



**Ordinary Council Meeting**

**12 August 2020**

Virtual Meeting

**AGENDA**

**Public Copy**

**NOTICE IS HEREBY GIVEN THAT A MEETING OF BALLARAT CITY COUNCIL WILL BE A VIRTUAL MEETING ON WEDNESDAY 12 AUGUST 2020 AT 7:00PM.**

This meeting is being broadcast live on the internet and the recording of this meeting will be published on council's website [www.ballarat.vic.gov.au](http://www.ballarat.vic.gov.au) after the meeting.

Information about the broadcasting and publishing recordings of council meetings is available in council's broadcasting and publishing recordings of council meetings procedure which is available on the council's website.

## AGENDA

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**The next Ordinary Meeting of the Ballarat City Council will be held on Wednesday 2 September 2020.**

**1. OPENING DECLARATION**

**Councillors:** *"We, the Councillors of the City of Ballarat, declare that we will carry out our duties in the best interests of the community, and through collective leadership will maintain the highest standards of good governance."*

**Mayor:** *"I respectfully acknowledge the Wadawurrung and Dja Dja Wurrung People, the traditional custodians of the land, and I would like to welcome members of the public in the gallery."*

**2. APOLOGIES FOR ABSENCE**

**3. DISCLOSURE OF INTEREST**

**4. CONFIRMATION OF MINUTES**

**5. MATTERS ARISING FROM THE MINUTES**



## 6. PUBLIC QUESTION TIME

Note – all public representations will be heard before each item on the agenda.

# QUESTION TIME

- Question time has been altered for the City of Ballarat's 12 August 2020 Council meeting due to the COVID-19 Stage 3 restrictions.
- To ensure the public can still participate in question time, they are asked to now submit their questions in writing.
- However, no person may submit more than two questions at the 12 August 2020 meeting.
- The questions must be in English, must be 75 words or less and not include a preamble, other additional material, or multiple parts.
- Questions must be submitted via email to [agendapreparation@ballarat.vic.gov.au](mailto:agendapreparation@ballarat.vic.gov.au) by no later than 4:30pm on the day of the Ordinary meeting.
- A question may be disallowed if the chair determines that it:
  - Relates to a matter outside of Councils responsibility;
  - Is defamatory, indecent, abusive, offensive, irrelevant, trivial or objectionable in language or substance;
  - Deals with a subject matter already answered;
  - Is aimed at embarrassing a Councillor or a member of Council Staff;
  - Relates to personnel matters;
  - Relates to the personal hardship of any resident or rate payer;
  - Relates to industrial matters;
  - Relates to contractual matters;
  - Relates to proposed developments;
  - Relates to legal advice;
  - Relates to matters affecting the security of Council property: and/or
  - Relates to any other matter which Council considers would prejudice Council or any other person.
  - Relates to matters that would normally be subject to a Freedom of Information request.
  - Has previously been asked by the same person
  - Has already been put in writing to a Councillor or a member of Council staff; and received a written response.
- The name of the person who submitted a question must be read out, along with the question which may then be directed to the Chief Executive Officer or a nominated officer.
- All questions and answers must be as brief as possible.
- A Councillor or the Chief Executive Officer may require a question to be put on notice which is then recorded in the Council minutes. A written copy of the answer must be sent to the person who asked the question. Minutes will reflect responses until the matter is completed.

## **PUBLIC SUBMISSIONS**

- Due to COVID-19 Stage 3 restrictions around public gatherings being limited to two people the following has been put in place.
- Public representations may be made on any items listed on the agenda in an Ordinary Meeting apart from those listed in the confidential section. Submissions must also be submitted in writing to [agendapreparation@ballarat.vic.gov.au](mailto:agendapreparation@ballarat.vic.gov.au) by no later than 4.30pm on the day of Council meeting; and limited to no more than 200 words that will be read out by the Chief Executive Officer or her nominated delegate at the meeting prior to the matter being considered by Council.

## 7. REPORTS FROM COMMITTEES/COUNCILLORS

### 8. CHIEF EXECUTIVE OFFICER REPORT

#### 8.1. CHIEF EXECUTIVE OFFICER REPORT

**Division:** Executive Unit  
**Director:** Janet Dore  
**Author/Position:** Janet Dore – Chief Executive Officer

#### OFFICER RECOMMENDATION

**Council resolves to:**

**Receive and note the CEO's Operational Report.**

#### EXECUTIVE SUMMARY

The CEO's Operational Report highlights issues and outcomes affecting the organisation's performance as it delivers services and implements the Council's strategies and policy decisions.

#### RATIONALE

The Council of the City of Ballarat is responsible for setting the municipality's strategic direction. The CEO of the City of Ballarat is the sole employee of the Council and is responsible for establishing the organisational structure and resource implementation to achieve the objectives set by the Council. This operational report provides a greater level of access to not only the organisation's achievements, but also the challenges and issues confronting staff and officers in the delivery of services.

#### **Key achievements, projects and events delivered:**

##### Funding received for tourism toolkit to lead world heritage bid

City of Ballarat and 11 partner councils welcomed \$50,000 in Victorian government funding to help build capacity in the region's visitor economy. The improvements are aimed at supporting a future World Heritage Listing for the Central Victorian Goldfields. The funding will support the development of a Sustainable Tourism Toolkit. This toolkit will help to identify gaps across the region to be addressed, so that tourists are encouraged to visit the entire region, allowing the tourist dollar to be shared evenly.

##### 2020 World Heritage Virtual Summit delivered

In June the City of Ballarat hosted a Virtual Summit to advance the bid for the Victorian Goldfield's region's inscription on the World Heritage list. The summit, which attracted registrations from 80 delegates, achieved the aim of gaining clear direction on the best way forward to achieve listing from key global and national World Heritage experts, other Australian World Heritage bid teams and key stakeholders. More than 80 delegates registered for the event.

#### Award for North Gardens Landscape Masterplan

The North Gardens Landscape Masterplan project was awarded the Award of Excellence, the highest award in the Cultural Heritage category of the 2020 Australian Institute of Landscape Architects (AILA) Victorian State Awards. The project also picked up an AILA (Vic) Regional Achievement Award. The project is part of the City of Ballarat's Lake and Gardens Masterplan, which will establish a park dedicated to public artworks created by First Nations artists.

#### Workshops for events industry online

The events team successfully delivered a series of online workshops to support, educate and up skill the local events industry during July. Topics covered included Event Risk and Safety Management, Event Permits, and developing an Event Marketing Strategy.

#### Early Years Webinar for early years professionals

In June the Family & Children's Services team hosted a Mental Health & Wellbeing webinar attended by over 100 professionals working in local early years services. A panel of six Ballarat based professionals gave insights and expert advice about how to support families with children who are experiencing mental health problems. This webinar, the first of its kind the team have delivered, replaced City of Ballarat Early Years Forums which are usually held three times per year. The webinar was recorded and made available online.

#### Be Kind Be Creative

The final elements of the creative response to COVID19, Be Kind Be Creative were delivered in June. The program of activity started in early May, with the website attracting more than 7,000 unique visitors. The most popular event was the Sanitise music festival with over 3,000 site visits and in excess of 2,500 viewers watching the event.

### **Ongoing community consultation**

#### Heritage Gaps Review

A heritage gaps map was launched on the City of Ballarat's mySay page in July which asked residents to pin local sites that they think may have heritage significance. The consultation is the first step in a municipal-wide Heritage Gaps Review undertaken to expand the extent of the Heritage Overlay and strengthen heritage policies. Sites pinned by community members will be considered for assessment and inclusion in the Heritage Overlay. These will be added to an indicative list of over 700 places already compiled from community feedback on other projects, such as Local Area and Township Plans.

#### Ballarat Integrated Transport Action Plan

Ballarat Integrated Transport Action Plan Community input was sought on the Ballarat Integrated Transport Action Plan in June and July. The plan outlines actions the City of Ballarat can take to improve the transport systems it owns or manages, including footpaths, bicycle infrastructure and local roads. The plan also recommends advocacy actions for improvements to parts of the system managed by the Victorian Government.

#### Draft governance rules and public transparency policy

In July Council resolved to seek feedback on its draft Governance Rules and draft Public Transparency Policy. The draft Governance Rules and draft Public Transparency Policy are required as part of the new *Local Government Act 2020*. The draft Governance Rules cover the way Council conducts meetings, makes decisions, takes records of meetings and features an Election Period Policy.

## Ongoing projects, initiatives and works

### Funding for Alfredton Recreation Reserve sports facilities upgrades

In July, the Victorian Government and the City of Ballarat announced funding for upgrades to football, netball, cricket and bowls facilities at the Alfredton Recreation Reserve. The Victorian Government will contribute \$3.7 million and the City of Ballarat \$1.1 million to the project. The new additions will include female-friendly change rooms and amenities, an undercover viewing area, kitchen, public toilets, cricket nets and electronic scoreboard. Carparking, fencing, umpire change rooms and the ticket box entrance also will be improved.

### Yarrowee River Masterplan

The draft Masterplan sets the scene for waterway and parkway improvement for the next 25 years. The vision is to protect, enhance and harness this valued community asset, building on the success of ongoing community engagement that has informed restoration and improvement works of the river corridor. Community consultation on the project was completed in July and will be prepared for Council consideration.

### Ballymanus Central Park completed and open

Located on Ballarat-Carngham Road, Alfredton, the park consists of four hectares of parkland including playground equipment, skate and scooter track, grassed oval, multi-use court, and picnic and BBQ facilities. The \$1.7 million park was funded through the Ballarat West Development Contributions Scheme. Construction started in September 2019 and was completed in April. The park initially remained closed due to COVID-19 restrictions but was gradually opened following easing of restrictions. The City of Ballarat in partnership with the Wadawurrung Traditional Owners proposed to name the park Djila-tjarriu (pronounced Jilla-ja-roo), with community consultation open until early August.

### Most parking transactions free in CBD

Nearly three quarters of parking transactions have been free in Ballarat's CBD since the Smarter Parking Plan was introduced. The City of Ballarat released its Parking Insights report, created from data generated by use of the Smarter Parking system in July. The report showed more than 70 per cent of parking transactions were free in the months since the new system was introduced. All parking was free in the CBD in April and May as part of the City of Ballarat's COVID-19 response. The data showed the most popular transaction method is card, followed by the app and then coins. The Parking Insights report can be found on the City of Ballarat's existing open data platform, Ballarat Data Exchange.

## LEGISLATION, COUNCIL PLAN, STRATEGIES AND POLICY IMPACTS

- *Charter of Human Rights and Responsibilities Act 2006*
- *City of Ballarat Council Plan 2017-2021*
- *Local Government Act 2020*

**REPORTING AND COMPLIANCE STATEMENTS**

Implications	Considered in Report?	Implications Identified?
<b>Human Rights</b>	Yes	No
<b>Social/Cultural</b>	No	No
<b>Environmental/Sustainability</b>	No	No
<b>Economic</b>	No	No
<b>Financial/Resources</b>	Yes	No
<b>Risk Management</b>	No	No
<b>Implementation and Marketing</b>	No	No
<b>Evaluation and Review</b>	No	No

**Human Rights** – It is considered that this report does not impact on any human rights identified in the *Charter of Human Rights and Responsibilities Act 2006*.

**Financial/Resources** – No additional financial implications have arisen from the preparation of a CEO Operational Report.

**OFFICERS DECLARATIONS OF INTEREST**

Council officers affirm that no direct or indirect interests need to be declared in relation to the matter of this report.

**ATTACHMENTS**

Nil

## 9. ASSEMBLIES OF COUNCILLORS

### 9.1. ASSEMBLIES OF COUNCILLORS

**Division:** Executive Unit  
**Director:** Janet Dore  
**Author/Position:** Sarah Anstis - Statutory Compliance Officer

#### OFFICER RECOMMENDATION

Council resolves to approve the report on Assemblies of Councillors as listed:

- 24 June 2020 Infrastructure and Environment Portfolio Meeting
- 3 July 2020 Prosperity Portfolio Meeting
- 7 July 2020 Councillor Strategic Planning Update Workshops
- 8 July 2020 Mayor, Councillor and CEO Meeting
- 8 July 2020 Agenda Review Briefing
- 14 July 2020 Councillor Strategic Workshop
- 14 July 2020 Community Development Councillor Portfolio Meeting
- 15 July 2020 Strategic Briefing
- 15 July 2020 Mayor, Councillor and CEO Meeting
- 17 July 2020 Prosperity Portfolio Meeting – Events and the Arts

#### EXECUTIVE SUMMARY

The purpose of this report is to provide Council with copies of Assembly of Councillor Records as required under section 80A(2) of the *Local Government Act 1989*.

#### RATIONALE

Section 80A(2) of the *Local Government Act 1989* requires the record of an Assembly of Councillors to be reported at an ordinary Council meeting. Assembly of Councillors Records are attached to this report.

#### LEGISLATION, COUNCIL PLAN, STRATEGIES AND POLICY IMPACTS

- *Charter of Human Rights and Responsibilities Act 2006*;
- *Local Government Act 1989*; and
- City of Ballarat Council Plan 2017-2021.

#### REPORTING AND COMPLIANCE STATEMENTS

Implications	Considered in Report?	Implications Identified?
Human Rights	Yes	No
Social/cultural	Yes	Yes
Environmental/Sustainability	No	No
Economic	No	No
Financial/Resources	No	No
Risk Management	Yes	Yes
Implementation and Marketing	No	No
Evaluation and Review	No	No

**Human Rights** - It is considered that this report does not impact on any human rights identified in the *Charter of Human Rights and Responsibilities Act 2006*.

**Social/Cultural** - The inclusion of the attached Assembly of Councillor Records in the Council Agenda and the availability to the community increase awareness of the activities of Council and could increase community involvement in decision making at Council level.

**Risk Management** - There are implications with regards to Council's compliance with the *Local Government Act 1989* if Assembly of Councillor Records are not reported to Council.

## CONSULTATION

Nil

## OFFICERS DECLARATIONS OF INTEREST

Council officers affirm that no direct or indirect interests need to be declared in relation to the matter of this report.

## REFERENCE DOCUMENTS

Nil

## ATTACHMENTS

1. 24 June 2020 Infrastructure and Environment Portfolio Meeting [9.1.1 - 1 page]
2. 3 July 2020 Prosperity Portfolio [9.1.2 - 1 page]
3. 7 July 2020 Councillor Strategic Planning Update Workshops [9.1.3 - 1 page]
4. 8 July 2020 Mayor, Councillor and CEO Meeting [9.1.4 - 1 page]
5. 8 July 2020 Agenda Review Briefing [9.1.5 - 2 pages]
6. 14 July 2020 Councillor Strategic Workshop [9.1.6 - 1 page]
7. 14 July 2020 Community Development Councillor Portfolio Meeting [9.1.7 - 1 page]
8. 15 July 2020 Strategic Briefing [9.1.8 - 2 pages]
9. 15 July 2020 Mayor, Councillor and CEO Meeting [9.1.9 - 1 page]
10. 17 July 2020 Prosperity Portfolio - Events and the Arts [9.1.10 - 1 page]





### ASSEMBLY OF COUNCILLORS RECORD

This record must be completed by the attending Council Officer and returned to the Statutory Compliance Unit within 48 hours after the meeting for recording in the register.

<b>Description of meeting:</b>	Infrastructure and Environment Portfolio Meeting No 218
<b>Date of meeting:</b>	Wednesday 24 June 2020
<b>Start time:</b>	8:00am
<b>Finish time</b>	9.12am

<b>Councillors present:</b>	Mayor Cr Ben Taylor, Cr Grant Tillett, Cr Mark Harris
<b>Apologies:</b>	
<b>Council staff present:</b>	Darren Sadler – Acting Director Infrastructure and Environment, Janet Dore – Chief Executive Officer, Amy Boyd – Program Director Strategy and Implementation, Natalie Robertson – Executive Manager Development Facilitation, Donna Johnston - Coordinator Growth Areas Facilitation, Belinda Kent – Executive Assistant to Director Infrastructure and Environment (Minute Taker)
<b>Other attendees present:</b>	Nil

<b>Conflict of Interests:</b>	<p>Pursuant to Sections 77, 78 and 79 of the Local Government Act 1989 (as amended), if a Councillor has a conflict of interest in a matter which is to be considered or discussed at a meeting, the Councillor must, if he or she is attending the meeting, disclose the conflict of interest.</p> <p>A Councillor who has declared a conflict of interest, must leave the meeting and remain outside the room while the matter is being considered, or any vote is taken.</p>			
Nil				

<b>Matters Considered:</b> <i>*Provide dots points of matters discussed.</i>
<p><b>Updates</b></p> <ul style="list-style-type: none"> <li>• Waste Update</li> <li>• Parking Update</li> <li>• Re-Opening of Facilities in Covid-19</li> <li>• Humffray Street Billboard x 2</li> <li>• Airport Funding Stage 2 Update</li> <li>• Statutory Planning Update</li> <li>• Naming of the Ballymanus Central Park</li> </ul> <p><b>Reports</b></p> <ul style="list-style-type: none"> <li>• Discuss Future Council Reports</li> </ul> <p><b>Upcoming Tenders</b></p> <ul style="list-style-type: none"> <li>• Circulated to Councillors prior to meeting</li> </ul> <p><b>Other Business</b></p> <ul style="list-style-type: none"> <li>• Drews Paddock</li> </ul>

<b>Record completed by:</b>	
<b>Signed:</b>	<b>Position:</b> Acting Director Infrastructure and Environment
<b>Name:</b> Darren Sadler	<b>Date:</b> 25 June 2020



## ASSEMBLY OF COUNCILLORS RECORD

This record must be completed by the attending Council Officer and returned to the Statutory Compliance Unit within 48 hours after the meeting for recording in the register.

<b>Description of meeting:</b>	Prosperity Portfolio Meeting – Economic Partnerships
<b>Date of meeting:</b>	3 July 2020
<b>Start time:</b>	7.33am
<b>Finish time:</b>	9.12am

<b>Councillors present:</b>
Cr Moloney, Cr Rinaldi, Cr McIntosh
<b>Apologies:</b>
Cr Taylor
<b>Council staff present:</b>
Janet Dore – CEO, Angelique Lush – Director Development and Planning, James Guy – Executive Manager Economic Partnership
<b>Other attendees present:</b>

<b>Conflict of Interests:</b>				
Pursuant to Sections 77, 78 and 79 of the <i>Local Government Act 1989</i> (as amended), if a Councillor has a conflict of interest in a matter which is to be considered or discussed at a meeting, the Councillor must, if he or she is attending the meeting, disclose the conflict of interest.				
A Councillor who has declared a conflict of interest, must leave the meeting and remain outside the room while the matter is being considered, or any vote is taken.				
Nil	[Type & details declared]	Left Meeting [Yes/No]	[Time left]	[Time returned]

<b>Matters Considered:</b> <i>*Provide dots points of matters discussed.</i>
<p><b>General Business</b></p> <ul style="list-style-type: none"> <li>• Topiary Gardens</li> </ul> <p><b>Economic Development</b></p> <ul style="list-style-type: none"> <li>• New Investment Opportunities Update</li> <li>• Latest Ballarat Specific Economy Update</li> </ul> <p><b>Strategic Planning</b></p> <ul style="list-style-type: none"> <li>• Integrated Transport Action Plan</li> <li>• Neighbourhood Character Study</li> </ul>

<b>Record completed by:</b>	
<b>Signed:</b>	<b>Position:</b> Director Development and Planning
<b>Name:</b> Angelique Lush	<b>Date:</b> 6/7/2020



## ASSEMBLY OF COUNCILLORS RECORD


This record must be completed by the attending Council Officer and returned to the Statutory Compliance Unit within 48 hours after the meeting for recording in the register.

<b>Description of meeting:</b>	Councillor Strategic Planning Update Workshop
<b>Date of meeting:</b>	7 July 2020
<b>Start time:</b>	4.30pm
<b>Finish time:</b>	6.09 pm

<b>Councillors present:</b>	Cr McIntosh, Cr Rinaldi, Cr Harris, Cr Coates, Cr Hudson, Cr Tillett, Cr Taylor, Cr Moloney,
<b>Apologies:</b>	Cr Johnson
<b>Council staff present:</b>	Angelique Lush – Director Development and Planning, James Guy – Executive Manager Economic Partnerships, Lisa Kendal – Manager Strategic Planning, Joanna Cuscaden – Project Manager Urban Renewal, Janet Dore – CEO, Amy Boyd – Program Director Strategy and Implementation, Alison Tonkin – Manager Major Projects, David Turley – Team Leader City Design, Kizanne Davies – Business Engagement Officer, Tim Goddard – Project Manager Bakery Hill
<b>Other attendees present:</b>	Brenton Beggs and Mary Papaioannou – Hassell Studio

<b>Conflict of Interests:</b>				
Pursuant to Sections 77, 78 and 79 of the <i>Local Government Act 1989</i> (as amended), if a Councillor has a conflict of interest in a matter which is to be considered or discussed at a meeting, the Councillor must, if he or she is attending the meeting, disclose the conflict of interest.				
A Councillor who has declared a conflict of interest, must leave the meeting and remain outside the room while the matter is being considered, or any vote is taken.				
None	None	Left the meeting? No	Time left NA	Time returned NA

<b>Matters Considered:</b> <i>*Provide dots points of matters discussed.</i>
<ul style="list-style-type: none"> <li>• Western Victoria Transmission Network Project</li> <li>• Bridge Mall / Bakery Hill Redevelopment</li> </ul>

<b>Record completed by:</b>	
<b>Signed:</b> 	<b>Position:</b> Executive Manager Economic Partnerships
<b>Name:</b> James Guy	<b>Date:</b> 08 / 07 / 2020

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## ASSEMBLY OF COUNCILLORS RECORD

This record must be completed by the attending Council Officer and returned to the Statutory Compliance Unit within 48 hours after the meeting for recording in the register.

<b>Description of meeting:</b>	Mayor, Councillor and CEO Meeting
<b>Date of meeting:</b>	08/07/2020
<b>Start time:</b>	6.00pm
<b>Finish time:</b>	6:30pm

<b>Councillors present:</b>	Cr Taylor, Cr Coates, Cr Rinaldi, Cr Tillett, Cr Johnson, Cr Moloney, Cr McIntosh, Cr Hudson, Cr Harris
<b>Apologies:</b>	
<b>Council staff present:</b>	Janet Dore, Chief Executive Officer
<b>Other attendees present:</b>	Nil

<b>Conflict of Interests:</b>				
	Pursuant to Sections 77, 78 and 79 of the <i>Local Government Act 1989</i> (as amended), if a Councillor has a conflict of interest in a matter which is to be considered or discussed at a meeting, the Councillor must, if he or she is attending the meeting, disclose the conflict of interest.			
	A Councillor who has declared a conflict of interest, must leave the meeting and remain outside the room while the matter is being considered, or any vote is taken.			
Nil	Nil	N/A	N/A	N/A

<b>Matters Considered:</b> <i>*Provide dots points of matters discussed.</i>
<ul style="list-style-type: none"> <li>• Budget</li> <li>• ELT Structure</li> <li>• Statutory Planning Update</li> <li>• Culture Review</li> </ul>

<b>Record completed by:</b>	
<b>Signed:</b>	<b>Position:</b> Chief Executive Officer
<b>Name:</b> Janet Dore	<b>Date:</b> 09 July 2020



## ASSEMBLY OF COUNCILLORS RECORD

This record must be completed by the attending Council Officer and returned to the Statutory Compliance Unit within 48 hours after the meeting for recording in the register.


<b>Description of meeting:</b>	Council Agenda Review Briefing
<b>Date of meeting:</b>	8 July 2020
<b>Start time:</b>	6:45pm
<b>Finish time:</b>	10.00pm

<b>Councillors present:</b> Cr Jim Rinaldi Cr Grant Tillett Cr Des Hudson Cr Mark Harris Cr Samantha McIntosh Cr Belinda Coates Cr Amy Johnson Cr Daniel Moloney Cr Ben Taylor
<b>Apologies:</b> Nil
<b>Council staff present:</b> Janet Dore – Chief Executive Officer Sean Portelli – Director Business Services Darren Sadler – Acting Director Infrastructure and Environment Cameron Cahill – Director Innovation and Organisational Improvement Angelique Lush – Director Development and Planning Neville Ivey – Director Community Development Cameron Montgomery – Executive Manager Safety, Risk and Compliance Services Natalie Robertson – Executive Manager Lisa Kendal - Manager Strategic Planning Amy Boyd - Program Director Strategy and Implementation
<b>Other attendees present:</b>

<b>Conflict of Interests:</b>				
Pursuant to Sections 77, 78 and 79 of the <i>Local Government Act 1989</i> (as amended), if a Councillor has a conflict of interest in a matter which is to be considered or discussed at a meeting, the Councillor must, if he or she is attending the meeting, disclose the conflict of interest.				
A Councillor who has declared a conflict of interest, must leave the meeting and remain outside the room while the matter is being considered, or any vote is taken.				
Name of person(s) declaring the conflict	Type & details declared	Left Meeting Yes/No	Time left	Time returned
Cr Samantha McIntosh	Indirect interest – close association. Part Redan Street, Newington Road Discontinued /Sale	Yes	9.38pm	9.45pm



<p><b>Matters Considered:</b> <i>*Provide dots points of matters discussed.</i></p> <p><b>External Advocacy Requests</b></p> <p><b>Updates from Portfolios</b></p> <p><b>Updates for Councillors</b></p> <ul style="list-style-type: none"> <li>• Waste Contracts</li> </ul> <p><b>Review of Planning Committee Agenda</b></p> <ul style="list-style-type: none"> <li>• Woodmans Hill - Proposed Rezoning (Amendment C225ball)</li> <li>• PLP2020117 1018-1022 Grevillea Road Wendouree Council Report</li> <li>• PLP/2020/83 53 Humffray Street North Bakery Hill Council Report</li> </ul> <p><b>Review of Draft Council Agenda 24 June 2020</b></p> <ul style="list-style-type: none"> <li>• Chief Executive Officer Report</li> <li>• Assemblies of Councillors</li> <li>• Car Parking Action Plan</li> <li>• C222ball – Latrobe Street Saleyards Permanent HO</li> <li>• Ballarat Strategy Review</li> <li>• Part Redan Street, Newington Road Discontinued /Sale</li> <li>• State of Buildings Report 2019/20</li> <li>• S5 Instrument of Delegation – Council to CEO</li> <li>• C4 Instrument of Delegation – Delegated Committees</li> <li>• S6 Instrument of Delegation – Members of Staff</li> <li>• S11A Instrument of Appointment and Authorisation</li> <li>• Outstanding Question Time</li> </ul> <p><b>Items in Camera</b></p> <ul style="list-style-type: none"> <li>• Tender 2019/20 – 393 Roundabout Construction at the Intersection of Cuthberts Rd &amp; Whites Rd</li> </ul>
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<b>Record completed by:</b>	
<b>Signed:</b> 	<b>Position:</b> Executive Manager Safety, Risk and Compliance Services
<b>Name:</b> Cameron Montgomery	<b>Date:</b> 9 July 2020



## ASSEMBLY OF COUNCILLORS RECORD


This record must be completed by the attending Council Officer and returned to the Statutory Compliance Unit within 48 hours after the meeting for recording in the register.

<b>Description of meeting:</b>	Councillor Strategic Planning Update Workshop
<b>Date of meeting:</b>	14 July 2020
<b>Start time:</b>	4.37pm
<b>Finish time:</b>	6:03 pm

<b>Councillors present:</b>
Cr Rinaldi, Cr Harris, Cr Coates, Cr Taylor, Cr Moloney, Cr Tillett, Cr Johnson, Cr Hudson
<b>Apologies:</b> Cr McIntosh
<b>Council staff present:</b>
Angelique Lush – Director Development and Planning, James Guy – Executive Manager Economic Partnerships, Janet Dore – CEO, Amy Boyd – Program Director Strategy and Implementation, David Turley – Team Leader City Design, Tim Goddard – Project Manager Bakery Hill, Siobhan Dent – Economic Development Officer, Amy Boyd – Program Director Strategy and Implementation, Clare O'Connor - Civic Support
<b>Other attendees present:</b>
Charles Spanjer, Elena Gu, Garry Tepper, John Ball, Marcelle Ganly – Development Victoria

<b>Conflict of Interests:</b>				
Pursuant to Sections 77, 78 and 79 of the <i>Local Government Act 1989</i> (as amended), if a Councillor has a conflict of interest in a matter which is to be considered or discussed at a meeting, the Councillor must, if he or she is attending the meeting, disclose the conflict of interest.				
A Councillor who has declared a conflict of interest, must leave the meeting and remain outside the room while the matter is being considered, or any vote is taken.				
None	None	Left the meeting?	Time left	Time returned
		No	NA	NA

<b>Matters Considered:</b> <i>*Provide dots points of matters discussed.</i>
<ul style="list-style-type: none"> <li>• Ballarat West Employment Zone (BWEZ)</li> <li>• CBD Greening Projects – including COVID-19 memorial update and asphalt conversions</li> <li>• Bridge Mall / Bakery Hill Redevelopment</li> </ul>

<b>Record completed by:</b>	
<b>Signed:</b> 	<b>Position:</b> Executive Manager Economic Partnerships
<b>Name:</b> James Guy	<b>Date:</b> 14 / 07 / 2020





## ASSEMBLY OF COUNCILLORS RECORD

This record must be completed by the attending Council Officer and returned to the Statutory Compliance Unit within 48 hours after the meeting for recording in the register.

<b>Description of meeting:</b>	Community Development Councillor Portfolio Meeting
<b>Date of meeting:</b>	Tuesday, 14 July 2020
<b>Start time:</b>	3.30pm
<b>Finish time:</b>	4.50pm

**Councillors present:**  
Cr Belinda Coates, Cr Des Hudson, Cr Amy Johnson

**Apologies:**

**Council staff present:**  
Neville Ivey, Director Community Development  
Janet Dore, Chief Executive Officer  
Helen McIntosh, Executive Assistant  
Pete Appleton, Executive Manager Engaged Communities  
Mark Patterson, Executive Manager Sport & Active Living  
Teagan Kenny, Participation Project Officer

**Other attendees present:**  
Nil

**Conflict of Interests:**  
Pursuant to Sections 77, 78 and 79 of the *Local Government Act 1989* (as amended), if a Councillor has a conflict of interest in a matter which is to be considered or discussed at a meeting, the Councillor must, if he or she is attending the meeting, disclose the conflict of interest.  
A Councillor who has declared a conflict of interest, must leave the meeting and remain outside the room while the matter is being considered, or any vote is taken.

Nil		Left Meeting [No]	[Time left]	[Time returned]
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**Matters Considered:** *\*Provide dots points of matters discussed.*

- Minutes of Meeting June 2020
- Community Engagement Updates
- Active Women and Girls Strategy
- Regional Strategic Plan Activate 2020-2030
- BCA Strategic Partnership Agreement
- Upcoming Reports and Strategic Briefings
- Covic-19 Update
- BALC Staff working in MOW
- BALC Cafe

**Record completed by:**

<b>Signed:</b> 	<b>Position:</b> Executive Assistant Community Development
<b>Name:</b> Helen McIntosh	<b>Date:</b> 15 July 2020





## ASSEMBLY OF COUNCILLORS RECORD

This record must be completed by the attending Council Officer and returned to the Statutory Compliance Unit within 48 hours after the meeting for recording in the register.

<b>Description of meeting:</b>	Strategic Briefing
<b>Date of meeting:</b>	15 July 2020
<b>Start time:</b>	8.30 pm
<b>Finish time:</b>	10.35pm


<b>Councillors present:</b> Cr Grant Tillett Cr Des Hudson Cr Mark Harris Cr Belinda Coates Cr Ben Taylor Cr Jim Rinaldi Cr Samantha McIntosh Cr Amy Johnson Cr Daniel Moloney
<b>Apologies:</b>
<b>Council staff present:</b> Janet Dore – Chief Executive Officer Sean Portelli – Director Business Services Darren Sadler – Acting Director Infrastructure and Environment Neville Ivey– Director Community Development Cameron Cahill – Director Innovation and Organisational Improvement Angelique Lush – Director Development and Planning Cameron Montgomery – Executive Manager Safety, Risk and Compliance
<b>Other attendees present:</b>

<b>Conflict of Interests:</b>				
Pursuant to Sections 77, 78 and 79 of the <i>Local Government Act 1989</i> (as amended), if a Councillor has a conflict of interest in a matter which is to be considered or discussed at a meeting, the Councillor must, if he or she is attending the meeting, disclose the conflict of interest.				
A Councillor who has declared a conflict of interest, must leave the meeting and remain outside the room while the matter is being considered, or any vote is taken.				
Name of person(s) declaring the conflict	Type & details declared	Left Meeting Yes/No	Time left	Time returned

<b>Matters Considered:</b> <i>*Provide dots points of matters discussed.</i>
<b>Strategic Matters Raised by Councillors</b>
<ul style="list-style-type: none"> <li>• St Pauls Way</li> </ul>
<b>Portfolio Updates</b>
<b>Planning Committee – Agenda Review</b>
<b>Section B - Strategic Briefing Reports</b>
<ul style="list-style-type: none"> <li>• Sovereign Hill</li> <li>• Major Projects Update</li> </ul>



- |  |
|--|
| <ul style="list-style-type: none"> <li>• Delegated Committees</li> <li>• Public Holiday – Ballarat Show Day 2020</li> <li>• Active Women and Girls Strategy – Annual Update</li> <li>• Procurement Policy</li> </ul> |
|--|

<b>Record completed by:</b>	
<b>Signed:</b> 	<b>Position:</b> Executive Manager Safety Risk and Compliance Services
<b>Name:</b> Cameron Montgomery	<b>Date:</b> 15 July 2020



## ASSEMBLY OF COUNCILLORS RECORD

This record must be completed by the attending Council Officer and returned to the Statutory Compliance Unit within 48 hours after the meeting for recording in the register.

<b>Description of meeting:</b>	Mayor, Councillor and CEO Meeting
<b>Date of meeting:</b>	15/07/2020
<b>Start time:</b>	6.00pm
<b>Finish time:</b>	6:30pm

<b>Councillors present:</b>	Cr Taylor, Cr Coates, Cr Rinaldi, Cr Tillet, Cr Johnson, Cr Moloney, Cr McIntosh, Cr Hudson, Cr Harris
<b>Apologies:</b>	
<b>Council staff present:</b>	Janet Dore, Chief Executive Officer
<b>Other attendees present:</b>	Nil

<b>Conflict of Interests:</b>				
Pursuant to Sections 77, 78 and 79 of the <i>Local Government Act 1989</i> (as amended), if a Councillor has a conflict of interest in a matter which is to be considered or discussed at a meeting, the Councillor must, if he or she is attending the meeting, disclose the conflict of interest.				
A Councillor who has declared a conflict of interest, must leave the meeting and remain outside the room while the matter is being considered, or any vote is taken.				
Nil	Nil	N/A	N/A	N/A

<b>Matters Considered:</b> <i>*Provide dots points of matters discussed.</i>
<ul style="list-style-type: none"> <li>• Organisation Structure</li> <li>• Ombudsman Meeting Update</li> </ul>

<b>Record completed by:</b>	
<b>Signed:</b>	<b>Position:</b> Chief Executive Officer
<b>Name:</b> Janet Dore	<b>Date:</b> 15/07/2020



## ASSEMBLY OF COUNCILLORS RECORD

This record must be completed by the attending Council Officer and returned to the Statutory Compliance Unit within 48 hours after the meeting for recording in the register.

<b>Description of meeting:</b>	Prosperity Portfolio Meeting – Events and the Arts
<b>Date of meeting:</b>	17 July 2020
<b>Start time:</b>	7.35am
<b>Finish time:</b>	9.20am

<b>Councillors present:</b>	Cr Rinaldi, Cr McIntosh
<b>Apologies:</b>	Cr Moloney, Cr Taylor, Janet Dore - CEO
<b>Council staff present:</b>	Angelique Lush – Director Development and Planning, Jeff Johnson – Executive Manager Events and the Arts
<b>Other attendees present:</b>	

<b>Conflict of Interests:</b>				
Pursuant to Sections 77, 78 and 79 of the <i>Local Government Act 1989</i> (as amended), if a Councillor has a conflict of interest in a matter which is to be considered or discussed at a meeting, the Councillor must, if he or she is attending the meeting, disclose the conflict of interest.				
A Councillor who has declared a conflict of interest, must leave the meeting and remain outside the room while the matter is being considered, or any vote is taken.				
Nil	[Type & details declared]	Left Meeting [Yes/No]	[Time left]	[Time returned]

<b>Matters Considered:</b> <i>*Provide dots points of matters discussed.</i>
<p><b>Events and the Arts</b></p> <ul style="list-style-type: none"> <li>• Tourism Event Grant Application</li> <li>• Her Majesty's Theatre Update</li> <li>• Civic Hall Update</li> <li>• Events Update</li> <li>• Eureka Centre Update</li> </ul> <p><b>Creative City</b></p> <ul style="list-style-type: none"> <li>• Malcolm Turnbull Bust Status</li> <li>• Public Art Repairs</li> </ul>

<b>Record completed by:</b>	
<b>Signed:</b>	<b>Position:</b> Director Development and Planning
<b>Name:</b> Angelique Lush	<b>Date:</b> 22 July 2020

## 10. OFFICER REPORTS

### 10.1. CAR PARKING ACTION PLAN

**Division:** Development and Growth  
**Director:** James Guy  
**Author/Position:** Anthony Schreenan - Senior Projects Officer

#### OFFICER RECOMMENDATION

Council resolves to:

1. Note that 570 car spaces of the target 1000 spaces in the Car Parking Action Plan have been provided within 500 metres of the Govhub development.
2. Commit \$750,000 from Council's 20/21 capital infrastructure budget, in addition to the remaining RDV funds, to deliver the remaining 430 carparks within the Soldiers Hill precinct. This will enable a higher quality treatment and reduce maintenance liabilities over the longer term.

#### EXECUTIVE SUMMARY

The State Government, through Regional Development Victoria (RDV) funding of \$2 million, requires Council to deliver 1000 car spaces within 500 metres of the GovHub development site. 570 spaces have been provided to date, leaving a shortfall of 430.

- o Creswick Road 280 off street at a cost of \$850,000
- o Eastern Oval 176 off street at a cost of \$412,000
- o Creswick Road 114 on street, formalized at a cost of \$10,000 (linemarking).

The remaining carparks identified to be delivered are;

- o Seymour Street
- o Clarendon Street
- o Armstrong street North
- o Neill Street
- o Ligar Street
- o Doveton Crescent

\$2 million was allocated to the parking project of which \$1,272,000 has been committed leaving a balance of \$728,000 to deliver the remaining 430.

Council is presented with 2 options as follows;

1. Deliver the remaining 430 carparks within the allocated budget which will provide the formalising of carparks to include line marking, tree protection and a spray seal of the road shoulders, or alternatively,
2. Consider allocating an additional \$750,000, which will also see the delivery of a more robust, less maintenance permeable finish across the shoulders of the precinct.

**RATIONALE**

Council entered into a funding agreement with RDV in June 2018 for a sum of \$2 million. The deliverable for this funding is the creation of 1000 car parks within a 500 metre radius of the GovHub site currently under construction at 300 Mair Street, with completion expected in mid 2021, to date 570 spaces have been delivered.

Officers have investigated the best options for delivery of the final 430 car parks within the agreed radius of GovHub.

Significant constraints exist to the east, west and south of the site, impacting the ability to deliver car parking spaces, particularly when considering the desire to ease pressure on areas once GovHub is finished. The area north of the site is predominantly residential within the 500 metre boundary and encompasses the Soldiers Hill area of the city. These areas are currently under car parking stress with use by both commuters and CBD workers alike using the on-street capacity for car parking, impacting negatively on the residential lifestyle, urban amenity and infrastructure of Soldiers Hill.

Without formalisation of car parking in the area or the protection to significant tree plantings, vehicles are occupying any space that they can achieve, proving detrimental to the health and wellbeing of the trees in the area. With current gravel shoulders Council undertakes a significant maintenance program each year repairing damage caused by vehicles parking on these shoulders. Commuters, workers and residents are frequently in conflict over what constitutes a car parking space, often with Council officers left to determine outcomes.

It is designed that the work to seal road shoulders on both options will provide tree protection and restore a suitable level of amenity through the Soldiers Hill area.

It is requested that Council considers the following options.

**Option 1**

Council has previously undertaken works in other parts of the city with a lesser quality spray seal following levelling and application of additional crushed rock.

A similar finish can be achieved in the Soldiers Hill precinct, along with tree protection and additional plantings and subtle line marking in the following areas;

- Seymour Street
- Clarendon Street
- Armstrong Street North
- Neill Street
- Ligar Street
- Doveton Crescent

Initial costings undertaken on these works indicate that the completed works would be achievable within the current funding agreement. It should be noted that this treatment may require additional maintenance in the form of resealing over time with increased use.

**Option 2**

Council has undertaken works in areas of the City using a permeable sealant which has significantly reduced the need for maintenance on the road shoulders.

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The opportunity exists in the Soldiers Hill precinct for a similar treatment to seal the road shoulders whilst also providing tree protection and car parking formalisation.

Sealing the road shoulders in the above areas will reduce the need for maintenance works to repair shoulders through vehicle use over the winter months, and significantly reduce the presence of dust throughout the summer months.

The estimated cost of the above exceeds the funds remaining from the funding agreement and would require a Council commitment of an \$750,000, in order to achieve the best possible permanent and maintenance free treatment in the area.

It is anticipated that simple 'T' markings at the front and rear of each car park would replace the more common fully lined car parking spaces. Consideration is given for when there are no or minimal numbers of vehicles in the area that it continues to retain the current heritage environment, this is the case with both options.

Along with the car parking formalisation, these works will achieve significant beneficial outcomes for the tree canopy of the area, with the following;

- 207 trees retained and protected
- 38 new plantings with protection
- 7 existing trees to be replaced owing to poor health or positioning.

All treatment to the tree canopy coverage of the area, will consolidate and enhance the urban landscape.

Given the current on street carparking behaviors that are experienced in the Soldiers Hill area, the completion and operation of GovHub is expected to further impact this with members of the public seeking car parking within a suitable distance of their intended destination, be that for work or travel.

## LEGISLATION, COUNCIL PLAN, STRATEGIES AND POLICY IMPACTS

- *Charter of Human Rights and Responsibilities Act 2006;*
- *Local Government Act 1989;*
- *Local Government Act 2020;* and
- City of Ballarat Council Plan 2017-2021.

## REPORTING AND COMPLIANCE STATEMENTS

Implications	Considered in Report?	Implications Identified?
<b>Human Rights</b>	Yes	Yes
<b>Social/cultural</b>	Yes	Yes
<b>Environmental/Sustainability</b>	Yes	Yes
<b>Economic</b>	Yes	Yes
<b>Financial/Resources</b>	Yes	Yes
<b>Risk Management</b>	Yes	Yes
<b>Implementation and Marketing</b>	Ye	Yes
<b>Evaluation and Review</b>	Yes	Yes

**Human Rights** - It is considered that this report does not impact on any human rights identified in the *Charter of Human Rights and Responsibilities Act 2006*.

**Social/Cultural** - The improvement of the urban environment throughout the Soldiers Hill precinct, currently experiencing car parking stress impacting on the residential enjoyment. These works will offer an improved environment and provide a further asset in Soldiers Hill.

**Environmental/Sustainability** – Tree protection in the Soldiers Hill area will continue to be a significant environmental asset to Ballarat.

**Economic** – With the possibility of a local contractor undertaking these works, it will lead to a positive economic impact for the region.

**Financial/Resources** – Completion of the works as indicated in option 2 will require a financial commitment of Council for \$750,000 from the capital infrastructure budget, this will compliment current funding from Regional Development Victoria.

**Risk Management** - There is an identified risk of losing the current funding if the project is not completed.

**Implementation and Marketing** – There will be a significant implementation and marketing plan developed as part of community notification of the project.

**Evaluation and Review** – As is the case with all funding agreements a review and evaluation is required as part of finalising the funding.

## **OFFICERS DECLARATIONS OF INTEREST**

Council officers affirm that no direct or indirect interests need to be declared in relation to the matter of this report.

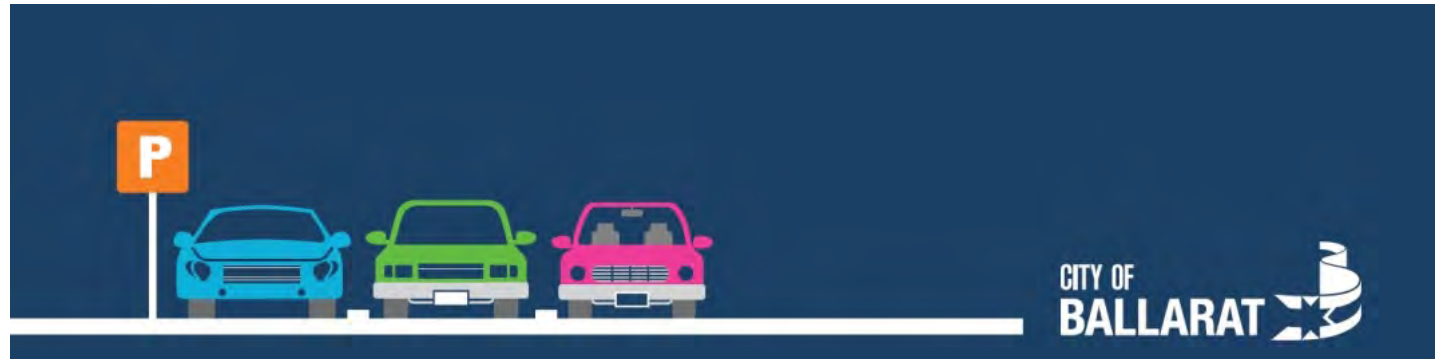
## **REFERENCE DOCUMENTS**

- Nil

## **ATTACHMENTS**

1. Car Parking Action Plan [**10.1.1** - 8 pages]





# Car Parking Action Plan

# Creswick Road Car Park

280 Car Parks



# Creswick Road – Service Road

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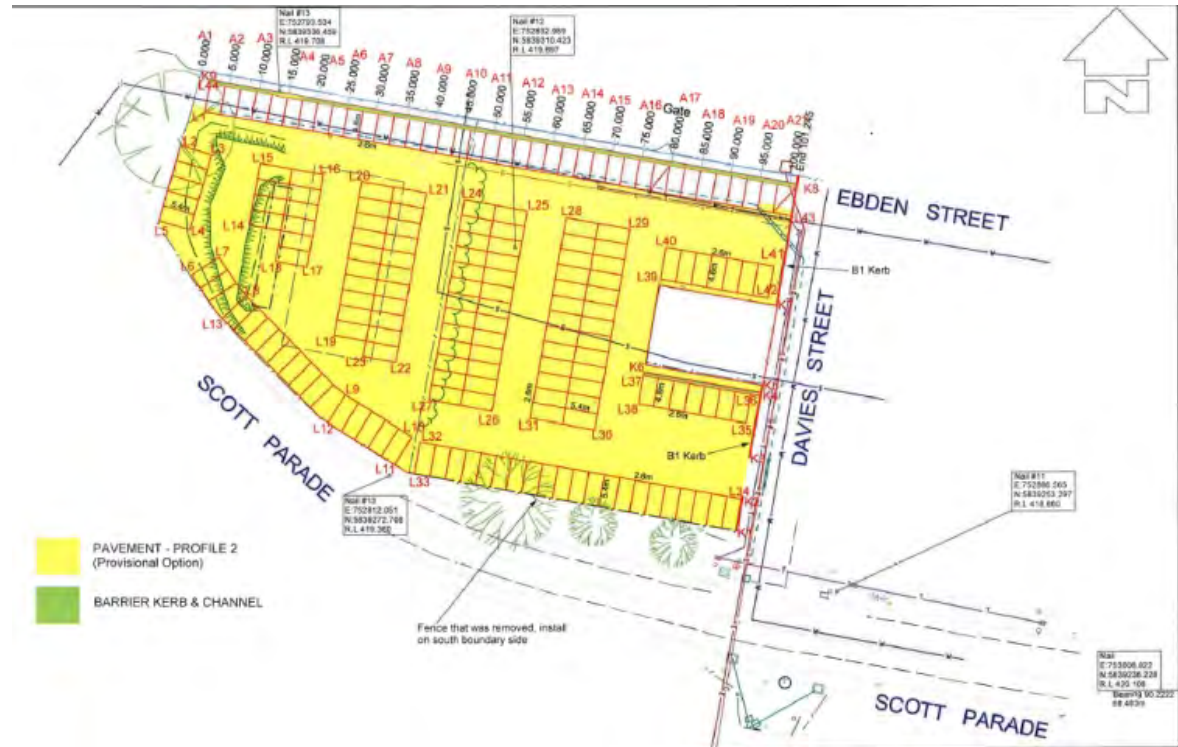
114 Car Parks



# Eastern Oval

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176 Car Parks





# Soldiers Hill



# Soldiers Hill

Seymour Street 95

Clarendon Street 50

Armstrong Street Nth 101

Neill Street 41

Ligar Street 81

Doveton Cres 50



# Soldiers Hill

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Open graded asphalt, with voids to allow water penetration

# Soldiers Hill



207 trees to be retained and protected



38 New trees with protections



7 Trees to be replaced



## 10.2. BALLARAT INTEGRATED TRANSPORT ACTION PLAN

**Division:** Development and Growth  
**Director:** James Guy  
**Author/Position:** James Guy –Acting Director Development and Growth  
Rex Zhang – Strategic Planner

### OFFICER RECOMMENDATION

#### Council resolves to:

1. **Acknowledge submissions received throughout the development of the Ballarat Integrated Transport Action Plan, including to the mode specific background reports and technical reference guide which underpin the plan.**
2. **Adopt the Ballarat Integrated Transport Action Plan (2020).**
3. **Write to the relevant State Government Ministers outlining the key transport priorities for Ballarat included in the plan and advocating for partnership opportunities and funding to accelerate implementation.**
4. **Progress with scoping and seeking partnerships with Government and the private sector to support pilot, temporary and trial projects that align with the intent of this plan, including new modes not yet used in Ballarat (such as e-scooters), new business models (including car and bike share arrangements), wider rollout of new technologies (such as hydrogen and electric fuel cell vehicles) and reduced speed limits in high pedestrian locations, as part of a flexible and adaptable approach to diversifying the current transport mix.**

### EXECUTIVE SUMMARY

The Ballarat Integrated Transport Action Plan (2020) seeks to guide change in Ballarat over the coming decades so as the population grows the city becomes a more accessible, liveable and enjoyable place to live and work. As the regional capital and 3<sup>rd</sup> largest city in Victoria, it needs and deserves a more diversified mix of transport options. It is a plan to deliver a seamless, better connected and less car dependent transport system that a growing Ballarat deserves.

The transport system is a combination of components under the control of local Councils, including footpaths and local roads, and components such as public transport and arterial roads which are planned, managed and funded by the State Government. Delivery of transport services via new business models and using a more diverse range of technologies are being increasingly delivered around the world by private sector companies, in partnership with cities. This report therefore not only acts as a guide for direct implementation and Government advocacy, but also as a prospectus for private sector investors looking for opportunities to establish transport related businesses to better service this community.

A comprehensive community and stakeholder engagement program has been undertaken to inform the development of the Action Plan, with 375 individual written submissions received and more than 300 site specific issues, opportunities and comments provided to help shape both the plan and to be used to guide its ongoing implementation. Feedback received was overwhelmingly positive, and there was a strong appetite for positive and immediate change.

This report acknowledges the community's desire and enthusiasm for change, recommends adoption of the plan, advocacy for investment and seeks Government and private sector partnerships to trial, pilot and deliver more convenient and seamless ways to travel – whilst setting the priorities for major improvements across the existing network.

## **RATIONALE**

The Ballarat Integrated Transport Action Plan outlines actions the City of Ballarat can take to improve the transport systems it owns or manages, including footpaths, bicycle infrastructure and local roads. The Action Plan also recommends advocacy actions Ballarat can take to request improvements to parts of the transport system the State Government owns or manages, including major roads, freeways and highways, bus services and train lines.

### **Key short-term priorities**

The final version of the Ballarat Integrated Transport Action Plan (2020) proposes seven short-term priorities, to give immediate guidance to Council in its advocacy and delivery programs:

- Review and Overhaul Ballarat's Bus Network
- Advocate for City Shaping Infrastructure Upgrades
- Advocate for Seamless, Reliable and Convenient Fast Rail between Ballarat and Melbourne
- Focus Current Projects to Deliver Safe, Accessible and Enjoyable Walking and Cycling Routes
- Pilot New Transport Options and Opportunities
- Support Regional Transport Advocacy Activities
- Deliver Essential Ballarat Station Upgrades

These are complemented by policy guidance and actions related to 16 future directions. It covers all modes of transport, emerging opportunities and areas for change.

Transport and land-use planning policy must be fully integrated to achieve the desired outcomes for Ballarat. Transport is the ability and mechanism to move between one land use and another for a particular reason. Increasing the number of people in certain areas and changing the location and distribution of jobs and commercial areas is essential to justifying the types of investment in new transport options outlined in the plan. If there is not demand, the business case for investment is not going to be supported.

This Integrated Transport Action Plan provides greater detail and an updated view from that provided in the guiding plan for managing growth and change, *Today, Tomorrow, Together: Ballarat Strategy* (2015). A new housing strategy for the city is currently under development and will also take existing land use policy to a more nuanced level of detail. This plan and the housing plan jointly provide clear, long-term and fully integrated guidance on growth and change to maintain a dynamic, compact and highly liveable regional capital.

### **Feedback received to the Draft Plan**

Forty two (42) submissions, and ninety nine (99) site specific notations were received for this final stage of the consultation process, related to the draft plan. Submissions were overwhelmingly supportive of the intent, format, vision and priorities of the plan. The focus of feedback was largely related to additional items to be considered, specific opportunities already covered by the plan but at a more project or technology specific level (such as specific

bus routing and operating models) and personal experiences of using the transport system in Ballarat.

The differentiation between Council owned and managed parts of the transport network, and the role of Council in advocating to the State Government for changes to elements like public transport and arterial roads was confusing for some submitters.

#### Key themes

- Agreement with the plan's actions, accelerate implementation and make changes as soon as possible.
- Bus network does not service Ballarat's needs and inhibits usage.
- Pursue ambitious targets for the use of autonomous and electric vehicles for both private and public transport – with a focus on environmental outcomes.
- Personal stories provided regarding a desire to use public transport but lamenting the lack of convenience and frequency to make it a viable option.
- COVID-19 has highlighted the enjoyment and potential for walking and riding across Ballarat and is an opportunity to encourage that community momentum for change.
- Fix known barriers to walking and cycling, particularly at roundabouts, surrounding schools and construct missing footpaths.
- Need for higher frequency transit services to Buninyong and Ballarat West.

#### Other issues

- Focus on reducing car dependence rather than providing better car related infrastructure (including park and ride network).
- Be clearer about who will lead the actions, and by when – consider specific targets.
- Data collection needs to be balanced with future demand.
- Minor changes suggested to priority transit routes.
- Provide additional detail regarding universal accessibility and how it will be implemented.
- Specifically focus on Ballarat Station and required upgrades.
- Consider a detailed methodology for prioritising funding for different initiatives, similar to the approach undertaken by Infrastructure Victoria. Decisions regarding budgeting and the applications for external funding for new infrastructure is undertaken by Council via the Council Plan and Budget processes, guided by the intent of this plan.
- Extra references to specific technologies and routes.
- Personal experiences with request for transport improvements to specific sites.

### **Changes to the plan**

All submissions have been considered and extensive changes made to the draft plan to accommodate feedback received. Where good new ideas have been suggested they have been included, for elements already covered in the plan but raised again in submissions the text has been reviewed to improve clarity and in many cases made more explicit. For site specific suggestions and contributions to the interactive map feature on the mySay website, these will be considered in the detailed programming of future capital works and used in support of future funding bids to show community support for those initiatives at specific sites.

#### Key changes:

- 7<sup>th</sup> immediate priority added – highlighting the essential upgrades required at Ballarat Station – Full DDA Compliant access across the Ballarat station precinct, including between railway platforms; upgrade of the regional bus interchange; restoration of main heritage building; and pedestrian linkages between Station and the GovHub.
  - Greater clarity over future transit hubs – Warrenheip is marked as a transit hub rather than a future railway station. An assessment of land use planning potential for the area has concluded that major intensification of development in the area to support a new
-

station is not being progressed at the time. Its utility would relate to bus and car based interchange with direct services to Federation University and Buninyong.

- Stronger references to rapid transit links through Ballarat West, linking Delacombe Town Centre to Wendouree Station – already included in the plan but made more explicit, including specific mention of long-term opportunities for the Ballarat – Skipton Rail Trail alignment (subject to future land use directions and feasibility).
- Clarification to a number of actions and priorities to give more detail on the intent and method of delivery.
- Timeframes and responsibilities added to action summary.

The final version of the report incorporates these changes and aligns closely with the vast majority of submissions received.

## LEGISLATION, COUNCIL PLAN, STRATEGIES AND POLICY IMPACTS

- *Charter of Human Rights and Responsibilities Act 2006*
- City of Ballarat Council Plan 2017-2021
- Ballarat Strategy 2015
- *Local Government Act 1989*
- *Local Government Act 2020*

## REPORTING AND COMPLIANCE STATEMENTS

Implications	Considered in Report?	Implications Identified?
<b>Human Rights</b>	Yes	No
<b>Social/Cultural</b>	Yes	Yes
<b>Environmental/Sustainability</b>	Yes	Yes
<b>Economic</b>	Yes	Yes
<b>Financial/Resources</b>	Yes	Yes
<b>Risk Management</b>	Yes	No
<b>Implementation and Marketing</b>	Yes	Yes
<b>Evaluation and Review</b>	Yes	Yes

**Human Rights** – It is considered that this report does not impact on any human rights identified in the *Charter of Human Rights and Responsibilities Act 2006*.

**Social/Cultural** – Implementation of the Action Plan is expected to bring social benefits by improving access and providing more options to public transport and active transport. Extensive consultation was conducted over multiple rounds to ensure that the values of the community and key stakeholders are understood and incorporated into the plan.

**Environmental/Sustainability** – The Action Plan advocates for improvements to environmentally friendly transport modes, including walking, cycling and public transport. Actions included in the plan advocate for the reduction of carbon dependency in transporting people and goods.

**Economic** – Implementation of the Action Plan will bring wider economic benefits to the city. Increased quality of transport links facilitates a wider range of economic interactions and lowers costs to access resources and markets. Improvements to Ballarat’s transport networks will also improve the city’s attractiveness as a place to live, work and visit.

**Financial/Resources** – The Action Plan provides long-term directions to the development of transport infrastructure in the city. The actions will guide resource allocation for future implementation. Implementation costs have yet to be determined. Some actions will be the responsibility of other stakeholders such as the State Government.

**Implementation and Marketing** – The Action Plan provides a list of objectives and identifies long-term initiatives, actions, and relevant stakeholders.

**Evaluation and Review** – The Action Plan provides guidance to the future implementation and development of transport infrastructure in the city.

## **CONSULTATION**

Two stages of extensive community consultation have been undertaken as part of the development of the Action Plan.

The first phase of community engagement occurred throughout late 2019. Discussion papers were released for Ballarat’s walking and railway networks to understand the community’s key issues and vision in relation each transport mode. 119 survey responses were received regarding the walking network and 256 for the rail network. More than 200 site specific ideas, issues and observations were provided via the interactive map feature on the mySay website during these periods.

The second phase of consultation occurred in June to July 2020 to seek feedback on the Draft Ballarat Integrated Transport Action Plan. 35 survey responses, 7 email submissions and 99 site-specific comments were received during this final round of consultation.

The submissions are generally highly supportive of the intent of the plan and include valuable suggestions which have been taken on board and incorporated where possible.

## **OFFICERS DECLARATIONS OF INTEREST**

Council officers affirm that no direct or indirect interests need to be declared in relation to the matter of this report.

## **REFERENCE DOCUMENTS**

- Ballarat Integrated Transport Action Plan – Technical Reference (2020)
- *Today, Tomorrow, Together: Ballarat Strategy* (2015) – Part 4: Transport

## **ATTACHMENTS**

1. Ballarat Integrated Transport Action Plan - Part A Report [**10.2.1** - 26 pages]



# Ballarat Integrated Transport Action Plan

For a Compact and  
Connected City



Part A Report | July 2020

CITY OF  
**BALLARAT**







Introduction



Introduction



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## An Integrated Transport Action Plan towards 2050

- ✓ **Vision**
- ✓ **Approach**
- ✓ **Immediate advocacy needs and priorities**
- ✓ **Future directions**

As our city experiences unprecedented growth in population and jobs, this Integrated Transport Action Plan supports a more connected, sustainable and prosperous Ballarat. The City's economic and social prosperity is reliant on a well-connected community where everybody can move safely to jobs, schools, community services and shopping facilities. As the way we travel continues to evolve and change, the City needs to ensure that it can create an integrated transport network which is adaptable and flexible.

Ballarat's population is on track to reach 160,000 people by 2040 and we need to future-proof the city's transport network and plan for the long term. Ballarat residents will require increased access to homes, jobs and services within the city and region. Improvements to transport, including investment in roads and the public transport network will ensure this can be achieved sustainably and efficiently.

This Action Plan seeks to manage the inevitable transport impacts of population and job growth over the coming decades. The objectives and actions established within the Plan also seek to create a

more liveable, sustainable, healthy, equitable and prosperous city through increased emphasis on walking, cycling and public transport; based around five key objectives, which are:

- To support a livable and people first approach in the movement of people;
- To create a fully integrated and reliable transport network which meets the changing needs of our community;
- To support more sustainable approaches to transport; and
- To enable advocacy and partnership arrangements which enable State Government and private investment in transport to enhance the City's liveability and its economic and social prosperity.
- Take practical steps to support Ballarat being a city less reliant on cars.

This plan should be read in conjunction with the Ballarat Integrated Transport Action Plan - Technical Reference (2020), which provides background research, analysis and context.





## Vision

### *Seamless, better connected and less car dependent transport system that a growing Ballarat deserves*

People who live in and visit the City of Ballarat will be able to walk safely and comfortably and at their own pace through the City's many beautiful streets and laneways. Walking through the City will be made safe and comfortable for everybody regardless of circumstance through people centred design, seating, canopy trees and other forms of weather protection.

As people move through our City on foot or by bicycle, our City's unique history and the many stories that can be told will become a cornerstone to the experience. The 'people first' approach will make our public spaces and transport connections vibrant and safe, and - through our City's designed program - our streets and laneways will be friendly places for people to move through. Public spaces around public transport nodes will be designed to prioritise safety and accessibility for all, and we will support a healthier and happier community through reduced reliance on private car travel, facilitating active travel options, improved recreational tracks, protected and dedicated bike lanes throughout the City, and end of trip facilities for bicycle users.

Our train station is iconic and, for many, represents the arrival experience to the City. It is the biggest

inter-modal facility for the City and the hub of many inter-transit opportunities. By improving safe connections to other forms of transport, people will be able to continue to move freely and easily through the City to their jobs, their schools, their friends, their family or to their homes. All public transport within the City of Ballarat will be efficient, reliable, safe and convenient.

As a large regional city, Ballarat has an important role to play in advocating for enhanced economic linkages through a range of initiatives, including more efficient freight movement, creating a regional aviation hub and opening up connections to other regional facilities for Central Highlands and the greater Western Victorian region. This can only be achieved through strong regional and State government partnerships and programs.

We will embrace the changing technologies which will make the City of Ballarat a 'Smart City'. We will design and deliver infrastructure which is resilient and adaptable to changing technologies. Smart City infrastructure will ultimately change the way we travel in the longer term and will make a significant contribution to the overall benefit of our community.



## Demographics Summary



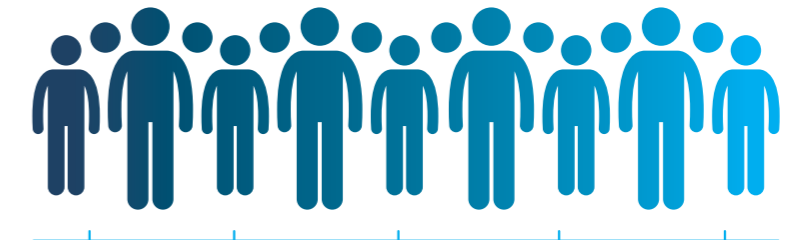
POPULATION  
**19.8%**

increase between  
**2009 - 2019**  
(91,390 to 109,505)

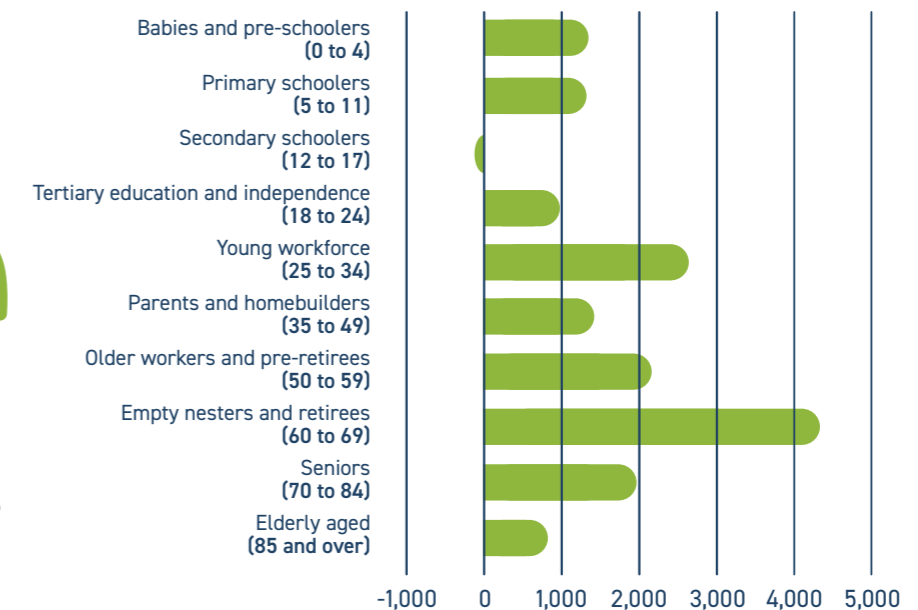


MEDIAN AGE

2006 2011 2016  
**36 37 38**



POPULATION FORECAST



### SERVICE AGE GROUPS



### JOBS

**Increasing:**  
Healthcare and Social Assistance, Education and Training, Accommodation and Food Services

**Decreasing:**  
Manufacturing, Retail and Wholesale Trade, Financial and Insurance Services



**12.3%**

Residents who work outside of the municipality



**18.6%**

Workers who live outside the municipality





## Seven Immediate Priorities

### 1 Review and overhaul of Ballarat’s bus network

Transform the current model of bus routing to adopt cross-city shuttle services, fixing the timetable, straightening routes, servicing growth areas and increasing frequency.

### 2 Advocate for city shaping infrastructure upgrades

Complete the Western Link Road, extend and strengthen airport runway, plan for new railway stations and other transit hubs in growth areas, road safety and capacity improvements to western growth area.

### 3 Advocate for seamless, reliable and convenient fast rail between Ballarat and Melbourne

Infrastructure projects on the Ballarat line and across the Metropolitan rail network must improve the seamless and direct travel experience between Ballarat and Melbourne, directly linking Victoria’s 3rd largest city with the international gateway and economic centre.

### 4 Focus current projects to deliver safe, accessible and enjoyable walking and cycling routes

Continue the rollout and construction of the Ballarat Bicycle Network, walking programs, urban forest programs, streetscape improvements – but do it in a way to integrate the spend for the highest amenity experience for people.

### 5 Pilot new transport options and opportunities

Diversify the ways to travel, share bike schemes, e-scooters, reduced speed limits in key pedestrian areas, autonomous opportunities, heritage tram extensions, community transport – trial and pilot new ways to move.

### 6 Support regional transport advocacy activities

Continue to support communities in Western Victoria in their advocacy efforts for improved connectivity and access.

### 7 Deliver essential Ballarat station upgrades

Full DDA Compliant access across the Ballarat station precinct, including between railway platforms; upgrade of the regional bus interchange; restoration of main heritage building; pedestrian linkages between Station, GovHub, Hummfray, Mair, Lydiard and other key surrounding streets and destinations.

## Transport in Ballarat

The following will guide transport decision-making towards 2050



### People First Approach

Where safety, high quality designed spaces, access for all, transport affordability, and a healthy community are a key focus.



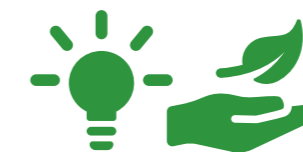
### Fully Integrated and Reliable Transport Network

Providing convenient, efficient and accessible transport choices and supporting a more prosperous Ballarat where people are efficiently connected to local jobs and services.



### Universal Accessibility

Building a city that is accessible and welcoming for all.



### Sustainable and Diversified Travel Options

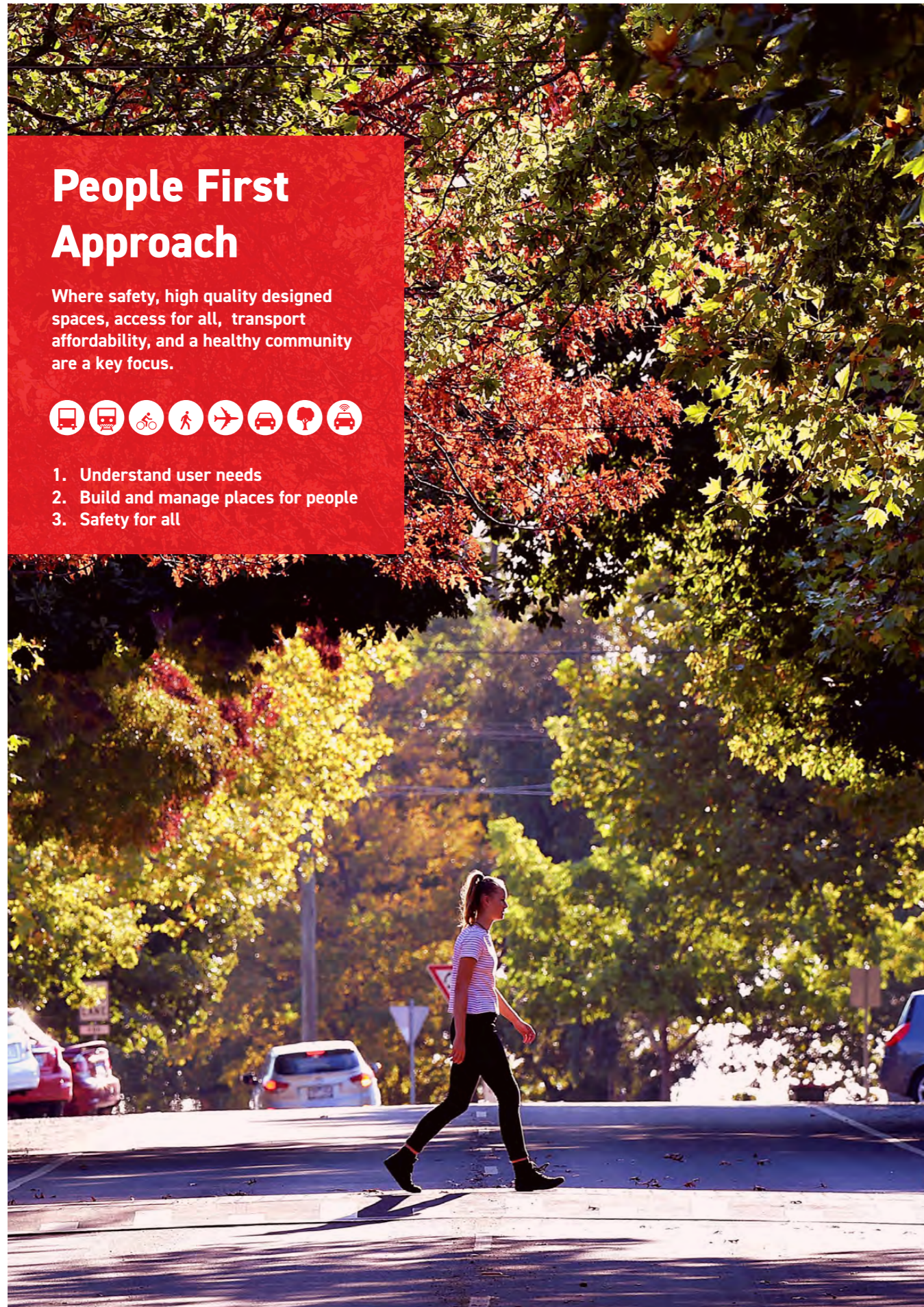
To achieving a city-leading shift towards more sustainable, resilient and adaptable modes of travel.



### Advocacy and Partnerships

Delivering enhanced movement across the western region and movement, including through enhancing the movement of people and goods.





# People First Approach

Where safety, high quality designed spaces, access for all, transport affordability, and a healthy community are a key focus.



1. Understand user needs
2. Build and manage places for people
3. Safety for all

## People First Approach



### 1 - Understand User Needs

#### Policy Position

Data is integral to managing and planning for transport in Ballarat, particularly detailed understanding of community needs and aspirations.

Data can be used to both record usage and to support promotion and behaviour change programs.

Ballarat will adopt a range of reliable, repeatable and insightful ways to capture and monitor performance of the transport network, to guide advocacy, investment and project prioritisation.

#### The Current Situation

Long-term network performance is modelled using the Victorian Integrated Transport Model (VITM) to forecast changes in response to changing land use patterns. Site specific SSIDRA modelling is undertaken for traffic impacts.

Data on public transport usage is provided by Public Transport Victoria using a combination of survey and MYKI data.

Walking and cycling usage is monitored using an expanding network of automated counters at Lake Wendouree, Victoria Park and in the Ballarat CBD.

#### Key Issues

- Better data is required on the needs of users of the transport network, including more detailed information on journeys and routes
- Realtime data is not always available
- Current network of automated sensors is focused on key recreational sites, but will continue to expand coverage over time

#### Actions

##### 1.1 - Establish and maintain data framework for understanding movement, journeys and experience

Capture and make publicly available in real-time data on usage of the transport network by all modes, including for walkers, those riding a bike, driving or potentially using public transport

##### 1.2 - Proactively seek to understand what is needed for access and mobility by different user groups

Take opportunities to engage with the full range of demographics and types of users to understand their specific needs with regard to transport, including perceptions of safety, accessibility, enjoyment and convenience. Use real data to underpin decision-making.







## 2 - Build and Manage Places for People

### Policy Position

Walkable streets are good for both business and community, both of which benefit from face-to-face interaction and the sharing of knowledge and ideas. Highly walkable cities which support people focused transport, safe and convenient cycling connections and convenient, safe and efficient public transport have healthier populations and more sustainable environments. Streets designed for people bring life to all aspects of the city.

The economic value of walking has been described as the 'walking economy'. Ballarat supports the view of advocacy group Victoria Walks which notes there is a direct link between the city's economic prosperity and the safety and convenience of the pedestrian experience.

Based on a design-led approach, Ballarat will invest and upgrade the amenity, accessibility and safety of public areas to encourage people to walk and use it as a form of stimulus for business. Improvements in tree cover, quality materials, legible environments and way-finding will be prioritised to support more people walking.

### The Current Situation

Walking is an important part of the transport mix, but car-parking is often valued by the community and businesses as a far higher generator of benefit than enjoyable, accessible environments.

### Key Issues

Feedback received indicated significant barriers to walking in Ballarat:

- Incomplete footpath network
- Lack of safe crossing points, particularly on busy roads
- Lack of accessibility
- Limited funding for new connections
- Timely infrastructure in growth areas
- Maintenance of existing infrastructure
- Poor connections to public transport
- Perceptions of safety
- Local weather and shelter



## 2 - Build and Manage Places for People

### Actions

#### 2.1 - Establish a principal pedestrian network

Planning and constructing a Principal Pedestrian Network (PPN) which would describe routes that pedestrians use more often will improve connections to key destinations. A PPN would also assist with potential new funding sources.

#### 2.2 - Target pedestrian improvements around schools, road crossings and missing footpaths

Crossing the road can pose a challenge, especially for people with limited mobility or those crossing at a roundabout where there are reduced gaps in the traffic. Improving walking routes and crossings close to schools and key community hubs provide highest order community and safety benefits.

#### 2.3 - Invest in quality street furniture, trees and the public realm to improve accessibility and comfort

The availability of accessible seating at regular intervals, shelters, tree-lined streets and street art all contribute to making walking more pleasant and attractive.

#### 2.4 - Improve disability access

In Australia, around 20 per cent of the population have some sort of disability. Some areas in Ballarat contain poorly designed legacy infrastructure which limits or prevents access for people with limited mobility. The City of Ballarat should work with other authorities to increase the number of areas with compliant and accessible infrastructure.

#### 2.5 - Improve recreational trails and green space

Recreational trails should link to make the most of Ballarat's parks, rivers and other green spaces.

#### 2.6 - Investigate new ways of funding infrastructure to fill the gaps in current networks

Retrofitting footpaths and walking connections can be expensive. Innovative mechanisms to fund new infrastructure will be required to fill gaps in the current network.

#### 2.7 - Address gaps in signage and wayfinding

Improved wayfinding signage can help pedestrians with important directional information, travel times and details about disability access, local information and events. This could incorporate new technologies, such as digital signage or online tools to assist with planning your route.

#### 2.8 - Commit to minimum standards for walkable neighbourhoods

Investigate appropriate tools and standards to critically assess compliance when investing in new infrastructure, prioritising resources or planning for new areas and developments. Identify most appropriate standards, considering frameworks such as Healthy Active by Design Guidelines and the Victorian Government's Movement and Place framework.



### 3 - Safety for All

#### Policy Position

In partnership with State and Federal Governments, Ballarat will strive for zero road and pedestrian fatalities and serious injuries in the Municipality by 2050 – pursuing advocacy on relevant transport issues and seeking funding support to address infrastructure gaps and deficiencies.

#### Improving safety through a ‘design led’ approach

A ‘design led’ approach to our public realm will improve amenity and safety for all users in a seamless manner, so safety is not necessarily an obvious intrusion.

- ✓ The streets of Ballarat will be safe places for people of all ages
- ✓ Vehicle speeds will be moderated by quality urban design where needed
- ✓ Infrastructure will be designed with all users in mind, focussed on contributing to sense of place, as well as managing capacity and movement.
- ✓ Infrastructure will continue to be delivered to a high standard, including provision of redundancy to mitigate driver mistakes.
- ✓ Pedestrians will be protected, the risk of harm posed by motor vehicles reduced by slowing vehicles down and creating more car-free spaces.
- ✓ Lighting and the design of transport links will move beyond Crime Prevention through Environmental Design (CPTED) standards to truly support usage by all users, at the full range of times.

#### Providing for emotional and psychological safety

As well as physical safety, areas such as Ballarat CBD need areas to rest, relax and feel emotionally safe and connected. Opportunities to convert roadscape or parking to create new public spaces will be pursued, seeking to offer new spaces of respite.

#### The Current Situation

Crash statistics show Ballarat has a number of vehicle blackspots across the city, some ranking highly in terms of crash risk in Western Victoria. Significant investment in Sturt Street is seeking to address the areas of highest crash risk, but other sites along Remembrance Drive and scattered across the Municipality are also of concern. Vehicle speeds are noted by residents to be excessively high in some local neighbourhoods.

#### Key Issues

Community members who participated in ‘Right to the Night’ project identified over 150 places predominantly located within the CBD where they have walked that were of particular significance to them. Over 75% of these were marked as ‘unsafe spots’ by participants, denoting negative perceptions and experiences.

The large number of roundabouts in Ballarat, very wide streets, deep gutters in many areas and relatively high vehicle speeds on many roads pose safety issues and barriers for everyone who visits, passes through or moves along Ballarat streets.

### 3 - Safety for All

#### Actions

##### 3.1 - Implement reduced speed limits within activity centres and other pedestrian hotspots

Targetted speed limit reductions across Ballarat’s busy shopping areas and other pedestrian hotspot brings significant benefit to the community, with minimal impact on travel time.

Vehicle speeds of 40kmh or 30kmh result in significantly reduced injury and death to pedestrians than if vehicles are at higher speeds, whilst providing greater amenity.

Seek to partner with the Victorian Government for a trial of reduced speed limits in select pedestrian hot spots (this will require State Government approval).

##### 3.2 - Design traffic infrastructure with the full range of users in mind – examples include:

- reducing crossing distances and seeking to provide pedestrian crossings on all legs of an intersection
- narrowing traffic lanes and introducing traffic calming
- removing kerbs to create level ‘shared’ streets
- converting roundabouts to more pedestrian friendly designs

##### 3.3 - Maintain strong advocacy for blackspot funding and pursue State and Federal Government partnerships

There are new and emerging opportunities to trial and implement innovative safety approaches in Ballarat, including in terms of vehicle standards and technology, road and infrastructure improvements, driver training and education.

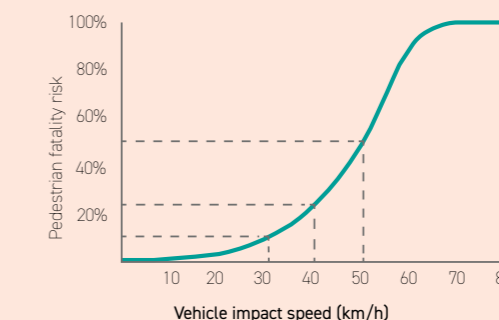


#### Case Study: Slower speeds for safer streets

Speed limits around the world are being reduced in busy areas. This is in response to a significant and growing body of evidence of the safety and amenity benefits that slower speeds deliver.

According to the World Health Organisation a pedestrian in a collision with a motor vehicle has a 90 per cent chance of survival when struck at 30 km/h, compared with a less than 50 per cent chance of surviving an impact at 45 km/h<sup>3</sup>. At 80 km/h there is almost no chance of survival.

##### The risk of death for people walking substantially increases above 30 km/h

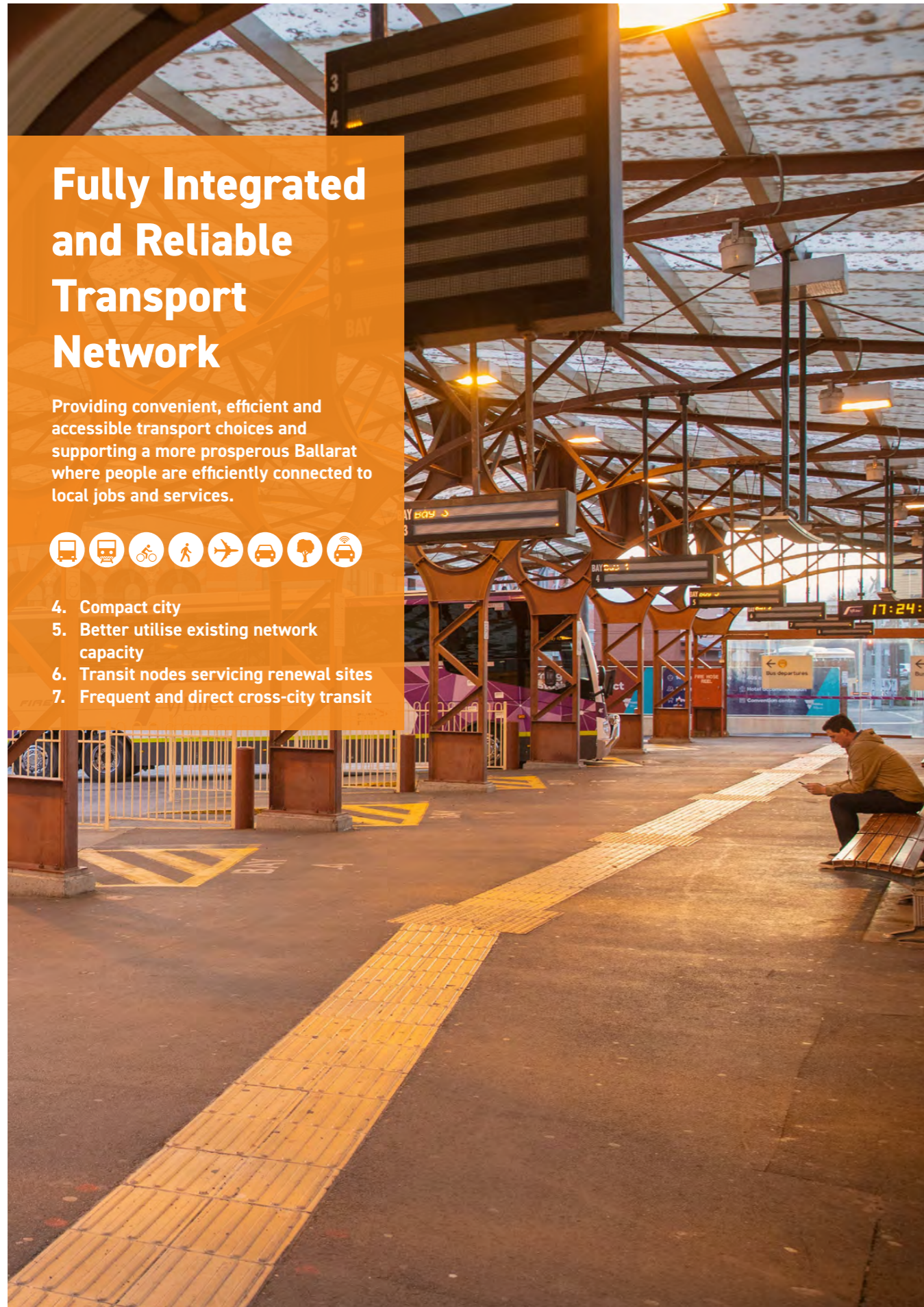


Around the world, reduced speed limits in central city areas has been found to have a minimal impact on private vehicle travel times. Travel time in built-up areas is heavily influenced by congestion, parking movements and time spent stopped while waiting for other road users and at traffic lights. Streets with slower-moving traffic have a greater capacity and are more space-efficient due to the reduced distance between vehicles. A lower speed limit in congested areas may even reduce travel time since it facilitates a more constant traffic flow.

Reduced speed limits also have significant amenity benefits. Slower streets are less noisy and easier for people walking to get across. Street design outcomes are also improved, as slower streets require less space for turning movements, fewer signs, fewer barriers and improved sightlines present additional opportunities for planting street trees.

Source: City of Melbourne, Transport Strategy 2030 (2019)





# Fully Integrated and Reliable Transport Network

Providing convenient, efficient and accessible transport choices and supporting a more prosperous Ballarat where people are efficiently connected to local jobs and services.



- 4. Compact city
- 5. Better utilise existing network capacity
- 6. Transit nodes servicing renewal sites
- 7. Frequent and direct cross-city transit

## Fully Integrated and Reliable Transport Network



### 4 - Compact City

#### Policy Position

This Integrated Transport Action Plan is underpinned by the 10-Minute City principal of the Ballarat Strategy: Our Vision for 2040. This plan seeks to provide updated guidance on land use and infrastructure planning and provision to achieve an integrated, compact 10-Minute City. This reflects community aspirations – a desire to maintain the existing level of access to destinations and services as the city grows.

A new housing framework plan will be adopted for Ballarat, focused on creating an efficient, compact and convenient city in which to live and visit, which promotes higher rates of growth in the CBD, defined urban renewal areas, new greenfield areas and other strategic sites, whilst increasing protections for local neighbourhood character.

#### Ballarat will become an even healthier, inclusive and liveable compact city.

A coordinated approach by all stakeholders, communities, agencies, developers and businesses will be required to achieve a 10 minute city:

- ✓ Provide well serviced local neighbourhoods that are desirable, convenient and provide for day to day needs
- ✓ Improve local travel\* options to support 10-minute neighbourhoods
- ✓ Create safe and well connected neighbourhoods for pedestrians and cyclists
- ✓ Provide a diverse range of housing choices
- ✓ Improve public realm and open space amenity and connections
- ✓ Provide a well connected and efficient public transport network that connects people to activity centres, jobs and higher-order services
- ✓ Deliver housing/population at densities that make local services and transport viable
- ✓ Facilitate thriving local economies.

*\* Local travel relates to daily service, recreational and social activities—such as sport and shopping—as well as personal business and education. It is different to journey-to-work travel, which tends to occur at peak travel times of day.*







## 4 - Compact City

### The Current Situation

Compact city planning does not mean just increasing urban density. Compact urban form must be carefully planned to ensure the lifestyle and environmental benefits are also achieved.

From a transport planning perspective, high density corridors with large numbers of people moving from one point to another are the easiest to plan for and service. Trams, trains and high frequency buses can be most easily justified under this type of land use model. However, this can impact on local character and amenity. The existing policy position of Convenience Living Corridors will be replaced with a more nuanced and character driven approach.

#### Where people live and work makes transport provision difficult

Influencing where people live has a major impact on the viability of transport provision. Where there are very few people wanting to travel between destinations, and the destination is not nearby, there are few alternatives to driving. To realise the vision for truly seamless, coordinated, affordable and enjoyable transport options there must be land use change which encourages people to live and work locally, near activity centres/nodes and along transit routes. There is significant capacity for this to occur in Ballarat across all suburbs and areas, however this is not evenly distributed across the city - some areas have minimal opportunity for growth whilst others can cater for substantial growth.



The following maps illustrate the concepts of defined neighbourhood character, and consideration of their potential to grow and accommodate additional people - a key requirement for considering where improved services and ultimately high frequency transport corridors could be located.

### Key Issues

Planning for a compact city faces a number of challenges in Ballarat:

- Ensuring that neighbourhood centres are fully serviced and accessible
- Increasing density whilst appropriately managing character and protecting environmental values
- Managing greenfields growth and sprawl
- Activating urban renewal areas that provide huge opportunities for new housing and employment.
- Ballarat is currently a car-centric city with most people using a private car for most trips.
- Low population densities make rapid transit challenging to justify - current population densities in residential areas is between 3 and 13 people per hectare. Densities around activity centres need to be closer to 35 people and jobs per hectare, or about 10,000 residents and jobs within a 10-minute walking catchment to achieve maximum benefit.

## 4 - Compact City

### Shaping the City

The spatial location of Ballarat's housing and jobs underpins principles and actions for the provision of transport investment in Ballarat. The Integrated Transport Action Plan provides a basis for the integration of transport and land use through building on the City's strengths, while continuing economic and population growth in Ballarat. Importantly, the action plan will inform and prioritise transport projects requiring targeted advocacy.

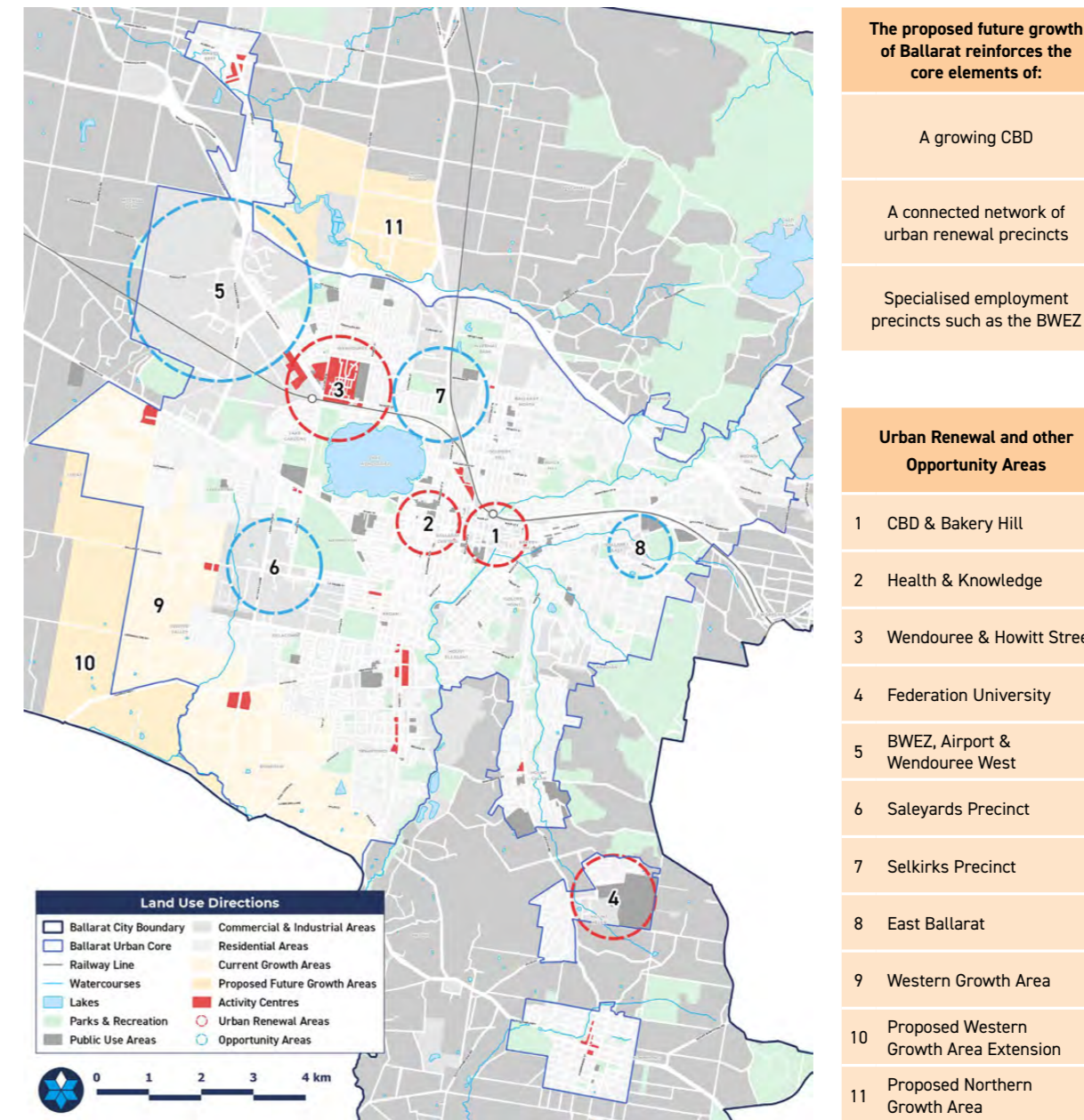


Figure 1 | Land Use Directions Map



## 4 - Compact City

### Actions

#### 4.1 - Prepare a housing strategy

A housing strategy and neighbourhood character study will be prepared to ensure that residential development protects character and reinforces a compact city. Updates to the Ballarat Planning Scheme will include the housing guidance, transport gateways and networks and key land use including regionally significant precincts, activity centres, housing change areas, employment precincts and open space networks.

#### 4.2 - Adopt new '10-minute city' guidelines for greenfield growth areas

Prepare and implement new Growth Areas 10-minute city guidelines addressing; design standards for planning and provision of infrastructure for walking and cycling; provision for public transport; walkable neighbourhoods with high quality public realm and well-serviced activity centres providing for local services and jobs

#### 4.3 - Revise and update existing industrial and commercial land use plans

A new industrial and commercial land use plan needs to be prepared to identify future land use needs, with consideration of areas identified for land use change, and incorporating findings of the urban renewal and other local area planning projects. The current plan was prepared pre-BWEZ and the industrial land needs of the city are changing with new technologies and infrastructure needs and with consideration of Council's adopted Circular Ballarat Framework. Implications for integrated transport and freight movement will be a key consideration of this plan.

#### 4.4 - Prioritise development in urban renewal sites, acting as catalyst projects for jobs and investment

Develop guidelines for urban renewal site planning to ensure integrated transport planning objectives are achieved, and where appropriate achieve Transit Oriented Design (TOD) outcomes. Complete the Latrobe Street Saleyards Precinct Urban Renewal Plan. Design and develop this area as a TOD Regionally Significant precinct offering new employment, housing and transport opportunities.

#### 4.5 - Review and update the Open Space Strategy to match the demands of a larger city

Ballarat is well provided with open space for its current size, however as the city grows and more people live in smaller houses with less private open space, there is an increasing need to provide quality open space areas. Future review of the Open Space Strategy to include consideration of missing links and opportunities to provide for active transport.

#### 4.6 - Undertake missing links strategic and government land review

Undertake a strategic review of missing links for transport connections, and implement actions to reserve and plan acquisition.

#### 4.7 - Update Strategic Planning around Activity Centres

Ensure that integrated transport planning principles of this plan are embedded in the development of framework plans for Activity Centres.

## 5 - Better Utilise Existing Network Capacity

### Policy Position

Maintain major emphasis on finding better ways to utilise existing infrastructure and transport assets. Be proactive and open to trialing and implementing new technology, techniques, business models and projects which better utilise the investments already made.

### The Current Situation

There are many ways to provide more transport capacity, convenience and options by leveraging of what is already in place - often at far reduced additional cost.

Ballarat is well served by an extensive road network, footpath network and safe and connected recreational and off-road trails. However, many parts of that network are single dimensional in their use and underperforming compared to their potential. The biggest opportunity for Ballarat lies in public transport given buses are often half empty and far more people could be moved for the same cost.

### Key Issues

There are many ways - small and large - that other cities have better leveraged existing network capacity, including :

- Using detailed analysis of patronage data to better match services to what the community wants
- Creating cultural change in attitudes to public transport use
- Bus priority
- Current model of all bus services focusing on Ballarat Station artificially reduces the efficiency of the bus system with limited benefit - most bus users seek a destination other than the station
- Introducing a bus tracker system to better inform commuters of the next available service

- Providing improved Wi-Fi and other digital initiatives to make the journey more productive.
- Technology also provides solutions to getting more use of existing infrastructure, such as:
- Reviewing traffic signal phasing on key routes to increase capacity for the busiest direction
- Dynamic signalling on the railway network to reduce the need for new physical infrastructure to increase capacity
- Encouraging new opportunities for ride-sharing
- Capturing and sharing more transport data - data is often a key input for new technologies.
- City of Ballarat will continue to seek partnerships with the State Government and private sector to embrace technology, as a way to better inform transport users and improve overall management of the transport network.

### Actions

#### 5.1 - Proactively seek and implement opportunities to better utilise network capacity

Look for opportunities in partnership with State Government Agencies and the private sector to find ways to better leverage the network capacity of the city.

#### 5.2 - Investigate precinct specific transport and traffic management plans for key education clusters

The transport task associated with school and other educational drop-off and pick up is the reason for most periods of congestion across the Ballarat road network. Multiple schools and organisations working together to provide better coordinated transport will help alleviate congestion, and improve safety. Particular opportunities for a coordinated management plan within the Sturt Street Education Cluster.





## 6 - Transit Nodes Servicing Renewal Sites

### Policy Position

Focus growth, development and change around a network of key transit nodes servicing the City. In addition to existing railway stations at Ballarat and Wendouree, pursue Transit Oriented Development in Urban Renewal Areas and major suburban centres so they transition from servicing local and regional driving catchments to become more accessible for visitors and residents via a range of modes.

### The Current Situation

The lack of a focussed network of transit nodes limits the frequency of services and diversity of transport options provided at each site. A strong and cohesive network is vital to supporting long-term land use change which in turn provides for the levels of transport services desired by the community.

### Key Issues

The transport hubs across Ballarat face a number of challenges including:

- Transport hubs are currently only related to the rail network – which provides for regional access not local and cross-city transport (the most common type)
- Growth areas are not well serviced – except by car
- Unsustainable demand for car parking at stations for regional services
- Pattern of housing and jobs growth emphasises growth in areas totally reliant on additional bus services.

### Actions

**6.1 – Establish a network of key transit interchanges across Ballarat**

Investigate the following as key transit interchanges and hubs for walking, cycling, driving and bus users, which can transition to a hub or rail hub over the longer term:

#### Existing:

- Ballarat Railway Station – the main ‘destination station’ for Ballarat CBD
- Wendouree Railway Station

#### Future:

- Victoria Park / Latrobe Street Saleyards (as the major transport gateway servicing Ballarat West)
- Eureka Stadium Precinct (major events and game day access and improved everyday access to Ballarat Sports and Events Centre)
- Delacombe Town Centre
- Northern Growth Area (details to be determined)
- Warrenheip (long-term - interchange for access to Federation University, Buninyong and eastern destinations)
- BWEZ (Freight only)

Land use policies already support this outcome, and opportunities for commercial partnerships will be pursued to affect real change.



## 6 - Transit Nodes Servicing Renewal Sites

The proposed network of transit hubs are shown in the figure below. 6 potential future transit hubs will form a network of nodes with city-wide significance. They will be supported by a range of other hubs scattered across the city in convenient locations.

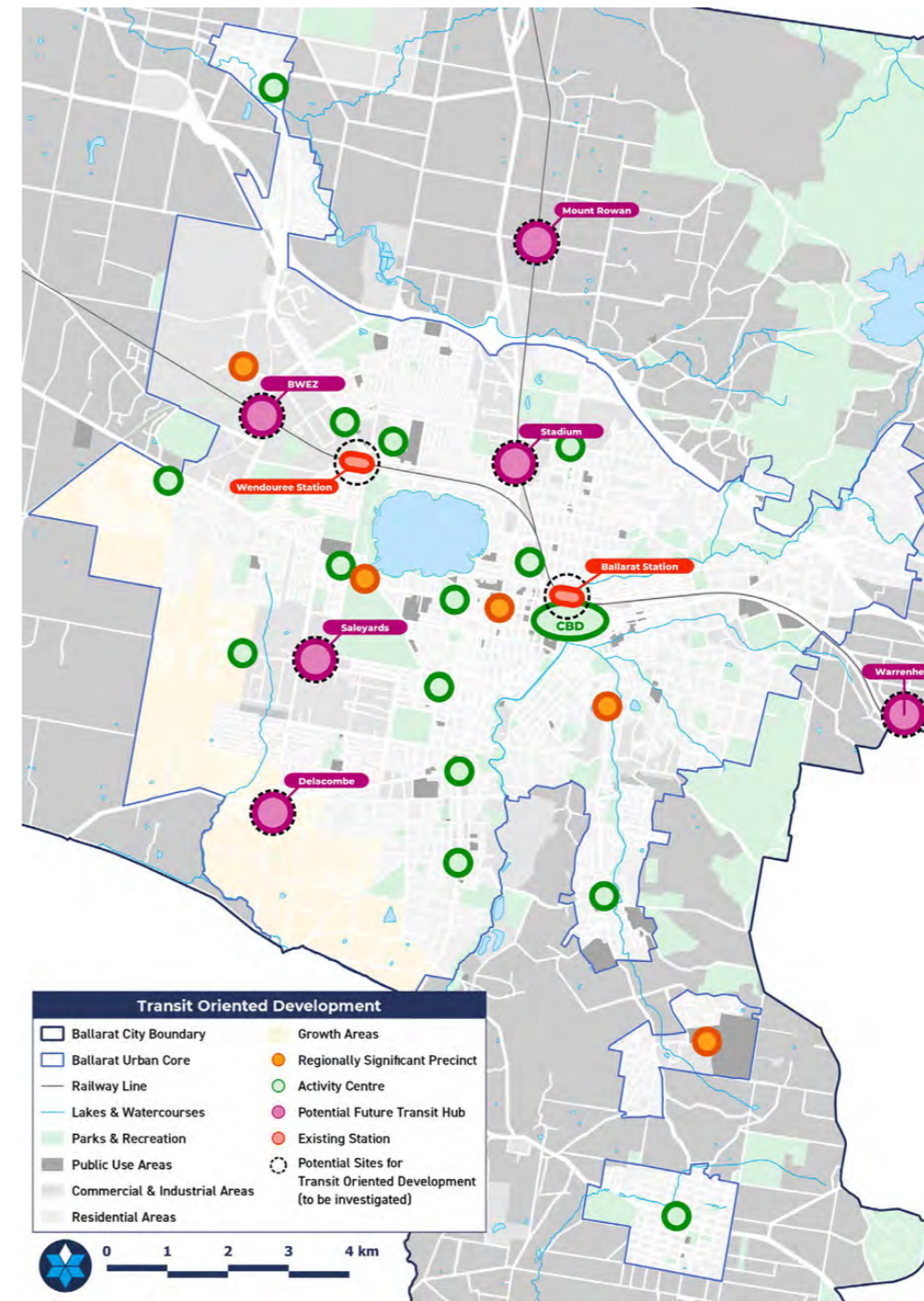


Figure 2 | Transit Oriented Development





## 7 - Frequent and Direct Cross-City Transit

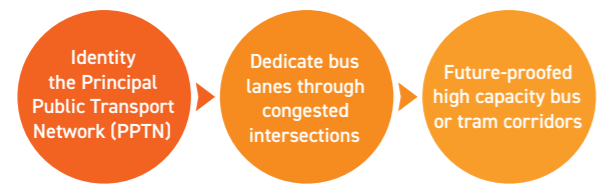
### Policy Position

Ballarat will pursue a long-term transition of its current bus network to a network of high frequency transit corridors between key nodes and destinations.

The City will advocate for improvements to these corridors over time, including increasing service frequency, span of operations, priority, directness and legibility.

These corridors will be refined in partnership with the Department of Transport and Public Transport Victoria to become the Principal Public Transport Network (PPTN) for Ballarat – with an expectation that they are funded and improved accordingly.

Land use policies will support appropriate growth in areas which can benefit from access to the network. Over time, these corridors would evolve to initially include priority for bus services, whilst being future-proofed to become high capacity bus or tram corridors over the longer term.



### The Current Situation

The Ballarat bus network currently caters for around 120,000 trips per month (public and school services), a low proportion of overall trips. Just 451 people or approximately 1% of Ballarat’s working population caught the bus to work in 2016. Although this is comparable to other regional centres, there is significant scope to increase usage.

The bus network functions as an important safety net for people who don’t have access to other forms of transport. The aim of bus network improvements is to ensure catching the bus is a much more attractive option for all commuters.

*Note: All public transport services in Victoria, included the bus network in Ballarat, is funded and managed by the State Government. City of Ballarat has an advocacy role to partner with Public Transport Victoria and the Department of Transport to improve services in Ballarat.*

### Key Issues

The Ballarat bus network faces a number of challenges including:

- Poor frequency
- Indirect routes
- Low patronage and mode share
- Poor route legibility
- Poor connections with other modes of transport
- Lack of integration with surrounding land use



## 7 - Frequent and Direct Cross-City Transit

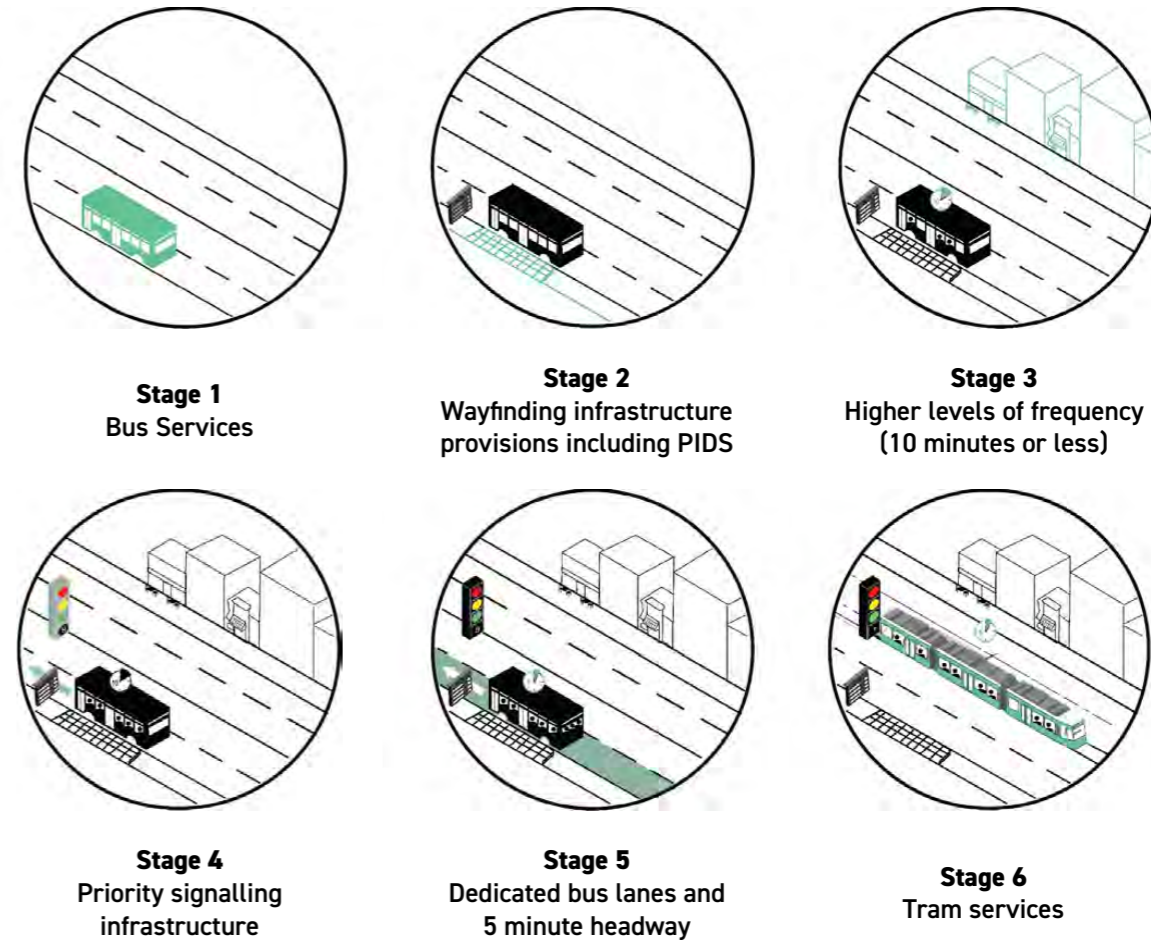


Figure 3 | Stages of transport and land use development along transit corridors





## 7 - Frequent and Direct Cross-City Transit

The indicative route corridors are the potential high frequency corridors of the future, likely to form the basis to Ballarat's Principal Public Transport Network. Headway frequencies are aspirational with regard to the urban transit of the future. Refer to the associated Technical Reference document – Urban Transit section for more detailed information.

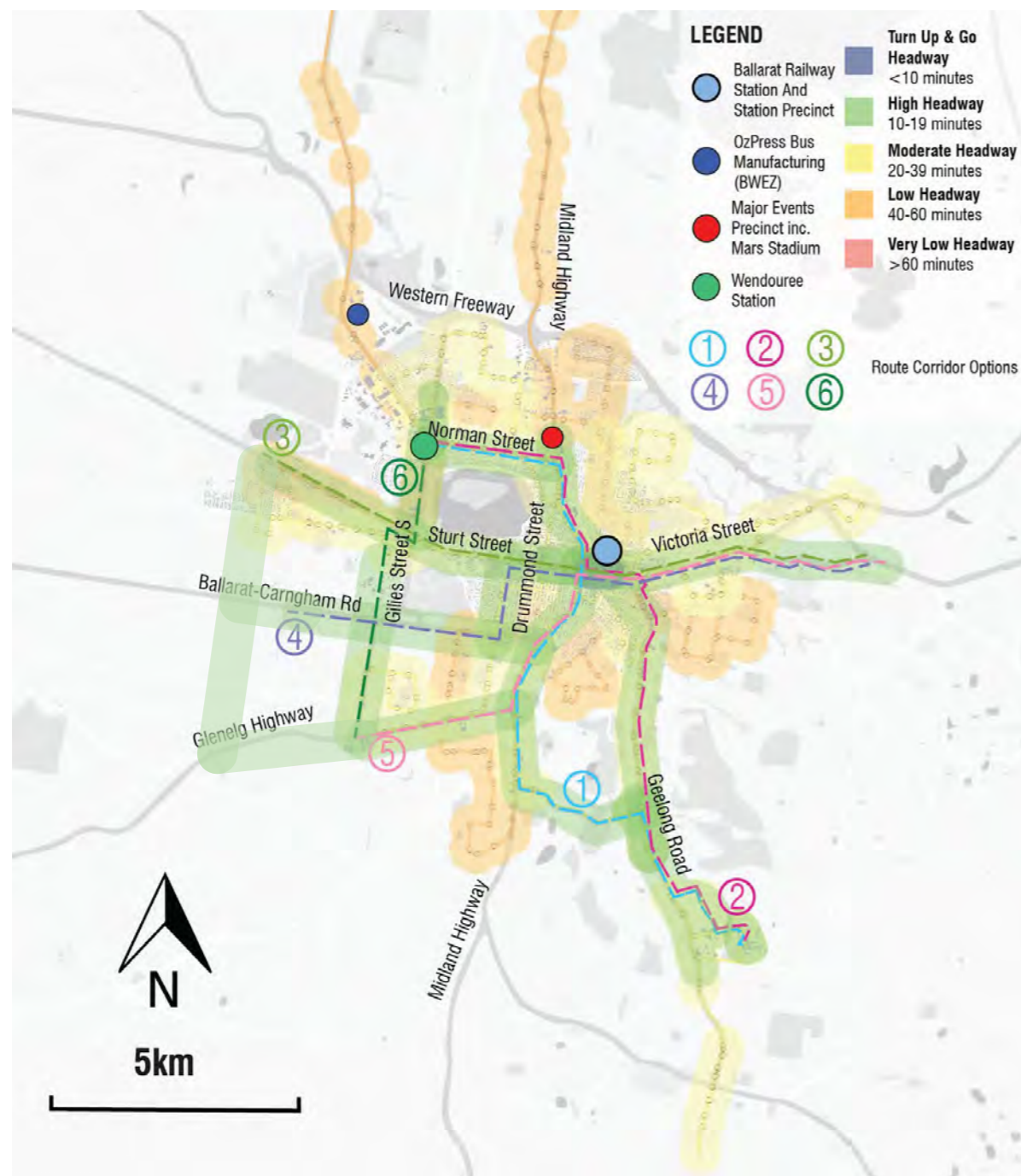


Figure 4 | Indicative Route Corridor Options Map

## 7 - Frequent and Direct Cross-City Transit

### Actions

#### 7.1 - Advocate to Public Transport Victoria to review and overhaul the Ballarat bus network

The current bus network, even with the same number of services and spread of operating hours could be vastly more convenient and well patronised if it were to be reviewed and modified to best practice bus service planning. Work with Department of Transport to progress a review and overhaul of the Ballarat Bus Network.

#### 7.2 - Transition to faster and more direct bus routes

Revise the service offering to consider more direct cross-town bus routes, 'turn up and go' network frequency, bus priority, expanded operating hours and live commuter information. This improves the legibility, speed and competitiveness of buses for use.

#### 7.3 - Define and adopt a Principal Public Transport Network (PPTN) to guide long-term planning

There is a need to identify and protect dedicated transit corridors to future-proof the City. These corridors provide long-term certainty the service won't be removed or re-routed. This allows for land use change of increased density within proximity to bus services (as occurs near tram and railways stations). These priority transit corridors are known as a Principal Public Transport Network (PPTN).

Potential key destinations for the PPTN could include the CBD, Sovereign Hill, Federation University, Western Growth Corridor and other destinations. Further detailed planning and investigation is required in partnership with the Victorian Government. Definition of routes should specifically investigate rapid transit and high quality

connections linking Ballarat West with Wendouree Station and the wider network, consideration of the long-term potential for the Ballarat – Skipton rail trail to be utilised for rapid transit, as well as other identified opportunities.

#### 7.4 - Future proof commuter transit corridors

The Principal Public Transport Network will bring important short and medium-term service and connectivity improvements. In the long term, these transit corridors have the potential to transition from one mode to another as patronage increases. Ultimately, in a much larger city, this could include technologies such as trackless trams which are optically guided and generally require dedicated transit corridors. The design of changes to the corridors over the short-medium term should consider the need to allow for flexibility and change.

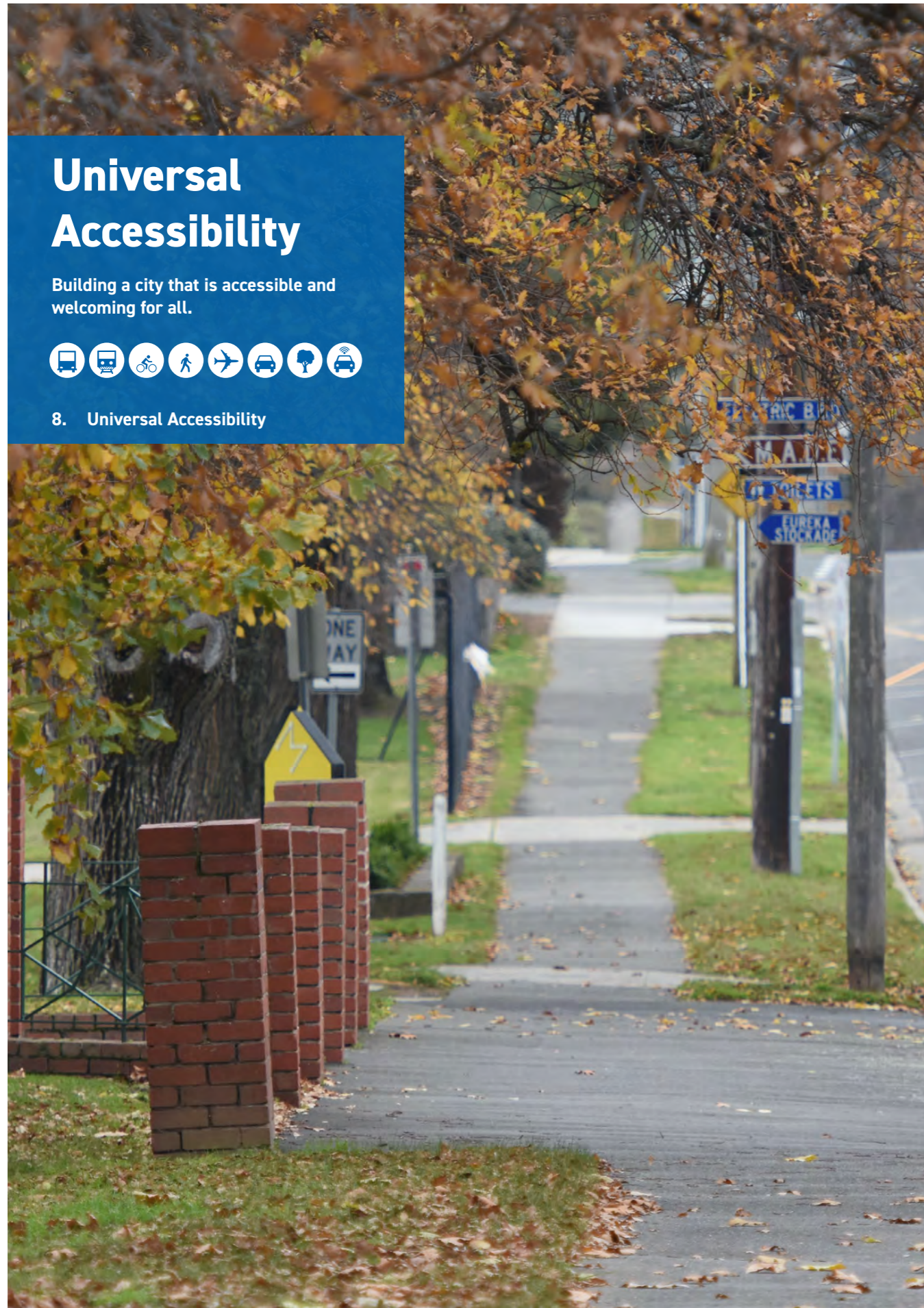
#### 7.5 - Maintain a policy position to retain transit corridors for future use

Identify and plan for the acquisition of land and preservation of corridors to ensure long-term network connectivity, in partnership with the Victorian Government. This includes disused rail corridors and rail trails.

#### 7.6 - Explore feasibility of extending heritage tram network

Most likely opportunity from Lake Wendouree to Sovereign Hill, via the CBD. Costs of track and associated infrastructure have previously made the option unfeasible. Opportunity to revisit the proposal considering options which do not require tracks or associated infrastructure, including trackless tram and rubber tyre conversions to heritage rolling stock – as a tourist experience.





# Universal Accessibility

Building a city that is accessible and welcoming for all.



## 8. Universal Accessibility

### Universal Accessibility



## 8 - Universal Accessibility

### Policy Position

A future of universal accessibility in Ballarat considers both the types of communities in which we live and the services they offer, and fine grained personal accessibility in the built environment.

The land use policies of Ballarat will prioritise the creation of a network of 'Complete Neighbourhoods', and within those areas the pursuit of a 'design led approach' to deliver a built environment which functionally enables access for all.

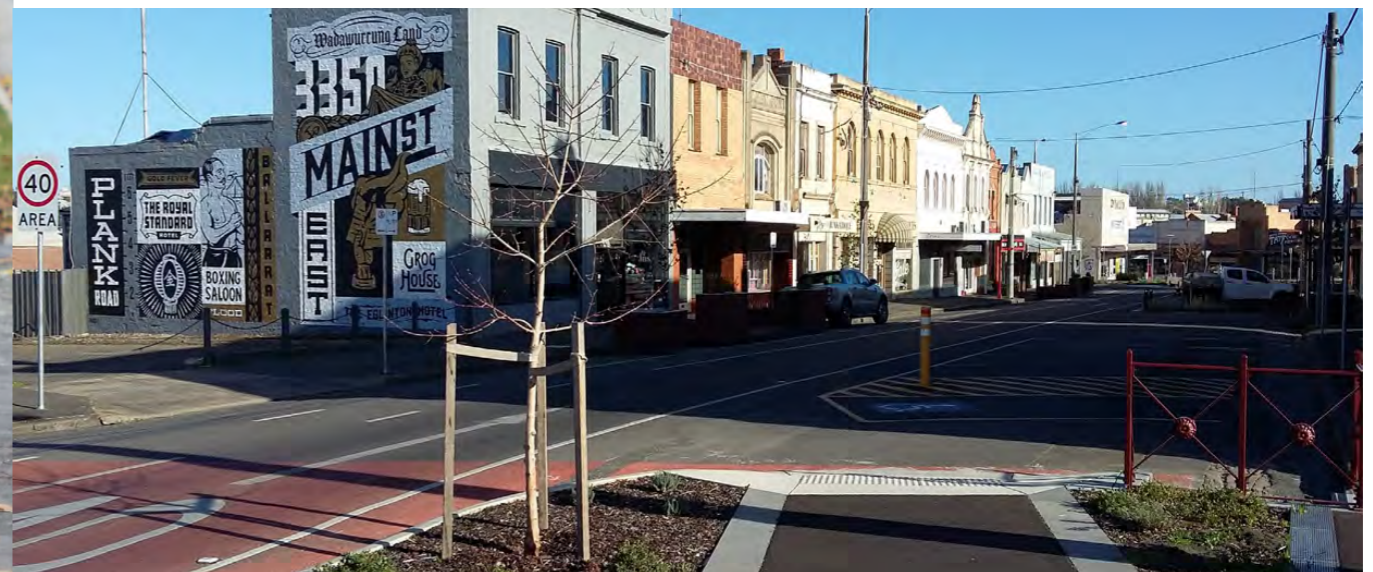
#### Complete Neighbourhoods:

The term 'complete neighbourhood' refers to a neighbourhood where one has safe and convenient access to the goods and services needed in daily life. This includes a variety of housing options, supermarkets and other commercial services, quality schools, public open spaces and recreational facilities, affordable active transport options and daily services. An important element of a complete neighbourhood is that it is built at a walkable and bikeable human scale, and meets the needs of people of all ages and abilities.

The concept is based around recognising human needs and behaviours. Land use planning should enable residents, whether urban or rural, to access as much of their daily needs as possible in their local communities.

In Ballarat, complete neighbourhoods will have:

- A discernible centre
- Most houses within a 10 minute walk of the centre
- A variety of housing types
- A variety of shops and offices should provide daily needs, including incidental food shopping
- A primary school close enough so most children can walk to school
- Small playgrounds or open space accessible within 10 minute walk (or less) of all homes
- The streets within the neighbourhood as a logical, safe, legible and connected network
- People focussed places, with high amenity and trees and gardens
- Space for neighbourhood meeting places, community centres or places for public events
- Access to a range of convenient transport options.







## 8 - Universal Accessibility

### Policy Position

#### Design Led approach to universal accessibility - 'seamlessly integrating inclusivity'

Universal Design is a design philosophy that ensures products, buildings, environments and experiences are innately accessible to as many people as possible, regardless of their age, level of ability, cultural background, or any other differentiating factors that contribute to the diversity of our communities. Universal Design can be applied to all fields of design, including but not limited to product design, interactive design, architecture and urban planning.

Refer to the [Victorian Health and Human Services Building Authority \(VHHSBA\)](#) for more information

### The Current Situation

Ballarat has some highly accessible areas, including the Inclusive Playspace at Victoria Park and deploys the Marveloo accessible change space to priority areas in response to demand. However, these are quality areas in a City which more broadly has many barriers to seamless movement and accessibility and often does not seamlessly integrate inclusivity in its built form.

There are many barriers to movement across the city, and a long-term prioritisation of design thinking and delivery will be required to lift the general standard to the desired level. Heritage streetscapes, including deep bluestone gutters in the CBD are just one of the many critical issues.

### Key Issues

Feedback received indicated Ballarat needs to significantly improve accessibility:

- Single functional designs in some spaces, providing overt or subversive exclusion of certain demographics
- Lack of legibility and ease of use in navigation
- Lack of intuitive use and access to some spaces
- Lack of flexibility in the use of certain spaces
- Variance in facilities and infrastructure across different areas of the city
- Lack of DDA compliance across the transport network, including at many bus stops and Ballarat Station



Source: Victorian Health and Human Services Building Authority

## 8 - Universal Accessibility

### Actions

#### 8.1 - Advocate for essential Ballarat Station Upgrades

Ballarat Station is the key transport interchange in the city but does not provide DDA compliant access across its platforms. The precinct more broadly needs to be upgraded, including:

- upgrade of the regional bus interchange
- restoration and activation of main heritage building
- pedestrian linkages to the GovHub
- improved connectivity to Mair, Hummfray and Lydiard Streets
- activation of underutilised spaces

#### 8.2 - Revise land use policies to deliver 'Complete Neighbourhoods' and work with developers towards its delivery

The 10-minute neighbourhood concept supports more locally accessible services and infrastructure to reduce the need to travel. There is an opportunity to develop a consistent network of well-designed pedestrian infrastructure to encourage people to walk, particularly to local destinations.

#### 8.3 - Investigate, design and deliver universal accessibility and truly 10-minute walkable neighbourhoods

Adopt and implement the 7 principles of universal accessibility as part of a Design Led approach to thinking, planning and delivery new infrastructure, programs and spaces:

1. Equitable Use
2. Flexibility in Use
3. Simple and Intuitive Use
4. Perceptible Information
5. Tolerance for Error
6. Low Physical Effort
7. Size and Space for Approach and Use

#### 8.4 - Consider enforceable requirements for inclusion in the planning and design of new suburbs

Retrofitting the built environment to achieve universal accessibility is challenging and expensive. It is important for any new development areas to adopt universal access principles in their initial design.

#### 8.5 - Provide specific design guidance on overcoming barriers unique to Ballarat

Local features such as historic bluestone gutters are important parts of the built fabric but cause major access challenges for many people. Detailed policy and design guidance is required to consider and manage competing priorities to achieve better outcomes.

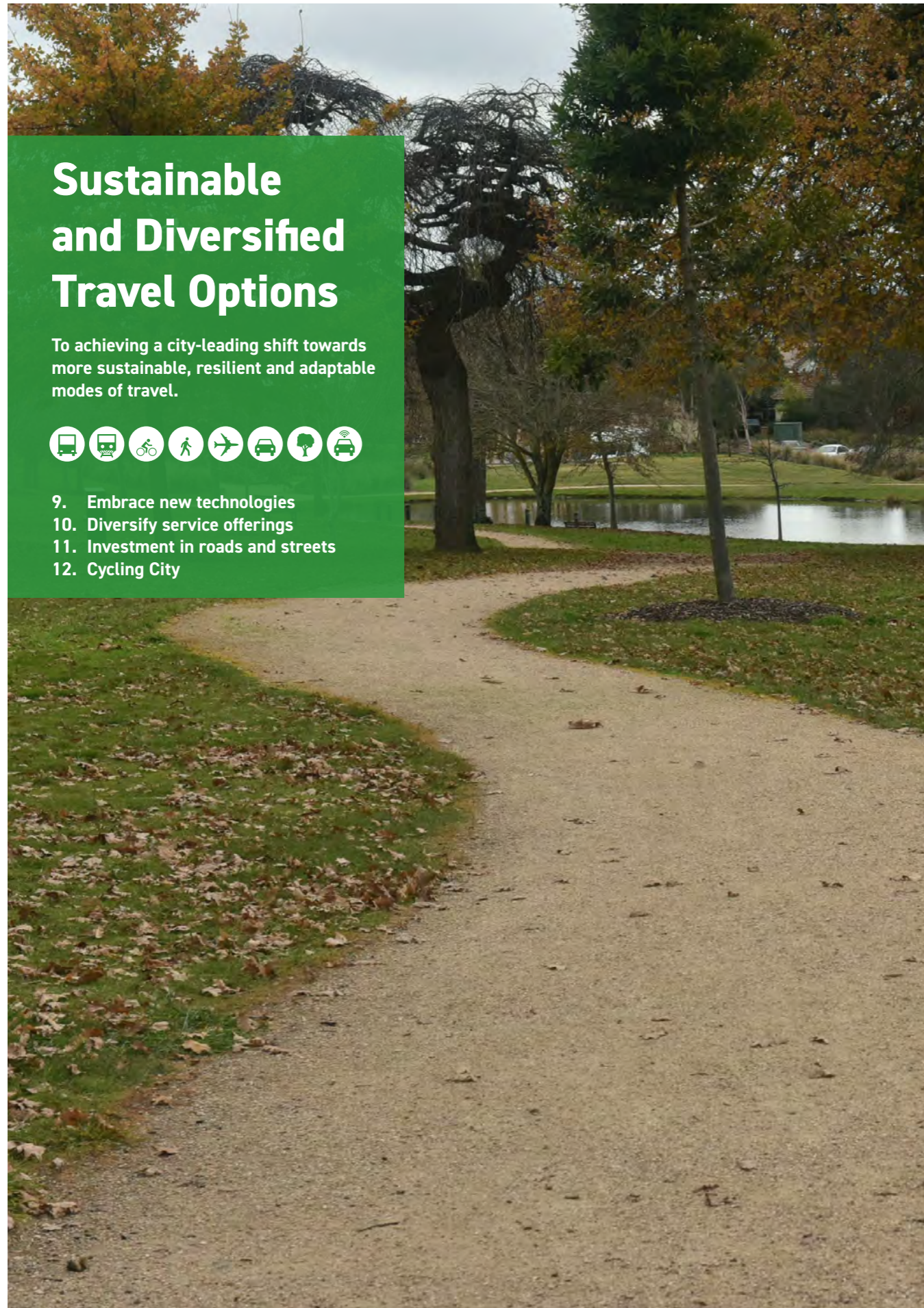
#### 8.6 - Prioritise improvements to accessibility in highest impact places

Physical changes to improve the access and legibility of spaces should be done in an integrated way, considering opportunities to improve amenity, comfort, safety and enjoyment at the same time. Given the significant amount of work required over the coming decades, it is best to start with areas which will have the highest benefit - including the CBD and Health Knowledge Precinct surrounding the Ballarat Base Hospital.

Prioritisation to be guided by masterplanning, funding opportunities, community and business led advocacy and the ability to leverage multiple projects together for greater benefit.







# Sustainable and Diversified Travel Options

To achieving a city-leading shift towards more sustainable, resilient and adaptable modes of travel.

9. Embrace new technologies
10. Diversify service offerings
11. Investment in roads and streets
12. Cycling City

## Sustainable and Diversified Travel Options

### 9 - Embrace New Technology

#### Policy Position

Ballarat will be open and progressive in trialling and adopting new technology to build, manage and use its transport network.

Partnerships with commercial businesses, consideration of whole-of-life project costs, policies to reach zero carbon emissions and use of 100% renewable energy are just some opportunities which can be achieved through adopting a philosophy of thinking outside the conventional norm, taking an appropriate level of risk to achieve reward.

Establishment of Ballarat as a 'hydrogen city' producing, distributing and utilising hydrogen as a renewable fuel remains a key strategic opportunity, with significant commercial potential for public transport vehicles to be designed and built in Ballarat for either local use or export. Where feasible and affordable, Ballarat will be an early adopter of hydrogen and other renewable fuel cell vehicles. There are significant opportunities for jobs and investment if these vehicles and fuel cells are manufactured locally.

#### The Current Situation

City of Ballarat already trials and utilises a range of relevant technologies.

Establishment of a shared services model for providing Council services to the region is being progressed, and the shared use of technology is a major focus to drive efficiencies and reduce costs. Rise in usage of autonomous vehicles and artificial intelligence will require changes to the design standards adopted for roads to cater for digital monitoring and guidance systems.

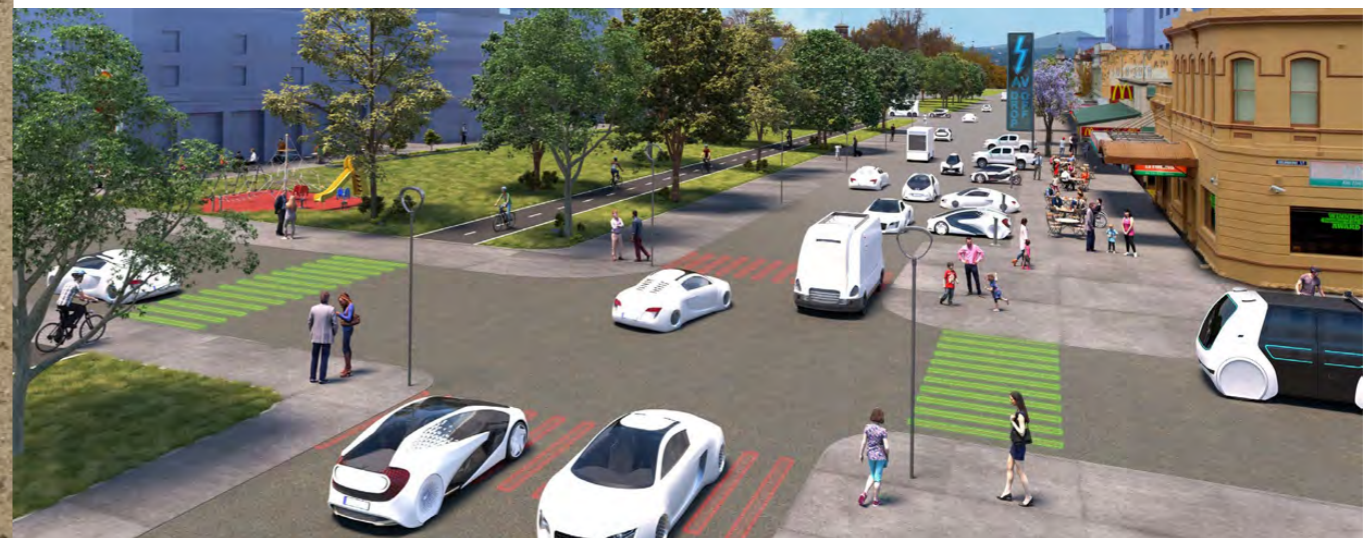
#### Key Issues

There are many ways – small and large – that other cities have better leveraged existing network capacity, including:

- Rapidly changing range of opportunities, not always supported locally
- Additional up-front costs can be required, to be recouped over time
- Community concern regarding inclusion and usability of new technology

#### Actions

**9.1 - Adopt a proactive and progressive philosophy to trialling and implementing new technology**



Source: Infrastructure Victoria, Advice on Automated and Zero Emissions Vehicles Infrastructure (2018)



## 10 - Diversify Service Offerings

### Policy Position

Embrace new and innovative approaches to provide transport, welcoming approaches to pilot or test new and innovative opportunities in Ballarat – as a self-contained city where the learnings would have application across the Country and internationally.

Invite interest from digital disruptors, community transport providers, vehicle manufacturers and software developers to pilot and experiment with new offerings.

Better utilise existing infrastructure and services which are provided, including investigation of a network of 'park and ride' stations in Ballarat, linked to underutilised car parking areas across the city and existing network services which could be re-positioned to offer such a service. Example would include adjusted timetables and consideration of pricing and marketing opportunities for commuters who park in an at-grade carpark at a sports ground not utilised during the day, who can use a bus route to reach their destination.

Park and Ride stations can link with bus services but also be utilised as free parking locations for those who are walking or riding the remaining of their journeys into paid parking areas.

### The Current Situation

Current service offerings in Ballarat are traditional forms of transport, car, bus, walking, trains and cycling.



### Key Issues

Transport service offerings in Ballarat are not leading to a surge in usage:

- Low levels of potential usage limit interest from innovative transport providers to trial products in regional cities
- Statewide policies for provision and funding of public transport by the State Government limit flexibility for nuanced service delivery in regional cities
- Residents and visitors to Ballarat need access to more convenient transport options
- Lack of cohesive and legible mix of modes leads to confusion and a poor user experience

### Actions

#### 10.1 - Diversify Service Offerings

Pursue transport opportunities not currently mainstream in Ballarat, including bike share schemes, e-scooters, on-demand bus services and other forms of community or 'just in time' transit.

Pursue specific opportunities of electric and hydrogen fuel technologies to power these types of vehicles, seeking to establish and grow manufacturing and research related industries in association with new services.

## 10 - Diversify Service Offerings

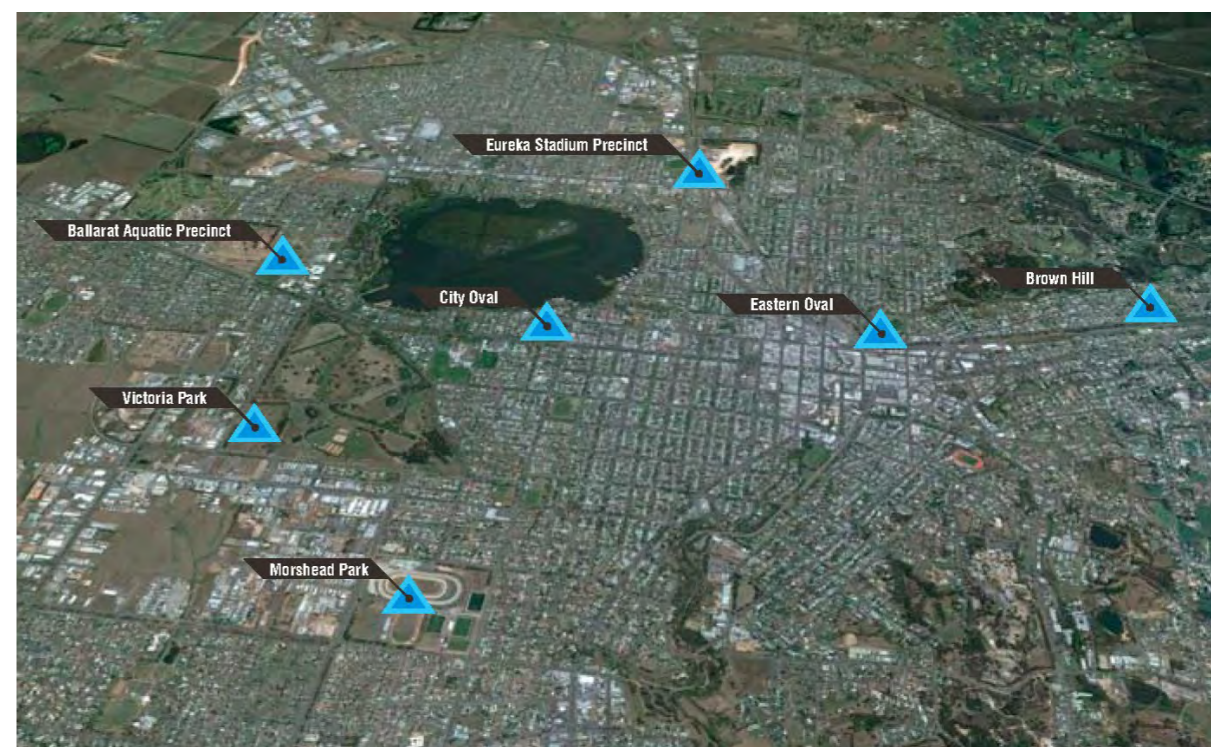


Figure 5 | Potential Network of Park and Ride Stations

### Case Study: Launceston Tiger Bus Park and Ride and Tourism Transport Services

Greater Launceston has a similar population and a low density land use pattern with similarities to Ballarat. The Free Tiger Bus is a well established commuter and tourist focussed bus service funded and managed by the Launceston City Council. It offers a convenient way to travel into Launceston's inner city and surrounds from Inveresk precinct, which provides out of CBD car parking.

take sightseers and shoppers into the inner city, and surrounding destinations.

The bus service operates:

- The **Commuter Run** which takes people from Inveresk car park to Launceston's city centre before and after common working hours.
- The **River Explorer Run, City Explorer Run and Cataract Gorge Run** are designed to







## 11 - Investment in Roads and Streets

### Policy Position

Advocate for ongoing partnership with State and Federal Governments to deliver a package of priority road upgrades across Ballarat – essential for managing increasing demand on the network.

Consider new or upgraded routes which relieve pressure on the north-south corridors of Geelong Road and Midland Highway, pursuing a model of providing additional linkages on which to travel rather than expansion of the width of roads along these corridors, which impacts on amenity, pedestrian connectivity, and where it cuts a community into two parts along its length.

Current State and Federal Government grant funding levels are too low for Ballarat's growth rate and local circumstances. Pursue increased funding support for upgrading the road network, including capacity increases, road safety improvements and completing the Ballarat Western Link road.

Remembrance Drive (Avenue of Honour) is a historical boulevard and alternatives should be investigated over the longer term to minimise traffic growth along that corridor. Changes to improve road safety and capacity along that corridor should consider its historical and commemorative significance in their design.

### The Current Situation

Private car based travel is by far the most common way to get around Ballarat. Roads are Council's largest expenditure and carry the largest mode share of travellers. In 2016, 74% of Ballarat residents travelled to work by car. Council spent \$13 million in 2019 and \$29 million in 2018 on capital works on the road network.

Some key road corridors are in the process of being upgraded but further funding is required to complete upgrades to major intersections and routes connecting Ballarat West to the established area, including Ballarat – Carngham Road/

A series of road upgrade projects are currently underway to relieve congestion in various traffic hotspots around the city, including:

- Gillies Street and Gregory Street.
- La Trobe Street and Wiltshire Lane.
- Dyson Drive and Ballarat-Carngham Road.
- Glenelg Highway and Midland Highway.
- Midland Highway, Sebastopol.
- Wiltshire Lane and Glenelg Highway

Future phases of the Ballarat Link Road are currently in planning and will be delivered in upcoming years, subject to funding.



## 11 - Investment in Roads and Streets

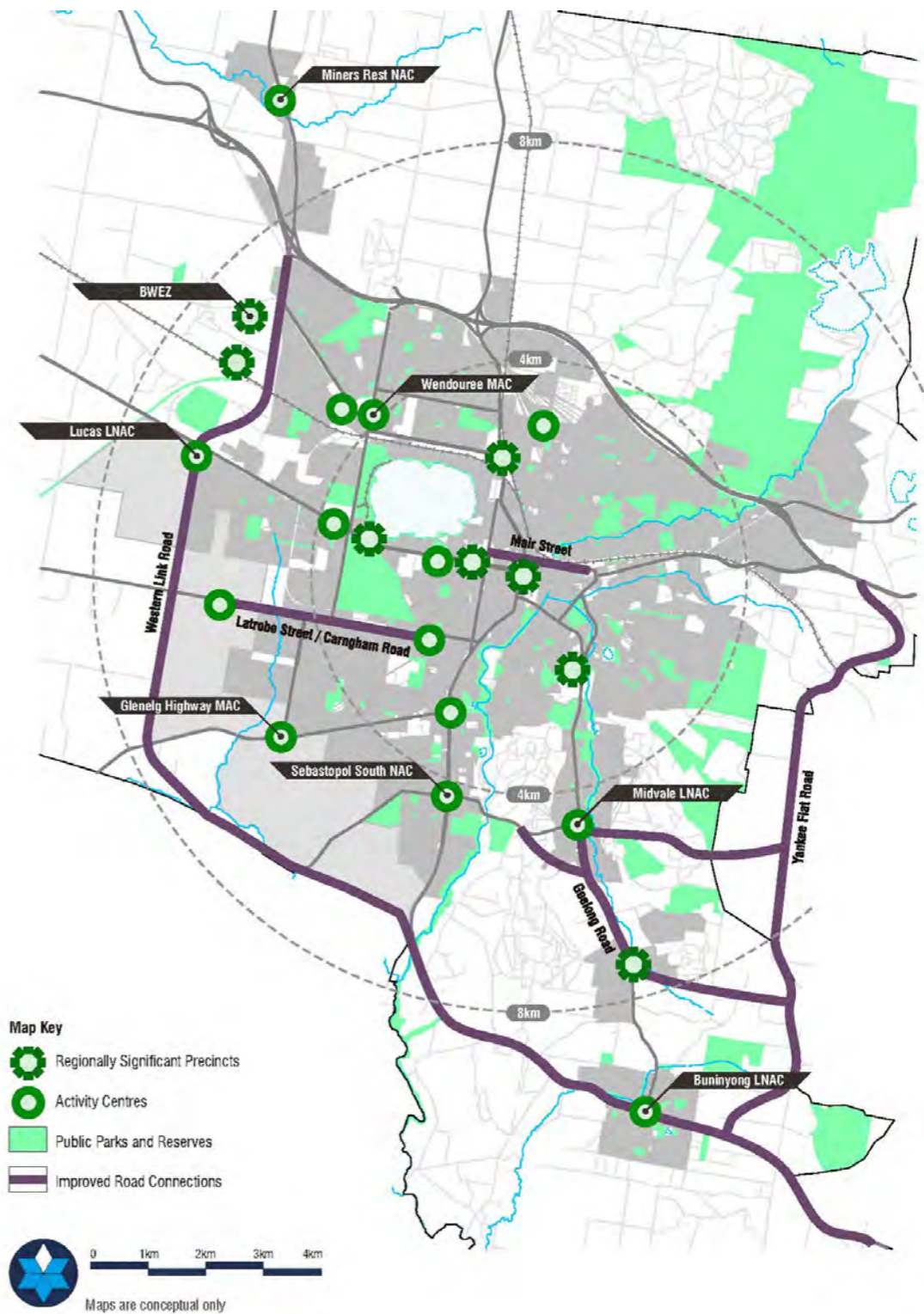


Figure 6 | Improved Road Connections





## 11 - Investment in Roads and Streets

### Key Issues

The current road network faces a number of challenges including:

- Congestion hot spots at peak times across the City
- Modelling indicates site specific congestion issues to be resolved as the population grows
- Necessary road upgrades not currently funded
- Traffic hotspots and capacity limitations
- Growing congestion, including carparking
- Heavy vehicles in urban areas
- Road safety for cars and other users
- Greenhouse gas emissions from use of fossil fuels
- Cost of maintenance and upgrades
- CBD arterial roads impact north-south pedestrian connectivity

### Actions

#### 11.1 - Advocate for ongoing partnership with State and Federal Governments to deliver a package of priority road upgrades, addressing areas of need

Significant investment required to improve safety and capacity of the infrastructure to match the road hierarchy and user levels. 10-year rolling package of specific sites and projects continually updated using latest data, guiding specific decision-making on investment priorities.

#### 11.2 - Consider new or upgraded routes which relieve pressure on the north-south corridors of Geelong Road and Midland Highway

Pursuing a model of providing additional linkages on which to travel rather than expansion of the width of roads along these corridors, which impacts on amenity, pedestrian connectivity, and where it cuts a community into two parts along its length.

#### 11.3 - Complete the Western Link Road

Advocate for funding to deliver the final stages of the Ballarat Western Link Road from the Western Freeway to the Midland Highway.

#### 11.4 - Advocate for completion of the orbital road network

The Ballarat Western Link Road will provide vital access to the Western Growth Area and the BWEZ, and provide an option to bypass the Ballarat CBD.

The current requirement for high productivity freight vehicles to utilise the historic CBD of Ballarat as the arterial road route, through a high pedestrian, high amenity zone, is not acceptable. Further investigations should consider bypass options to the east of Ballarat for freight vehicles connecting Geelong with Ballarat and the Western Freeway. This could provide for high frequency public transport services for Federation University and Buninyong via the eastern route, as well as the Western Growth Area via the west.



## 12 - Cycling City

### Policy Position

Riding a bike is an important transport mode for Ballarat, offering an efficient, convenient and enjoyable option to move across the city. Detailed guidance on cycling in Ballarat is provided in the adopted *Ballarat Cycling Action Plan (2017)* and its associated technical reference guide.

### The Current Situation

Major improvements are being made to the Strategic Cycling Corridors across Ballarat, providing an additional 12km of safe, separated bicycle routes to link existing trails to each other, via the CBD.

### Key Issues

Gaps in the Ballarat Bicycle Network act as barriers to people feeling safe and confident to ride.

### Actions

#### 12.1 - Fast track the construction of the Ballarat Bicycle Network

Continue to invest and construct safe cycling infrastructure across Ballarat in accordance with relevant design standards and guided by the adopted *Ballarat Cycling Action Plan (2017)*. Accelerate delivery through external funding, partnerships and supporting community led initiatives that promote usage.

#### 12.2 - Construct a dense network of separated paths or slow speed environments through the Ballarat CBD and to link key sites

The routes defined in the Ballarat Bicycle Network include access routes to the CBD and linkages to all Activity Centres. Given the rise in interest in riding, in addition to those routes defined in that plan, pursue opportunities to improve cycling infrastructure, particularly separation from traffic or reduced speed limits, on all streets into and through the CBD and around key community desinations such as schools – to provide maximum

flexibility and convenience to users. Separation or slow speed shared spaces are essential for these busier locations.

#### 12.3 - Integrate cycling improvements with streetscape improvements

Given the experience of riding a bike is one its great elements, attempt to improve the comfort and amenity of cycling routes at the same time as improving safety, through inclusion of landscaping and trees, art and general quality design. Adopt a 'design led' approach which considers cycling routes as key recreational corridors.

#### 12.4 - Promote safe routes, trails and circuits that showcase Ballarat from a bike

Riding a bike is a great way to see Ballarat, get active and be social. Safe introductory experiences are crucial to change the culture of riding - bad experiences turn people away who would otherwise be keen to leave the car at home.

#### 12.5 - Pilot temporary rider friendly infrastructure or reduced speeds on key routes

Permanent infrastructure and changed road conditions are important to deliver ongoing safety and amenity for road users. However, where appropriate, be open for trialling temporary changes to infrastructure and speed limits which improve conditions for active transport whilst testing community views and taking feedback.







# Advocacy and Partnerships

Delivering enhanced movement across the western region and movement, including through enhancing the movement of people and goods.



- 13. Strong Regional Advocacy
- 14. Regional Rail Links
- 15. Efficient Movement of Freight
- 16. Regional Aviation Hub

## Advocacy and Partnerships



### 13 - Strong Regional Advocacy

#### Policy Position

Ballarat will pursue a greater role for Ballarat as a hub of regional transport, and an advocate for regional transport priorities. Key advocacy opportunities to benefit both Ballarat and the region include:

- Capitalise on the freeway location between Melbourne and Adelaide for greater economic return
- Pursuing new models for regional rail travel, focused on mainline services from Ballarat and shuttle services to regional destinations
- Advocate for completion of the Murray Basin Rail upgrade and the use of upgraded tracks for both freight and passenger services
- Partner with State and Local Governments to investigate re-opening regional rail connections
- Grow the use of Ballarat Airport as a significant gateway and general aviation hub
- Advocate for improvements to the Ballarat railway line which provide quality, reliability, frequency and multi-directional services required for Ballarat to prosper as a highly connected regional capital
- Support fast rail to Ballarat as an important improvement to connectivity

#### The Current Situation

Regional communities are advocating that a big picture, long-term view is required for the role that transport can and needs to play in regional Victoria. Different pressures, opportunities and realities exist from those experienced in suburban Melbourne, and innovative, agile and targeted responses are required.

Growth planning for both land use and transport is guided by its role in the region. Key connections for transport, business and services are illustrated in the *Central Highlands Regional Growth Plan (2014)* and *Central Highlands Regional Transport Plan (2014)* – both of which provide useful references but enquire ongoing review and updating to reflect current transport pressures, needs and advocacy priorities.

Key connectivity priorities are to Melbourne, but also to Geelong, Mildura, Bendigo, Adelaide and Ararat – plus other regional destinations.

Port of Melbourne	1hr 10min (113km)
Port of Geelong	1hr 10min (94km)
Melbourne Airport	1hr 10min (114km)
Avalon Airport	1hr 17min (106km)
Hume Highway	1hr 13min (113km)
Western Ring Road (M80)	57min (113km)
Melbourne	1hr 22min (114km)
Adelaide	6hr 36min (106km)



Figure 7 | Ballarat's Key Regional Connections





## 13 - Strong Regional Advocacy

### Key Issues

Advocacy needs to continue to realise the vision of established strategic plans prepared by City of Ballarat, Victorian Government, Regional Councils and regional advocacy groups.

Guidance on key connections and the preferred long-term pattern of land use growth and change as illustrated in the *Central Highlands Regional Growth Plan (2014)*.

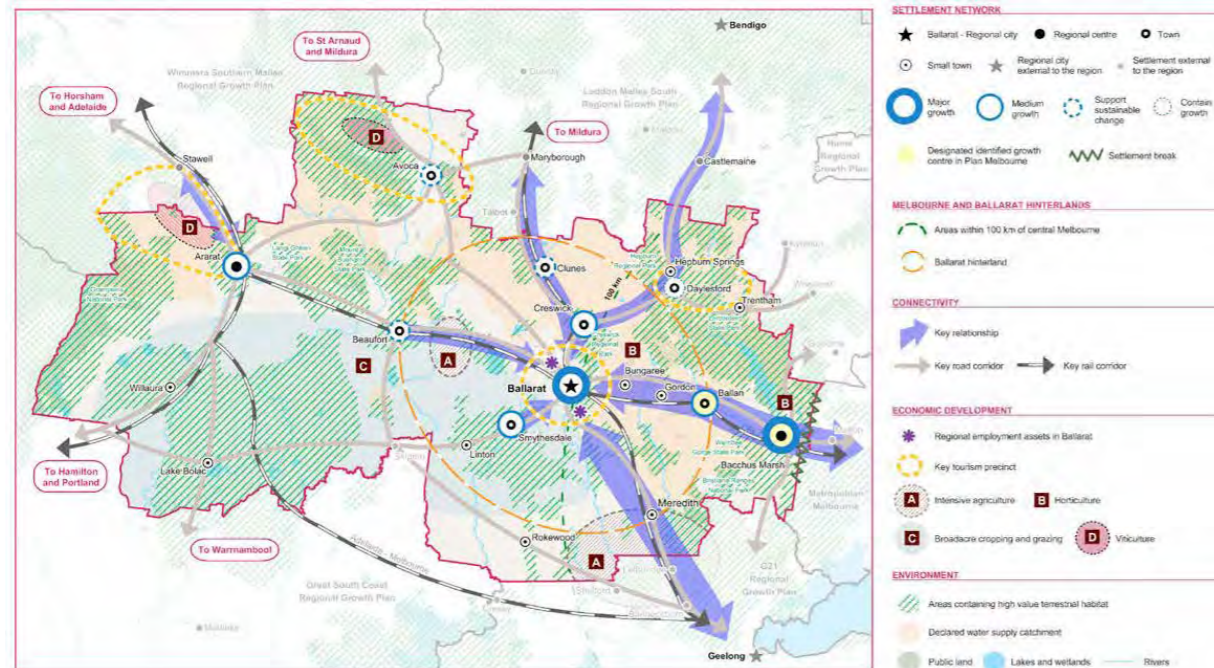


Figure 8 | Regional Overview (Central Highlands Regional Growth Plan, 2014)

### Actions

#### 13.1 - Advocate for critical investment in transport infrastructure and services

Engage and advocate to the State and Federal Government for policies and investment which align with the priorities and focus areas outlined in this plan, recognising how Ballarat and Western Victoria can take a greater share of the responsibility for the growth and prosperity of Victoria and Australia as a whole.

#### 13.2 - Take a leadership role in supporting regional partners

Proactively support the advocacy of others for improvements to their local services, capitalising on Ballarat's leadership role in key groups such as Regional Cities Victoria and Regional Capitals Australia.

## 14 - Regional Rail Links

### Policy Position

Regional Rail Links can play a significant role in improving access and economic activity within and between regional centres. The Victorian railway network is integral to Ballarat's economic and social prosperity for several reasons:

- Passenger services on the network provide an affordable alternative to car use, which in turn improves, local economic activity, road safety and health and environmental outcomes
- Passenger services improve access to employment for people who do not own a car or do not want to drive long distances (employment options could be in Ballarat or elsewhere)
- Freight services on the rail network reduce local traffic congestion and improve road safety

### The Current Situation

Passenger patronage on the Ballarat Line has surged over the past two decades following a number of state led initiatives to improve service reliability, travel times, passenger comforts, as well as new stations and passenger services to Wendouree and Maryborough.

As Ballarat's population continues to grow, there is a critical need for further improvements to support Ballarat's position as a regional hub.

### Key Issues

- Demand for rail travel to and from Melbourne exceeds supply, particularly during weekday morning and evening peaks
- Network capacity constraints, particularly where tracks are shared with suburban commuter and freight services within Metropolitan Melbourne
- Car trips dominate journeys to stations, creating congestion, inefficiency and costs due to it requiring large amounts of land for parking

### Actions

#### 14.1 - Advocate for passenger rail improvements to regional destinations beyond Ballarat

Opportunities include new and improved services to Ararat, Horsham, Maryborough and other regional centres.

#### 14.2 - Advocate for re-establishment of Ballarat - Geelong passenger rail services

Direct rail connections between the second and third largest (and fastest growing) cities in Victoria is essentially for the State's development. Within the next 20 years, the two cities will easily exceed half a million residents. Federal Government upgrades as part of the Murray Basin Rail Project can help to overcome previous cost barriers.

#### 14.3 - Seamless and direct mainline connections to Melbourne's CBD

Prioritise improvements to the quality, reliability and frequency of services, balanced convenience for commuters arriving into Ballarat as much as those departing for Melbourne, and seamless and direct journeys into the Melbourne CBD.

#### 14.4 - Support new passenger rail options such as Fast Regional Trains and a Ballarat Metro network

Support government and privately led passenger rail initiatives such as fast regional trains, expanded electrified commuter network and local services between Ballarat's stations and those in surrounding commuter hubs.







## 15 - Efficient Movement of Freight

### Policy Position

The movement of freight is essential to the Ballarat economy. Freight is necessary both for consumers and businesses seeking goods, and for manufacturing and production businesses which produce goods for market. The efficiency of accessing markets and receiving goods has a big impact on the competitiveness of doing business from and with Ballarat.

#### Intermodal freight opportunities

Ballarat will support heavy freight demanding industry and business through advocacy to complete the BWEZ Intermodal Freight Terminal, including co-consideration of it as part of the Metropolitan Freight Terminal Network, further bridge strengthening to increase network of high productivity freight vehicles, and completion of the Ballarat Western Link Road, as the western side to an orbital highway network.

Intermodal freight primarily assists with heavy freight movements between road and rail.

#### Support 'last mile' freight delivery

The so called 'last mile' is delivery of a product from warehouse shelf to customer doorstep - it is both the most expensive and time-consuming part of the shipping process.

As Ballarat consumers increasingly move to online deliveries, we will be flexible and responsive to the needs of deliveries. New approaches are emerging, including use of local distribution and consolidation centres and Ballarat will be open to business needs.

Depending on the surrounding land use, heavy vehicles on some local streets can have cost, safety and amenity issues which can be address over the long-term as new distribution models come online and last mile deliveries become more streamlined.

### The Current Situation

Freight and logistics generally well serviced in Ballarat for road freight by Western Freeway and Ballarat Western Link Road.

There are some key land use opportunities that maximise efficiency of freight movement, particularly co-location of industries near established transport gateways at the Ballarat West Freight Hub and Ballarat Airport precincts. Future investment in the Ballarat Western Link Road project will be important to leverage the benefits of the entire Ballarat West Employment Zone.



## 15 - Efficient Movement of Freight

### Key Issues

- Murray Basin Rail Plan implementation stalled, and lack of clarity on future investment in standard guage freight lines through the City
- Lack of integrated infrastructure planning to service the proposed intermodal freight terminal at Ballarat West Employment Zone, including lack of standard gauge connection along Ararat line and future-proofing for a third track at Wendouree Station
- Lack of provision for double stack containers in new railway over-bridges
- Weight limitations and road conditions across non freeway routes limits use of high productivity vehicles

### Actions

#### 15.1 - Improve the efficiency of supply chains with key infrastructure

Support Development Victoria to commercialise the Ballarat West freight hub, investigate additional intermodal opportunities in the northern growth

area adjacent to the Maryborough rail line and upgrade road and rail route which are important for freight but have limitations on their capacity.

#### 15.2 - Prepare for the ongoing supply of high quality serviced land for freight intensive developments

Investigate and proceed with planning for quality development opportunities along strategic freight corridors, acting as future stages of Ballarat West Employment Zone beyond the currently defined boundary

#### 15.3 - Advocate for upgrades which support High Productivity Freight Vehicles on additional routes

The road and bridge strengthening program undertaken on the Western Freeway between Ballarat and Melbourne has enabled expanded use of High Productivity Freight vehicles and improved efficiencies for business. In partnership with the industry, advocate for extension of this program to support upgrades to additional routes.







## 16 - Regional Aviation Hub

### Policy Position

Ballarat is well serviced by the Ballarat Airport, which is fully planned as it interfaces with the premium industrial land in the adjacent Ballarat West Employment Zone. Ballarat will seek to further commercialise the airport, seeking to increase its contribution to local and regional jobs and investment.

The airport has a curfew and constraints on some approaches. A new unconstrained airport may be required over the long-term, but there are no plans at this stage to pursue this option. Protecting the current airport from encroachment by sensitive uses that would disrupt operations remains the priority.

The focus of management at the airport is on growing the general aviation and training sectors, whilst advocacy is focused on upgrades which enable usage by larger aircraft, crucial to realising the vision of the adopted Ballarat Airport Masterplan.

Continue to support establishment of an aviation emergency services hub at the airport, as a crucial element of the state-wide emergency management response framework.

### The Current Situation

There are more than 100 highly skilled jobs in the general aviation, maintenance and assembly industries currently at the airport. Given the usage for pilot training, it is one of the busiest airports in the country considering the number of aircraft movements per day.

There is substantial land available at the airport for expansion and greater utilisation for job creating businesses.

### Key Issues

- Airport is constrained by curfew and adjacent housing in alignment with the approach on one of the runways
- General aviation businesses are incredibly important to the local Ballarat economy
- The runway requires lengthening and pavement strengthening to enable access and usage by Class 3C aircrafts.



## 16 - Regional Aviation Hub

### Actions

#### 16.1 - Monitor demand for direct air capacity and investigate long-term opportunities

Monitor demand for direct air capacity and investigate long-term opportunities for a Ballarat Airport with passenger and freight services linking to key passenger and freight related destinations.

#### 16.2 - Investigate greater commercial opportunities associated with the airport

The airport is a key regional asset and it will continue to be leveraged for commercial, job and investment opportunities. There are significant opportunities to expand the aviation industry and its supply chains. The requirement for a site for a new unconstrained regional airport is not currently envisaged.

#### 16.3 - Consider opportunities to further commercialise the airport

Needs to maximise the economic leverage from this major piece of regional infrastructure, seeking to expand its contribution to jobs and supply chains.

#### 16.4 - Protect airport from encroachment

Continue to adopt a cautionary approach when considering developments in proximity to the airport, to ensure further constraints are not placed on its operations. Consider updating the Airport Master Plan as recommended by the *Ballarat Airport Safeguarding Study (May 2018)*.





## Summary of Actions

### Objective 1 - People First Approach

Where safety, high quality designed spaces, access for all, transport affordability, and a healthy community are a key focus.

Action	Actors	Priority
<b>Understand User Needs</b>		
1.1 Establish and maintain data framework for understanding movement, journeys and experience	COB, DOT	Short
1.2 Proactively seek to understand what is needed for access and mobility by different user groups	COB, DOT	Ongoing
<b>Build and Manage Places for People</b>		
2.1 Establish a principal pedestrian network	COB	Short
2.2 Target pedestrian improvements around schools, road crossing and missing footpaths	COB	Medium
2.3 Invest in quality street furniture, trees and the public realm to improve accessibility and comfort	COB	Medium
2.4 Improve disability access	COB, DOT	Ongoing
2.5 Improve recreational trails and green space	COB, PV	Ongoing
2.6 Investigate new ways of funding infrastructure to fill the gaps in current networks	COB	Short
2.7 Address gaps in signage and wayfinding	COB, PV	Ongoing
2.8 Commit to minimum standards for walkable neighbourhoods	COB, Others	Ongoing
<b>Safety for All</b>		
3.1 Implement reduced speed limits within activity centres and other pedestrian hotspots	COB, DOT	Short
3.2 Design traffic infrastructure with the full range of users in mind	COB, DOT	Ongoing
3.3 Maintain strong advocacy for blackspot funding and pursue State and Federal Government partnerships	COB	Ongoing

### Objective 2 - Fully Integrated and Reliable Transport Network

Providing convenient, efficient and accessible transport choices and supporting a more prosperous Ballarat where people are efficiently connected to local jobs and services.

Action	Actors	Priority
<b>Compact City</b>		
4.1 Prepare a housing strategy	COB	Short
4.2 Adopt new '10-minute city' guidelines for greenfield growth areas	COB	Short
4.3 Revise and update existing industrial and commercial land use plans	COB	Short

## Summary of Actions

Action	Actors	Priority
4.4 Prioritise development in urban renewal sites, acting as catalyst projects for jobs and investment	COB	Ongoing
4.5 Review and update the Open Space Strategy to match the demands of a larger	COB	Medium
4.6 Undertake missing links strategic and government land review	COB	Medium
4.7 Update Strategic Planning around Activity Centres	COB	Medium
<b>Better Utilise Existing Network Capacity</b>		
5.1 Proactively seek and implement opportunities to better utilise network capacity	COB, DOT	Ongoing
5.2 Investigate precinct specific transport and traffic management plans for key education clusters	COB, DOT	Short
<b>Transit Nodes Servicing Renewal Sites</b>		
6.1 Establish a network of key transit interchanges across Ballarat	COB, DOT	Medium
<b>Frequent and Direct Cross-City Transit</b>		
7.1 Advocate to Public Transport Victoria to review and overhaul the Ballarat bus network	COB, DOT	Short
7.2 Transition to faster and more direct bus routes	COB, DOT	Short
7.3 Define and adopt a Principal Public Transport Network (PPTN) to guide long-term planning	COB	Medium
7.4 Future proof commuter transit corridors	COB, DOT	Medium
7.5 Maintain a policy position to retain transit corridors for future use	COB	Ongoing
7.6 Explore feasibility of extending heritage tram network	COB, DOT	Long

### Objective 3 - Universal Accessibility

Building a city that is accessible and welcoming for all.

Action	Actors	Priority
<b>Universal Accessibility</b>		
8.1 Advocate for essential Ballarat Station upgrades	COB	Medium
8.2 Revise land use policies to deliver 'Complete Neighbourhoods' and work with developers towards its delivery	COB, Developers	Ongoing
8.3 Investigate, design and deliver universal accessibility and truly 10-minute walkable neighbourhoods	COB, Developers	Ongoing
8.4 Consider enforceable requirements for inclusion in the planning and design of new suburbs	COB	Medium
8.5 Provide specific design guidance on overcoming barriers unique to Ballarat	COB	Ongoing
8.6 Prioritise improvements to accessibility in highest impact places	COB, DOT	Short





## Summary of Actions

### Objective 4 - Sustainable and Diversified Travel Options

To achieving a city-leading shift towards more sustainable, resilient and adaptable modes of travel.

Action	Actors	Priority
<b>Embrace New Technology</b>		
9.1 Adopt a proactive and progressive philosophy to trialing and implementing new technology.	COB, Others	Ongoing
<b>Diversify Service Offerings</b>		
10.1 Diversify Service Offerings	COB, DOT	Ongoing
<b>Investment in Roads and Streets</b>		
11.1 Advocate for ongoing partnership with State and Federal Governments to deliver a package of priority road upgrades, addressing areas of need	COB	Short
11.2 Consider new or upgraded routes which relieve pressure on the north-south corridors of Geelong Road and Midland Highway	COB, DOT	Short
11.3 Complete the Western Link Road	COB, DOT	Short
11.4 Advocate for completion of the orbital road network	COB, DOT	Long
<b>Cycling City</b>		
12.1 Fast track the construction of the Ballarat Bicycle Network	COB	Short
12.2 Construct a dense network of separated paths or slow speed environments through the Ballarat CBD and to link key sites	COB	Medium
12.3 Integrate cycling improvements with streetscape improvements	COB	Ongoing
12.4 Promote safe routes, trails and circuits that showcase Ballarat from a bike	COB	Ongoing
12.5 Pilot temporary rider friendly infrastructure or reduced speed on key routes	COB, DOT	Short

### Objective 5 - Advocacy and Partnerships

Delivering enhanced movement across the western region and movement, including through enhancing the movement of people and goods.

Action	Actors	Priority
<b>Better Utilise Existing Network Capacity</b>		
13.1 Advocate for critical investment in transport infrastructure and services	COB	Short
13.2 Take a leadership role in supporting regional partners	COB	Ongoing

## Summary of Actions

Action	Actors	Priority
<b>Regional Rail Links</b>		
14.1 Advocate for passenger rail improvements to regional destinations beyond Ballarat	COB	Medium
14.2 Advocate for re-establishment of Ballarat - Geelong passenger rail services	COB, DOT	Medium
14.3 Seamless and direct mainline connections to Melbourne's CBD	DOT	Medium
14.4 Support new passenger rail options such as Fast Regional Trains and a Ballarat Metro network	COB, DOT	Long
<b>Efficient Movement of Freight</b>		
15.1 Improve the efficiency of supply chains with key infrastructure	COB, DOT	Medium
15.2 Prepare for the ongoing supply of high quality serviced land for freight intensive developments	COB	Ongoing
15.3 Advocate for upgrades which support High Productivity Freight Vehicles on additional routes	COB, DOT	Long
<b>Regional Aviation Hub</b>		
16.1 Monitor demand for direct air capacity and investigate long-term opportunities	COB	Ongoing
16.2 Investigate greater commercial opportunities associated with the airport	COB, Others	Medium
16.3 Consider opportunities to further commercialise the airport	COB, Others	Medium
16.4 Protect airport from encroachment	COB	Ongoing

**Abbreviation of Actors**  
 COB City of Ballarat (Ballarat City Council)      DOT Department of Transport  
 PV Parks Victoria

## Notes

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# Community Engagement

Two stages of extensive community consultation have been undertaken as part of the Action Plan's development.

Our community has contributed more than 400 written submissions and 300 site specific transport comments throughout the engagement process, which has guided the development of this plan.



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### 10.3. YARROWEE RIVER MASTER PLAN

**Division:** Development and Growth  
**Director:** James Guy  
**Author/Position:** James Guy – Acting Director Development and Growth  
John Dyke – Heritage Advisor – Strategic Projects

#### OFFICER RECOMMENDATION

**Council resolves to:**

- 1. Adopt the Yarrowee River and Tributaries: River Corridor Master Plan (2020).**
- 2. Request the CEO to identify and apply for external funding opportunities to deliver the priority projects identified in the Yarrowee River and Tributaries: River Corridor Master Plan (2020).**

#### EXECUTIVE SUMMARY

The Yarrowee River and Tributaries: River Corridor Master Plan (2020) expresses a vision for the river corridor for the next 25 years. It is designed to protect, enhance and harness this valued community asset, building on the success of ongoing community engagement that has informed restoration and improvement works over the past 25 years. It will guide decisions about the future development, management and maintenance of the corridor.

The project area covers the waterway – 38km of the river and over 35km of tributary creeks that flow into it – and the adjacent reserve land. The project is a collaborative initiative between the City of Ballarat, peak stakeholder groups, community members and joint funding partner organisations; Central Highlands Water, and the Department of Environment, Land, Water and Planning.

The plan outlines recommendations for both general and site-specific actions which are grouped under the following eight themes:

- access and trails (pedestrians and cyclists);
- rehabilitation, revegetation and vegetation management;
- water quality and wetlands;
- sludge and contaminated sites;
- recreation and parks;
- land tenure and future land development;
- community engagement and education; and
- sustainable management of waterways.

In addition to strategic guidance, Ballarat Council and the Project Working Group selected four priority projects which have been further developed to be 'ready-to-go' for funding applications or which include capital works ready to proceed to detailed design and delivery.



## **RATIONALE**

A Landscape Master Plan & Management Plan (1995) and Linear Network of Communal Spaces (LINCS) Strategy (1996) was developed for the Yarrowee River Corridor and has formed the strategic basis for the restoration of the waterway over the last 25 years. The approaching anniversary of this document prompted the review and update of the Yarrowee Master Plan to guide new works and priorities for the next 25 years.

The Master Plan project area covers the waterway – 38km of the river and over 35km of tributary creeks that flow into it – and the adjacent reserve land. The project is a collaborative initiative between the City of Ballarat, Peak Stakeholder Bodies, community members and joint funding partner organisations: Central Highlands Water, and the Department of Environment, Land, Water and Planning.

### **Vision for the corridor and key components of the plan**

The vision of the Master Plan is to provide:

- An accessible and welcoming open space that brings people together to connect with each other and enjoy health and wellbeing activities;
- A beautiful place that supports a healthy environment and ecosystem and encourages people to connect with nature;
- A unique place with a strong identity that celebrates the richness of Ballarat's heritage and people from our indigenous origins until today; and
- A special place that our whole community is proud of.

The plan will guide decisions about the future development, management and maintenance of the river corridor including funding and resource allocation. In detail the plan:

- Expresses a vision for the future of the river corridor focused on benefits to the community;
- Addresses current and future issues and challenges, from significant residential development and population growth to climate change and a projected increase in stormwater flows;
- Identifies areas with limited access, poor connections, degradation of the waterways and vegetation, and low-quality amenity;
- Outlines recommendations for action grouped under eight themes;
- Includes a Master Plan for each of five Reaches identified: Northern, Central, Southern, Rural and Tributaries; and
- Identifies and includes the design development of 4 priority projects.

### **Key recommendations**

Recommendations for action have been grouped under the following eight themes:

1. Access and trails (pedestrian and cyclists): to improve access to recreation and active transport options and to enhance the experience of users;
2. Rehabilitation, revegetation and vegetation management: to improve ecosystem biodiversity, improve regeneration of indigenous vegetation and enhance the landscape character of the corridor;
3. Water quality and wetlands: to improve water quality and enhance habitat and amenity;
4. Sludge and contaminated sites: to minimise the impact of sludge and contamination movement down the catchment;
5. Recreation and parks: to improve access and amenity and increase active recreation and socialising opportunities for the community;

6. Land tenure and future land development: to minimise damage caused by development (especially on the flood prone land), improve the ecological and environmental health of the corridor and support access to the open space corridor;
7. Community engagement and education: to encourage community ownership of this valued community asset; and
8. Sustainable management of waterways: to ensure sustainable management and improve the function, habitat and biodiversity health, amenity and aesthetics of the waterways.

The Master Plan includes a set of 34 plans spanning the Yarrowee River and Tributaries. The maps have been divided into five 'reaches'; north, central, south, rural and tributaries. They include site-specific proposals for the waterways and reserve land including trails and links, revegetation, areas for future development and key features such as trail heads, wetlands, wayfinding signage, carparks and more.

### **Priority Projects**

Priority Projects have been selected for further development from the recommended actions. These projects allow for small scale testing of ideas along the waterways to develop best practice model projects that may be applied elsewhere. Each of the Priority Projects includes a concept plan, a vision, detailed description and benefits, and suggested staging. The four priority projects are:

1. Trailheads, signage and interpretation – southern trailhead at Dowcra Street and Prest Street lookout;
2. Sunnyside Mill Parklands;
3. Revitalisation of Redan Wetlands; and
4. Rural Trail Extension – upgrade reserve from Dowcra Street to Midland Highway.

### **Interrelated Projects**

#### Bakery Hill Precinct Urban Renewal Plan

The Bakery Hill Urban Renewal Plan was adopted by Council in October 2019 with a commitment of \$15 million over three financial years to fund implementation of key catalyst projects. The Yarrowee River Master Plan references the Urban Renewal Plan as it relates to the course of the river running through the CBD and recognises that the rejuvenation project will be the key driver for outcomes in this precinct.

#### Living Corridors Action Plan

City of Ballarat is currently preparing a Living Corridors Action Plan. The Ballarat Strategy (2015) identified the need to undertake further work to define Living Corridors and to ensure that natural values throughout Ballarat are managed well. The Living Corridors Action Plan will comprise goals, strategies and actions to better protect natural values such as vegetation and biodiversity throughout the identified eastern biodiversity corridor, including the area encompassed by the Yarrowee River and its tributaries.

The project involves a review of planning controls and may recommend changes to the schedules to the Vegetation Protection Overlay (VPO), Environmental Significance Overlay and the relationship between these controls and the Bushfire Management Overlay (BMO).

#### Spotlight on Sebastopol

City of Ballarat and Regional Development are finalising the project scope for the Spotlight on Sebastopol Project. This project is a \$5 million State Government initiative aimed at improved linkages, activation and connectedness through the key activity precincts in Sebastopol along the Midland Highway. Connection to the Yarrowee River is a key consideration and opportunity.

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## Implementation and next steps

A number of immediate steps have been identified in the plan to be undertaken as a priority:

- Further design work for priority projects including a full feasibility study for a gross litter trap;
- In consultation with Wadawurrung Traditional Owners, preparation of a Living River Cultural Diversity Plan;
- An integrated signage plan and interpretation plan addressing cultural, environmental and historic values;
- Establish a Community Reference Group;
- Management plans for the remaining tributaries of the Yarrowee including, Gong Gong Creek, Winter Creek, Redan Creek, Lal Lal Drain and other creeks feeding into the Canadian Creek as identified by Friends of Canadian Corridor; and
- Undertake a Planning Policy Study.

## LEGISLATION, COUNCIL PLAN, STRATEGY AND POLICY IMPLICATIONS

The Master Plan aligns with multiple ongoing City of Ballarat strategic documents and builds on works recommended surrounding the waterways. The proposals tie in with the principles set out in the following documents:

- Ballarat Strategy (2015)
- Urban Forest Action Plan (2019)
- Ballarat City Integrated Water Management Plan (2018)
- Greening Ballarat – a Green-Blue Action Plan (2016)
- Ballarat East Local Area Plan (2019)
- Bakery Hill Urban Renewal Plan (2018)
- Ballarat Planning Scheme.
- *Local Government Act 1989*
- *Local Government Act 2020*

## REPORTING AND COMPLIANCE STATEMENTS

Implications	Considered in Report?	Implications Identified?
<b>Human Right</b>	Yes	No
<b>Social/Cultural</b>	Yes	Yes
<b>Environmental/Sustainability</b>	Yes	Yes
<b>Economic</b>	No	No
<b>Financial/ Resources</b>	Yes	Yes
<b>Risk Management</b>	Yes	Yes
<b>Implementation and Marketing</b>	Yes	Yes
<b>Evaluation and Review</b>	Yes	Yes

**Human Rights** - It is considered that the Master Plan does not impact on any human rights identified in the *Charter of Human Rights and Responsibilities Act 2006*.

**Social/Cultural** – Social and cultural implications have been of paramount consideration through the development of the Yarrowee River Master Plan. These are implicit in all eight action themes but especially in 1) Access and trails; 5) Recreation and parks; and 7) Community engagement and education.

**Environmental/Sustainability** – Environmental and sustainable principles are firmly embedded throughout the Master Plan. In particular 2) Rehabilitation, revegetation and vegetation management; 3) Water quality and wetlands; and 8) Sustainable management of waterways.

**Risk Management** – Risk factors identified in the project proposals will be addressed during their implementation phase, for example, dealing with sludge and contaminated sites.

**Financial/Resources** – Council has been provided with cost estimates for the 4 priority projects which will be used for future funding applications, including State Government agencies, and other grant opportunities will be investigated. Ongoing maintenance and management will be delivered through existing budgets.

**Implementation/Marketing** – A detailed action plan has been included in the Master Plan which identifies priorities for each project based on short/medium term (1-5 years) long term (5-10 years) and on-going. The plan also identifies where further detailed design work is required. Completed projects will influence a range of future marketing opportunities for the city.

**Evaluation and Review** – As the Master Plan sets out a 25-year vision and many action points for the river corridor there will be a regular ongoing review and evaluation of the plan over its lifespan.

## CONSULTATION

A variety of techniques were used to discuss the project with the community and stakeholders. An online survey was conducted on the City of Ballarat mySay webpage to gain insight into community values and vision for the Yarrowee River and tributaries. The survey ran for 4 weeks in November 2019 with over 80 respondents. Based on this feedback the 5 most important aspects the community would like to see within the river corridor as:

- Good habitat and healthy plant life;
- Presence of native animals and birds;
- Clean water in the Yarrowee;
- Opportunities to assist in caring for the river and tributaries; and
- Wayfinding and signage relating to history and stories of the river.

Full survey results are included in the Master Plan appendices.

In the analysis phase of the project, representatives of the Peak Stakeholder Bodies (Leigh Catchment Group, Bunanyung Landscape Alliance, Friends of Canadian Corridor, Federation University) along with the Project Working Group (COB officers, CHW, DELWP, Corangamite CMA) attended a workshop to share understandings of key issues and opportunities along the waterways. They were then given the opportunity to review and provide comments on the draft Master Plan and action plan recommendations.

Consultation on the final draft Master Plan, undertaken in June/July 2020 resulted in 68 submissions.

## OFFICERS DECLARATIONS OF INTEREST

Council officers affirm that no direct or indirect interests need to be declared in relation to the matter of this report.

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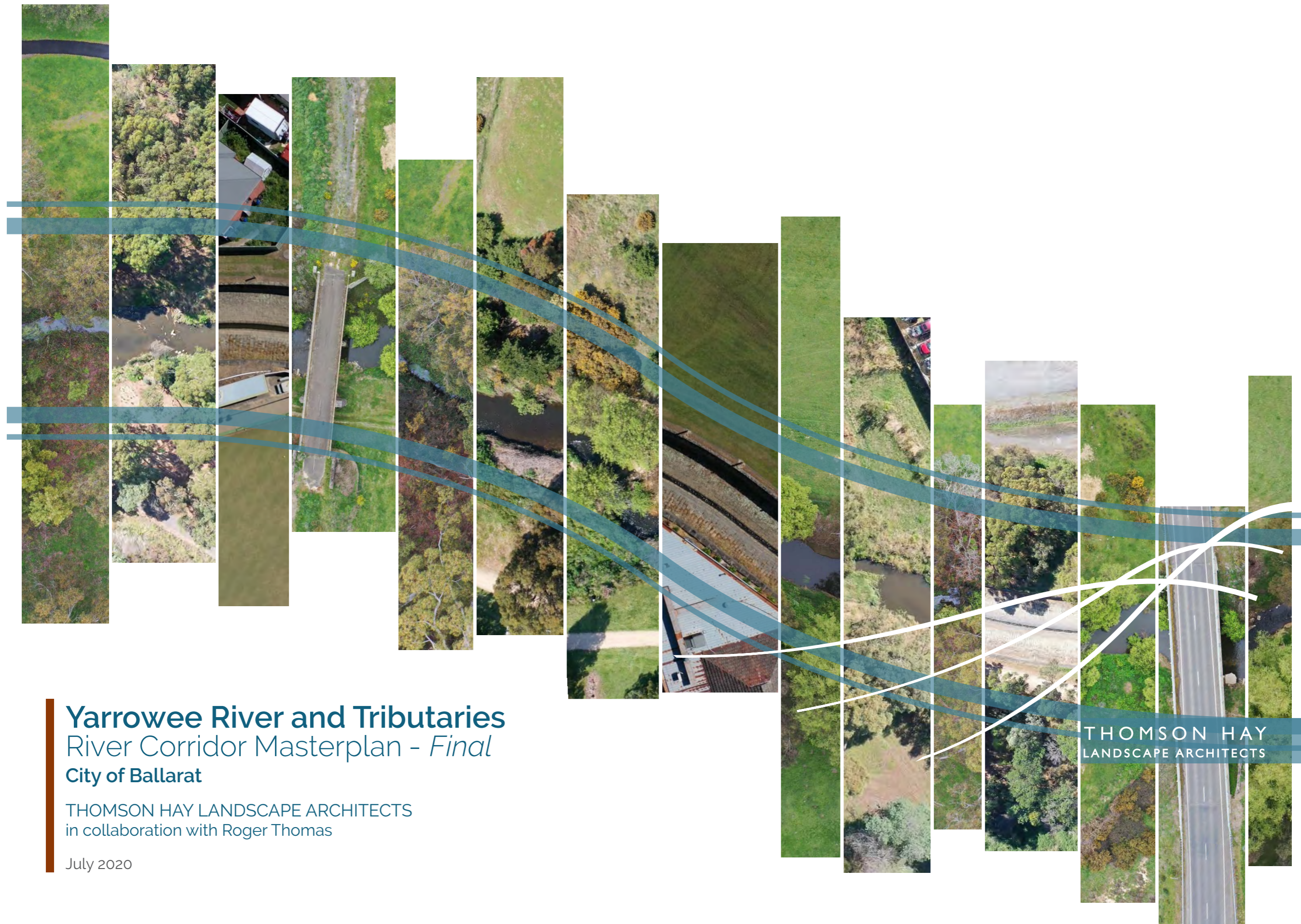
## **REFERENCE DOCUMENTS**

- Yarrowee River and Tributaries Masterplan: Summary Report (2020)
- Yarrowee River and Tributaries Masterplan: Consultation Summary (2020)
- Yarrowee River Corridor Landscape Masterplan & Land Management Plan 1995
- Linear Network of Communal Spaces (LINCS) Strategy 1996

## **ATTACHMENTS**

1. Yarrowee River and Tributaries Masterplan 2020 [**10.3.1** - 172 pages]





**Yarrowee River and Tributaries**  
River Corridor Masterplan - *Final*  
City of Ballarat

THOMSON HAY LANDSCAPE ARCHITECTS  
in collaboration with Roger Thomas

July 2020

THOMSON HAY  
LANDSCAPE ARCHITECTS





### Acknowledgement of Country

We respectfully acknowledge the Wadawurrung people, the traditional custodians of the land in which the Yarrowee River and tributaries flow. We recognise our continuing responsibility to care for country at these sites. We pay our respects to Elders past, present, and future and acknowledge their spiritual connection to Country.

### Lead Organisation

City of Ballarat



### Funding Partner Organisations

Central Highlands Water  
Department of Environment, Land Water and Planning



### Stakeholder and Community Engagement

Stakeholder and community engagement was an important part of this project. We would like to thank the following groups and the individual community members for their contribution to our project:

- Bunanyung Landscape Alliance
- Leigh Catchment Group
- Friends of Canadian Corridor
- Ballarat Environment Network
- Castlemaine Goldfields Pty Ltd (Ballarat Gold Mine)
- Federation University

### Glossary / Abbreviations

- BEN Ballarat Environment Network
- CHW Central Highlands Water
- COB City of Ballarat
- CCMA Corangamite Catchment Management Authority
- DELWP Department of Land Water and Planning
- EVC Ecological Vegetation Class
- Fed Uni Federation University
- THLA Thomson Hay Landscape Architects
- WSUD Water Sensitive Urban Design
- WRP Woookarung Regional Park

### Note

Outlined text provides hyperlinks to further information. Please use the PDF version to access these links.

The following organisations and individuals have guided, reviewed, contributed and commented on this report:

### City of Ballarat

#### City Design

- John Dyke, Project Coordinator
- Adam Parrott, Senior Landscape Architect
- 

#### Parks & Gardens

- Daryl Wallis, Coordinator Parks and Gardens
- David Keighrey, Supervisor Parks Maintenance
- Ken Cox, Supervisor Trails and Waterways
- Daniel Siemensma, Vegetation Planning and Management Officer

#### Strategic Planning

- Vanessa O'Shea, Strategic Planner

#### Engaged Communities

- Pete Appleton, Executive Manager
- Jenny Sheriff, Community Development Officer

#### Community Development

- Nikki Foy, Aboriginal Cultural Liaison Officer

#### Recreation

- Michael Hynes, Senior Advisor – Strategy & Planning

### Central Highlands Water

Peter Field, Senior Planner Catchments and Partnerships

### Corangamite CMA

Sarah Holland-Clift, General Manager Community and Catchment Services

### DELWP

Emily Lee, Planning and Approvals Program Officer

### Project Design Team

This project was led by Thomson Hay Landscape Architects in collaboration with Roger Thomas

- David Hay - Registered Landscape Architect
- Heidi Mikulic - Registered Landscape Architect
- Roger Thomas - Naturalist consultant
- Claire Reynolds - Registered Landscape Architect
- Georgia Carroll - Landscape Architect



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# Executive Summary

## The future of Ballarat's waterways

### Background

In 1995, a Landscape Master Plan & Management Plan was developed for the Yarrowee River Corridor and has formed the strategic basis for the restoration of the waterway over the last 25 years. The approaching anniversary of this document prompted the review and update of the Yarrowee Masterplan to guide new works and priorities for the next 20 years.

Ballarat and the Yarrowee River are facing a new and different set of challenges and changes since the previous plan, including significant residential development, population increase and the impacts of climate change such as the projected increase in stormwater flows. This masterplan supports existing City of Ballarat and greater catchment strategic documents to propose the new strategic foundation to improve, develop, manage and maintain the Yarrowee River and tributaries.

This project covers 38km of the Yarrowee River - from the Gong Gong Reservoir to the City of Ballarat's southern boundary (near Garibaldi) - and over 35km of tributary creeks that flow into the Yarrowee. The report provides recommendations for both the waterways and adjacent reserve land.

### Project Partners

This project is a collaborative initiative between City of Ballarat, Peak Stakeholder Bodies, community members and joint funding partner organisations: Central Highlands Water and Department of Environment, Land, Water and Planning.

### Project Objectives

This project aims to:

- Assess recommendations of the previous report to review priorities, works undertaken (including evaluation of successful outcomes) and provide priorities for future development, management and maintenance.
- Identify areas along the waterways with limited access and poor connections, river and vegetation degradation and other low quality / amenity areas to provide solutions to improve river corridor environment both for ecological and social benefits.
- Provide recommendations to develop and manage the river and creek corridors to increase Ballarat's liveability and boost the economic, environmental and health benefits of the waterways.
- Develop a guide for council staff to prioritise ongoing maintenance and future works including funding allocation.

### Project Process & Consultation

The initial stage of this project involved extensive analysis of the existing conditions of the waterways, including a review of the works undertaken as part of the previous plan. Site visits and analysis were completed over the full extent of the Yarrowee River and tributaries, walking and cycling accessible sections, where possible and capture of aerial video footage using a drone in inaccessible areas for a desktop analysis review.

A Project Working Group was established and key stakeholders were consulted at various stages of the project. An online survey was developed for the Ballarat community for comment on the future of the waterways. The community input has been carefully considered and integrated into recommendations and proposals along the waterways.

The expansion of key recommendations for the action plan and the outcomes for the masterplans were developed from the analysis and consultation process. Key projects were presented and the City of Ballarat and the Project Working Group chose four Priority Projects for further design development and detailed costing.

### Dovetailing with City of Ballarat Strategic Direction and Policy

This report aligns with multiple, ongoing CoB strategic documents and builds on works recommended surrounding the waterways. Proposals ties with the principles set out in the Ballarat Strategy (2015) and other documents including the Urban Forest Action Plan, Greening Ballarat (a green-blue action plan) and the Ballarat City Integrated Water Management Plan to continue the vision of *A Greener More Vibrant and Connected Ballarat*

### Action Plan

This report includes a detailed Action Plan with recommendations and priorities developed with CoB to suit their ongoing strategic vision for Ballarat and supporting strategies. The recommendations cover 8 themes:

- Access and Trails
- Rehabilitation, Revegetation and Vegetation Management
- Water Quality and Wetlands
- Sludge and Contaminated Sites
- Recreation and Parks
- Land Tenure and Future Land Development
- Community Engagement and Education
- Sustainable Management of Waterways

The action plan is to be used as a guide for resourcing and funding decisions over the next 20 years

### Masterplan

The Yarrowee River and Tributaries River Corridor Masterplan includes a set of 34 plans spanning the River and Tributaries. The maps have been divided into 5 reaches, north, central, south, rural and tributaries. They include site-specific proposals for the waterways and reserve land including trails and links, revegetation, areas for future development and key features such as trail heads, wetlands, wayfinding signage, carparks and more.

### Priority Projects

The Priority Projects were chosen for further development by City of Ballarat and the Project Working Group from a list of over 25 major projects determined from the Masterplans. These projects allow for small scale testing of ideas along the waterways to develop best practice model projects that may be applied elsewhere. Each of the Priority Projects includes a concept plan, a vision, detailed description and benefits, suggested staging and an itemised opinion of probable cost spreadsheet. These projects provide a 'ready-to-go' brief suitable for funding application or further detailed design for short term delivery. The four Priority Projects are:

- 1) Trailheads, signage and interpretation.
  - Southern trailhead at Dowcra Street
  - Prest Street lookout
- 2) Sunnyside Mill Parklands
- 3) Revitalisation of Redan Wetlands.
- 4) Rural Trail Extension - upgrade reserve from Dowcra Street to Midland Highway

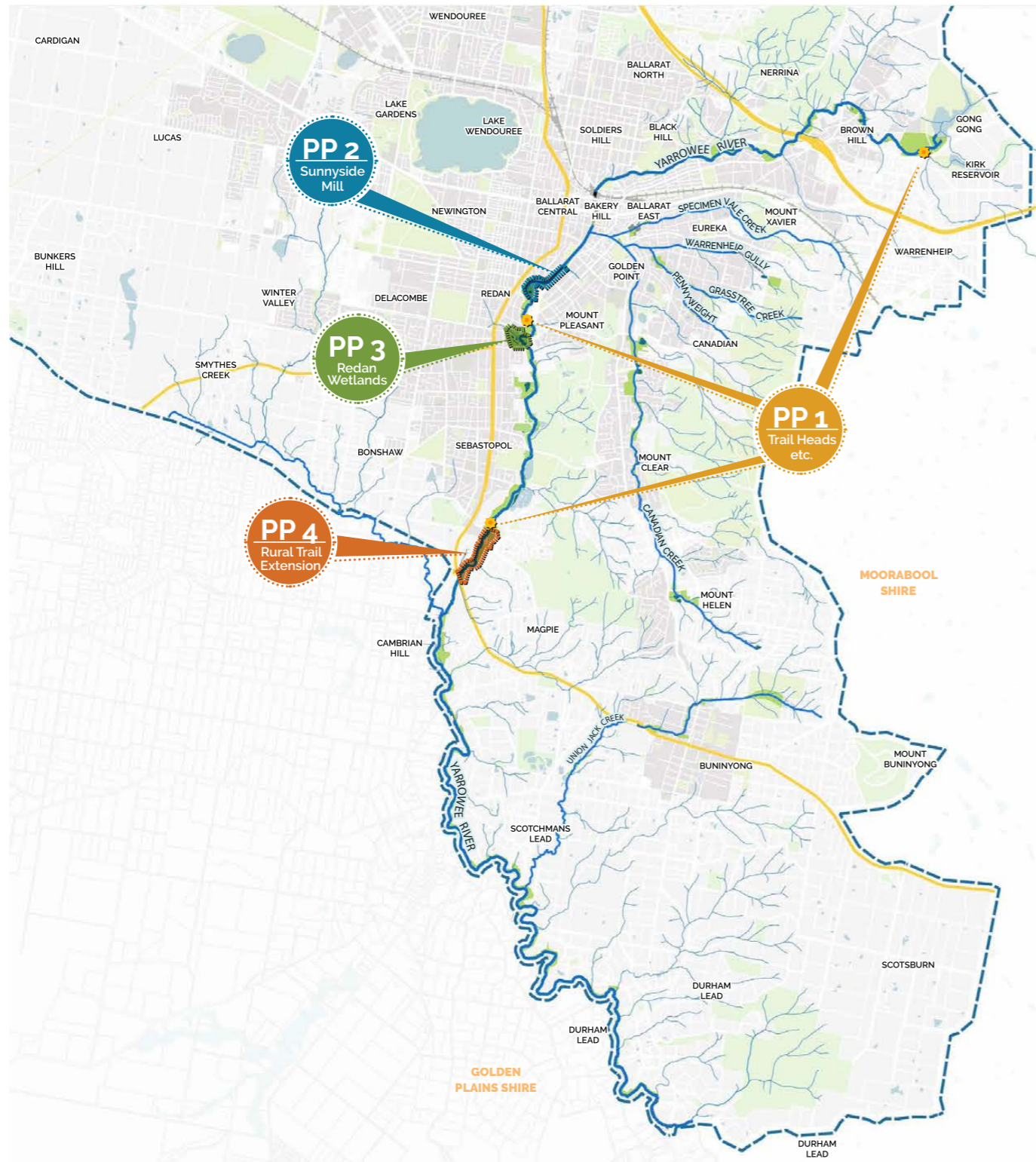


Yarrowee River and Tributaries River Corridor Masterplan 2019-20

Thomson Hay Landscape Architects and Roger Thomas



# Priority Projects Overview



Yarrowee River and Tributaries River Corridor Masterplan 2019-20

## Priority Projects

The Priority projects allow for small scale testing of ideas along the Yarrowee River and tributaries, which are to be completed within a short time frame. Projects have been selected to meet the following criteria:

- Total value up to \$1 million per project - some features may be staged
- Delivered within a time frame of 5 years (by 2025)
- Projects are unique to this masterplan and not covered in other COB reports and strategies
- Due to size and complexity of this study, projects are selected to cover diverse issues and geographic area
- Projects should demonstrate a significant improvement in environmental and / or recreational values
- Develop best practice model projects that may be applied elsewhere

### 1) Trail heads, signage and interpretation

- Southern trailhead at Dowcra Street including carparking, picnic area, wayfinding signage and launch point for the proposed Yarrowee Kayak Trail
- Prest Street lookout including opportunity to celebrate previous tree planting and environmental works undertaken along the Yarrowee River corridor

### 2) Sunnyside Mill Parklands

Including:

- Loop trails and fencing along channel
- Rest node with drinking fountain and bike repair station
- Carparking for Active Transport Link into Ballarat CBD
- Flexible open space on old transfer station site
- In-stream and riparian planting
- New bridge crossing
- Wetland revitalisation
- Opportunity to develop precinct in conjunction with ongoing improvements to the Sunnyside Mill building and the projected increase in public usage
- Litter trap - location subject to future feasibility study

### 3) Revitalisation of Redan Wetlands

Including:

- Loop trails
- Weed control, silt and litter management
- Boardwalks and picnic shelter
- Revegetation on embankments, increased canopy trees and wetland species diversity

### 4) Rural Trail Extension - Upgrade reserve from Dowcra Street to Midland Highway

Including:

- New trail extension
- Fencing
- Weed and erosion control
- Revegetation
- Redevelop billabong into wetland learning space
- Kayak trail

*Note: designs indicated are subject to further ground truthing / survey and constraints such as environmental or cultural heritage requirements.*

Refer to Masterplan, Priority Projects and Recommendations section of the report for further detail and costing for each Priority Project

## Project Action Plan

A detailed Action Plan accompanies this Report and has been provided in spreadsheet format below. Project actions have been divided into 8 categories:

- Access and Trails
- Rehabilitation, Revegetation and Vegetation Management
- Water Quality and Wetlands
- Sludge and Contaminated Sites
- Recreation and Parks
- Land Tenure and Future Land Development
- Community Engagement and Education
- Sustainable Management of Waterways

Priorities have been developed in collaboration with the City of Ballarat to aid in future resourcing and funding decisions.

Note: priorities may change due to future budgetary, cultural heritage and environmental considerations and funding availability.

### Supporting Documents

(abbreviations in **bold**):

Greater catchment reports:

- Corangamite Waterway Strategy 2014-2022 (Corangamite CMA) **CWS**
- Upper Barwon Yarrowee Leigh **FLWS** study update, 2019 (Corangamite CMA)
- Leigh Catchment Group Strategy 2017-2023 (Leigh Catchment Group) **LCG**
- Bunanyung Landscape Alliance Establishment Document Strategic Plan

City wide reports:

- Yarrowee River Corridor Landscape Masterplan & Land Management Plan, 1995
- Linear Network of Communal Spaces (LINCS) Strategy, 1996
- Yarrowee Sub-catchment Masterplans, 2003 **YSC**
- Ballarat Open Space Strategy, 2008 **BOS**
- Breathing Life into the Yarrowee River Project, 2013 **BLY**
- Urban Forest Action Plan March 2019 **UFP**
- Urban Forest Discussion Paper 2017 **UFP**
- Greening Ballarat - a Green-Blue Action Plan, 2016 **GBP**

- Ballarat Strategy 2040 **BS2040**
- Ballarat City Integrated Water Management Plan, 2018 **IWM**
- Stormwater Management Plan, 2010
- Stormwater Management Plan, 2002
- Ballarat Cycling Action Plan **CAP**

Regions of the City:

- Ballarat East Local Area Plan, 2019 **BEL**
- Bakery Hill Urban Renewal Plan, 2019 **BHUR**
- Brown Hill Local Area Plan & Infrastructure Assessment, 2019 **BHL**
- Little Creeks do Matter, the Eleven Creeks of Canadian (FOCC) **FOCC**
- Woookarung Regional Park Strategic Directions Plan (Parks Victoria) **WRP**
- Draft Parks Masterplan Summary (CHW) **DPM**

Ref. Map / Pg no.	Project Name	Location						Description	Priority	Supporting Document	Future Design Required	
		Yarrowee River and Tributaries	Yarrowee River North	Yarrowee River Central	Yarrowee River South	Yarrowee River Rural	Tributaries					
<b>Access and Trails</b>												
Pg. 31	Loop trails - local							Develop local loop trails in high use / urban areas and around features of interest.			BEL, BHL, BLY, BOS, BS2040, YSC, CAP	Yes
Pg. 31	Loop trails - Ballarat region							Connect the Yarrowee River and tributaries to create opportunities for longer rides / walks between suburbs and smaller townships in the Ballarat region. Longer loop trails may be a day trip and should provide high quality visitor infrastructure and experiences. Opportunity for longer loop trails to be used as routes for running / cycle events.			BEL, BHL, BOS, CAP, YSC	Yes
	Connections to Woookarung Regional Park							Provide trails and directional signage to promote a connection from Canadian Creek, Warrenheip Gully and Specimen Vale Creek to Woookarung Regional Park trailheads.			BEL, BOS, WRP, YSC	Yes
	Improve pedestrian and cycle links							Improve pedestrian and cycle trail links and signage to nearby parks, roads and existing foot path network.			BEL, BHL, BOS, BS2040, CAP, YSC	
PP2, YN4, YC1, YC2, ET1. Pg. 31	Active Transport Link							Develop separated pedestrian and cycle trail and infrastructure that allows people to park outside the CBD and walk / ride along the Yarrowee River Trail into the CBD. The 'active transport link' may also be used to connect people to the train station, schools, shops and services. May include car park, upgrade of existing trails or provide new trails, bike repair station, drinking fountain, signage / branding, canopy tree planting and path edge planting.			BEL, BHL, BOS, BS2040, CAP, YSC	Yes
PP1	Signage strategy (Incorporated in Priority Project 1)							Develop a dedicated Yarrowee River and tributaries signage strategy including trailhead, wayfinding / directional, interpretation, safety / compliance signage.			BOS, BS2040, CAP	Yes
	Themed trails							Develop themed trails to share local stories relating to the river / creeks, indigenous heritage and indigenous vegetation. Provide interpretation of local cultural and heritage including stories / sites / features of importance to the local Wadawurrung people and gold mining era. Themed trails may include signage, markers, seating and planting.				Yes

Project Action Plan cont.

Ref. Map	Project Name	Yarrowee & Trib.	North	Central	South	Rural	Tributaries	Description	Short / Medium Term	Long Term	Ongoing	Supporting Document	Future Design Required
PP4	Kayak trail (Priority Project 4)							Provide kayak launch points in wider reaches of the Yarrowee River. One possible kayak trail starts from Docwra Street, Sebastopol and ends at Glassons Road, Cambrian Hill. A second possible kayak trail is between South Durham Bridge Road and Buninyong - Mt Mercer Road in Durham Lead. Launch points to include car parking, signage and selected visitor facilities. Paddling activities will be subject seasonal flows.					Yes
	Improve existing trail accessibility							Improve accessibility of existing trail system with additional sections of trail, pram crossings, refuge islands and signage to identify adjoining roads.				BEL, BHL, BOS, BS2040, CAP	
	Upgrade existing trail to Shared Path status							Upgrade existing trail in high use / urban areas to shared path status with a minimum width of 2.5m, subject to available space.					
	Trail surface							Surface of the trail will depend on location, level of use and maintenance levels. Hard surface (i.e. concrete / asphalt) will be appropriate in high use / urban areas / flood prone areas. A granitic sand surface is generally preferred for walking / running, and should be provided as an alternative option wherever possible. In areas where there is currently no access (i.e. south of Docwra Street on the Yarrowee River), it is recommended that a maintenance access track be constructed (may be a graded unsurfaced track) in the short to medium term, and then upgraded to a trail / shared path as use demands.					
	Boardwalk over channel							Opportunity to provide a cantilevered boardwalk over the channel in areas where pedestrian / cycle access is restricted, including along Steinfield Street, Anderson Street and Eastern Oval, to improve accessibility and amenity of trails around the CBD.					
	Bridges and crossing points							Additional bridges and crossing points to provide improved connectivity across the River and creeks. Bridges to be constructed to sufficient width to allow for maintenance access if required, with removable bollards for controlled vehicle access.				BEL, BHL, BOS, BS2040, CAP	
	Semi-transparent fencing							Recommend minimum 50% semi transparent fencing for all new fences along private land adjoining the river and creek corridors.					Yes
PP2 +	Channel safety barrier (Included in Priority Project 2)							Improve safety by planting a vegetation barrier and / or constructing a fence between the trail and channels in high use areas.					
	Opportunities to interact with water							At suitable selected sites, provide safe water interaction areas and crossings such as large stepping stones across the river / creeks (supplementary to bridges).					
	Intersection safety							Upgrade road intersections that cross the Yarrowee River and tributaries to ensure a high level of user safety including adequate lighting, signage, pram crossings and refuge islands.					
	Public facilities and infrastructure							Provide high quality facilities along the Yarrowee River and tributary trails, and maintain the facilities to a high standard.				BEL, BHL, BOS	
	Unauthorised access							Restrict illegal vehicle access along and across the river / creeks to minimise dumping of rubbish, vegetation damage, and creek bed / bank damage and erosion.				BLY, YSC	
<b>Rehabilitation, Revegetation and Vegetation Management</b>													
	Ongoing funding commitment							Provide ongoing funding for weed and pest control along river / creek corridors to ensure long term sustainability and encourage natural regeneration of indigenous species.				CWS, LCG	
	Priority weed removal							Priority woody weed removal includes: - Willow - Gorse - Boxthorn - Pines - Hawthorn - Blackberry - Hemlock - English and Cape Broom - Spiny Rush - Ash				BLY, CWS, LCG	



Project Action Plan cont.

Ref. Map	Project Name	Yarrowee & Trib.	North	Central	South	Rural	Tributaries	Description	Short / Medium Term	Long Term	Ongoing	Supporting Document	Future Design Required
	Weed control							Implement a weed control program utilising a variety of suitable control techniques including controlled burning, chemical and mechanical methods. Control techniques and timing need to be carefully considered to minimise unintended impacts i.e. erosion / waterway instability and loss of habitat. Weed control should be part of a staged program, so that weeds are only removed in areas that have short term funding for revegetation. Ensure sufficient funding is allocated for follow up weed control over at least 3 years.				CWS, LCG	
	Pest animal control (feral)							Pest animal control pre and post planting to support the ongoing success of revegetation and preserve native fauna. Reduced feral animal numbers will assist with natural revegetation. Target species include Rabbits / Hares.				LCG	
	Grazing control (policy and laws)							Implement best practice on leased grazing properties. As funds and management resources permit, rescind grazing rights on land adjacent to the river and creeks to ensure short, medium and long term public access to the corridor, and establishment and protection of revegetation works.				LCG	Yes
	Grazing control (fencing)							Install stock proof fencing on title boundaries in rural areas where works are being undertaken to prevent grazing. Re-align existing fencing to correct title boundaries as required.				CWS, LCG	
	Proactive erosion control							Develop and implement erosion control measures to mitigate potential erosion caused by increased flows due to urban development and storm events.				BLY, LCG, YSC	Yes
	Instream bed and bank naturalisation and hydraulic controls							Develop and implement instream bed and bank naturalisation to improve ecosystem diversity - where space and conditions permit. Stabilise banks, undertake weed and erosion control measures and aquatic revegetation (as outlined below). Develop / identify good case studies at various locations along the river / tributaries. Possible sites include the Yarrowee River Urban Parkland and south of White Flat Oval adjoining Humffray Street.				BHUR, FLOWS, IWM	
	Revegetation of river / creek corridors on private land							Encourage / support landowners to control weeds / pests and revegetate waterway corridors. Note only biodegradable weed or jute mat may be used below 1:100 year flood level, do not use timber mulch.				CWS, FLOWS, IWM, LCG, YSC	
	Natural regeneration management							Land management (including weed and pest control) to encourage revegetation of the river / creek corridor with indigenous flora by natural regeneration methods.				CWS, FLOWS, IWM, LCG, UFP, YSC	
	Revegetation terrestrial zone							Revegetation of terrestrial zones with indigenous flora using tubestock / hikocell / direct seeding as appropriate. Opportunity for engagement with and participation of local community and Wadawaurung people. Note only biodegradable weed or jute mat may be used below 1:100 year flood level, do not use timber mulch.				BEL, BHL, BLY, CWS, FLOWS, IWM, LCG, UFP, YSC	
	Revegetation of riparian zone							Revegetation of riparian zones with indigenous flora using tubestock / hikocell / direct seeding as appropriate. Opportunity for engagement with and participation of local community and Wadawaurung people. Note only biodegradable weed or jute mat may be used below 1:100 year flood level, do not use timber mulch.				BEL, BHL, BLY, CWS, FLOWS, IWM, LCG, UFP, YSC	
	Revegetation of aquatic zone							Revegetation of aquatic zones with indigenous plants using tubestock / hikocell as appropriate. Opportunity for engagement with and participation of local community and Wadawaurung people. Note only biodegradable weed or jute mat may be used below 1:100 year flood level, do not use timber mulch.				BEL, BHL, BLY, CWS, FLOWS, IWM, LCG, UFP, YSC	
	Remnant vegetation							Protect, retain and enhance existing remnant vegetation. Identify areas of remnant vegetation that will need to be avoided or managed in the process of future works. Manage surrounds of remnant vegetation to encourage natural regeneration.				BEL, BHL, BLY, CWS, FLOWS, IWM, LCG, YSC	
	Screening planting							Planting of trees and shrubs to screen unattractive views, improve amenity and biodiversity, and support the urban forest strategy.				CWS, FLOWS, IWM, LCG, UFP	
	Canopy tree planting							Planting of trees within the river / creek corridor including a selection of indigenous, native and exotic trees to improve amenity and support the urban forest strategy. Avoid planting trees that are likely to become weeds.				BEL, BHL, CWS, FLOWS, IWM, LCG, UFP	
	Understorey planting							Planting of indigenous understorey species within the riparian corridor where space and conditions permit.				BEL, BHL, BLY, CWS, FLOWS, IWM, LCG, YSC	
	Trail edge planting							Planting of trees, shrubs, grasses and groundcovers along trails to enhance sensory experience along trails. Low tufting plants may be used as a barrier between the trail and unfenced sections of channel, or along steep banks of the river / creeks.				YSC	

Project Action Plan cont.

Ref. Map	Project Name	Yarrowee & Trib.	North	Central	South	Rural	Tributaries	Description	Short / Medium Term	Long Term	Ongoing	Supporting Document	Future Design Required
	Productive food							Plant productive trees within managed areas to provide an urban food forest and enhance the landscape character of the corridor. Indigenous or native trees are preferred. Avoid planting trees that are likely to become weeds or attract pests (including Grey-headed Flying Fox).				UFP	
	Green Streets							Develop sustainable and green streets where the Yarrowee River is underground. Consider integrated stormwater management and urban tree planting /greening. Green streets may also be developed along key roads linking to nearby parks (i.e. Elsworth Street link to Woookarung Regional Park).				GBP, UFP, IWM	
	Ecological corridors							Develop and enhance ecological corridors to provide links to key habitat areas within the Ballarat region, including Woookarung Regional Park.				BS2040, FLOWS, GBP, IWM, LCG, WRP	
	Manage and maintain revegetation							Regular monitoring, maintenance and management for natural revegetation and follow up planting in revegetation areas to ensure long term viability and sustainability.				CWS, FLOWS, IWM, LCG	
	Mowing and maintenance							Reduce mowing area within river corridor to encourage regeneration of indigenous flora and reduce ongoing maintenance costs. Regular mowing should be undertaken in the following areas: - 3m minimum width either side of trail - picnic and seating areas - active recreation areas - selected sites that provide access to the river bank - periodic mowing of selected areas for fire hazard reduction Consider mulching and revegetating areas of previously slashed grass or weed infested areas.				YSC	
ET5	Sparrow Ground Reserve							Manage Sparrow Ground for its native flora, restricting mowing around waterway (not within recreation areas) to a minimum and reducing weed populations.					
YN2	Rickey's Quarry							The former Rickey's Quarry site is designated as a Flora Reserve but it would be better classified as a Bushland Reserve. With much weedy understorey, and a varied bird population, this seems a more appropriate classification.					
	Native fauna audit							Audit of native fauna present and establishment of bio-indicator species. Develop a management plan to allow for successful ecological works, revegetation and ongoing management of feral animals. Fox management in particular is a key to protecting native fauna within this landscape. The audit will provide an important benchmark to review against in future years. This could be delivered with through the community as a citizen science activity e.g. bioblitz.				FLOWS, LCG	Yes
<b>Water Quality and Wetlands</b>													
	Gross Pollutant Trap (GPT) / litter trap							Installation of GPT's and litter traps at key locations to improve litter and large rubbish.				BLY, IWM	Yes
	WSUD sedimentation basins and swales with litter trap at stormwater outlets							Where space permits, install WSUD sedimentation basins and litter traps at stormwater points prior to entering the river and creek system to remove litter, pollutants, sediments and heavy metals.				BLY, IWM, YSC	Yes
	Litter traps							Install litter traps on each tributary of the Yarrowee River and on offline wetlands.				BLY, IWM, YSC	
	Urban rain gardens & tree pits							Develop urban rain gardens and tree pits where space and conditions permit to improve water quality, habitat and amenity in accordance with the urban forest strategy.				CWS, IWM, LCG, YSC	Yes
	Ballarat South Wastewater Treatment Plant discharge							Maintain discharge into the Yarrowee River from Ballarat South Wastewater Treatment Plant as a beneficial environmental flow. Opportunity to better replicate natural flow regimes. Consider a winter storage lagoon and improved mixing of discharge water.				CWS	
YS2	Yuille Wetland							Protect and enhance existing wetland vegetation. Investigate the potential for water from the river to be diverted through to Yuille Wetland. Extend trails to provide a loop trail around the wetland. Opportunity to develop a new wetland, to be filled using water from Ballarat Gold Mine and CHW winter storage - subject to negotiations with Ballarat Gold Mine and Central Highlands Water.				CWS, FLOWS, IWM, LCG	
PP3	Redan Wetland revitalisation (Priority Project 3)							Water from the Redan wetlands is diverted to refill Lake Wendouree. Review and redesign wetlands and integrated sedimentation pond, litter traps and GPT to improve effectiveness. Improve vegetation including establishing clumps of trees around the wetland for shade and biodiversity. Provide additional loop trails				BLY, CWS, FLOWS, IWM, LCG	

Project Action Plan cont.

Ref. Map	Project Name	Yarrowee & Trib.	North	Central	South	Rural	Tributaries	Description	Short / Medium Term	Long Term	Ongoing	Supporting Document	Future Design Required
PP2	Sunnyside Mill wetland upgrade (Priority Project 2)							Upgrade existing wetland. Provide loop path and bridge to improve connection to existing Yarrowee River Trail. Improve aquatic / riparian planting. Redevelop decommissioned transfer station raised area as a flexible open space for various events				CWS, FLOWS, IWM, LCG	Yes
YS3	Docwra Street wetland - design and construction							Develop new wetlands within existing floodplain / swampy riparian area to improve water quality and habitat diversity values, in an otherwise degraded and barren area.				CWS, FLOWS, IWM, LCG	Yes
YR1	Winter Creek wetland - planning							The rapid urban development of Ballarat West will impact the water quantity and quality in Winter Creek. Develop a series of wetlands along Winter Creek (subject to flood studies) and new wetland at the confluence of Winter Creek and Yarrowee River to improve stormwater quality before entering the Yarrowee River.				CWS, FLOWS, IWM, LCG	Yes
	Woookarung wetlands							Develop new wetlands within the Woookarung Regional Park on existing drainage lines to improve water quality and habitat diversity values. Wetlands may be designed as a chain of ponds with a wetland / environmental education trail. Locate wetlands to minimise disturbance of existing indigenous vegetation. Provision of permanent pools of water will be environmentally beneficial for the Woookarung Regional Park.				WRP, CWS, FLOWS, IWM, LCG, YSC	Yes
	Billabongs							Retain, protect and enhance existing billabongs including fencing, weed and pest control and revegetation with indigenous species. Provide minor civil works to ensure regular filling / flushing of billabongs.				CWS, FLOWS, IWM, LCG, YSC	Yes
	Waterway habitat diversity							Retain, protect and enhance diverse habitat types within the river / creek catchments for native fish including riverine pools, riffles, runs, woody debris, undercut banks, rocks and boulders, swamps and floodplains wetlands. Ensure these habitats are created and maintained by adequate flow regimes.				FLOWS	
<b>Sludge and Contaminated Sites</b>													
	Sludge mapping							The Yarrowee River is a case study for the 'Rivers of Gold' project. Request access to sludge mapping prepared by the research team. The sludge mapping will help in understanding the impacts of gold mining along the Yarrowee.				www.rivers-of-gold.com	
	Sludge and contaminated sites management plan							Develop a sludge and contamination management plan with a qualified soil hydrology scientist that includes evaluation and recommendations for rehabilitation of contaminated land, with the aim being to minimise impacts of sludge and contamination movement down the catchment.					Yes
	Investigate mining company gold recovery and rehabilitation options							Options to be discussed with stakeholders					
	Capping of contaminated sites (including former gun club)							Options to be discussed with stakeholders					
	Planning scheme action							Investigate the need to apply an Environmental Audit Overlay to contaminated sites.					
<b>Recreation and Parks</b>													
YC1	Yarrowee River Urban Park							Opportunity to reconnect the CBD with the Yarrowee River by redeveloping the existing car park between Little Bridge Street and Eastwood Street into an urban park and expose sections of Yarrowee River. Need to reference the Bridge Mall Rejuvenation Project, part of the Bakery Hill Renewal Plan, which will be the key driver for outcomes in this precinct.				BHUR, IWM	Yes
YN5, ET1	Pocket Parks							Develop pocket parks to provide opportunities for recreation and socialising in a green space. Consider integrating WSUD features for additional environmental benefits. Pocket parks may be located in areas of under-used open space that are safe and accessible, and in close proximity to existing services and amenities. Consider impacts on existing vegetation, wildlife and surrounding residents. Possible sites for pocket parks include: - Morres Street between Newman Street and Queen Street North, Ballarat East - Confluence of Warrenheip Gully and Canadian Creek, Golden Point				YSC	Yes
YN2, YR2, YR5, YR8	Picnic facilities							Develop new picnic facilities at key sites including: - Brown Hill (near Ballarat Primavera Bed and Breakfast) - Glassons Road, Cambrian Hill - Scotchmans Lead Road, Scotchmans Lead - South Durham Bridge Road, Durham Lead Consider safety, accessibility, adjoining resident amenity and impact on existing environmental values.				BOS	



Project Action Plan cont.

Ref. Map	Project Name	Yarrowee & Trib.	North	Central	South	Rural	Tributaries	Description	Short / Medium Term	Long Term	Ongoing	Supporting Document	Future Design Required
PP1, YN1, YN4, YC1, YS3 & YR9 Pg. 31	Major Trailhead (Priority Project 1)							Upgrade facilities at major trailheads. Facilities may include car park, shelter, signage, toilets, picnic facilities, drinking fountain, nature play space and planting. Major trailheads are proposed at the following locations: - Gong Gong Reservoir Park - Nerrina Wetlands - Little Bridge Street / Eastwood Street, Ballarat CBD - Docwra Street, Sebastopol - Buninyong - Mt Mercer Road, Durham Lead				DPM	Yes
	Increase active recreation opportunities							Increase opportunity for safe active recreation for all ages i.e. fitness circuit, children's playspace, mountain bike trails etc.				BOS, CAP	Yes
	Covering of channel							Consider part covering of channelised sections of the Yarrowee River and tributaries where there are demonstrated improvements to amenity, access and recreational values, subject to heritage assessment. Covering of channel may be an option for Eastern Oval to improve the recreational potential and access through this precinct.					Yes
YN1, YC1, CC1, YR9	Masterplan / landscape plan recommended for existing / future parks							Prepare a masterplan / landscape plan for existing or future parks to enhance connection to river / creeks and improve environmental and recreational values. A masterplan or landscape plan is recommended for the following sites: - Gong Gong Reservoir Park (in collaboration with CHW) - Canadian Creek Reserve in the vicinity of Canadian Lakes Estate - Buninyong - Mt Mercer Road trail head / picnic area - Future sites that become Council owned / managed land adjoining the river / creek corridor				BEL, BHL, BOS, YSC	Yes
<b>Land Tenure and Future Land Development</b>													
	Planning policy study							Recommend council Strategic Planners review the Action Plan to ensure relevant recommendation are developed and incorporated into the Planning Scheme. Review and develop planning controls for land adjoining the Yarrowee River and tributaries corridor. Ensure planning policy supports key recommendations of this masterplan, including flood prone land, access and trails, preserving remnant vegetation, and improving ecological and environmental values of the river / creek corridor. Encourage new development to provide an active frontage to the river / creek corridor.					
PP4	Fence reserves adjoining private farm land (part of Priority Project 4)							Install stock proof farm fencing on all reserve title boundaries adjoining private farm land to minimise damage to river corridor / bed / banks by stock and allow for future revegetation works.				CWS	
	Potential undeveloped land acquisitions							Consider the strategic acquisition / land swap of land that is inappropriate for residential development due to floodplain, steep escarpment, condition and / or potential connections. This land will have significant value for public use / conservation purposes.					Yes
	Continuous river corridor							Develop planning controls that require all new development to be generally setback minimum 15m from top of river / creek bank to create a continuous open space corridor. Encourage reserves wider than 15m where there is significant recreational opportunities, habitat value or existing remnant vegetation. Provide strong links to the river / creek corridor from nearby parks and surrounding roads.				BEL, BHL, BOS, BS2040	Yes
	Development on flood prone land							Ensure development on flood prone land responds to applicable flood controls in the 'land subject to inundation' and Flood Overlays. Aim to protect, enhance and regenerate wetlands, floodplains and river / creek corridors. As part of development applications require detailed landscape plans to be prepared for flood prone land that complies with the Yarrowee masterplan documents.					Yes
	Link open space to river corridor							Ensure planning applications provide clear path linkages from new residential development and open space to river corridor.					Yes
	Ecological assessment							Develop planning controls that require developers to provide assessment of river and creek corridor health and potential for restoration to reasonable health. Assessment may include water quality, fish, frogs, macro invertebrates, aquatic and riparian vegetation. Proposed development works should aim for a net biodiversity improvement. Opportunity for developers to make contributions towards improving waterway health within their catchment.				FLAWS, LCG, WRP	
	Industrial developments							Develop planning controls that require new industrial developments to include on site stormwater management / treatment and WSUD to trap litter, sediments and heavy metals prior to stormwater release to the Yarrowee River and tributaries.				EPA	Yes

Project Action Plan cont.

Ref. Map	Project Name	Yarrowee & Trib.	North	Central	South	Rural	Tributaries	Description	Short / Medium Term	Long Term	Ongoing	Supporting Document	Future Design Required
<b>Community Engagement and Education</b>													
	Community ownership, engagement and participation							Encourage / support community ownership, engagement and participation on both public and private land along the river / creek corridor including involvement with friends and Landcare groups.				CWS, LCG	
	Indigenous knowledge and living culture							New projects to seek involvement and support of the Wadawurrung people. Project proponents should approach their contribution with flexibility to allow for a broad range of cultural knowledge and values to enrich projects. Explore opportunities for indigenous plantings to provide a valuable resource to enhance and promote living culture i.e. medicinal plants, food plants and resources for traditional crafts. Consider the inclusion of spaces for gathering and practicing living culture. The location and facilities will be specific to the communities needs and should be directed by the Wadawurrung community. Discuss commercial / tourism opportunities with the Wadawurrung community. Explore ways to support these opportunities. Promote the Yarrowee River and tributaries as an inclusive space and share the indigenous historical and cultural importance of the waterways. Precedent projects include: - Deniliquin Lakes, NSW which incorporates reed beds with weaving circles and a native fish breeding program - Three Rivers Festival at Moama Botanic Gardens NSW - Yalingbila Bibula Mooloomba Minjerribah (Whale on the Hill Point Lookout, North Stradbroke Island)				CWS, LCG	
	Yarrowee River brand and awareness							Create a singular name for the Yarrowee River trail. Develop a strong brand identity which captures the Yarrowee River as a destination, as an important part of Ballarat's lifestyle and as a natural system connected to the wider region (i.e. upper catchment of the Barwon River).					
	Continue to educate adjacent land owners							Continue to educate and support adjacent landowners about weeds, water quality, litter, and revegetation. Aim to get their understanding and support for the future direction of the Yarrowee River and tributaries masterplan.				LCG	
	History education							Develop an engaging and relevant interpretation strategy to promote the history of the Yarrowee River and tributaries including cultural heritage, the gold mining era, the industrial progress of Ballarat and rehabilitation of waterways.					
	Environmental education							Develop education opportunities with local schools to promote awareness and understanding of the natural waterway system. Seek partnerships with educational institutions at all levels.				LCG	
	Waterwatch citizen science projects							Provide opportunities for ongoing community involvement in Waterwatch monitoring and research along waterways. Examples of possible programs include a frog / platypus / water bug census, water quality and salinity testing and litter clean up days.				CWS	
	Digital media promotion							Upload high quality digital content including photos / video / drone footage to promote the Yarrowee River and tributaries attractions and experiences. Encourage local artists and general public to submit content. eg. Visualising Ballarat					
Pg. 31	Walk / cycle map							Develop a trail map / brochure for the Yarrowee River and tributaries and loop trails, to be made available at the Visitor Information Centre and digital version online.				YSC	

Project Action Plan cont.

Ref. Map	Project Name	Yarrowee & Trib.	North	Central	South	Rural	Tributaries	Description	Short / Medium Term	Long Term	Ongoing	Supporting Document	Future Design Required
<b>Sustainable Management of Waterways</b>													
	Ballarat Waterways / Wetland / Native Vegetation Management Team							Ensure relevant skills, experience, funding and resources are available for waterway management within the CoB staff to manage and improve waterway function, habitat value, biodiversity, amenity and aesthetics along the Yarrowee River and tributaries and throughout the City. The team should include a community engagement officer to encourage community engagement and participation in waterway planning, design, planting and maintenance. The team should be trained in native plant identification and careful use of herbicides.				CWS, LCG	
	Land management groups							Encourage and support land management groups including Friends Groups and Landcare Groups to continue their planting and maintenance works along river / creek corridor. Many volunteers are willing to work in their local areas if properly organised and supported.				CWS	
	Areas of Aboriginal cultural heritage sensitivity							Areas of cultural heritage sensitivity include all named waterways (200m buffer either side). Identify areas or sites of sensitivity that will need to be avoided or managed in the process of future works. Undertake an on-ground high level assessment with the Wathaurung Aboriginal Corporation and Council representatives to identify known and potential locations of significance. Ensure this assessment is completed well before works commence to avoid delaying the project.				FLAWS, LCG	Yes
	Winter Creek masterplan							The rapid urban development of Ballarat West will impact water quantity and quality in Winter Creek. Develop a masterplan including assessment and recommendations for the Winter Creek corridor and catchment.				CWS, FLOWS	Yes
	Naming of creeks							Naming of unnamed creeks to raise awareness of their existence and importance. Consider using local Wadawurrung language names. Consider renaming 'Lal Lal Drain' to 'Lal Lal Creek' to remove negative connotation associated with a drain.				FOCC	
	Catchment management principles							Develop and implement catchment management principles that aim to balance use and conservation of natural resources on a whole of catchment basis.				CWS, FLOWS	Yes
	Collaboration							The Yarrowee River and tributaries cover a large area with complex issues, therefore many projects will require the combined efforts and collaboration of Council departments, partner organisations, stakeholders and community working together to achieve sustainable outcomes. The rural reach of the Yarrowee River is on the boundary of City of Ballarat and Golden Plains Shire and will require cross border negotiation and planning to successfully implement projects.					
	Emergency services / access							Develop a Yarrowee River and tributaries emergency management strategy including emergency markers / signage and access points for emergency vehicles. Planning and design of works along the river / creeks should consider ways to prevent and minimise the risk of fire and flood damage to infrastructure. New works must comply with relevant planning controls such as flood overlays and Bush Fire Management Overlay.				BLY, YSC	



## Project Background

Learning from the past, preparing for the future



*Aerial view of the Yarrowee River and trail at Ditchfield Bushland Reserve*



## Project Background

Learning from the past, preparing for the future

### Preparing for change

The City of Ballarat is preparing for change. Ballarat's population is expected to grow to 160,000 people by 2040. This growth is expected to be focused to the north and west of the city.

As a result, the Yarrowee River will receive a projected 60% increase of stormwater flows. The majority of this flow is expected to flow from Winter Creek (outside of the project scope), which will have a significant increased urban development in its catchment. The population growth will also place a premium on public open space and will result in more people using the Yarrowee River and tributaries for access and recreation.

Ballarat has already felt the impact of climate change and population growth. The City continues to strive to be a leader in water management and create 'a greener, more vibrant and connected Ballarat'. This masterplan will play a key role in bringing this vision to life.

### Previous report and purpose of the Masterplan review

In 1995, Thomson Hay Landscape Architects and Roger Thomas in association with the Linear Network of Communal Spaces (LINCS) Committee prepared the Yarrowee River Corridor Environmental and Recreational Assessment Report, Landscape Masterplan and Land Management Plan. This Masterplan and subsequent projects have transformed significant parts of the river, including improved habitat and biodiversity, new walking/riding trails and improved pedestrian/cycling connections, increased community use and appreciation of the river as a public space. David Hay and Roger Thomas were directly involved in the development of these plans at the time.

This Masterplan Review aims to build on the success of earlier projects and continue the process of transforming the Yarrowee River over the next 25 years into a valuable linear outdoor space for the Ballarat region. The ongoing process of developing the river as a place for significant recreational, environmental and educational values will, in turn, provide economic, social, environmental and physical health benefits for the community. This report aims to guide the development and maintenance of the Yarrowee and its tributaries for the next 25 years.

<sup>1</sup> Refer to population growth projections in Ballarat Strategy 2040, page 254  
<sup>2</sup> Refer to City of Ballarat Stormwater Management Plan, 2nd Edition June 2010.



Yarrowee dredging - 1899

### Site history

The Yarrowee River and tributaries is an important asset for the Ballarat region. The river has rich cultural, historical and environmental values. The Boro Gundidj, a clan of the Wadawurrung people, lived along the northern stretches of the Yarrowee River.

The Yarrowee River and tributaries are highly modified and regulated waterways. They have been historically affected by the gold rush and the urban development of Ballarat. The waterways were used for gold mining operations and were severely degraded by dredging and hydraulic processes causing major silting / sludge and stream bed changes along the river course. During the 1860s, much of the Yarrowee River and tributaries around the Ballarat CBD were contained in bluestone, brick and concrete channels to prevent erosion and help mitigate flooding. As industries developed the waterways became further degraded and polluted. The river through the CBD was re-routed, concreted and built over in the 1960's. It is now an underground channel between Eastern Oval and Eastwood Street.

More recently, the river has become a key focus for recreation and riparian habitat and linear reserve corridors, the 1995 Landscape Master Plan & Management Plan was developed for the Yarrowee River Corridor. Through the 1990's and until the present day these plans have formed the strategic basis for the restoration of these waterways. As a result, extensive works have been undertaken to improve habitat and biodiversity, create walking trails and improve public access and connections to further develop community use and appreciation of the waterways as public spaces.

### Site context

The Yarrowee River catchment covers most of Ballarat's urban / suburban area, and a significant rural area to the south. The Yarrowee River and tributaries are the headwaters to the Leigh River which ultimately drains to the Barwon River and into Bass Strait. These rivers are under the jurisdiction of the Corangamite CMA. As the Yarrowee-Leigh River is a major tributary to the Barwon River, works in Ballarat will have significant impacts downstream (both positive and negative).

Some of the stream flow in the upper tributaries of the Yarrowee River is diverted for water supply. Significant volumes of water flow into the Yarrowee River from the Ballarat South wastewater treatment plant and to a lesser extent, the Ballarat gold mine.

For the purposes of this report, the Yarrowee River and tributaries are divided into five reaches, based on the landscape character and conditions:

#### Yarrowee River

- North (from Gong Gong Reservoir to Nicholson Street, Black Hill / Ballarat East)
- Central – channelised section (from Nicholson Street, Black Hill / Ballarat East to south of Hill Street, Redan / Mt Pleasant)
- South (end of channelised section to Docwra Street, Sebastopol)
- Rural (Docwra Street to bridge crossing on Buninyong – Mt Mercer Road)

#### Tributaries

- Eastern tributaries including Canadian Creek (part), Specimen Vale Creek, Warrenheip Gully, Pennyweight Gully and Grasstree Creek
- Canadian Creek
- Union Jack Creek (previously called Buninyong Creek)
- Winter Creek – up to 500m upstream of confluence with Yarrowee River

### Policy, strategy and other projects within project study areas

Many relevant background documents and reports have been reviewed in relation to this masterplan including the following (all reports prepared by Council unless otherwise noted. Abbreviations in **bold**):

#### Greater catchment reports

- Corangamite Waterway Strategy 2014-2022 (Corangamite CMA) **CWS**
- Upper Barwon Yarrowee Leigh **FLWS** study update, 2019 (Corangamite CMA)
- Leigh Catchment Group Strategy 2017-2023 (Leigh Catchment Group) **LCG**
- Bunanyung Landscape Alliance Establishment Document Strategic Plan

#### City wide reports:

- Yarrowee River Corridor Landscape Masterplan & Land Management Plan, 1995
- Linear Network of Communal Spaces (LINCS) Strategy, 1996
- Yarrowee Sub-catchment Masterplans, 2003 **YSC**
- Ballarat Open Space Strategy, 2008 **BOS**
- Breathing Life into the Yarrowee River Project, 2013 **BLY**
- Urban Forest Action Plan March 2019 **UFP**
- Urban Forest Discussion Paper 2017 **UFP**
- Greening Ballarat - a Green-Blue Action Plan, 2016 **GBP**
- Ballarat Strategy 2040 **BS2040**
- Ballarat City Integrated Water Management Plan, 2018 **IWM**
- Stormwater Management Plan, 2010
- Stormwater Management Plan, 2002
- Ballarat Cycling Action Plan **CAP**

#### Regions of the City

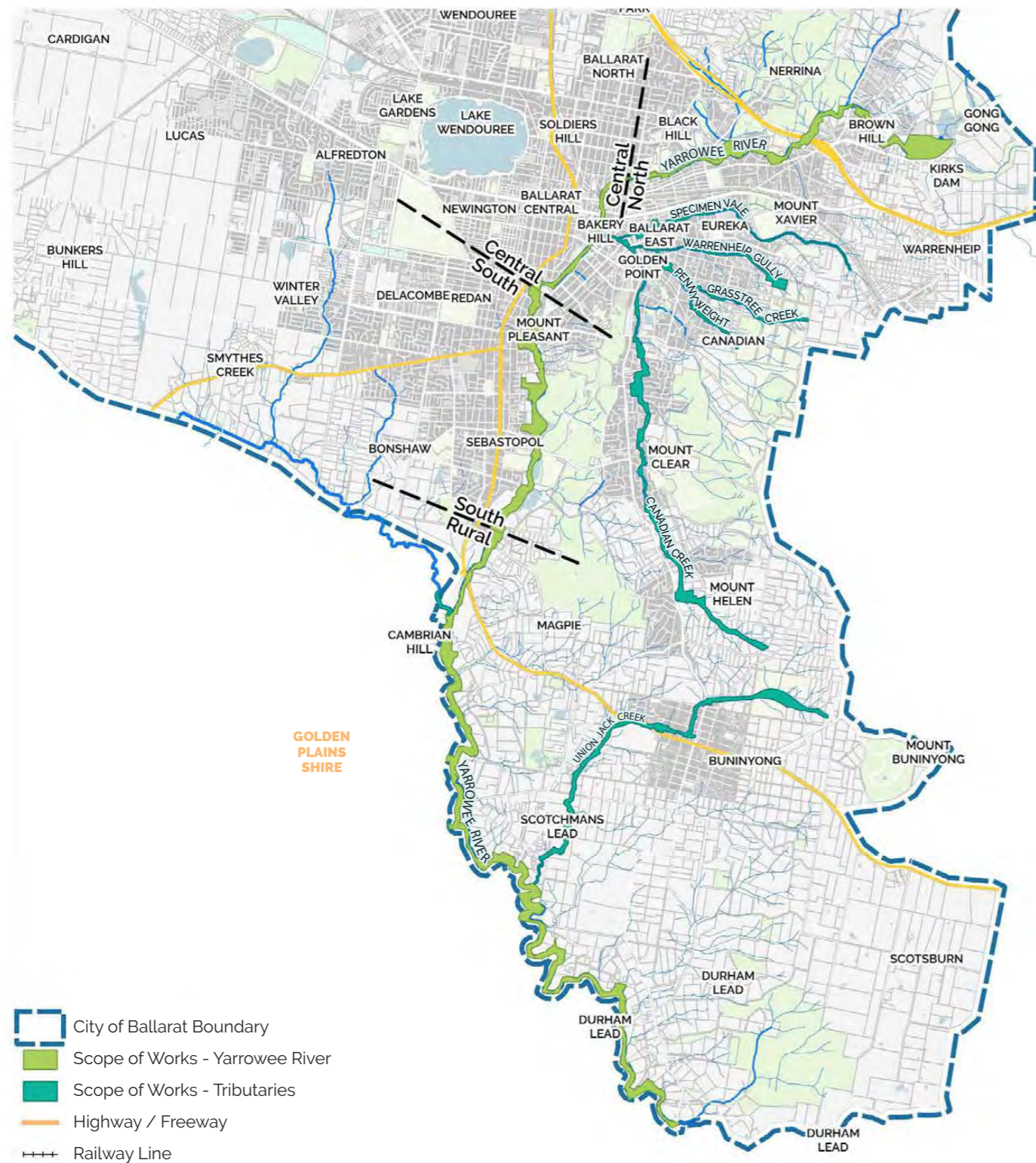
- Ballarat East Local Area Plan, 2019 **BEL**
- Bakery Hill Urban Renewal Plan, 2019 **BHUR**
- Brown Hill Local Area Plan & Infrastructure Assessment, 2019 **BHL**
- 'Little Creeks do Matter, the Eleven Creeks of Canadian' (FOCC) **FOCC**
- Woowookarung Regional Park Strategic Directions Plan (Parks Victoria) **WRP**
- Draft Parks Masterplan Summary (CHW) **DPM**



Sunnyside Mill historical photo



## Project Scope



Yarrowee River and Tributaries River Corridor Masterplan 2019-20

Thomson Hay Landscape Architects and Roger Thomas

### Project scope

The objectives of the Yarrowee River and Tributaries - River Corridor Masterplan Review are to:

1. Assess the broader recommendations of the earlier Plans
  - Review what has generally worked,
  - What hasn't worked,
  - What remains to be done,
  - What is no longer relevant or a priority
  - What are the major issues and priorities for future development, management and maintenance
2. Identify areas of previous rehabilitation works and make assessment as to the success or otherwise of these works. Recommend additional works if required for improvement.
3. Identify all existing walking paths, bridges and connections and make recommendations to improve public access, linkages, bridges and looping path opportunities
4. Identify sites of limited access through private property and make recommendations on methods and priorities for improving access and linkages.
5. Identify areas of degradation including weed infestation, physical damage, rubbish dumping or other.
6. Assess rehabilitated sites for opportunities to improve habitat. Advise on a suitable strategy to improve ground level light penetration and understory establishment
7. The review will consist of a series of plans including any detailed enlargements where required and a report that summarizes the findings and recommendations.
8. Generate a recommended program of works including priorities and staging and indications of likely costs for works.

This project focuses on the following elements:

- Water quality, litter and pollution reduction
- Revegetation, environmental and habitat values,
- Access and recreation

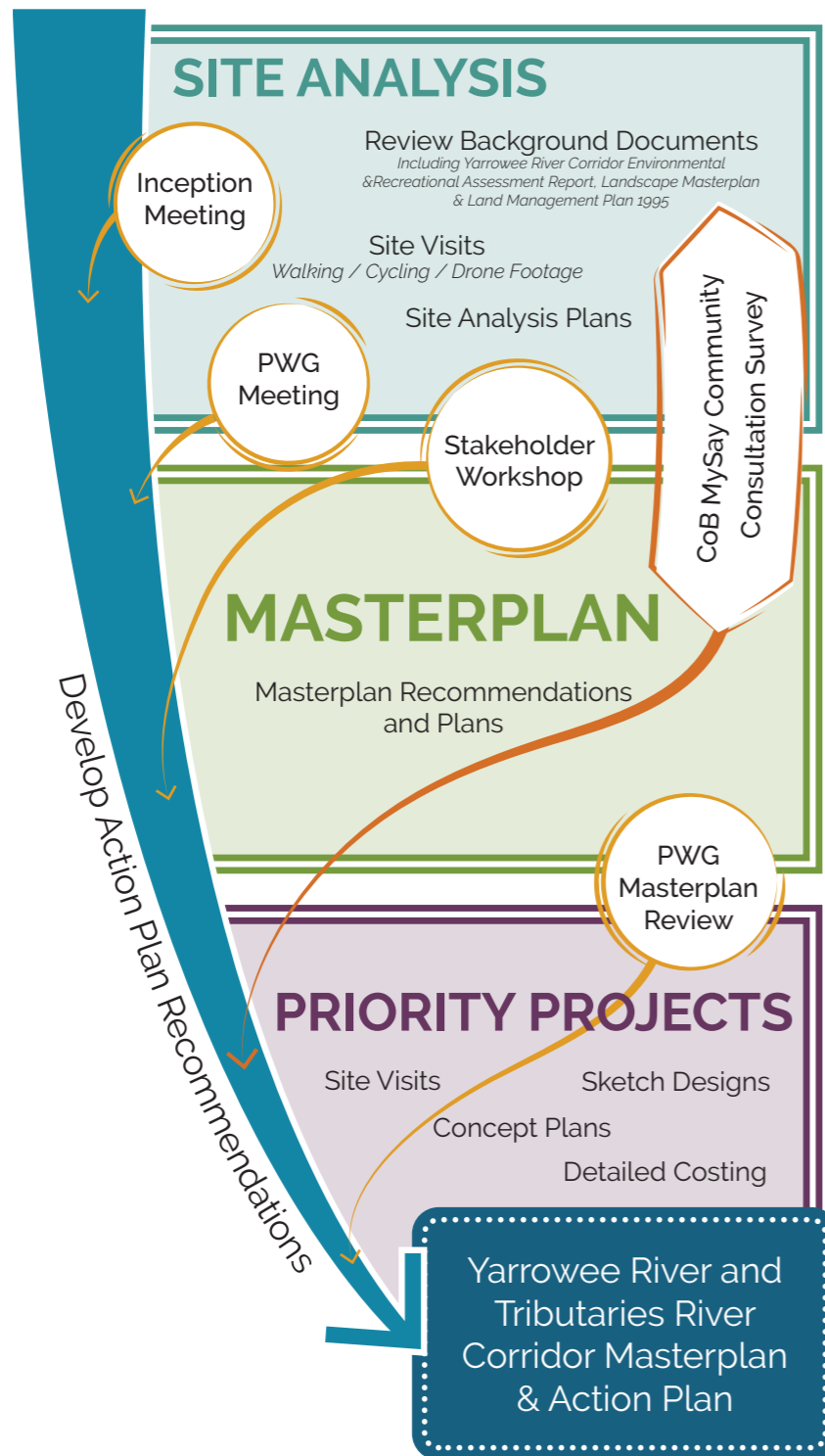
In addition, the following themes are covered

- Land Tenure
- Future development

Due to the length of the river and tributaries many existing plans, reports and projects address complimentary issues such as stormwater and flooding, blue green infrastructure and urban development. These issues are not required to be covered in detail by this report.



## Project Process and Community and Stakeholder Engagement



### Site Analysis

The project team assessed over 50km length of waterways along the Yarrowee River and tributaries. All accessible sections of the river / creeks were assessed on the ground by walking and riding. Inaccessible areas (on private land) were assessed using drone footage, aerial photography, maps and GIS data. Thomson Hay Landscape Architects have an original copy of historical aerial photos flown in 1994 of the Yarrowee River corridor which has provided a useful comparison.

Site analysis information includes

- River corridor and key tributaries
- River condition (channel/natural)
- Riparian condition (extent of vegetation, riparian width, canopy cover etc)
- Quality of habitat areas (within the corridor and any adjacent)
- Topography / landform
- Other features (i.e. existing WSUD assets, litter traps etc)
- Any sites or features of cultural/heritage interest
- Walking/cycling paths, public access points and linkages
- Adjoining land uses (i.e. residential, rural, industrial, natural, public open space)

The site analysis is documented as a series of maps at 1:5,000 scale.

### Masterplan

The masterplan has been developed with reference to the 1995 Yarrowee River Masterplan, relevant background documents and in consultation with partner organisations, stakeholders and the local community.

The masterplan is documented as a series of maps at 1:5,000 scale, combined with the project action plan. Key recommendations of the masterplan include:

- Provision of trails and access
- Rehabilitation, revegetation, vegetation management, weed and pest control
- Water quality improvement and wetlands
- Management of sludge and contaminated sites
- Development of parks and recreation facilities
- Land tenure and future land development
- Community engagement and education
- Sustainable management of waterways

### Priority Projects

Following Council review of the site analysis and masterplan, four key projects were selected including:

- 1) Trailheads, signage and interpretation.
  - Northern trailhead at Gong Gong (CHW project)
  - Southern trailhead at Dowcra Street
  - Prest Street lookout
- 2) Sunnyside Mill Parklands
- 3) Revitalisation of Redan Wetlands.
- 4) Rural Trail Extension - upgrade reserve from Dowcra Street to Midland Highway

### Community and Stakeholder Engagement

A variety of techniques were used to discuss the project with the community and stakeholders.

An online survey was conducted on the City of Ballarat MySay webpage to gain insight into community values and vision for the Yarrowee River and tributaries.

In the analysis phase of the project, stakeholders were invited to attend workshops to share their understanding of key issues and opportunities along the waterways. They were then given the opportunity to review and provide comment on the masterplan and action plan recommendations.

The project documents have been amended after each round of feedback to ensure the plans reflect the community and stakeholder vision for the future of their waterways.



Project stakeholder consultation maps & presentation - 26.11.19

### Some insights into the community feedback from the MySay survey

Top 5 statements agreed with

1. The river corridor supports a healthy lifestyle
2. It is easy to get to the river
3. I feel safe when I visit the river
4. The river is a social place
5. The river is well used by the community

Bottom 5 statements - little to no agreement

1. The history and stories of the Yarrowee River are well known and understood
2. There are sufficient resources allocated for the management of the river corridor
3. The ecology of the river system is high quality
4. There are sufficient public facilities along the river
5. The river corridor is well managed

Top 5 most important things within the Yarrowee River and Tributaries corridors

1. Good habitat and healthy plant life
2. Presence of native animal and birds
3. Clean water in the Yarrowee
4. Opportunities to assist in caring for the river and tributaries
5. Wayfinding and signage relating to history and stories of the river

Refer appendix for full survey result data and community feedback



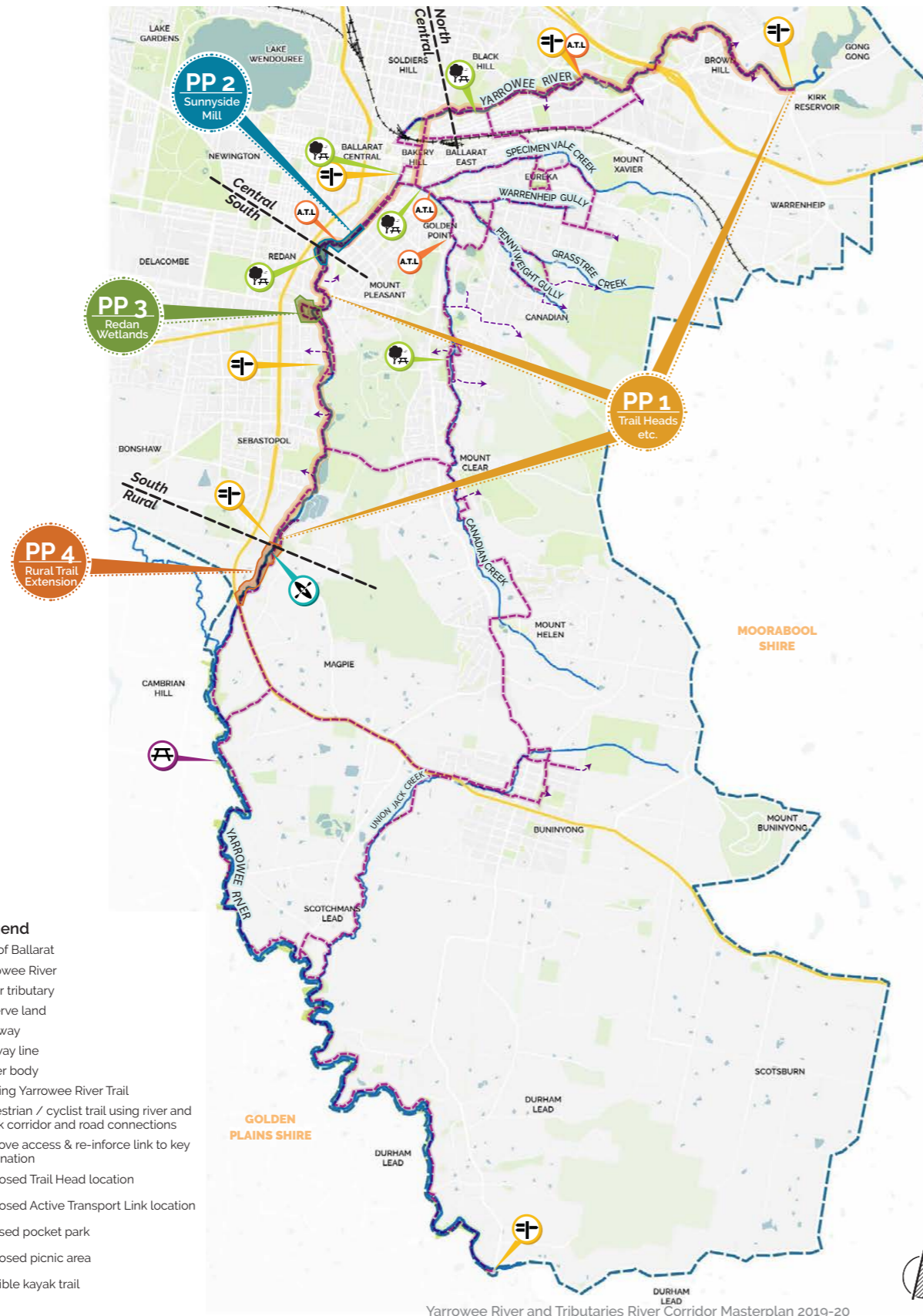
## Masterplan, Priority Projects and Recommendations



Yuille Wetland



# Masterplan



## Priority Projects

- 1) Trailheads, signage and interpretation
  - Southern trailhead at Dowcra Street
  - Prest Street lookout
- 2) Sunnyside Mill Parklands
- 3) Revitalisation of Redan Wetlands
- 4) Rural Trail Extension - Upgrade reserve from Dowcra Street to Midland Highway

A vision statement, project description, concept plans and cost estimates for each Priority Project create 'mini business cases' to provide a 'ready-to-go' brief suitable for funding applications or development of detailed plans and documentation as required for subsequent delivery. See following pages for detailed Priority Projects

## Additional Future Major Projects

Possible additional projects that have been identified in the Yarrowee River and Tributaries Masterplan are listed below. These projects require further design development, costing and council and community consultation.

### General

- Encourage community ownership, engagement and participation along the river / creek corridor including involvement with Landcare and Friends Groups
- River / creek wayfinding signage strategy - including links to / from adjoining roads (separate project by COB?)

### North

- Loop trail at Brown Hill from Ainley Street to Nicholson Street / Eastern Oval
- Active Transport Link / trailhead from Nerrina wetlands to Ballarat Train Station / CBD
- Pocket park between Queen Street and Newmann Street.

### Central

- Establish a 'Green Street' along Peel Street, Little Bridge Street and Eastwood Street (separate project by COB?)
- Improve pedestrian and cycle trails around CBD i.e. cantilevered boardwalk over the Yarrowee / Canadian Creek channel (i.e. Steinfield Street, Anderson Street & Eastern Oval); option to make Anderson Street one way with space for shared path
- Active Transport Link from Sunnyside Mill to Ballarat Train Station / CBD, including extension of loop trail to Sunnyside Mill with bridge / stepping rocks downstream of mill, fence along channel and revitalisation of Sunnyside Mill wetland

### South

- Opportunity to celebrate history of the Yarrowee River including transformation over the past 25 years, and cultural heritage including Wadawurrung people and gold mining. The Lookout (north of Prest Street) and Bala Street trailhead are two sites / projects that may be developed as part of the celebration.
- Erosion control works along CHW pond (separate project by COB/CHW. This a priority project due to risk of lagoon failure)

### Rural

- Glassons Road picnic area (in collaboration with Golden Plains Shire)
- Facilitate development of a loop trail at confluence of Union Jack Creek and Yarrowee River, including picnic facilities at Scotchmans Lead Road, small car park at Sykes Road, signage and revegetation - in collaboration with Napoleons Landcare Group
- Facilitate development of the Bridge to Bridge walk including fencing to correct title boundary, revegetation, trail and trailhead / picnic facilities at Buninyong - Mt Mercer Road bridge in collaboration with Garibaldi Landcare Group

### Eastern Tributaries

- Active Transport Link from Ballarat Netball car park at Llanberris Reserve to CBD
- Ballarat East loop and link trails and interpretation
- Indigenous theme trail along Grasstree Creek to Woowookarung (combine project with connections to Woowookarung)
- Dog park / pocket park at confluence of Warrenheip Gully and Canadian Creek

### Canadian Creek

- Upgrade Canadian Creek reserve south of Canadian Lakes
- Connections to Woowookarung Regional Park including trails and ecological corridors (combine project with Indigenous theme trail to Woowookarung)

### Union Jack Creek

- Facilitate revegetation at Somerville Road Reserve in collaboration with Leigh Catchment Group
- Facilitate / support riparian revegetation at De Soza Park in collaboration with community groups.
- Link trail between Geelong Road and Union Jack Reserve



Thomson Hay Landscape Architects and Roger Thomas



## Priority Project 1

Trail heads, signage and interpretation

### Trail Head Vision:

*The Dowcra Street Trail Head is a space to welcome people to the Yarrowee River Trail Network and provides facilities for trail users including generous, shady and safe carparking, picnic facilities and clear wayfinding information. It is the beginning of the proposed Yarrowee Kayak Trail*

### Lookout Vision:

*The lookout has been designed to highlight the Yarrowee River Valley to trail users and will encourage a moment to pause and reflect on the mining history of the River. It will also celebrate the past, present and future revegetation effort throughout the whole river corridor*

Tell us your vision for the Yarrowee River corridor

*Love walking along the river. More history signs would be a great addition. If people know more about the rivers history in relation to Ballarat's history they might feel more connected. A few more seats to rest these tired legs :- ) Keep up the good work*

MySay Survey Nov. 2019

### Description

This Priority Project aims to increase the welcoming environment of the Yarrowee River Trail in the south and improve the experience for trail users.

#### Dowcra Street Trail Head

The trail head project upgrades the existing carpark to develop a welcoming gateway to the Yarrowee River Trail. The formalised carpark reduces the existing gravel expanse and limits unwanted activity in the area. The proposed amenities including toilet, BBQ and picnic area will make the trail more user friendly and encourage extended use. The development of a wayfinding map and signage suite unifies the trail as a whole and provides important distance and destination information to pedestrians and cyclists. The revegetation improves amenity and shade at the carpark.

#### Lookout

The lookout project is a small, low impact and low budget project to highlight the commencement of more works to come in the south of the Yarrowee. The location provides great views east and north/west of the river valley. The inclusion of some low planting and connecting paths improves amenity and establishes the lookout as a key feature along the trail. Interpretive signage displays information relating to the historic mining foundations and a celebration of past present and future restoration works along the Yarrowee River.

Refer following pages for PP1 Concept Plans

### Costing

Dowcra Street Trail Head Opinion of Probable cost - \$260,205.00 ex GST

Lookout Opinion of Probable cost - \$69,635.00 ex GST

Refer to Priority Project Cost Estimate Summary Pg. 30 and Appendix for a full breakdown of opinion of probable costs.

### Suggested Staging

#### Dowcra Street Trail Head

1. Fence re-alignment, carpark formalisation, tree planting and revegetation
2. Picnic area with shelter, BBQ and furniture
3. Signage - consider undertaking a full Yarrowee River wayfinding signage strategy as a separate project alongside this project to ensure consistency of signage along whole river corridor
4. Toilet block
5. Kayak Trail development

Lookout can be implemented as one whole project

### Project benefits

#### Dowcra Street Trail Head

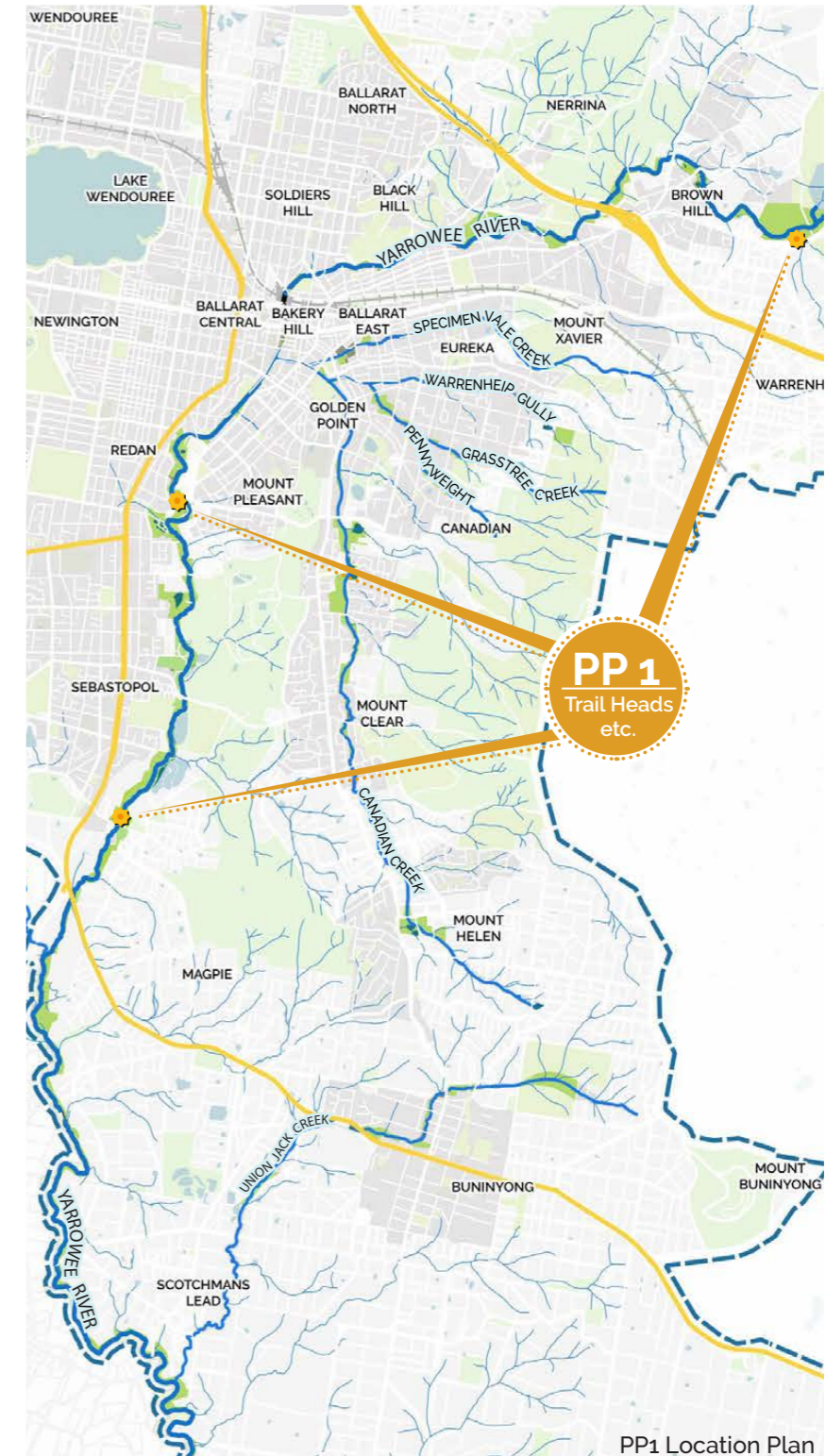
- Increases connection to the river trail for Sebastapol and Magpie residents and improve area liveability
- Encourages healthy lifestyle activities including walking, cycling and kayaking
- Provides one of only a few picnic areas and resting places along southern stretch of trail
- Encourages visitors to explore the southern river area

#### Lookout

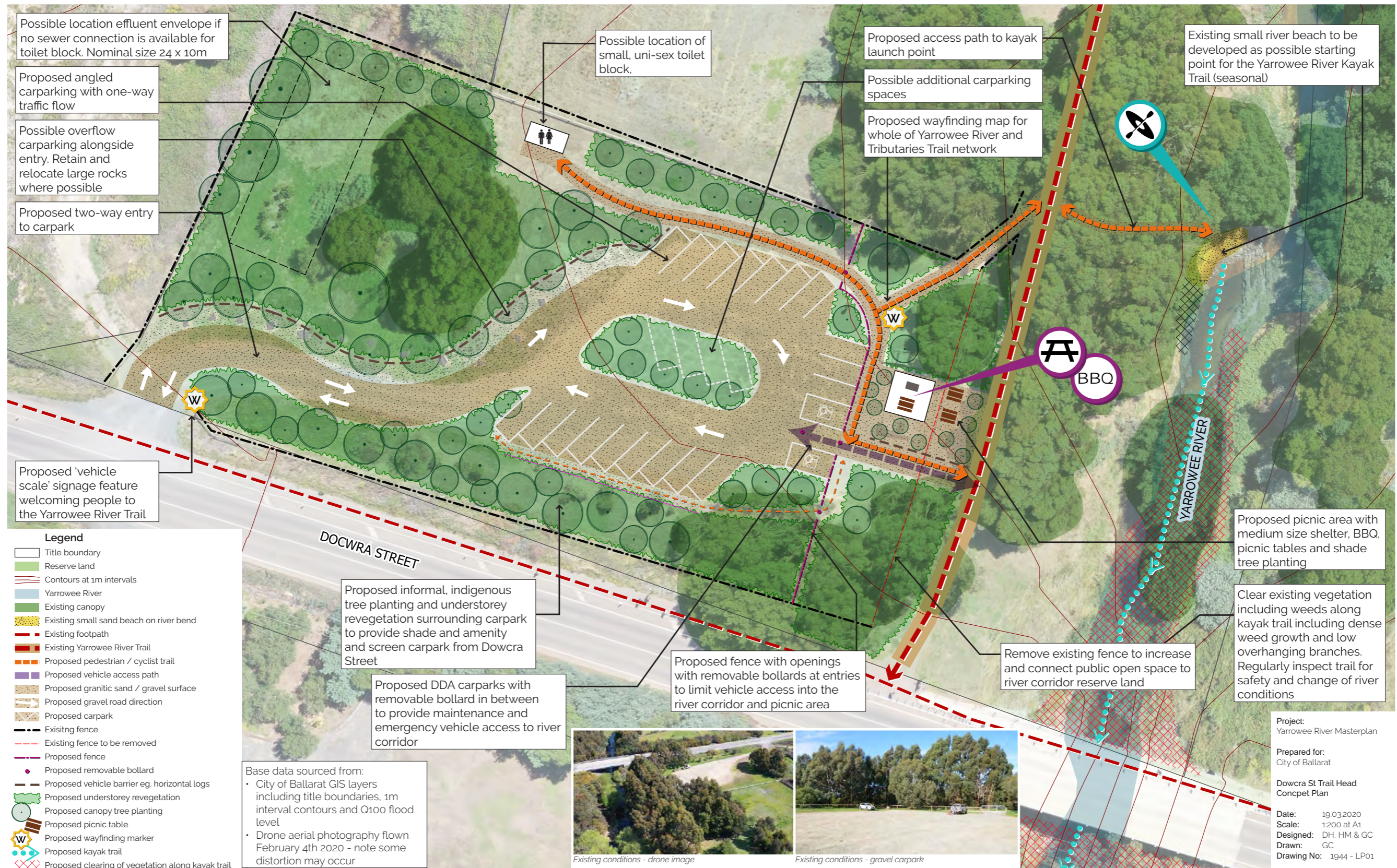
- Encourages visitors to visit the trail and learn more about Ballarat's history in an outdoor environment
- Acknowledges and celebrates past revegetation and restoration works

### Supporting documents

- Ballarat Open Space Strategy, 2008
- Ballarat Strategy 2040
- Ballarat Cycling Action Plan



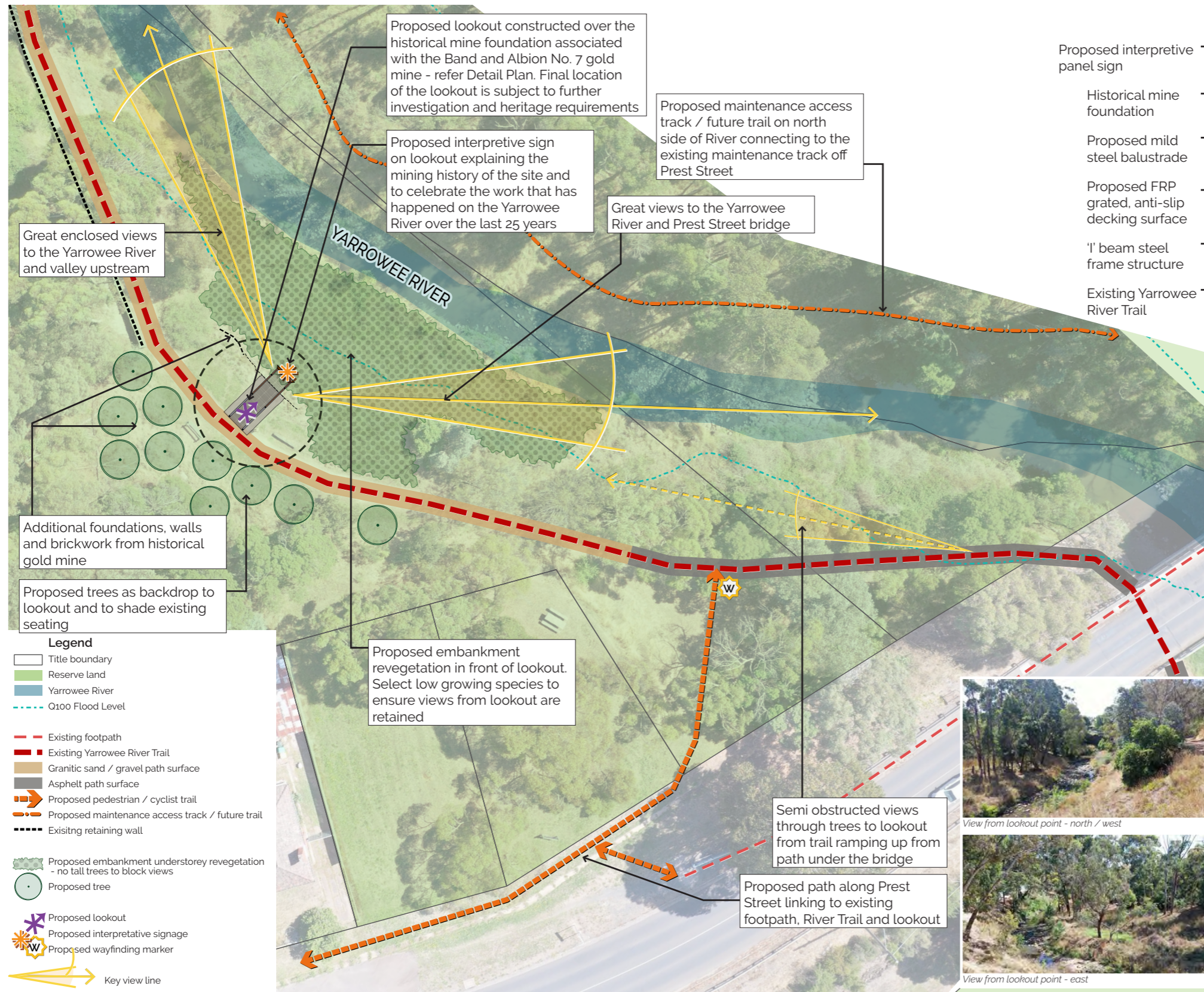




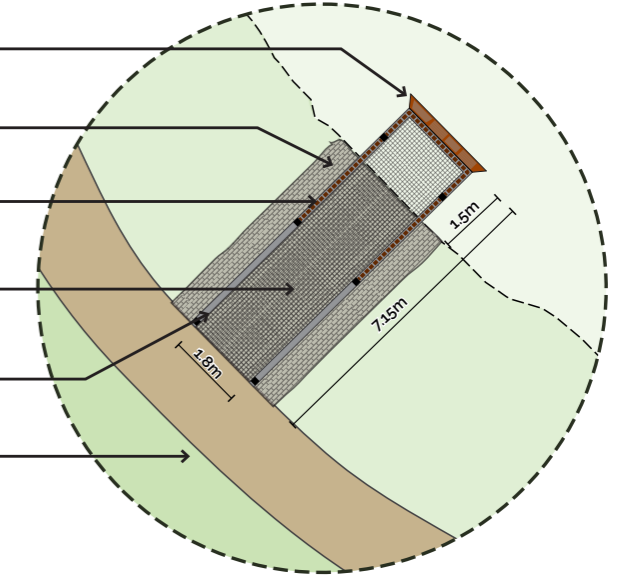
**Yarrowee River Masterplan - Priority Project**  
Dowcra Street Trail Head

Scale 1: 200 at A1 / 1:400 at A3



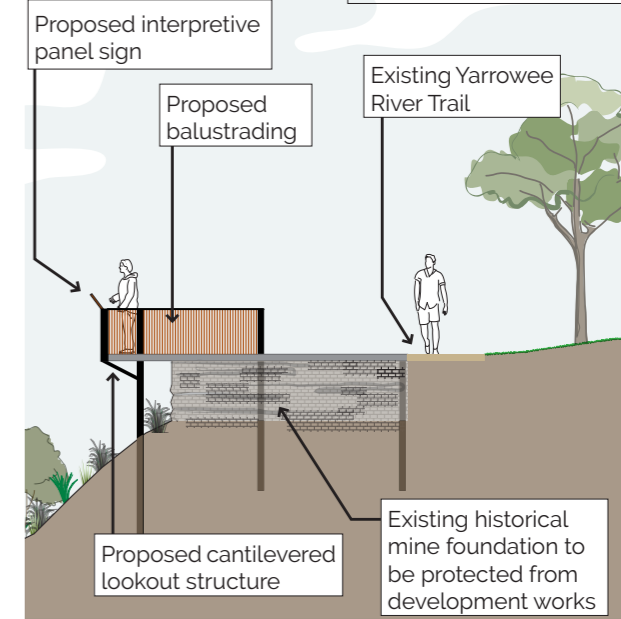


- Proposed interpretive panel sign
- Historical mine foundation
- Proposed mild steel balustrade
- Proposed FRP grated, anti-slip decking surface
- 'I' beam steel frame structure
- Existing Yarrowee River Trail



**LOOKOUT DETAIL PLAN**  
Scale 1:75 at A1

Note: further detailed design and structural engineering required for lookout structure



**LOOKOUT SECTION**  
Scale 1:75 at A1

Project: Yarrowee River Masterplan

Prepared for: City of Ballarat

Prest Street Lookout Concept Plan

Date: 16.03.2020  
Scale: 1:200 at A1  
Designed: DH / HM / GC  
Drawn: GC  
Drawing No: 1944 - LP02

Base data sourced from:  
• City of Ballarat GIS layers including title boundaries, reserve land and Q100 flood level  
• Drone aerial photography flown February 4th 2020 - note some distortion may occur



**Yarrowee River Masterplan - Priority Project**  
Prest Street Lookout

Scale 1: 200 at A1 / 1:400 at A3



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## Priority Project 2 Sunnyside Mill Parkland

### Vision:

*The design for the parkland at Sunnyside Mill will provide a comfortable, shady new path connection along the south/west side of the river channel. The rest node and carparking creates generous, shady facilities for trail users*

*The area south of the Sunnyside Mill has been designed to integrate with the current (private) development of the Mill building. The area will provide a space for the anticipated future increase of visitors, to use on a daily basis or for community events. Within the river, instream remediation and revegetation will improve water quality, wildlife habitat and amenity*

Tell us your vision for the Yarrowee River corridor

*Ballarat's green belt - A healthy, thriving biodiverse river corridor connecting surrounding urban areas and people with Ballarat's history, nature and places to be active. Please provide regular drink fountains.*

MySay Survey Dec. 2019

### Description

The ongoing development of the Sunnyside Mill building has prompted the proposals along the adjoining river channel and reserve area. The proposals have been designed with the future increase of visitors in the area in mind. Continuing the trail along the south and east of the channel develops a significant loop trail and connects the Yarrowee River Trail to the Mill. The carpark upgrade encourages trail use and provides a test case for the Active Transport Link project. The ATL provides a carpark and connection to the trail and encourages a short walk or cycle into the Ballarat CBD. The rest node provides a point of pause on a long journey or a beginning point on a short trip. Wayfinding signage provides clear information for route planning. Further south, the renewal of the old, disused transfer station to develop a flexible open space, transforms the area to a usable green space with multiple possibilities for activities and events. The recommendation of an instream litter trap in a wider opening of the river will collect the large rubbish travelling from the upstream channel. River remediation and revegetation downstream of the end of the channel will improve water quality, habitat value and amenity and provide a test case for future southern river remediation.

Refer following pages for PP2 Concept plans

### Costing

Sunnyside Mill Parklands Opinion of Probable cost - **\$649,722.50 ex GST**  
Excludes river remediation & revegetation, wetland development, instream litter trap and service connection

Refer to Priority Project Cost Estimate Summary Pg. 30 and Appendix for a full breakdown of opinion of probable costs.

### Suggested Staging

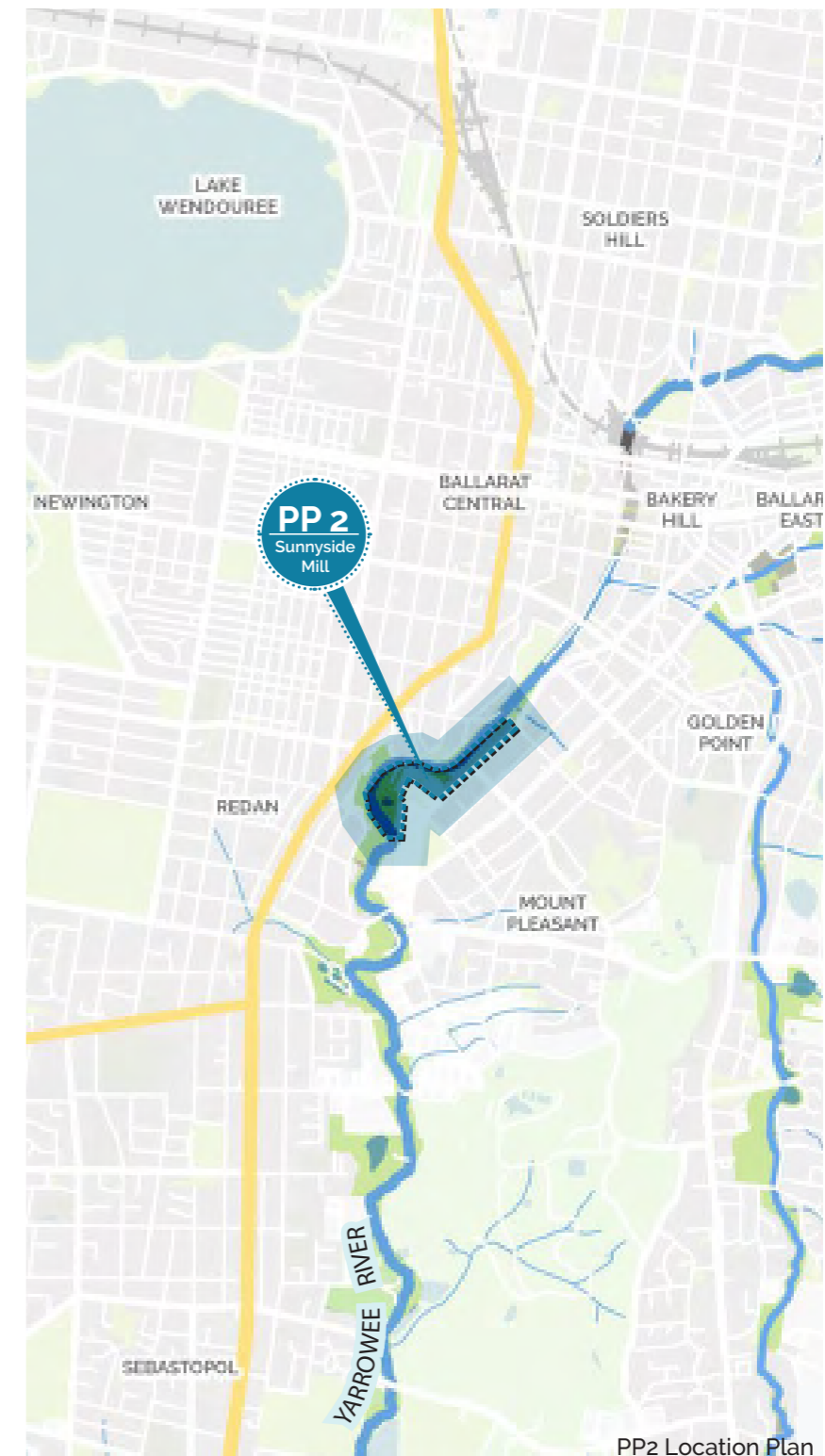
1. Eastern side of channel path extension including channel fence, canopy planting and revegetation  
Rest node with drinking fountain, bike repair station, wayfinding map and seating  
Active Transport Link carpark upgrade
2. Flexible open space mound
3. Litter trap and Bridge Crossing - including stabilised shared / maintenance path  
River remediation and aquatic and riparian planting
4. Hill Street Bridge railing restoration
5. Picnic shelter area and toilet block
6. Wetland development

### Project benefits

- Encourages healthy lifestyle activities and promotes active connections to the Ballarat CBD and train station
- Provides park setting for the Mill development and encourages economic investment into the future opportunities
- Supports outdoor community events
- Improves water quality at the end of the channel with bank naturalisation and aquatic planting and encouraged aquatic regeneration downstream as plant material moves with the flow of water
- Cleans water of gross pollutants and minimises downstream maintenance

### Supporting documents

- Ballarat City Integrated Water Management Plan, 2018
- Urban Forest Action Plan March 2019
- Ballarat Open Space Strategy, 2008



PP2 Location Plan

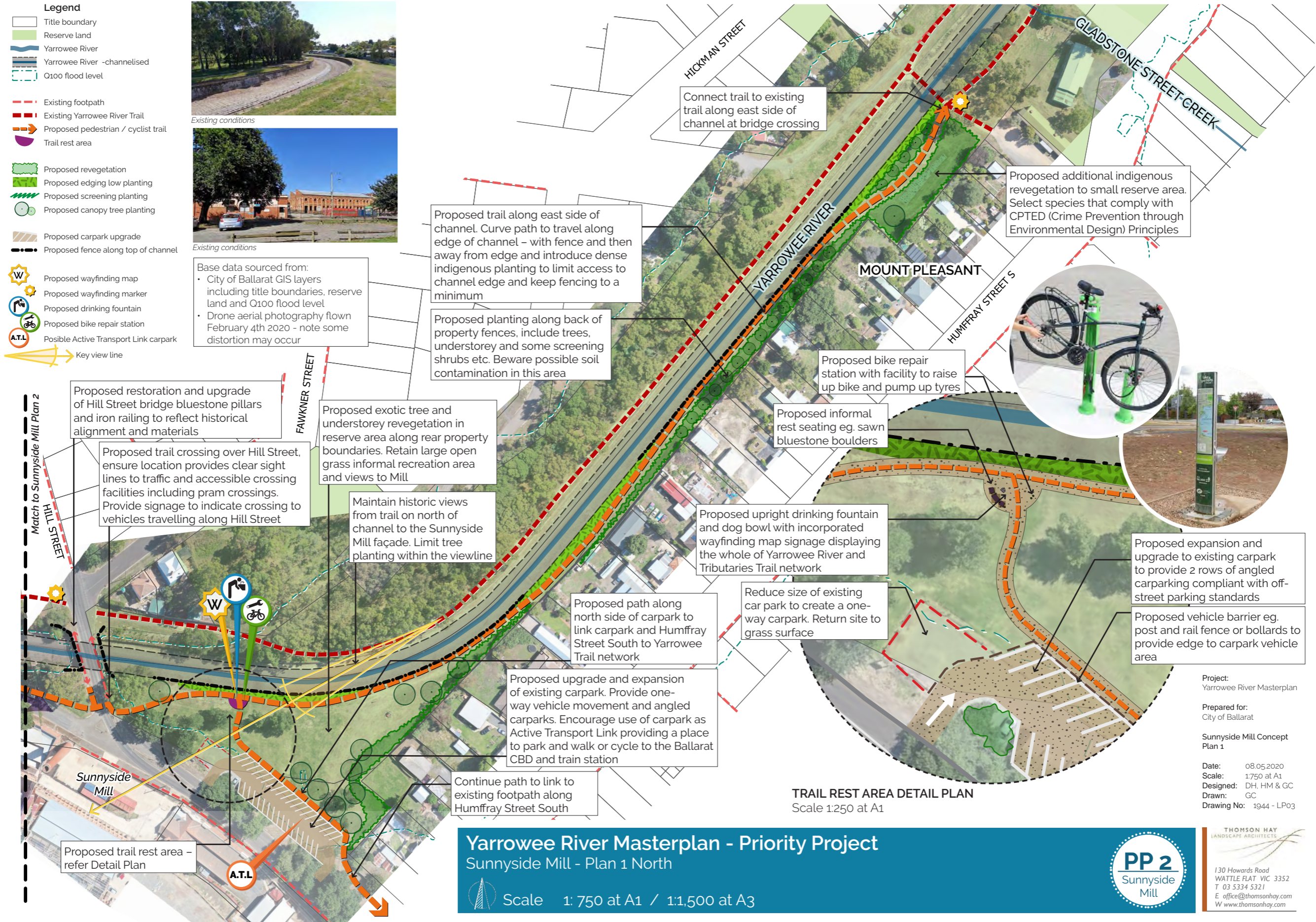


- Legend**
- Title boundary
  - Reserve land
  - Yarrowee River
  - Yarrowee River -channelised
  - Q100 flood level
  - Existing footpath
  - Existing Yarrowee River Trail
  - Proposed pedestrian / cyclist trail
  - Trail rest area
  - Proposed revegetation
  - Proposed edging low planting
  - Proposed screening planting
  - Proposed canopy tree planting
  - Proposed carpark upgrade
  - Proposed fence along top of channel
  - Proposed wayfinding map
  - Proposed wayfinding marker
  - Proposed drinking fountain
  - Proposed bike repair station
  - Possible Active Transport Link carpark
  - Key view line



Base data sourced from:

- City of Ballarat GIS layers including title boundaries, reserve land and Q100 flood level
- Drone aerial photography flown February 4th 2020 - note some distortion may occur





- Legend**
- Title boundary
  - Reserve land
  - Yarrowee River
  - Yarrowee River -channelised
  - Q100 flood level
  - Newly planted revegetation
  - Existing footpath
  - Existing Yarrowee River Trail
  - Proposed pedestrian / cyclist trail
  - Proposed vehicle access path
  - Proposed trail and maintenance path with heavy vehicle capacity
  - Proposed revegetation
  - Proposed embankment planting
  - Proposed screening planting
  - Proposed aquatic and riparian planting
  - Proposed irrigated grass mound
  - Proposed canopy tree planting
  - Proposed wetland upgrade
  - Opportunity to create wider pools in river
  - Water movement
  - Priority silt & sludge management
  - Possible land to be returned to river corridor reserve - requires negotiation with landowners
  - Proposed bridge river crossing
  - Existing fence
  - Proposed fence along top of channel
  - Proposed wayfinding marker
  - Proposed picnic area
  - Instream litter trap



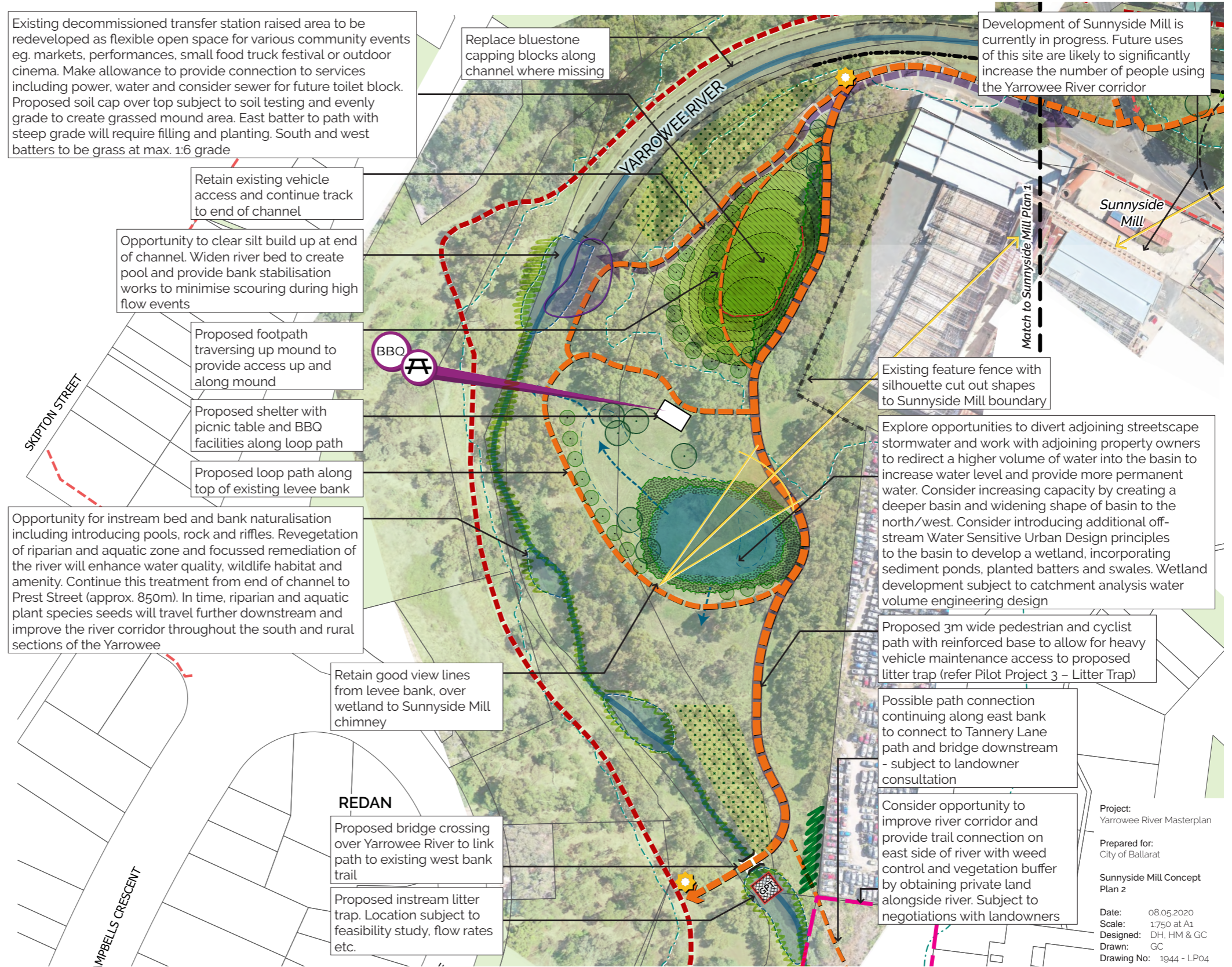
Existing old transfer station



Existing shallow water basin

Base data sourced from:

- City of Ballarat GIS layers including title boundaries, reserve land and Q100 flood level
- Drone aerial photography flown February 4th 2020 - note some distortion may occur



**Yarrowee River Masterplan - Priority Project**  
Sunnyside Mill - Plan 2 South

Scale 1: 750 at A1 / 1:1,500 at A3



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## Priority Project 3 Revitalisation of Redan Wetlands

### Vision:

*The concept design for the Redan Wetlands aims to increase water quantity which in turn will improve aquatic species diversity and extent and an ultimate improvement in water quality. The benefits of the wetland reserve improvements will lead to improved wildlife habitat and landscape amenity. The pedestrian access through the site will be improved and a rest node with interpretive signage will improve user experience. A higher level of ongoing maintenance is required to ensure the correct functioning of the wetland system.*

Tell us your vision for the Yarrowee River corridor

*I believe all sectors of management authorities should strive to ameliorate the river corridor by weed eradication, and restoration of native riparian vegetation communities to improve the habitat quality to better support native biodiversity.*

MySay Survey Nov. 2019

*More emphasis on environmental outcomes  
/ Control of erosion and weeds / More tree planting  
/ Restoration of natural flow patterns (eg, wetlands)  
/ Support for a local Waterwatch program*

MySay Survey Dec. 2019

### Description

The Redan Wetland Revitalisation project is about improving a great example of early Water Sensitive Urban Design (WSUD) works and upgrading the facilities within the reserve. The structure of a comprehensive wetland is already in place, however, limited infrastructure maintenance and inconsistent water levels have degraded the area since it was constructed in 2001. Firstly a full engineering assessment to investigate functionality, capacity and infrastructure is required. Once engineering design and construction works are complete, including de-silting ponds, works to improve user experience such as path upgrades, introducing canopy trees and a lookout shelter area have been proposed.

The Yarrowee River adjacent to the wetlands is degraded. The second part of this project is to improve this stretch of river to showcase the benefits of using wetlands to decontaminate stormwater before it enters the river. Proposed bridges cross the river along the Yarrowee Trail and create a loop path and an opportunity to showcase the symbiotic relationship of the wetlands and river.

Refer following page for PP3 Concept plan

### Costing

Redan Wetlands Opinion of Probable cost - **\$530,464.50 ex GST**  
Excludes wetland remediation works (subject to detailed investigation and engineering review) and river remediation & revegetation

Refer to Priority Project Cost Estimate Summary Pg. 30 and Appendix for a full breakdown of opinion of probable costs.

### Suggested Staging

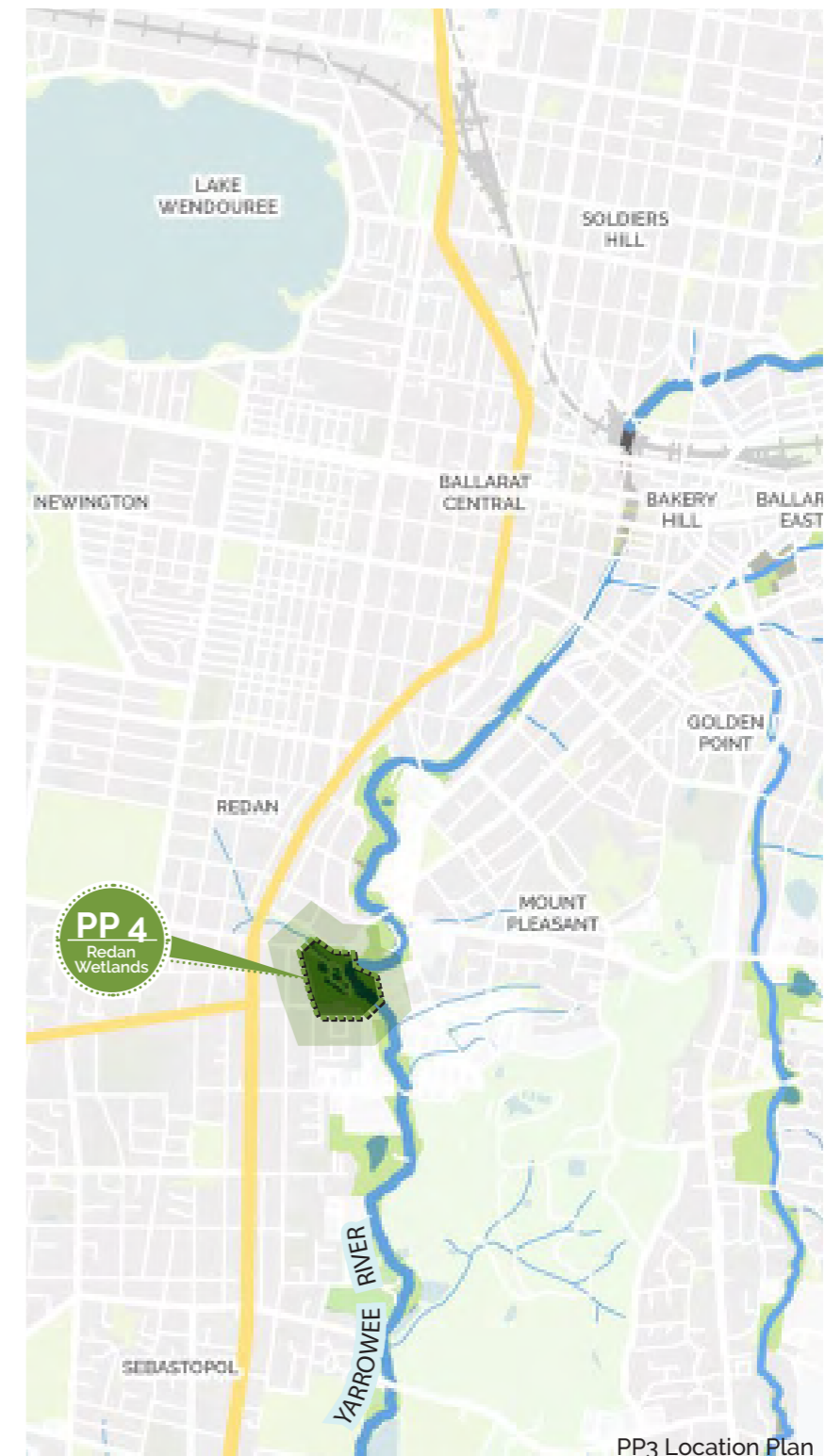
1. Wetland remediation including engineering assessment, de-silting, litter removal, management of water levels and infill wetland planting
2. Path surface upgrade and boardwalks
3. Canopy tree planting and revegetation
4. Embankment revegetation
5. Picnic shelter lookout and upgrade to existing jetty
6. Bridges and path link to east side of Yarrowee river including river remediation, erosion control and aquatic and riparian revegetation

### Project benefits

- Improves stormwater quality before entry to the Yarrowee River system
- Creates a trail destination and encourages people to visit the area
- Improves habitat value of area for a diverse selection of local wildlife
- Educates visitors on the benefits and process of treating stormwater
- Provides extensive canopy cover and bank stabilisation revegetation
- Develops loop trails and encourages healthy lifestyle activities
- 

### Supporting documents

- Breathing Life into the Yarrowee River Project, 2013
- Corangamite Waterway Strategy 2014-2022 (Corangamite CMA)
- Upper Barwon Yarrowee Leigh FLOWS study update, 2019 (Corangamite CMA)
- Ballarat City Integrated Water Management Plan, 2018
- Leigh Catchment Group Strategy 2017-2023 (Leigh Catchment Group)
- Greening Ballarat - a Green-Blue Action Plan, 2016
- Urban Forest Action Plan March 2019
- Ballarat Open Space Strategy, 2008



PP3 Location Plan





This is a concept plan only and should be further developed in conjunction with an engineering review of the functionality, capacity, water levels and quantities and infrastructure of the whole system

Retain existing bridge over Redan Creek

Retain fire access path

Proposed embankment planting including canopy trees and understorey planting will enhance amenity and reduce ongoing maintenance. Planting extent subject to a Bushfire Management Statement

Proposed upgrade to existing small jetty

- Legend**
- Title boundary
  - ▭ Reserve land
  - ▭ Contours at 1m intervals
  - ▭ Yarrowee River
  - ▭ Q100 flood level
  - ▭ Existing canopy
  - ▭ Existing revegetation
  - ▭ Wetland water body
  - ▭ Existing rock beaching to be retained
  - ▭ Wetland pipe infrastructure
  - ▭ Wetland rising main
  - ▭ Maintain existing vehicle access path
  - ▭ Existing footpath
  - ▭ Existing maintenance track
  - ▭ Existing Yarrowee River Trail
  - ▭ Proposed pedestrian / cyclist trail
  - ▭ Proposed boardwalk
  - ▭ Proposed upgrade to existing footpath
  - ▭ Priority weed management
  - ▭ Priority erosion control
  - ▭ Priority silt and litter management
  - ▭ Proposed understorey revegetation
  - ▭ Proposed embankment revegetation
  - ▭ Proposed wetland batter planting
  - ▭ Proposed aquatic and riparian planting
  - ▭ Proposed canopy tree planting
  - ▭ Proposed picnic area
  - ▭ Proposed wayfinding marker
  - ▭ Proposed interpretative signage / feature
  - ▭ Proposed lookout

Proposed shelter with picnic tables. Cantilever small deck over embankment to create lookout point over waterbody. Remove some shrub planting along upper wetland edge to improve views over upper water body. Integrate interpretive signage at shelter

Proposed informal indigenous canopy tree planting along walking trails

Wetland vegetation to be retained where possible and re-established post maintenance works. Consider introducing some indigenous tree species to ephemeral areas. In wetland areas of limited species diversity, consider removal of over populous species (eg. spiny rush) and supplementing with additional species

Continue embankment planting in reserve land and in particular along steep embankment areas to reduce ongoing maintenance and maximise habitat diversity

Consider replacement of litter trap with larger trap or increase frequency of maintenance. Review water volumes from Redan Creek catchment including quantities that are diverted through, and treated in the wetlands. Review water volumes / depths in wetland and water qualities retained in the wetlands to ensure the wetlands can operate at optimal levels

Retain concrete and rock weir to overflow channel (subject to engineering assessment), clear out silt build up and weeds

Retain rock beaching at base of bypass channel and consider removing embankment rock and replacing with suitable indigenous planting, subject to engineering review

Proposed pedestrian bridge over river connecting to Yarrowee River Trail

Consider instream and riparian revegetation along stretch of river to improve river bank quality and showcase river revegetation alongside proposed path

Existing area of current CoB revegetation works

Proposed boardwalks over rock lined overflow weirs to improve path quality

Proposed upgrade to existing path to define clear path edge, limit gravel movement and create more space for revegetation planting

Proposed upgrade to existing maintenance track to provide loop path on east bank of river

Existing electrical kiosk and pump infrastructure to be protected and retained

Retain vehicle access to pump and electrical infrastructure

Extensive erosion along Yarrowee River bank to be remediated

Continue embankment planting in reserve land to enhance amenity and reduce ongoing maintenance. Planting extent subject to a Bushfire Management Statement

Proposed re-alignment of path to reduce steep grade

- EXISTING CONDITIONS**
- Existing litter trap appears ineffective as it is full of silt and rubbish and appears to be causing consequent problems to the rest of the wetland system.
  - Sedimentary basins for each of the upper, lower and bypass channel systems appear full of silt and have poor water quantity and quality.
  - Upper Redan Wetland has large quantities of silt and litter and the water quality is poor. The water level is low due to pumping water to Lake Wendouree and has impacted the quality and diversity of plant species.
  - Lower Redan Wetland appears to be functioning better than the upper wetland, however there are still large areas of silt build-up. There is a wider range of plant diversity and less litter.
  - Bypass Channel is fully rock lined with a high volume of weed species and some exotic trees. Limited space is available for planting and it has become an eyesore due to the difficulty of managing this hard to access area.
  - Path condition throughout the wetlands is relatively good however the central paths traverse over rock lined overflow weirs which is uncomfortable to walk on and limits access.
  - Vegetation is patchy and canopy trees are limited and rarely providing shade over paths.
  - Wetland vegetation is good in some places with high diversity. Spiny Rush has become dominant and dense in some areas due to low water levels.
- In general greater focus should be provided to the maintenance of the entire wetland system



Existing conditions

- Base data sourced from:
- City of Ballarat GIS layers including title boundaries, 1m interval contours and Q100 flood level
  - Drone aerial photography flown February 4th 2020 - note some distortion may occur
  - City of Ballarat - Yarrowee - Redan Wetlands Earthworks and Ancillary Works Construction Plans 2000 (see Report Appendix)

**Project:**  
Yarrowee River Masterplan

**Prepared for:**  
City of Ballarat

**Redan Wetlands Concept Plan**

**Date:** 08.05.2020  
**Scale:** 1:500 at A1  
**Designed:** DH / GC  
**Drawn:** GC  
**Drawing No:** 1944 - LP05

Proposed bridge over river to path on east side of river connecting to north bridge. Path creates large loop trail around the wetlands and river

Remove weeds and silt from outflow to Yarrowee River pool

**Yarrowee River Masterplan - Priority Project**  
Redan Wetlands Upgrade

Scale 1:500 at A1 / 1:1000 at A3



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## Priority Project 4

Rural Trail Extension - Dowcra Street to Midland Highway

### Vision:

*The rural extension of the Yarrowee Trail network will provide a continuous connection into Ballarat with longer trail loops for existing and future residents in the area. The development of a seasonal Yarrowee Kayak Trail along a significant stretch of the river will provide an alternative recreational activity. Increased vegetation, instream remediation and expanding the river corridor will increase habitat and landscape amenity*



### Description

The rural trail extension project is the first stage of a long term aim to develop a trail continuously along the Yarrowee River - from the north to south. This project is a pilot for improving the land alongside the river in rural areas. Much of the adjacent land is covered by various land management licences that will need to be rescinded as required to develop new sections of trail. Some adjacent land is privately owned. Landholder negotiation will be required for land acquisitions to create a continuous reserve along the river.

An off stream billabong provides an opportunity to revegetate and develop a natural feature of the rural reach of the Yarrowee River and to celebrate the beginning of the trail extension. There is opportunity for partnership with the nearby Magpie Primary School to establish educational programs including planting days to encourage community participation and education.

The plan provides the opportunity for a test case for the development of a seasonal Yarrowee Kayak trail. The meandering stretch of river is a good depth and provides decent flow rates most of the year. In future the trail will extend further south and establish multiple launch and dismount points.

Refer following page for PP4 Concept plan

### Costing

Rural Trail Extension of Probable cost - **\$583,477.80 ex GST**  
Excludes river remediation, Midland Highway carpark and land acquisition / sales

Refer to Priority Project Cost Estimate Summary Pg. 30 and Appendix for a full breakdown of opinion of probable costs.

### Suggested Staging

1. Trail extension to Midland Highway including fencing
2. Revegetation along reserve land
3. Billabong development including revegetation, paths and boardwalk
4. River remediation and aquatic and riparian revegetation
5. Link along Aubreys Road including revegetation
6. Kayak Trail including Midland Highway carpark and path under bridge

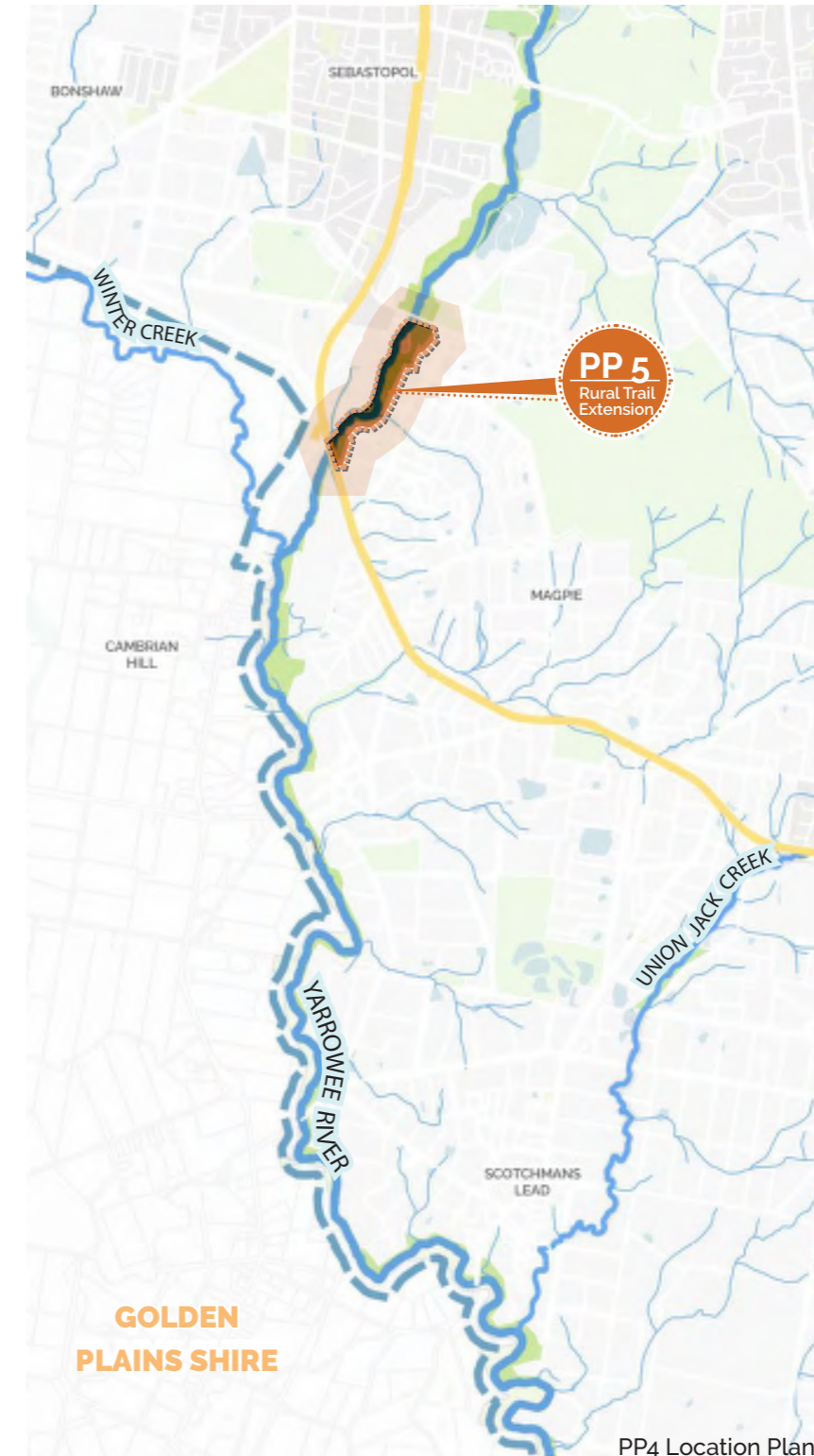
Negotiate land acquisition as appropriate with local landholders

### Project benefits

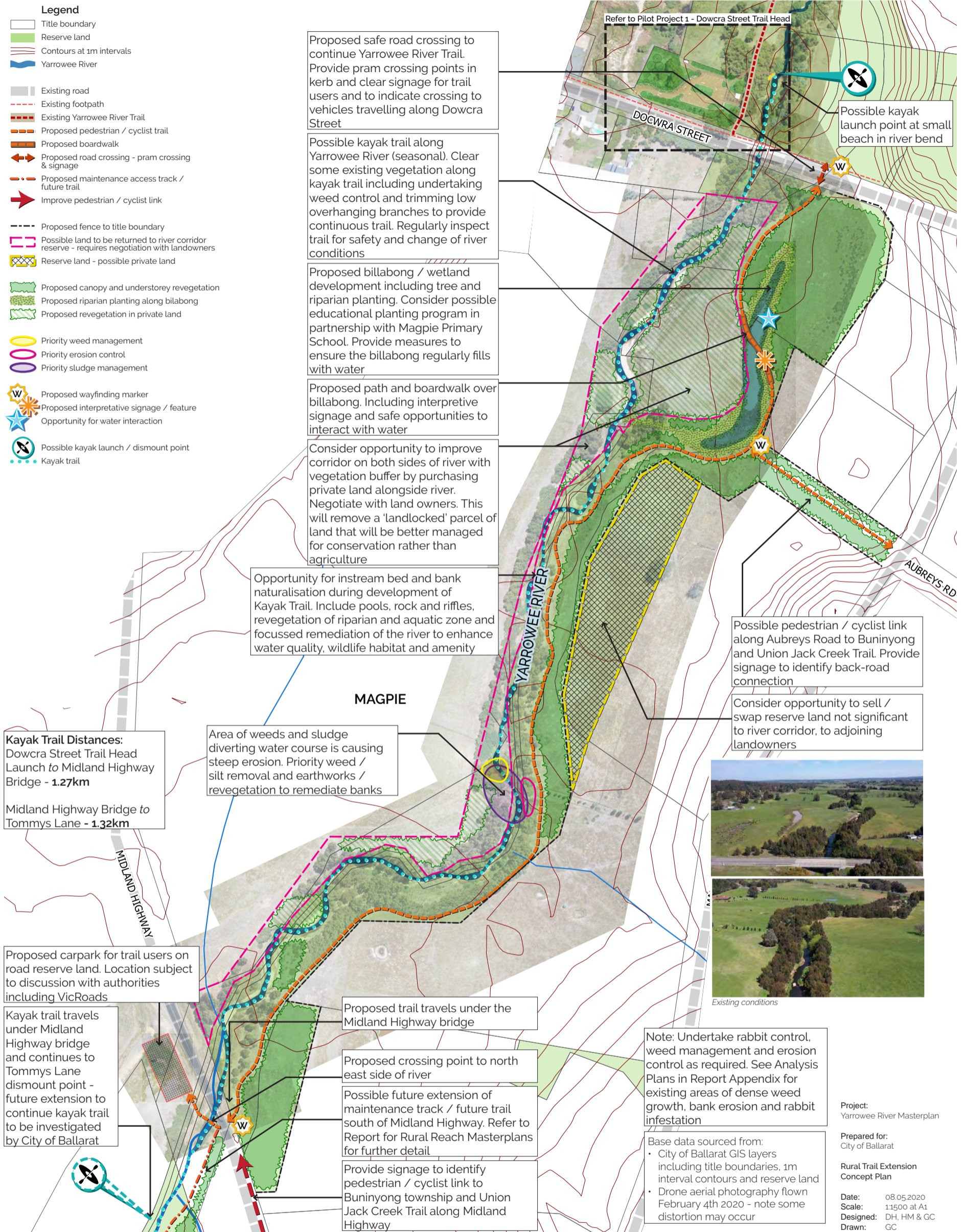
- Encourages healthy lifestyle activities including walking, cycling and kayaking and develops loop trail opportunity
- Improves water quality before entering to Yarrowee River system
- Regenerates indigenous vegetation on pastoral land
- Provides continual indigenous canopy cover along trail
- Engages children in ecological education opportunities
- Supports improved public open space for future housing development in the south of CoB

### Supporting documents

- Corangamite Waterway Strategy 2014-2022 (Corangamite CMA)
- Breathing Life into the Yarrowee River Project, 2013







**Yarrowee River Masterplan - Priority Project**  
Rural Trail Extension  
Dowcra Street to Midland Highway

Scale 1: 1500 at A1 / 1:3000 at A3



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