





# **ACKNOWLEDGEMENT OF COUNTRY**

The **Victorian Planning Authority proudly acknowledges** Victoria's Aboriginal community and their rich culture and pays respect to their Elders past and present.

**We acknowledge** Aboriginal people as Australia's first peoples and as the Traditional Owners and custodians of the land and water on which we rely.

**We recognise** and value the ongoing contribution of Aboriginal people and communities to Victorian life and how this enriches us.

**We embrace** the spirit of reconciliation, working towards the equality of outcomes and ensuring an equal voice.

**We acknowledge** the Wadawurrung People as the Traditional Owners of the land to which this Precinct Structure plan applies.

The Ballarat North Precinct Structure Plan is located on the traditional lands of the Wadawurrung People. The Wadawurrung People are represented by the Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC).

We acknowledge the Wadawurrung People as the Aboriginal Traditional Owners of their unceded Country. We acknowledge their ongoing connection to this land, and we pay our respects to their Elders past and present.

We thank Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC) for their engagement throughout this project.

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### INTRODUCTION

The Victorian Planning Authority (VPA) in partnership with City of Ballarat (council) has prepared a precinct structure plan (PSP) for the Ballarat North precinct. A PSP is a land use and infrastructure plan which guides the development of an area over time.

### The Ballarat North PSP:

- Will guide the delivery of quality urban environments in accordance with the <u>Precinct Structure Planning Guidelines</u>: New Communities in Victoria October 2021 (the PSP Guidelines) and the associated <u>Guidance note</u>: <u>Applying the PSP Guidelines in regional areas</u> (Regional PSP Guidelines)
- Enables the transition of non-urban land to urban land
- Sets the vision for how the land should be developed and the outcomes to be achieved
- Outlines the infrastructure projects required to ensure that future residents and visitors can be provided with timely access to services and transport necessary to support a quality and affordable lifestyle
- Sets out objectives, requirements and guidelines for land use, development and subdivision
- Provides government agencies, the council, developers, investors and local communities with certainty about future development.

### 1.1 Purpose of this report

The background report summarises the key planning assessments and outcomes that have informed the preparation of the Ballarat North PSP and the Development Contributions Plan (DCP).

### Specifically, this report:

- Summarises the strategic and physical context of the precinct
- Identifies the land use and development needs for the precinct
- Identifies the planning assessment and balanced outcomes to key issues impacting the PSP
- Outlines how the precinct performs against the PSP Guidelines performance targets
- Outlines how the technical studies have helped to inform the preparation of the PSP.

## 1.2 Progressive certainty

The Ballarat North PSP a priority project in *Victoria's Housing Statement | The decade ahead 20224-2034* and is scheduled to be completed by June 2026. A progressive certainty approach has been taken to ensure the draft amendment is completed by June 2026. This means some supporting technical work will be reviewed and finalised concurrent with public consultation and Standing Advisory Committee processes, for example:

- Drainage functional designs
- Transport functional designs and costings

To progress the draft amendment, placeholder designs and costings for transport and drainage infrastructure have been used in the DCP. Detailed investigation and design by a consultant will be completed prior to gazettal of the amendment.



For transport projects, a 'base cost' is applied based on <u>VPA Benchmark Infrastructure Costings</u> plus additional allowances for specific items, such as:

### o Allowance - Existing Road reserves

Widening the existing road pavement and relocating drainage.

### o <u>Allowance - Services adjustments/protection</u>

 Relocation/replacement or protection of existing utility infrastructure such as electricity, communication, and water supply pipelines.

### o Allowance - Contingency (40% for Midland Highway road upgrade)

- Complete removal of the existing road pavement and turning lanes.
- Additional traffic management due to the function of this road (state highway) and need to maintain traffic flow during the works.
- Additional road authority fees and charges for detailed design, approvals, and surveillance during the works.
- For drainage projects, preliminary costings have been prepared by the authors of the Ballarat North PSP Drainage Strategy – Updated Proof of Concept. The preliminary costs:
  - Are based on rates for Victorian metro drainage projects
  - It excludes costs associated with:
    - Land filling
    - Investigations fee
    - Rehabilitation works along main Burrumbeet Creek
    - Uncertainties such as contaminated soil disposal
  - o Include costs associated with:
    - Contingencies for asset variability and soil conditions of sites

The placeholder designs and costs will be superseded by functional designs and costings prepared by the VPAs consultant, based on detailed investigation. Final costs will consider local rates if available.

### 1.3 PSP Guidelines and PSP 2.0 process

The PSP Guidelines is a Victorian Government initiative that provide a consistent framework for preparing PSPs, ensuring that planning authorities prepare plans for places that enable best practice planning outcomes to create liveable new communities.

Ministerial Direction 12 Urban Growth Zone states:

"in preparing an amendment to incorporate a precinct structure plan in the scheme, or change an incorporated precinct structure plan, a planning authority must demonstrate and show in the explanatory report that the precinct structure plan or any changes to it are in accordance with any applicable Precinct Structure Plan Guidelines approved by the Minister for Planning".

The PSP 2.0 process aims to:

- Achieve up-front, early resolution of issues
- Gain better and earlier information on infrastructure demands to inform agency planning and budget bids
- Update guidance on PSP content reflecting new government policy and promoting innovation
- Provide stronger guidance in PSPs for development staging

The PSP Guidelines acknowledge the diversity of new communities, particularly in regional Victoria, and state:





While the Guidelines maintain a focus on preparing PSPs in Melbourne's new communities, PSPs will also be prepared across regional Victoria's growing cities and towns. While a more nuanced approach to the application of the Guidelines in these areas is required, the same principles, features and targets should be considered in the regional context, particularly where larger growth areas are proposed.

The <u>Guidance Note: Applying the PSP Guidelines in regional areas</u> (Regional PSP Guidelines), provides guidance to the planning authority when applying the PSP Guidelines allowing for adaptations to guideline targets in a way that supports the existing character and values of townships, while meeting the needs of future communities.

Further information on the PSP 2.0 process can be found on the VPA website.

**Figure 1** illustrates how best practice inputs identified through the PSP process feed into the PSP Guidelines Integrated Framework to deliver a PSP.



Figure 1: Framework for delivering PSPs (Source: VPA)





### 1.4 PSP Guidelines in Ballarat North

Ballarat North is a regional PSP that seeks to deliver outcomes responsive to the local context.

The PSP Guidelines set out a hierarchy of planning elements that explain what needs to be considered and delivered in a PSP. These elements are based on state policy, strategies and future directions for greenfield precincts.

Each precinct needs to include a clear purpose and vision for the place, which is supported by:

- Plans
- Diagrams
- Tables
- Objectives
- Requirements
- Guidelines
- Other tools as required

These tools provide a mechanism to implement the PSP by guiding the preparation and assessment of planning permit applications for subdivision, use and development. All of these sit within the broader goal of delivering 20-minute neighbourhoods. To achieve the vision of the precinct, strong commitment from stakeholders is essential.



### 2 STRATEGIC CONTEXT

### 2.1 Policy and legislation context

### 2.1.1 State and regional policies and strategies

### **Central Highlands Regional Growth Plan**

The Central Highlands Regional Growth Plan, 2014 (the Regional Growth Plan) provides broad direction for directing regional growth of land use and development in the Central Highlands region.

The Regional Growth Plan outlines that growth should be promoted and supported in Ballarat as the regional city for Central Highlands.

The Regional Growth Plan can be viewed here: <a href="https://www.planning.vic.gov.au/policy-and-strategy/regional-growth-plans">https://www.planning.vic.gov.au/policy-and-strategy/regional-growth-plans</a>

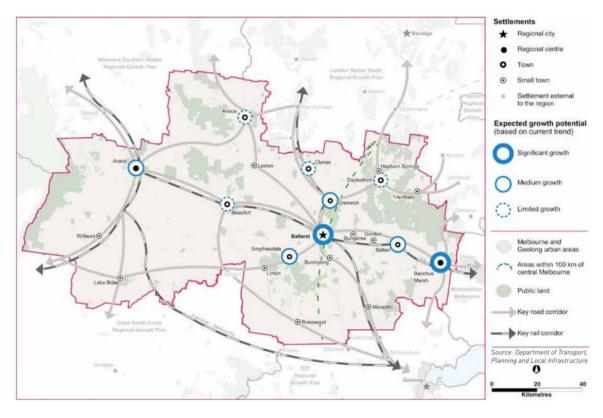


Figure 2: Page 42 of Central Highlands Regional Growth Plan – Map 8: expected growth potential

### **Plan for Victoria**

Plan for Victoria sets out the state-wide vision for how Victoria will grow over time. Ballarat is one of the major regional cities identified to accommodate additional homes in Victoria, with a housing target to provide 18,900 homes in Ballarat's greenfield land by 2051. The Ballarat North PSP represents approximately 30 per cent share of new greenfield dwellings targeted by 2051 across the municipality.

The *Plan for Victoria* can be viewed here: https://www.planning.vic.gov.au/planforvictoria



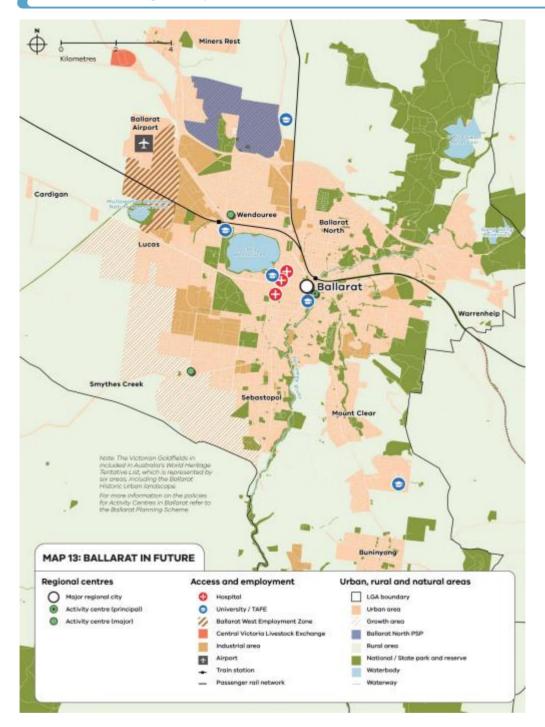


Figure 3: Page 58 of Plan for Victoria – Map 13: Ballarat in Future

### **Wadawurrung Healthy Country Plan**

The Wadawurrung Healthy Country Plan, or Paleert Thaara Dja – Let's make Country good together 2020-2030, sets out a number of values that should be adhered to and threats that should be minimised to achieve the vision of 'All people working together to make Wadawurrung Country and Culture Strong'.

The Healthy Country Plan emphasises several values, including Wadawurrung cultural sites and places, Yulluk (Waterways, rivers, estuaries and wetlands), Inland Country and Native Animals which are of significance to the context of Ballarat North's features and landscape.

Specifically, the precinct aims to address matters outlined in the plan as being of notable interest to Wadawurrung Country such as urban development, insufficient coordination and insufficient recognition.





The PSP has aimed to integrate and consider these values though it's planning and technical work, and in particular through relevant guidelines and requirement.

More information on the Wadawurrung Healthy Country Plan can be viewed here: <a href="https://www.wadawurrung.org.au/healthy-country-plan-video">https://www.wadawurrung.org.au/healthy-country-plan-video</a>

### 2.1.2 Local policies

### **Ballarat Housing Strategy 2041, August 2024**

FIGURE 2 BALLARAT CONTEXT

The *Ballarat Housing Strategy 2041* provides City of Ballarat with a framework for managing and accommodating population and housing growth for a minimum period of 15-years across the municipality.

It provides the strategic basis to introduce planning tools to enable the delivery of more housing in established areas with existing infrastructure, transport, and facilities.

The Ballarat North PSP is identified as a growth area in Figure 2 of the strategy. It also identifies a future expanded growth area to the north of the PSP.

# PYRENEES HEPBURN GOLDEN PLAINS MOORABOOL City of Balturat Residential Areas PSP Areas Future Growth Areas Balturat Aport Parks and reserves Railway Station

**Figure 4:** Extract of Ballarat Housing Strategy 2041 - Figure 2 showing the Ballarat North core and expanded growth area.





The Ballarat Housing Strategy 2041 can be viewed here: https://mysay.ballarat.vic.gov.au/ballarat-housing-strategy-2023-2041

### Ballarat long term growth options investigation, August 2018

Hansen Partnership, ARUP and Tim Nott prepared the *Ballarat Long Term Growth Options Investigation* on behalf of the City of Ballarat.

The aim of the document was to respond to Initiative 3.6 of the *Ballarat Strategy 2040*. The core message of Initiative 3.6 is to 'clarify the feasibility of future greenfield areas, and then engage with local communities ...'. The investigation was undertaken for four potential greenfield areas.

The investigation found that out of the four greenfield growth areas investigated, the Northern Growth Area (currently known as the Ballarat North PSP) was the most viable greenfield area to be developed.

# 2.1.3 Ballarat Planning Scheme – Municipal Planning Strategy and Planning Policy Framework

The Planning Policy Framework (PPF) contains statewide, regional and local planning policies, which outline the land use and development outcomes sought by the Ballarat Planning Scheme (the Planning Scheme). The Municipal Planning Strategy (MPS) operates in conjunction with the PPF to provide local policy context and strategic direction for the municipality.

The PPF sit within clauses 10-19, and the MPS at clause 2 of the Planning Scheme.

**Clause 11** and **Clause 02.03-1 Settlement** sets out the policy for directing growth in Victoria. Ballarat North is identified as part of the Ballarat Regional City on the Victoria Settlement Framework plan at **Clause 11.01-15.** 

**Clause 11.01-1R** sets out regional policy in accordance with the Central Highlands Regional Growth Plan, consistent with state policy to focus investment and growth in places of state. The clause supports "Ballarat as the main centre for regional growth, services and employment ..."

Other relevant settlement policy being implemented by the Ballarat North PSP draft amendment include:

- 11.01-1L Settlement
- 11.02-1S Supply of urban land
- 11.02-2S Structure planning
- 11.02-3S Sequencing of development
- 11.03-2S Growth areas
- 11.03-6S Regional and local places
- 11.03-6L-3 Miners Rest

Clause 12 and Clause 02.03-2 Environmental and landscape values seek planning to help protect the health of the environment and protect areas of biodiversity and those that have landscape values. It includes relevant policy at:

- 12.01-1S Protection of biodiversity
- 12.01-2S Native vegetation management
- 12.03-1S River and riparian corridors, waterways, lakes, wetlands and billabongs
- 12.05-2S Landscapes



**Clause 13** and **Clause 02.03-3 Environmental risks and amenity** states how planning should strengthen resilience, minimise risk and harm to the environment and manage and respond to climate related impacts. It includes relevant policy at:

- 13.01-1S Natural hazards and climate change
- 13.02-1S Bushfire planning
- 13.03-1S Flooding
- 13.04-1S Contaminated and potentially contaminated land
- 13.04-2S Erosion and Landslip
- 13.04-3S Salinity
- 13.05-1S Noise management
- 13.06-1S Air quality management
- 13.07-1S Land use compatibility
- 13.07-1L Non-residential uses in residential zones

**Clause 14** and **Clause 02.03-4 Natural resource management** states how planning should assist in the wise use and conservation of natural resources. It includes relevant policy at:

- 14.02-1S Catchment planning and management
- 14.02-2S Water quality

**Clause 15** and **Clause 02.03-5 Built Environment and heritage** seek to ensure development appropriately responds to its surrounding landscape and character, valued built form and cultural context. It includes relevant policy at:

- 15.01-1S and 15.01-1L Urban design
- 15.01-1L-1 Park signage
- 15.01-2S Building design
- 15.01-3S Subdivision design
- 15.01-4S Healthy Neighbourhoods
- 15.01-5L Ballarat Neighbourhood Character
- 15.01-6S Design for rural areas
- 15.03-1S and 15.03-1L Heritage conservation
- 15.03-2S Aboriginal cultural heritage

**Clause 16** and **Clause 02.03-6 Housing** seeks to provide housing diversity and ensure the efficient provision of supporting infrastructure. It includes relevant policy at:

- 16.01-1S Housing supply
- 16.01-1L Location of residential development
- 16.01-2S Housing affordability
- 16.01-3S Rural residential development
- 16.01-3L Rural residential development
- 16.01-4S Community Care Accommodation
- 16.01-5S Residential aged care facilities

**Clause 17** and **Clause 02.03-7 Economic development** provides policies aimed at providing strong and innovative economies. It includes relevant policy at:

- 17.01-1S Diversified economy
- 17.01-1R Diversified economy Central Highlands
- 17.02-1S Business
- 17.02-2S and 17.02-2L Out-of-centre development

**Clause 18** and **Clause 02.03-8 Transport** seek to ensure a safe, integrated and sustainable transport system. It includes relevant policy at:







- 18.01-1S Land use and transport integration
- 18.01-2S Transport system
- 18.01-2R Transport system Central Highlands
- 18.01-2L Transport system Ballarat
- 18.01-3S Sustainable and safe transport
- 18.02-1S Walking
- 18.02-1L Ballarat walking networks
- 18.02-2S Cycling
- 18.02-3S Public transport
- 18.02-4S Roads
- 18.02-5S Freight
- 18.02-7S Airports and airfields

Clause 19 and Clause 02.03-9 Infrastructure include policy that ensures social and physical infrastructure is provided in a way that is efficient, equitable, accessible and timely. It includes relevant policy at:

- 19.01-1S Energy supply
- 19.02-1S Health facilities
- 19.02-2S Education facilities
- 19.02-3S Cultural facilities
- 19.02-4S Social and cultural facilities
- 19.02-5S Emergency services
- 19.02-6S Open space
- 19.03-1S Development and infrastructure contributions plans
- 19.03-2S Infrastructure design and provision
- 19.03-3S Integrated water management
- 19.03-3L Ballarat integrated water management
- 19.04-4S Telecommunications
- 19.04-5S Waste and resource recovery

These state polices are implemented via this draft Amendment.

### 2.2 **Ballarat North precinct context**

### Lot size and ownership pattern 2.2.1

The Ballarat North precinct is split into a core and expanded area, with the core area covering an area of 571 hectares and the expanded area covering an area of 271 hectares for a total area of 842 hectares of land.

The core and expanded areas consist of 105 land parcels combined, ranging in size from under a hectare to 88 hectares. The precinct currently is best described as flat broad hectare farming / rural land (with the exception of Mount Rowan).

This draft amendment for the Ballarat North PSP applies to the core area only.

### 2.2.2 **Wadawurrung cultural values**

The VPA has engaged the Wadawurrung Traditional Owners Corporation (WTOAC) to undertake a Cultural Values Assessment (CVA) for the Ballarat North PSP. The CVA is yet to be completed and endorsed at this time.





When the CVA is complete, the PSP and supporting documentation will be updated to include descriptions of the unique characteristics of this country and Wadawurrung language as advised by WTOAC and provide greater detail and guidance on the cultural values to be considered in the precinct planning and development process.

### 2.2.3 Post-contact heritage

There are no registered/listed heritage sites located within the precinct. However, there are five sites in the PSP that have been recommended to be registered as heritage places:

- Scotts Homestead 103 Olliers Road, Mount Rowan
- MacLeod Villa 88 Olliers Road, Mount Rowan
- Hawthorn Park Homestead 112 Olliers Road, Mount Rowan
- Hawthorn Farm, Former Creamery & Dutch Elm 134 Gillies Road, Mount Rowan
- Chalmers Homestead 15 Sims Road, Mount Rowan

There are three existing items on the heritage inventory within the precinct, those being:

- Former House Site Wyndholm Park, Miners Rest
- Mount Rowan House Remains Gillies Road, Mount Rowan
- Mount Rowan Mullock Heap 15 Olliers Road, Mount Rowan

### 2.2.4 Topography and waterways

Mount Rowan is located in the north-east of the core PSP area. This is a significant topographic feature and has a steeper slope up to 25% to reach an elevation of 519 metres. Mount Rowan's prominent height encompasses multiple view lines from the south and east of the PSP.

From Mount Rowan, the topography generally falls gently to the west and south, to meet Burrumbeet Creek which flows through the precinct along the southern and western boundaries. Burrumbeet Creek creates a series of low points across the site. The majority of the precinct is relatively flat surface gradients typically not exceeding 5%.

A tributary to Burrumbeet Creek in the southeast area of the PSP conveys flows from external catchments through the PSP to Burrumbeet Creek. Part of the tributary in the PSP is conveyed through a man-made channel. The area surrounding the channel is subject to inundation during 1% Annual Exceedance Probability (AEP) flooding events.

Burrumbeet Creek conveys flows through the PSP, past the Miners Rest township, to Lake Burrumbeet approximately 13km west of the PSP area.

### 2.3 Ballarat North local context

### 2.3.1 Surrounding land use

There are multiple surrounding land-uses near the precinct.

- East of the Midland Highway, there is mainly Farm Zone (FZ) properties, with a small area of Industrial 1 Zone (IN1Z) located near the southeast corner of the PSP.
- There are existing Rural Living Zone (RLZ) properties north-east of the PSP past Mount

  Rowan
- Areas north of the PSP are mainly Farming Zone properties and a Special Use Zone (SUZ)
   which applies to land and uses of the Dowling Forest Racecourse.





- Miners Rest Township and the newly developed Miners Rest South estate are west of the PSP, along with the downstream length of the Burrumbeet Creek.
- To the south-west across the Western Freeway is Ballarat Airfield, which will form part of the Ballarat West Industrial Area.
- Mitchell Park industrial reserve and Pioneer Park are south of the PSP.
- East of Mitchell Park is Wendouree, a suburb of Ballarat mainly comprised of detached dwellings typically between 600-700 square metres, with some dual occupancies and townhouses. Mount Rowan Secondary College is also located in this area, abutting the Western Freeway.

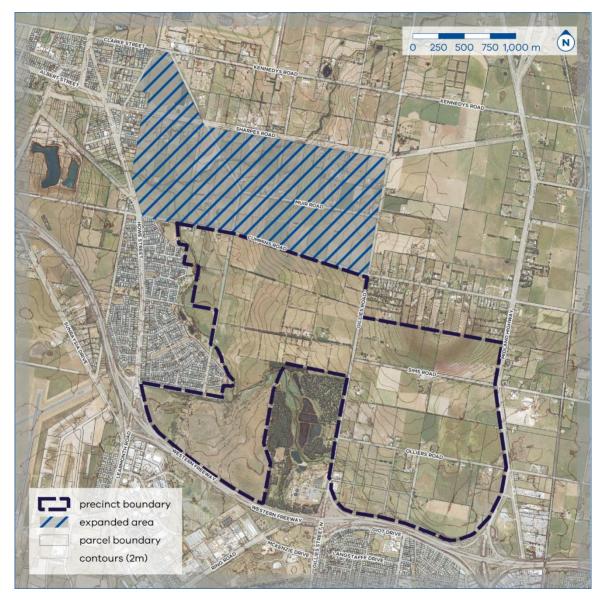


Figure 5: Precinct aerial

### 2.3.2 Water and drainage

The Central Highlands Integrated Water Management (IWM) Forum developed a Strategic Directions Statement (SDS) in 2022. The SDS includes seven strategic IWM opportunities for the broader catchment that are relevant to Ballarat North.

IWM opportunities identified for Ballarat North PSP can contribute to the seven strategic outcomes in the SDS.





Table 1: Seven strategic outcomes of the Central Highlands IWM Forum Strategic Directions Statement

|  | Safe, secure and affordable supplies in an uncertain future  Indicated by the amount of water conserved or alternative water volume supplied to meet an identified demand. |
|--|--|
|  | Ensuring environmental and public health standards are met, while maximising resource recovery.  |
| ~ <del>[</del> ]~                      | Manage flood risks  Resilience to existing and future flood risk.  |
| ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | Healthy and valued waterways and marine environments     Indicated by the ecological health of riparian areas, hydrology and water quality.                                |
|  | Maximising the connectivity, accessibility, greening and vegetation, cooling, aesthetic and/or recreational values of landscapes.  |
|  | Ensuring that different communities are considered and included in planning and design, and provided with watersystems literacy to enable involvement.                     |
| \$ 0                                   | Jobs, economic growth, and innovation     Recognising that water management is an integral part of economic growth.  |

Burrumbeet Creek is part of the broader Hopkins River catchment, which flows into via Lake Burrumbeet, Baillies Creek and Mount Emu Creek. Portions of the PSP around the Burrumbeet Creek are subject to the Floodway Overlay (FO) and Land Subject to Inundation Overlay (LSIO).

GHCMA have identified limitations of the current assumptions being made on the flood extent, based on the 2013 Burrumbeet Creek flood investigation study. The drainage strategy prepared as part of this PSP uses additional drainage and flooding assumptions to manage this limitation.



### 2.3.3 Existing transport network

### Midland Highway A300

Midland Highway is a state-controlled primary arterial road.

Midland Highway bounds the east of the precinct, from Western Freeway to the south and Cummins Road to the north. It is a sealed rural arterial road, with a traffic lane in each direction with a road reserve between 60 and 75 metres.

Southbound travellers would reach the township of Ballarat, whereas northbound travellers would first reach Creswick on the way to Castlemaine and Bendigo.

### **Western Freeway M8**

Western Freeway is a state-controlled freeway.

The Western Freeway bounds the south of the precinct, from Howe Street to the west and Midland Highway to the east. It is a sealed, two-lane road in each direction with a road reserve typically between 90 and 110 metres. It has two-way interchanges at Howe Street and Midland Highway with an east-bound interchange at Gillies Road.

Southbound travellers would reach Melbourne, whereas westbound travellers would pass Beaufort on the way to Ararat, Horsham and then South Australia.

### **Howe Street C287**

Howe Street is a state-controlled primary arterial road.

It is located to the west of the precinct. It intersects Western Freeway, extending to Clarke Street in Miners Rest, where it becomes Ballarat-Maryborough Road. Howe Street will play a vital role for access to the precinct into the future. It is a sealed one-lane road in each direction with a road reserve typically around 60 metres in width.

Southbound travellers would reach the township of Ballarat, whereas northbound travellers, would reach the township of Clunes on the way to Maryborough.

### **Gillies Road**

Gillies Road is a council controlled secondary arterial road.

Gillies Road runs north-south through the middle of the precinct. It extends south into the established Ballarat urban area as a declared state route (C307) and north for 14 kilometres where it intersects with Clunes-Creswick Road state route C291. Within the PSP it is a sealed carriageway with a 30 metre road reserve.

### **Olliers Road**

Olliers Road is a municipal local access street.

It runs east-west, connecting Gillies Road to the west and Midland Highway to the east. It is aowa sealed, unmarked two-lane road with a road reserve of approximately 30 metres.

### **Noble Court**

Noble Court is a municipal local access street.







Noble Court runs north-south from Olliers Road and terminates at Burrumbeet Creek / Western Freeway to the south. It is a sealed, unmarked two-lane road with a road reserve of approximately 30 metres.

### **Sims Road**

Sims Road is a municipal local access street.

Sims Road runs east-west from Gillies Road towards Midland Highway. It runs along the northern boundary of the Ballarat Grammar school site. Whilst a 30 metre road reservation exists from Gillies Road to the Midland Highway, the road only exists (sealed, unmarked two lane road) midway through the site with no intersection to Midland Highway.

### **Cummins Road**

Cummins Road is a municipal local access street.

It runs east-west from Howe Street to the west and Gillies Road to the east. From Howe Street to Burrumbeet Creek, it is a sealed carriageway with one-lane in each direction with a road reserve of approximately 30 metres. From Burrumbeet Creek to Gillies Road, it is unsealed but maintains the same road reserve width.



Figure 6: State and Council Roads





### **Garlands Road**

Garlands Road is a municipal local access street.

It runs from Kennedys Road to the north-west and Cummins Road to the south-east. It is an unsealed dirt road with a road reserve approximately 30 metres in width.

### **Public transport routes**

There are two bus routes in proximity to the precinct on Midland Highway and Howe Street.

Ballarat bus route 30 provides a two-way bus service from Ballarat Station to Creswick along Midland Highway. It typically runs around once every hour, with the first service leaving Creswick at 5.37am and the last service arriving at Ballarat Station at 9.37pm.

Ballarat bus route 31 provides a two-way bus service from Wendouree Station to Miners Rest along Howe Street. It typically runs once every hour, with the first service departing Wendouree Station at 6.07am with the last service arriving at Wendouree Station at 8.30pm.

A paper ticket V-Line service runs from Ballarat to Maryborough around 450-650 metres east of Midland Highway, however, there is no station within the precinct.

V-Line coaches also use Midland Highway to access areas such as Daylesford, Bendigo, Newstead, Castlemaine and Maryborough, but there is no stop within the precinct.

There is an e-scooter trial area within Ballarat that extends into Wendouree but does not extend to Ballarat North.

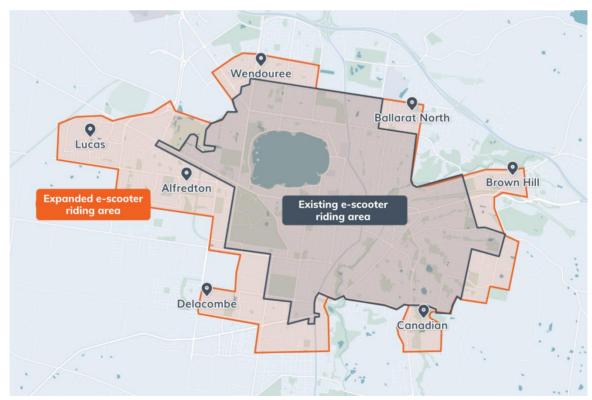


Figure 7: Ballarat e-scooter trial area (Source: City of Ballarat)



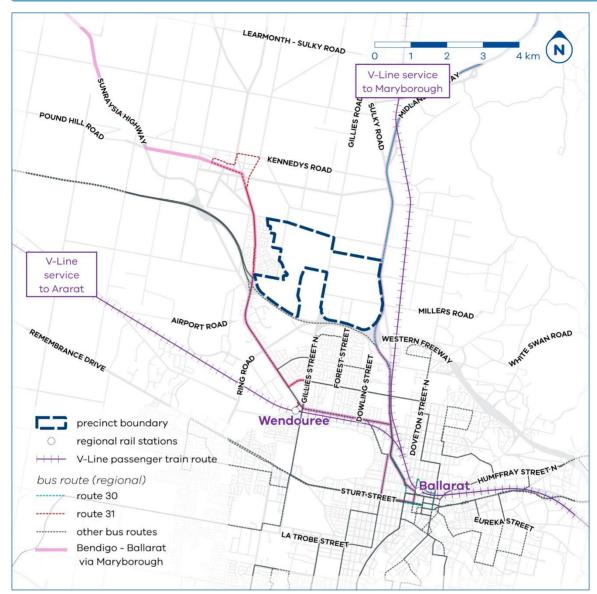


Figure 8: Public transport routes

### Walking and cycling

There is no walking or cycling infrastructure currently within the precinct. The original Miners Rest township adjacent to the precinct does not have formal footpaths. The Macarthur Park development south-west of Ballarat North features footpaths and walking paths along the western side of Burrumbeet Creek. Howe Street is proposed to form part of the Ballarat Street Cycling Corridor as noted in the *Ballarat Cycling Action Plan 2017-2025*.

### Freight connections

Western Freeway and Howe Street form part of the Principal Freight Network. Freight rail is also present to the east of the precinct, connecting Ballarat to Maryborough.





Figure 9: Freight transport connections



### 3 BALLARAT NORTH PSP PREPARATION

Ballarat North PSP was prepared in line with the PSP 2.0 process shown in Figure 10.

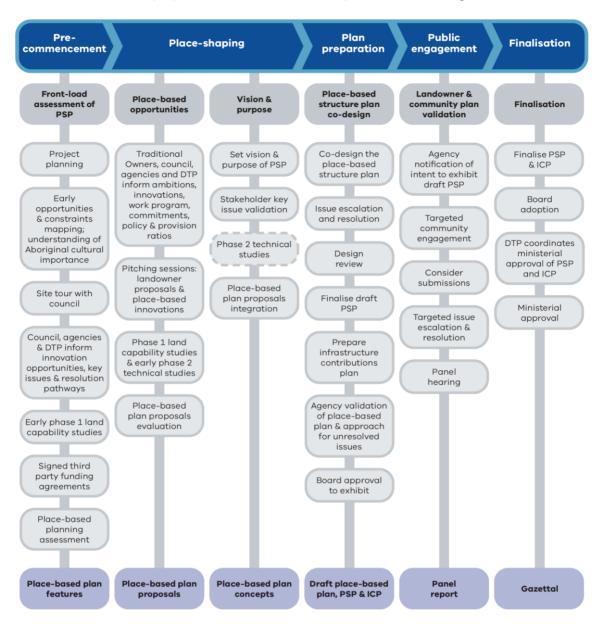


Figure 10: PSP 2.0 Process

### 3.1 Vision and purpose for Ballarat North PSP

The vision and purpose of the Ballarat North PSP has developed throughout the preparation of the PSP. An initial vision was formed during the <u>Pitching Sessions</u> and was refined through the <u>Vision and Purpose</u> survey.

The overarching vision for the PSP is underpinned by the following ideals:

- 1 Housing and Character
- 2 Transport
- 3 Community Infrastructure
- 4 Green spaces, water and the environment



### 3.2 Co-design workshop

The VPA in partnership with City of Ballarat held an in-person co-design workshop on 17 July 2024 to inform preparation of the Ballarat North PSP, as part of the PSP 2.0 process.

This workshop involved collaboration and input from various stakeholders including landowners, State Government agencies, City of Ballarat, and the VPA to provide a clear direction for the development of the PSP, highlighting alignments and key issues and opportunities to be addressed for the precinct.

The purpose of the co-design workshop was to:

- Highlight what was previously heard during the vision and purpose workshop
- Provide an update on the current status of the project and summarise the background technical studies
- Provide an opportunity for key stakeholders and landowners to visually map out key constraints, opportunities, features, transport connections and land uses
- Encourage innovative ideas in determining the urban structure for Ballarat North
- Provide strong, transparent, and inclusive consultation opportunities
- Collaboratively develop and inform preparation of a conceptual place-based plan for the Ballarat North PSP
- Outline the next steps for the Ballarat North PSP.

Following the workshop, the VPA prepared the <u>Ballarat North Co-Design Summary Report</u> which provides:

- a summary of the feedback provided by participants
- a summary of the issues, opportunities and ideas that participants raised at the workshop
- a draft Place-Based Plan (see Figure 11).



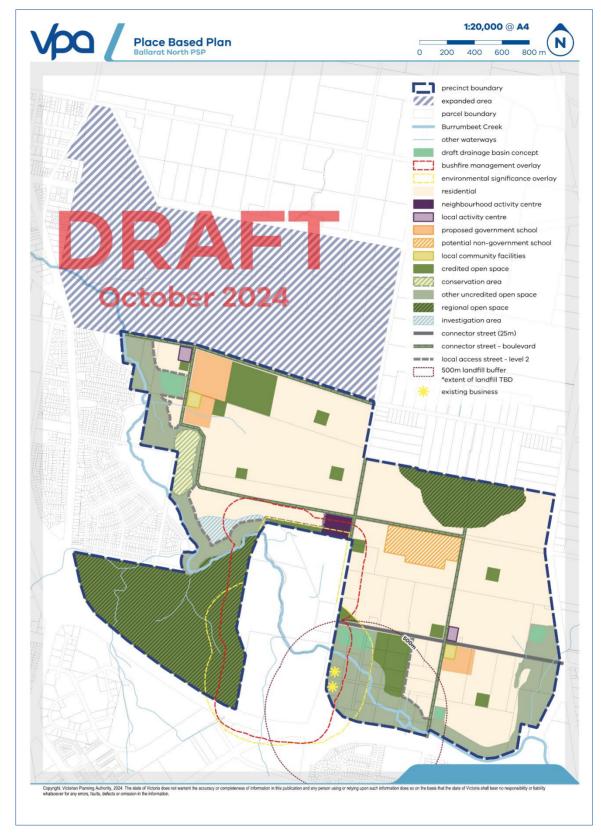


Figure 11: Draft Place-Based Plan following Co-Design Workshop





# 3.3 Plan preparation and agency validation

Following the co-design workshop, a working draft place-based plan, PSP, and planning ordinances were prepared by the VPA for consultation with key agencies. The VPA commenced the agency validation process in late-2024. During this phase, the VPA held regular discussions with council and key agencies.

| Agency/Stakeholder                                | Changes to draft amendment package post-Agency Validation  |
|---|--|
| Department of Justice and<br>Community Safety     | Indicative fire service facility added to the PSP  |
| Heritage Victoria                                 | No changes to draft amendment package  |
| Department of Health                              | No changes to draft amendment package  |
| Sustainability Victoria                           | <ul> <li>PSP provisions amended in relation to:         <ul> <li>Rooftop photovoltaic energy systems</li> <li>Battery storage systems</li> <li>Energy efficiency</li> <li>Zero carbon outcomes</li> <li>Electric vehicle charging</li> <li>Shading</li> </ul> </li> </ul>  |
| First Peoples – State<br>Relations                | No changes to draft amendment package  |
| Sports and Recreation<br>Victoria                 | No changes to draft amendment package  |
| Diocese of Ballarat Catholic<br>Education Limited | No changes to draft amendment package  |
| Central Highlands Water                           | No changes to draft amendment package, pending input and feedback on Staging Plan  |
| Department of Transport and Planning (Transport)  | No changes to draft amendment package, pending input and feedback on transport assessments   |
| City of Ballarat                                  | <ul> <li>Updates to draft amendment package in relation to:         <ul> <li>Sustainable Subdivisions Framework</li> <li>Energy innovation</li> <li>Street cross sections</li> <li>Heritage built form guidance</li> <li>Integrated water management</li> <li>Habitat and biodiversity values</li> <li>Zero carbon outcomes</li> <li>Climate change</li> <li>Revised street network:</li></ul></li></ul> |





|   | o Urban Growth Zone schedule   |
|---|--|
|   | o Amenity areas  |
|   | Land use summary figures   |
|   | o FTE job estimates for schools and community  |
|   | centres  |
|   | o Retaining wall guidance  |
|   | o Solar shading for at-grade car parking   |
|   | o Open space interfaces  |
|   | o Governor in Council Order glossary definition  |
|   | o Social and subsidised market housing guidance  |
|   | <ul> <li>Housing typology targets</li> </ul>   |
|   | <ul> <li>Application of Residential Growth Zone to</li> </ul>  |
|   | amenity areas  |
|   | o Key worker glossary definition   |
|   | o Retirement living guidance   |
|   | o Active transport   |
|   | <ul> <li>Activity Centre design guidance</li> </ul>  |
|   | o General text updates for clarification   |
|   | o General text improvements  |
|   | o Landscape plan requirement   |
|   | o Canopy tree guidance   |
|   | o PRSA and PSI guidance  |
|   | o Landfill gas risk  |
|   | Acoustic assessment guidance   |
|   | 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3  |
| Council Alliance for a                        | Updates to draft amendment package in relation to:   |
| Sustainable Built                             | <ul> <li>Sustainability as a guiding principle</li> </ul>  |
| Environment (via City of                      | o Addressing climate risks and zero carbon   |
| Ballarat)                                     | outcomes   |
|   | o General text updates for clarification   |
|   | o General text improvements  |
|   | o Removed reference to Biodiversity Conservation   |
|   | Strategy   |
|   | o Sensitive public lighting  |
|   | o Habitat connections  |
|   | Activity centre design guidance  |
|   |  |
| Powercor                                      | Removed provisions for:  |
|   | o REFCL isolating transformer space allocation   |
|   | o Kiosk transformers with autotap functionality  |
|   |  |
| Homes Victoria                                | Updates to draft amendment package in relation to:   |
|   | General text updates for clarification   |
|   | o ocheral text apaates for clarification   |
|   |  |
|   | o Reference to Big Housing Build   |
|   |  |
|   | <ul><li>Reference to Big Housing Build</li><li>Affordable housing provisions for Council-</li></ul>  |
| DEECA (Earth Resources)                       | <ul> <li>Reference to Big Housing Build</li> <li>Affordable housing provisions for Council-<br/>owned land</li> </ul>  |
| DEECA (Earth Resources)                       | <ul><li>Reference to Big Housing Build</li><li>Affordable housing provisions for Council-</li></ul>  |
|   | <ul> <li>Reference to Big Housing Build</li> <li>Affordable housing provisions for Councilowned land</li> <li>No changes to draft amendment package</li> </ul> |
| DEECA (Earth Resources)  DEECA (Biodiversity) | <ul> <li>Reference to Big Housing Build</li> <li>Affordable housing provisions for Council-<br/>owned land</li> </ul>  |





| Department of Transport and Planning (Planning) | Additional provisions to revegetation proposed realignment of tributary to Burrumbeet Creek  Updates to draft amendment package in relation to:  General text and figure updates for clarification  Provisions to address landfill gas migration risk  Explanatory material regarding application or removal of overlays  Content addressing Ministerial Direction 19.  Discussion of relevant state, regional and local policies |
|---|---|
| Department of Education                         | <ul> <li>Updates to draft amendment package in relation to:         <ul> <li>Siting of potential government primary school</li> <li>(northwest)</li> </ul> </li> </ul>  |

Following the agency validation process, additional technical work has been progressed or completed. Considering the findings of background technical studies and the agency validation feedback from stakeholders, the Place Based Plan has been amended as follows (refer to **Figure 12**):

### Land use

### • Mount Rowan extent

- Has been reduced in its extent and applies only to Aboriginal Cultural Heritage Sensitivity Areas.
- Land outside this extent where the Significant Landscape Overlay applies is now shown as developable.

### • Local parks

 Number and locations of local parks have been revised and dispersed to achieve optimal catchment coverage throughout the precinct.

### Activity Centres

- Central Neighbourhood Activity Centre footprint has been increased in line with recommended area for this land use
- Local Convenience Centre (northwest) (LCC) has been removed from the PSP.
   This LCC is intended to be included in a potential future rezoning process for the expanded area.

### • Northwest Government Schools, Active Open Space and Community Facility

- o These land uses have been reconfigured to enable:
  - Passive irrigation opportunities for the active open space by co-locating the reserve with drainage assets
  - Improved separation between community facilities and likely locations for school pick-up/drop-off areas.

### • <u>Eastern Active Open Space</u>

The eastern active open space reserve has been relocated due to the increased footprint for the central catchment Wetland / Retarding Basin (CS).

### • <u>Potential fire service facility</u>



 Has been added in proximity to the Midland Highway based on emergency service provision needs of Department of Justice and Community Safety.

### • Amenity areas

- o Have been revised based on changes to street classifications
- No longer apply to Mount Rowan, to enable a more sensitive interface to be provided with this significant landscape feature.

### **Drainage**

- All areas Wetland Retarding Basins (WL/RBs)
  - WL/RBs based on Arup's IWM concept have been superseded by SMEC's Proof of Concept assets. Locations and sizing are now based on the designs and locations prepared by SMEC.

### • Northwest catchment

- The northern WL/RB footprint is now larger
- A new WL/RB has been added adjacent to the Seasonal Herbaceous Wetland area.

### • Central catchment

o WL/RB footprint is now larger.

### • Southeastern catchment

- Tributary to Burrumbeet Creek land encumbered by existing 2013 1%AEP flood level has been revised based on proposed re-alignment and constructed waterway treatment of the tributary to Burrumbeet Creek.
- o WL/RBs have been relocated, and footprints are now larger.

### Roads

- Street classifications throughout the PSP
  - o Have been revised based on projected traffic volumes.
  - o Have been indicatively extended to clarify external access points.
- Northwest area Boulevard connector north-south portion
  - o Has been straightened to provide a more direct connect to Cummins Road.
- <u>Eastern area Boulevard connector Sims Road reserve</u>
  - The boulevard connector proposed along the existing Sims Road reserve has been extended further east to intersect with Midland Highway.



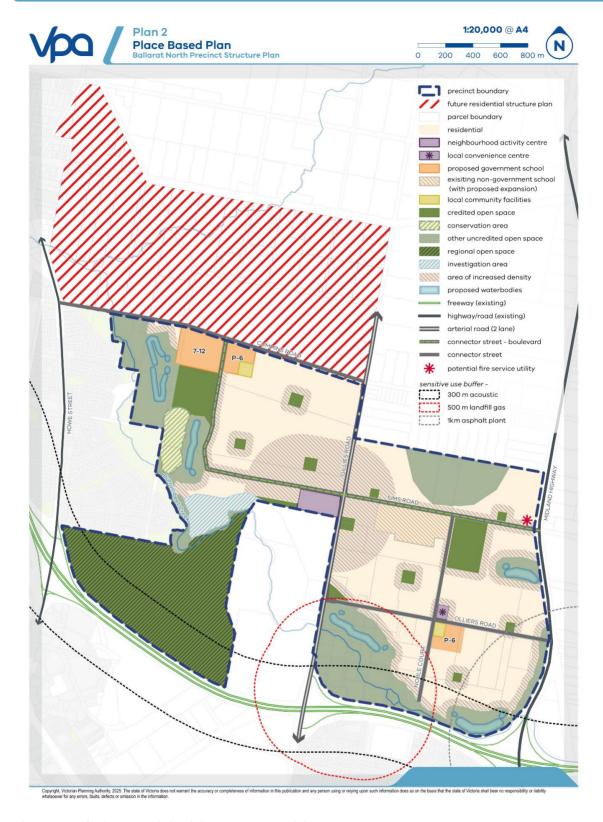


Figure 12: Draft Place Based Plan following Agency Validation

### 3.4 Background reports and technical studies

The background studies below provide detailed assessments of the project's technical elements. This report summarises how these assessments have been applied, how their findings have been considered on balance, and how the precinct design responds to them.

A summary of the reports are available at **Appendix 1** and the full reports are available at: <a href="https://vpa.vic.gov.au/project/ballarat-north/">https://vpa.vic.gov.au/project/ballarat-north/</a>.





As some of the supporting background studies were prepared to cover both the core and expanded areas, numbering of lot parcels includes both areas. As such, parcel ID numbers for the Ballarat North PSP begins at 37. Using the numbering convention in the background studies maintains consistency with original references and provides greater clarity for readers of the PSP.

Table 2: Summary of technical reports

| Technical report   | Consultant      | Status                          |
|--|-----------------|---------------------------------|
| Adverse Amenity Impact Assessment                          | GHD             | Completed 2024                  |
| Affordable Housing Needs Assessment                        | VPA             | Completed 2024                  |
| Arboriculture Assessment                                   | TreeLogic       | Completed 2024                  |
| Biodiversity Assessment                                    | WSP             | Completed 2024                  |
| Bushfire Development Report                                | Terramatrix     | Completed 2025                  |
| Community infrastructure and open space demand assessment  | VPA             | Completed 2024                  |
| Geoscience Analysis Assessment                             | Groundwork Plus | Completed 2023                  |
| Economic and Retail Needs Assessment                       | Urbis           | Completed 2024                  |
| Energy Assessment  | AusNet          | Completed 2024                  |
| Integrated Water Management (IWM) Issues and Opportunities | Arup            | Completed 2024                  |
| Land Capability Assessment                                 | Jacobs          | Completed 2024                  |
| Landfill Gass Assessment (Stage 1)                         | Landserv        | Completed 2025                  |
| Landscape and Visual Assessment                            | Mesh            | Completed 2024                  |
| Post Contact Heritage Assessment                           | RBA             | Completed 2024                  |
| Stormwater Drainage Assessment                             | SMEC            | Completed 2025                  |
| Utilities Situational Analysis Assessment                  | Stantec         | Completed 2024                  |
| Utilities Servicing Assessment                             | Stantec         | Completed 2025                  |
| Strategic Transport Modelling Assessment                   | Jacobs          | In progress – draft<br>prepared |
| Integrated Transport Assessment                            | Jacobs          | In progress – draft<br>prepared |





| Land Valuations Report                       | EY    | In progress – draft<br>prepared |
|--|-------|---------------------------------|
| Aboriginal Cultural Values Assessment        | WTOAC | In progress                     |
| Drainage Function Designs and Costings       | SMEC  | In progress                     |
| Transport Infrastructure design and costings | ТВС   | TBC                             |
| Landfill Gas Assessment (Stage 2)            | TBC   | TBC                             |



### 4 PSP OUTCOMES AND VPA POSITION

This section outlines the place-based response to the features and performance targets in the PSP Guidelines. For clarity, some targets have been re-ordered within the PSP.

### 4.1 Target summary and adaptation

The PSP Guidelines establish seven hallmarks to guide the creation of more inclusive, vibrant and healthy neighbourhoods. These hallmarks are supported by 20 performance targets that should be met to achieve them. Many of these targets are already mandated through the Victorian Planning Provisions.

This section of the report assesses how each of the 20 performance targets have been met or adapted in Ballarat North PSP.

Performance targets can be adapted in a regional context to support planning that reflects the character and values of regional townships while meeting the needs of future communities. In some cases, regional adaptation may mean that not all targets are fully achieved. This is acceptable where there is clear justification that the adaptation appropriately responds to the site's context.

### 4.2 Viable densities

The hallmark aims to deliver housing/population at densities that make local services and transport viable. By applying Targets 1 – 4 of the PSP Guidelines, the Ballarat North PSP enables:

- diverse housing typologies and densities throughout the PSP
- affordable housing options in appropriate locations in the PSP.

### 4.2.1 Housing diversity (Targets 1 – 3)

Diversity of housing, including lot size and built form, to meet community needs, increased housing densities and integrated housing located close to existing and/or proposed services, transport and jobs.

### **Planning assessment**

Regional adaptation of density targets was necessary for the Ballarat North PSP. It would be inappropriate to require this PSP meet target densities set for Metropolitan Melbourne.

Newer greenfield areas in Ballarat generally have densities of between 15 – 18 dwellings per net developable hectares (NDHA), whilst some areas of inner Ballarat have densities above 20 dwellings per NDHA.

The PSP must balance the regional preference for larger lots with the need to provide sufficient density to support services. The Ballarat North PSP proposes:

- 25 dwellings per net developable hectare within 400 metres of an activity centre and 50 metres of an area of high amenity.
- 17 dwellings per net developable hectare in the balance of the PSP.

Collectively, these density targets would achieve an average density of approximately 20 dwellings per NDHA across the whole precinct.







### **Regional PSP Guidelines**

In accordance with the Regional PSP Guidelines:

- T1-2 Adaptation may be required
- Target achievable

### **Performance targets summary**

- **T1** The PSP should facilitate increased densities with an average of 30 dwellings or more per Net Developable Hectare (NDHA) within:
  - 400m walkable catchment of an activity centre or train station
  - 50m of open space (both credited and encumbered open space), boulevards and major public transport routes, including but not limited to the Principal Public Transport Network (PPTN) or similar.

Option for regional adaptation? Adaptation required

**Performance:** Adapted place-based response

### **Adapted T1:**

- **T1** The PSP should facilitate increased densities with an average of 25 dwellings or more per Net Developable Hectare (NDHA) within:
  - 400m walkable catchment of an activity centre or train station
  - 50m of open space (both credited and encumbered open space), boulevards and major public transport routes, including but not limited to the Principal Public Transport Network (PPTN) or similar.

VPA Position: An average of 30 dwellings or more per NDHA is not considered appropriate for the Ballarat North PSP. To better align with Ballarat's character while still enabling viable densities, a target density of 25 dwellings per NDHA has been applied in areas of higher amenity.

The PSP should facilitate increased densities with an average of 20 dwellings or more per NDHA across the entire PSP area.

Option for regional adaptation? Adaptation not required

Performance: Achieved

**VPA Position:** The PSP will facilitate increased densities with an average of 20 dwellings per NHDA across the entire PSP area, achieving T2. It is acknowledged that higher densities may not be achievable immediately. The PSP therefore provides flexibility: it enables densities to be scaled up over the longer term while also allowing for a slightly lower average density if the market is not yet ready to support 20 dwellings per NDHa.

The PSP should facilitate increased housing diversity, with at least three distinct housing typologies to be included in higher density areas (defined by T1).

VPA Position: The PSP identifies at least three preferred residential typologies in higher density areas. They set clear expectations about the preferred built form outcome. However, it is acknowledged that in a typical greenfield setting, planning permits for houses may not be required, as planning permits are typically only for the subdivision.



### 4.2.2 Affordable housing options (Target 4)

Affordable housing options – including social housing – that provide choices for very low, low and moderate-income households.

### **Planning assessment**

The VPA prepared the Ballarat North Affordable Housing Needs Assessment to determine the demand for provision of social and affordable housing in the Ballarat North precinct.

The assessment model calculated a specific projected demand for affordable and social for the precinct area. This is calculated through analysis of several demographic inputs including datasets from the ABS Census, Victorian Housing Register, Victoria in Future and Socio-Economic Indexes for Australia. This data is considered at a census statistical area scale. The statistical area relevant to this study is *Wendouree – Miners Rest*.

The assessment of the Ballarat North precinct calculated a total demand of 13% of affordable housing consisting of:

- 1.7279% (rounded 2%) of total housing for subsidised market housing.
- 10.7964% (rounded 11%) of total housing for social housing.

### **Regional PSP Guidelines**

In accordance with the Regional PSP Guidelines:

T4 Target achievable

### **PSP Performance targets summary**

T4 Set a minimum target for provision of affordable housing in accordance with affordable housing policy, evidence, and guidance.

**VPA Position:** The VPA has set an objective within the PSP to facilitate 2% subsidised market housing and 11% social housing in Ballarat North in line with the Affordable Housing Needs Assessment.

The PSP includes guidelines to support the above objective for housing to meet the needs of moderate, low and very-low income households and to provide a variety of dwelling sizes featuring 1 to 4+ bedrooms. T4 may be achieved by:

- Subdivision with varied lot size
- Use of the Small Lot Housing Code (which is also to be incorporated into the Scheme)
- Subsequent permits which may be issued.



# 4.3 Safe, accessible, and well-connected

Targets 5 – 9 of the PSP Guidelines aim to implement the Safe, accessible and well-connected hallmark by enabling:

- transport network that balances the role of the movement of goods, people and places
- high amenity, safe, accessible, direct and comfortable walking and cycling environment
- public transport network that is supported by high-intensity uses and connectivity between key destinations and major trip generating facilities.

### 4.3.1 Movement and place (Target 5)

A transport network that balances the role of the movement of goods, people and places, and that is safe, accessible and well connected for pedestrians and cyclists to optimise active transport.

### **Planning assessment**

A strategic transport modelling and integrated transport assessment was undertaken to understand the needs of the future road network. The assessment explored connectivity within the precinct and to its surrounding contexts, whilst also examining pedestrian and cycling movement networks.

### **Strategic Transport Modelling**

The Strategic Transport Modelling Assessment (STMA) (Jacobs, 2025) examined traffic impacts of the proposed development from the PSP to understand future transport planning requirements. The model builds on previous modelling prepared by Stantec for the City of Ballarat's Ballarat Link Road (BLR) business case. The STMA included the development of a 2051 project-specific model.

The adoption of the Ballarat Link Road model ensured the latest inputs from that study were incorporated into the STMA. The BLR model features scenario modelling based on 'high growth' land use inputs for the municipality.

The STMA modelling applied:

- The 'high growth land use' assumptions from the BLR modelling
- New assumptions for the Ballarat North growth area (based on VPA dwelling and population projections)
- New assumptions for:
  - o Ballarat West Employment Zone FTE job projections
  - Ballarat North school enrolments

The strategic transport modelling assessment shows that the proposed road network within the PSP will be appropriate for the projected traffic volumes. In addition, accessible bus routes (within 400m of dwellings) have been considered which provide connectivity through the PSP and connect to the two closest passenger rail stations (Wendouree and Ballarat).

External to the PSP, the crossings of the Western Freeway are forecast to be at or approaching capacity during the AM and PM peak periods and will require further investigation with the Department of Transport and Planning.

### **Integrated Transport Assessment**

The Integrated Transport Assessment Report (Jacobs, 2025) evaluated the proposed transport network for the Ballarat North Precinct Structure Plan (PSP). It identified that the PSP presents







both challenges and opportunities for creating a sustainable and integrated transport system, such as:

- Incentivising mode shift and reduce private car dependency
- Enhancement public transport provisions and access
- Prioritising active transport.

The VPA has planned the road network to provide for safe and efficient connections, supported by the PSP Movement and Transport Plan, cross sections and supporting objectives, requirements and guidelines. The PSP provides an outcome that responds to the existing movement network and integrates a future transport network based on equitable and efficient access to key destinations both within and outside the precinct boundaries.

#### **Regional PSP Guidelines**

In accordance with the Regional PSP Guidelines:

Target achievable

#### **PSP Performance Target**

The arterial road network should provide a 1.6km road grid with safe and efficient connections, adjusted where necessary to reflect local context.

VPA Position: T5 will be achieved through the future PSP transport network which will provide appropriate road connections that consider the local context including connections to the established urban areas of Ballarat and Miners Rest via Gillies Road and Cummins Road, as well as state transport routes including Western Freeway, Midland Highway and Howe Street.

#### 4.3.2 Walkability and safe cycling networks (Targets 6 - 8)

A high amenity, safe, accessible, direct and comfortable walking and cycling environment.

## **Planning assessment**

The transport network for Ballarat North has been designed to provide a safe network for cycling and walking, including off-road shared paths throughout the precinct on connector roads, arterial roads and linear open space. The Integrated Transport Assessment provides the technical foundation for the strategic active transport connections within the place-based plan as well as the road hierarchy and designs applied for key routes.

During co-design discussions, many participants expressed a preference for wider roads and a key east-west connection through the PSP connecting Midland Highway and Howe Street via Cummins Road. Participants also highlighted the importance of using Gillies Road as a key connection, and requested walking paths along the creek, as well as a north-south connection across Western Freeway to existing residential area in the south-east of the precinct.

The PSP Movement and Transport Plan includes a shared path and associated cross section for the interface with Burrumbeet Creek. This enables contiguous linear open space to be provided in the PSP along Burrumbeet Creek, aligning with the feedback from the co-design workshop.

A vehicle or active transport crossing of the Western Freeway, connecting Noble Court to Forest Street has been investigated but cannot be confirmed or delivered via development contributions. The type and feasibility of a crossing at this location is subject to ongoing discussions with the Department of Transport and Planning, as well as further technical transport assessment.





# **Regional PSP Guidelines**

In accordance with the Regional PSP Guidelines:

T6-8 Target achievable

#### **PSP Performance Targets**

Off-road bicycle paths should be provided on all connector streets and arterial roads, connecting where possible with the Principal Bicycle Network and Strategic Cycling Corridors.

**VPA Position:** Off-road cycle and pedestrian networks are identified on all connector streets and arterial roads. Provision of the Cummins Road crossing over Burrumbeet Creek will enable improved active transport connection to the Howe Street Strategic Cycling Corridor route. Additionally, off-road shared paths are identified along the development frontages to Burrumbeet Creek and PSP drainage assets, enabling a contiguous shared path connection throughout the PSP.

Indicative active transport crossings are identified at Noble Court and Malahide Drive for further investigation to connect external areas such as Wendouree and the MacArthur Park estate with the PSP in future. To is considered achieved through implementation of the PSP cross sections and Movement and Transport Plan, which feature off-road bicycle paths within the street reservations and align with the existing Strategic Cycling Corridor routes in Ballarat.

Although crossings at Noble Court and Malahide Drive are not confirmed via this PSP, the Place-Based Plan shows an indicative potential crossing at this location and includes connector road treatment along Noble Court to Olliers Road to enable effective integration with a potential connector road or active transport bridge in the future.

T7 All streets should have footpaths on both sides of the reservation.

**VPA Position: T7** is considered achieved through implementation of the PSP cross sections, which feature pedestrian paths on both sides of the street reservations.

T8 Pedestrian and cyclist crossings should be provided every 400-800m, where appropriate, along arterial roads, rail lines, waterways, and any other accessibility barriers.

**VPA Position: T8** has been considered in the development of the place-based plan. However, detailed design of some crossings for accessibility barriers will be identified and achieved at planning permit stage.

#### 4.3.3 Public transport (Target 9)

A public transport network that is supported by high-intensity uses and connectivity between key destinations and major trip generating facilities.

# Current public transport services near the precinct

There are no current public transport routes that run within the precinct, however the following operate near the precinct (refer to Section 2.3.3 for details):

- Ballarat bus route 30, from Ballarat Station to Crewsick along Midland Highway
- Ballarat bus route 31, from Wendouree Station to Miners Street along Howe Street





- V-Line coaches that use Midland Highway to access areas such as Daylesford, Bendigo,
   Newstead, Castlemaine and Maryborough
- V-Line rail service, from Ballarat to Maryborough

## **Planning assessment**

The PSP does not dictate where or when a future bus route or train station is provided. However, to enable bus routes to service future development, the PSP transport network has provided bus capable roads on key connector and arterial roads.

The Ballarat North PSP therefore has planned for approximately 98.7% of dwellings within 400 metres of a bus capable road.

#### **Regional PSP Guidelines**

In accordance with the Regional PSP Guidelines:

T9 Adaptation may be required

#### **PSP Performance Target**

- T9 95% of dwellings should be located within either of the following walking distances:
  - 800m to a train station
  - 600m to a tram stop, or
  - 400m to a future bus route or bus capable road

**VPA Position: T9** is achieved by provision of bus capable roads throughout the precinct. The proposed road network for the PSP enables 98.7% of dwellings to be located within 400 metres to a bus capable road. This ensures the PSP road network enables safe and efficient access for buses, subject to bus services being provided by the Department of Transport and Planning.

# 4.4 Connect people to jobs and higher order services

The aim of this hallmark is for the PSP to connect people to jobs and higher order services. Target 10 of the PSP Guidelines implements this hallmark by providing local employment opportunities and connections to public transport, jobs and services within the region

# 4.4.1 Local employment opportunities (Target 10)

Local economic activity and employment opportunities that provide jobs and services close to where people live.

#### **Planning assessment**

The VPA commissioned Urbis to prepare an economic and retail needs assessment for the PSP. The assessment identified that as a major regional hub, Ballarat recorded strong population growth.

Meanwhile, Ballarat has undergone significant changes in its employment landscape, now driven primarily by population services sector (e.g. health and education), followed by the traditional primary and industrial sectors.

Considering the existing and future population in the neighbouring suburb of Miners Rest, the total population for the wider catchment potentially adds up to between 23,400 and over 33,200 people at capacity. This population is sizeable to support a range of retail and commercial uses.







The assessment recommended that the PSP should be serviced by the following employment provisions:

- 1x Large Neighbourhood Activity Centre in a central location to support stronger performance (634-684 estimated jobs)
- 1x Local Activity Centre in the east (115-135 estimated jobs)
- 1x Local Activity Centre in the north-west (155-165 estimated jobs), which would also support the future population of the expanded area if rezoned for urban development.

Additionally, the potential government schools and community facilities are estimated to provide approximately 310 jobs.

#### **Regional PSP Guidelines**

In accordance with the Regional PSP Guidelines:

The Guidelines are silent on whether adaptation may be required. It is understood that some variation to the target may be appropriate depending on the growth setting.

#### **PSP Performance Target**

The provision of land for local employment and economic activity should be capable of accommodating the minimum job density target of one job per dwelling located within the wider growth corridor.

**VPA Position:** There is sufficient employment land designated across various dedicated employment precincts to support the long-term employment needs within the municipality, including the nearby Ballarat West Employment Zone. **T10** is set to be achieved in the PSP through local employment and economic activities outside the PSP.

As such, the Ballarat North PSP has been planned as a residential area, with employment opportunities focused on serving demand from the local population (e.g. retail, education, local industry and commercial).

# 4.5 High quality public realm

The aim of this hallmark is for the PSP to create a unique neighbourhood identity through the public realm and open space network of the PSP. Targets 11 – 17 of the PSP Guidelines aim to implement this hallmark by enabling:

- Networks of open space and facilities that optimise the use of available land and provide
  equitable access to sport and recreation, leisure, environmental benefits, cultural benefits
  and visual amenity.
- Treatment of the public realm (including public infrastructure) that creates a safe, comfortable, high amenity and resilient environment.
- Protected and enhanced areas of significant environmental and biodiversity value, such as native vegetation, waterway corridors, natural wetlands and grasslands.
- Sustainable water, drainage and wastewater systems that enhance catchment resilience and maintain or enhance the safety, health and wellbeing of people and property now and in the future.

# 4.5.1 Local recreational spaces and facilities (Target 11 – 12)

Networks of open space and facilities that optimise the use of available land and provide equitable access to sport and recreation, leisure, environmental benefits, cultural benefits and visual amenity.





#### **Planning assessment**

The VPA prepared a community infrastructure and open space assessment to determine the required provision and land take of recreation reserves within Ballarat North. This assessment considered not only the future population of the precinct, but also the needs of the wider district including the existing Ballarat and Miners Rest townships and future growth areas.

The assessment recommended the provision of approximately:

#### Active open space

- 1x 10 hectare sports reserve (co-located with a sports pavilion)
- 1x 8 hectare sports reserve (co-located with a sports pavilion)
- Expansion of Ballarat Sports Event Centre to provide an additional 1-4 indoor courts.

#### Passive open space

- 11 hectares for local parks generally consisting of:
  - o 2x 2 hectare local parks
  - o 7x1 hectare local parks

The assessment considered the structure and capacity of existing open space in the surrounding townships. Opportunities for connections to existing spaces have been considered. The status of the open space at the Howe Street Reserve is yet to be confirmed. On this basis, the quantum and distribution of open space in the precinct assumes that active open space to meet the needs of the future PSP population is required to be provided within the PSP area.

#### **Regional PSP Guidelines**

In accordance with the Regional PSP Guidelines:

T11-12 Adaptation may be required

#### **PSP Performance Targets**

The open space network should seek to meet the following minimum targets:

- Within residential areas (including activity centres):
  - o 10% of net developable area for local parks and sports field reserves.
  - o 3-5% of net developable area set aside for local parks.
  - o 5-7% of net developable area set aside for sports field reserves.
- Within dedicated employment and/ or economic activity areas, 2% of the net developable area for local parks.

**Option for regional adaptation?** N/A - Achievable

Performance: Achieved

VPA Position: T11 is considered to be achieved in the Ballarat North PSP. The PSP provides:

- 10.2% of net developable area for local parks and sports fields reserves, consisting of:
  - o 3.5% of net developable area for local parks
  - o **6.7%** of net developable area for sports fields reserves.

# Open space and sports reserves should be located to meet the following distribution targets:

- A sports reserve or open space larger than 1 hectare within an 800m safe walkable distance of each dwelling
- A local park within a 400m safe walkable distance of each dwelling.



**Option for regional adaptation?** N/A - Achievable

Performance: Achieved

**VPA Position:** The place-based plan achieves 92% catchment coverage of dwellings within 800 metres of active open space across the PSP. The remaining 8% of dwellings are located in the north-west corner of the PSP. These dwellings are located within 400 metres of the proposed Mount Rowan Reserve, an open space area larger than 1 hectare, achieving the first sub-point of **T12**.

The place-based plan has been designed to distribute passive open spaces throughout the PSP to enable 98% of dwellings to be within a 400-metre catchment from local parks, achieving the latter sub-point of T12.

# 4.5.2 Green streets and spaces (Targets 13 – 15)

Treatment of the public realm (including public infrastructure) that creates a safe, comfortable, high amenity and resilient environment.

#### **Planning assessment**

The PSP Guidelines stipulates a 30% canopy coverage across all PSPs and allows this coverage to include trees located in passive open space as well as road reserves.

Guidelines and requirements in the PSP are tailored to promote good solar orientation and ensure that applications to subdivide land are accompanied by a landscape plan illustrating a tree canopy coverage of an average of 30%. The PSP also includes cross sections that identify protected trees within central medians and nature strips, and local parks are located where possible to include existing large trees.

# **Regional PSP Guidelines**

In accordance with the Regional PSP Guidelines:

T13-T15 Targets achievable.

## **PSP Performance Targets**

Potential canopy tree coverage within the public realm and open space should be a minimum of 30% (excluding areas dedicated to biodiversity or native vegetation conservation).

**VPA Position:** T13 is achievable via objectives, requirements and guidelines and cross sections to support implementation of this target.

T14 All streets containing canopy trees should use stormwater to service their watering needs.

**VPA Position: T14** is achievable via objectives, requirements and guidelines to support implementation of this target.

Design of the street network should be capable of supporting at least 70% of lots with a good solar orientation.

**VPA Position: T15** is achievable via objectives, requirements and guidelines to support implementation of this target.



# 4.5.3 Environmental and biodiversity value (Target 16)

Protected and enhanced areas of significant environmental and biodiversity value, such as native vegetation, waterway corridors and grasslands.

#### **Planning assessment**

The VPA commissioned WSP to prepare a biodiversity assessment for the Ballarat North PSP. The assessment identifies the biodiversity values of the precinct, determines areas suitable for retention or restoration and assesses relevant legislative requirements which apply to the precinct. Results of the assessment have informed decisions about the future development of the Ballarat North PSP.

The assessment recommended that the PSP should be developed in a way to ensure that areas of ecological importance are retained and improved. Development should avoid impacts to Burrumbeet Creek, including associated wetland habitat. This should include incorporation of a buffer of habitat to minimise disturbance impacts and water quality and flow impacts.

From an ecological perspective, the buffer of watercourses should be in line with the sliding scale recommendations provided for calculating corridor widths in *Waterway Corridors; Guidelines for greenfield development areas within the Port Phillip and Westernport Region* (Melbourne Water, 2013), and retention should be combined with reinstatement/rehabilitation of these areas. Retention of the wetland habitat across the precinct should be retained, retention of all Seasonal Herbaceous Wetland (protected under the *Environment Protection and Biodiversity Conservation Act 1999*), and larger areas of Plains Grassy Wetland EVC 125, and Aquatic Herbland EVC 653 is recommended.

The VPA also commissioned TreeLogic to prepare an arboriculture report for the PSP to inform future development, which provides:

- Information on the species, origin, dimensions, health and structure of the trees and their appropriateness for retention
- Tree Protection Zones (TPZ) for trees compliant with AS4970 'Protection of trees on development sites'
- Recommendations regarding the management of the trees, including any tree protection measures for retained trees.

The arboriculture report recommended:

- High and Moderate rated trees are generally most suitable for retention (with Mod-A, Mod-B and Mod-C providing further distinction in terms of tree quality, size and/or amenity value). Sufficient space should be allocated within the design where possible to adequately protect the recommended TPZ and minimise construction encroachment.
- Trees of 'Low' arboricultural value should not compromise reasonable design intent. Some
  of these trees were low rated due to diminutive size and could be retained as established
  tree resources, while other trees with health or structural deficiencies should generally be
  considered for removal or retained as habitat stumps based on sound arboricultural
  opinion.
- Trees rated 'Very Low' were either dead stags or were in poor condition and should be removed or crown reduced and retained as habitat stumps.

#### **Regional PSP Guidelines**

In accordance with the Regional PSP Guidelines:

T16 Target achievable



#### **PSP Performance Target/general principle**

T16 All conservation areas identified in relevant Commonwealth, state and local government strategies should be retained in accordance with relevant legislation.

**VPA Position: T16** is achievable in the Ballarat North PSP. The place-based plan has been prepared to retain the Seasonal Herbaceous Wetland that contains the identified Matters of National Environmental Significance (MNES) areas.

The PSP contains objectives, requirements and guidelines to support implementation of this target and is supported by relevant application requirements.

The PSP is also supported by the Ballarat North Native Vegetation Precinct Plan (the NVPP) which has been prepared concurrently with the PSP. The NVPP identifies:

- native vegetation to be protected,
- native vegetation that can be removed, destroyed or lopped without a planning permit,
   and:
- the offsets that must be sourced by landowners, prior to the removal of native vegetation mapped for removal as per the NVPP.

The statutory basis for the NVPP is Clause 52.16 of the Ballarat Planning Scheme. The NVPP will be incorporated into the Ballarat Planning Scheme under Clause 72.04 (Incorporated documents) and is a separate document to the Ballarat North Precinct Structure Plan.

# 4.5.4 Sustainable water & integrated water management (Target 17)

Sustainable water, drainage and wastewater systems that enhance catchment resilience and maintain or enhance the safety, health and wellbeing of people and property now and in the future.

# **Planning assessment**

An Integrated Water Management Assessment was prepared by Arup in 2024. Arup proposed an IWM approach for Ballarat North that pushes boundaries to become a water sensitive, water efficient, and an ecologically regenerative precinct. The IWM approach was prepared in consultation with VPA, Glenelg Hopkins Catchment Management Authority, DEECA, Central Highlands Water and the City of Ballarat, alongside consideration of Wadawurrung Traditional Owners Aboriginal Corporation's (WTOAC) IWM Statement.

Arup's proposed to following interventions (portfolio 4) be applied:

Table 3: Arup's recommended IWM approach (Portfolio 4)

| foptions               | Base case (no<br>IWM approach<br>is taken) | Combined retarding basins and wetland to meet BPEM target and to control post development 1% AEP flows |  |
|------------------------|--|--|--|
|                        |  | Stabilisation of Burrumbeet Creek  |  |
| Preferred portfolio of | Recommended<br>IWM<br>interventions        | Recycled water to homes  |  |
|                        |  | Precinct scale stormwater harvesting for open space irrigation   |  |
|                        |  | Blue-green corridors in PSP  |  |
|                        |  | Provide ecological refuge and resilience for flora and fauna residing within Burrumbeet Creek          |  |

The preferred suite of IWM solution requires further exploration from Central Highlands Water, and City of Ballarat to confirm feasibility.







Arup recommended that in the event that CHW do not propose a recycled water network to serve the precinct, or if it is not viable to introduce the proposed blue-green corridors, an alternative, adaptive portfolio of solutions be applied.

Table 4: Arup's alternative IWM approach if Portfolio 4 is unable to be applied

| portfolio of options | Base case (no<br>IWM approach<br>is taken) | Combined retarding basins and wetland to meet BPEM target and to control post development 1% AEP flows |  |
|----------------------|--|--|--|
|                      | is taken)                                  | Stabilisation of Burrumbeet Creek  |  |
| io of                | Recommended<br>IWM<br>interventions        | Precinct scale stormwater harvesting for open space irrigation   |  |
|                      |  | Provide ecological refuge and resilience for flora and fauna residing within Burrumbeet Creek          |  |
| Alternative          |  | 2kL rainwater tanks in homes   |  |
| Alte                 |  | Household raingardens  |  |
|                      |  | Bioretention systems or passively irrigated trees in the streetscape                                   |  |

The alternative plan replaces recycled water for rainwater tanks and replaces blue-green corridors with raingardens and bioretention systems such as passively irrigated trees. In the absence of confirmation that Portfolio 4 will be applied in delivery of the precinct, SMEC applied the alternative plan interventions as assumptions to inform the Drainage Proof of Concept for PSP drainage assets.

The Burrumbeet Creek flows through the PSP area from the southeast to the northwest. An unnamed tributary joins the Burrumbeet Creek in the southeast area of the PSP. Flows through this tributary are conveyed by an existing channel, of which a portion appears to be man-made. 2013 flood modelling data indicates the area around the existing channel is subject to inundation during 1%AEP flooding events.

The PSP includes a design that realigns this tributary to enable more efficient development and improved drainage outcomes. It is noted that the proposed realignment would constitute works that involve interference with the bed and banks of Burrumbeet Creek or its tributaries and therefore requires Glenelg Hopkins Catchment Management Authority approval under Section 67 of the Water Act 1989.

#### **Regional PSP Guidelines**

In accordance with the Regional PSP Guidelines:

Adaptation may be required

#### **PSP Performance Target/ General Principle**

IWM solutions should meaningfully contribute towards the actions and targets from the relevant Catchment Scale Public Realm & Water Plans and any relevant water-related strategies, plan, or guideline (including the Healthy Waterways Strategy 2018-2028).

VPA Position: T17 is achievable in the Ballarat North PSP. The PSP and supporting IWW and Drainage technical documents have been prepared to retain Seasonal Herbaceous Wetland areas and meaningfully contribute to the Central Highlands Catchment IWM Strategic Directions Statement (refer to Section 2.3.2), particularly to:

- Mitigate flood risks
- Maintain and enhance the Burrumbeet Creek waterway health and marine environment



Create healthy urban landscapes for Ballarat and surrounds.

The PSP contains objectives, requirements and guidelines to support implementation of **T17**. The PSP is also supported by relevant application requirements to support meaningful IWM outcomes.

#### 4.5.5 Bushfire interfaces

#### **Planning assessment**

The VPA engaged Ecology & Heritage Partners (EHP) to prepare a Bushfire Hazard Risk Assessment for the Ballarat North PSP. The assessment considered environmental conditions such as vegetation type and extent, topography and weather and the resultant bushfire risk posed at four scales. The assessment also considered the surrounding urban and rural land uses, built form and the likely fire approach and severity risks. The assessment also identified relevant planning policies, clauses and overlays that apply to the area under the Ballarat Planning Scheme.

The VPA then engaged Terramatrix to prepare the *Ballarat North Bushfire Development Report* which:

- Considers the appropriate bushfire threat classification and mitigations in relation to the Place-Based Plan
- Outlines solutions to ensure urban development in the PSP provides appropriate
  interventions to mitigate bushfire threats and protect the new community. This includes
  the use of buffers from bushfire threat which incorporate areas of managed vegetation,
  road reservations and the front setback of lots.

#### **VPA** position

Bushfire threats and interfaces are appropriately classified and identified in the *Bushfire Development Report* and reflected in the bushfire management section of the PSP. Supporting objectives, requirements and guidelines are included in the bushfire management section of the PSP to ensure bushfire risk is considered in future subdivision applications.

## 4.5.6 Contaminated land

#### **Planning assessment**

The VPA engaged Jacobs to prepare a land capability assessment (LCA) for the Ballarat North precinct. The LCA identifies potential environmental constraints relevant to the proposed future development of Ballarat North. This includes considerations such as the potential for the presence of land contamination as well as constraints relating to hydrology, groundwater, geology and geomorphology. In relation to the potential for contamination, the LCA found:

- 13 properties within Ballarat North PSP area were identified as presenting a high potential for contamination
- 11 properties within Ballarat North PSP area were identified as presenting a medium potential for contamination
- The remaining properties (80 out of the total 104) within the Ballarat North PSP study area
  were identified as presenting a no potential for contamination. This number represents
  the mostly agricultural / farmland properties and parcels such as Miners Rest Recreation
  Reserve and Wyndholm Park.



Further assessment at these properties is required in order to better characterise the nature of contamination and identify how contamination (if identified) can be managed as part of the future development activities.



Figure 13: Potentially contaminated sites

# **VPA** position

The draft amendment proposes to apply the Environmental Audit Overlay (EAO) to lots within the PSP area that were identified as having a high potential for contamination in the LCA.

For properties within the PSP that were identified as having a medium potential for contamination in the LCA, the schedule to the Urban Growth Zone requires applications for sensitive uses be accompanied by a Preliminary Risk Screen Assessment (PRSA).





The proposed application of the EAO and requirement in the Urban Growth Zone schedule will defer the requirement to undertake a PRSA or an Environmental Audit. This is consistent with guidance under Planning Practice Note 30 – Potentially Contaminated Land which supports deferring a PRSA if conducting a PRSA for all properties would be difficult to undertake.

The Urban Growth Zone schedule requires applications for other land uses be accompanied by a Preliminary Site Investigation (PSI) prepared by a suitably qualified environmental consultant for land identified as having high potential for contamination.

# 4.6 Services and destinations

The aim of this hallmark is for the PSP to provide services and destinations in the PSP that support local living. Target 18 of the PSP Guidelines aim to implement this hallmark by enabling education and community infrastructure and facilities that are located equitably and efficiently to maximise their accessibility and shared use.

# 4.6.1 Local schools (Target 18)

Education and community infrastructure facilities that are located equitably and efficiently to maximise their accessibility and shared use.

#### **Planning assessment**

The VPA prepared a Community Infrastructure and Open Aace Assessment (CIOSA) in-house for the Ballarat North PSP. The CIOSA provides quantitative and qualitive recommendations on the community facilities and infrastructure needed to service the projected demand for primary, secondary and tertiary study areas generated by the anticipated population of the PSP. The CIOSA assumed an anticipated development scenario of:

- 20 dwellings per net developable hectare on average
- an average occupancy rate of 2.9 persons per dwelling.

Based on these assumptions and accounting for existing surrounding infrastructure provisions, the Ballarat North PSP will need the following education provisions:

#### **Government primary schools**

2x Government primary schools

Following the co-design workshop and in consultation with the Department of Education, the PSP indicates two potential future government primary schools. One is located in the northwest and the other in the southeast of the precinct.

The southeast location aligns generally with results from the co-design workshop. This school is centrally located within the catchment with two road frontages.

The north-west location generally aligns with some discussions from the co-design workshop. This location was selected in anticipation of potential future residential development in the expanded area, ensuring the school can serve residents in the Core Area and any potential future development in the Expanded Area and appropriately locations to account for surrounding school catchments.



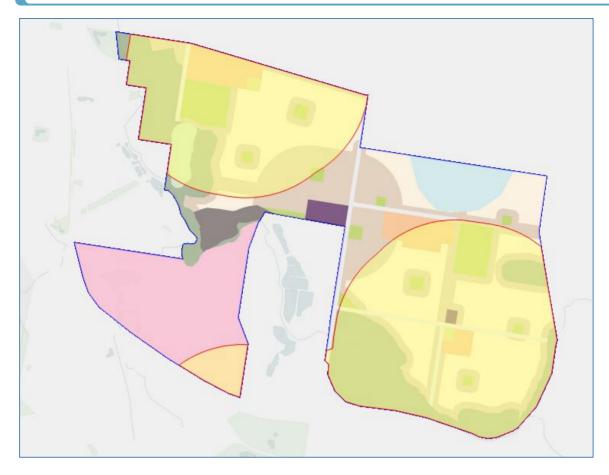


Figure 14: Primary school catchment analysis (showing an 800 metre catchment in yellow)

# **Government secondary school**

1x Government secondary school

This recommendation assumes there is limited capacity to accommodate future enrolments in the existing Mount Rowan Secondary College. Department of Education are supportive of a secondary school in the precinct, noting the facility will also offer capacity to service the future population in the expanded area. The government secondary school has been located in the northwest of the PSP.



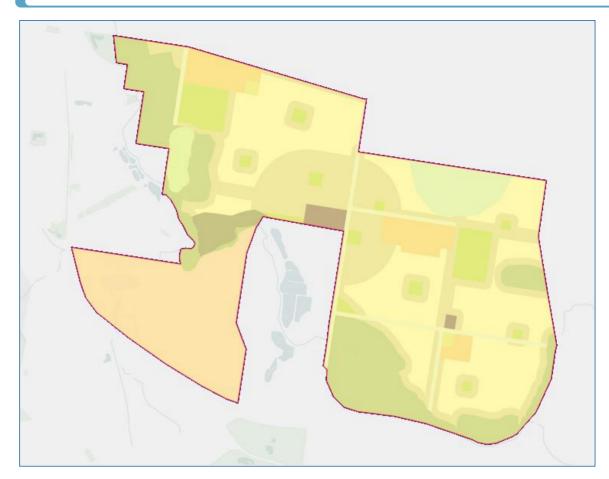


Figure 15: Secondary school catchment analysis (showing a 3.2 kilometre catchment in yellow)

# Non-government primary school

Pending long term enrolments and discussion with relevant provider

The Draft Community Infrastructure Planning Guidelines Refresh (December 2023) amended the provision of Catholic primary and secondary schools, to be calculated per long term enrolments rather than by projected population or dwellings.

Diocese of Ballarat Catholic Education (DOBCEL) communicated an interest in potentially acquiring a site within the expanded area or nearby, to facilitate development of a Catholic primary school. Further consultation with DOBCEL is required to determine anticipated infrastructure gap for catholic schools and understand if this preference aligns with the demand gap generated by the long-term enrolment projections.

Ballarat Grammar School (Independent school) currently operate a specialised agricultural campus at within the precinct (64 Sims Rod Mount Rowan), accommodating 104, year four students for specialised subjects. Ballarat Grammar have advised they intend to retain a portion of this site (approximately 12 hectares) to continue an expand their education facility as the precinct develops. The Ballarat Grammar School main campus is the only non-government secondary school within 3.2km. The additional student capacity of these schools is unknown and is assumed as zero for the purpose of the PSP.

#### **Specialist Schools**

No new provisions recommended

There are two existing specialist schools within the City of Ballarat: Ballarat Specialist School and Berry Street School, both of which are located outside the 3.2km radius of the precinct.



Based on the projected population, the demand for a special needs school in the precinct is 0.31 assets. This infrastructure gap does not appear sufficient to warrant the development of a specialist school within the precinct. However, should Department of Education determine a need through wider analysis of the municipal provision of special needs education, provision of an additional asset within this precinct may be appropriate.

#### **TAFE and University**

No new provisions recommended

The City of Ballarat has one existing TAFE facility; Federation TAFE. Based on the draft guidelines refresh, recommended provision of these facilities has been increased from one per 150,000 residents to one per one per 100,000 residents. Based on this recommendation ratio, the asset requirements triggered by the Ballarat North precinct are minimal.

The provision triggered is 0.19 facilities, which is not feasible to establish a new facility within the precinct. As such, the development of an additional TAFE facility is not recommended.

The draft guideline refresh document also recommended an increased provision of university campuses to one facility per 150,000 people, rather than one per two or more municipalities recommended by the previous provision ratios. Based on this updated ratio, the demand generated through development of this precinct is 0.12 facilities. The Ballarat region is currently well services by higher education facilities, specifically Australian Catholic University and Federation University. As such, the development of the Ballarat North precinct is not anticipated to trigger the requirement for any additional university asset in the region.

# 4.6.2 Community infrastructure (Target 18)

Education and community infrastructure facilities that are located to equitably and efficiently maximise their accessibility and shared use.

#### **Planning assessment**

#### **Community Centres**

The CIOSA determined the levels and types of community facilities and infrastructure required for the demand generated from the core and expanded areas. The assessment recommends:

- 1x Level 1 Community Centre (4,000 8,000 sqm)
- 1x Level 2 Community Centre (10,000 sqm)

The recommended services to be provided in community centres (such as meeting spaces, child care, maternal health and more) are outlined in the CIOSA. Service provisions will be determined by Council, based on existing service provision and demand.

#### **Kindergartens**

• 3 x Double room facilities (capacity to service 3- and 4-year-old kindergarten)
(0.75 gap to be serviced by existing Rowan View Preschool and Miners Rest Kindergarten)

As part of the 'Best Start, Best Life' program the State Government has committed to co-locating kindergartens on-site or next door to every new school across the state, as well as building new kindergartens at existing government schools.

The direction indicates that:





"Building kindergartens at or next to schools provides many benefits for Victorian families, including making:

- Kindergarten programs easier to access
- Drop-off time simpler and more convenient for some families
- The transition from kindergarten to school smoother for children."

Planning for the Ballarat North PSP has sought to align with this government direction by colocated community facilities with potential future primary schools.

#### **VPA** position

The PSP provides for a Level 1 and a Level 2 community centre in the precinct. These centres are co-located with potential primary schools in the precinct to align with government policies. The place-based plan situates community centres within easy access to residential development and is closely connected to schools, sports reserves and the local activity centres (where possible) along the key movement connections through the PSP.

# **Regional PSP Guidelines**

In accordance with the Regional PSP Guidelines:

T18 Adaption may be required.

#### **PSP Performance Target**

The location of dwellings should achieve the following accessibility targets in relation to education and community facilities:

- 70% of dwellings located within 800m of a government primary school
- 100% of dwellings located within 3,200m of a government secondary school
- 80% of dwellings located within 800m of a community facility
- 80% of dwellings located within 800m of a health facility.

Option for regional adaptation? Adaptation required

**Performance:** Adapted place-based response

**VPA position:** The PSP Guidelines note that adaption of **T18** may be required in regional settings and this if adapted, new dwellings should be support by amenities to support local living. **T18** catchments for primary schools and community facilities have been adapted in Ballarat North.

The strategic assessment of the location of the government primary school is supported by the 'Victorian Government School Site Selection Criteria – Toolbox' and the Department of Education. The necessary requirements from the selection criteria have been included in the PSP. Community facilities have been co-located with primary schools to achieve government policies. Selected locations are also co-located with Local Activity Centres to support establishment of community hubs, supporting local living.

Most dwellings in the PSP that are not within the community centre and primary school catchments are within the large Neighbourhood Activity Centre catchment, supporting local living in these areas (refer to Figure 14).

# 4.7 Thriving local economies

The aim of this hallmark is for the PSP to facilitate thriving local economics in the PSP. Targets 19 of the PSP Guidelines aims to implement this hallmark by enabling activity centres that can accommodate the range of jobs, services, amenities, activities and housing that support their role





and function, have strong transport links and meet the changing economic, climate and social needs of a place.

# 4.7.1 Activity centres (Target 19)

Activity centres that can accommodate the range of jobs, services, amenities, activities and housing that support their role and function, and meet the changing economic, climate and social needs of a place.

#### **Planning assessment**

The VPA commissioned Urbis to prepare an Economic and Retail Needs Assessment for the PSP.

Urbis applied three assumed development density scenarios:

- Scenario 1: 20 dw/ha for both Core Areas, but no development in the Expanded Area
- Scenario 2: 20 dw/ha for both Core Areas plus the Expanded Area
- Scenario 3: 20 dw/ha for both Core Areas, and 15 dw/ha for the Expanded Area

Scenario 2 has been adopted to guide the preparation of the PSP, even though the Expanded Area is not included in the Ballarat North PSP. This scenario ensures that the Expanded Area is future proofed and retail centres can accommodate future growth when it is deemed necessary.

The retail needs assessment recommended that the PSP should be serviced by the following activity centres:

- 1x Large Neighbourhood Activity Centre in a central location to support stronger performance
- 1x Local Activity Centre in the east
- 1x Local Activity Centre in the north-west, which would also support the future population
  of the expanded area if rezoned for urban development. This activity centre could be
  located in the expanded or core area.



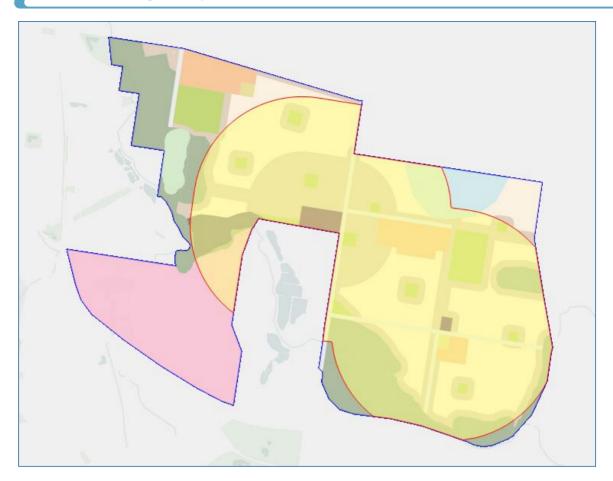


Figure 16: Activity centre catchment analysis (showing an 800 metre catchment in yellow)

The indicative floorspace mix for each of the future activity centres within the PSP area is summarised in Figure 17 below.



| Central Large NAC                           | Scenario 1  |               | Scenario 2  |               | Scenario 3  |               |
|---|-------------|---------------|-------------|---------------|-------------|---------------|
| Central Large NAC                           | % of Centre | Sq.m          | % of Centre | Sq.m          | % of Centre | Sq.m          |
| Supermarket Floorspace                      | 56%         | 6,400-7,200   | 54%         | 8,500-9,200   | 55%         | 7,900-8,800   |
| Mini Majors & Retail Specialties            | 38%         | 4,340-4,890   | 40%         | 6,300-6,810   | 39%         | 5,600-6,240   |
| Non-Retail Specialties                      | 6%          | 690-770       | 6%          | 940-1,020     | 6%          | 860-960       |
| Centre Size                                 |             | 11,430-12,860 |             | 15,740-17,040 |             | 14,360-16,000 |
| Other Commercial Floorspace                 |             | 2,000         |             | 2,500         |             | 2,500         |
| Total Activity Centre                       |             | 13,430-14,860 |             | 18,240-19,540 |             | 16,860-18,500 |
| Land Area Requirement (ha)<br>(FSR @ 0.4:1) |             | 3.4-3.7       |             | 4.6-4.9       |             | 4.2-4.6       |
| Eastern LAC                                 | Scena       | rios 1-3      |             |               |             |               |
|   | % of Centre | Sq.m          |             |               |             |               |
| Supermarket Floorspace                      | 58%         | 1,200-1,500   |             |               |             |               |
| Mini Majors & Retail Specialties            | 33%         | 680-850       |             |               |             |               |
| Non-Retail Specialties                      | 9%          | 190-230       |             |               |             |               |
| Centre Size                                 |             | 2,070-2,590   |             |               |             |               |
| Other Commercial Floorspace                 |             | 1,000         |             |               |             |               |
| Total Activity Centre                       |             | 3,070-3,590   |             |               |             |               |
| Land Area Requirement (ha)<br>(FSR @ 0.4:1) |             | 0.8-0.9       |             |               |             |               |
|   | Scenario 2  |               | Scenario 3  |               |             |               |
| Northern LAC (TBD)                          | % of Centre | Sq.m          | % of Centre | Sq.m          |             |               |
| Supermarket Floorspace                      | 57%         | 1,800-2,000   | 58%         | 1,200-1,500   |             |               |
| Mini Majors & Retail Specialties            | 34%         | 1,070-1,190   | 33%         | 680-850       |             |               |
| Non-Retail Specialties                      | 9%          | 280-320       | 9%          | 190-230       |             |               |
| Centre Size                                 |             | 3,160-3,510   |             | 2,070-2,590   |             |               |
| Other Commercial Floorspace                 |             | 1,000         |             | 1,000         |             |               |
| Total Activity Centre                       |             | 4,160-4,510   |             | 3,070-3,590   |             |               |
| Land Area Requirement (ha)<br>(FSR @ 0.4:1) |             | 11.1          |             | 0.8-0.9       |             |               |
| Source: Urbis                               |             |               |             |               |             |               |

Figure 17: Local centre requirements – indicative activity centre floorspace and land take (Scenarios 1 – 3)

# **Regional PSP Guidelines**

Adaptation may be required. Local convenience centres should be included to meet day-to-day needs of residents, having regard to the potential impact to existing town centres.

# **PSP Performance Target**

T19 80–90% of dwellings should be located within 800m of an activity centre.

**Option for regional adaptation?** N/A – Achievable

Performance: Achieved

**VPA position:** T19 is achievable in the Ballarat North PSP. The locations of the large neighbourhood activity centre in the PSP ensures that it is appropriately located centrally in the PSP and with respect to existing Miners Rest and established Ballarat town centres. The central location is convenient to access from within the and from outside the precinct.

The proposed local activity centres are located to conveniently serve the core precinct and potential future expanded area and will be supported by higher density living within the 800 metre walkable catchment. 92% of dwellings are within the 800m catchments from the activity centres, achieving T19.



# 4.8 Infrastructure co-ordination

The aim of this hallmark is for the PSP to enable smarter infrastructure investment, and an integrated approach to land-use planning, to unlock development and support housing affordability. Target 20 of the PSP Guidelines aims to implement this hallmark by directing the staging and location of development within the PSP to:

- Use available capacity in existing infrastructure
- · Support the orderly and economic extension or augmentation of existing infrastructure
- Match the timely provision of new infrastructure.

This will include directing the location and timing of development and identifying trigger points for the provision of required infrastructure.

# 4.8.1 Staging and location of development (Target 20)

Directing the staging and location of development within a PSP to:

- Use available capacity in existing infrastructure
- Support the orderly and economic extension or augmentation of existing infrastructure
- Match the timely provision of new infrastructure.

This will include directing the location and timing of development and identifying trigger points for the provision of required infrastructure.

#### **Planning assessment**

As part of considering an appropriate response to Target 20 of the PSP Guidelines, the VPA commissioned Stantec to prepare a proposed staging plan for the precinct (the Stantec plan). The Stantec plan identifies a proposed strategic staging approach that leverages existing infrastructure such as sewer and roads and considers likely staging of future stormwater management assets. This plan does not consider road and intersection upgrade projects as these were not available at the time the Stantec plan was prepared.

Since the Stantec plan was completed, the VPA commissioned:

- Strategic Transport Modelling Assessment (STMA) for the precinct, prepared by Jacobs.
- Drainage strategy for the precinct, prepared by SMEC.

The outputs of this technical work have been considered by the VPA alongside the Stantec plan. Descriptions of these reports and their findings are available in Section 5. In summary:

- 4 intersections, 3 road upgrades and 1 road bridge transport project have been costed for the precinct using the VPA Benchmark Infrastructure Designs and Costings
- 5 wetland / retarding basins and 1 waterway drainage project have been design and costed for the precinct by SMEC.

Having regard to the Stantec, Jacobs and SMEC reports, the PSP proposes the following place-based response:

- Plan 10 Infrastructure Development and Staging shows the proposed spatial layout of key transport projects intended to be delivered as part of the PSP, as well as indicative development staging areas
- Staging areas have been informed by calculations to determine the estimated DCP levy
  to be collected in each stage. These calculations aim to ensure that the cost of the
  infrastructure to be delivered in a stage is commensurate with the levy that will be
  collected.





- Plan 12 Precinct Infrastructure Plan and corresponding table (Table 19) are provided in Appendix 1 of the PSP and provide full details regarding all transport, drainage and community infrastructure to be delivered in the precinct.
- Objectives 19 and 22 relate to the orderly staging of development and the timing and coordinated delivery of infrastructure. The objectives are proposed to be implemented through Requirements 32-42 and Guidelines 41-50.

Overall, it is considered that the PSP appropriately delivers the Guidelines feature of 'staging and location of development.

#### **Regional PSP Guidelines**

In accordance with the Regional PSP Guidelines:

Target is achievable. The timing and financing of infrastructure and service delivery should be aligned with the rate and extent of demand.

#### **PSP Performance Target**

T20 Identify all basic and essential infrastructure with spatial requirements on the Future Place-based Plan (e.g. open space, schools, community centres, integrated water management, etc.)

**Option for regional adaptation?** N/A - Achievable

Performance: Achieved

#### **VPA** position

T20 is achieved through Plan 12 Precinct Infrastructure Plan identifies infrastructure required to support the future community and Plan 10 Infrastructure and Development Staging Plan shows the indicative staging of development within the precinct.

The Guidelines also describe the feature of 'innovative and sustainable infrastructure delivery' as "actively pursuing innovative and sustainable models for infrastructure delivery, and long-term strategic infrastructure opportunities that align with the UN SDGs and the 20-minute neighbourhood framework."

There is no relevant performance target for this feature, however the Guidelines note the PSP should identify potential opportunities for delivery innovation, and that all infrastructure commitments should be identified in the Precinct Infrastructure Plan and Ballarat North Development Contributions Plan.

In 2023, the Victorian Government approved an immediate review of growth area precinct structure planning (the PSP Review) to identify possible interventions to improve the function and liveability of communities as part of a new approach to land, planning and precincts.

In this context, Government has requested that PSPs include Infrastructure and Development Staging Plans (IDSP) to ensure that development occurs in an orderly manner and aligns with efficient infrastructure provision or proposed delivery and ensure permits cannot be issued if infrastructure cannot support the anticipated growth.

This also features in a 10-year Plan for Melbourne's Greenfields which states that "staging provisions will be included in future PSPs as required to ensure infrastructure delivery keeps pace with development and land can be adequately serviced when it is released."

Staging provisions and IDSPs will form part of all current and future PSPs prepared by the VPA in accordance with Government direction.



The Ballarat North IDSP has two proposed stages and is implemented primarily through Requirements of the PSP alongside other Guidelines in the Infrastructure coordination section of the PSP.

It can be considered that the addition of IDSP in the Ballarat North PSP is an appropriate response to support **T20**.

# 4.8.2 Development contributions plan (DCP) – infrastructure items

#### **Planning assessment**

Developments increase the demand for infrastructure such as roads, open space, drainage basins and sport and community facilities. Development contributions are monetary payments, land or in-kind works provided by developers towards major new or upgraded infrastructure required to meet the future needs of the developed precinct, such as Ballarat North.

A Development Contributions Plan or DCP is a tool to identify the required major local infrastructure (new or upgraded), cost, expected timing and delivery method to accommodate growth.

DCPs ensure that the cost of providing new infrastructure and services is shared equitably between developers and the wider community. Fairness requires costs to be apportioned according to the projected share of use, and the required works, services and facilities items.

When land within a precinct is developed, the DCP nominates a per-hectare levy that is paid to council or offset against in-kind projects delivered by the developer. The collecting agency is typically a council.

### **VPA** position

VPA prepared the Ballarat North DCP in accordance with the <u>Ministerial Direction on the</u> <u>preparation and content of Development Contributions Plans</u>. It outlines the projects that are funded wholly or partially by development contributions. The DCP would be incorporated into the Ballarat Planning Scheme via a planning scheme amendment.

VPA used the following reports and inputs to identify what infrastructure would be required for the precinct:

- Strategic Transport Modelling Assessment (Jacobs, 2025)
- Stormwater Drainage Final Proof of Concept (SMEC, 2025)
- Community Infrastructure Assessment and Open Space Needs Assessment (VPA, 2024)
- Benchmark Infrastructure Costs Report (Cardno, 2019).

Key infrastructure needs for both the core and expanded area are identified in the PSP Precinct Infrastructure Plan. PIP items are apportioned in the DCP between:

- The core area (this DCP)
- The expanded area (future DCP)

Where key projects are primarily needed to service the core area PSP development, they are fully apportioned to the core area in the Ballarat North DCP. Where additional projects are primarily needed to service the expanded area, these are apportioned fully to the expanded area, to be collected for via a future DCP for the expanded area.



Where projects service both precincts equally, these are apportioned 50% to the core area and 50% to the expanded area.

This methodology is intended to support practical administration of the DCP and enable timely and orderly delivery of key transport infrastructure.

Other items in the DCP that are unique to Ballarat North include:

- There are no land acquisition costs associated with WL-03 in the DCP as this infrastructure asset is located on land already owned by the collecting agency.
- Drainage designs and costs are currently based on preliminary concept designs and costs. These will be updated based on detailed investigations and functional designs prior to gazettal.
- Transport designs and costs are currently based on conservative VPA benchmark designs and costs. These will be updated based on detailed investigations and functional designs prior to gazettal.

#### 4.8.3 State infrastructure items

A state infrastructure project is needed to upgrade the Midland Highway between the Western Freeway interchange and the Sims Road reservation to provide additional traffic capacity for PSP traffic.

The *Draft Strategic Transport Modelling Report* (Jacobs, 2025) indicates in the 2051 'no PSP development scenario', the projected future growth in traffic volumes from external sources is able to be serviced by the existing capacity of the existing Midland Highway.

In both the '2051 core only' and '2051 core and expanded area' PSP development scenarios, the projected traffic volumes are estimated to be well above the existing capacity of the existing Midland Highway. This demonstrates a clear nexus between the PSP development and the need to add additional capacity to the Midland Highway between the Western Freeway interchange and the Sims Road reservation.

It is the position of the Department of Transport and Planning that the Midland Highway upgrade project is included as a DCP funded project.



# **APPENDIX 1 - TECHNICAL REPORT SUMMARIES**

# **ABORIGINAL CULTURAL VALUES**

Ballarat North Cultural Values Assessment (Wadawurrung Traditional Owners Aboriginal Corporation) (TBC)

Note: The VPA has engaged WTOAC to undertake a Cultural Values Assessment (CVA) for the Ballarat North PSP. The CVA is yet to be completed at this time. When the CVA is completed, the PSP and supporting documentation will be updated to include:

- Descriptions of the unique cultural characteristics of Ballarat North
- Wadawurrung language as advised by WTOAC
- Greater detail and guidance on the cultural values to be considered in the precinct planning and development process.

#### **ADVERSE AMENITY**

Ballarat North Adverse Amenity Impact Assessment (GHD) May 2024

# **Purpose of the report**

This report identifies potential sources of adverse amenities such as noise, dust, odour and air emissions that could affect future sensitive land uses within the PSP. The report provides guidance for spatial planning and further investigations to mitigate these impacts.

# Findings and recommendations

The assessment identified several industries within a 2-kilometre catchment area that could pose risks to air quality and noise levels. Key sources of odour include the Ballarat North Water Reclamation Plant (WRP), Central Victoria Livestock Exchange (CVLX), and McCain Foods. Asphalt and paint manufacturing plants were identified as sources of both odour and dust. Additionally, traffic emissions from major roads such as the Western Freeway also contribute to the overall air quality concerns for the PSP.

# How has this report informed planning for the Ballarat North PSP?

The VPA has assessed which adverse amenity impacts can be mitigated through design and built form interventions. The PSP proposes drainage assets, active open spaces and passive open spaces in areas subject to adverse amenity buffers, such as areas within buffers from the former Wendouree landfill and the WRP. This aims to reduce the extent of sensitive uses (dwellings) within adverse amenity areas.

#### AFFORDABLE AND SOCIAL HOUSING

Ballarat North Housing Needs Assessment (VPA) July 2025

#### Purpose of the report

The purpose of this assessment is to understand the demand for, and assist in the facilitation of, provision of affordable housing in a PSP. The recommendations of the assessment are intended to assist City of Ballarat



when considering residential subdivisions in the precinct to enable contributions to provision of social and affordable dwellings are to be provided and are equitably shared throughout. However, it must be noted this report does not provide information on the contributions required of different sources (i.e., federal government, state government, and the local development process).

The Affordable Housing Needs Assessment Model (the model) prepared by SGS Economics and Planning (SGS) for the VPA brings together a range of inputs relating to future statewide demand for affordable housing and makes recommendations as to how this demand could be distributed at a more localised level. The model takes as its starting point the statewide projected demand for affordable housing from *Victoria in Future* (VIF). The model distributes this projected demand at the statistical area 2 (SA2) level.

This distribution aims to ensure an equitable distribution of affordable housing based on the number of people projected in each SA2, and moderates this distribution further based on:

- A PSP area's relative entrenched disadvantage based on the Socio-Economic Index for Advantage (SEIFA), to avoid concentrating disadvantage
- A PSP area's access to employment and essential services, because travel costs (time and money) can have larger adverse impacts on vulnerable groups
- A PSP area's amenity and quality of life, because locating affordable housing in areas with good access to open space and community infrastructure provides residents with improved health and recreation opportunities
- Each PSP is then assumed to have the same required social and affordable housing density as the SA2 that contains it. If multiple SA2s overlap within the PSP, then the average can be taken.

# Findings and recommendations

The report calculates a specific projected demand for affordable and social for the precinct area. This is calculated through analysis of several demographic inputs including datasets from the ABS Census, Victorian Housing Register, Victoria in Future and Socio-Economic Indexes for Australia. This data is considered at a census statistical area scale. The statistical area relevant to this study is *Wendouree – Miners Rest*.

Assessment of the Ballarat North precinct calculates a demand of:

- 1.73% (rounded 2%) of total housing for affordable housing
- 10.80% (rounded 11%) of total housing for social housing.

# How has this informed planning for the Ballarat North PSP?

The Housing Needs Assessment has informed drafting of objectives and guidelines in the PSP (refer to Section 3.1 of the PSP) to facilitate 2% of lots as affordable housing and 11% of lots as social housing, consistent with the findings of the Housing Needs Assessment.

# ARBORICULTURAL ASSESSMENT

Arboricultural Assessment and Report (TreeLogic) August 2024

# **Purpose of the report**

The purpose of the Arboricultural Assessment is to provide information on tree species, origin, health, structure, which informs recommendations on which trees are most suitable for retention. It also provides recommended distances for Tree Protection Zones (TPZ) to guide future development planning to preserve significant trees.



# **Findings and recommendations**

The assessment analysed approximately 6,500 trees, the majority of which were grouped in windrows or habitat belts along paddocks, road reserves and Burrumbeet Creek. 212 tree groups were evaluated and the remaining 428 trees were individually assessed. Key findings show that a majority of tree groups were Victorian native or indigenous species, but also included a mix of exotic conifers and deciduous trees. The health of these trees varied, with a significant number in fair to good condition, while others exhibited structural defects, decay, or dieback.

# How has this informed planning for the Ballarat North PSP?

The report suggests that trees with 'high' or 'moderate' ratings should be prioritised for retention in future developments, especially those with ecological value and provide habitat for wildlife. Areas with trees in poor condition may require removal or pruning. Additionally, TPZs should be established to protect trees during construction activities. Development plans should also account for the varying ages and life expectancies of the trees, incorporating both mature and young trees into the landscape.

Opportunities will be explored to retain tress that provide ecological benefits and significant landscape value in the PSP and future subdivisions. Findings of the report have informed the preparation of the Ballarat North Native Vegetation Precinct Plan (NVPP).

# **BIODIVERSITY**

Biodiversity Assessment Report (WSP) August 2024

# **Purpose of the report**

The purpose of the Biodiversity Assessment is to evaluate the ecological and biodiversity values within the PSP. The report informs future planning and development in the PSP by identifying significant habitats, native vegetation, and presence of fauna. The report provides recommendations for ecological protection, including 'avoid and minimise' principles and outlines relevant legislative compliance under the *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act) and *Flora and Fauna Guarantee Act* 1988 (FFG Act).

#### Findings and recommendations

The assessment indicates that:

#### Flora

- There are approximately 26.6 hectares of patches of remnant native vegetation identified across the study area.
- Target species, being Spiny Rice-flower Pimelea spinescens ssp. spinescens, Button Wrinklewort
  Rutidosis leptorhynchoides, Large-headed Fireweed Senecio macrocephalus or Matted Flax-lily
  Dianella amoena were not observed.
- VBA records (DEECA, 2023e) of Stiff Groundsel Senecio behrianus (listed endangered under the EPBC Act), are considered present on property 2 but were not observed in this study. River Swamp Wallabygrass Amphibromus fluitans (listed vulnerable under the EPBC Act) was observed on property 43. No other EPBC Act listed flora species were observed.
- One FFG Act listed endangered flora species, Floodplain Fireweed Senecio campylocarpus, and four FFG Act Protected flora species were observed. In addition, FFG Act listed critically endangered Stiff Groundsel Senecio behrianus was also being considered present.



#### **Threatened Ecological Communities (TEC)**

- One EPBC Act listed TEC was confirmed as present during the assessment.
- Overall, 15.889 ha of 'Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains', was identified across seven seasonally wet depressions supporting native vegetation.

#### Fauna

- No Golden Sun Moths, Growling Grass Frogs or Striped Legless Lizards were recorded during targeted surveys.
- Growling Grass Frog is considered unlikely to currently occur within the precinct. However, the creeks and associated wetlands are connected with known habitat approximately 8.6 kilometres upstream via Burrumbeet Creek and Slattery Creek in Creswick State Forest. It is reasonable to assume that under the right conditions (e.g. high rainfall/flooding) this species would likely utilise aquatic riparian habitat across the precinct whilst dispersing throughout the landscape.
- Two threatened species were recorded, including Hardhead *Aythya australis* (listed as vulnerable under the FFG Act) and Tussock Skink *Pseudemoia pagenstecheri* (listed as endangered under the FFG Act).

# How has this informed planning for the Ballarat North PSP?

The report recommends adopting a 'avoid and minimise' approach to ensure that areas of ecological importance are retained and improved. The presence of high-value native vegetation and wetlands means that specific mitigation measures are required to protect these habitats. Connectivity between habitats, particularly for fauna, should also be maintained to ensure species movement, particularly in areas near watercourses. Findings of the report have informed the preparation of the Ballarat North Native Vegetation Precinct Plan (NVPP).

# **BUSHFIRE**

Strategic Bushfire Development Report and Risk Assessment (EHP) July 2024 & Bushfire Development Report (Terramatrix) August 2025

# **Purpose of the reports**

The purpose of these reports is to assess the bushfire risk in the area and guide appropriate spatial planning and land use management to address bushfire threats. The reports provide risk-based analysis and outline bushfire mitigation measures to ensure the protection of human life and compliance with planning regulations, particularly Clause 13.02-15 of the Ballarat Planning Scheme.

The EHP study evaluates vegetation, topography, and climatic conditions that may pose a bushfire risk, proposing strategies to inform the development of the PSP.

Additionally, the Terramatrix study assessed bushfire hazard within and around the Ballarat North Precinct in line with the Ballarat Planning Scheme, Bushfire Management Overlay (BMO), AS 3959:2018, and other state bushfire planning guidelines and assessed the draft Place-Based Plan to provide direction on how the PSP can respond to bushfire risk.

# Findings and recommendations

In summary, the EHP report provides the below findings and recommendations:





- **Hazard Assessment**: The study area includes grasslands, shrublands, woodlands, and forests, with the primary bushfire threat coming from grasslands and isolated patches of forest.
- **Bushfire Attack Levels (BAL)**: The report recommends a minimum BAL-12.5 construction standard for habitable buildings across the site, based on separation distances from classified vegetation. Separation distances range from 19 to 48 metres depending on the vegetation type.
- **Mitigation Measures**: Recommendations include maintaining vegetation in a low-threat state within separation zones, constructing perimeter roads, and ensuring emergency access. Specific areas such as the Burrumbeet Creek corridor and Ballarat North Water Reclamation Plant are highlighted for additional mitigation.

In summary, the Terramatrix report found:

- Subdivision design must allow for BAL-12.5 construction through adequate building setbacks and the use of interface roads to provide separation from hazardous vegetation.
- Road layout should ensure multiple access and egress points for residents and emergency vehicles, with most precinct boundaries already road-defined.
- Firefighting water supply will be available through a reticulated hydrant network, with additional static supply required in BMO areas.
- New development can help reduce overall bushfire risk by creating low-threat land buffers between Ballarat's northern edge and adjacent agricultural areas.

# How has this informed planning for the Ballarat North PSP?

The EHP assessment identifies bushfire risks and recommended setback distances for urban development. These risks and recommended setbacks have informed locations of proposed development and land uses within setback areas such as linear open spaces (any vegetation managed in a low threat state) and interface roads

The Terramatrix Assessment has also informed the PSP Plan 7 Bushfire and associated cross section for the Burrumbeet Creek interface. These plans are supported by relevant requirements and guidelines to guide appropriate bushfire mitigations for the PSP.

# **COMMUNITY INFRASTRUCTURE AND OPEN SPACE**

Community Infrastructure and Open Space Needs Assessment (VPA) October 2024

# **Purpose of the report**

This report provides a demand analysis of the community infrastructure and open space required to appropriately service the anticipated additional residential population planned for the precinct.

# Findings and recommendations

The report recommends the following provisions:





**Table 5:** Recommended community infrastructure provisions

| Infrastructure<br>Type         | Details of infrastructure   | Demand<br>generated<br>by precinct | Management                         | Delivered year  |
|--------------------------------|---|------------------------------------|------------------------------------|---|
| Level 1<br>Community<br>Centre | One Level 1 Centre.   | 100%                               | Council                            | TBD (likely<br>delivered later in<br>precinct<br>development, after<br>delivery of Level 2<br>facility) |
| Level 2<br>Community<br>Centre | One Level 2 Centre.   | 100%                               | Council                            | TBD (likely<br>delivered early in<br>precinct<br>development)   |
| Government primary schools     | <b>Two</b> Government Primary<br>Schools  | 100%                               | Department of Education            | TBD   |
| Government secondary school    | <b>One</b> Government Secondary<br>School   | TBD                                | Department of Education            | TBD   |
| Independent<br>Schools         | <b>TBD</b> - To be calculated per long term enrolments  | 100%                               | The relevant independent providers | TBD   |
| Active Open<br>Space           | One 10-hectare active open space.  One 8-hectare active open space.  Minimum combined provision of 16 ha.  Distributed to be accessible within 800m safe walking distance of each dwelling. | 100%                               | Council                            | As development occurs   |
| Sports Pavilion                | <b>Two</b> Large sports pavilions colocated with active open space.   | 100%                               | Council                            | As development occurs   |
| Passive Open<br>Space          | Two 2-hectare local parks.  Seven 1-hectare local parks   | 100%                               | Council                            | As development occurs   |





| Infrastructure<br>Type                  | Details of infrastructure  | Demand<br>generated<br>by precinct | Management | Delivered year |
|---|--|------------------------------------|------------|----------------|
|   | Minimum combined provision <b>10ha.</b>  |                                    |            |                |
|   | Distributed to be accessible within 400m safe walking distance of each dwelling.   |                                    |            |                |
| Indoor<br>Multipurpose<br>Court Stadium | Additional 1-4 indoor courts to be provided through expansion of existing stadium. | 100%                               | Council    | TBD            |
| Fire and Rescue<br>Station              | One fire service facility  | 100%                               | DJCS       | TBD            |

# How has this informed planning for the Ballarat North PSP?

The findings and recommendations have informed PSP plan elements that were considered at the Co-Design Workshop for the PSP. The above community infrastructure and open space provisions have been considered and applied in the PSP (refer to the Community Infrastructure Plan and Public Realm & Water Plan in the PSP).

Some provisions, including Fire and Rescue Stations and Indoor Multipurpose Court Stadiums may be delivered outside the PSP and are subject to further consideration by the relevant government stakeholders.

#### **DRAINAGE**

Stormwater Drainage Proof of Concept (SMEC) (July 2025)

# **Purpose of the report**

The stormwater drainage strategy Proof of Concept (POC) has been developed by SMEC to address stormwater management requirements of the PSP, including:

- Flood protection for the PSP
- Compliance with relevant drainage authority design standards
- Stormwater quality management
- IWM objectives where possible.

#### Findings and recommendations

The strategy incorporates drainage assets and centralised stormwater treatment systems aligned with the IWM plan and the 'Vision and Purpose' of the PSP. Identified assets include:

- A constructed waterway (CW1)
- Retarding basins
- Wetlands
- Sediment ponds





Additional support provisions for stormwater infrastructure have also been identified, such as pipelines, culverts and overland flow paths to manage and control stormwater runoff before it is discharged into Burrumbeet Creek

The POC is supported by a hydraulic modelling assessment which that demonstrates that the PSP development with the proposed infrastructure does not result in any worsening of flood conditions in the 1% AEP flood event with climate change scenario.

The POC also recommends that the Burrumbeet Creek waterway corridor is revitalised through stabilisation of the existing creek form, and the reintroduction of native vegetation and trees along the riparian zones.

# How has this informed planning for the Ballarat North PSP?

The POC demonstrates that the proposed drainage infrastructure and mitigation works are technically feasible and meet the relevant requirements. The outcomes of the POC have been used to inform the PSP land budget and the associated costings to deliver the drainage infrastructure works via the Ballarat North DCP.

Note: The drainage functional designs and costings are currently being prepared by SMEC. These are being prepared in consultation with key stakeholders and will be completed prior to gazettal of the draft amendment.

## **ECONOMIC AND RETAIL NEEDS**

Ballarat North Economic and Retail Needs Assessment (Urbis) June 2024

# **Purpose of the report**

The purpose of the report is to evaluate retail needs, employment land demand, and the potential for activity centres within the PSP. It aims to inform planning decisions by identifying the types of retail and commercial developments that will support the projected population growth and employment opportunities in the PSP.

# Findings and recommendations

The report highlights several trends impacting retail and employment land demand in Ballarat North. The area has the capacity to support a significant residential population (up to 28,500 people), with demand for retail floorspace driven by population growth. The assessment notes larger retail formats, such as discount department stores, are unlikely to be supported due to the relatively small population and existing competition in the region. Supermarkets will be key anchor tenants for future activity centres in the PSP. E-commerce has influenced shopping patterns, but local centres focused on convenience retail, like food and groceries, remain important to service the future Ballarat North population.

#### How has this informed planning for the Ballarat North PSP?

The findings suggest that Ballarat North should primarily serve as a residential area, with retail and commercial developments focused on servicing the local population. The report recommends establishing a large neighbourhood activity centre centrally in the PSP, with a mix of retail and non-retail offerings, and potentially smaller local activity centres. These centres will provide essential services and employment opportunities to support the community. The VPA has applied the recommendations of this report in locating Activity Centres in the PSP. These locations ensure that activity centres are positioned effectively to support active transport use and walkability of new communities.



# **GEOSCIENCE ANALYSIS**

Ballarat North Geological Prospectivity Report (Groundwork Plus) October 2023

# **Purpose of the report**

The purpose of this report is to evaluate the potential for quarrying construction materials, particularly basalt, within the Ballarat North PSP area. The report investigates whether Extractive Industry Interest Area (EIIA) 884066 in the Ballarat North PSP should be protected from urban development or whether development of the PSP may proceed without significant impacts on extractive industries, resources, local planning, and the environment.

# Findings and recommendations

The report concludes that removing EIIA 884066 from consideration for future extractive industries would not have a significant impact on the region's supply of extractive materials. EIIA 884066 has modest resource potential and its proximity to residential areas would make quarrying operations challenging. There are alternative EIIA areas to the north and west that are more suitable for extractive industry development. The report provides opinion based on professional analysis that the Ballarat North Precinct Structure Plan can proceed without major concerns about the loss of extractive resource potential in the Ballarat area.

# How has this informed planning for the Ballarat North PSP?

The PSP has been prepared assuming that EIIA 884066 will not be used for extractive purposes. As such, land that the EIIA applies to in the PSP is proposed to support urban development of the PSP and is not identified for extractive uses.

# HISTORIC POST-CONTACT HERITAGE

Ballarat North Post-Contact Heritage Assessment (RBA) July 2024

# **Purpose of the report**

This report identifies and evaluates historical heritage sites within the PSP. The assessment catalogues existing buildings and their environs with heritage significance and provides recommendations on whether heritages controls should be applied to protect sites of significance.

# Findings and recommendations

The assessment identifies several key heritage sites, including buildings, homesteads, and trees of significance. Seven specific places are recommended for inclusion under Heritage Overlays (HOs) in the Ballarat Planning Scheme. The report also lists recognized sites in statutory heritage inventories, such as the Victorian Heritage Inventory, but found no sites listed under World, National, or State Heritage Registers. Surveys undertaken captured significant historical rural structures and identified contemporary buildings in the PSP that are not of heritage significance.

# How has this informed planning for the Ballarat North PSP?

The report suggests minimising the impact of new developments near heritage sites to maintain historical integrity. This assessment will help the VPA determine sites of heritage significance and, where appropriate, apply Heritage Overlays to, as part of the planning scheme amendment to implement the Ballarat North PSP.





Applied Heritage Overlays will ensure permits applications provide appropriate subdivision and design responses to respect sites of significance.

# INTEGRATED WATER MANAGEMENT

Ballarat North Integrated Water Management Assessment (Arup) July 2024

# **Purpose of the report**

This report summarises the Integrated Water Management (IWM) and drainage opportunities in the PSP and recommends a portfolio of IWM solutions. The objective of the IWM assessment is to provide concept-level guidance to the VPA and stakeholders which can be incorporated into the development of the PSP. An adaptive plan is included to assist stakeholders in subsequent IWM planning in the post PSP phase. A base case scenario was created, to understand the impact of interventions if no Integrated Water Management (IWM) approach is taken, and then plausible future scenarios for the precinct are proposed, where a variety of IWM interventions are put forward.

# **Findings and recommendations**

Arup provided the following recommendations:

**Table 6:** Integrated Water Management Recommendations

| Theme   | Recommendation  | Lead responsibility                                 |
|---|---|---|
| Flood study   | It's acknowledged that Glenelg Hopkins Catchment Management Authority (GHCMA) have concerns regarding the limitations of the current assumptions being made on the flood extent, based on the 2013 flood investigation study. City of Ballarat (Council) and the CMA are considering updating this data. For this PSP, it's recommended to undertake additional analysis on flood risk within the site to ensure the flood overlay being used for planning is appropriate and that land use allocations are made accordingly. | WPA in<br>collaboration with<br>GHCMA               |
| Review Water<br>demands and<br>undertake<br>business case | Central Highlands Water (CHW) to undertake water demand assessment to feed into the business case for recycled water at the PSP. Undertake a business case to justify investment in recycled water to service Ballarat North PSP.   | CHW   |
| Continued<br>engagement<br>with WTOAC                     | VPA, alongside Council and Central Highlands Water, should continue to liaise with the WTOAC as the PSP progresses.   | VPA, Council, CHW<br>in collaboration<br>with WTOAC |
| Vegetation and geomorphology assessment                   | Undertake a vegetation and geomorphology assessment of Burrumbeet Creek to better understand vegetation and erosion conditions, which will support the preferred IWM interventions and outcomes. Recommendations from this can be used to support plans for ecological remediation which can be taken forward by developers, Council and GHCMA.   | VPA, GHCMA,<br>Council                              |

| Theme                                  | Recommendation   | Lead responsibility |
|--|--|---------------------|
| Land use                               | If Council are in support of blue-green corridors in the PSP, VPA to investigate integrating key green-blue corridors in land use plan and integrate with street and movement network. As this IWM Plan was developed using a high level land use budget for the PSP, it is recommended to refer to Risk and Opportunity Mapping (Water Tech & E2 Design, 2016) for conceptualising assets (such as wetlands and retarding basins) within proximity to active open spaces. | VPA, Council        |
| Council<br>adoption and<br>maintenance | Before the PSP is finalised, Council should consider their intention to adopt options proposed by this study and inform VPA if they intend to include relevant options in the PSP (blue-green corridor and any streetscape solutions).   | Council             |

# How has this informed planning for the Ballarat North PSP?

The above IWM opportunities are being investigated in the Ballarat North PSP and for implementation post-PSP completion. The VPA has engaged WTOAC to prepare a Cultural Values Assessment for the PSP. The VPA is working with GHCMA and Council to address flood risk assumptions and investigate and apply IWM opportunities in the drainage strategy for the PSP.

# LAND CAPABILITY

Land Capability Assessment (Jacobs) July 2024

# **Purpose of the report**

The purpose of the Land Capability Assessment (LCA) is to identify environmental constraints within the PSP, focusing on issues such as contamination and the hydrology, groundwater, geology, and geomorphology conditions of the PSP. This ensures that future residential and commercial developments within the PSP are informed by the environmental conditions of the site. The LCA includes a desktop review and site inspections to guide safe and sustainable development.

# Findings and recommendations

The report highlights several key findings:

- **Contamination**: Some properties, including former industrial sites, are assessed as having 'high' or 'medium' contamination potential due to past activities such as landfill operations and industrial use. Thirteen properties are identified with high potential for contamination, including the site of the former Wendouree Tip. Remediation is suggested for affected properties.
- Geotechnical: Key findings include:
  - Soil Composition: The site is underlaid by high plasticity residual clay over basalt rock, which can cause significant ground movement and challenges during earthworks due to its expansive nature.





- Basalt Cobble Presence: Residual soil and weathered basalt often contain basalt cobbles and boulders ("floaters"), which may complicate construction.
- Compressible Soils: Compressible soils are expected near creeks and rivers, which could pose stability issues in these areas.
- o **Castlemaine Group:** Marine sandstone, mudstone, and black shale may be present in the eastern project area, though no historical borehole data confirms this.
- o **Limited Geotechnical Data:** There is a lack of detailed borehole data, particularly in the northeast section of the study area, necessitating further investigation.
- o **Mining Shafts:** Several historical mining shafts in the southeast area pose a serious hazard, with the risk of cave-ins or ground collapse during construction.
- **Volcanic Eruption Point:** Mount Rowan, subject to a Significant Landscape Overlay, requires special permit applications and slope stability assessments for future development.
- Erosion Management: Two areas near Burrumbeet Creek and Mount Rowan have Erosion Management Overlays, requiring careful management and permit applications.
- Landslip Susceptibility: The area has low to very low landslip risk, though minor instability was observed on steep slopes of Mount Rowan during site inspections.
- Dispersive and Reactive Soils: Dispersive soils, prone to erosion, are likely present and could affect slope stability and infrastructure. Reactive soils, with shrink-swell behavior, are also common and could pose long-term stability challenges.
- **Hydrogeology**: Key findings include:
  - o **Shallow Water Table**: Large portions of the site are likely to have a shallow groundwater table, which could cause inflow to excavations and lead to waterlogging and drainage issues.
  - Poor Sub-soil Drainage: Certain areas may experience waterlogging due to inadequate sub-soil drainage.
  - o **Groundwater Impact Assessments**: Site-specific assessments will be needed to evaluate potential impacts on groundwater-dependent ecosystems (GDEs) and nearby bores.
  - Dewatering Impacts: Groundwater extraction may reduce baseflow to surface water systems, potentially affecting the ecological health of groundwater receptors.
  - Existing Bores: Nearby water supply bores (e.g., bore 60758) must be considered during development to avoid negative impacts on their use.
  - o **Brackish Groundwater**: The saline nature of groundwater may require monitoring and treatment if used for purposes like irrigation or dust suppression.
  - o **Groundwater Usage**: Extracted groundwater could be repurposed for non-potable uses, but salinity levels might necessitate mixing with potable water for some applications.
  - Contamination Risk: There is potential for groundwater contamination, which needs further investigation.
  - Structural Impact: Groundwater aggressivity might affect structures, such as concrete piles, and dewatering could influence ground movement and acid sulfate soils.





- Hydrology: This desktop due diligence study has identified that the Ballarat North PSP area falls within a
  floodplain exposed to riverine flooding. Future development in the area has the potential to influence
  existing overland flow paths in addition to impacting the project area drainage strategy, floodplain
  storage, land imperviousness, and the associated flood risk. As such, it is expected that future
  development across the site will require several further studies that were included in the
  recommendations.
- **Geomorphology**: The PSP is located on soils that have formed from weathering of local Newer Volcanic Group Basalt rock. Topsoils typically have better structural stability, but subsoils may be sodic/dispersive and susceptible to erosion, particularly in instances where the topsoil is removed or if there are drainage works, which then result in rainfall and runoff making contact with and eroding these soils.

# How has this informed planning for the Ballarat North PSP?

Development in the Ballarat North PSP must consider these environmental constraints. Contaminated sites will require thorough investigation, remediation, and possibly environmental audits before sensitive uses (such as residential housing) can be developed. Geotechnical hazards like ground movement and shallow groundwater will also require specific engineering solutions. Additionally, the PSP will need to incorporate flood management and water-sensitive urban design to mitigate hydrological risks.

# LANDSCAPE AND VISUAL

Ballarat North Landscape and Visual Assessment (Mesh) April 2024

# **Purpose of the report**

The purpose of the landscape and visual assessment is to provide a meaningful analysis of valuable landscape features to be incorporated into the future development of the area. These features quickly become core elements to the vision of a PSP, providing clear net community benefits through the extension of trails, increased public parkland, premium residential and employment precincts with views and enhanced biodiversity. These are the elements of the PSP that are inspirational, exciting, and purposeful, particularly from the general public perspective.

# Findings and recommendations

The report identifies landscape and view lines within and external to the PSP. Key views to significant landscape features are recommended to be retained in the design of the PSP development (refer to Figure 33 of the Landscape and Visual Assessment). Some of the key objectives of the report recommendations include:

- Protect, retain, and enhance existing open space and natural landscape character features
- Protect, retain and enhance existing visual amenity and key vantage points
- Ensure the future development is enhance by the future landscape and helps facilitate appropriate urban development to create a cohesive precinct character and identity
- Facilitate movement and circulation, inclusive of vehicular, active transport and pedestrian scales.

# How has this informed planning for the Ballarat North PSP?

These view lines, including to Mount Rowan, Mount Pisgah and Burrumbeet Creek have been considered in the concept layout for the movement network in the PSP to help protect, retain and enhance key precinct features and visual amenity, supporting celebration of the Ballarat North precinct's unique identity.



# **TRANSPORT**

Strategic Transport Modelling & Integrated Transport Assessments (Jacobs) 2025

# **Purpose of the reports**

The Strategic Transport Modelling Assessment (STMA) examines motorised vehicle traffic impacts of the proposed development of the PSP with the aim to understand future transport planning requirements. The STMA includes:

- A review of the validation of the Ballarat Link Road model (prepared in 2024 by Stantec for the City of Ballarat)
- The development of a 2051 project-specific Victorian Integrated Transport Model (VITM) model.

The adoption of the Ballarat Link Road model long-term growth area inputs ensures the more recent land use assumptions for the municipality were incorporated into the STMA.

The Integrated Transport Assessment Report (ITAR):

- Evaluates the proposed transport network for the PSP
- Assesses the PSP transport network against the PSP Guidelines
- Identifies challenges and opportunities in providing an integrated transport network for the PSP.

# Findings and recommendations

The STMA shows that the proposed road network within the PSP will be appropriate for the projected traffic volumes. In addition, accessible bus routes (within 400m of houses) have been considered which provide connectivity through the PSP and connect to the two closest rail stations (Wendouree and Ballarat).

The ITAR identifies that the PSP presents both challenges and opportunities for creating a sustainable and integrated transport system, including opportunities for:

- Sustainable transport planning and implementation
- Incentivising mode shift from car dependency to active and public transport
- Enhancing public transport
- Developing active transport infrastructure
- Application of the PSP Guidelines
- · Provision of key destinations such as schools, open spaces, community facilities and activity centres
- Working locally in the Ballarat West Employment Zone (BWEZ), reducing out-of-area commutes.

In summary, the ITAR also found:

- The proposed hierarchical road network is sufficient to accommodate anticipated traffic volumes.
- The PSP has identified potential future-proofing to help enable development of the expanded area in the future
- The PSP road network provides a bus capable road network, supporting detailed planning if bus provision planning in the future
- Off-road bicycle paths are proposed along all arterial roads and connector streets. All residents are
  generally within 400m of dedicated cycling infrastructure, further encouraging active transport modes
  within the precinct.



 That to further enhance active transport opportunities, multiple crossings should be included across barriers such as the Western Freeway and Burrumbeet Creek approximately at Forest Street, Gillies Road, Waterford Drive and Cummins Road.

# How has this informed planning for the Ballarat North PSP?

The PSP transport network has been designed to achieve relevant targets of the PSP Guidelines and appropriately plan for the projected traffic volumes for the PSP. The PSP provides plans, cross sections and objectives to deliver an integrated transport network for the PSP.

# **UTILITIES**

Situational Analysis Report and Utility Servicing Assessment (Stantec) July 2024 Utilities Assessment Report (Stantec) March 2025

# **Purpose of the reports**

This report identifies the current utilities servicing situation and high-level constraints for the PSP. Additionally, the report investigates potential servicing infrastructure upgrade opportunities and provides recommendations for infrastructure upgrades to service the PSP. The report also includes discussion on sustainability and innovation measures relating to infrastructure servicing, to inform the next phase of PSP preparation.

# **Findings and recommendations**

#### Sewer

Central Highlands Water (CHW) provides and manages the sewer infrastructure within the precinct. There are a number of trunk outfall mains travelling within the site to the Ballarat North Water Reclamation Plant (WRP), however these existing mains have no capacity for future development. Planning is underway to upgrade the existing sewer network through the precinct. Legislative issues pertaining to the Environmental Protection Authority (EPA) will need to be taken into consideration as part of the Ballarat North WRP upgrade works.

## Water

Properties within the precinct are currently serviced by existing 150mm diameter potable water mains that run north-south down Gillies Road and east along Olliers Road. However, these existing assets do not have the capacity required to support future development. Additional water supply infrastructure is required to provide water with sufficient pressure to cater for any intensification of development. Planning is currently underway to deliver major water supply augmentations across northern Ballarat. CHW has advised that water saving measures will be required in all new developments, including options for use of recycled water through Class A 'third pipe', tanks, passive irrigation of street trees, impervious surfaces and 'leaky wetlands', with the aim of reducing demand which aligns with the objective of the "Ballarat City Integrated Water Management Plan (2018)".

#### Gas

There are existing gas assets within the precinct. However, from January 1st 2024, no new dwellings, apartment buildings and residential subdivisions requiring planning consent will be permitted to connect to gas.

Therefore, this report assumes no further investment in gas infrastructure is required.

## **Electricity**





Powercor has advised there is limited supply available to the precinct, but works are included in Powercor's 10-year plan to upgrade the existing infrastructure to cater for growth in the precinct.

#### **Telecommunications**

Limited information is provided; however, it is anticipated that communications providers will upgrade and expand networks in line with regional growth as development progresses.

#### Summary of Critical infrastructure upgrades immediately required:

- Burrumbeet Creek Sewer Pump Station
- New water tank boosters and trunk water mains, and upgrades to existing water supply's pump station
- New water main along all major roadways from White Swan treatment plant
- Supply augmentations to maintain water pressure to Miners Rest.

# How has this informed planning for the Ballarat North PSP?

Upgrades to utilities infrastructure is needed to service future development in the PSP. Central Highlands Water has commenced upgrades to potable water and sewer infrastructure to service the PSP. The VPA has avoided locating incompatible uses within the Ballarat North Water Reclamation Plant buffer area. The precinct will result in addition runoff affecting Miners Rest downstream, this is being considered in the preparation of the drainage modelling and function designs for PSP drainage assets.

# LAND VALUATIONS

Valuation Report: Ballarat North PSP (EY Parthenon) July 2025

# **Purpose of the report**

The Land Valuation Report (LVR) provides site-specific estimates of value for all community and recreation public purpose land items nominated within the Ballarat North PSP; in addition to broad hectare valuation estimates (on a 'Before' and 'After' basis) for all properties within the Ballarat North PSP that are proposed to provide any other public purpose land. These valuation estimates are used to inform the preparation of the DCP and eventual contribution of public purpose land.

# **Findings and recommendations**

The Report pertains to 69 properties within the Ballarat North PSP. Each land parcel was assessed and valued individually. Subject to the overriding stipulations contained within the body of the LVR and EY Parthenon's Statement of General Assumptions and Limiting Conditions in the LVR, the estimates of value to inform the preparation of the Ballarat North DCP are summarised in Figure 18 below (exclusive of GST):



#### Broad Hectare "Before" and "After" Assessments

| Estimates of Value (Scenario 1) | Cumulative "Before" Assessment | Land Acquired | Cumulative "After" Assessment | Difference   |  |
|---------------------------------|--------------------------------|---------------|-------------------------------|--------------|--|
|                                 | \$359,110,000                  | 44.54 ha      | \$315,470,000                 | \$43,640,000 |  |

#### Site-Specific Assessments - Community and Recreation Items

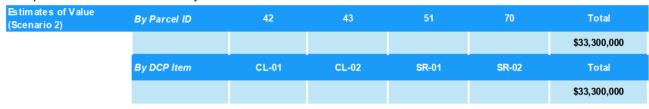


Figure 18: Draft Estimates of value for the Ballarat North DCP

# How has this informed planning for the Ballarat North PSP?

The estimates of value from the LVR as summarised in Figure 18 have informed the land values for properties with land uses intended for public purposes in the Ballarat North DCP.

# **INFRASTRUCTURE DESIGN AND COSTINGS**

(TBC)

#### Note:

- Function designs and costings for transport and drainage projects are currently being prepared
- For transport projects, a preliminary 'base cost' has been applied based on the most relevant current <u>VPA Benchmark Infrastructure Costings</u> plus additional allowances for specific projects. These include:
  - Allowance Existing road reserves
    - Widening the existing road pavement and relocating drainage.
  - o Allowance Services adjustments/protection
    - Relocation/replacement or protection of existing utility infrastructure such as electricity, communication, and water supply pipelines.
  - o Allowance Contingency (40% for Midland Highway road upgrade)
    - Complete removal of the existing road pavement and turning lanes.
    - Additional traffic management due to the function of this road (state highway) and need to maintain traffic flow during the works.
    - Additional road authority fees and charges for detailed design, approvals, and surveillance during the works.
- For drainage projects, preliminary costings have been prepared by the authors of the Ballarat North PSP Drainage Strategy Updated Proof of Concept. The preliminary costs:
  - o Are indicative
  - Are based on rates for Victorian metro drainage projects
  - Exclude costs associated with:
    - Land filling
    - Investigations fee
    - Rehabilitation works along main Burrumbeet Creek
    - Uncertainties such as contaminated soil disposal





- o Include costs associated with:
  - Contingencies for asset variability and soil conditions of sites.

The placeholder designs and costs will be superseded by functional designs and costings prepared by a consultant, based on detailed investigation. Final costs will consider local rates if available.



# APPENDIX 2 – INFRASTRUCTURE AND DEVELOPMENT STAGING PLAN REPORT

# BALLARAT NORTH PSP INFRASTRUCTURE AND DEVELOPMENT STAGING PLAN BACKGROUND DOCUMENT

#### SEPTEMBER 2025

#### **Purpose**

This document explains how the methodology outlined in the *Infrastructure and Development Staging Guidance Note* (the Guidance Note) was applied to prepare the Infrastructure and Development Staging Plan (the Staging Plan) for the Ballarat North Precinct Structure Plan (the PSP). This document also draws on various technical information which informs the Staging Plan for the PSP.

# **Guidance Note Background**

The Victorian Planning Authority developed the Guidance Note to assist planning authorities, responsible authorities, agencies and other stakeholders to:

- 1. Understand and inform the methodology for the preparation of a Staging Plan and accompanying requirements and guidelines in the PSP.
- 2. Define the stages of the Staging Plan to appropriately manage the expected growth scenarios for a new community and plan for the provision of infrastructure (local and state) in the most efficient way.
- 3. Apply and enforce the Staging Plan in practice.

Under this guidance, the draft Ballarat North Staging Plan has been prepared for public consultation in 2025. The Guidance Note can be found here: <a href="https://vpa.vic.gov.au/development-staging-guidance/">https://vpa.vic.gov.au/development-staging-guidance/</a>

#### **Summary of Outcomes in Ballarat North Staging Plan**

Key driving factors that have informed preparation of the Staging Plan include:

- Drainage infrastructure projects must be delivered early in the precinct's development to ensure safe management of stormwater
- Transport infrastructure projects are also required to enable safe, efficient and timely access for the new community
- Community infrastructure, schools and activity centres are also required to service the new community.

Consideration has been given to these factors to enable early delivery of key infrastructure and amenities for the Ballarat North community.

# **Step Analysis**

The Guidance Note includes a five-step process for preparing a Staging Plan. It is an iterative process, and the steps may need to be adjusted several times including after public consultation, before there is agreement on the final draft Staging Plan. The preparation of the Staging Plan includes the following steps:

| Step 5: | Monitor and review.   |
|---------|---|
| Step 4: | Combine the outputs of Steps 1 to 3 into a single IDSP identifying sub-areas within the precinct suitable for development stages numbered in order. |
| Step 3: | Analyse financial revenue against infrastructure expenditure over time  |
| Step 2: | Analyse and map development drivers within the precinct.  |
| Step 1: | Undertake contextual analysis.  |

## Step 1 - Contextual analysis: Existing and planned infrastructure and services

| Factor                    | Analysis  |
|---------------------------|---|
| <b>Existing Utilities</b> | Existing utilities such as electricity, sewer, gas, potable water and |
| Services                  | telecommunications are present in the south-east area of the PSP.     |





#### Sewer

Central Highlands Water (CHW) has indicated that the current network will require augmentation to service the PSP's future development, necessitating the installation of new infrastructure. A significant trunk sewer has however been installed to service land within the eastern portion of the proposed PSP. Planning is underway to further upgrade the sewer network as part of CHW's current capital works program.

#### **Potable Water**

CHW is the provider of reticulated water services within Ballarat. Properties within the precinct are currently serviced primarily by existing 150mm diameter water mains that run north-south down Gillies Road and east along Olliers Road. CHW have indicated that the water network will required upgrades with larger diameter water mains extended to augment the supply to support the future development. Such works will form part of CHW planned capital works programs and be delivered in partnership with developers.

#### Gas

While there are existing gas assets within the precinct, new dwellings, apartment buildings and residential subdivisions requiring planning consent will not be permitted to connect to gas from January 1, 2024

## **Electricity**

Powercor has indicated that the precinct currently has limited electricity supply available. However, infrastructure upgrades are included in Powercor's 10-year plan to accommodate growth. This is likely to include the installation of multiple new kiosks/substations throughout various development stages to ensure adequate power supply.

#### **Telecommunications**

The telecommunication assets in the area are owned by Telstra and NBN, assets are a mix of both underground and overhead assets to provide connection to existing properties. There is currently no NBN fixed line network in the identified area, and it does not support Fibre to the Premises (FTTP) or any other fixed line technology. At present, NBN have no plans to install or upgrade infrastructure within the precinct. NBN have advised that they are not anticipating any constraints or issues with future standard infrastructure installations.

# Existing Drainage infrastructure

The precinct lacks significant drainage infrastructure, with most properties relying on existing table drains along roads and stormwater retention/detentions systems for runoff management.

To support future development, new drainage infrastructure such as Wetlands and Retarding Basins and the Constructed Waterway must be installed to service the PSP.

Locations along the Burrumbeet Creek floodplain are proposed as key locations for drainage assets, with water-sensitive urban design (WSUD) treatments likely needed to manage runoff before discharge into the Burrumbeet Creek and its tributaries.

# Existing and planned Active transport

transport infrastructure within the precinct and/or surrounds

• Existing:

• There are limited existing active transport paths within the precinct.





- o The Strategic Cycling Corridor (SCC) extends near the precinct along Howe Street (west) and Forest Street (south).
- The Burrumbeet Creek and Western Freeway are major accessibility barriers to connecting the PSP with existing urban areas.
- Planned internal to PSP:
  - The active transport network internal to the PSP is provided via connector roads and above or along the interface with Burrumbeet Creek and proposed constructed wetlands.
- Potential external connections:
  - o A potential active transport connection could be provided from the PSP to the MacArthur Park estate (west).
  - A potential active transport connection at Noble Court crossing the Western Freeway to Forest Street could provide greater connectivity from the PSP to Ballarat city centre.

#### **Public transport**

- Existing:
  - There are no current public transport routes that run within the precinct, however the following operate near the precinct:
    - Ballarat bus route 30, from Ballarat Station to Crewsick along Midland Highway
    - Ballarat bus route 31, from Wendouree Station to Miners Street along Howe Street
    - V-Line coaches that use Midland Highway to access areas such as Daylesford, Bendigo, Newstead, Castlemaine and Maryborough
    - V-Line rail service, from Ballarat to Maryborough
- Potential future:
  - Additional bus routes to service the Ballarat North PSP may be provided in the future by the Department of Transport and Planning, serviced by bus capable routes provided in the PSP.

#### Road

The precinct benefits from close proximity to the Western Freeway (M8) and has existing and direct access via Gillies Road, Midland Highway (A300) and Howe Street (C287).

There is a variety of existing sealed and unsealed local access streets in the PSP including Olliers Road, Sims Road, Noble Court and Cummins Road.

There are disused road reservations in the precinct.

A variety of upgrades to existing roads and intersections will be needed to service the PSP.

## **Walking**

There is no dedicated walking infrastructure currently within the precinct. A pedestrian path network will be provided as the precinct is developed in accordance with the PSP.

**Existing activity**nodes within the
precinct or surrounds

There are no exist
Rest and the activity
precinct or surrounds nodes to the PSP.

There are no existing activity nodes in the PSP. The nearby township of Miners Rest and the activity centre in Wendouree offer the nearest existing activity





A new Neighbourhood Activity Centre and Local Convenience Centre will be provided in the PSP.

**Step 2 -** Development analysis: Within in the precinct

| Factor              | Analysis  |  |  |  |  |
|---------------------|---|--|--|--|--|
| Key proposed        | Wetland/Retarding Basins are required in the PSP to treat and store   |  |  |  |  |
| drainage            | stormwater runoff from urban development. The PSP is split into three sub-  |  |  |  |  |
|                     | catchments:   |  |  |  |  |
|                     | Northwest   |  |  |  |  |
|                     | Central   |  |  |  |  |
|                     | Southeast   |  |  |  |  |
|                     |   |  |  |  |  |
|                     | Stormwater runoff from urban development in the PSP will need to be conveyed to Wetland Retarding Basins in these catchments from treatment prior to discharge to the Burrumbeet Creek. |  |  |  |  |
|                     | Basins closer to the Burrumbeet Creek will need to be delivered early to enable   |  |  |  |  |
|                     | development within their corresponding sub-catchments. In turn, this will   |  |  |  |  |
|                     | enable development further upstream within the sub-catchment.   |  |  |  |  |
|                     | A proposed constructed waterway will be needed to convey external catchment   |  |  |  |  |
|                     | flows through the PSP and contain the floodplain from a tributary to  |  |  |  |  |
|                     | Burrumbeet Creek.   |  |  |  |  |
|                     |   |  |  |  |  |
|                     | Development pipes will need to be delivered to convey flows to the  |  |  |  |  |
|                     | Wetland/Retarding Basins for treatment.   |  |  |  |  |
| Key proposed        | Existing arterial roads and intersections will play a crucial role as gateways into   |  |  |  |  |
| movement network    | the precinct to enable the first stage of development. These include:   |  |  |  |  |
| infrastructure and  | Gillies Road intersection with Olliers Road   |  |  |  |  |
| intersections       | Midland Highway intersection with Olliers Road  |  |  |  |  |
|                     | Gillies Road and intersection with Sims Road  |  |  |  |  |
|                     | <ul> <li>Safe crossings of Burrumbeet Creek at Midland Highway and Gillies<br/>Road</li> </ul>  |  |  |  |  |
|                     | As the precinct develops, additional upgrades will be needed at:  |  |  |  |  |
|                     | Sims Road   |  |  |  |  |
|                     | Olliers Road  |  |  |  |  |
|                     | Gillies Road  |  |  |  |  |
|                     | Cummins Road  |  |  |  |  |
|                     | In the later stages of PSP development, further infrastructure will be needed to  |  |  |  |  |
|                     | provide:  |  |  |  |  |
|                     | An additional carriageway for Midland Highway between Sims Road the   |  |  |  |  |
|                     | Western Freeway   |  |  |  |  |
|                     | Appropriate access at Cummins Road across Burrumbeet Creek to   |  |  |  |  |
|                     | enable access to Howe St and Miners Rest.   |  |  |  |  |
| Key proposed public | Planning and development of Gillies Road and Midland Highway intersections  |  |  |  |  |
| transport           | should be prioritised. These roads enable first residents to have public  |  |  |  |  |
| infrastructure      | transport connections to key services outside the precinct.   |  |  |  |  |
|                     | All future connector level reads within the presinct will be here canable. This will  |  |  |  |  |
|                     | All future connector level roads within the precinct will be bus capable. This will   |  |  |  |  |
|                     | facilitate internal connections to the new activity centres.  |  |  |  |  |
| Key proposed        | Ballarat North PSP will deliver one neighbourhood activity centres and one local  |  |  |  |  |
| community           | convenience centres with co-located schools, open space and community   |  |  |  |  |
| infrastructure,     | services. New housing growth and expansion of the connector road network will   |  |  |  |  |
| including schools,  | influence the demand, timing and delivery of the community facilities.  |  |  |  |  |





community facilities

and emergency
services

The first stages of development can leverage neighbouring existing services
outside the precinct via the transport gateways.

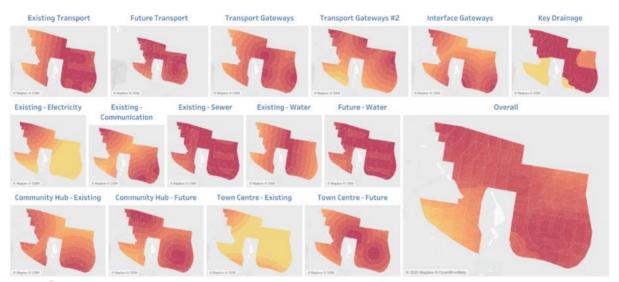


Figure 1: Infrastructure Heat Maps

#### **Step 3 -** Financial Analysis

The financial analysis for the IDSP provides an understanding of when revenue is likely to be available from DCP levies for the delivery of infrastructure. The analysis has been used to assign infrastructure to a stage in alignment estimated funds.

The financial analysis has only looked at DCP infrastructure delivered and funded through the Ballarat North DCP. The delivery of state infrastructure will be subject to future state government budget outcomes.

#### **Assumptions**

It has been assumed that projects identified to be delivered in a stage will be delivered by developers through Works in Kind (WIK) arrangements. If this is to occur, then developers will forward fund the cost of constructing the infrastructure and offset against their future DCP monetary contribution. This assumption relies on developer eagerness and ability to deliver projects through WIK arrangements.

#### Inputs

The financial analysis identifies how many hectares will be developed per year for each stage and uses this to calculate how much development contributions levies will be collected, based on the levy rates shown in the DCP. It shows that a total of 274 hectares will be developed throughout the life of the DCP and this will generate over \$184 million in development levies.

#### Financial Analysis table and summary

Table 1: Development Infrastructure Levy and net position against estimated project cost, per stage

| Stage | Area of stage<br>(NDA) | Levy / ha | Stage revenue   | Stage cost      | Overall position |
|-------|------------------------|-----------|-----------------|-----------------|------------------|
| 1     | 136.22                 | \$672,901 | \$91,663,469.09 | \$90,363,386.05 | \$1,300,110.05   |
| 2     | 137.49                 | \$672,901 | \$93,823,229.87 | \$93,823,229.87 | \$81.32          |

Note: Some discrepancies in numbers may exist due to rounding.

Revenue will exceed infrastructure delivery costs in stage 1, leaving a surplus of \$1,300,110,05. This ensures that all infrastructure can be afforded within stage 1, with some contingency, enabling the certainty that the precinct's earlier residents will be able to have timely access to infrastructure as growth proceeds. This also provides Council with additional certainty that there will be sufficient cashflow across stage 1 should it forward





fund infrastructure or enter into works-in-kind agreements. Broadly, the cost of infrastructure balances out at stage 2, with a nominal surplus of \$81.32.

Step 4 - Preparation of Infrastructure and Development Staging Plan (IDSP)

#### STAGE 1: Southeast area

# Leveraging existing conditions

The southeast area is directly adjacent to key gateways to the precinct via Gillies Road and Midland Highway and can leverage existing sealed road access via Olliers Road and Noble Court.

Proximity to key crossings of the Burrumbeet Creek floodplain at Midland Highway and Gillies Road is also important as these crossings will need to provide safe access for traffic during 1%AEP climate change events.

The concentration of Stage 1 development in the southeast of the precinct is intended to ensure that:

- Development fronts are contained to where key infrastructure items are located
- Development facilitates early access to a government primary school, a community centre, open space and a town centre.
- Infrastructure items can be funded and delivered in line with growth.
- Delivery agencies are not required to service multiple development fronts across the entire precinct, potentially spreading resources too thing and leading to suboptimal amenity for the precinct's earlier residents

This is considered reasonable as the key infrastructure items benefit the wider the precinct.

# Enabling development and access in this stage

To enable increased and safer traffic movement, upgrades are needed at the intersections of:

- Gillies Road and Olliers Road (IN-01)
- Midland Highway and Olliers Road (IN-04)

Early delivery of end-of-line drainage assets in the southeast area enables development to commence upstream. This is particularly important for the southeast drainage catchment, where upstream assets (WL-04) rely on downstream assets (DR-01) to be constructed to enable appropriate stormwater discharge to Burrumbeet Creek.

Upgrades to crossings of the Burrumbeet Creek floodplain may also be required to enable safe access of PSP traffic movements during 1%AEP climate change events. The southeast area is connected to two floodplain crossing locations:

- Gillies Road over Burrumbeet Creek (RD-01-1)
- Midland Highway over tributary to Burrumbeet Creek (IN-04)

Delivery of the critical infrastructure will enable early delivery of the southeast area and establish the key infrastructure needed to enable longer term stage 2 areas to develop.

# DCP Projects

Transport projects (required to be delivered in this Stage):

- RD-01-1 Gillies Road over Burrumbeet Creek
- RD-01-2 Gillies Road urbanisation
- IN-01 Gillies Road and Olliers Road
- IN-04 Midland Highway and Olliers Road (over tributary to Burrumbeet Creek)

Drainage projects (required to be delivered in this Stage):

DR-01 – Constructed Waterway tributary to Burrumbeet Creek (CW1)





| • | WL-05 – | Wetland | & Retardi | ng Basin ( | (SES) |
|---|---------|---------|-----------|------------|-------|
|---|---------|---------|-----------|------------|-------|

Community projects (land unlocked in this Stage):

- CI-02 -Community facility level 1
- SR-02 Sports reserve
- SP-02 Sprots pavilion in sports reserve

#### **STAGE 2: Northern and northwestern areas**

# Leveraging existing conditions

The Stage 2 area is broadly considered to be reliant on the transport infrastructure upgrades in Stage 1 for orderly development of Stage 2 to occur. In particular, Stage 2 is further from key southern/southeastern road gateways than Stage 1 but still relies on this infrastructure for increased and safe traffic movements.

# Enabling development and access in this stage

All other precinct infrastructure is able to be delivered in an orderly manner once Stage 1 infrastructure is completed, generally in accordance with the PSP and DCP.

#### DCP Projects

Transport projects (required to be delivered in this Stage):

- RD-02-1 Midland Highway south of Olliers Road
- RD-02-2 Midland Highway south of Sims Road
- RD-03-1 Cummins Road west of Burrumbeet Creek
- RD-03-2 Cummins Road east of Burrumbeet Creek
- BR-01 Cummins Road over Burrumbeet Creek
- IN-02 Gillies Road and Sims Road
- IN-05 Midland Highway and Sims Road

Community projects (land unlocked in this Stage):

- CI-01 Community facility level 2
- SR-01 Sports reserve
- SP-01 Sports pavilion in sports reserve

# Other infrastructure items: Expanded area

# DCP Projects

**Likely expanded area** Additional transport projects are likely to be required when the expanded area is developed. These include:

- RD-01-3 Gillies Road urbanisation south of Cummins Road
- IN-03 Gillies Road and Cummins Road
- IN-06 Cummins Road and Howe Street

The need for these projects are primarily generated by traffic movements from the expanded area.



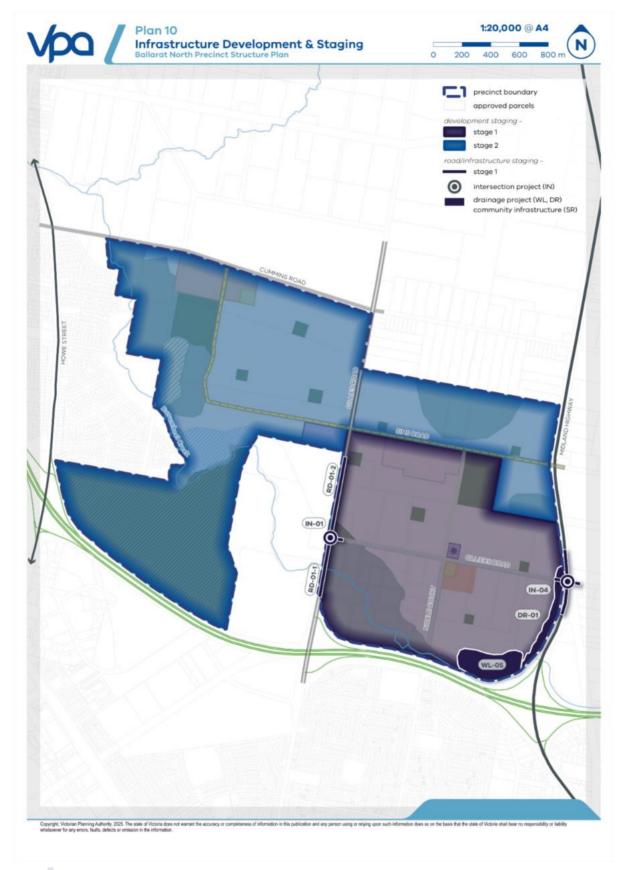


Figure 2: PSP Plan 10 - Infrastructure Development & Staging

# **Step 5 -** Monitor and review

The Ballarat North Staging Plan will be tested through the panel process and amended as appropriate.





Periodic review of the Staging Plan and supporting ordinance is recommended post gazettal of the PSP. This would be the responsibility of the responsible authority and should have regard to updates in funding information, developability, relevant consultation with landowners and updated information or policy from government.

#### References

Victorian Planning Authority, *Guidance Note: Infrastructure Coordination: Infrastructure and Development Staging*, Victorian Government, 2025 <a href="https://vpa-web.s3.amazonaws.com/wp-content/uploads/2025/02/Victorian-Planning-Authority-Guidance-Note-Infrastructure-Coordination-Infrastructure-and-Development-Staging-February-2025.pdf">https://vpa-web.s3.amazonaws.com/wp-content/uploads/2025/02/Victorian-Planning-Authority-Guidance-Note-Infrastructure-Coordination-Infrastructure-and-Development-Staging-February-2025.pdf</a>.

Victorian Planning Authority, *Ballarat North Precinct Structure Plan: Draft for Public Consultation September 2025*, Victorian Government, 2025 <a href="https://vpa.vic.gov.au/project/ballarat-north/">https://vpa.vic.gov.au/project/ballarat-north/</a>.

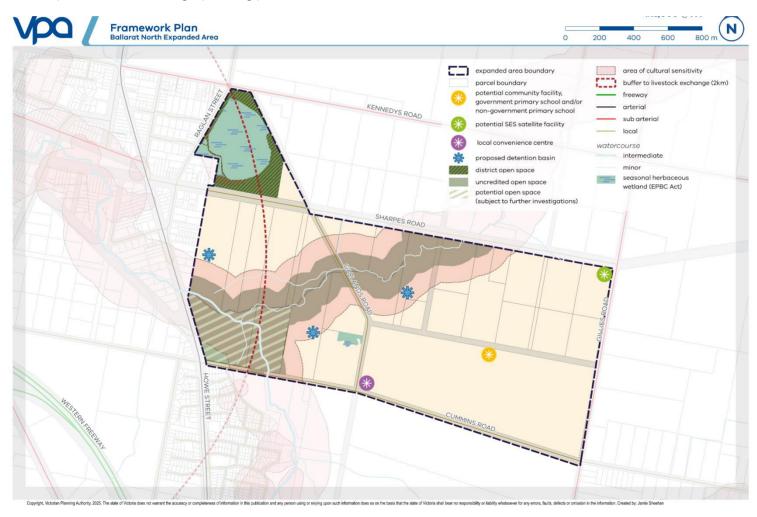
Victorian Planning Authority, *Ballarat North Development Contributions Plan: Draft for Public Consultation September 2025*, Victorian Government, 2025 <a href="https://vpa.vic.gov.au/project/ballarat-north/">https://vpa.vic.gov.au/project/ballarat-north/</a>>.





# **APPENDIX 3 - EXPANDED AREA FRAMEWORK PLAN**

The Ballarat North Expanded Area Framework Plan is shown in the following figure. The Framework Plan serves as a preliminary guide, with further detail to be developed in a future strategic planning process.



# Ballarat North Precinct Structure Plan Background Report

September 2025

