushfire risk assessment stating that the development conforms to the relevant bushfire specifications and requirements.
- Note: Fire access trails may be considered in certain circumstances for land management purposes, but not as a substitute for perimeter roads or where sealed roads can be provided.
- A55.3** Outdoor storage of hazardous materials is more than 30 metres from any identified Vegetation Category 3 (excluding grasslands).
- A55.4** Vegetation Category 3 (excluding grasslands) should be reserved for low value activities such as hardstand areas, which also contribute to the separation of built form from hazard sources.
- A55.5** Buildings and facilities are separated from each other to minimise potential for building-to-building ignition.

Not applicable.

Not applicable.

PC56 Development for a special fire protection purpose minimises risk to life and property from bushfire




- A56.1** Development for a special fire protection purpose must comply with the requirements of:
- the latest version of PBP and
 - Rural Fires Act 1997*.
- Note: A bushfire hazard assessment and management plan will be required in accordance with PBP for a special fire protection purpose.
- Note: A bushfire safety authority will be required in accordance with section 100B of the *Rural Fires Act 1997* for development of bushfire prone land for a special fire protection purpose.

Not applicable.

U56.1 Development of a special fire protection purpose that compromises existing or future envisaged industrial development within the Regional Enterprise Zone.

6.3.2.3 Managing development on contaminated land

The assessment criteria in this section ensure that development adequately addresses contaminated land.

Performance criteria	 Acceptable solutions How to achieve it	 Merit assessment Objectives for considering alternate solutions	 Unacceptable solutions What we do not want to see
Managing development on contaminated land			
PC57 Development adequately addresses contaminated land.	A57.1 The site is suitable, or can be made suitable, for the proposed development having regard to land contamination in accordance with section 4.6 of <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i> (Resilience and Hazards SEPP) and recorded on the Wagga Wagga City Council's Contaminated Lands Register. Note: The master plan provides that Category 1 and 2 remediation works are required to be undertaken in accordance with Resilience and Hazards SEPP. Category 1 remediation works will require a development application. Category 2 works will need to be undertaken separately as development without consent in compliance with Resilience and Hazards SEPP, and not as part of an application for Complying Development under the Precincts-Regional SEPP. The Precincts-Regional SEPP requires that an Activation Precinct certificate cannot be issued unless the issuing authority has considered whether the land is contaminated and is satisfied the subject land is suitable for the proposed development or will be after remediation.	Not applicable.	Not applicable.

6.3.3 Environmental impact management

This section applies to development that may have an environmental impact including development that is potentially hazardous or potentially offensive, requires an environment protection licence or may emit noise, odour and/or substances into the air and have the potential to impact on sensitive receivers.




6.3.3.1 Potentially hazardous industry and potentially offensive industry

The following section applies to development considered as a potentially hazardous industry or potentially offensive industry in accordance with the Resilience and Hazards SEPP. It also relates to any applications for the expansion or modification to a potentially hazardous industry or potentially offensive industry.

Performance criteria	 Acceptable solutions How to achieve it	 Merit assessment Objectives for considering alternate solutions	 Unacceptable solutions What we do not want to see
Potentially hazardous industry and potentially offensive industry			
PC58 Potentially hazardous industry and potentially offensive industry are appropriately managed to protect human health, property and the biophysical environment.	<p>A58.1 A preliminary hazard analysis is undertaken in accordance with sections 3.11 and 3.12 of the Resilience and Hazards SEPP.</p> <p>Note: Sections 3.11 and 3.12 of the Resilience and Hazards SEPP apply to an application for an Activation Precinct certificate that relates to complying development in the same way as they apply to an application for development consent.</p> <p>A58.2 Development that is a potentially hazardous industry and potentially offensive industry:</p> <ol style="list-style-type: none"> has been identified as either low, medium or high risk by the Department of Planning and Environment and complies with the Resilience and Hazards SEPP. <p>Note: Any development that is determined to be hazardous or offensive, is prohibited in the precinct.</p> <p>The master plan requires that prior to an Activation Precinct certificate being issued, potentially hazardous development must be identified as either low, medium or high risk by the Department of Planning and Environment. Potentially hazardous development that is high risk is not complying development and will require a development application.</p> <p>The Department of Planning and Environment should be consulted, and written advice sought on whether a proposed development that is a potentially hazardous industry or a potentially offensive industry is low, medium or high risk prior to making an application for an Activation Precinct certificate.</p> <p>The corporation will require the Planning Secretary's approval to issue an Activation Precinct certificate.</p>	Not applicable.	<p>A58.1 Development that is determined to be hazardous or offensive.</p>

6.3.3.2 Air quality and odour

Development should ensure that sensitive receivers both inside and outside the precinct are protected from unacceptable air quality and odour impacts. The key strategy for protecting receivers outside the precinct boundary is through ensuring high impact developments are concentrated at the centre of the precinct.

Performance criteria	 Acceptable solutions How to achieve it	 Merit assessment Objectives for considering alternate solutions	 Unacceptable solutions What we do not want to see
Air quality			
<p>PC59 Development that is a scheduled activity listed in Schedule 1 of the POEO Act reduces the risks to human health and the environment by reducing the discharge of substances into the air to harmless levels.</p> <p>Note: The Environment Protection Authority should be consulted with early in the Activation Precinct Certification process to determine whether an assessment is required.</p>	<p>A59.1 Development that requires an environment protection licence under the POEO Act for a scheduled activity:</p> <ul style="list-style-type: none"> a. is designed to achieve the impact assessment criteria contained in the Approved Methods for Modelling and Assessment of Air Pollutants in NSW, 2017 (the Approved Methods) (or as updated); b. complies with the prescribed discharge concentration contained in the Protection of the Environment Operations (Clean Air) Regulation 2021 (the Clean Air Regulation); and c. is designed to include best practice process design and/or emission controls to minimise the emission of principal toxic air pollutants and particles to the maximum extent achievable. <p>Note: A site-specific air quality impact assessment prepared by a suitably qualified person in accordance with NSW EPA's Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales will be required. The assessment must demonstrate that the performance criteria are achieved.</p> <p>A59.2 Development implements an ongoing air quality monitoring and reporting regime prepared by a suitably qualified person and commits to providing the corporation an annual statement setting out how the site-based air quality monitoring and reporting regime has been complied with.</p>	<p>Not applicable.</p>	<p>U59.1 Development is not designed to achieve the impact assessment criteria in the Approved Methods.</p> <p>U59.2 Development is not designed to achieve the prescribed discharge concentrations contained in the Clean Air Regulation.</p> <p>U59.3 Toxic air pollutants and particles are not minimised through the implementation of best practice process design and/or emission control.</p>



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

PC59 Continued

Note: An operational environmental management plan should identify the environmental impacts, and management activities and controls related to managing and minimising air emissions, including how the environmental management activities and controls will be monitored and reviewed.

As part of an environment protection licence, an annual return is required to be provided by the proponent to the EPA. An extract of the part of the annual return which sets out how any site-based air quality monitoring and reporting regime required by the licence has been complied with may be provided to the corporation to satisfy A60.2.

PC60 Non-scheduled activities reduce the risks to human health and the environment by reducing the discharge of substances into the air to harmless levels.

A60.1 Development that involves stacks as a means of managing air emissions are located in accordance with Map 8.7 and incorporates the following:

- treatment of air emissions before release (e.g. bag filter, carbon filter)
- compliance with the prescribed discharge concentration contained in the Clean Air Regulation
- is designed to include best practice process design and/or emission controls to minimise the emission of principal toxic air pollutants and particles to the maximum extent achievable
- increased stack height and velocity to allow for additional dispersion of emissions and
- implements an ongoing air quality monitoring and reporting regime prepared by a suitably qualified person and commits to providing the corporation an annual statement setting out how the site-based air quality monitoring and reporting regime has been complied with.

B60.1 Where the issuing authority considers a development may produce air emissions that could result in adverse effects to human health and amenity or to the surrounding air quality, the development:

- is designed to achieve the impact assessment criteria contained in the Approved Methods (or as updated)
- complies with the prescribed discharge concentration contained in the Clean Air Regulation
- is designed to include best practice process design and/or emission controls to minimise the emission of principal toxic air pollutants and particles to the maximum extent achievable and

U60.1 Non-scheduled activities that emit air impurities that exceed the 'standards of concentration' required by the Clean Air Regulation or do not satisfy the requirements of A60.1 or B60.1.



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

PC60 Continued

Note: A site-specific air quality impact assessment prepared by a suitably qualified person in accordance with NSW EPA's Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales will be required.

An operational environmental management plan should identify the environmental impacts, and management activities and controls related to managing and minimising air quality emissions, including how the environmental management activities and controls will be monitored and reviewed.

- d. implements an ongoing air quality monitoring and reporting regime prepared by a suitably qualified person and commits to providing the corporation an annual statement setting out how the site-based air quality monitoring and reporting regime has been complied with.

Note: A site-specific air quality impact assessment prepared by a suitably qualified person in accordance with NSW EPA's Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales will be required.

An operational environmental management plan should identify the environmental impacts, and management activities and controls related to managing and minimising air quality emissions, including how the environmental management activities and controls will be monitored and reviewed.

Odour

PC61 Development is designed to not cause offensive odour to receivers.

A61.1 Development that the issuing authority considers to involve odour emissions is located in accordance with the maximum odour emission rate per hectare (OU/s/ha) of the site of the development as shown in Map 8.8 and will require an odour impact assessment prepared by a suitably qualified person in accordance with the NSW EPA's Technical Framework: Assessment and management of odour from stationary sources in NSW 2017 (or as updated) including details of any on-site odour mitigation measures to be incorporated as part of the development.

B61.1 Development:

- a. that may cause odour emissions in excess of the maximum odour emission rate per hectare (OU/s/ha) of the site of the development as shown in Map 8.8 or
- b. that is considered to involve odour emissions and is of a nature and character that was not considered as part of the determination of the maximum odour emission rate per hectare (OU/s/ha) of the site of the development as shown in Map 8.8

U61.1 Development that involves odour emissions results in offensive odour impacts at the nearest sensitive receiver.



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

PC61 Continued

A61.2 Odour emitting uses as defined in the NSW EPA's Technical framework -assessment and management of odour from stationary sources in NSW 2017 (or as updated) are not located in the 1 kilometre buffer as shown in Map 8.8 unless otherwise approved by the EPA.

c. will require an odour impact assessment prepared by a suitably qualified person in accordance with the NSW EPA's Technical Framework: Assessment and management of odour from stationary sources in NSW 2017 (or as updated) including details of any on-site odour mitigation measures to be incorporated as part of the development.

B61.2 Development implements an ongoing odour emissions monitoring and reporting regime prepared by a suitably qualified person and commits to providing the corporation an annual statement setting out how the site-based odour emissions monitoring and reporting regime has been complied with.

Note: An operational environmental management plan should identify the environmental impacts, management activities and controls related to managing and minimising offensive odour emissions, including how the environmental management activities and controls will be monitored and reviewed.

As part of an environment protection licence, an annual return is required to be provided to the EPA. An extract of the part of the annual return which sets out how the site-based odour monitoring and reporting regime has been complied with may be provided to the corporation to satisfy B62.2.

6.3.3.3 Noise

Development should ensure that sensitive receivers both inside and outside the precinct are protected from unacceptable noise impacts. The key strategy for protecting receivers outside the precinct boundary is through ensuring high noise emitting developments are concentrated at the centre of the precinct.



Acceptable solutions

How to achieve it



Merit assessment

Objectives for considering alternate solutions



Unacceptable solutions

What we do not want to see

Performance criteria

Noise

PC62 To minimise acoustic impacts on the amenity of existing noise-sensitive receivers arising from scheduled activities listed in Schedule 1 of the POEO Act within the precinct.

Note: The Environment Protection Authority should be consulted with early in the Activation Precinct Certification process to determine whether an assessment is required.

A62.1 Development that requires an environment protection licence under the POEO Act for a scheduled activity must:

- provide a noise impact assessment prepared by a suitability qualified person in accordance with the NSW EPA Noise Policy for Industry (2017) (NPfI) (or as updated) and
- once a development is operational, where noise compliance measurements are required under an environment protection licence, commit to providing the corporation an annual statement setting out how the site-based noise monitoring and reporting regime has been complied with.

Note: An operational environmental management plan should identify the environmental impacts, and management activities and controls related to managing and minimising noise emissions, including how the environmental management activities and controls will be monitored and reviewed.

As part of an environment protection licence, an annual return is required to be provided to the EPA. An extract of the part of the annual return which sets out how the site-based noise monitoring and reporting regime has been complied with may be provided to the corporation to satisfy A63.1(b).

Not applicable.

U62.1 Development proposals that are not accompanied by a noise impact assessment prepared in accordance with the NSW EPA Noise Policy for Industry (2017) (NPfI).



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

PC63 To ensure that the acoustic impact on the amenity of existing noise-sensitive receivers is minimised.

A63.1 Development that does not require an environment protection licence and has the potential to significantly impact sensitive receivers will require a noise impact assessment prepared by a suitability qualified person in accordance with the NSW EPA Noise Policy for Industry (2017) (NPfI) (or as updated) to be submitted with the application for an Activation Precinct certificate. The noise impact assessment will need to demonstrate that the proposed development will not create an adverse impact at the nearest existing noise-sensitive receiver including details of any on-site noise mitigation measures to be incorporated as part of the development.

A63.2 Where the issuing authority determines that on-site noise monitoring is required, commit to providing the corporation an annual statement setting out how the site-based noise monitoring and reporting regime has been complied with.

Note: Development that has the potential to significantly impact sensitive receivers may include equipment that has a sound power level of a significant enough level to impact the nearest sensitive receivers. This equipment includes but is not limited to large fans, external pumps, energy generation equipment, truck movements, rooftop condensers and chillers.

Mitigation measures may include lower sound power level equipment; silencers, mufflers or dampeners placed on equipment; adjusted operational times for when equipment is in use; implement quiet work practices; maintain equipment; limit simultaneous use of equipment; architectural treatments or a suitable alternative mitigation measure.

Note: Where the issuing authority determines that on-site noise monitoring is required, an operational environmental management plan should identify the environmental impacts, and management activities and controls related to managing and minimising noise emissions, including how the environmental management activities and controls will be monitored and reviewed.

Not applicable.

U63.1 Development that has a significant impact on sensitive receivers.

6.3.3.4 Biosecurity

Development within the precinct should ensure appropriate biosecurity measures are in place to protect our economy, environment and community.



Acceptable solutions

Merit assessment

Unacceptable solutions

Performance criteria

How to achieve it

Objectives for considering alternate solutions

What we do not want to see

Biosecurity

PC64 Development addresses biosecurity requirements to protect the environment and community from the negative impacts of pests and diseases, weeds and contaminants.

A64.1 Development complies with the relevant Department of Primary Industries biosecurity guidelines (<https://www.dpi.nsw.gov.au/biosecurity/managing-biosecurity>).

Note: The Department of Primary Industries should be consulted and written advice sought on development for intensive agriculture, waste disposal or resource management facilities and any other development that may impact on biosecurity.

The issuing authority may require an emergency disposal and biosecurity protocol prepared by a suitably qualified person.




Not applicable.

U64.1 Development results in an unacceptable biosecurity risk.

6.4 Savings and transitional provisions

6.4.1 Existing and transitional land uses

Under the Precincts-Regional SEPP, an issuing authority can only issue an Activation Precinct certificate for land only if there is a master plan and delivery plan that applies to the land concerned. The intent of these controls is to ensure that development or extensions to existing land uses that were existing before the commencement of the master plan, and to buildings on land not included within stage 1 can occur where appropriate.

Performance criteria			
	Acceptable solutions How to achieve it	Merit assessment Objectives for considering alternate solutions	Unacceptable solutions What we do not want to see
Existing and transitional land uses			
PC65 Expansion of existing and transitional development occurs where it does not compromise the development of the precinct.	A65.1 For existing uses that were existing before the commencement of the master plan, the following documents continue to apply to the expansion of existing land uses on land within the Rural Activity Zone and to land not included as part of stage 1 of the delivery plan: <ol style="list-style-type: none"> State Environmental Planning Policy (Exempt and Complying Development Codes) 2008; and Wagga Wagga Development Control Plan. Note: The expansion of existing land uses may include: <ul style="list-style-type: none"> the development of buildings and structures that supports existing farming and primary production uses on the associated land while the farming use is in transition or the land is not included within stage 1 of the precinct; or minor extensions, additions or alterations to existing habitable buildings within the precinct such as: <ol style="list-style-type: none"> verandahs; decks; carports and garages; or living areas. 	Not applicable.	U65.1 Intensification of existing or establishment of new sensitive land uses that compromise the development of the precinct. Note: Sensitive land uses include community facilities, centre-based child care facilities, educational establishment, emergency services facilities, sewerage systems, water supply systems. U65.2 Development of structures or land uses that compromise the establishment of important road, rail or open space / vegetation connections for the current or future stages of the precinct.

7

Monitoring, reporting and compliance



Science at Charles Sturt University
Courtesy of Lightbox Imageworks



This section outlines the monitoring, reporting and compliance program for the Wagga Wagga Special Activation Precinct.

- 7.1 General
- 7.2 Precinct wide monitoring program

7.1 General

The Wagga Wagga Special Activation Precinct will be a sustainable hub of high value production and manufacturing supporting advanced industries and businesses which are connected to the world.

The precinct has been developed with the UNIDO Eco-Industrial Park (EIP) Framework, UN Sustainable Development Goals, Ecologically Sustainable Development (ESD) and circular economy principles embedded. A key component for the precinct is the monitoring, reporting and compliance program.

An annual baseline audit will inform the actions required to protect and improve the precinct's targets, actions, management and mitigation measures. This will help drive an adaptive management cycle for monitoring, reporting and compliance across the precinct.

The program will be developed progressively in consultation with partners, including Wagga Wagga City Council, the NSW EPA, industry and businesses, the community, and research and conservation sectors.

The delivery plan will be amended or updated as required.

Purpose and objectives

A key component for the success of the precinct will be meaningful monitoring, reporting and compliance measures. This should form a coordinated and integrated program linked to precinct outcomes.



The program will report across different themes, including:

- sustainability
- circular economy
- energy management
- water management
- waste management
- biodiversity
- environmental health
- infrastructure
- operational requirements.

The intent of the program is to coordinate and integrate existing monitoring, modelling and reporting systems across these themes to avoid duplication. For example, if there are existing Environment Protection Licences (EPL) in place for industry across the precinct, the corporation would seek to also capture the data that is monitored and reported on under the Environment Protection Licence through liaison with proponents.

The program's principal purpose is to evaluate whether the precinct is on track to meet its targets, objectives and outcomes. It will also help to identify emerging issues and risks and enable timely and suitable responses, management updates and mitigation measures.

The program ensures decisions regarding the protection and management of the precinct are based on sound evidence, set best practice standards, are consistent with the principles of transparency and accountability and are underpinned by a partnership approach.



Objectives for the program are to:

- enable the early detection of trends, changes, threats and risks within the precinct, driving adaptive management
- evaluate the effectiveness of key themes, including the establishment and development of sustainability and circular economy outcomes
- ensure monitoring, reporting and compliance functions are meaningful and focus on actions that will effectively deliver measurable results
- track and inform the performance of the precinct against domestic and international benchmarks.

7.1.1 Principles

The following principles will apply to the monitoring, reporting and compliance program across the precinct:

- monitoring is linked to management targets, objectives and outcomes in the precinct
- collaboration is essential between industry, businesses, research, education, academic and other partner organisations
- information and data are transparent, accountable, comprehensive and readily accessible
- the program will build on and align with existing systems, and not duplicate or replace systems
- the program will cover the lifespan of the precinct and be responsive as it develops and grows
- program design will be evidence based and scientifically defensible. This should also feed back into an adaptive management cycle to provide management and mitigation measures that respond appropriately to the precinct outcomes or other risks and drivers
- the program should be reviewed regularly, at least every five years as a result of findings in the precinct.

7.1.2 Collaboration and partnerships

A collaborative approach with partner organisations that use or generate precinct monitoring, reporting or compliance data will be fundamental to successfully establishing and implementing management and mitigation measures. This involvement is critical to ensuring that the program is underpinned by the best available science and expertise.

The partnership approach underpinning the program will leverage knowledge and funds to deliver increased efficiencies and improved alignment and coverage of monitoring, reporting and compliance functions.

7.1.3 Adaptive management

The precinct is underpinned by strong environmental protection, sustainability and circular economy principles. Sound monitoring, reporting and compliance data can be used to assess and update adaptive management responses.

Any data obtained through the lifecycle of the precinct will continue to inform and update the management and mitigation measures within the precinct.

This allows the precinct to have living management and mitigation measures that respond appropriately to changing drivers or risks.

7.1.4 Monitoring

The program will measure and report progress towards achieving the precinct outcomes, objectives and targets, and guide adaptive management.

Baseline monitoring

Monitoring will be undertaken to compile baseline conditions of the precinct and assess the extent of impact from the growth of the precinct. This will also help evaluate community benefits and sentiment. Examples include monitoring to assess amenity considerations such as noise, odour and air quality, effective and efficient water and energy management, and the uptake and implementation of sustainability and circular economy opportunities.

Compliance monitoring

Compliance monitoring will be undertaken in relation to any licence or approval that may apply to the land. This may include an environment protection licence or development consent, and relate to, but is not limited to, the conditions specified in the licence or approval.

7.1.5 Reporting

Consistent reporting of information will help track and evaluate the precinct against its outcomes, objectives and targets. Standardised reporting templates will be developed to ensure data and information is recorded consistently.

An annual report on implementation and operation of the precinct will be provided to the corporation's Advisory Committee and will be made publicly available. This report will be prepared by the corporation and provide an assessment of progress delivering and achieving the precinct's outcomes, objectives and targets.

7.1.6 Compliance

Construction and operation

The two main compliance functions in the precinct are construction and planning, and operational requirements.

The enforcement authority for construction and planning compliance functions will depend on who is responsible for issuing the development consent.

For construction and planning compliance functions, the enforcement authority is:

- Wagga Wagga City Council for planning related matters for a Complying Development Certificate, such as an already constructed structure
- accredited certifier or Wagga Wagga City Council for conditions relating to a Complying Development Certificate depending on the level of action required
- Secretary, Department of Planning and Environment for thermal electricity generating works in the precinct
- Secretary, Department of Planning and Environment for the removal of trees within land zoned 'environmentally sensitive area' where complying development is not possible.

For operational compliance functions related to matters under the *Protection of the Environment Operations Act 1997*, the enforcement authority is:

- NSW EPA for scheduled activities
- Wagga Wagga City Council for non-scheduled activities.

The NSW EPA is the state's principal environmental regulator and responsible for regulating a wide range of activities and monitoring compliance with legislation and statutory instruments covering air emissions, noise, waste, water quality, forestry, contaminated sites, dangerous goods, hazardous materials and pesticides. The EPA requires regulated industry to report on its compliance. All environment protection licensees must provide an annual compliance statement (Annual Return) detailing their compliance with licence conditions over the previous reporting period.

The enforcement authority for operational compliance functions will depend on whether the development is classed as either a scheduled or non-scheduled activity under the *Protection of the Environment Operations Act 1997*.

Roles of the corporation

The corporation is the government agency responsible for the delivery and management of the precinct including:

- the delivery plan and precinct design guidelines
- managing and coordinating major precinct infrastructure works
- supporting existing businesses and attracting new investments to the precinct
- managing and implementing precinct frameworks and strategies.

The corporation has no formal enforcement powers in relation to construction and operational matters in the precinct.

Under its powers in the *Growth Centres (Development Corporations) Act 1974*, the corporation has the ability "to assist councils,... with respect to matters concerning the promotion, co-ordination and management" of the precinct.

As such, the corporation will work collaboratively with Wagga Wagga City Council to implement a mutually beneficial approach for enforcement activities.

For example, where a development is non-compliant with fencing requirements, the corporation would first work with the business as an industry partner to rectify the matter, prior to Council issuing any statutory compliance / enforcement response.

It is noted that if a premises holds an Environment Protection Licence, any non-compliances must be reported immediately to the EPA (as the appropriate regulatory authority), under existing processes.

Review of monitoring, reporting and compliance program

A full review of the program will be undertaken and updated every five years if required. The monitoring, reporting and compliance functions can be updated at regular intervals should new management and mitigation measures be incorporated into the adaptive management cycle. This will ensure monitoring, reporting and compliance functions respond appropriately to new information, changing drivers or risks.

The monitoring, reporting and compliance program will be developed progressively in consultation with partners, including Wagga Wagga City Council, Department of Planning and Environment, EPA, industry and businesses, the community, and research and conservation sectors.

7.2 Precinct wide monitoring program

Throughout the delivery of the precinct, the corporation will monitor its targets, objectives and outcomes.

The corporation is committed to improving environmental performance and becoming a leading organisation, nationally and internationally, in sustainable development and implementing the sustainability framework to connect organisations, processes and source in a circular economy to gain efficiencies and minimise waste.



Riverina Oils, Wagga Wagga

7.2.1 Environmental Management Framework

To ensure the precinct can achieve its goals and fully embed these frameworks and principles, an ISO 14001 Environmental Management System (EMS) has been developed which incorporates an Environmental Management Framework and an Environmental Management Register. In addition to the EMS, UNIDO Eco-Industrial Park (EIP) Framework has been embedded into the master plan and the EMS to ensure that the precinct improves environmental, economic and social performance with the aim to create the first Eco-Industrial Park in Australia.

The corporation is the government agency responsible for delivering the EMS.

The EMS contains targets, actions objectives and outcomes to achieve environmental protection, sustainability and circular economy outcomes. The aim is to ensure the long term protection and improvement of the precinct's health and resilience, while integrating economic development with ecologically sustainable principles.

The EMS will be monitored on an ongoing basis using a detailed monitoring and evaluation process outlined in the EMS. This will include monitoring and reporting on greenhouse gas emissions data from activities and operations within the precinct to meet the net-zero emissions target.

A review of compliance, performance data and key performance indicators (KPIs) will be undertaken at least quarterly with an annual review undertaken as part of annual reporting requirements.

Following the review process, an annual compliance, data and KPI review will be undertaken to confirm that the EMS is effective in managing and improving environmental performance. KPIs have been developed during the initial master planning stage and were based on detailed modelling and research. KPIs will be assessed and updated once the precinct is operational and on an annual basis thereafter.

Businesses and organisations within the precinct will have a responsibility to provide data to the corporation to inform annual reporting on the EMS, including reporting on greenhouse gas emissions during both construction and operation.

The EMS will be subject to an external audit by a third-party approved auditor with accreditation provided as per ISO 14001.

Assessed as part of the review process:

Review item	Summary
Organisational details	A review of the organisation structure, roles and responsibilities and scope / boundary
Leadership commitment	A review of leadership commitment and the environmental policy to ensure currency
Compliance and legislation	A review of compliance and regulatory requirement to ensure the precinct is not exposed to new legislation or compliance issues
Environmental aspects and impacts	A review of environmental aspects and impacts to ensure all environmental issues are captured
Objectives and targets	A review of objectives and targets to ensure the EMS is aligned with the delivery of the precinct
Support	A review of support systems (resources, training, awareness, communications) to ensure RGDC employees are equipped to manage environmental performance
Performance evaluation	A review of outcomes / data against KPIs to track performance and monitor improvements over time
Operations	A review of the operational aspects of the organisation, along with emergency planning and response
Improvements	A review of the performance and continual improvement outcomes and ensure that existing systems are creating ongoing opportunities for improving environmental performance

7.2.2 Environmental monitoring

Precinct wide environmental monitoring will be undertaken by the corporation in relation to:



water quality



groundwater



air



noise



odour.

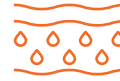
Businesses and organisations within the precinct will have a responsibility to provide data to the corporation on site or project based environmental monitoring to inform the precinct wide annual reporting on the EMS.

The objectives and principles of the environmental monitoring is provided.



Water quality

- Water quality will be managed through a precinct wide stormwater management strategy and contaminant management site specific stormwater quality controls.



Groundwater

- The corporation will establish a groundwater baseline register which will provide a central point for all developments that present a risk and may potentially impact on groundwater.
- The EMS register will identify developments with a high potential risk to groundwater, and any groundwater monitoring requirements that apply through an Environmental Protection Licence.
- The groundwater baseline register will be a live document which will be updated and amended as new development occurs within the precinct.



Air quality

- The corporation will work with relevant government agencies (i.e. EPA) to establish unattended monitoring stations within the precinct.
- The monitoring stations capable of measuring ambient air quality levels and can be progressively re-located as more industry is developed or as areas become unsuitable over time.
- Annual monitoring reports will be prepared to assess the trends in pollutant levels over time as a means of evaluating the overall performance of the precinct compared with relevant guidelines.



Noise

- The corporation will work with relevant government agencies (i.e. EPA) to establish a program which includes monitoring and reporting on noise emissions.
- Where monitoring indicates increasing noise levels at or above the cumulative criteria, more frequent attended monitoring may be warranted to identify the issue and determine what if any action may be needed.
- Annual monitoring reports will be prepared to assess the trends in noise levels over time as a means of evaluating the overall performance of the precinct compared with relevant guidelines.



Odour

- The corporation will work with relevant government agencies (i.e. EPA) to establish a monitoring and reporting program, which includes monitoring and reporting on odour emissions.
- Where monitoring indicates increasing odour emissions, more frequent attended monitoring may be warranted to identify the issue and determine what if any action may be needed.
- Odour sampling of sources at a site can also be conducted where necessary to determine the total site odour emission rate and compare this with the allowance for the specific parcel of land.
- Annual monitoring reports will be prepared to assess the trends in odour emission levels over time as a means of evaluating the overall performance of the precinct compared with relevant guidelines.

7.2.3 Data

Businesses in the precinct will work with the corporation as industry partners to ensure the ongoing health and performance of the precinct can be measured.

Businesses will be required to enter into a data-use agreement setting out how data will be collected, used, stored and shared.

The following policies are referenced as best practice guides for the collection and use of data:

- Standard Technical Requirements for Spatial Datasets and Maps (August 2017) prepared by the Department of Planning and Environment
- NSW Standard for Spatially Enabling Information (May 2018) prepared by the NSW ICT and Digital Leadership Group.

Where possible, businesses should provide data in accordance with the buildingSMART standard as a best practice standardisation tool for digital infrastructure data.

7.2.4 How will the data be used?

The collection, capture and use of reliable data will be paramount to the success of precinct.

High quality data will provide for valuable analysis of the precinct at any given time. It allows the precinct's health and performance to be accurately managed.

This enables the corporation as the precinct custodian to manage and respond to the precinct's needs.

A key component of the data captured in the precinct will focus on infrastructure assets. This helps to understand the planning, design, construction and operational phases of infrastructure assets.

The corporation's approach to the management of infrastructure data is based on the NSW Infrastructure Data Management Framework.

These principles will ensure the clear capture and application of data using common, open standards. This makes the data ideal from a useability perspective, such as through the use of digital twins.

The core principles the corporation will adopt for data management include:

Public good	Should deliver public good
Value	Should provide ongoing value and insights of infrastructure across the asset lifecycle
Quality	Should provide sufficient information to assess data reliability and quality
Adaptability	Should be flexible and scalable to allow adaptation to new technology and societal needs
Openness	Should be as openly available, accessible and discoverable as possible to maximise value and reuse
Security and privacy	Should be secure and private by design and facilitate security and privacy-preserving role-based access
Curation	Should have clear responsibilities, ownership and regulation
Standards	Should have consistent agreed standards (open where feasible) to enable interoperability
Federation	Should enable an interconnected ecosystem of data environments supported by custodians

7.2.5 Environmental management plans

Businesses in the precinct may need to prepare an environmental management plan (EMP) which is a site or project specific plan developed to ensure that appropriate environmental management practices are followed during a project's construction and operation.

EMPs will ensure:

- application of best practice environmental management to a project
- the implementation of a projects conditions of approval or consent
- compliance with environmental legislation
- that environmental risks associated with a project are properly managed.

The scope of an EMP will vary depending on the scale and nature of a project.

Mapping






Museum of the Riverina, Wagga Wagga
Courtesy of Destination NSW

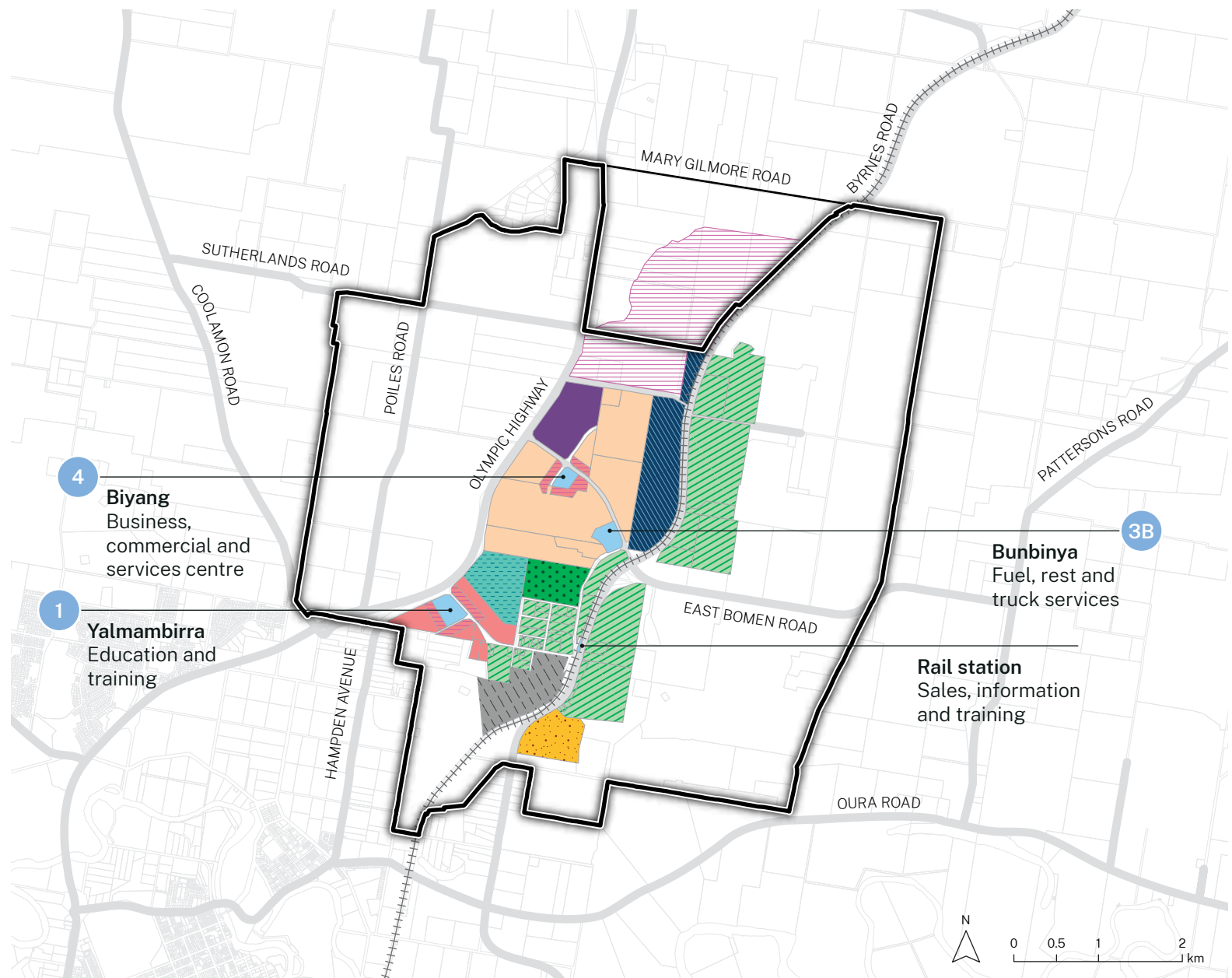


This chapter contains mapping and concepts of elements within the Wagga Wagga Special Activation Precinct which support Chapter 6 – assessment criteria.















- 8.1 Land uses
- 8.2 Visually sensitive locations
- 8.3 Flood planning area
- 8.4 Existing and future bushfire risk areas
- 8.5 High value biodiversity
- 8.6 Riparian corridors
- 8.7 Preferred stack locations
- 8.8 Odour overlay

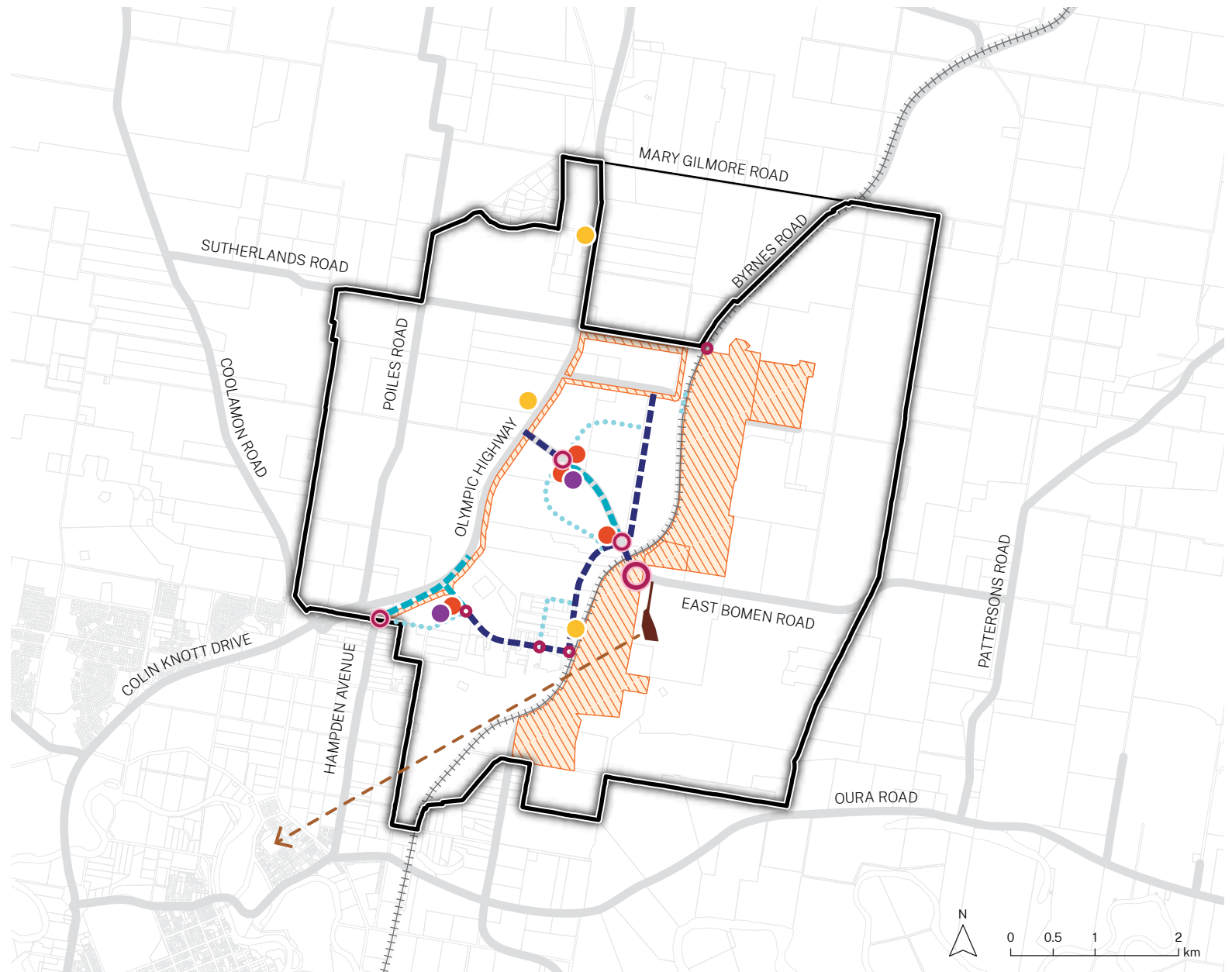
8.1 Land uses

-  Stage 1 delivery plan boundary
-  Abattoir and value-add uses
-  Commercial node
-  Distribution centre uses
-  Focus for smaller lots
-  Future core industrial
-  High amenity use
-  Intensification and infill development
-  Light industry and business uses
-  Mixture of industry and land sizes
-  Rail and intermodal uses
-  Saleyards
-  Small scale renewable energy
-  Rail



8.2 Visually sensitive locations

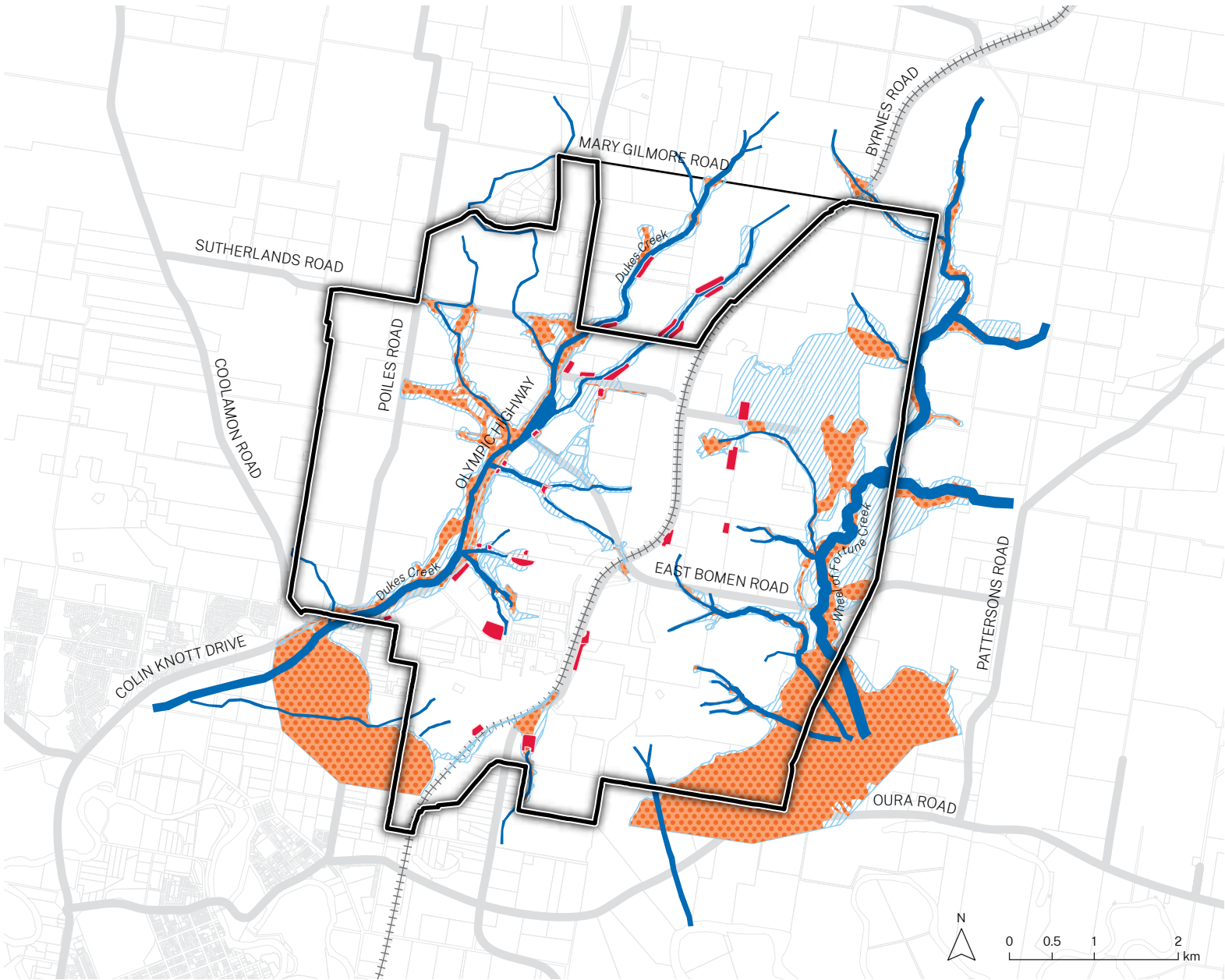
-  Stage 1 delivery plan boundary
-  Visually sensitive location
-  Commercial node plaza and work amenity space
-  European heritage place
-  Landmark building
-  'The Rock' sight line
-  Avenue
-  Premier avenue
-  Premier boulevard
-  Former axe quarry
-  Premier gateway
-  Secondary gateway
-  Tertiary gateway
-  Rail












8.3 Flood planning area

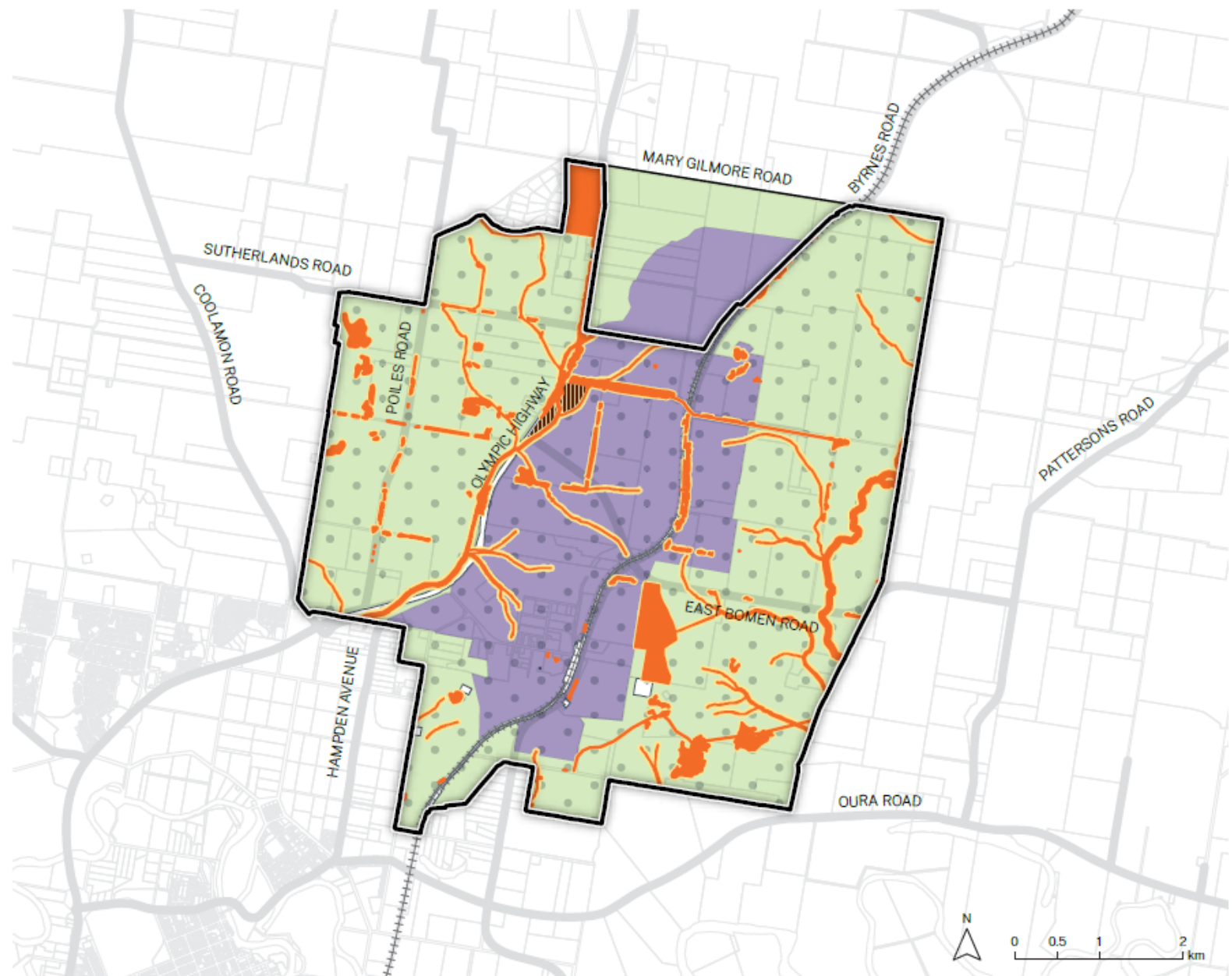
- Stage 1 delivery plan boundary
- Riparian corridor
- Proposed stormwater basins
- Flood Planning Area (0.5% AEP Flood Extent)
- Flood Prone Land (PMF Extent)
- Rail

For the purposes of this document the 0.5% AEP Flood Extent is taken to be equivalent to the 1% AEP Flood Extent with climate change”.



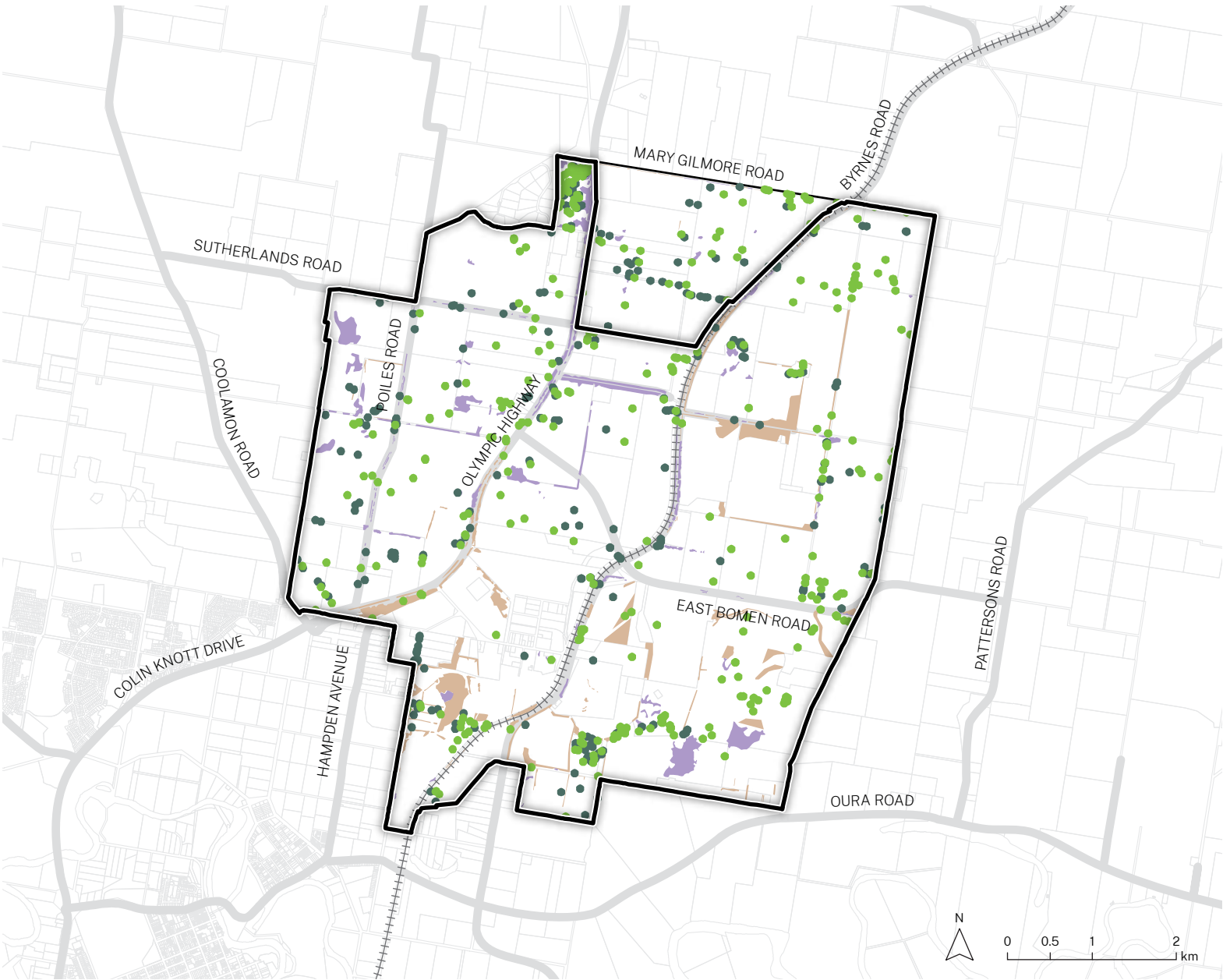
8.4 Existing and future bushfire risk areas

-  Stage 1 delivery plan boundary
-  Vegetation Category 3
-  Vegetated buffer (30m)
-  Access constrained land (requires assessment)
-  Vegetation Category 3 (grasslands)
-  Regional Enterprise Zone
-  Rural Activity Zone
-  SP2 Infrastructure Zone
-  Rail



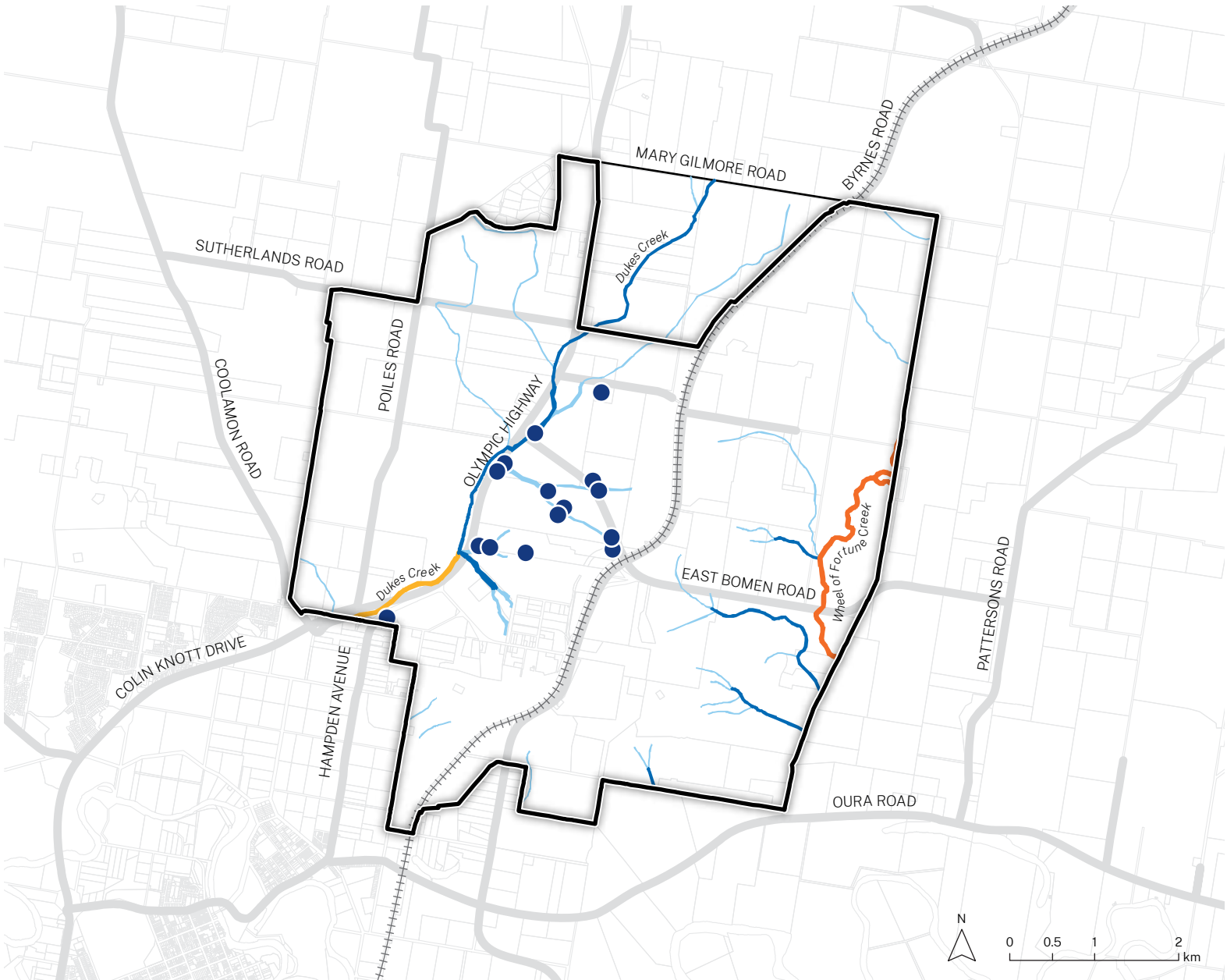
8.5 High value biodiversity

- Stage 1 delivery plan boundary
- Tier 1 paddock trees - high biodiversity constraint
- Tier 2 paddock trees - medium biodiversity constraint
- Tier 1 high biodiversity constraint
- Tier 2 medium biodiversity constraint
- Rail



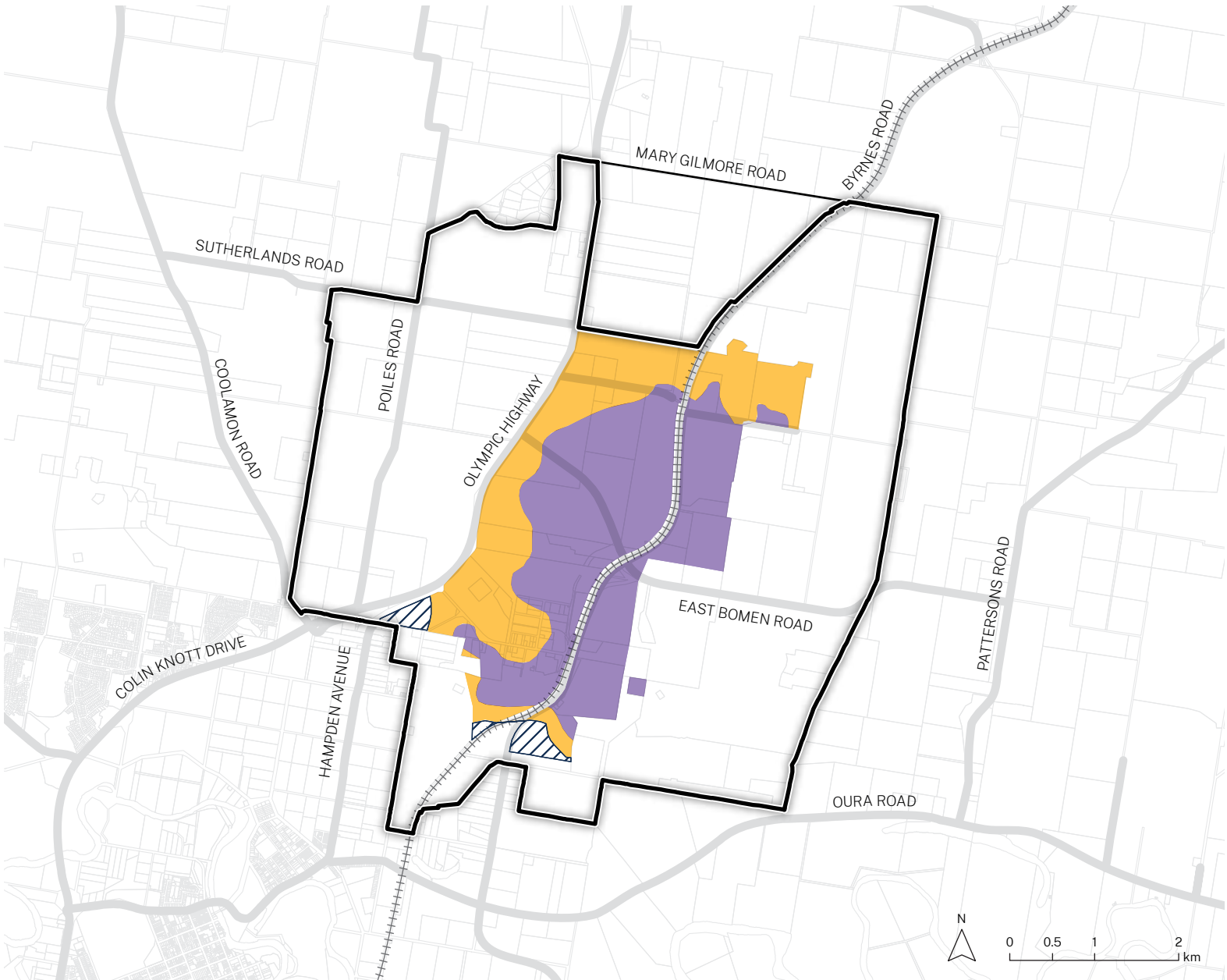
8.6 Riparian corridors

- Stage 1 delivery plan boundary
- Basin
- Riparian corridor:
 - First order
 - Second order
 - Third order
 - Fourth order
- Rail



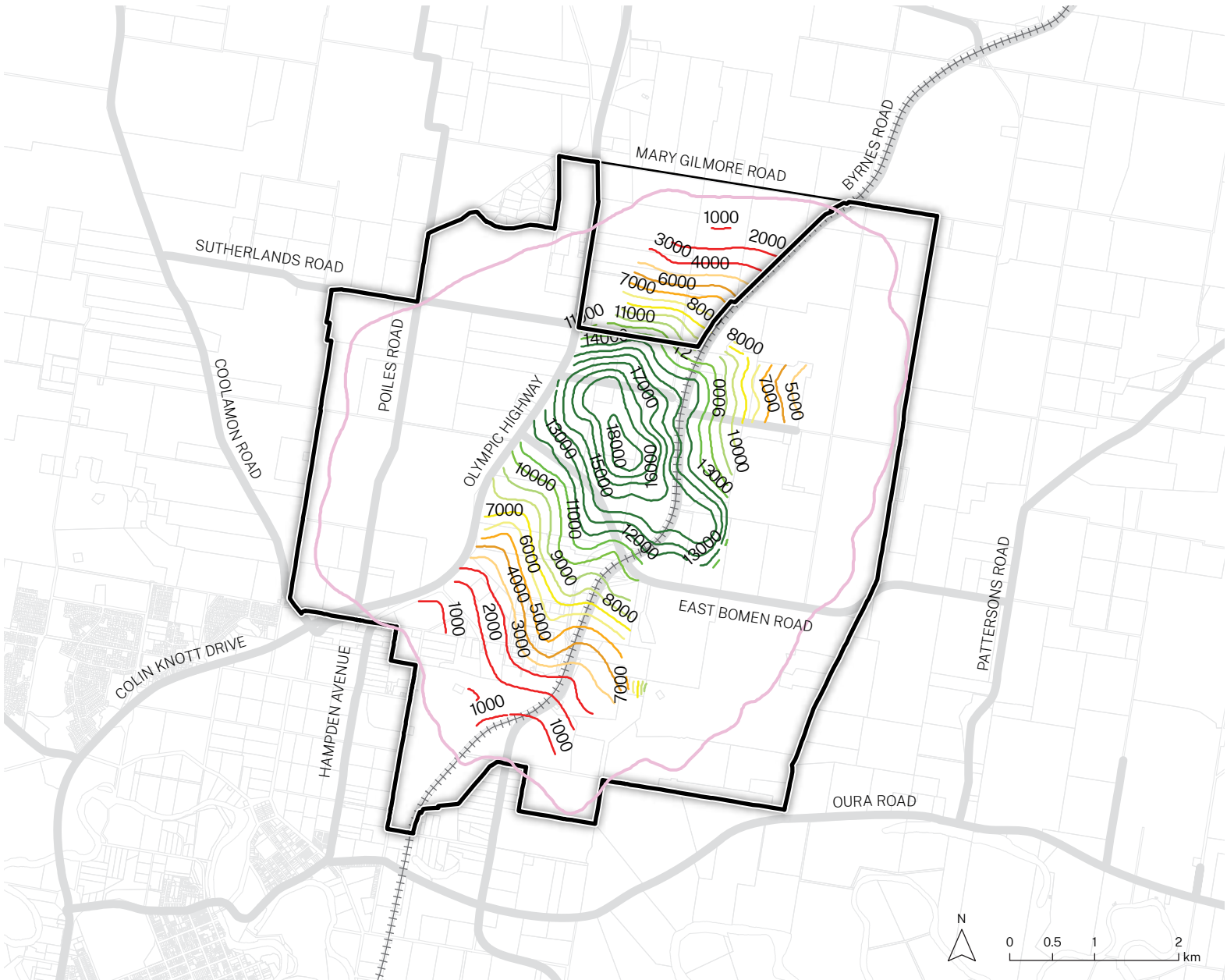
8.7 Preferred stack locations

- Stage 1 boundary
- Preferred stack location
- Higher performing stacks preferred
- No stacks preferred
- Rail



8.8 Odour overlay

- Stage 1 boundary
- Received 2 odour units cumulative limit
- Rail





For more information, contact

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