

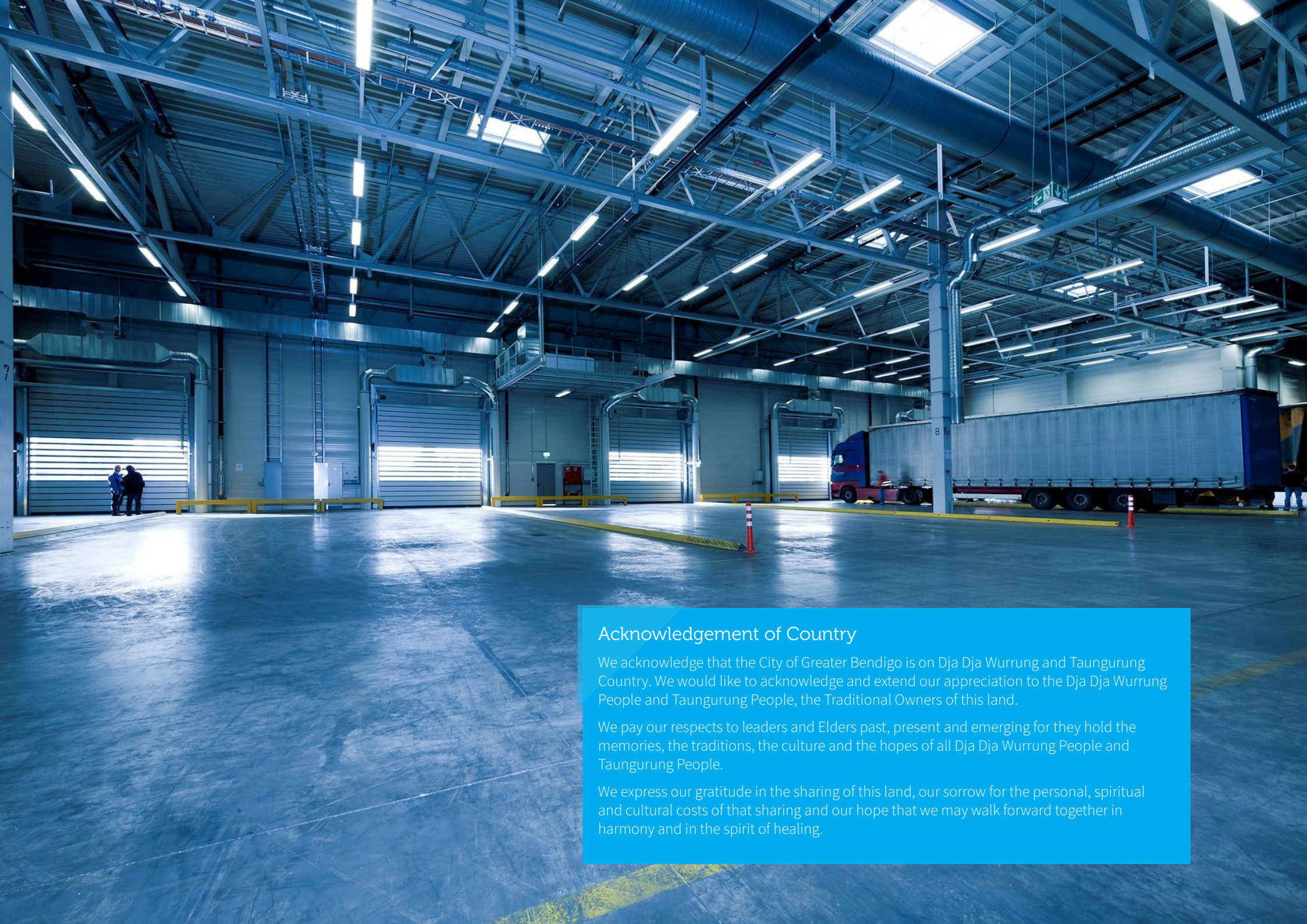


GREATER BENDIGO INDUSTRIAL LAND DEVELOPMENT STRATEGY

JUNE 2024

www.bendigo.vic.gov.au





Acknowledgement of Country

We acknowledge that the City of Greater Bendigo is on Dja Dja Wurrung and Taungurung Country. We would like to acknowledge and extend our appreciation to the Dja Dja Wurrung People and Taungurung People, the Traditional Owners of this land.

We pay our respects to leaders and Elders past, present and emerging for they hold the memories, the traditions, the culture and the hopes of all Dja Dja Wurrung People and Taungurung People.

We express our gratitude in the sharing of this land, our sorrow for the personal, spiritual and cultural costs of that sharing and our hope that we may walk forward together in harmony and in the spirit of healing.

Vision

Greater Bendigo's well-located, connected and accessible serviced industrial land will be sought after by current and future industry due to its high amenity, focus on innovative and adaptive approaches to water, energy, and waste sustainability, its provision for industrial uses of all scales and its reputation for simple and certain development outcomes.

This vision will be achieved through resolution of historic land use conflict; the repurposing of non-viable industrial land; improved efficiency, consolidation and, where viable, expansion of existing precincts; transparent location of new industrial land against nominated criteria; and provision of appropriate design guidance and clear development expectations.

Foreword

The Greater Bendigo Industrial Land Development Strategy (GBILDS) has been created in response to strong, continued demand for large scale, industrial land in our municipality and a significant shortfall in industrial land compared with other regional cities.

Council and City staff have been working hard to investigate and identify areas for potential development, to ensure an adequate pipeline of industrial land to meet the long term needs of industry. This is not only about trying to attract new industry to Greater Bendigo but to retain the many businesses already here that provide local employment and are looking to expand into the future.

Greater Bendigo benefits from a range of advanced manufacturers who are at the forefront of the latest technology and are making high quality, niche products being exported across the world. As well as advanced manufacturing, Greater Bendigo's freight, logistics and construction sectors all require a supply of appropriately buffered industrial land.

As well as future land, there are also a number of historical issues with existing industrial precincts in Greater Bendigo. This includes challenges with industry being directly next to residential development or truck movements through residential streets. This strategy seeks to address some of these challenges over the longer term by providing recommendations for each of the existing precincts in Greater Bendigo.

The delivery of the proposed Bendigo Regional Employment Precinct will provide much needed employment for a growing population in Greater Bendigo. The strategy has considered all relevant challenges and opportunities, and I look forward to seeing it realised.

Mayor Cr Andrea Metcalf



A collaborative plan

Funding support for the original GBILDS prepared in May 2020 was provided by the Victorian Planning Authority (VPA) through its Streamlining for Growth Program.

We acknowledge the support of various State Government Agencies and organisations in the development of the GBILDS including:

- Victorian Planning Authority
- Department of Transport and Planning (previously DELWP & DOT)
- Regional Development Victoria
- Be.Bendigo

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List of abbreviations, acronyms and terms

Organisations

- Council – Greater Bendigo City Council
- The City or CoGB – The City of Greater Bendigo
- VPA – Victorian Planning Authority

Commonly used terms

- Background Report - Greater Bendigo Industrial Land Development Strategy
Background Report
- B-Double – Larger format freight vehicle including two-semi trailers
- BREP - Bendigo Regional Employment Precinct
- EOI – Expressions of Interest
- ESD – Environmentally Sustainable Design
- GBILDS – Greater Bendigo Industrial Land Development Strategy

Strategic land use categories

Municipal areas - Significant precincts that provide for a range of uses and employment for the broader municipality and region also allowing for the conglomeration of associated businesses.

Secondary areas - Precincts generally containing a range of industrial uses and employment opportunities, often located in areas with residential development nearby, limiting very heavy industry.

Local areas - Small scale precincts comprising low impact industrial and associated businesses, and employment opportunities suitable for a local area. Generally located in areas with residential development nearby, limiting heavy industry and any expansion.

Specialised areas - Targeted precincts focusing on a narrow range of uses with limited opportunities for expansion.

Executive Summary

Bendigo is the major employment industrial hub in northern Victoria. It is a growing, vibrant, creative, and culturally enriched regional centre serving much of northern Victoria and southern NSW.

Industry is a major employer in Greater Bendigo. Advanced manufacturing is strong and diverse. A wide range of industries, businesses and employers are seeking to expand or relocate and need large, well located, serviced, accessible sites not constrained by nearby sensitive uses.

Current population growth trends indicate that Greater Bendigo's population will grow from around 124,000 people to over 200,000 people over the next 30 years¹.

Employment relating to the City's industrial areas and precincts is expected to provide for about 3,300 new jobs over the next 15 years, bringing total jobs relating to industrial precincts to nearly 12,000 by 2036².

The City's significance as an economic hub has been further strengthened by the recent completion of the Bendigo Airport redevelopment project (Stage 2) and the introduction of daily scheduled direct flights to Sydney and the prospect of further flights and routes being initiated.

The recent development of major gold deposits at Fosterville to the east of Bendigo and the identification of significant potential deposits north east of Bendigo by Minerals Development Victoria, and the calling of expressions of interest for substantial mineral exploration licences as a prelude to full scale mining, further boost Greater Bendigo's industrial development and servicing prospects. Gold deposits worth approximately \$200 Billion have potentially been identified. Realisation of that asset would significantly increase employment in mining engineering, advanced manufacturing and service industries.

To enable employment growth to occur and to provide certainty for industry, there is a need to plan for a future 30-year pipeline of industrial land. As it stands, there is currently less than 100 hectares of available

land, a maximum of 11 years supply, and only a handful of large sites more than one hectare remaining in Greater Bendigo.

A comprehensive review of the City's industrial land has identified that it is:

- Fragmented in numerous locations and precincts
- Often constrained in the types of uses that can be supported or allowed by proximity to sensitive uses such as residential
- Often difficult to access because it relies on transport routes through residential areas
- Often constrained by a range of environmental factors

In terms of growth and development of industrial land needs and the provision for future employment:

- Bendigo will need an increase of over 3,300 jobs in industry to 2036 to match population growth and servicing needs
- Without the provision of future industrial land Bendigo will start to forgo industrial jobs as early as 2025
- Bendigo is already at a severe competitive disadvantage in comparison to other comparable Victorian regional centres which can offer large, unconstrained 'greenfield' industrial estates

Based on the above, in addition to the existing industrial land supply, in order to meet industry needs particularly in larger lots, there is a need to plan for a pipeline of at least an additional 170-270 hectares of industrial land supply over the next 30 years over and above the current supply of less than 100 hectares³.

1 Estimated Residential Population, ABS 2021

2 Bendigo Industrial Land Review - Strategic Inputs Report REMPLAN 2019

3 Review of Future Industrial Land Supply in Bendigo SGS PLANNING AND ECONOMICS 2023

The Greater Bendigo Industrial Land Development Strategy ('GBILDS') has been developed in partnership with the VPA to provide a strategic framework and clear road map to identify a 30-year pipeline of future industrial land which will meet the needs of current and new businesses looking to expand, locate or relocate within and to Greater Bendigo.

The GBILDS provides clear directions around existing industrial precincts in order to minimise land-use conflicts, increase supply and ensure industrial land is suitably located.

Summary of land supply situation

- It is forecast that Greater Bendigo will experience an increase of over 3,300 jobs in industry to 2036 (REMPAN 2019).
- This job growth is forecast to correspond to a requirement for around 170ha of industrial land to 2036 (REMPAN 2019).
- Overall there is currently less than 100ha of vacant available industrial land equating to less than 11 years of supply assuming near perfect utilisation (Internal audit 2020).
- A review of existing industrial precincts indicates that much of the City's 'available' industrial land is constrained through proximity to residential and sensitive uses, inadequate servicing and environmental risks.
- More importantly, larger sites of 1 to 5 hectares will be fully exhausted by 2027 if all 'available' industrial land is able to be developed (REMPAN 2019), likely to be even soon based on more current data.
- Consequently, there is a potential to forgo jobs as soon as 2025 if a quarter of 'available' land is not able to be developed, with the potential for about 1,081 jobs to be foregone by 2036 if additional industrial land supply is not provided (REMPAN 2019).

This Strategy focuses on the following **seven summarised objectives** which have been drafted in response to the issues and opportunities identified in the GBILDS Background Report:

1. Provide for 30 years of industrial land supply through the development of a new business park(s)
2. Provide future direction about the existing industrial precincts so as to:
 - 2a. Reduce industry-residential land use conflicts
 - 2b. Provide protection of viable industrial and employment precincts from non-industrial uses
3. Minimise the impacts of freight movements on non-industrial, particularly residential urban areas
4. Improve the function, design and amenity of existing and new industrial areas
5. Promote sustainable industrial land use and development
6. Increase regional competitiveness and grow investment and employment
7. Advocate for State and Commonwealth funding for both core infrastructure and for priority economic initiatives

These objectives are proposed to be actioned through the 'general' and 'precinct-specific' actions included in the tables at Section 3 and Section 4 respectively.

The first and major objective of the GBILDS is to provide 30 years of industrial land supply in Greater Bendigo. The focus on this objective reflects the fact that the City has nearly run out of serviced, zoned industrial land and is unable to meet a range of short and longer term demands for land to support industrial expansion and new jobs.

The key action to achieve this objective is to identify appropriate site(s) for new industrial land supply via a rigorous, transparent and independent public selection process further detailed at Section 7 of the Background Report.

Greater Bendigo does not have the benefit of large parcels of Crown or other government owned land which may be suitable for industrial development nor is there the potential to suitably expand any of the existing precincts to meet medium to longer term industrial needs.

Therefore, investigations centered around the potential for land under private ownership, generally farming zoned land, which may be suitable for rezoning to enable industrial uses.

A large number of sites were investigated through this process with many being ruled out due to infrastructure, environmental or other constraints. When more detailed investigations

were required, in principle support from landowners was sought prior to these investigations taking place.

Following detailed investigations, the City identified 294 hectares of land south of the Marong Township near the intersection of the Calder, Calder Alternative and Wimmera Highways. This site is referred to as the Bendigo Regional Employment Precinct (BREP). The delivery of this precinct would meet many of the long term industrial land needs in Greater Bendigo. The Victorian Planning Authority (VPA) was appointed as the planning authority for the rezoning and associated planning of the proposed BREP.

With Greater Bendigo having had a limited industrial land supply for a number of years, it is difficult to ascertain the amount of development which has not occurred due to a lack of available land. It may be that as industrial land supply increases industrial development may occur faster than originally forecast. Therefore, given the inherent difficulty in predicting how fast this take up might be and how hard it is to identify suitable land for industry, the City will continue to regularly review the industrial land supply to meet short, medium and long term needs.

As part of prioritising the new industrial business park(s), it is proposed that Marong Business Park, the 313 hectares of land zoned Comprehensive Development Zone (CDZ), to the west of Marong not progress in the short

term due to the land currently being used for farming. Instead it is recommended that the local planning policy be changed to reflect this land as potentially meeting the longer term needs of the region. It is proposed to review the strategy in five years to provide time to better understand the take up of land once the delivery of a new business park(s) has commenced.

In addition to the need for further land, the remaining actions seek to create or otherwise retrofit well-designed, high amenity, sustainable, and functional industrial places in line with the vision statement. In some instances, these precincts will be considered as part of the future preparation of a Managed Growth Strategy for the City covering all land use needs to 2056.

The implementation of the GBILDS will ensure Greater Bendigo and the wider region is well-placed to meet the existing and future industrial land needs of industries and businesses over the next 30 years while better managing land use conflicts.

Overview



I. Overview

1.1 Purpose

The GBILDS provides a long-term plan to ensure the provision of suitably located, serviced, adequately buffered and accessible zoned industrial land to meet the growing needs of industry. It does this by establishing the existing and likely future demand and supply for industrial land, understanding the needs of industry and the issues and opportunities within Greater Bendigo's existing industrial precincts.

Through the implementation of the GBILDS any future business park(s) will be well located, designed, landscaped and buffered to reduce land use and amenity conflicts.

The Greater Bendigo Industrial Land Development Strategy (GBILDS) has been developed in partnership with the VPA to provide a framework to identify a 30-year pipeline of industrial land to provide certainty for businesses looking to expand or considering relocating to Greater Bendigo. It will ensure Greater Bendigo remains a regionally competitive destination and will provide an opportunity for the City to focus on attracting new industry to build on recent significant investments including the Bendigo Airport and Ravenswood Interchange.

Demand and supply of industrial land

Employment relating to the industrial precincts in Greater Bendigo is expected to account for an increase of over 3,300 new jobs over the next 15 years which will result in nearly 12,000 jobs in industrial precincts by 2036.⁴

There is currently strong growth in a number of industry sectors, which will translate into a need for future industrial land, this includes food manufacturing, transport and logistics. Key to the ongoing growth of industry in Greater Bendigo will be the provision of suitable, well located, adequately serviced and affordable industrial land. The *Bendigo Industrial Land Review - Strategic Inputs Report* prepared by REMPLAN

2019 identified that there was 14 years' supply of zoned and serviced industrial land. The most recent audit completed in March 2020 indicated that there is less than 100 hectares of industrial land remaining, which at a consumption rate of approximately nine hectares per year, translates to a maximum of 11 years' supply (with only a handful of sites over one hectare remaining). This also does not take into account a number of constraints which severely limit the development capacity of much of the remaining zoned industrial land. These constraints include issues around proximity to existing residential development, vegetation cover, topography and accessibility.

In undertaking this review of existing and potential industrial land in Greater Bendigo consideration was given to potential sites beyond the boundary of the city and into surrounding municipalities. Generally, it was concluded that while there are important industrial areas in other parts of the region, the demand for sites in Greater Bendigo, and particularly in and around the Bendigo urban area, was so strong that the demand could not be met elsewhere. In particular the City reviewed the level of industrial development in the adjoining Loddon Shire, primarily in the area between the city's western boundary and the Loddon River. There are a number of prominent industrial land uses in that area. Generally, these are uses that take advantage of access to the Calder Highway but do not require full utility services including water and sewerage. These sites generally have the advantage of being well buffered to residential development. As part of GBILDS the attributes of areas in the Loddon Shire to provide for and support future industrial development is recognised and the City will continue to work closely with the Loddon Shire Council to promote and support these areas.

The supply of industrial land in Greater Bendigo is substantially less than other major regional cities across Victoria, including Ballarat, Geelong, Wodonga and Latrobe Valley. Without a clear pipeline of available industrial land, as land becomes increasingly scarce, Greater Bendigo

⁴ Bendigo Industrial Land Review - Strategic Economic Inputs, REMPLAN 2019

will become less and less competitive for industrial development compared with other regional cities. This will start to impact on employment growth based on the scenario of 120 hectares of available industrial land (which is now less than 100 hectares), and a quarter of this being undevelopable, the City could forego an estimated 1,080 jobs by 2036⁵.

Existing Industrial Land Precincts

As well as providing a pipeline for future land, this Strategy provides directions around the 22 existing industrial precincts in Greater Bendigo relating to preferred uses, minimising land-use conflicts, and ensuring industrial transport corridors are well planned. The implementation of the strategy seeks to continue supporting existing local businesses within these precincts, while providing directions over time to address some historical land use conflicts particularly between residential and industrial uses.

1.2 Relationship to the GBILDS Background Report

This Strategy focuses on key recommendations and actions, being either precinct-specific or general, that have been developed in response to the issues and opportunities summarised in the GBILDS Background Report.

The evidence base for these issues and opportunities is provided in the Background Report or in the relevant expert input underpinning that report.

1.3 Study area

See figure 1 on page 14.

1.4 Structure of this strategy

This strategy is structured to present the following items:

- The vision statement and associated principles and objectives and the rationale for these (Section 2)
- General recommendations and actions for industrial land (Section 3)
- Precinct-specific recommendations and actions for the City's existing industrial land (Section 4)
- Future industrial land (Section 5)
- Monitoring and review framework (Section 6).

1.5 Consultation outcomes

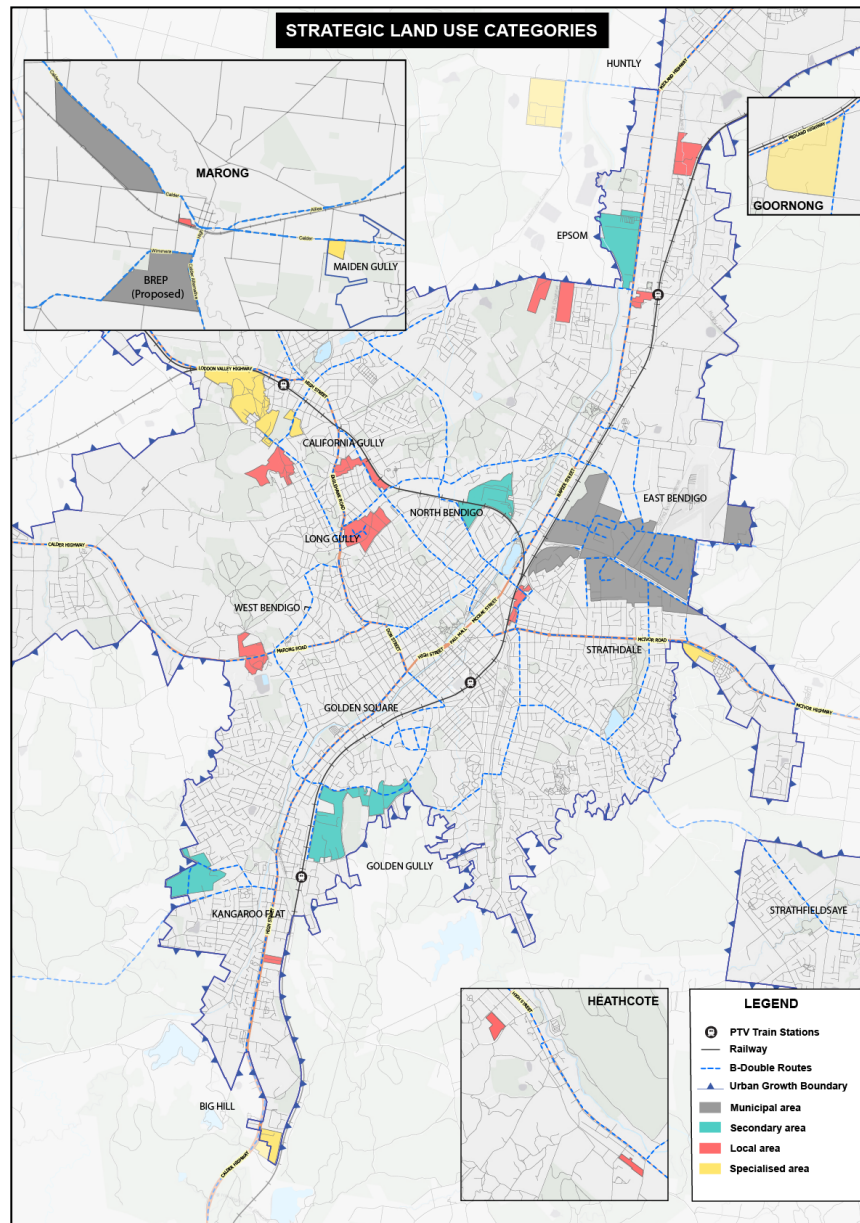
There has been substantial consultation with stakeholders, landowners and government agencies from the initial investigations through to the finalisation of the GBILDS May 2020. There will be further consultation with landowners, community, stakeholders and agencies on the implementation of the Strategy. This will also include further consultation through any formal planning scheme amendment processes.

Consultation on the GBILDS has included public and stakeholder forums in late 2018, ongoing engagement with relevant government agencies, discussions and site examination with the adjoining Shire of Loddon, one-on-one consultation with landowners and extensive consultation on the draft GBILDS held from June 24, 2019 until August 2, 2019.

The community has also been notified of the proposed BREP as the preferred site to meet long term industrial land use needs. Extensive community engagement will take place as part of the planning process for this precinct.

Key issues identified through the consultation process included not having heavy industries near residential areas, the need for well-designed business park(s), and in the consultation on the draft strategy, proposals for re-zoning of industrial land, particularly from Industrial 1 to Industrial 3 and the potential implications of this.

⁵ Bendigo Industrial Land Review - Strategic Economic Inputs, REMPLAN 2019



Strategic land use categories

Municipal areas - Significant precincts that provide for a range of uses and employment for the broader municipality and region also allowing for the conglomeration of associated businesses.

Secondary areas - Precincts generally containing a range of industrial uses and employment opportunities, often located in areas with residential development nearby, limiting very heavy industry.

Local areas - Small scale precincts comprising low impact industrial and associated businesses and employment opportunities suitable for a local area. Generally located in areas with residential development nearby, limiting heavy industry and any expansion.

Specialised areas - Targeted precincts focusing on a narrow range of uses with limited opportunities for expansion.

Figure 1 - Study area / Strategic land use categories

Vision, principles, objectives and rationale



2. Vision, principles, objectives and rationale

2.1 Vision statement

The following vision statement has been prepared to guide the ongoing planning and development of Greater Bendigo's existing and future industrial areas:

Greater Bendigo's well-located, connected, and accessible serviced industrial land will be sought after by current and future industry due to its high amenity, focus on innovative and adaptive approaches to water, energy and waste sustainability, its provision for industrial uses of all scales and its reputation for simple and certain development outcomes.

This vision will be implemented through resolution of historic land use conflict; the repurposing of non-viable industrial land; improved efficiency, consolidation and, where viable, expansion of existing precincts; transparent location of new industrial land against nominated criteria including near transport corridors and a growing residential population; provision of appropriate design guidance and clear development expectations.

2.2 Guiding principles

The following guiding principles were derived from the preliminary community consultation summarised in the Background Report.

These principles embody the City's approach to future industrial land development, and its development of the GBILDS, including the vision statement above. These principles will guide the City's approach to implementation of the adopted strategy.

Principle 1 Be innovative and adaptive

Understand and respond to emerging industries, businesses and market trends, while supporting 'local makers' and entrepreneurial sectors.

Principle 2 Be diverse

Provide a diverse mix of lot sizes to cater for a range of industries and business sizes.

Principle 3 Be sustainable

Require environmentally sustainable development, as part of both the design and operation of new precincts and facilities.

Principle 4 Be connected and accessible

Provide direct access to road, and where relevant, rail and airport connections to minimise travel time to key metropolitan and regional destinations. Enable local residents and workers to easily access industrial and business hubs.

Principle 5 Be integrated

Deliver mixed-use precincts that include a range of compatible community facilities and services within industrial 'employment hubs'. Minimise potential land-use conflicts with neighbouring residential areas, while ensuring adequate housing choice close to industrial workplaces.

Principle 6 Be collaborative

Foster collaboration between industry, the education and training sector and local government, taking a regional approach that involves other municipalities.

Principle 7 Be transparent

Certainty and support for potential developers and investors, with quick decision-making and approval processes.

Principle 8 Be open to community input

Invite the community to contribute to and inform planning for Greater Bendigo's industrial future.

2.3 Objectives and rationale

The following objectives describe what the GBILDS seeks to accomplish as distilled from the key issues and opportunities summarised at **Section 8** of the Background Report. A rationale for each objective is provided below.

Objective 1: Ensure there is adequate land zoned or identified to provide for 30 years of land supply in Greater Bendigo through the development of new business park(s).

Rationale: Economic analysis included in the Background Report in 2019 estimated that Greater Bendigo has a 14-year supply of industrial land, assuming a near perfect development scenario (closer to a maximum of 11 years based on the most current audit). Under this scenario Greater Bendigo would be exhausted of industrial land and foregoing industrial job growth by 2032. In a scenario that assumes 25% of all lots are commercially unviable for development, jobs are expected to start to be foregone by 2025 and ramp up to 1,081 jobs lost by 2036.

In addition to the general need for industrial land, there is a specific and more urgent need to provide for larger industrial lots sizes in the order of 1-5ha. The economic analysis estimates that if land supply shortages in medium and large lots materialises, all lots of this size will be fully exhausted by 2025.

While the term ‘industrial’ is used extensively in the GBILDS it must be recognised that many uses that seek and need industrially zoned land are not industries in the conventional sense of the word. These businesses include warehousing, storage, distribution centres, truck depots, low impact assembly, and many aspects of manufacturing.

Most of the industrial land in Greater Bendigo is not occupied by factories or large scale manufacturing plants. For example, the industrial precinct in Charleston Road, East Bendigo while zoned Industrial 1 is predominantly used for warehousing and commercial businesses.

Objective 2: Provide future direction around existing industrial precincts

Rationale: The review of Greater Bendigo’s existing industrial employment precincts is included in **Section 4**. This review identifies that each precinct has a unique spatial context, role, and set of issues and opportunities. Actions for each of these precincts are addressed respectively in **Section 4**.

Objective 2A: Reduce industry-residential land use conflicts

Rationale: The review of Greater Bendigo’s existing industrial employment precincts identifies that many of the City’s existing precincts are compromised by proximity to residential and other sensitive uses. In some cases, such industrial properties are only appropriate for lighter industrial uses or, linking with Objective 2B, appropriate potential non-industrial uses.

Objective 2B: Provide protection of viable industrial and employment precincts from non-industrial uses

Rationale: Economic analysis as part of the industrial land audit undertaken by the City identifies that there is currently a range of non-industrial activities located in industrial areas. With a limited supply of industrial land, viable ‘core’ industrial precincts need to be protected from non-industrial uses. Some less viable or compromised parts of viable industrial precincts may be appropriate for development of non-industrial uses.

Objective 3: Reduce the impacts of freight movements on non-industrial particularly residential urban areas

Rationale: The Bendigo Freight Study identifies large vehicle freight movements through Greater Bendigo's non-industrial urban areas as a key challenge and explains that this is due in part to many freight generators being located throughout the city's scattered industrial pockets along with the consolidation of logistics businesses in East Bendigo. The study identifies that many of these businesses would be better located on the fringe of the city particularly to cater for expansion.

Proximity or direct access to the B-Double road network is essential for the location of any future industrial land to minimise impacts on non-industrial urban areas.

Objective 4: Improve the function, design and amenity of new and existing industrial areas

Rationale: Review of best practice both nationally and internationally (see Appendix 1 of the Background Report) have identified the importance of going beyond core infrastructure requirements to focus on high amenity environments which foster collaboration and innovation. These high amenity design outcomes are often achieved through precinct-specific planning controls and design guidelines.

Retrofit of existing areas can be more challenging however focus needs to be on incremental change over time as properties are redeveloped. Alternatively, the preparation of precinct structure plans for some industrial areas can assist in achieving more holistic changes.

Objective 5: Promote sustainable industrial land use development

Rationale: There are potentially large gains to be made in encouraging energy efficiency and environmentally sustainable design in industrial areas, as well as integrated water cycle management, increased tree canopy coverage, and waste minimisation from construction and operation. Although increased up-front costs are often cited as constraints to achieving best practice sustainability outcomes in industrial areas, there are many recognised benefits including long-term operational benefits such as reduced utility charges in addition to broader social and environmental gains.

In existing industrial areas improved environmental performance may require incremental improvements over time as individual properties are redeveloped. On large sites, yet to be developed, planning controls and guidelines can ensure that best practice environmental design standards are achieved from the beginning.

Given the potential scale of the potential BREP, this presents a significant opportunity to embed sustainability principles and outcomes at the early planning stages of the project. This will have not only long-term environmental benefits but likely economic benefits for businesses establishing within the precinct by reducing ongoing running costs.

Objective 6: Increase regional competitiveness and grow investment and employment

Rationale: Industrial land availability and usability is identified in the Background Report as a particular challenge in Greater Bendigo. In comparison to Victoria's other regional centres Greater Bendigo currently has less than half the amount of zoned Industrial land in Greater Geelong, about one third less than Latrobe Valley, and about the same amount as Ballarat. However, Ballarat also has an additional 438ha of designated industry and employment land located in a Special Use Zone which equates to some 40% additional industrial land⁶.

In terms of maintaining, supporting and providing for economic and employment growth, it is critical that the City plans for a pipeline of industrial land supply to ensure that it remains competitive to retain, attract and grow existing and new industries and businesses requiring industrially zoned land.

Objective 7: Advocate for State and Commonwealth funding both for core infrastructure and for priority economic initiatives

Rationale: The population, employment and immigration policies of both the State and Commonwealth governments seek to support regional growth, jobs and investment. In part this is seen as combatting congestion in Australia's major cities. There is a strong case for increasing the level of Government funding for regional development employment projects of the scale needed in Greater Bendigo.

The State Government investment of \$6 million announced in late 2022 towards the early infrastructure planning for the BREP is welcomed. This will help ensure the timely delivery of the potential BREP to meet the growing needs of both local and new businesses looking to establish in the region.

Support and investment in the potential BREP and other economic initiatives is important to the ongoing growth of the region.

⁶ Calculated by the City based on publicly available data

General recommendations and actions for industrial land



3. General recommendations and actions for industrial land

3.1 Summary of general actions

Objective No. and Summary	Proposed Action(s)	Implementation/ Responsibility Timeframe
1. Provide for 30 years of industrial land supply	Better utilise parcels of land zoned for industry that are only partially occupied	Ongoing
	Support the VPA to progress the planning for the proposed Bendigo Regional Employment Precinct	1-3 years
	Undertake a bi-annual audit of industrial land supply	2 years
	Review the GBILDS and land supply	5 years
	Existing Marong Business Park	-
	<ul style="list-style-type: none"> Review planning controls to ensure longer term industrial land potential, only once other land is developed 	6-12 months
2. Provide future direction around existing industrial precincts	See precinct-specific actions in Section 4	Refer to implementation timeframe in Section 4
2A. Reduce industry-residential land use conflicts	See precinct-specific actions in Section 4	Refer to implementation timeframe in Section 4
2B. Provide protection of viable industrial and employment precincts from non-industrial uses	See precinct-specific actions in Section 4 Amend local planning policy to direct non-industrial uses to less viable industrial precincts and protect core industrial precincts	1-2 years

Objective No. and Summary	Proposed Action(s)	Implementation Responsibility / Timeframe
3. Minimise the impacts of freight movements on non-industrial urban areas	Advocate for western and northern bypass road to reduce truck thoroughfare through Bendigo	Ongoing until funded
	Support transition of freight task from road to rail where possible	Ongoing
4. Improve the function, design and amenity of existing and new industrial areas	Introduce area-specific design guidelines and/or planning controls with a focus on high public realm and streetscape/interface amenity for new industrial areas and for existing industrial precincts which are subject to future structure planning processes	Timing subject to structure plan preparation and reviews
	Introduce the new <i>Greater Bendigo Industrial Development Guidelines</i> (previously the <i>Good Design Guide for Industry 1997</i>) into the Planning Scheme as a background document	1-2 years
5. Promote sustainable industrial land use and development	Introduce area-specific design guidelines and / or planning controls in new industrial areas with a focus on energy efficiency, water cycle management, increased tree canopy coverage, and waste minimisation	Aligned with the planning of new industrial areas
6. Increase regional competitiveness and grow investment and employment in industry	Ensure a sufficient supply of industrial land	Ongoing
	Facilitate high amenity industrial areas	Ongoing
	Advocate for State and Commonwealth funding support to deliver industrial supply	As required
7. Advocate for State and Commonwealth funding both for core infrastructure and for priority economic initiatives	Meet with various State Government agencies to discuss funding options and implementation pathways	As required

Precinct-specific recommendations and actions



4. Precinct-specific recommendations and actions

4.1 Overview

The Background Report summarises the findings of the *City's Industrial Land Audit (2018)* ('Audit') which reviewed all Industrial zoned land in Greater Bendigo and grouped those industrial landholdings into 22 clusters of industrial properties.

These clusters can be thought of as 'industrial employment precincts' where most of the City's industrial employment is concentrated.

This section of the strategy presents the recommendations made for each of these industrial employment precincts and proposes actions to achieve the objectives identified above.

4.1.1. Precincts

The following industrial employment precincts are identified in **Figure 2:**

1. Goornong
2. Huntly
3. Epsom North
4. Epsom
5. Epsom South
6. Epsom South-West
7. Bendigo East
8. Charleston Road, East Bendigo
9. Junortoun
10. Heathcote
11. Golden Square/Golden Gully
12. Bendigo North
13. Long Gully
14. California Gully
15. Eaglehawk
16. Specimen Hill
17. Rowe Lane, Maiden Gully
18. Kangaroo Flat East
19. Kangaroo Flat West
20. Big Hill
21. Marong
22. Marong West (Marong Business Park)
23. BREP (Proposed Bendigo Regional Employment Precinct)

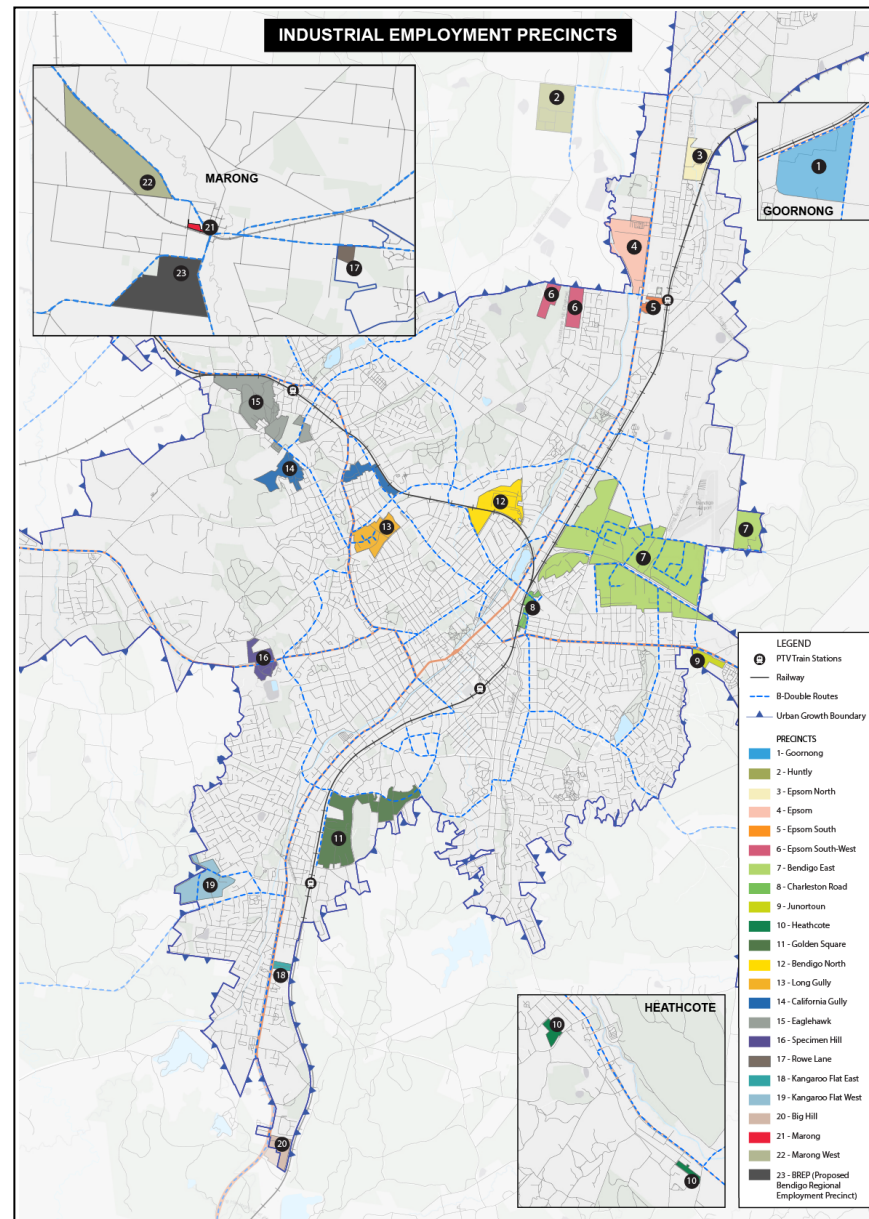


Figure 2 - Industrial Employment Precincts in Greater Bendigo

4.2 Summary of precinct recommendations and actions

Precinct number	Precinct name	Role and function in hierarchy	Recommendation	Action(s)	Implementation Timeframe
P1	Goornong	<ul style="list-style-type: none"> Specialised centre catering for rural industries. Uses include warehousing rural industry and store. Limited expansion opportunities. 	Retain as is with continued policy support of the precinct as a location for rural industries.	Ensure review of local planning policy continues to support the precinct as a location for rural industries.	1-2 years
P2	Huntly	<ul style="list-style-type: none"> Specialised centre being used in part for the Bendigo Livestock Exchange. Potential for longer term expansion of the precinct considering existing uses and location of water treatment facility. 	Retain as is until the City has undertaken further strategic work on the future of the precinct.	-	-
			As an interim measure, investigate the potential to better utilise vacant land at the livestock exchange for industry.	Investigate the potential to better utilise vacant land at the livestock exchange for industry.	1-2 years
			Engage with Coliban Water regarding the longer-term potential to expand the precinct if required.	Engage with Coliban Water.	6-12 months
P3	Epsom North	<ul style="list-style-type: none"> Local centre. Uses include industry warehousing, materials and recycling. Provides local employment opportunities. 	Retain as is at this stage but reconsider the long-term role of the precinct together with setting a clearer vision for the broader area through the Managed Growth Strategy.	Set a clearer vision for the broader area through the Managed Growth Strategy.	2-3 years

Precinct number	Precinct name	Role and function in hierarchy	Recommendation	Action(s)	Implementation Timeframe
P3	Epsom North (continued)	<ul style="list-style-type: none"> • Uses to be consistent with proximity to residential development. 	Given the relatively low rate of development and residential encroachment, consider whether discretionary non-industrial uses could be directed to this precinct.	Consider this precinct as a potential location for discretionary non-industry uses.	2-3 years
P4	Epsom	<ul style="list-style-type: none"> • Secondary centre • Uses include industry, warehousing, retail, trade supplies, rural store. • Potential to include more warehousing and larger retail to cater for growing population needs. 	<p>Retain as is but support rezoning to Commercial 2 Zone within approximately 40 metres of the precinct's immediate interface with the Midland Highway (consistent with 175 to 189 Midland Highway, Epsom at the south of the precinct).</p> <p>This will need to be considered in line with any future buffer requirements for the Coliban Water Wastewater treatment plant.</p>	Review Commercial Land and Activity Centre Strategy 2015 in light of this recommendation.	3-5 years
P5	Epsom South	<ul style="list-style-type: none"> • Local centre. • Uses include industry, warehousing, retail, vehicle sales, health offices and facilities. 	Progressively integrate this area into the Epsom Activity Centre and review zoning over time.	Review Commercial Land and Activity Centre Strategy 2015 in light of this recommendation.	3-5 years

Precinct number	Precinct name	Role and function in hierarchy	Recommendation	Action(s)	Implementation Timeframe
P6	Epsom South-West	<ul style="list-style-type: none"> Local centre. Uses include industry and warehousing. 	Support the development of the Industrial 1 Zone (western) part of the precinct adopting a 'no net loss' approach to vegetation removal via offsets.	-	-
			Investigate how the Industrial 3 Zone (eastern) part of the precinct can be better utilised, acknowledging that rezoning options are limited given its proximity to the water treatment plant.	Investigate how the Industrial 3 Zone (eastern) part of the precinct can be better utilised.	3-5 years
P7	Bendigo East	<ul style="list-style-type: none"> Municipal centre. The most important existing industrial precinct in Greater Bendigo catering for a variety of uses which includes industry, warehousing, food manufacturing, retail, offices. The scale, location, servicing and established nature of the precinct means it will continue to be the premier established industrial precinct in Greater Bendigo. 	Prepare a an update to the 2006 Precinct Plan (amended 2013) for East Bendigo to provide greater direction for its future development.	Prepare an update to the 2006 Precinct Plan (amended 2013) for East Bendigo.	2-3 years
			Support establishment of a business park at Bendigo Airport if proposed.	Amend local planning policy to provide policy support for this recommendation.	1-2 years
			Consider implementation of planning controls to create a 'core' industrial precinct.	Amend local planning policy to provide policy support for this recommendation and other precincts as relevant.	3-5 years
				Prepare and apply planning controls to create a core industrial precinct following preparation of a precinct plan for East Bendigo.	3-5 years

Precinct number	Precinct name	Role and function in hierarchy	Recommendation	Action(s)	Implementation Timeframe
P8	Charleston Road, East Bendigo	<ul style="list-style-type: none"> Local centre. Uses include warehouse, retail, trade supplies and limited manufacturing. Limited expansion opportunities. Potential to transition precinct over time to consider uses more suitable to its central location and the surrounding residential area. 	Undertake further engagement with land owners in this precinct.	Run a targeted preliminary engagement session to gauge landowner support.	1-2 years
			Discourage industrial intensification or subdivision for industrial purposes.	Amend local planning policy to provide policy support for this recommendation.	1-2 years
			Prepare a masterplan for the precinct subject to landowner support.	Prepare a masterplan for the precinct (subject to landowner support).	1-2 years
P9	Junortoun	<ul style="list-style-type: none"> Specialised centre. Uses include industry and manufacturing. Limited expansion opportunities. 	Include as part of the precinct plan for East Bendigo in the short term to provide greater direction for the future development of this precinct.	Consider as part of the precinct plan for East Bendigo.	2-3 years
P10	Heathcote	<ul style="list-style-type: none"> Local centre. Uses include industry, warehousing, retail, and landfill transfer station. Services a local population. 	Continue to provide for Heathcote's future industrial land needs through the implementation of Heathcote Township Plan (HTP).	Rezone 31 Ayres Street, from Industrial 3 Zone to General Residential Zone due to poor accessibility and proximity to residential development.	Approximately 1-2 years (subject to implementation of the HTP)
				Support the Heathcote Township Plan recommendation for the longer-term industrial development of land at 2-24 Back Kyneton Road subject to an environmental audit being undertaken.	Approximately 1-2 years (subject to implementation of the HTP)

Precinct number	Precinct name	Role and function in hierarchy	Recommendation	Action(s)	Implementation Timeframe
P11	Golden Square / Golden Gully	<ul style="list-style-type: none"> • Secondary centre. • Uses include industry warehousing, manufacture, service industry, retail, trade supplies, offices. • Given the proximity of residential development across much of the precinct more suited to uses with a lower amenity impact. 	Undertake a review of land use as part of preparation of a Golden Square Structure Plan.	Undertake a review of land use as part of preparation of a Golden Square Structure Plan (GSSP).	Approximately 1-2 years (subject to the amendment to implement the GSSP)
			Support the rezoning of the entirety of 60 Hattam Street to an industrial zone.	Undertake a future planning scheme amendment to rezone this property into an appropriate industrial zone.	3-5 years (depending on resourcing)
			Support the rezoning of 5 Godfrey Street to an industrial zone consistent with the recommendations of the Golden Square Structure Plan.	Undertake a planning scheme amendment process to rezone this property as part of the implementation of the Golden Square Structure Plan.	Approximately 1-2 years (subject to the amendment to implement the GSSP)
			Support the rezoning of 197-199 Allingham Street and 1-39 Ham Street (northern side) from General Residential Zone to Industrial 3 Zone.	Consider as part of the implementation of Golden Square Structure Plan.	Approximately 1-2 years (subject to the amendment to implement the GSSP)
			Support the rezoning of the residential properties along the eastern site of MacDougall Road (74-104 MacDougall Road) and the Southern side of Hattam Street between MacCullagh and MacDougall Road) to Industrial 3 Zone.	Undertake a planning scheme amendment process to rezone these properties subject to more detailed investigations.	Approximately 3-5 years (depending on resourcing)

Precinct number	Precinct name	Role and function in hierarchy	Recommendation	Action(s)	Implementation Timeframe
P11	Golden Square (continued)		Support the rezoning of 66, 68 & 70 Belle Vue Road and 121 & 123 Hattam Street from General Residential Zone and Industrial 1 Zone to Industrial 3 Zone.	Undertake a planning scheme amendment process to rezone these properties as part of the implementation of the Golden Square Structure Plan.	Approximately 1-2 years (subject to the amendment to implement the GSSP)
			Discourage residential intensification of properties within and immediately adjacent to the precinct.	Consider as part of the implementation of Golden Square Structure Plan.	1-2 years (investigations)
P12	Bendigo North	<ul style="list-style-type: none"> • Secondary centre. • Includes some larger businesses providing important employment opportunities for a broader catchment. • Limited expansion opportunities over time. 	<p>Discourage residential intensification of properties directly interfacing with the Industrial 1 Zone.</p> <p>In the longer term investigate potential zoning changes and planning controls to reduce land use conflicts.</p>	Investigate mechanisms to reduce land use conflicts.	1-2 years (investigations)
P13	Long Gully	<ul style="list-style-type: none"> • Local centre. • Uses include industry, warehousing, manufacture, service industry, retail, trade supplies. 	Retain as Industrial 3 Zone.	-	-

Precinct number	Precinct name	Role and function in hierarchy	Recommendation	Action(s)	Implementation Timeframe
P14	California Gully	<ul style="list-style-type: none"> Local centre. Uses include industry, warehousing, manufacture, service industry, retail, trade supplies, offices. 	Residential development has entirely surrounded the eastern precinct. In the longer term investigate potential zoning changes and planning controls to reduce land use conflicts.	Investigate mechanisms to reduce land use conflicts.	1-2 years (investigations)
			Retain the existing function of the western precinct given its interface with the Eaglehawk Landfill.	-	-
P15	Eaglehawk	<ul style="list-style-type: none"> Specialised centre. Uses include industry, warehousing, manufacture, materials recycling, service industry, retail, trade supplies, offices. A number of constraints impacting on expansion including half the site being disused mining, proximity of landfill, vegetation coverage and bushfire. 	Generally retain the function of the precinct but in the longer term investigate potential zoning changes and planning controls to reduce land use conflicts.	Investigate mechanisms to reduce land use conflicts.	1-2 years (investigations)
P16	Specimen Hill	<ul style="list-style-type: none"> Local centre. Uses include mixed residential and undeveloped constrained land. 	Retain as is	-	-

Precinct number	Precinct name	Role and function in hierarchy	Recommendation	Action(s)	Implementation Timeframe
P17	Rowe Lane, Maiden Gully	<ul style="list-style-type: none"> • There are no existing land uses as this precinct consists of undeveloped constrained land. • Unserved, heavily vegetated with a number of other constraints making it unsuitable for industrial development. 	Support a rezoning of the precinct from Industrial 1 Zone to Public Conservation and Resource Zone.	Undertake a planning scheme amendment to rezone the land to Public Conservation and Resource Zone.	1-2 years
P18	Kangaroo Flat East	<ul style="list-style-type: none"> • Local centre. • Uses include industry, warehousing, service industry, retail and offices. • Extension of the existing Kangaroo Flat warehouse precinct. 	Support market-led rezoning of the precinct from Industrial to Commercial 2 Zone.	Amend local planning policy to provide policy support for this recommendation.	1-2 years

Precinct number	Precinct name	Role and function in hierarchy	Recommendation	Action(s)	Implementation Timeframe
P19	Kangaroo Flat West	<ul style="list-style-type: none"> • Secondary centre. • Uses include industry, warehousing, manufacture, service industry and retail. • This well-located precinct provides employment opportunities for a broader catchment. • This precinct is well utilised with limited opportunities for expansion within the existing precinct. 	Investigate rezoning of properties adjacent to residential zones from Industrial 1 Zone to Industrial 3 Zone, making provision for the continued operation of established industrial uses.	Investigate mechanisms to reduce land use conflict.	3-5 years
P20	Big Hill	<ul style="list-style-type: none"> • Specialised centre. • Uses will likely include industry, warehousing and manufacturing. 	Retain as is for the short term but support a market led rezoning of adjacent Farming Zone land subject to adoption of a 'precinct approach' which includes all contiguous Farming Zone properties and support from respective landowners (subject to a detailed assessment and response to the constraints of the precinct).	Amend local planning policy to provide policy support for this recommendation.	1-2 years

Precinct number	Precinct name	Role and function in hierarchy	Recommendation	Action(s)	Implementation Timeframe
P21	Marong	<ul style="list-style-type: none"> Local centre. Support rezoning to General Residential Zone. 	Support the rezoning of the precinct to the General Residential Zone through the implementation of the Marong Township Structure Plan (MTSP).	Undertake a planning scheme amendment to implement the Marong Township Structure Plan.	Approximately 1-2 years (subject to the amendment to implement the MTSP)
P22	Marong West	<ul style="list-style-type: none"> Long-term future employment precinct. Currently farming land zoned Comprehensive Development Zone. 	Review land supply and long term need for the Business Park.	Further review when updating the GBILDS in 5 years.	5-10 years
			Review planning controls to ensure longer term industrial land potential only, once other land is developed.	Update planning controls as required to indicate the longer term potential for industrial land only.	6-12 months
P23	BREP	<ul style="list-style-type: none"> Potential future employment precinct. 	Support the rezoning of the land to enable industrial uses.	Support the VPA to progress the planning for the precinct.	1-3 years

FUTURE INDUSTRIAL LAND PRECINCTS



5. Future industrial land precincts

There is currently less than 11 years of industrial land in Greater Bendigo assuming near perfect utilisation, with the majority (74%) of sites being less than 0.5 hectares. Only 11% of sites are over one hectare.

Based on a consumption rate of between 9 and 11 hectares per year, at a minimum there will need to be an additional supply of between 170 and 270 hectares over and above the existing supply over the next 30 years (based on having 100 hectares of vacant land)⁷. This does not consider that by having more available, useable and buffered industrial land, Greater Bendigo will become more attractive as a destination for businesses and therefore consumption of land is likely to increase over and above initial forecasts. Further it does not consider the potential in the future to better utilise some of the existing industrial precincts for a commercial or other more suitable zone based on their locational or other attributes (Section 4).

Currently compared to other regional cities of a similar size existing industrial land precincts are generally small in size, limiting the potential for similar businesses to congregate in a single location. There is also no large business park unlike many other larger regional cities such as Ballarat, Geelong and Wodonga. This makes it more difficult to control design outcomes and to take a precinct wide approach to development.

Greater Bendigo has been experiencing strong economic growth in recent years growing by \$4.3

billion over the eight years from 2015 to 2023, Manufacturing currently comprises 18.2% of the economic output for Greater Bendigo, with construction and transport, postal and warehousing comprising a further 16.9%⁸. However, it is becoming increasingly clear that without a pipeline of serviced and available industrial land, Greater Bendigo is likely to become more uncompetitive with other regional cities leading to a potential slowdown in employment and possibly population growth.

While the City currently has 313 hectares of land that was zoned Comprehensive Development Zone in 2016 and appropriate for industry to the west of Marong, this land is currently not serviced and unavailable for industrial development given the land is under private ownership and being utilised for farming. However, given the potential long-term suitability for this land to be used for industry (should the take up of industrial land be greater than forecast) it is proposed to retain this land within the Comprehensive Development Zone.

Given the unavailability of the current zoned land in Marong for industrial development, the City has been going through a comprehensive process of selecting a future site(s) for a business park(s). Further details around the selection process are included in the GBILDS background report.

Following extensive investigations, the City has identified 294 hectares of land to the south of the Marong Township at the intersection of the

Wimmera and Calder Alternative Highways for a potential future employment precinct.

The ultimate development of this precinct would unlock land to meet the medium and longer term industrial land needs of existing and new businesses to Greater Bendigo. It is expected that the proposed BREP will deliver 6,000 direct and indirect jobs for the region.

The Victorian Planning Authority has been appointed as the planning authority for this precinct and is working closely with the City to prepare a planning scheme amendment to deliver the precinct.

⁷ Review of Future Land Supply in Bendigo SGS ECONOMICS AND PLANNING 2023

⁸ REMPLAN 2024

Monitoring and review framework



6. Monitoring and review framework

6.1 Monitoring

The actions listed in Section 3 and Section 4 include implementation responsibilities and timeframes.

The City's Strategic Planning Unit will monitor these actions at least every 12 months and record the progress of each (including updated timeframes).

Officers will prepare reports to Council on the progress of these actions as required.

6.2 Review

The GBILDS and its implementation will be reviewed in five years.

Review of the GBILDS must factor new industrial land supply into an updated economic analysis which must comprehensively update its existing land supply estimates (i.e. estimated years of supply).

Individual actions as discharged may be annexed to an appendix of completed actions and new actions may be included if considered relevant and necessary.

Addendum to the *Greater Bendigo Industrial Land Development Strategy – Background Report May 2020*

June 2024

In conjunction with the 2024 updates to the *Greater Bendigo Industrial Land Development Strategy 2020*, the following changes apply to the *Greater Bendigo Industrial Development Background Report 2020*:

1. EXECUTIVE OVERVIEW

1.2 Why is an industrial strategy required?

- [Third paragraph] Greater Bendigo's population will grow from around 124,000 people today to around 200,000 people over the next 30 years.
- [Fourth paragraph] It is forecast that there will be an estimated 3,300 new jobs relating to the City's industrial sectors over the next.

1.3 What is the scope of this report?

- [Figure 1 – Study Area map] The study area now includes the addition of the proposed Bendigo Regional Employment Precinct (BREP) site in Marong.

2. CONTEXT

2.1 Regional context

- [Fourth paragraph] Greater Bendigo's population will grow from around 124,000 people today to around 200,000 people over the next 30 years.

2.6 Planning policies and strategies

- [First paragraph] The City's industrial policy is now located under 17.03-1L of the Greater Bendigo Planning Scheme with the new structure of planning schemes introduced by Amendment VC148.

4. REVIEW OF THE PLANNING POLICY FRAMEWORK

4.2 Planning Policy Framework

- [Second paragraph] The City has since undertaken a Planning Scheme Amendment (C256gben) to integrate its translated local policies into the new Planning Policy Framework structure.

4.6 Key issues and implications

- [final paragraph] The State government announced in 2022 \$6 million in funding towards early infrastructure planning for proposed BREP.

5. REVIEW OF EXISTING INDUSTRIAL AREAS

5.1 Industrial employment precinct

- The Greater Bendigo Industrial Land Development Strategy adds the proposed Bendigo Regional Employment Precinct (BREP) to the industrial precinct list and to the Industrial Land Precincts map.

5.3 Summary of precinct recommendations

- P10 – Heathcote: The updated Greater Bendigo Industrial Land Development Strategy adds an action to support the Heathcote Township Plan recommendation for the longer term industrial development of land at 2-24 Back Kyneton Road subject to an environmental audit.
- P11 – Golden Square/Golden Gully: The updated Greater Bendigo Industrial Land Development Strategy adds an action to support the rezoning of 66,68 & 70 Belle Vue Road and 21 and 123 Hattam Street from General Residential Zone and Industrial 1 Zone to Industrial 3 Zone.
- P17 – Rowe Land, Maiden Gully: The updated Greater Bendigo Industrial Land Development Strategy amends the recommendation and action to support and undertake a rezoning of the site from Industrial 1 Zone to Public Conservation and Resource Zone.
- P22 – Marong West: The updated Greater Bendigo Industrial Land Development Strategy changes the role and function in hierarchy to:
 - Long-term future employment precinct
 - Currently farming land zoned as Comprehensive Development Zone.
- The updated Greater Bendigo Industrial Land Development Strategy adds a proposed 23rd Precinct as follows:
 - Precinct name: BREP
 - Role and function in hierarchy: Future employment precinct
 - Recommendation: Support the rezoning of the land to enable industrial uses.

7. FUTURE INDUSTRIAL LAND SUPPLY

7.1.2 Proposed land search criteria

- [Right hand cell in fifth row of table] *Clause 22.01 - Development At The Urban – Forest Interface*, the equivalent policy is now located at *Clause 12.05-2L Urban forest interface – Greater Bendigo*.

8. FUTURE INDUSTRIAL LAND

- The updated Greater Bendigo Industrial Land Development Strategy outlines that following extensive investigations, 294 hectares (known as BREP) to the South of the Marong township has been identified as having future potential to meet medium and longer term industrial land needs within Greater Bendigo. Proposed BREP is expected to deliver 6000 direct and indirect jobs to the region. Also noting that the VPA has been appointed as the planning authority for the proposed BREP precinct and will be working closely with the City to prepare a planning scheme amendment to deliver the precinct.

APPENDIX 5 – PRECINCT RECOMMENDATIONS

Precinct 17 – Rowe Lane

Recommendation

[Recommendation] Further strategic work since undertaken by the City has determined that the land is not considered suitable for industrial use and development given its isolated location, bushfire risk, lack of services, valuable on-site vegetation and sensitive natural surroundings. Rezoning the land to Public Conservation and Resource Zone is considered to be the most appropriate use of the land in future to ensure its future protection and conservation.

Precinct 23 – Bendigo Regional Employment Precinct – BREP

The Greater Bendigo Industrial Land Development Strategy has been updated to include a 23rd precinct for the proposed Bendigo Regional Employment Precinct (BREP) located to the South of the Marong township. BREP is a 294 hectare area of land currently zoned farming zone identified as a future employment precinct to meet industrial land needs in the medium to long term. The recommendation is to support the rezoning of the land to enable industrial uses.

THROUGHOUT

- Greater Bendigo’s ‘Settlement Strategy’ has been renamed ‘Managed Growth Strategy’.

GREATER BENDIGO PLANNING SCHEME

AMENDMENT C282gben

EXPLANATORY REPORT

Overview

The proposed amendment partially implements and gives effect to the Greater Bendigo Industrial Land Development Strategy (City of Greater Bendigo, February 2024), (the strategy) and introduces the Greater Bendigo Industrial Development Guidelines (City of Greater Bendigo, 2024), (the guidelines).

The amendment proposes to:

- Rezone 21.27 hectares of land at 1029 Calder Highway, Maiden Gully from Industrial 1 Zone to Public Conservation and Resource Zone.
- Amend Clause 02.03-7 (Economic development) of the Municipal Planning Strategy.
- Amend Clause 14.01-1L (Protection of agricultural land – Greater Bendigo).
- Amend Clause 15.01-1L-02 (Urban Design in industrial areas – Greater Bendigo) of the Planning Policy Framework.
- Amend Clause 17.03-1L (Industrial land supply - Greater Bendigo) of the Planning Policy Framework.
- Amend the Schedule to Clause 72.08 (Background documents).
- Amend the Schedule to Clause 74.02 (Further Strategic Work).

Overall, the proposed amendment seeks to provide clear directions around existing and future industrial precincts to minimise land-use conflicts, increase land supply and ensure industrial land is suitably located.

Where you may inspect this amendment

The amendment can be inspected free of charge at the City of Greater Bendigo website at <https://www.bendigo.vic.gov.au/Services/Building-and-Planning/Planning-scheme-amendments>

The amendment is also available for public inspection, free of charge, during office hours at the City of Greater Bendigo, Galkangu Bendigo GovHub, 189-229 Lyttleton Terrace Bendigo.

Please contact the Strategic Planning team on 1300 002 642 or email strategic.planning@bendigo.vic.gov.au to arrange a time to view the amendment documentation.

The amendment can also be inspected free of charge at the Department of Transport and Planning website at <http://www.planning.vic.gov.au/public-inspection> or by contacting the office on 1800 789 386 to arrange a time to view the amendment documentation.

Submissions

Any person may make a submission to the planning authority about the amendment. Submissions about the amendment must be received by [insert submissions due date].

A submission must be sent to:
City of Greater Bendigo Strategic Planning Department,
By post: PO Box 733, Bendigo, VIC 3552
By email: strategic.planning@bendigo.vic.gov.au

Panel hearing dates

In accordance with clause 4(2) of Ministerial Direction No.15 the following panel hearing dates have been set for this amendment:

- directions hearing: [insert directions hearing date]
- panel hearing: [insert panel hearing date]

Details of the amendment

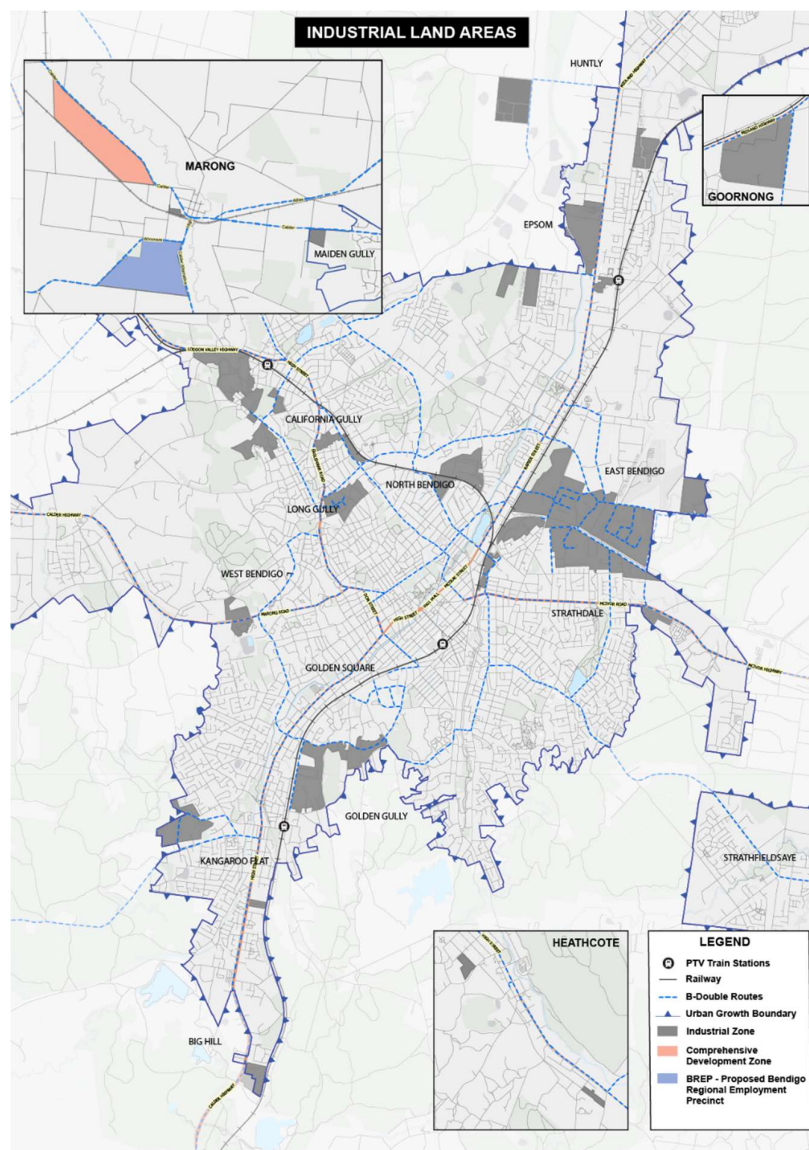
Who is the planning authority?

This amendment has been prepared by the Greater Bendigo City Council which is the planning authority for this amendment.

Land affected by the amendment

The amendment applies to:

- All land zoned Industrial 1 or Industrial 3 Zone in the municipality.
- Land (313 hectares) approximately 500 metres west of the Marong township zoned Comprehensive Development Zone, Schedule 3, identified as the Marong Business Park.
- Land (294 hectares) to the south of the Marong township identified for the Bendigo Regional Employment Precinct, zoned Farming Zone.
- Land (21.27 hectares) at 1029 Calder Highway, Maiden Gully, zoned Industrial 1 Zone.



Map 1: The land affected by the amendment.

Property Address	Suburb
Lot 1 Calder Alternative Highway	Marong
1877 Calder Alternative Highway	Marong
Lot 5 O'Sullivan's Road	Marong
Lot 5C O'Sullivan's Road	Marong
Lot 6 O'Sullivan's Road	Marong
Lot 6A O'Sullivan's Road	Marong
Lot 7 O'Sullivan's Road	Marong
Lot 10 O'Sullivan's Road	Marong
41 O'Sullivan's Road	Marong
CA 7C Bendigo-St Arnaud Road	Marong
Lot 8 Bendigo-St Arnaud Road	Marong
211 Bendigo-St Arnaud Road	Marong

Table 1. Land parcels that make up proposed Bendigo Regional Employment Precinct

What the amendment does

The amendment undertakes a comprehensive review of industrial land in the municipality and relevant planning framework and introduces a new strategic framework for industrial land in the form of the strategy. The amendment also proposes to partially implement recommendations of the strategy, to implement the guidelines in addition to the rezoning of 1029 Calder Highway, Maiden Gully. Changes are proposed to the Municipal Planning Strategy, Planning Policy Framework and the Operational Provisions of the City of Greater Bendigo Planning Scheme.

The amendment proposes to:

- Rezone 21.27 hectares of land at 1029 Calder Highway, Maiden Gully from Industrial 1 Zone (IN1Z) to Public Conservation and Resource Zone (PCRZ) as shown on Planning Scheme Map No.31.
- Amend Clause 02.03-7 (Economic development) of the Municipal Planning Strategy to amend strategic directions to give effect to the strategy.
- Amend Clause 14.01-1L (Protection of agricultural land – Greater Bendigo) of the Planning Policy Framework to add a strategy previously listed under Clause 17.03-1L.
- Amend Clause 15.01-1L-02 (Urban Design in industrial areas – Greater Bendigo) of the Planning Policy Framework to give effect to the guidelines.
- Amend Clause 17.03-1L (Industrial land supply - Greater Bendigo) of the Planning Policy Framework to give effect to the strategy
- Amend the Schedule to Clause 72.08 (Background documents) to delete outdated documents Bendigo Industrial Land Strategy (GHD, June 2002) and the guidelines and to insert two new background documents titled 'Greater Bendigo Industrial Development Guidelines 2024' and 'Greater Bendigo Industrial Land Development Strategy February 2024'.
- Amend the Schedule to Clause 74.02 (Further Strategic Work) to delete 'The Industrial Land Strategy and Good Design Guide for Industry'.

Strategic assessment of the amendment

Why is the amendment required?

The proposed amendment is required to provide a strategic framework and roadmap to identify a 30 year pipeline of future industrial land to meet the needs of current and future industry in Greater Bendigo. As part of the proposed amendment the strategy provides clear directions around existing and future industrial precincts to minimise land-use conflicts, increase land supply and ensure industrial land is suitably located. The guidelines provide updated guidance to ensure future industrial subdivision and development is more environmentally sustainable, functional and attractive.

1029 Calder Highway, Maiden Gully

The land at 1029 Calder Highway, Maiden Gully is a Council owned 21.27 hectare property zoned Industrial 1 Zone. The property is an isolated parcel of industrial zoned land, surrounded on the northern, eastern and southern sides by native forest and agricultural land to the west. The land is located approximately 2.2 kilometres west of the centre of Maiden Gully. The adjoining land is zoned Public Conservation and Resource Zone and Farming Zone. The property is subject to the following overlay controls:

- Environmental Significance Overlay (ESO1 – Watercourse Protection)
- Vegetation Protection Overlay (VPO2 – Significant Vegetation)
- Bushfire Management Overlay (BMO)
- Land Subject to Inundation Overlay (LSIO1 – Flooding from Waterways, Depths up to and including 350 millimetres)

The property was purchased by the former Rural City of Marong (later amalgamated into the City of Greater Bendigo) circa 1984 for the purposes of a proposed livestock saleyard and rezoned to Special Use Zone at the time. In 1992 the Rural City of Marong proposed to sell the property for a potential aluminium rolling mill and the land was subsequently rezoned to Industrial Zone under Amendment L30, although the land sale never eventuated. The land has remained vacant since with no history of industrial use or any form of development.

The land has a number of constraints that makes it unsuitable for industrial use and development. Its location with no existing services or infrastructure, adjoined by regional park and farming land, located away from an urban centre makes it isolated. The BMO applies to the entire property and is therefore identified as being within an area of extreme bushfire hazard. According to the council's biodiversity officer, established native vegetation across the site is considered to have high offset credit values warranting the protection of the vegetation. A general biodiversity values assessment undertaken in 2019 determined the existence of vulnerable species, *Acacia ausfeldii*, and a threatened flora community, *Eucalyptus microcarpa* in locations across the site. Furthermore, there is a likelihood the site contains of a number of threatened fauna habitat areas for locally threatened species including the *Phascogale tapoatafa* (vulnerable), *Ninox strenua* (vulnerable) *Lathamus discolor* (endangered) and *Pseudophryne bibronii* (endangered).

While the land is currently Industrial 1 Zone, the land has remained vacant with no history of development or any active use and has not been subject to contamination through previous land use activities. There is no previous industrial activity, mining or storage of chemicals, gas, waste or liquid fuel on the land leading to any form of contamination. It is therefore determined that no further investigation or audit of the land was considered necessary in this case.

Given the isolated location and the environmental values, the land is not suitable for future industrial use and development. The most appropriate zoning is the PCRZ to protect and conserve the natural environment and natural processes on the land and surrounds. This action is supported by a recommendation in the strategy. Future strategic land use for the site in conjunction with the proposed PCRZ is intended for conservation purposes and primarily for offset reserves for several large native trees on the land. Given the extensive vegetation that exists on the site it would not be appropriate, nor is it intended to use the land for any sensitive uses including children's playground, secondary school, agriculture or public open space.

Greater Bendigo Industrial Development Guidelines

The guidelines outline how future industrial areas should look, function and perform relative to the surrounding context and environment. The guidelines are proposed to replace the City of Greater Bendigo Good Design Guide 1997 and provide a more comprehensive and contemporary suite of guidelines for industrial subdivision and development within the municipality.

The guidelines support objective 4 of the strategy: 'Improve the function, design and amenity of existing and new industrial areas' and is in accordance with the following actions from the strategy:

- Review and update the Good Design Guide for Industry to incrementally improve existing industrial areas.
- Introduce the new Greater Bendigo Industrial Development Guidelines (previously the Good

Design Guide for Industry 1997) into the Planning Scheme as a background document.

The guidelines outline the planning authority's vision and expectations for future industrial subdivision and development by providing a broad suite of objectives and guidelines for permit applicants to address when preparing an application to subdivide and/or develop industrial land. The guidelines cover a broad range of design aspects and considerations, including best practice environmentally sustainable development strategies.

This amendment proposes to translate the guidelines into a local policy at Clause 15.01-1L-02 (Urban design in industrial areas – Greater Bendigo), identified as the most appropriate location to ensure the guidelines are implemented into the planning scheme to provide clear direction and guidance to support decision making on industrial land use and development applications. The local policy at Clause 15.01-1L-02 is considered an appropriate and effective tool to implement the relevant objectives from the guidelines into a list of strategies to guide decision making. The guidelines are proposed to be maintained as a background document under Clause 72.08 to provide additional context and detail to support the policy at Clause 15.01-1L-02. Use of the local policy at Clause 15.01-1L-02 is the most effective tool in this case to implement the guidelines. Translating the design objectives from the guidelines into a local policy avoids the unnecessary broad application of additional planning controls such as a Design and Development Overlay over all existing industrial areas.

The amendment will result in a net community benefit through identifying the full range and extent of environmental, social and economic benefits to be gained that outweigh the sum of identified negative impacts. The economic benefits of the proposed amendment are significant and realised through the likely increased employment opportunities, the stimulation and growth of business and investment that increased industrial land supply will provide and that is expected to correspond with the forecasted population growth of Greater Bendigo. These benefits also far outweigh the economic costs on the public sector associated with the provision of new infrastructure in industrial areas, the small loss of some existing farming land, vegetation and biodiversity losses and some reduced amenity of areas with more sensitive uses in the vicinity of industrial areas.

Greater Bendigo Industrial Land Development Strategy

The proposed amendment is required to partially implement the recommendations of the strategy.

The Greater Bendigo Planning Scheme Review 2019 recommended a comprehensive review and update of the Bendigo Industrial Land Strategy 2002. The strategy was developed with funding support from the Victorian Planning Authority, and together with the accompanying Greater Bendigo Industrial Land Development Strategy Background Report (May 2020) (the background report), provides a strategic framework and roadmap to identify a 30 year pipeline of future industrial land to meet the needs of current and future industry in the municipality. The strategy provides clear directions for all of Greater Bendigo's existing and future industrial precincts to increase land supply, ensure industrial land is suitably located and utilised, and to minimise land use conflicts.

The planning authority adopted the strategy and the background report in June 2020. A short term action of the strategy was to identify suitable land for a future business park, given the land identified for the Marong Business Park is not available for industrial development and use and is currently used for farming. Following detailed investigations, the planning authority has determined a proposed site for a future business park with plans for a 294 hectare industrial precinct on land south of the Marong township, known as BREP (Bendigo Regional Employment Precinct). The strategy has been updated in 2023 to include the details of BREP and other minor changes to ensure the strategy reflects the current state of industrial land supply in the municipality.

The implementation of the strategy will ensure that the municipality and the wider region is well-placed to meet the existing and future industrial land needs of industries and businesses over the next 30 years while better managing land use conflicts.

Planning actions from the strategy are proposed to be translated into the local policy under Clause 17.03-1L (Industrial land supply - Greater Bendigo). Policy strategies for each industrial area or precinct are broken down into a hierarchy of four strategic land use categories: municipal, secondary, local and specialised, in consistency with the precinct recommendations and actions in the strategy.

It is also proposed to move an existing strategy listed under Clause 17.03-1L (Industrial land supply - Greater Bendigo) relating to the protection of rural areas from inappropriate industrial use and development to the more appropriate policy location under Clause 14.01-1L (Protection of agricultural

land – Greater Bendigo).

Clause 72.08 Background documents

The amendment also proposes to implement the guidelines under an amended local policy at Clause 15.01-1L-02 and insert the guidelines into the Greater Bendigo Planning Scheme as a background document under the Schedule to Clause 72.08. The guidelines replace the superseded City of Greater Bendigo Good Design Guide for Industry 1997 under the Schedule to Clause 72.08.

The strategy forms the basis of the amended local policy at Clause 17.03-1L and is also proposed to be inserted as a background document under the Schedule to Clause 72.08. The strategy replaces the superseded Bendigo Industrial Land Strategy 2002 under the Schedule to Clause 72.08.

Clause 74.02 Further strategic work

The amendment proposes to amend the schedule to Clause 74.02 of the Greater Bendigo Planning Scheme to delete the redundant 'The Industrial Land Strategy and Good Design Guide for Industry' item from the further strategic work list.

How does the amendment implement the objectives of planning in Victoria?

The proposed amendment implements the objectives of planning in Victoria, set out in Section 4(1) of the Planning and Environment Act 1987, in particular:

a) To provide for the fair, orderly, economic and sustainable use and development of the land

This objective is implemented through the strategy that seeks to provide sufficient industrial land supply in appropriate locations to facilitate employment growth and sustainable development of future industry in the municipality.

This objective is further implemented by providing a clear hierarchy of the various industrial precincts to help to minimise land use conflicts while helping to facilitate the delivery of additional industrial land.

b) To provide for the protection of natural and man-made resources and the maintenance of ecological processes and genetic diversity.

This objective is implemented through the strategy that seeks to minimise detrimental environmental impacts by ensuring land is appropriately zoned and by directing industrial use and development into suitable locations. The rezoning of land with high biodiversity values from an inappropriate zone provides protection to the natural environment.

c) To ensure a pleasant, efficient, and safe working, living and recreational environment for all Victorians and visitors to Victoria.

This objective is implemented through the strategy that seeks to minimise existing and future land use conflicts and to provide higher built environment standards of which carry through benefits to the public realm.

How does the amendment address any environmental, social and economic effects?

Environmental effects

The amendment addresses effects on air, land and water quality through the promotion of sustainable development principles relating to energy efficiency and environmentally sustainable design, integrated water cycle management and waste minimisation as outlined under objective 5 of the strategy and throughout the guidelines.

The proposed rezoning of 1029 Calder Highway, Maiden Gully is intended to avoid future adverse impacts on air, land and water quality, the health of ecological systems and biodiversity in a sensitive environmental area. The planning authority's records indicate that there has been no activities or land uses that would have resulted in previous soil contamination on the site given the land has remained vacant since 1983 when it was initially purchased by the Rural City of Marong. Prior to the planning authority's ownership the site was agricultural land used for livestock farming. According to the planning

authority's records there is no evidence of historic mining or any other activity potentially leading to contamination. It is considered the land is suitable for conservation use and that no further investigation relating to contamination is required.

Land identified for the proposed BREP and Marong Business Park may result in the necessary removal of native vegetation and some detrimental impacts on biodiversity. Both land locations were chosen on the basis that native vegetation removal requirements and biodiversity impacts were relatively minimal given the typically more heavily vegetated areas around the outer parts of Bendigo.

Social effects

The amendment addresses a number of social effects through the implementation of the strategy. The strategy includes objectives aimed at reducing industry-residential land use conflicts by maintaining and creating land use buffers in addition to reducing the impacts of freight movements on residential urban areas. This aims to elevate local amenity in residential areas to improve quality of life by reducing potential noise and air quality issues. The strategy contains objectives and actions aimed at increasing local employment opportunities through the provision of suitable industrial land to facilitate the growth of industry and business. The guidelines contain design strategies aimed at improving the attractiveness, amenity and safety of the public realm relative to industrial areas.

Economic effects

Greater Bendigo is forecast to experience an increase of over 3,300 new jobs in the industrial sector to 2036 in conjunction with population growth forecasts. The municipality requires approximately 170 hectares of available industrial land over and above the already zoned supply to meet forecasted employment and industry growth. The provision of sufficient land to accommodate employment growth is critical to prevent the forgoing of local jobs and loss of opportunities for economic growth in the region. Greater Bendigo has a strong and continued demand for industrial land and a significant shortfall when compared with other regional cities due to several constraints. The proposed amendment guides appropriate planning for the provision of industrial land and provides a number of economic benefits through the implementation of the strategy including:

- The identification and provision of suitable industrial land will increase the vitality and viability of manufacturing and industry in the municipality and enable increased capacity for industrial expansion.
- Providing a sufficient supply of industrial land will increase regional competitiveness, grow investment and local employment opportunities. The strategy provides a clear road map to identify a 30 year pipeline of future industrial land.
- Support for the proposed Bendigo and Regional Employment Precinct (BREP), a 294 hectare area of land south of the Marong township, with planning currently underway for the future proposed precinct.

Does the amendment address relevant bushfire risk?

The amendment meets bushfire policy in Clause 13.02-1S (Bushfire planning) of the Planning Scheme through actions that direct future land use and development to lower bushfire risk locations and to prioritise the protection of human life. The identification of land for the proposed BREP took into strong consideration the low bushfire risk of the site and surroundings that is largely open agricultural land with low vegetation coverage, good vehicle access with adjoining Highways running along multiple boundaries, and with very minimal application of the Bushfire Management Overlay. The proposed rezoning of the land at 1029 Calder Highway, Maiden Gully from IN1Z to PCRZ identifies an area of extreme bushfire hazard subject to the Bushfire Management Overlay and accordingly reduces the development capacity of this heavily vegetated area directing future industrial development to lower risk locations.

It was not considered necessary to directly seek the views of the relevant fire authority in formulating this amendment given there are no actions that would be considered to increase bushfire risk.

Overall, the proposed amendment is consistent with the objective and strategies applicable to bushfire risk in Clause 13.02-1S and as outlined above. The proposed amendment will not result in an increase of the risk from bushfire for existing and future residents, property, community infrastructure or the natural environment.

Does the amendment comply with the requirements of any Minister's Direction applicable to the amendment?

The proposed amendment is consistent with and complies with the requirements of the following Ministerial Directions applicable to the amendment.

The amendment complies with *Ministerial Direction No.1 - Potentially contaminated land*. A desktop analysis of the land at 1029 Calder Highway, Maiden Gully determined that the land is not potentially contaminated through the result of any previous land use or activities. The planning authority's records indicate there is no evidence of historic mining activity, used for the storage of any chemicals, gas, waste or liquid fuel and no past or present activities that may have caused contamination of the land. The land has remained vacant since it was purchased by the planning authority in 1984 and was previously used for livestock grazing.

The amendment complies with *Ministerial Direction No.11 - Strategic Assessment of Amendments* as addressed throughout this explanatory report.

The amendment complies with *Ministerial Direction No.18 – Victorian Planning Authority advice on planning scheme amendments* given the advice and views of the Victorian Planning Authority have been sought in the preparation of the amendment.

The amendment complies with *Ministerial Direction No.19 – Amendments that may result in impacts on the environment, amenity and human health* given the views of the Environment Protection Authority have been sought in the preparation of the amendment.

How does the amendment support or implement the Planning Policy Framework and any adopted State policy?

The proposed amendment supports or implements several state, regional and local policies of the Planning Policy Framework and relevant adopted State policies as follows:

- Clause 11.01-1S (Settlement) through the provision of appropriately located industrial land, and by supporting employment and growth in the regional city of Bendigo in accordance with *Plan Melbourne 2017-2050*.
- Clause 11.01-1R (Settlement – Loddon Mallee South) by supporting Bendigo as the economic growth hub for the region through the growth of industry in accordance with the *Loddon Mallee South Regional Growth Plan*.
- Clause 11.02-1S (Supply of urban land) through the identification and provision of appropriately located and serviced industrial land supply across Greater Bendigo to meet forecasted demand and the growth of industries.
- Clause 12.01-1S (Protection of biodiversity) by seeking to avoid the potential detriment of important areas of biodiversity from future industrial land use and development and more specifically through the actions of the proposed rezoning of 1029 Calder Highway, Maiden Gully from IN1Z to PCRZ.
- Clause 13.02-1S (Bushfire planning) through risk-based planning that prioritises the protection of human life from identified bushfire risk in relation to the location of future industrial land as outlined in the previous section.
- Clause 13.05-1S (Noise management) by minimising the impacts of noise exposure from industrial uses to surrounding sensitive land uses outlined in the strategy.
- Clause 14.01-1S (Protection of agricultural land) by discouraging inappropriate industrial use and development in rural areas.
- Clause 15.01-2S (Built design) by including a new local policy to implement guidelines that encourage higher urban design standards for industrial built environment areas including measures for safety, human health and functionality. The amendment also proposes to insert new strategies that encourage buildings to better respond to the local context, the public realm and that support environmentally sustainable development.

- Clause 17.03-1S (Industrial land supply) by providing a strategic framework for future industrial land supply that seeks to ensure a sufficient supply of industrial land into the future and to protect and strengthen employment opportunities to contribute to maintaining and growing the local economy.
- Clause 18 (Transport) by implementing the strategy through including a new local policy that seeks to minimise the impacts of freight movements on urban and residential amenity.

How does the amendment support or implement the Municipal Planning Strategy?

The proposed amendment implements the Municipal Planning Strategy by updating the strategic framework for industrial land and specifically addressing directions contained in:

Clause 02.03-1 - Settlement

The proposed amendment supports the following strategic directions of Clause 02.03-1:

- Avoid development in bushfire and flood prone areas unless risk can be managed.
- Protect agricultural land and high value environmental areas from development.

The proposed amendment is consistent with Clause 02.03-1 through the proposed rezoning of land that directs future land use and development to less bushfire prone areas and to protect high value environment areas from unsuitable development.

Clause 02.03-3 - Environmental risks and amenity

The proposed amendment supports the following strategic directions of Clause 02.03-3:

- Contribute towards keeping global temperature rise to under two degrees Celsius by efficient use of land and other resources, reducing dependency on fossil fuels and supporting environmentally sustainable development.

The proposed amendment is consistent with Clause 02.03-3 through Objective 5 of the strategy that seeks to promote sustainable land use and development and the sustainable development principles for industrial development outlined in the guidelines.

Clause 02.03-5 - Built environment and heritage

The proposed amendment supports the following strategic direction of Clause 02.03-5:

- Facilitate a safe, pleasant, comfortable and visually appealing urban environment.

The proposed amendment is consistent with Clause 02.03-5 through guidelines that encourage good design outcomes for industrial buildings and a positive contribution to the surrounding urban environment.

Clause 02.03-7 - Economic Development

The proposed amendment supports the following strategic directions of clause 02.03-7:

- Develop and expand employment generating industries.
- Make well located affordable employment land available.
- Plan for the future growth of the industrial sector by providing zoned land in appropriate locations and lot configurations.

The proposed amendment is consistent with Clause 02.03-7 through several key objectives and actions within strategy that seeks to facilitate the growth of employment generating industries and the industrial sector in general, and to provide a future 30 year pipeline of industrial land in suitable locations within Greater Bendigo.

The proposed amendment also seeks to change Clause 02.03-7 by updating two strategic directions. It is proposed to amend the second strategic direction, 'Make well located affordable employment land available' to include the appendage 'to meet industry needs and improve the regional competitiveness

of Greater Bendigo'. This change translates objective 6 from the Greater Bendigo Industrial Land Development Strategy February 2024 into the Municipal Planning Strategy.

It is also proposed to amend the fourth strategic direction 'Plan for the future growth of the industrial sector by providing zoned land in appropriate locations and lot configurations' by changing 'zoned land' to 'suitably sized, zoned land'. Consideration of lot size and to achieve lot size diversity for industries and business in industrial areas is outlined under principle 2 of the strategy and is important to emphasise within the corresponding strategic directions.

Does the amendment make proper use of the Victoria Planning Provisions?

The proposed amendment makes proper use of the Victoria Planning Provisions by applying the most appropriate zone to land at 1029 Calder Highway, Maiden Gully. The amendment proposes to rezone this land from IN1Z to PCRZ to protect and conserve the environmental values of the land. A key purpose of the PCRZ is to protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values.

In preparing this amendment, the following relevant planning practice notes have been considered:

Planning Practice Note 46 Strategic Assessment Guidelines as addressed throughout this report.

Planning Practice Note 64 Local planning for bushfire protection through the consideration of bushfire risk in the identification and assessment of future industrial land outlined previously in this report.

How does the amendment address the views of any relevant agency?

The views of the Department of Environment, Land, Water and Planning (now DTP and DEECA), the Department of Economic Development, Jobs, Transport and Resources (now DTP and DJSIR), the Victorian Planning Authority and the Environment Protection Authority were sought prior to the preparation of this amendment.

Relevant authorities and Prescribed Ministers will be notified as part of the standard notice requirements during the exhibition period of this amendment.

Does the amendment address relevant requirements of the *Transport Integration Act 2010*?

The amendment has the potential to indirectly impact on the transport system in relation the identification of industrial land for proposed BREP and associated impacts of freight movements. Given the precinct remains in the early stages of planning, details of any proposed impacts on the transport system are unclear. The planning authority will have full regard to all relevant transport system objectives and decision-making principles through the planning and progression of proposed BREP.

What impact will the new planning provisions have on the resource and administrative costs of the responsible authority?

The proposed amendment is not considered to result in any significant increase in resourcing or administrative costs for the responsible authority.

Planning and Environment Act 1987

GREATER BENDIGO PLANNING SCHEME

AMENDMENT C282gben

INSTRUCTION SHEET

The planning authority for this amendment is the Greater Bendigo City Council.

The Greater Bendigo Planning Scheme is amended as follows:

Planning Scheme Ordinance

The Planning Scheme Ordinance is amended as follows:

1. In **Municipal Planning Strategy** - replace Clause 02.03-7 in the form of the attached document.
2. In **Planning Policy Framework** - replace Clause 14.01-1L in the form of the attached document.
3. In **Planning Policy Framework** - replace Clause 15.01-1L-02 in the form of the attached document.
4. In **Planning Policy Framework** - replace Clause 17.03-1L in the form of the attached document.
5. In **Operational Provisions** - Clause 72.08, replace the Schedule with a new Schedule in the form of the attached document.
6. In **Operational Provisions** - Clause 74.02, replace the Schedule with a new Schedule in the form of the attached document.

End of document

02.03

STRATEGIC DIRECTIONS

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Settlement

Greater Bendigo has experienced strong population growth. This growth is supported by State Government strategies and is forecast to continue.

The population is projected to increase by over 2000 per year over the next 20 years. An additional 1000 new dwellings per year will be required to accommodate this growth.

About 85 per cent of the population lives within the Bendigo Urban Growth Boundary, which is about 5 per cent of the total municipal area. The remaining 15 per cent of the population lives within rural townships and areas.

Within the urban area and around rural townships, the council promotes the development of 10 minute neighbourhoods.

Settlement in Bendigo is structured around a hierarchy of activity centres within the Bendigo Urban Growth Boundary, shown on the Urban strategic framework plan in Clause 02.04, and identified rural townships. There are a number of other smaller rural townships dispersed throughout the municipality.

The strategic directions for settlement are:

- Avoid development in bushfire and flood prone areas, unless risk can be managed.
- Protect agricultural land and high value environmental areas from development.
- Contain most of Greater Bendigo's growth within the Bendigo Urban Growth Boundary.
- Facilitate 10 minute neighbourhoods that:
 - Enable people to spend less income on the combined cost of housing and transport.
 - Minimise environmental impacts associated with transport.
 - Promote a healthy lifestyle through active transport choices.
 - Increase neighbourhood safety through activation of the public realm.
 - Increase community interaction.
 - Support the local economy.
- Focus residential and commercial development outside the Bendigo Urban Growth Boundary in rural townships that are well serviced by infrastructure as shown on Rural strategic framework plan in Clause 02.04.
- Protect forest values by providing a buffer between urban development and the public and private forests.
- Support development of the identified hierarchy of activity centres within the Bendigo Urban Growth Boundary shown on the Urban area activity centre hierarchy framework plan in Clause 02.04.
- Discourage rezoning proposals of land for urban purposes outside the urban growth boundary unless in an area marked future urban investigation area on the Urban strategic framework plan in Clause 02.04.
- Promote Bendigo City Centre as the highest order retail and commercial centre servicing northern and central Victoria recognising it is Greater Bendigo's primary employment area, providing a full range of higher order commercial, retail, visitor, social, civic, cultural, tourist and entertainment activities.



- Build up the specialised activity centres of La Trobe University, Bendigo Hospital, St John of God Hospital and Bendigo Airport.
- Support rehabilitation of former mining land for development, including residential development.

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Environment and landscape values

The key environment and landscape values for Greater Bendigo are:

- Biodiversity.
- Native vegetation.
- Waterbodies.
- Significant landscapes.

Environment and landscape features in Greater Bendigo include:

- Extensive Box Ironbark and Whipstick forest areas across Greater Bendigo in national, state and regional parks and other conservation reserves.
- Tracts of privately owned-forested land that adjoin and link parks and conservation reserves.
- Areas of native vegetation on roadsides, waterways and gullies that create habitat and wildlife corridors surrounding Bendigo.
- Large old trees and an undisturbed ground layer.
- Distinctive fauna including birds, mammals, reptiles, frogs and invertebrates including the Swift Parrot, Grey-crowned Babbler and the Brush-tailed Phascogale.
- The Loddon and Campaspe River catchments that are part of the Murray-Darling basin catchment, Australia's largest and most productive agricultural area. This area is increasingly subject to a range of environmental pressures that impact on social and economic activities.
- The many streams and watercourses across the municipality that maintain clean water, soil stability, and habitat flora and fauna, and that feed Greater Bendigo's water supply sources.
- Lake Eppalock is a vital environmental resource and also provides an increasing proportion of Bendigo's domestic water supply.
- Groundwater recharge areas across the municipality, which are an important source of water that requires careful management.

The strategic directions for environment and landscape values are:

- Enhance the sense of the Bendigo urban area being 'A City in Forest' that is created by extensive forest areas and roadside vegetation.
- Develop biolinks and habitat corridors to connect areas of environmental significance.
- Protect and restore biodiversity and create new natural habitats.
- Improve the health of streams and watercourses and land adjacent to develop their role as important community assets.
- Protect gullies as an important part of the waterway network in providing habitat for flora and fauna.
- Protect significant landscapes such as Big Hill, Mount Camel Range and Coliban and Campaspe Rivers.

02.03-311/03/2022
C256gben**Environmental risks and amenity**

The key environmental risks for Greater Bendigo are:

- Climate change.
- Bushfire.
- Flooding.
- Soil degradation.
- Land use compatibility.

Natural environmental risks

Greater Bendigo has committed to reaching net zero emissions by 2050, to contribute towards keeping global temperature rise to under two degrees Celsius. Responding to climate change includes:

- Taking a precautionary approach to managing climate change risks.
- Responding rapidly to enable climate change impacts to be minimised.
- Adapting to climate change that is already occurring.

Having a valuable network of public and private forests throughout the municipality also means that most of the municipality is bushfire prone. The extent of rural living uses throughout the rural areas and on the edges of the urban areas increases this vulnerability.

Bendigo Creek and its tributaries, and the McIvor Creek in Heathcote, have a long history of flooding that has historically caused damage to infrastructure and buildings. Some flooding is the result of old drainage systems that do not have sufficient capacity during large storm events, which are increasing in frequency.

Many of the soils in the municipality, particularly the granite and sedimentary slopes, are prone to erosion and salinity and need to be carefully managed.

Former mine sites have left a legacy of contaminated land across Bendigo. It is a challenge to remediate this land to be suitable for other uses, particularly residential development.

The strategic directions for natural environmental risks are:

- Contribute towards keeping global temperature rise to under two degrees Celsius by efficient use of land and other resources, reducing dependency on fossil fuels and supporting environmentally sustainable development.
- Respond to impacts of climate change on agricultural and urban areas through flexible application of planning tools and policies as change occurs.
- Strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life.
- Manage flooding risks that have the potential to cause harm to people and property and damage environmental values.
- Reduce erosion causing activities and support development that improves soil quality and condition on agricultural and rural land.
- Minimise processes that contribute to salinity which occurs across the whole municipality.
- Ensure new development manages the risks from legacy mining contamination.

Land use compatibility

The interface between urban development and forested areas, waste management facilities and active gold mines in the municipality need to be managed to safeguard community amenity, protect forest values and support key services and industries. There is further work to do in putting in place explicit buffers to manage these interfaces.

Licensed venues can have considerable social impact on communities and the amenity of areas surrounding venues and need to be appropriately managed. Problem gambling affects a small proportion of gamblers. By locating gaming venues appropriately, the incidence of "convenience gaming" should decrease.

The strategic directions for land use compatibility are:

- Manage the interface between urban development and incompatible uses including waste management facilities, gold mines and other uses with off-site amenity impacts to support land use compatibility.
- Minimise land use compatibility issues through separating waste management facilities, gold mines, and other uses with off-site amenity impacts.
- Protect critical infrastructure from incompatible adjoining uses.
- Direct licenced venues and gaming facilities to locations that minimise their impact on the amenity of surrounding areas and the wellbeing of community members affected by problem drinking and gambling.

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Natural resource management

The key natural resource management issues for Greater Bendigo are:

- The protection of agricultural land and sustainable agricultural land use.
- Protection of water assets.
- Resource exploration and extraction.

Greater Bendigo's rural areas support a diverse agricultural base, which has traditionally been based on grazing in the southern areas of the municipality and mixed grazing and cropping in the northern half. The most productive agricultural land in the municipality is in the Campaspe River, Axe Creek, Bendigo Creek, and Bullock Creek areas. Rural Bendigo generates nearly \$200 million of agricultural product each year.

Investment in grape production over the last three decades, particularly in the Heathcote region, has consolidated Greater Bendigo as a major wine region. Many other niche farming activities, especially associated with paddock to plate enterprise, have developed in recent years and are supported as a growth area.

There is continued growth in more intensive animal production such as poultry and pigs. Growth is also occurring in agricultural businesses that rely on irrigation and animal keeping and animal training facilities (including stables).

Major agricultural processing plants to the west of urban Bendigo and in Castlemaine (in the neighbouring Mount Alexander Shire) form a cluster of intensive rural industry and associated manufacturing.

There are areas where agricultural activities are potentially compromised by a fragmented subdivision pattern and isolated dwellings in rural areas have the potential to disrupt agricultural activities. Ongoing agricultural production depends, in part, upon maintaining a mass of productive land, which excludes concentrations of residential type uses that have the potential to restrict normal agricultural practices.

There are significant groundwater assets across the municipality. Both surface and groundwater require protection from high nutrient loads and from the impacts of dry land salinity and erosion.

Securing long term water supplies for the towns is key for future growth and development.

Mining is still a major industry for Greater Bendigo, with the current expansion of goldmines at Fosterville and Costerfield, and for this to be ongoing, these resources need to be protected from incompatible land uses. It is also critical that these industries are developed in an environmentally and socially responsible way.

The protection of future extractive resources, particularly potential clay and stone resources is significant to local industry. Potential sites need to be managed to protect their use, and to prevent pressures from other land uses, including residential development.

The strategic directions for natural resource management are:

- Protect agricultural land as a valuable and finite resource from fragmentation and encroachment by competing uses.
- Support the sustainable growth of agriculture by:
 - Assisting the sector to adapt to the impacts of climate change.
 - Continuing to invest in infrastructure, processing and value adding businesses.
 - Protecting from incompatible uses.
 - Broadening the range of agricultural businesses.
- Avoid subdivision of agricultural land to maintain it as a food and fibre resource to meet population growth demand.
- Manage competing land uses in order to facilitate the growth of agricultural uses while maintaining the amenity of more sensitive uses, particularly in the areas of a concentration of intensive animal industries as shown in the Rural strategic framework plan in Clause 02.04.
- Protect and restore the Lake Eppalock Special Water Supply Catchment, as shown in the Rural strategic framework plan in Clause 02.04, from urban encroachment and support innovation to ensure long term water supplies are secure.
- Protect existing and potential sites to enable resource exploration and extraction.

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Built environment and heritage

The key built environment and heritage issues for Greater Bendigo are:

- Creating healthy environments.
- Protecting neighbourhood character and heritage assets while encouraging infill development.
- Supporting environmentally sustainable development.

Built environment

Greater Bendigo has one of Australia's highest obesity rates and lowest levels of regular participation in active recreation. In many parts of Greater Bendigo, the built environment does not encourage active lifestyles due to a lack of well-connected walking and cycling paths and the provision of neighbourhood services.

Many residents of Greater Bendigo highly value the existing neighbourhood character. Balancing the creation of a healthier city through more dense development with the desire to protect existing neighbourhood character is a key challenge for the council.

Council is committed to environmentally sustainable development and its principles, that aim to improve the health, comfort and affordability of buildings for occupants and reduce negative impacts on the environment. This includes energy conservation, water conservation, protecting human health, and protecting and enhancing the built, natural and cultural environments.

The strategic directions for built environment are:

- Balance the protection of neighbourhood character with the development of a more environmentally sustainable urban area based upon the principles of 10 minute neighbourhoods.
- Facilitate a built environment that allows for active transport and healthy lifestyle choices.
- Facilitate environmentally sustainable development to create a compact and sustainable urban form at the planning stage.
- Facilitate a safe, pleasant, comfortable and visually appealing urban environment.

Heritage

Greater Bendigo is set apart due to its extensive Victorian and Edwardian era heritage places - a legacy of its wealthy gold mining history. The municipality has many buildings, structures, archaeological sites, gardens and vegetation with international, state and local heritage significance, reflecting the major role Bendigo played in one of the biggest gold rushes and migrations in the world.

Further work is required to fully identify and protect some places of post contact heritage significance.

Important Aboriginal cultural heritage values exist in the City of Greater Bendigo. Further work is required to properly identify and protect these features and values in the planning scheme.

The strategic directions for heritage are:

- Protect the city's valuable sites, places and features of natural, archaeological, and cultural heritage significance.
- Balance the protection of heritage places with support for sensitive and innovative development to accommodate projected population growth.
- Support high quality sympathetic contemporary design when undertaking new development in heritage precincts and places.
- Encourage the restoration of heritage places and sympathetic development to support contemporary uses of heritage buildings.
- Protect sites of heritage and cultural significance to the Dja Dja Wurrung and Taungurung people.

02.03-6

11/03/2022
C256gben

Housing

The key housing issues for Greater Bendigo are:

- The location of residential development.
- Housing diversity.
- Housing affordability.
- The management of rural residential development.

Greater Bendigo offers a wide range of housing options with its compact urban centre, well established suburbs, greenfield development areas, large and small rural townships, rural living in the township hinterlands, and more remote dwellings that support agricultural use on Farming Zone land.

There is currently a mismatch between household structure and the type of dwellings available and being built. The Australian Bureau of Statistics Census indicates that one and two person households make up more than half of all households, however, the current stock of housing is dominated by large family houses and in recent years almost all new houses have had three or more bedrooms. This is contributing to both housing affordability issues and unnecessary use of resources by limiting the offer of small dwellings.

Rural residential development requires careful management in Greater Bendigo in order to avoid the loss of agricultural land, adverse impacts on the biodiversity values, isolation of people from services and costs and poor standards of infrastructure such as roads and drainage. There is a large supply of land zoned Rural Living Zone in the Strathfieldsaye and Heathcote areas which provides opportunities for rural residential development for many years.

The strategic directions for housing are:

- Facilitate a wide diversity of housing typologies to suit all household types, needs and incomes and make best use of land and environmental resources.
- Increase the residential population of Bendigo City Centre and its immediate surrounds to create a more dynamic area, maximise the use of existing infrastructure and provide different housing choices for people.
- Avoid rezoning of additional land to Rural Living Zone while there is an adequate supply of rural living land around the south east side of Bendigo and near Heathcote.

02.03-7 Economic development

Greater Bendigo has the highest annual growth rate in gross regional product among Victoria's major regional cities, and the city's economy has outperformed the rest of Victoria in several key sectors. Bendigo is the key regional city and economic growth hub for the Loddon Mallee South Region.

As well as its significant retail and industrial base, other important elements of the economy include tourism, education, finance, agriculture, and earth and energy resources industries (mining). In recent years Bendigo has become a hub for many non-retail anchors including health facilities, tertiary education, regional sporting facilities, and arts and cultural facilities.

Significant demand for commercial floor space is expected until 2035. Where this should be located has been identified on the Urban strategic framework plan, Rural strategic framework plan and Urban area activity centre hierarchy plan in Clause 02.04.

Traditionally industry in Greater Bendigo has been located within the Bendigo urban area and focussed on manufacturing and engineering. These sectors remain important to the economy. New industries such as food manufacturing and information technologies have recently experienced growth. The Bendigo Livestock Exchange plays an important role in supporting the agricultural sector regionally. At present there is inadequate industrial land to meet the expected long term demand.

Many of the areas set aside for industrial use, particularly in the Bendigo urban area, are not suitable to the needs of modern industry due to small lot sizes and adjoining incompatible land uses, as shown on the Urban strategic framework plan in Clause 02.04.

Greater Bendigo is an important visitor destination in the centre of Victoria's Goldfields region, recognised for its significant heritage value, as a City of Gastronomy, its contemporary and cultural offerings and as Victoria's regional events capital. Greater Bendigo's tourism industry is supported by a mild climate, heritage buildings, parks and gardens, impressive streetscapes, well established wineries and national, state and regional parks.

The Bendigo Library, the Bendigo Art Gallery, Ulumbarra Theatre, and the major performing arts venue The Capital Theatre provide Bendigo with non-retail anchors that are driving visitation and contributing to the lifestyle and opportunities that are available to residents and visitors alike.

The strategic directions for economic development are:

- Develop and expand employment generating industries.
- Make well located affordable employment land available to meet industry needs and to improve the regional competitiveness of Greater Bendigo.

- Direct commercial growth to activity centres.
- Plan for the future growth of the industrial sector by providing suitably sized, zoned land in appropriate locations and lot configurations.

02.03-8

11/03/2022
C256gben

Transport

Greater Bendigo is a significant transport and freight hub with well-developed road and public transport networks linking Bendigo with Melbourne and large regional towns in central and northern Victoria. Bendigo Airport, which has recently been upgraded to accommodate Qantas flights, is an important infrastructure asset for the region.

Major transport infrastructure investments in recent years include the duplication of the Calder Highway to Melbourne, and enhancements to the Bendigo railway line. The Bendigo Metro Rail is currently being developed and will reinforce the role of Bendigo as a major public transport hub.

An 'inner' and 'outer' box road network provides a system of road bypasses of the inner urban area of Bendigo, allowing vehicles to pass through the urban area with greater safety and efficiency.

As Greater Bendigo grows, an outer arterial distributor road may be required.

Most people in Greater Bendigo are car dependent with most households having two or more motor vehicles, and only a very small proportion of journeys to work by walking, cycling, or public transport. If the current pattern of car use continues, traffic volumes are likely to grow by up to 50 per cent by 2035.

Bendigo is an active 'hub' for freight activity. As Bendigo becomes an even more important economic centre of regional Victoria, it will further develop as the origin and destination for many freight movements.

More work is required to understand the freight industry, how it is using the road network, and potentially the rail network and how its efficiencies and productivity could be improved.

The strategic directions for transport are:

- Maximise access to goods, services and facilities for all people throughout the municipality by supporting a compact Greater Bendigo and 10 minute neighbourhoods.
- Move away from private motor vehicles as the dominant form of transport and prioritising active transport.
- Improve connections between walking and cycling paths, open spaces, activity centres and the city centre to enable safer and more comfortable travel through the municipality by walking or cycling.
- Support improved public transport to encourage greater use:
 - Within the urban growth boundary.
 - Between Melbourne, Echuca, and Swan Hill.
 - Connecting rural towns and communities.
- Support the expansion of Bendigo Metro Rail including new railway stations at Huntly, Lansell Square, Maiden Gully and Marong, and the reopening of the Golden Square railway station.
- Optimise the performance of the road network by shifting from providing for the movement of the maximum number of vehicles to providing for the movement of the maximum number of people and goods.

02.03-911/03/2022
C256gben**Infrastructure****Community infrastructure**

The timely and coordinated development of the municipality's physical and social infrastructure networks is essential to manage population growth and to foster economic development and community wellbeing.

The education sector has grown in the municipality with recent expansions to La Trobe University, Monash University, TAFE and primary and secondary schools. Education is an important driver for the economy by attracting students and new residents and skilling the younger generations to support the economy into the future.

Within Greater Bendigo there are high quality community and arts facilities available, particularly in the Bendigo City Centre, such as the View Street Precinct and the Dai Gum Precinct. There is a demand for the range of creative and cultural industry, community arts and multicultural spaces to be expanded to cater for a wider cross section of the community, including local Aboriginal and Torres Strait Islanders, culturally and linguistically diverse people, rural communities and creative and cultural industry professionals.

Recreation and sporting facilities and activities are pursued at a wide range of venues including the Queen Elizabeth Oval, Bendigo Race course, Faith Leech Aquatic Centre, Lake Eppalock, Lake Weeroona, and various tennis courts, swimming pools and golf courses. It is important that recreational uses be developed to continue to serve residents well and to attract major regional and state events.

The strategic directions for community infrastructure are:

- Strengthen the availability and variety of educational, social, cultural and health infrastructure and promote an equitable distribution of facilities across the municipality.
- Facilitate opportunities for community gathering and social interaction.
- Provide opportunities for local community building by locating community infrastructure services in small towns where possible and feasible.

Open space

Twenty three per cent of the land in the municipality is open space reserve, either under Crown or council ownership, as shown on the Urban strategic framework plan and the Rural strategic framework plan in Clause 02.04. Bushland trails, such as the O'Keefe, Bendigo and Great Dividing trails, provide important linkages between these open spaces, for human access as well as wildlife corridors. Other public open spaces not identified on these plans remain important and have a current or longer term role or purpose as public open space.

Watercourse reserves, particularly along the Coliban and Campaspe Rivers, provide access for fishing and passive recreation. A major water resource is Lake Eppalock, which provides for active and passive recreation. The lake may have potential for greater recreational activity in the long term if it can be demonstrated it will not impact on urban water supply quality.

The strategic directions for open space are:

- Retain the existing amount of public space, but strategically consolidate it to improve its quality and achieve a network of public open space links between key destinations like schools and activity centres and open spaces.
- Support the various functions and values of the public space network, including space for natural areas and wildlife, biodiversity, managing water quality, active recreation and transport, cultural heritage and indigenous connections.
- Design public spaces to mitigate climate change impacts, including providing more trees and shade.

- Support recreational activities at Lake Eppalock where it can be demonstrated that water quality will not be negatively impacted.
- Maintain the special significance of the city's major urban area parklands shown on the Urban strategic framework plan and the Rural strategic framework plan in Clause 02.04.
 - Rosalind Park.
 - Lake Weeroona.
 - Bendigo Botanic Gardens White Hills.
 - Canterbury Gardens, Lake Neangar and Lake Tom Thumb.
 - Strathdale Park and Kennington Reservoir.
 - Crusoe Reservoir and No. 7 Reservoir.

Development infrastructure

Greater Bendigo works in partnership with multiple infrastructure providers of power, gas, water, sewerage, phone, internet, waste and resource recovery and road to upgrade or provide new infrastructure in line with the further development of the municipality.

Innovative approaches to infrastructure delivery are increasingly being implemented in Greater Bendigo, such as implementation of urban water systems that are multifunctional and provide a range of benefits that deliver the Greater Bendigo community's ecological, liveability and resource efficiency aspirations.

Greater Bendigo has over 10,000 households that manage domestic wastewater onsite as reticulated sewerage is not available. It is important to manage wastewater disposal on unsewered land sustainably and with minimal environmental impact.

The strategic directions for development infrastructure are:

- Provide timely, efficient and cost-effective development infrastructure that meets the needs of the community.
- Manage water supply, water resources, wastewater, drainage and stormwater sustainably through an integrated water management approach.
- Incorporate water sensitive urban design into residential and commercial development.
- Prepare development contribution plans for new growth areas.

14.01

31/07/2018
VC148

AGRICULTURE

14.01-1S20/03/2023
VC229**Protection of agricultural land****Objective**

To protect the state's agricultural base by preserving productive farmland.

Strategies

Identify areas of productive agricultural land, including land for primary production and intensive agriculture.

Consider state, regional and local, issues and characteristics when assessing agricultural quality and productivity.

Avoid permanent removal of productive agricultural land from the state's agricultural base without consideration of the economic importance of the land for the agricultural production and processing sectors.

Protect productive farmland that is of strategic significance in the local or regional context.

Protect productive agricultural land from unplanned loss due to permanent changes in land use.

Prevent inappropriately dispersed urban activities in rural areas.

Protect strategically important agricultural and primary production land from incompatible uses.

Limit new housing development in rural areas by:

- Directing housing growth into existing settlements.
- Discouraging development of isolated small lots in the rural zones from use for dwellings or other incompatible uses.
- Encouraging consolidation of existing isolated small lots in rural zones.

Identify areas of productive agricultural land by consulting with the Department of Energy, Environment and Climate Action and using available information.

In considering a proposal to use, subdivide or develop agricultural land, consider the:

- Desirability and impacts of removing the land from primary production, given its agricultural productivity.
- Impacts on the continuation of primary production on adjacent land, with particular regard to land values and the viability of infrastructure for such production.
- Compatibility between the proposed or likely development and the existing use of the surrounding land.
- The potential impacts of land use and development on the spread of plant and animal pests from areas of known infestation into agricultural areas.
- Land capability.

Avoid the subdivision of productive agricultural land from diminishing the long-term productive capacity of the land.

Give priority to the re-structure of inappropriate subdivisions where they exist on productive agricultural land.

Balance the potential off-site effects of a use or development proposal (such as degradation of soil or water quality and land salinisation) against the benefits of the proposal.

14.01-1L**Protection of agricultural land - Greater Bendigo**

44/03/2022 - / - / -
 G256gben Proposed C282gben

Policy application

This policy applies to all applications to use, develop and subdivide land in the Farming Zone and Rural Conservation Zone.

Strategies

Avoid subdivisions that:

- Do not support the agricultural use of land in the Farming Zone.
- Result in the fragmentation of agricultural land in the Farming Zone and Rural Conservation Zone.

Support subdivisions that facilitate productive and efficient agricultural outcomes, particularly farm consolidation.

Avoid subdivisions in the Farming Zone that create additional dwelling entitlements that are not required for the agricultural use of the land.

Avoid the excision of existing dwellings unless the excision will:

- Facilitate productive and efficient agricultural outcomes, particularly farm consolidation.
- Minimise the loss of productive agricultural land.
- Support the viability of agricultural land for agricultural purposes.
- Provide for an excised dwelling that will not impact adjoining agricultural activities.

Discourage serial excisions and further subdivision after reconfiguration of existing titles.

Avoid dwelling excisions on parcels greater than two hectares to minimise the impacts of fragmentation unless required because of natural or public infrastructure constraints or it supports efficient agricultural practices.

Avoid boundary realignments except if they are minor adjustments to take account of physical, man-made or topographical features on the site, or to allow a change of ownership between existing landowners.

Avoid subdivisions that may create rural living enclaves remote from urban infrastructure.

Support subdivisions that consolidate old and inappropriate lots.

Avoid subdivision that is likely to lead to such a concentration of lots as to change the general use and character of the rural area.

Design subdivisions to reflect the general use and character of the rural area by limiting density to reflect the area.

Minimise the area taken up by residential use and development by clustering restructured lots.

Design restructured subdivisions to maximise the productive use and development of rural land.

Plan subdivisions to protect water quantity and quality and significant native vegetation.

Avoid the construction of a dwelling unless required to support a genuinely economically viable agricultural use of the land that requires permanent and continuous care, supervision or security.

Ensure that where a dwelling is deemed necessary to support an agricultural use, that the use is viable based on the level of investment required and the estimated return as shown in an integrated land management plan.

Ensure that where a dwelling has been deemed necessary to support an agricultural use, that the agricultural use has been established on the land prior to the construction of a dwelling.

Avoid the construction of a dwelling proximate to locations for intensive animal production, pig farm or poultry farms unless associated with the use.

Avoid the construction of a dwelling on existing small lots (lots smaller than the zone schedule minimum) in the Farming Zone, except if allowed under a Restructure Overlay.

Discourage industrial use or development in rural areas other than for rural industry.

Policy guidelines

Consider as relevant:

- Whether the subdivision creates an additional lot where a dwelling can be constructed without a permit.
- Whether the subdivision or excision supports productive and efficient agricultural outcomes.
- Whether an agreement under Section 173 of the *Planning and Environment Act 1987* should be utilised at the time of subdivision to prevent the fragmentation of agricultural land as a result of:
 - Further subdivision.
 - Construction of a dwelling.
- Whether there will be an impact on the viability of adjoining agricultural land uses.
- Whether there is a demonstrated need to reside on the site to support the agricultural land use.
- Where a dwelling is deemed necessary to support an agricultural use, whether that use is viable based on the level of investment required and the estimated return as shown in an integrated land management plan.
- Whether the subdivision will change the character of the area.
- Whether there is a need to allow an excision of greater than 2 hectares in area to take account of natural or public infrastructure or to provide a farm boundary configuration that supports efficient agricultural practices.
- Whether the excised dwelling is in a habitable condition.

Policy documents

Consider as relevant:

- *Rural Areas Strategy* (City of Greater Bendigo, September 2009)
- *A Land Capability Study of the City of Greater Bendigo, Huntly District* (Bluml, M et al., November 1995)
- *A Land Capability Study of the Rural City of Marong* (Bryant, E & Lorimer, M, April 1993)
- *A Land Capability Study of the City of Greater Bendigo, Strathfieldsaye District* (Bluml, M, et al., October 1995)
- *Land Capability Mapping and Assessment Tools for Wastewater Management* (City of Greater Bendigo, 2015)

14.01-2S21/09/2018
VC150**Sustainable agricultural land use****Objective**

To encourage sustainable agricultural land use.

Strategies

Ensure agricultural and productive rural land use activities are managed to maintain the long-term sustainable use and management of existing natural resources.

Support the development of innovative and sustainable approaches to agricultural and associated rural land use practices.

Support adaptation of the agricultural sector to respond to the potential risks arising from climate change.

Encourage diversification and value-adding of agriculture through effective agricultural production and processing, rural industry and farm-related retailing.

Assist genuine farming enterprises to embrace opportunities and adjust flexibly to market changes.

Support agricultural investment through the protection and enhancement of appropriate infrastructure.

Facilitate ongoing productivity and investment in high value agriculture.

Facilitate the establishment and expansion of cattle feedlots, pig farms, poultry farms and other intensive animal industries in a manner consistent with orderly and proper planning and protection of the environment.

Ensure that the use and development of land for animal keeping or training is appropriately located and does not detrimentally impact the environment, the operation of surrounding land uses and the amenity of the surrounding area.

Policy documents

Consider as relevant:

- *Victorian Code for Cattle Feedlots* (Department of Agriculture, Energy and Minerals, 1995)
- *Victorian Code for Broiler Farms* (Department of Primary Industries, 2009, plus 2018 amendments)
- *Apiary Code of Practice* (Department of Planning and Community Development, 2011)
- *Planning Guidelines for Land Based Aquaculture in Victoria* (Department of Primary Industries, No. 21, 2005)
- *Victorian Low Density Mobile Outdoor Poultry Farm Planning Permit Guidelines* (Department of Economic Development, Jobs, Transport and Resources, June 2018)
- *Victorian Low Density Mobile Outdoor Pig Farm Planning Permit Guidelines* (Department of Economic Development, Jobs, Transport and Resources, June 2018)

14.01-2L-01 Intensive animal production, pig farms and poultry farms - Greater Bendigo11/03/2022
C256gben**Policy application**

This policy applies to applications for use and development of intensive animal production, pig farms and poultry farms.

Objective

To locate and design intensive animal production, pig farms and poultry farms to reduce the likelihood of land use conflict with high amenity uses and minimise the impact on environmental assets.

Strategies

Direct intensive animal production, pig farms and poultry farms within or adjacent to areas already developed for these uses as identified as areas with a concentration of intensive animal industries on the Rural strategic framework plan that forms part of Clause 02.04.

Design intensive animal production, pig farms and poultry farms to minimise visual, noise and odour impacts on:

- Important environmental assets such as water bodies, remnant vegetation and fragile soils.
- The amenity of residents.

Policy guideline

Consider as relevant:

- Providing for all effluent to be treated on-site or managed and disposed of to the satisfaction of responsible authority and the relevant water authority.

Policy documents

Consider as relevant:

- *A Land Capability Study of the City of Greater Bendigo, Huntly District* (Blum, M et al., November 1995)
- *A Land Capability Study of the Rural City of Marong* (Bryant, E & Lorimer, M, April 1993)
- *A Land Capability Study of the City of Greater Bendigo, Strathfieldsaye District* (Blum, M et al, October 1995)

14.01-2L-02 Domestic animal husbandry, Racing dog husbandry and Animal training - Greater Bendigo

11/03/2022
C256gben

Policy application

This policy applies to an application to use and develop land for domestic animal husbandry, racing dog husbandry and animal training.

Strategies

Ensure good design and appropriate siting of domestic animal husbandry, racing dog husbandry and animal training establishments.

Policy guidelines

Consider as relevant:

- Whether the site is located 500 metres from a dwelling on another lot, or from a residential zone.
- Providing an area capable of containing the proposed scale of development on the site.
- Providing on site an adequate area for storage for the materials associated with the use to keep them out of the public view.
- Screening the development to minimise visual intrusion to the public view.
- Assessing the maximum number of animals kept on the site (not including animals less than 6 months old) on the basis of:
 - The manner in which they should be contained.
 - The size of the parcel of land.
 - Treatment/disposal of waste.
 - Noise and odour attenuation.
 - Proximity of watercourses.
 - Land capability.
- Siting animal keeping facilities (kennels, associated buildings, dog runs and the like) a minimum of 30 metres from any road (whether or not such road forms the frontage) and a minimum distance of 10 metres from any dwelling on the land.
- Landscaping and screening of the site to minimise amenity impacts.
- Preventing a nuisance or disturbance to nearby properties from noise or smell by considering:
 - The choice of construction materials used.
 - The times and methods of exercising and feeding.
 - How animal feed is stored to ensure it is vermin proof.
- Constructing feed rooms and treatment rooms to have impervious walls and floors.
- Prevailing wind direction and the likely travel of odour and amenity impact to adjacent properties.
- Providing for the regular washed down and maintenance of all animal keeping facilities so they are kept in a clean and hygienic manner.
- Providing for all animal waste, manure and wash down water to be treated and disposed of either within the boundaries of the site or in an alternative manner that has no negative impact on the catchment.

Policy documents

Consider as relevant:

- *Code of Practice for the Operation of Boarding Establishments* (Department of Economic Development, Jobs, Transport and Resources, August 2018)
- *Code of Practice for the Keeping of Racing Greyhounds* (Department of Economic Development, Jobs, Transport and Resources, April 2018)
- *Code of Practice for the Operation of Dog Training Establishments* (Department of Economic Development, Jobs, Transport and Resources, August 2018)

14.01-3S20/03/2023
VC229**Forestry and timber production****Objective**

To facilitate the establishment, management and harvesting of plantations and the harvesting of timber from native forests.

Strategies

Identify areas that may be suitably used and developed for plantation timber production.

Promote the establishment of softwood and hardwood plantations on predominantly cleared land, as well as other areas that are subject to or contributing to land and water degradation.

Ensure protection of water quality and soil.

Ensure timber production in native forests is conducted in a sustainable manner.

Conduct timber production (except agroforestry, windbreaks and commercial plantations of 5 hectares or less) in accordance with the *Code of Practice for Timber Production 2014 (as amended 2022)* (Department of Environment, Land, Water and Planning, 2022).

Ensure Victoria's greenhouse sinks are protected and enhanced by controlling land clearing, containing the growth of urban areas and supporting revegetation programs.

Policy documents

Consider as relevant:

- *Code of Practice for Timber Production 2014 (as amended 2022)* (Department of Environment, Land, Water and Planning, 2022)

15.01

31/07/2018
VC148

BUILT ENVIRONMENT

15.01-1S31/07/2018
VC148**Urban design****Objective**

To create urban environments that are safe, healthy, functional and enjoyable and that contribute to a sense of place and cultural identity.

Strategies

Require development to respond to its context in terms of character, cultural identity, natural features, surrounding landscape and climate.

Ensure development contributes to community and cultural life by improving the quality of living and working environments, facilitating accessibility and providing for inclusiveness.

Ensure the interface between the private and public realm protects and enhances personal safety.

Ensure development supports public realm amenity and safe access to walking and cycling environments and public transport.

Ensure that the design and location of publicly accessible private spaces, including car parking areas, forecourts and walkways, is of a high standard, creates a safe environment for users and enables easy and efficient use.

Ensure that development provides landscaping that supports the amenity, attractiveness and safety of the public realm.

Ensure that development, including signs, minimises detrimental impacts on amenity, on the natural and built environment and on the safety and efficiency of roads.

Promote good urban design along and abutting transport corridors.

Policy documents

Consider as relevant:

- *Urban Design Guidelines for Victoria* (Department of Environment, Land, Water and Planning, 2017)

15.01-1L-01 Landscaping - Greater Bendigo

11/03/2022
C256gben

Strategies

Maintain a mix of exotic and native tree plantings as a distinctive characteristic of Greater Bendigo's landscape.

Incorporate sustainable landscaping using a mix of drought tolerant species.

Increase the network of canopy trees and other shelter and shade structures in the public realm and places used by the public.

Provide canopy trees and shelter the public realm and places used by the public such as forecourts to buildings and pavements in activity centres to create shade and filtered light.

Increase the provision of shade across the municipality by:

- Supporting the reinstatement of shop front verandahs and awnings.
- Provide shade-giving elements such as trees and structures to be included as part of developments.
- Providing shade for community gathering places, play spaces and the perimeter of sports fields.

Policy document

Consider as relevant:

- *Greater Bendigo Public Space Plan* (City of Greater Bendigo, June 2019)

15.01-1L-02

Urban design in industrial areas - Greater Bendigo

41/03/2022 --/--/---
 G256gben Proposed C282gben

Strategies Objective

Create industrial areas that are attractive and efficient, with improved amenity in the public realm and adjoining non-industrial areas.

Policy application

This policy applies to applications for development, including subdivision, in an industrial zone.

Subdivision strategies

Ensure new subdivisions are designed to respond to the local characteristics of the site and its context.

Ensure interconnected street networks provide efficient transport movements and integration with surrounding urban and rural areas.

Provide sufficient capacity within the road network to cater for the needs of industrial uses and emergency vehicles.

Provide site responsive street networks that integrate with the environmental and landscape features of the site.

Minimise the impacts of heavy vehicles on adjoining residential areas.

Create suitably sized allotments that are functional, accessible and contribute positively to future streetscapes.

Ensure lot design responds to key site constraints and features whilst providing lots of a feasible size.

Ensure landscape areas within streetscapes are durable and require minimal maintenance.

Manage the interface between industrial uses and adjoining sensitive land uses, rural areas and sensitive environmental areas.

Ensure adequate visual and acoustic buffers are provided to adjoining residential areas.

Site layout strategies

Encourage opportunities to facilitate environmentally sustainable design.

Create cohesive streetscapes characterised by consistent building setbacks.

~~Support a high standard of design through improved access, parking, site layout, landscaping and building design in existing industrial areas~~ Provide adequate space for landscaping and canopy trees around new buildings.

Locate buildings to address the primary street frontage and provide passive surveillance of the public realm.

Access, parking and circulation strategies

Minimise conflict between vehicles, cyclists and pedestrians through the provision of safe, convenient and efficient access within industrial sites.

Locate and design safe and efficient loading bays and servicing areas to the rear or side of buildings to minimise visual impact from the public realm.

Built form strategies

Encourage flexible and innovative industrial building design that allows for a variety of uses and future adaptation as industry needs change over time.

Ensure building heights respond to the predominant scale of the built form in the surrounding area.

Provide articulated roof forms that create visual interest and variation in the surrounding streetscape.

Encourage the use of high quality, robust and low maintenance materials with a coordinated palette of colours and finishes.

Support the renewal of buildings in older industrial areas.

Landscaping strategies

Encourage high quality, attractive landscaping that positively contributes to the streetscape, particularly within front setbacks.

Encourage the use of local, drought tolerant, low ongoing maintenance species.

Provide well located, integrated areas of attractive outdoor space that contribute to an activated public realm with weather protection, lighting and seating for staff and visitors.

Ensure front boundary treatments contribute positively to the appearance of the streetscape and clearly delineates the public and private realms.

Enable passive surveillance of car parks, streets and the surrounding public realm through the use of transparent and secure front fencing, integrated as a coordinated design element within the site.

Encourage design of hardscaping to minimise large areas of impervious surfaces where practical and to avoid urban heat island effect.

Services and infrastructure strategies

Minimise the visual impact of site services.

Ensure goods storage areas are appropriately sited and designed to minimise impacts on the surrounding streetscape and to prevent adverse impacts on stormwater quality.

Provide appropriate external lighting for security and navigation that does not impact on the amenity of nearby properties.

Ensure acoustic treatments are designed to achieve their purpose and integrate with the surrounding context.

Interface treatment strategies

Protect the amenity of public open space areas and the surrounding public realm.

Create an attractive, well designed built environment when viewed from surrounding areas.

Policy document

Consider as relevant:

- *City of Greater Bendigo Good Design Guide for Industry* *Greater Bendigo Industrial Development Guidelines* (City of Greater Bendigo, 1997/2024)

15.01-1L-03 Signs13/05/2022
C261gben**Policy application**

This policy applies to applications for signs.

Strategies

Support rationalisation of the number of signs and forms of advertising on a site, including permanent, removable and temporary forms of advertising.

Design signs to:

- Complement the surrounding character.
- Be proportional to the frontage of the site and the building.
- Avoid bright or fluorescent block colouring.
- Respect sensitive areas and the heritage significance of buildings.
- Complement the building and surrounds through appropriate colours, lettering and styles.

Ensure illuminated signs automatically turn off overnight or during closed hours when adjoining residential areas.

Support signage in residential areas to be located parallel to the street frontage or front fence.

Locate signs to:

- Maintain views and vistas along streetscapes.
- Minimise visual distraction and saturation of advertising in public areas.
- Retain trees and high quality landscaping.
- Retain architectural elements and features.
- Minimise disturbance and impact on places of heritage significance.

Support the retention of historic signs that have cultural significance.

Ensure signs in the Heritage Overlay:

- Do not obscure the significant features of the building or place.
- Do not dominate the building or place.
- Respond to the heritage context without reproducing period detail. Signs should be sympathetic to the building or place but should be clearly differentiated from the heritage fabric.

Avoid the following types of signs:

- Sky signage on roof tops and above verandahs.
- Stand alone pole signage that is not in proportion and scale with the surrounding building height and form.
- Lifestyle advert or large graphic signs that occupy more than 50 per cent of a wall, fence or building that is visible from the public realm, whichever is the lesser, in the following locations:
 - Heritage areas.
 - Neighbourhood character areas.
 - Out of activity centres.
- Advertising that is not related to activities conducted on the site.
- Illuminated signs in or near residential areas.

- The use of shipping containers as a structure for advertising signage.
- Animated and electronic signs including messages, LED and digital displays on sites outside of activity centres and industrial precincts; and along road zones.
- Electronic, variable (mobile) message signs for purposes other than traffic management.

Encourage the grouping of signs at the entrance to village centres, estates, boulevards, multiple business sites, and shopping complexes, rather than the proliferation of smaller signs along frontages.

Policy guidelines

Consider as relevant:

- Avoiding window obstructions from graphics or advertising that occupy more than 25 per cent of the window area facing the public realm. Additional coverage can be considered for uses which demonstrate the need for privacy.
- Minimising bunting, flags, banners, balloons, streamers, placards and other forms of portable signage and avoiding domination in the streetscape.
- Designing signs that are grouped together to:
 - Be in proportion to the frontage so as not to dominate the streetscape and detract from the overall character of the area.
 - Have a single advertisement structure per site.
 - Be over 10 metres distance from any other advertising sign to avoid visual saturation.
 - Not be located in areas of heritage significance, within the Neighbourhood Character Overlay or residential zoned areas or outside of activity centres and industrial areas.

Policy document

Consider as relevant:

- *Heritage Design Guidelines* (City of Greater Bendigo, September 2020)

15.01-2S01/01/2024
VC250**Building design****Objective**

To achieve building design and siting outcomes that contribute positively to the local context, enhance the public realm and support environmentally sustainable development.

Strategies

Ensure a comprehensive site analysis forms the starting point of the design process and provides the basis for the consideration of height, scale, massing and energy performance of new development.

Ensure development responds and contributes to the strategic and cultural context of its location.

Minimise the detrimental impact of development on neighbouring properties, the public realm and the natural environment.

Improve the energy performance of buildings through siting and design measures that encourage:

- Passive design responses that minimise the need for heating, cooling and lighting.
- On-site renewable energy generation and storage technology.
- Use of low embodied energy materials.

Restrict the provision of reticulated natural gas in new dwelling development.

Ensure the layout and design of development supports resource recovery, including separation, storage and collection of waste, mixed recycling, glass, organics and e-waste.

Encourage use of recycled and reusable materials in building construction and undertake adaptive reuse of buildings, where practical.

Encourage water efficiency and the use of rainwater, stormwater and recycled water.

Minimise stormwater discharge through site layout and landscaping measures that support on-site infiltration and stormwater reuse.

Ensure the form, scale, and appearance of development enhances the function and amenity of the public realm.

Ensure buildings and their interface with the public realm support personal safety, perceptions of safety and property security.

Ensure development is designed to protect and enhance valued landmarks, views and vistas.

Ensure development considers and responds to transport movement networks and provides safe access and egress for pedestrians, cyclists and vehicles.

Encourage development to retain existing vegetation.

Ensure development provides landscaping that responds to its site context, enhances the built form, creates safe and attractive spaces and supports cooling and greening of urban areas.

Policy documents

Consider as relevant:

- *Urban Design Guidelines for Victoria* (Department of Environment, Land, Water and Planning, 2017)
- *Apartment Design Guidelines for Victoria* (Department of Environment, Land, Water and Planning, 2021)
- *Waste Management and Recycling in Multi-unit Developments* (Sustainability Victoria, 2019)

15.01-2L11/01/2024
C247gben**Environmentally sustainable development - Greater Bendigo****Policy application**

This policy applies to residential and non-residential development, excluding subdivision, in accordance with the thresholds detailed in this policy.

Objective

To achieve best practice in environmentally sustainable development from the design stage through to construction and operation.

General strategies

Facilitate development that minimises environmental impacts.

Encourage environmentally sustainable development that:

- Is consistent with the type and scale of the development.
- Responds to site opportunities and constraints.
- Adopts best practice through a combination of methods, processes and locally available technology that demonstrably minimise environmental impacts.

Energy performance strategies

Reduce both energy use and energy peak demand through design measures such as:

- Building orientation.
- Shading to glazed surfaces.
- Optimising glazing to exposed surfaces.
- Inclusion of or space allocation for renewable technologies.

Integrated water management strategies

Reduce total operating potable water use through appropriate design measures such as water efficient fixtures, appliances, equipment, irrigation and landscaping.

Encourage the appropriate use of alternative water sources (including greywater, rainwater and stormwater).

Incorporate best practice water sensitive urban design to improve the quality of stormwater runoff and reduce impacts on water systems and water bodies.

Indoor environment quality strategies

Achieve a healthy indoor environment quality, including thermal comfort and access to fresh air and daylight, prioritising passive design over mechanical heating, ventilation, cooling and lighting.

Reduce indoor air pollutants by encouraging use of low-toxicity materials.

Minimise noise levels and noise transfer within and between buildings and associated external areas.

Transport strategies

Design development to promote the use of walking, cycling and public transport, in that order; and minimise car dependency.

Promote the use of low emissions vehicle technologies and supporting infrastructure.

Waste management strategies

Promote waste avoidance, reuse and recycling during the design, construction and operation stages of development.

Encourage use of durable and reusable building materials.

Ensure sufficient space is allocated for future change in waste management needs, including (where possible) composting and green waste facilities.

Urban ecology strategies

Protect and enhance biodiversity by incorporating natural habitats and planting indigenous vegetation.

Reduce urban heat island effects through building design, landscape design, water sensitive urban design and the retention and provision of canopy and significant trees.

Encourage the provision of space for productive gardens, particularly in larger residential developments.

Policy guidelines

Consider as relevant the following:

Residential

- A sustainable design assessment (including an assessment using BESS, STORM or other methods) for:
 - 3 - 9 dwellings.
 - Development of a building for accommodation other than dwellings with a gross floor area of between 1000 square metres and 2499 square metres.
- A sustainability management plan (including an assessment using BESS, STORM, Green Star, Music or other methods) and a green travel plan for:
 - 10 or more dwellings.
 - Development of a building for accommodation other than dwellings with a gross floor area of more than 2499 square metres.

Non-residential

- A sustainable design assessment (including an assessment using BESS, STORM, MUSIC or other methods) for:
 - A non residential building with a gross floor area of 500 square metres to 1000 square metres.
- A sustainability management plan (including an assessment using BESS, Green Start, STORM, MUSIC or other methods) and a green travel plan for:
 - A non residential building with a gross floor area of more than 1000 square metres.

Mixed use development

- Applicable requirements for the residential and non-residential components of the development.

General

- Consider as relevant the following tools to support a sustainable design assessment or sustainability management plan:
 - *Sustainable Design Assessment in the Planning Process* (IMAP, 2015).

- *Built Environment Sustainability Scorecard 'BESS'* (Council Alliance for a Sustainable Built Environment 'CASBE').
- *Green Star* (Green Building Council of Australia).
- *Model for Urban Stormwater Improvement Conceptualisation 'MUSIC'* (Melbourne Water).
- *Nationwide House Energy Rating Scheme 'NatHERS'* (Department of Climate Change and Energy Efficiency).
- *Stormwater Treatment Objective - Relative Measure 'STORM'* (Melbourne Water).
- *Urban Stormwater Best Practice Environmental Management Guidelines* (Victorian Stormwater Committee, 1999).
- *Waste Management and Recycling in Multi-Unit Developments - Better Practice Guide* (Sustainability Victoria, 2018).

Policy document

Consider as relevant:

- *Greater Bendigo Environment Strategy 2016-2021* (City of Greater Bendigo, 2016)

Commencement

This policy does not apply to applications received by the responsible authority before 18 October 2019.

Expiry

This policy will expire when it is superseded by a comparable provision of the Victoria Planning Provisions.

15.01-3S01/01/2024
VC250**Subdivision design****Objective**

To ensure the design of subdivisions achieves attractive, safe, accessible, diverse and sustainable neighbourhoods.

Strategies

In the development of new residential areas and in the redevelopment of existing areas, subdivision should be designed to create liveable and sustainable communities by:

- Creating compact neighbourhoods that have walkable distances between activities.
- Developing activity centres in appropriate locations with a mix of uses and services and access to public transport.
- Creating neighbourhood centres that include services to meet day to day needs.
- Creating urban places with a strong sense of place that are functional, safe and attractive.
- Providing a range of lot sizes to suit a variety of dwelling and household types to meet the needs and aspirations of different groups of people.
- Creating landscaped streets and a network of open spaces to meet a variety of needs with links to regional parks where possible.
- Protecting and enhancing habitat for native flora and fauna, and providing opportunities for people to experience nature in urban areas.
- Facilitating an urban structure where neighbourhoods are clustered to support larger activity centres served by high quality public transport.
- Reduce car dependency by allowing for:
 - Convenient and safe public transport.
 - Safe and attractive spaces and networks for walking and cycling.
 - Subdivision layouts that allow easy movement within and between neighbourhoods.
 - A convenient and safe road network.
- Minimising exposure of sensitive uses to air and noise pollution from the transport system.
- Being accessible to people with disabilities.
- Creating an urban structure that:
 - Responds to climate related hazards.
 - Incorporates integrated water management, including sustainable irrigation of open space.
 - Minimises peak demand on the electricity network.
 - Supports energy efficiency and solar energy generation through urban layout and lot orientation.
 - Supports waste minimisation and increased resource recovery.
- Providing utilities and services that support the uptake of renewable energy technologies, such as microgrids and energy storage systems, including batteries.
- Providing all-electric lots.

Policy documents

Consider as relevant:

- *Urban Design Guidelines for Victoria* (Department of Environment, Land, Water and Planning, 2017)

15.01-3L

11/03/2022
C256gben

Historic and distinctive streetscapes

Objective

To preserve and complement historic and distinctive street layout patterns.

Strategies

Protect the historic and spatial significance of established street patterns by:

- Avoiding development that interrupts established street networks.
- Designing new street networks to respond to their historic and physical setting.

Policy document

Consider as relevant:

- *Greater Bendigo Public Space Plan* (City of Greater Bendigo, June 2019)

15.01-4S31/07/2018
VC148**Healthy neighbourhoods****Objective**

To achieve neighbourhoods that foster healthy and active living and community wellbeing.

Strategies

Design neighbourhoods that foster community interaction and make it easy for people of all ages and abilities to live healthy lifestyles and engage in regular physical activity by providing:

- Connected, safe, pleasant and attractive walking and cycling networks that enable and promote walking and cycling as a part of daily life.
- Streets with direct, safe and convenient access to destinations.
- Conveniently located public spaces for active recreation and leisure.
- Accessibly located public transport stops.
- Amenities and protection to support physical activity in all weather conditions.

Policy documents

Consider as relevant:

- *Urban Design Guidelines for Victoria* (Department of Environment, Land, Water and Planning, 2017)

15.01-5S09/10/2020
VC169**Neighbourhood character****Objective**

To recognise, support and protect neighbourhood character, cultural identity, and sense of place.

Strategies

Support development that respects the existing neighbourhood character or contributes to a preferred neighbourhood character.

Ensure the preferred neighbourhood character is consistent with medium and higher density housing outcomes in areas identified for increased housing.

Ensure development responds to its context and reinforces a sense of place and the valued features and characteristics of the local environment and place by respecting the:

- Pattern of local urban structure and subdivision.
- Underlying natural landscape character and significant vegetation.
- Neighbourhood character values and built form that reflect community identity.

15.01-5L-01 Neighbourhood character - Greater Bendigo

11/03/2022
C256gben

Policy application

This policy applies to applications for development in the areas shown on the Greater Bendigo neighbourhood character precinct map that forms part of this clause.

Strategies

Maintain the garden setting of dwellings by retaining large trees and planting new trees, including native trees where identified as part of the character.

Maintain the rhythm of dwelling spacing by setting buildings back from at least one side boundary.

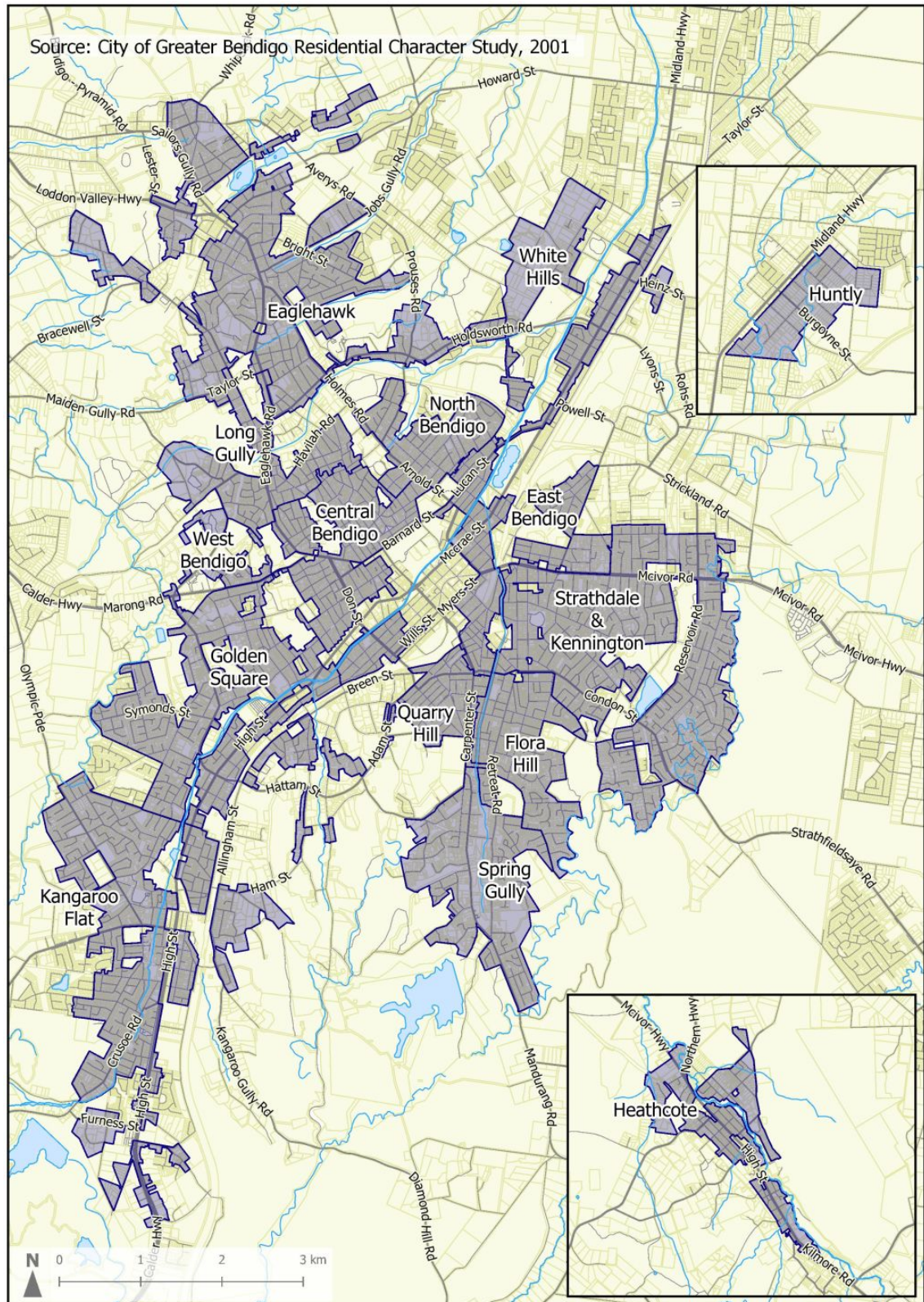
Minimise site disturbance and the impact of the building on sloping landscapes by stepping buildings down contours.

Ensure new buildings and extensions do not dominate the streetscape by matching their height and roof form with the predominant height and roof form in the street.

Design buildings with materials and finishes that complement the dominant pattern of the streetscape.

Provide no, low or transparent open style front fences that are appropriate to the era of the dwellings.

Greater Bendigo neighbourhood character precinct map



15.01-5L-02 Central Bendigo neighbourhood character11/03/2022
C256gben**Policy application**

This policy applies to applications for development in the areas shown on the Central Bendigo neighbourhood character precinct map that forms part of this clause.

General strategies

These strategies apply to applications for development in the areas shown on the Central Bendigo neighbourhood character precinct map that forms part of this clause.

Support alterations and extensions that are appropriate to the predominant building era in the neighbourhood.

Locate car storage facilities behind the front line of the dwelling and use rear access where possible.

Central Bendigo 1 (CB1) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- The cottage feel and heritage qualities of the streetscapes.
- The predominantly Victoria, Edwardian and Inter-war housing.
- Weatherboard cottages and picket fences.
- The closely spaced housing pattern and small front setbacks which provides an intimate, pedestrian friendly environment,

Retain heritage buildings that contribute to the valued character of the precinct.

Central Bendigo 2 (CB2) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- The cottage feel and heritage qualities of the streetscapes.
- The predominantly Victorian, Edwardian and Inter-war housing.
- Weatherboard cottages and picket fences in some parts of the precinct, and brick and render in other parts of the precinct, particularly areas with larger houses.

Retain heritage buildings that contribute to the valued character of the precinct.

Central Bendigo 3 (CB3) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- The cottage feel and heritage qualities of the streetscapes.
- The predominantly Victorian through to early Post-war housing.
- The closely spaced housing pattern and small front setbacks which provides an intimate, pedestrian friendly environment.

Retain heritage buildings that contribute to the valued character of the precinct.

Central Bendigo 4 (CB4) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- The heritage qualities and intimate, pedestrian friendly feel of streetscapes.
- Both brick and weatherboard buildings from Victorian, Edwardian and Inter-war periods.
- The closely spaced housing pattern and small front setbacks which provides an intimate, pedestrian friendly environment.

Enhance the open space interface by facing new buildings towards the Bendigo Creek.

Retain heritage buildings that contribute to the valued character of the precinct.

Central Bendigo 5 (CB5) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- The openness of streetscapes and spaciousness of dwelling settings.
- Consistent front and side setbacks.
- Long, low elevations of buildings in relation to height.
- The pattern established by the occasional dwelling that is sited at an angle to the street.

Central Bendigo 6 (CB6) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- The openness of streetscapes and spaciousness of dwelling settings.
- Consistent front and side setbacks.
- Mature trees in private gardens.

Central Bendigo 7 (CB7) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- The openness of streetscapes and spaciousness of dwelling settings.
- The mix of architectural styles that is dominated by fifties architecture.
- Mature trees in private gardens.

Policy guidelines

Consider as relevant:

- Limiting fence heights to no more than 1.2 metres high.
- Providing the following setbacks for specific precincts.

Precinct	Building setbacks from side boundaries
CB1	A minimum of 2m from at least one side boundary
CB2	Between 1-3m on both side boundaries
CB7	A minimum of 2m from at least one side boundary

15.01-5L-03 East Bendigo neighbourhood character11/03/2022
C256gben**Policy application**

This policy applies to applications for development in the areas shown on the East Bendigo neighbourhood character precinct map that forms part of this clause.

East Bendigo 1 (EB1) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- The predominantly interwar housing with timber or non-masonry, render or painted brick materials.
- The open streetscapes with wide nature strips and mature trees.
- Mature front gardens and low transparent front fences.

East Bendigo 2 (EB2) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- The low scale horizontal and articulated building forms.
- The predominantly 1950s era housing with long, low elevations and rendered or painted brick surfaces.
- Open streetscapes with no, low or transparent front fences.

East Bendigo 3 (EB3) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- The open streetscape character with no front fences and rollover kerbs.
- Dwellings with high site coverage and small setbacks.

East Bendigo 4 (EB4) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Bush garden settings with large trees.
- A variety of housing styles with varying setbacks and a predominance of timber or non-masonry materials.
- Open and informal streetscapes with no front fences.

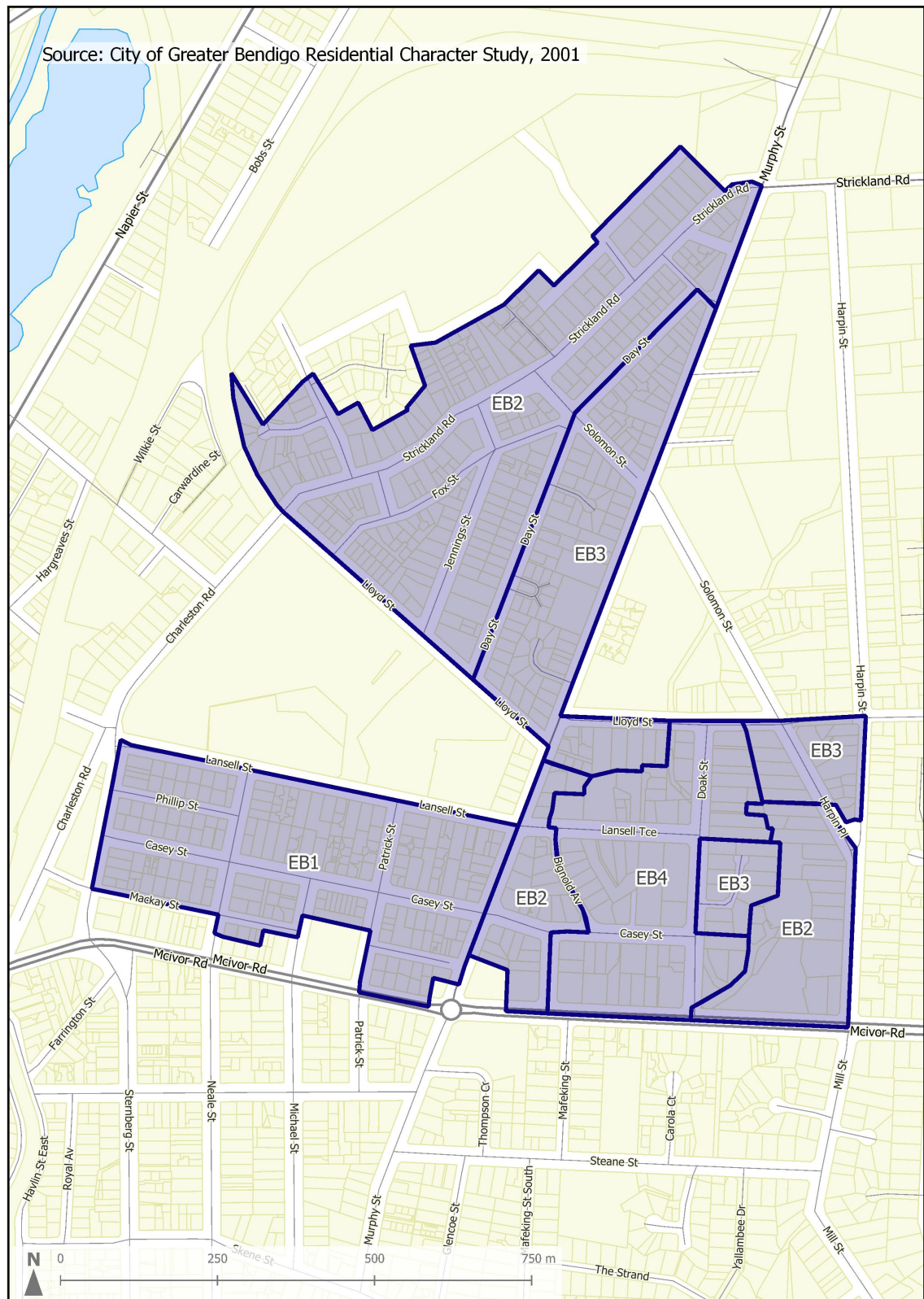
Policy guidelines

Consider as relevant:

- Limiting fence heights to no more than 1.2 metres high.
- Providing the following setbacks for specific precincts.

Precinct	Building setbacks from side boundaries
EB2	Between 1-3m on both side boundaries
EB4	Between 1-3m on both side boundaries

East Bendigo neighbourhood character precinct map



15.01-5L-04 Eaglehawk neighbourhood character11/03/2022
C256gben**Policy application**

This policy applies to applications for development in the areas shown on the Eaglehawk neighbourhood character precinct map that forms part of this clause.

General strategies

These strategies apply to applications for development in the areas shown on the Eaglehawk neighbourhood character precinct map that forms part of this clause.

Retain heritage buildings that contribute to the valued character of the area.

Locate car storage facilities behind the front line of the dwelling and use rear access where possible.

Eaglehawk 1 (EG1) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- The predominantly Victoria, Edwardian and Inter-war housing.
- The intimate pedestrian friendly streetscape with houses close together and close to the street.

Eaglehawk 2 (EG2) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- An open bushland with native vegetation and old goldfield era dwellings built from stone and rubble and informally sited.
- Informal streetscapes with unsealed roads and no kerb and channel.

Eaglehawk 3 (EG3) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- A consistent siting of dwellings and horizontal forms.
- The predominantly Victoria, Edwardian and Inter-war housing.
- Similar front and side setbacks.
- Open streetscape with low or transparent front fences.

Eaglehawk 4 (EG4) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Housing mostly built in the 1950s with consistent siting, horizontal form, setbacks and roof shapes.
- Mature vegetation, including native vegetation, in gardens and public reserve backdrops.

Eaglehawk 5 (EG5) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Housing mostly built since the 1950s with consistent siting, horizontal form, setbacks and roof shapes.
- The presence of native vegetation.
- An open streetscape with low, no or transparent front fences.

Eaglehawk 6 (EG6) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- A mix of building eras, styles, materials and block sizes, representing the sporadic way many parts of Bendigo have developed.
- Mature trees, including native vegetation, in gardens and reserves with low or transparent fences.

Eaglehawk 7 (EG7) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- An open bushland and spacious development with a mix of building eras, styles, materials, and block size representing the sporadic way many parts of Bendigo have developed.
- Mature trees, including native vegetation, in gardens and reserves with low or transparent fences.

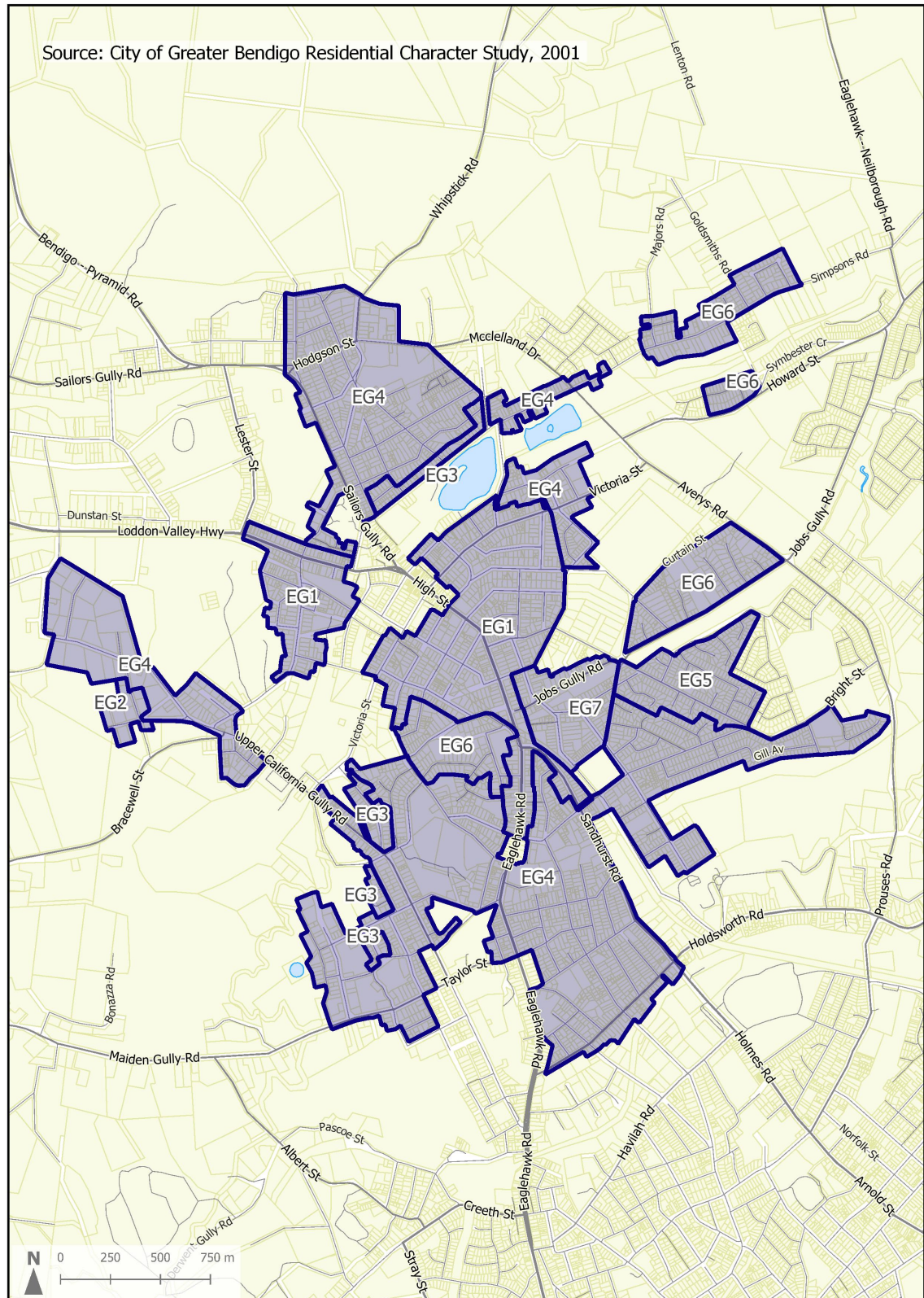
Policy guidelines

Consider as relevant:

- Limiting fence heights to no more than 1.2 metres high.
- Providing the following setbacks for specific precincts.

Precinct	Building setbacks from side boundaries
EG2	Large on both side boundaries
EG4	Between 1-3m on both side boundaries
EG5	Between 1-3m on both side boundaries
EG6	Between 1-3m on both side boundaries

Eaglehawk neighbourhood character precinct map



15.01-5L-05 Flora Hill neighbourhood character11/03/2022
C256gben**Policy application**

This policy applies to applications for development in the areas shown on the Flora Hill neighbourhood character precinct map that forms part of this clause.

General strategies

This strategy applies to applications for development in the areas shown on the Flora Hill neighbourhood character precinct map that forms part of this clause.

Support alterations and extensions that are appropriate to the building era.

Flora Hill 1 (FH1) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Consistently sited dwellings with a strong horizontal emphasis.
- Dwellings of timber, non-masonry, render or painted bricks.
- Mature street trees connected with front gardens due to low or transparent front fences.

Flora Hill 2 (FH2) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Strongly consistent existence of interwar dwellings with large, wide-spanned and gabled roof forms, consistent siting and horizontal form emphasised by verandahs.
- Dwellings of timber, non-masonry, render or painted bricks.
- Glimpses of back gardens, mature street trees and front gardens with low or transparent front fences.

Locate car storage facilities behind the front line of the dwelling and use rear access where possible.

Retain heritage buildings that contribute to the valued character of the area.

Flora Hill 3 (FH3) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- A spacious streetscape with consistent front and side setbacks and roof shapes.
- Dwellings of timber, non-masonry, render or painted bricks.
- An open streetscape with low or transparent front fences and mature trees in gardens.

Flora Hill 4 (FH4) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- A spacious streetscape with consistent front and side setbacks and roof shapes.
- Dwellings of timber, non-masonry, render or painted bricks.
- An open streetscape with low or transparent front fences and mature trees in gardens.

Flora Hill 5 (FH5) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Dwellings with earthy tones sited informally on large blocks with varied setbacks and orientation amongst native vegetation that flows into the road reserve.

Flora Hill 6 (FH6) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Dwellings with standard setbacks and native vegetation in gardens, including iron-barks.
- An open style streetscape due to the absence of front fences and the use of rollover kerbs.

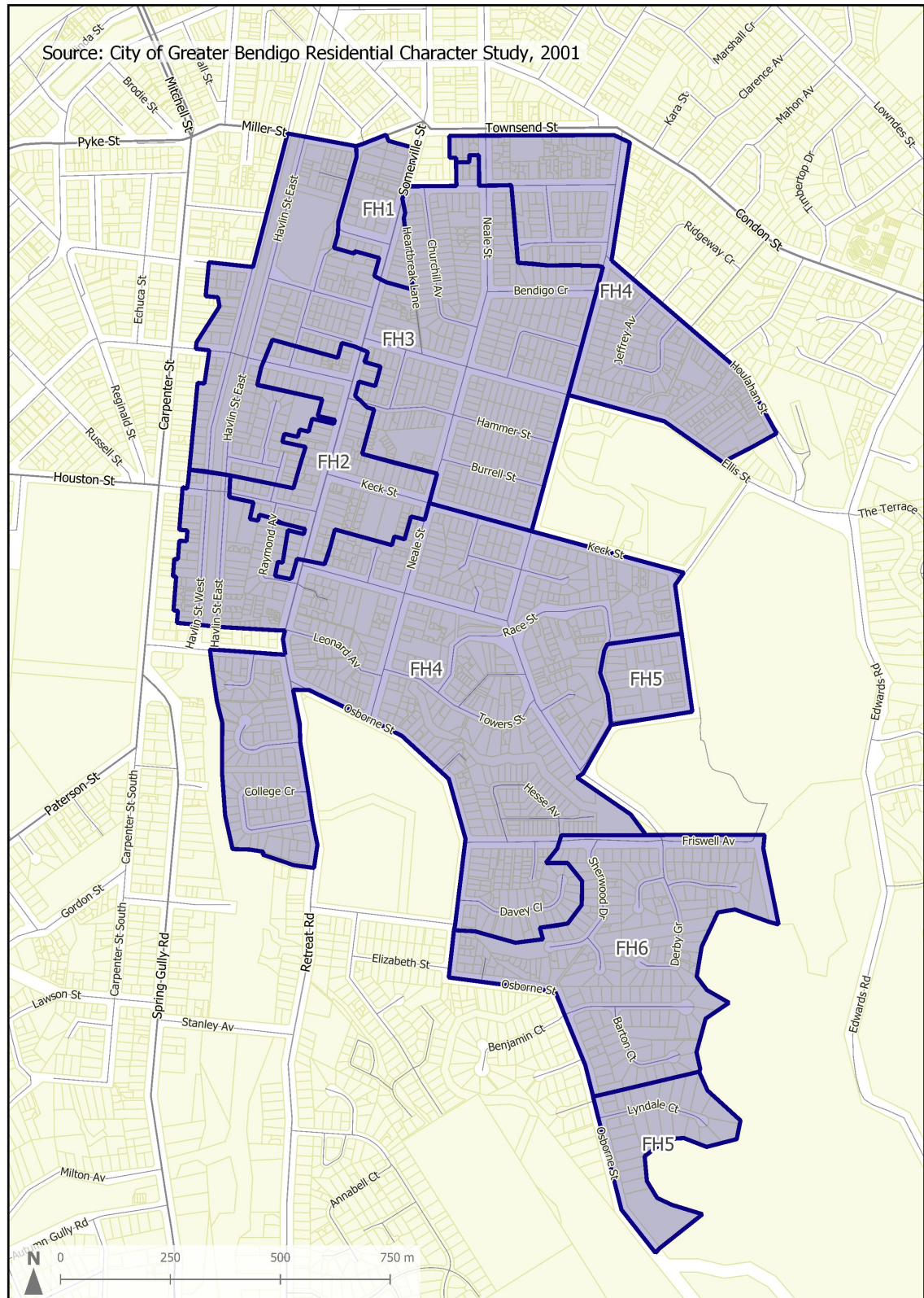
Policy guidelines

Consider as relevant:

- Limiting fence heights to no more than 1.2 metres high.
- Providing the following setbacks for specific precincts.

Precinct	Building setbacks from side boundaries
FH1	Between 1-3m on both side boundaries
FH2	Between 1-3m on both side boundaries
FH3	At least 2m from one side and preferably both
FH4	Between 1-3m on both side boundaries

Flora Hill neighbourhood character precinct map



15.01-5L-06 Golden Square neighbourhood character11/03/2022
C256gben**Policy application**

This policy applies to applications for development in the areas shown on the Golden Square neighbourhood character precinct map that forms part of this clause.

General strategies

This strategy applies to applications for development in the areas shown on the Golden Square neighbourhood character precinct map that forms part of this clause.

Support alterations and extensions that are appropriate to the building era.

Golden Square 1 (GS1) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- An intimate 'cottage' character, derived from the modest scale of dwellings and small garden setbacks.
- Dwellings of mostly timber construction.
- Mature street trees connected with front gardens due to low or transparent front fences.

Locate car storage facilities behind the front line of the dwelling and use rear access where possible.

Retain Victorian, Edwardian, Federation and Inter-war dwellings that contribute to the valued character of the area.

Golden Square 2 (GS2) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- A dominance of Victorian era dwellings with a mixture of other eras, with a cottage feel due to modest building scale and small front setbacks.
- Dwellings mostly of timber construction.
- Transparent front fences and small to medium sized street trees.

Retain Victorian, Edwardian, Federation and Inter-war dwellings that contribute to the valued character of the area.

Golden Square 3 (GS3) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Horizontal emphasis of dwelling forms due to long, low elevations, consistent sitings and front setbacks, and spacious side setbacks.
- A frequent use of timber in dwellings.
- Established garden settings emphasised by no, low or transparent front fences.

Golden Square 4 (GS4) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Horizontal emphasis of dwelling forms due to long, low elevations, consistent sitings and front setbacks, and spacious side setbacks.
- Established garden settings emphasised by no, low or transparent front fences.

Golden Square 5 (GS5) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Horizontal emphasis of dwelling forms due to long, low elevations, consistent sitings and front setbacks, and spacious side setbacks.
- Established garden settings emphasised by no, low or transparent front fences.

Golden Square 6 (GS6) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Single story dwellings with a horizontal emphasis and compact form, set in spacious gardens.
- A spaciousness created by a lack of front fencing and grassy verges.

Golden Square 7 (GS7) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- A semi rural and bush feel with varied dwelling styles and eras.
- Varied lot sizes but often large with open farm style fencing.

Golden Square 8 (GS8) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Largely intact dwellings from the 1950s with horizontal forms due to long low elevations and modest front and side setbacks.
- An intimate street feel due to a lack of fencing and landscaping up to face of dwellings.

Retain Victorian, Edwardian, Federation and Inter-war dwellings that contribute to the valued character of the area.

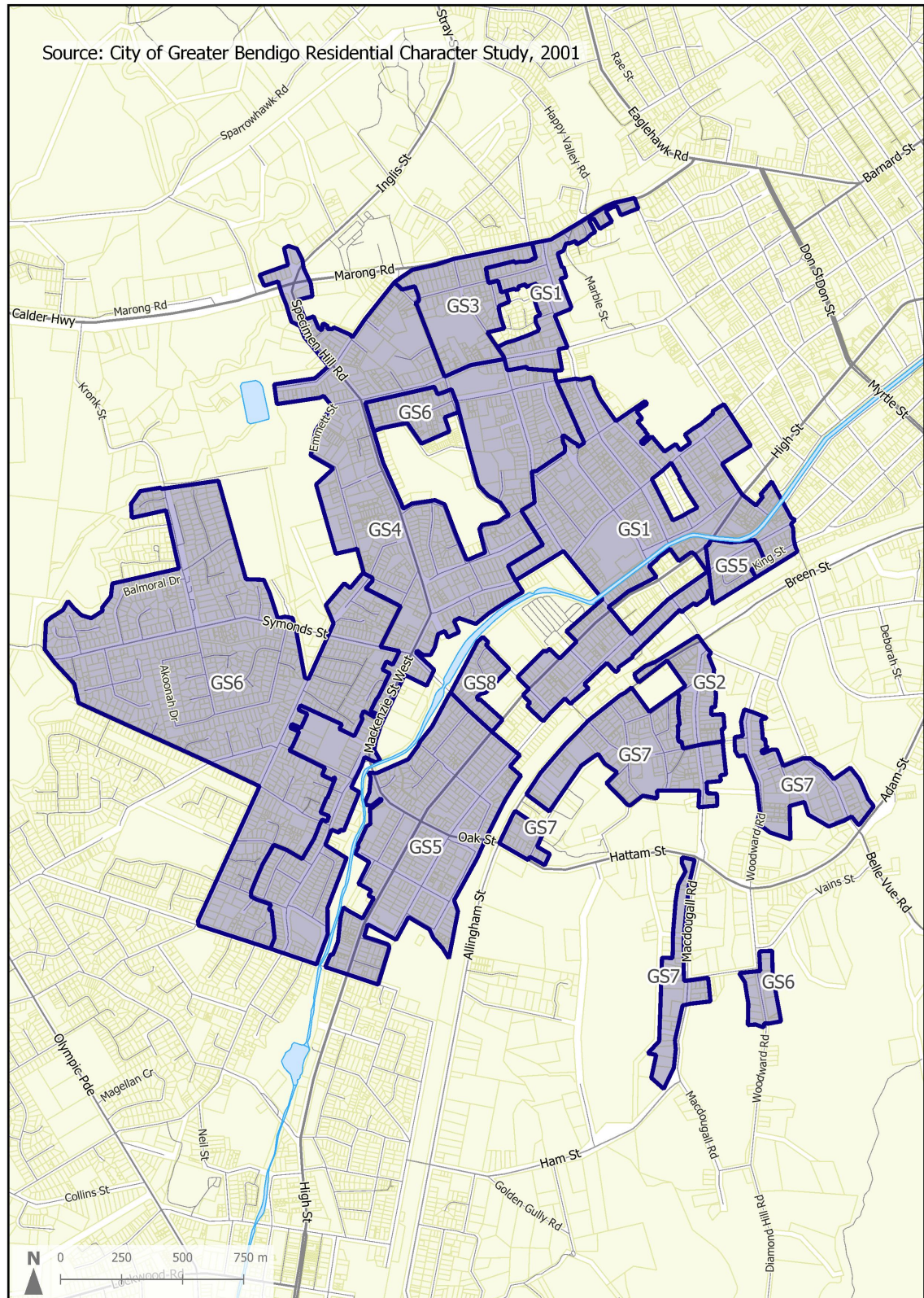
Policy guidelines

Consider as relevant:

- Limiting fence heights to no more than 1.2 metres high.
- Providing the following setbacks for specific precincts.

Precinct	Building setbacks from side boundaries
GS1	2m on both side boundaries
GS2	2m minimum on both side boundaries
GS3	Both sides
GS4	Between 1-3m on both side boundaries
GS5	Between 1-3m on both side boundaries
GS6	Both sides
GS7	Between 1-3m on both side boundaries

Golden Square neighbourhood character precinct map



15.01-5L-07 Heathcote neighbourhood character11/03/2022
C256gben**Policy application**

This policy applies to applications for development in the areas shown on the Heathcote neighbourhood character precinct map that forms part of this clause.

Heathcote 1 (HC1) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Victorian to interwar dwellings of varied materials but mostly timber weatherboard or painted masonry, render or painted brick.
- Open and informal streetscapes due to a lack of formal kerbing and footpaths, and native vegetation.
- Transparent front fences.

Retain heritage buildings from Victorian, Edwardian and Inter-war periods that contribute to the valued character of the area.

Locate car storage facilities behind the front line of the dwelling and use rear access where possible.

Heathcote 2 (HC2) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- A feel of informality due to low level dwellings with low pitched roof styles and a mixture of building materials but mostly timber, non-masonry, render or painted brick.
- A lightness to the streetscape aided by the lack of formal kerbing and footpaths, spacious garden settings with native vegetation and the predominantly low, open style front fencing.

Heathcote 3 (HC3) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Rural style houses of low scale and horizontal in form in a mixture of materials, with earthy tones, usually offset large distances from all boundaries in a spacious, low-density residential setting with generally native gardens.
- An informal streetscape due to lack of front fencing or farm style fencing, and unmade street treatments and informal remnant street trees.

Heathcote 4 (HC4) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Isolated pockets of newer styles of development made predominantly of brick, with earthy tones set within a semi-rural landscape.
- An open streetscape with formal kerbing, standard setbacks, established gardens and a lack of front fences or rural style.

Policy guidelines

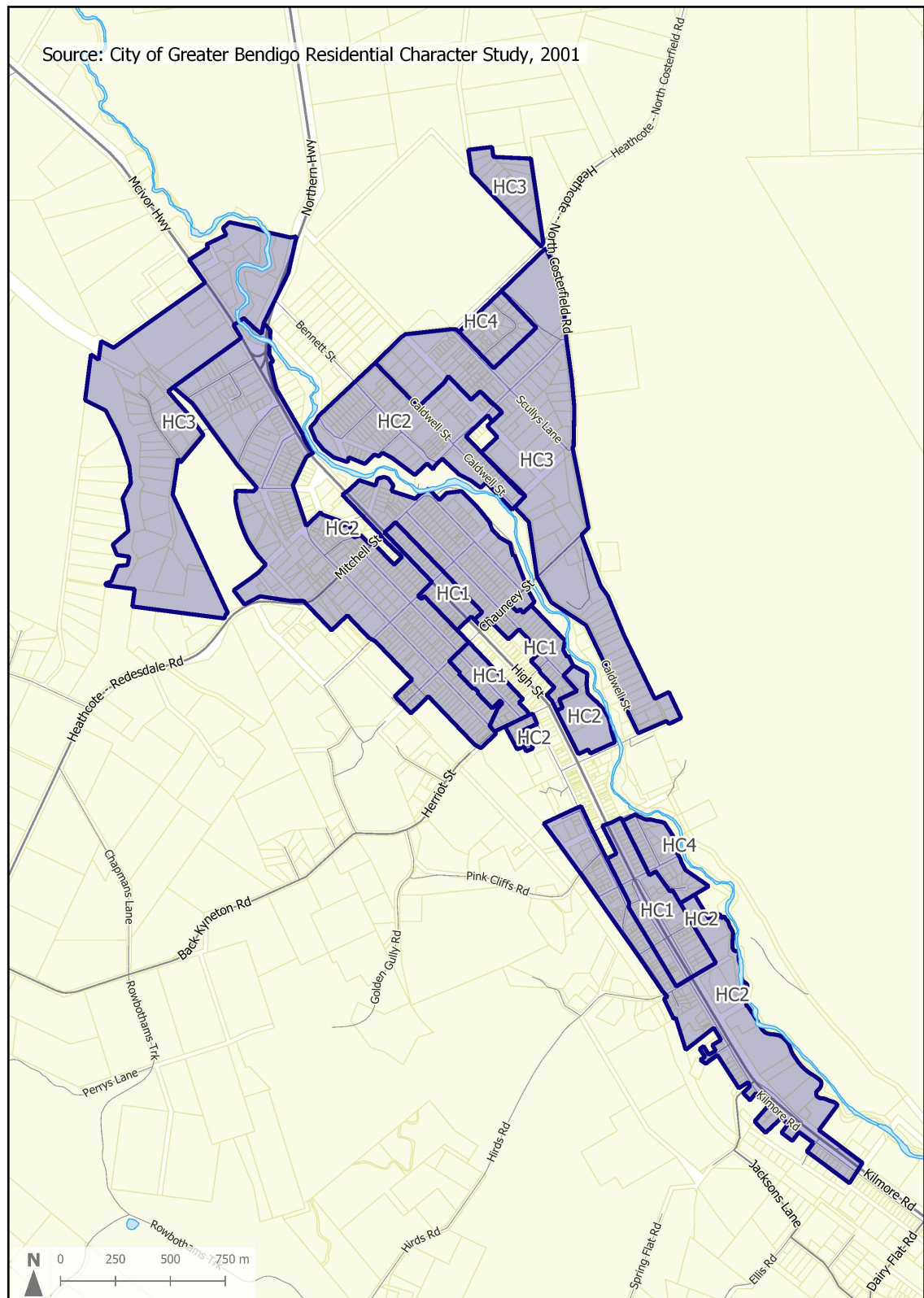
Consider as relevant:

- Limiting fence heights to no more than 1.2 metres high.
- Providing the following setbacks for specific precincts.

Precinct	Building setbacks from side boundaries
HC2	Both side boundaries
HC3	Large on both side boundaries

Precinct	Building setbacks from side boundaries
HC4	Large on both side boundaries

Heathcote neighbourhood character precinct map



15.01-5L-08 Ironbark/Long Gully neighbourhood character11/03/2022
C256gben**Policy application**

This policy applies to applications for development in the areas shown on the Ironbark/Long Gully neighbourhood character precinct map that forms part of this clause.

General strategies

This strategy applies to applications for development in the areas shown on the Ironbark/Long Gully neighbourhood character precinct map that forms part of this clause.

Support alterations and extensions that are appropriate to the building era.

Ironbark/Long Gully 1 (LG1) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- An intimate 'cottage' character derived from the modest scale and small garden setbacks of some dwellings, and open front fences.

Retain heritage buildings that contribute to the valued character of the area.

Locate car storage facilities behind the front line of the dwelling and use rear access where possible.

Ironbark/Long Gully 2 (LG2) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Post war housing with mostly consistent siting and roof shapes.
- Large native and other trees informally positioned in the public and private realm.
- An open streetscape due to low or transparent front fences.

Ironbark/Long Gully 3 (LG3) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- An open, semi-rural feel because of the presence of large lots and side setbacks, and a lack of development visible behind dwellings.
- Dwellings from the 1960s to the 1980s with some inter war and Victorian buildings with brick and tile the dominant materials.

Ironbark/Long Gully 4 (LG4) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Housing mostly built in the 1950s, with consistent roof shapes and horizontal emphasis due to the long, low elevations of buildings in relation to height.
- Mature trees in reserves or private gardens dominate the skyline.
- An open feel due to an absence of front fences.

Ironbark/Long Gully 5 (LG5) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Post war housing with consistent siting and roof shapes.
- An open streetscape due to low or transparent fences and mature large trees, including native.

Policy guidelines

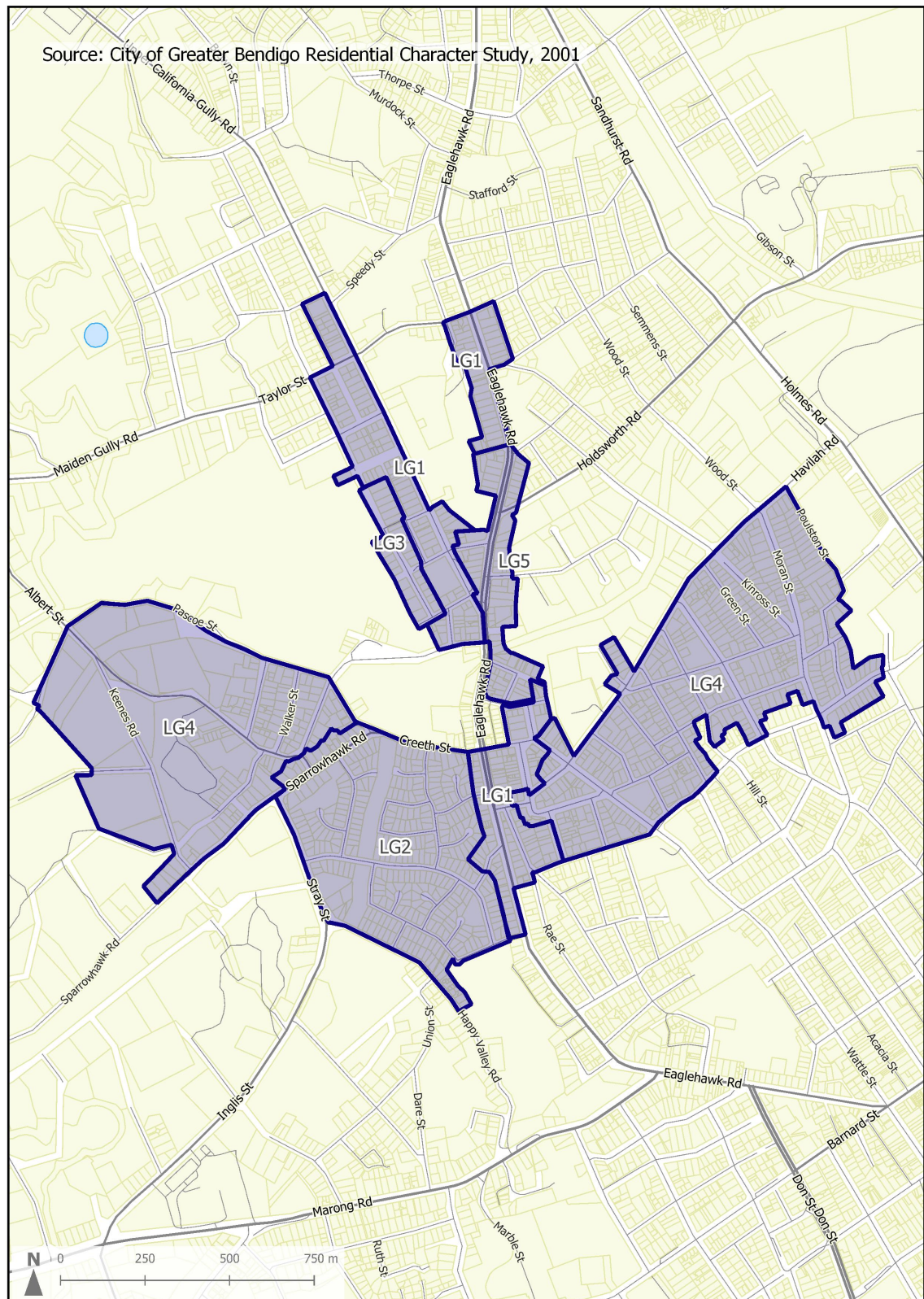
Consider as relevant:

GREATER BENDIGO PLANNING SCHEME

- Limiting fence heights to no more than 1.2 metres high.
- Providing the following setbacks for specific precincts.

Precinct	Building setbacks from side boundaries
LG2	Between 1m and 3m on both side boundaries
LG3	Between 1m and 3m on both side boundaries
LG5	2m minimum on both side boundaries

Ironbark/Long Gully neighbourhood character precinct map



15.01-5L-09 Kangaroo Flat neighbourhood character11/03/2022
C256gben**Policy application**

This policy applies to applications for development in the areas shown on the Kangaroo Flat neighbourhood character precinct map that forms part of this clause.

Kangaroo Flat 1 (KF1) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Dwellings of a mix of building styles and materials but with a horizontal emphasis with long low elevations in relation to height.
- Dwellings consistently sited on the block with standard front setbacks and spacious side setbacks.
- A sense of spaciousness emphasised by low or transparent front fences.

Kangaroo Flat 2 (KF2) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Dwellings mostly developed since the 1950s with horizontal emphasis resulting from long, low elevations of buildings in relation to height and consistent roof shapes.
- Spacious front and side setbacks.
- Low, transparent or no front fencing.

Kangaroo Flat 3 (KF3) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Dwellings mostly developed since the 1950s with horizontal emphasis resulting from long, low elevations of buildings in relation to height and consistent roof shapes.
- Transparent or no front fences.

Kangaroo Flat 4 (KF4) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Dwellings mostly developed since the 1950s with horizontal emphasis resulting from long, low elevations of buildings in relation to height and consistent roof shapes.
- Transparent or no front fences.

Kangaroo Flat 5 (KF5) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Dwellings mostly developed since the 1950s with horizontal emphasis resulting from long, low elevations of buildings in relation to height and consistent roof shapes.
- An open streetscape due to a lack of front fences.

Kangaroo Flat 6 (KF6) strategies

Strengthen the native vegetation garden character with no front fencing.

Support innovative architecture in a bush setting.

Kangaroo Flat 7 (KF7) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Semi-rural residential, with large lots, farm style fencing or no fencing, sealed roads but no kerbs or footpaths.
- Generous front and side setbacks with some substantial areas of native vegetation.

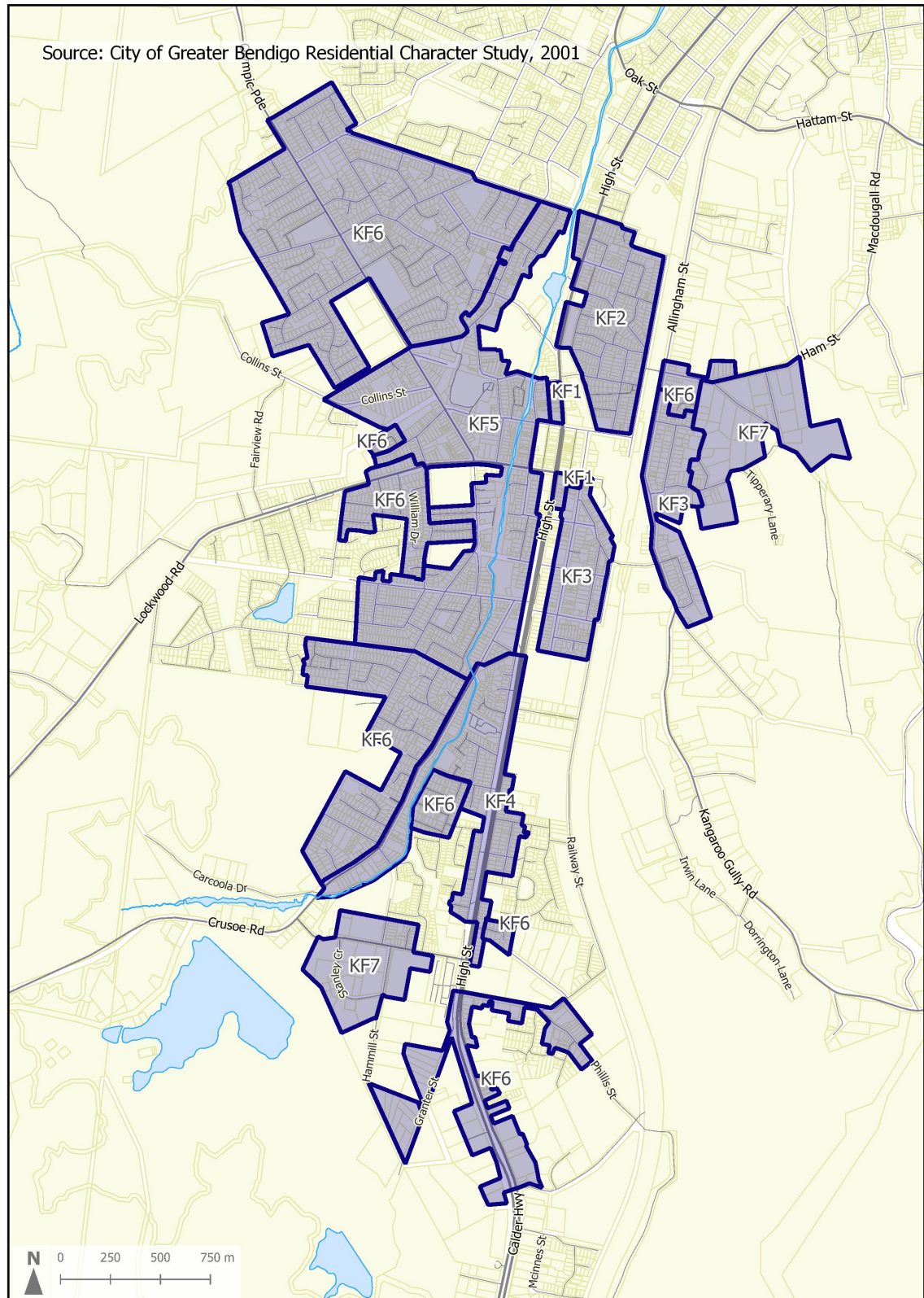
Policy guidelines

Consider as relevant:

- Limiting fence heights to no more than 1.2 metres high.
- Providing the following setbacks for specific precincts.

Precinct	Building setbacks from side boundaries
KF1	Both side boundaries
KF2	Both side boundaries
KF3	Minimum 2m on both side boundaries
KF4	Minimum 2m on both side boundaries
KF5	Minimum 2m on both side boundaries
KF7	Large distance both side boundaries

Kangaroo Flat neighbourhood character precinct map



15.01-5L-10 North Bendigo neighbourhood character11/03/2022
C256gben**Policy application**

This policy applies to applications for development in the areas shown on the North Bendigo neighbourhood character precinct map that forms part of this clause.

North Bendigo 1 (NB1) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Housing mostly built in the 1950s, with consistent roof shapes and horizontal emphasis due to the long, low elevations of buildings in relation to height.
- An open streetscape due to low and transparent fences.

North Bendigo 2 (NB2) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Semi-rural residential and bushland qualities of large lots with large setbacks.
- Farm style fencing and no formal kerbs and footpaths.
- Substantial remnant vegetation in the public and private realm.

North Bendigo 3 (NB3) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Semi-rural residential and bushland qualities of large lots with large setbacks.
- Farm style fencing and no formal kerbs and footpaths.
- Substantial remnant vegetation in the public and private realm.
- Earthy muted tones of buildings.

North Bendigo 4 (NB4) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Housing constructed mostly in the 1970s/80s from brick with small setbacks and sited irregularly.
- An open streetscape due to presence of native vegetation and absence of front fences.

North Bendigo 5 (NB5) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Housing mostly built in the 1950s, with consistent roof shapes and horizontal emphasis due to the long, low elevations of buildings in relation to height and modest front setbacks.
- An open garden streetscape due to mature garden settings, wide nature strips and low or transparent front fences.

North Bendigo 6 (NB6) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Post war housing with consistent setbacks and roof shapes.
- An open streetscape due to low or transparent fences.

North Bendigo 7 (NB7) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- A transition from Victorian inner areas to interwar era of development.
- Some cottage feel due to modest scale dwellings, small garden setbacks and transparent front fences.

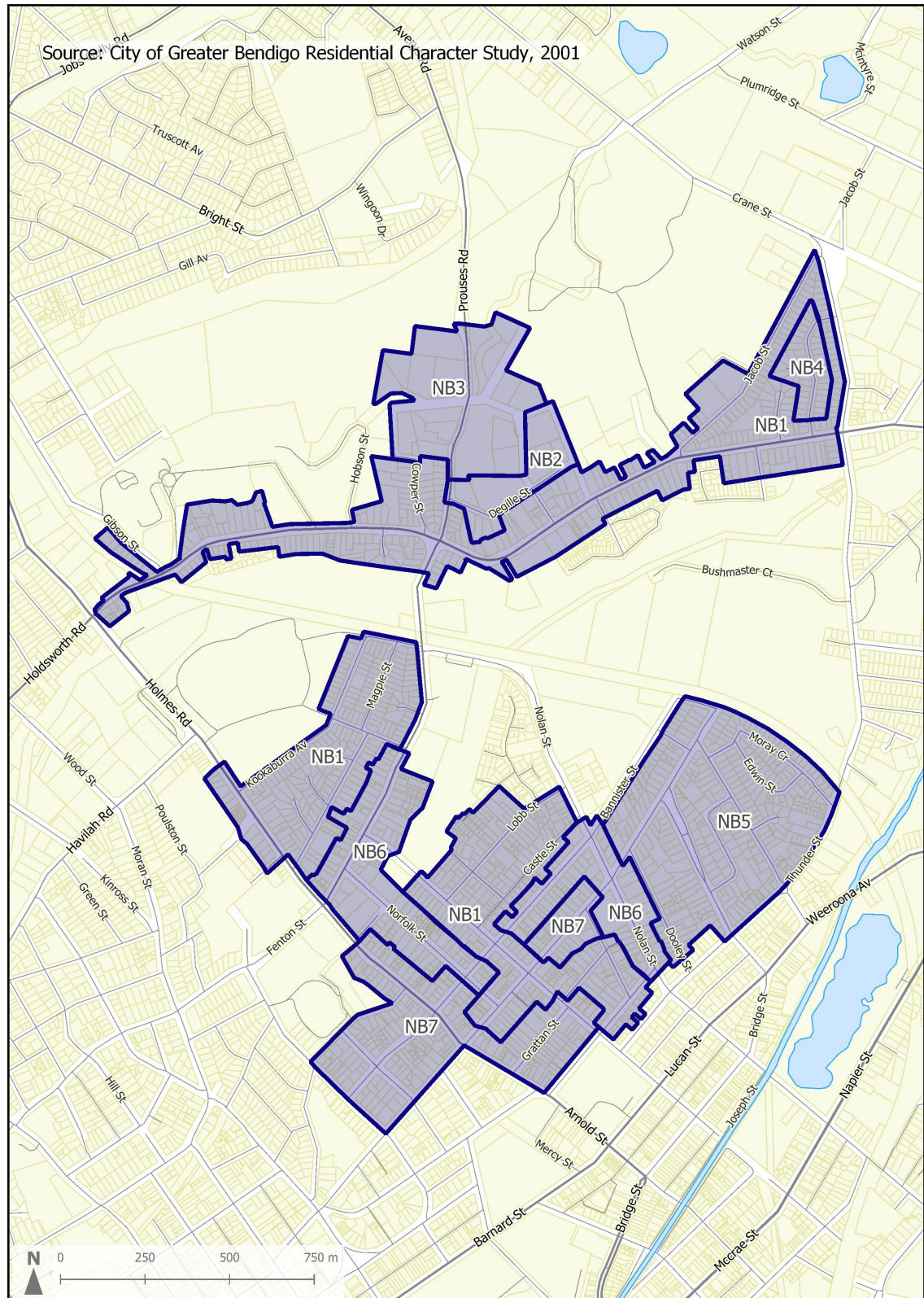
Policy guidelines

Consider as relevant:

- Limiting fence heights to no more than 1.2 metres high.
- Providing the following setbacks for specific precincts.

Precinct	Building setbacks from side boundaries
NB1	Between 1m and 3m on both side boundaries
NB2	Large distances on both side boundaries
NB4	Between 1m and 3m on both side boundaries
NB5	Between 1m and 3m on both side boundaries
NB6	Between 1m and 3m on both side boundaries

North Bendigo neighbourhood character precinct map



15.01-5L-11 Quarry Hill neighbourhood character11/03/2022
C256gben**Policy application**

This policy applies to applications for development in the areas shown on the Quarry Hill neighbourhood character precinct map that forms part of this clause.

Quarry Hill 1 (QH1) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Intimate heritage cottages and modest dwellings with small garden setbacks, with some larger Edwardian, inter war and post war era dwellings.
- Often small garden setbacks but can vary from street to street.
- An open streetscape due to low and transparent fences.
- Mature trees including native.

Retain heritage buildings that contribute to the valued character of the area in precinct.

Support alterations and extensions that are appropriate to the building era.

Locate car storage facilities behind the front line of the dwelling and use rear access where possible.

Quarry Hill 2 (QH2) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- A mix of building styles, materials and setbacks, but often with consistent siting.
- Spacious garden streetscapes with front gardens low in scale.
- An open streetscape due to low front fences and mature trees.

Quarry Hill 3 (QH3) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Bushland qualities due to large blocks with houses sited amongst native vegetation.
- Varied setbacks and orientation giving an informal feel.

Policy guidelines

Consider as relevant:

- Limiting fence heights to no more than 1.2 metres high.
- Providing the following setbacks for specific precincts.

Precinct	Building setbacks from side boundaries
QH3	Between 1m and 3m on both side boundaries

15.01-5L-12 Spring Gully neighbourhood character11/03/2022
C256gben**Policy application**

This policy applies to applications for development in the areas shown on the Spring Gully neighbourhood character precinct map that forms part of this clause.

Spring Gully 1 (SG1) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Dwellings mostly developed in the 1950s with consistent siting and front setbacks, spacious side setbacks and horizontal form, resulting from long, low elevations of buildings in relation to height.
- An open spacious streetscape due to no, low or transparent fences.
- Mature native trees.

Spring Gully 2 (SG2) strategies

Maintain and strengthen the existing neighbourhood character of this precinct that is drawn from:

- Newly developed dwellings with high site coverage and small setbacks.
- The strong presence of native vegetation including mature trees, and palm trees.
- An open streetscape due to an absence of front fences and use of rollover kerbs.

Spring Gully 3 (SG3) strategies

Maintain and strengthen the existing neighbourhood character of this precinct that is drawn from:

- Newly developed large dwellings with high site coverage and small setbacks.
- The strong presence of native vegetation including mature trees.
- An open streetscape due to an absence of front fences and use of rollover kerbs.

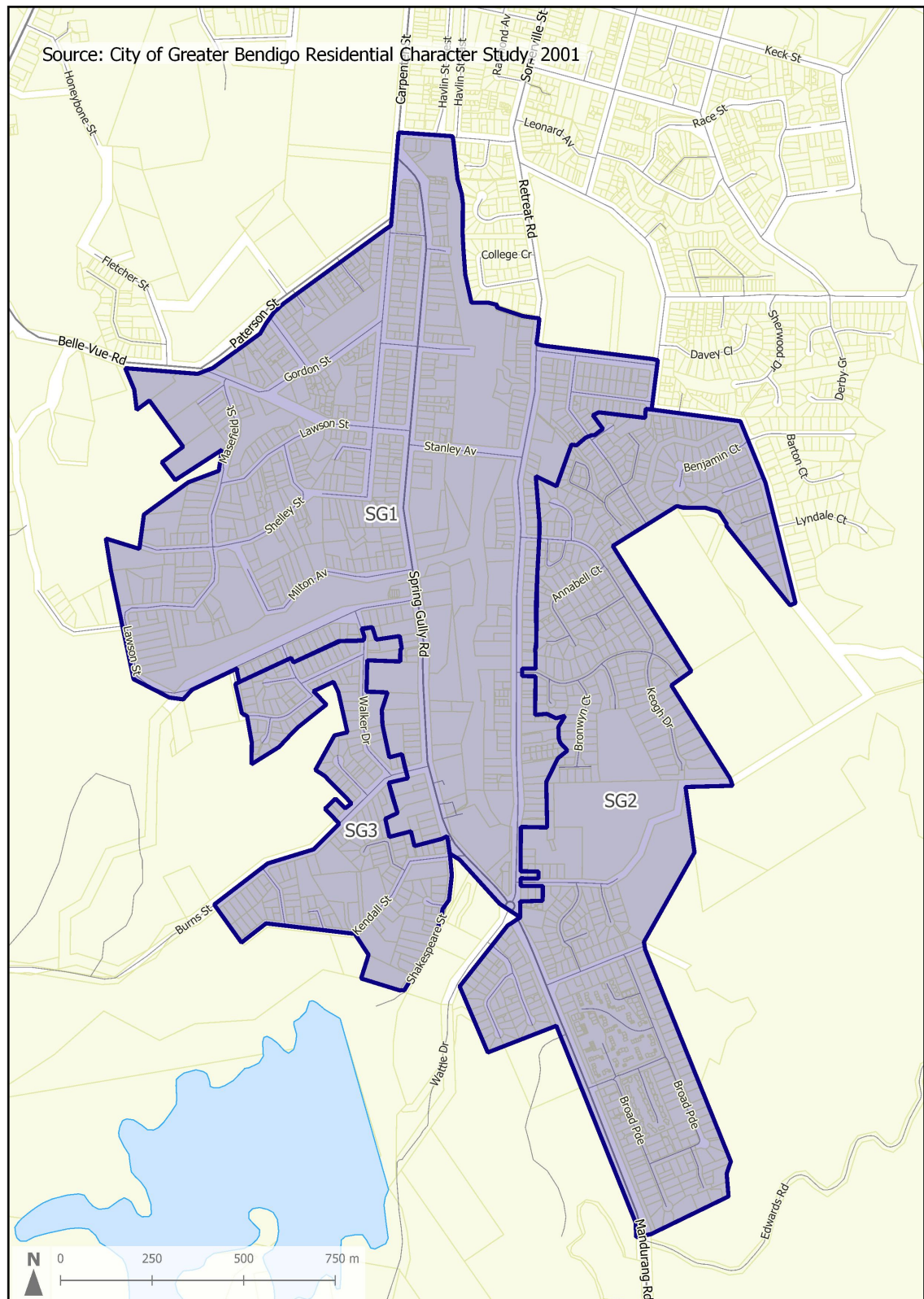
Policy guidelines

Consider as relevant:

- Limiting fence heights to no more than 1.2 metres high.
- Providing the following setbacks for specific precincts.

Precinct	Building setbacks from side boundaries
SG2	Between 1m and 3m on both side boundaries

Spring Gully neighbourhood character precinct map



15.01-5L-13 Strathdale/Kennington neighbourhood character11/03/2022
C256gben**Policy application**

This policy applies to applications for development in the areas shown on the Strathdale/Kennington neighbourhood character precinct map that forms part of this clause.

Strathdale/Kennington 1 (SK1) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- A mix of dwellings styles and materials with consistent siting, and glimpses of back yard trees spaces through side setbacks.
- A spacious garden feel due to presence of mature trees in reserves and private gardens, including avenues of large exotic trees, and low or transparent fences.

Retain heritage buildings that contribute to the valued character of the area.

Support alterations and extensions that are appropriate to the building era.

Locate car storage facilities behind the front line of the dwelling and use rear access where possible.

Strathdale/Kennington 2 (SK2) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Consistent late Inter-war period dwellings with a strong horizontal emphasis due to large heavy wide-spanned and gabled roof form and verandahs.
- Front gardens, low in scale and mostly exotic, form part of the street scene because of low or transparent front fences.
- Street tree avenues of medium to large exotics.

Require new buildings and extensions to not dominate the streetscape by providing articulated front and side facades.

Strathdale/Kennington 3 (SK3) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Dwellings built since the 1950s with a strong horizontal emphasis of the dwelling from the long, low elevations of buildings in relation to height, and articulation.
- Small front setbacks which give an intimate feel.
- An open streetscape due to low or transparent front fences.

Require new buildings and extensions to not dominate the streetscape by providing articulated front and side facades.

Strathdale/Kennington (SK4) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Dwellings built since the 1950s with a strong horizontal emphasis of the dwelling from the long, low elevations of buildings in relation to height, and articulation.
- Mature trees in reserves or private gardens sometimes dominate the skyline.
- An open feel due to an absence of front fences.

Require new buildings and extensions to not dominate the streetscape by providing articulated front and side facades.

Strathdale/Kennington 5 (SK5) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- The inter-war period to the 1950s era dwellings with mostly consistent siting and front and side setbacks.
- Predominantly weatherboard dwellings with tiled roofs and a large span roof form with hips and gables.
- Low scale and exotic front gardens, and low or transparent front fences, many original.

Retain heritage buildings that contribute to the valued character of the area.

Support alterations and extensions that are appropriate to the building era.

Strathdale/Kennington 6 (SK6) strategies

Maintain and strengthen the existing neighbourhood character of this precinct that is drawn from:

- Newly developed large dwellings with small setbacks.
- Garden setting of dwellings that are a mix of exotic and native, mostly iron-barks.
- An open streetscape due to an absence of front fences.

Encourage individually designed buildings that respond to the garden setting.

Strathdale/Kennington 7 (SK7) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Large modern dwellings on large blocks with native vegetation.
- Native vegetation from the adjoining environment spreads into the area.

Encourage individually designed buildings that respond to the garden setting.

Strathdale/Kennington 8 (SK8) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Dwellings mostly from the 1960s to the 1980s, with horizontal emphasis of dwelling form due to the long, low elevations of buildings in relation to height.
- The brick and tile predominant building material.
- An intimate feel due to small front and side setbacks, and no front fencing.

Policy guidelines

Consider as relevant:

- Limiting fence heights to no more than 1.2 metres high.
- Providing the following setbacks for specific precincts.

Precinct	Building setbacks from side boundaries
SK1	Minimum 2m on one side
SK2	Between 1m and 3m on both side boundaries
SK3	Between 1m and 3m on both side boundaries
SK4	Between 1m and 3m on both side boundaries
SK5	Minimum 2m on one side
SK8	Between 1m and 3m on both side boundaries

15.01-5L-14 West Bendigo neighbourhood character11/03/2022
C256gben**Policy application**

This policy applies to applications for development in the areas shown on the West Bendigo neighbourhood character precinct map that forms part of this clause.

West Bendigo 1 (WB1) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- A 'cottage' feel, derived from the modest scale and small garden setbacks of some dwellings.
- A semi-rural feel due to some large lots with wide frontages and visible large trees, transparent fences and a lack of formal kerbs and footpaths.

Retain heritage buildings that contribute to the valued character of the area.

Maintain the garden setting of dwellings by reducing paved areas in front setback.

Locate car storage facilities behind the front line of the dwelling and use rear access where possible.

West Bendigo 2 (WB2) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Early era dwellings, some with a cottage feel due to modest scale, small front setbacks and transparent front fences.
- The horizontal emphasis of dwelling forms resulting from long, low elevations of buildings in relation to height.
- A semi-rural feel due to some large lots with wide frontages and visible large trees, transparent fences and a lack of formal kerbs and footpaths.

West Bendigo 3 (WB3) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Semi-rural residential with large lots, large setbacks, farm style fencing or no fencing, and unsealed roads.
- Bush qualities due to some large native trees.

West Bendigo 4 (WB4) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Semi-rural residential with large lots, large dwellings and large setbacks.
- An open streetscape due to absence of front fences.

Maintain the garden setting of dwellings by reducing paved areas in front setback.

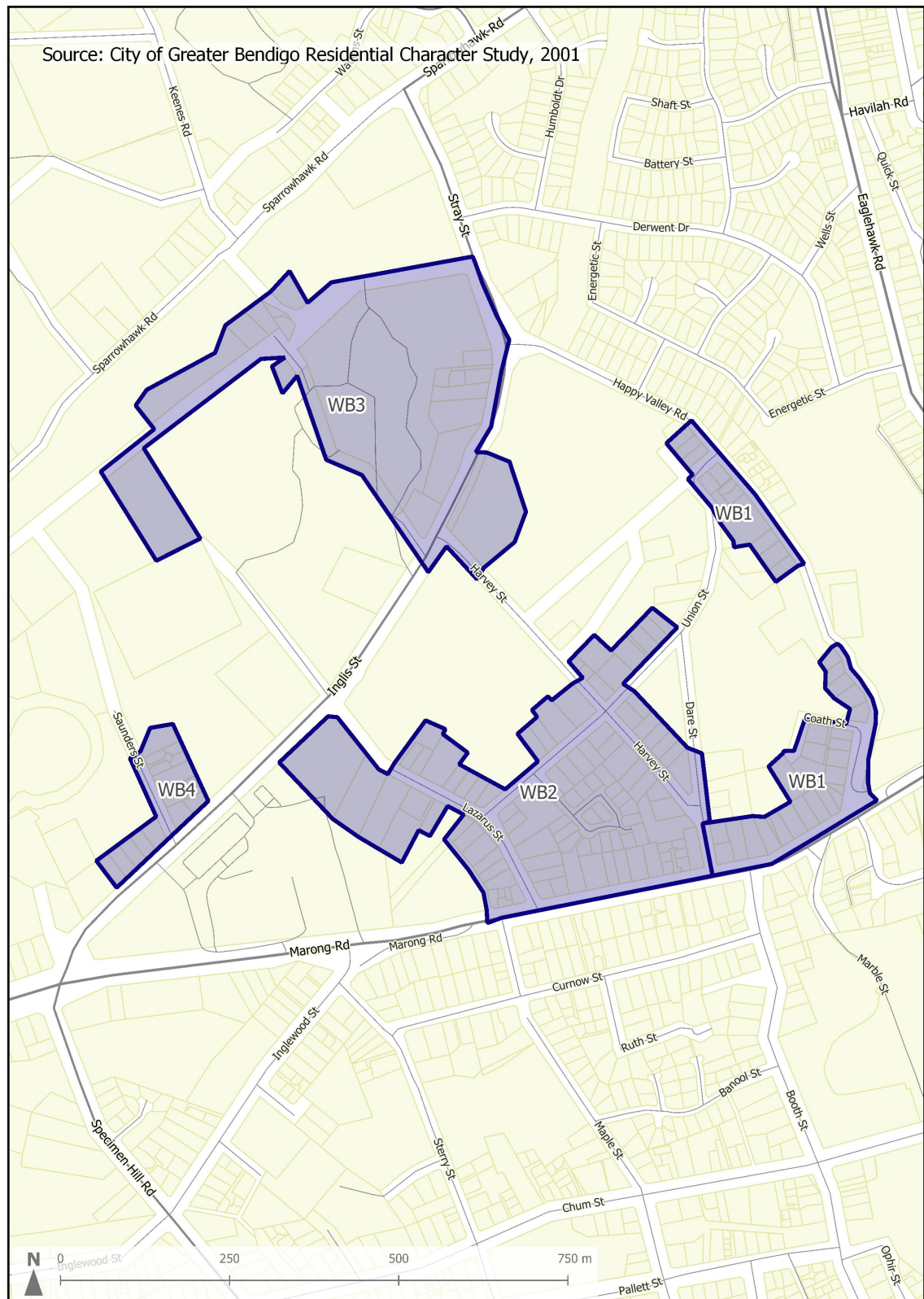
Policy guidelines

Consider as relevant:

- Limiting fence heights to no more than 1.2 metres high.
- Providing the following setbacks for specific precincts.

Precinct	Building setbacks from side boundaries
WB2	Between 1m and 3m on both side boundaries
WB3	Large distances on both side boundaries

West Bendigo neighbourhood character precinct map



15.01-5L-15 White Hills neighbourhood character11/03/2022
C256gben**Policy application**

This policy applies to applications for development in the areas shown on the White Hills neighbourhood character precinct map that forms part of this clause.

White Hills 1 (WH1) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- A mix of building styles and materials with consistent siting and mostly spacious side setbacks.
- A spacious streetscape due to low or transparent front fences.

White Hills 2 (WH2) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- An attractive garden suburb with a mix of building styles and materials with an emphasis on 1950s dwellings.
- A distinctive symmetrical crescent shaped street, where front gardens for part of the street due to low or transparent fences and large trees.

White Hills 3 (WH3) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- An attractive garden suburb with a mix of building styles and materials and variations in siting and front boundary treatments, which lessen the symmetrical street crescent pattern slightly.
- Mature trees in reserves and private gardens with glimpses of trees in backyards, and avenues of large exotics in some streets.
- A spacious feel due to low or transparent front fences.

White Hills 4 (WH4) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Rows of modest, early post war housing with a high degree of uniformity of style, building materials, form, siting and roof shapes.
- An open streetscape due to low original front fences.

Retain heritage buildings that contribute to the valued character of the area.

White Hills 5 (WH5) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Dwellings constructed mostly since the 1980s of brick and tile with a horizontal emphasis of form resulting from long, low elevations in relation to height.
- Dwellings sited at an angle to the street with generous front and side setbacks.
- An open streetscape due to absence of front fences.

White Hills 6 (WH6) strategies

Maintain the existing neighbourhood character of this precinct that is drawn from:

- A semi-rural residential bushland quality with dwellings materials predominantly earthy tones and large lot and large setbacks.
- An open streetscape due to absence of front fences or farm style fences, and no formal kerbs and footpaths.
- Native vegetation flowing from block to block and onto road reserve.

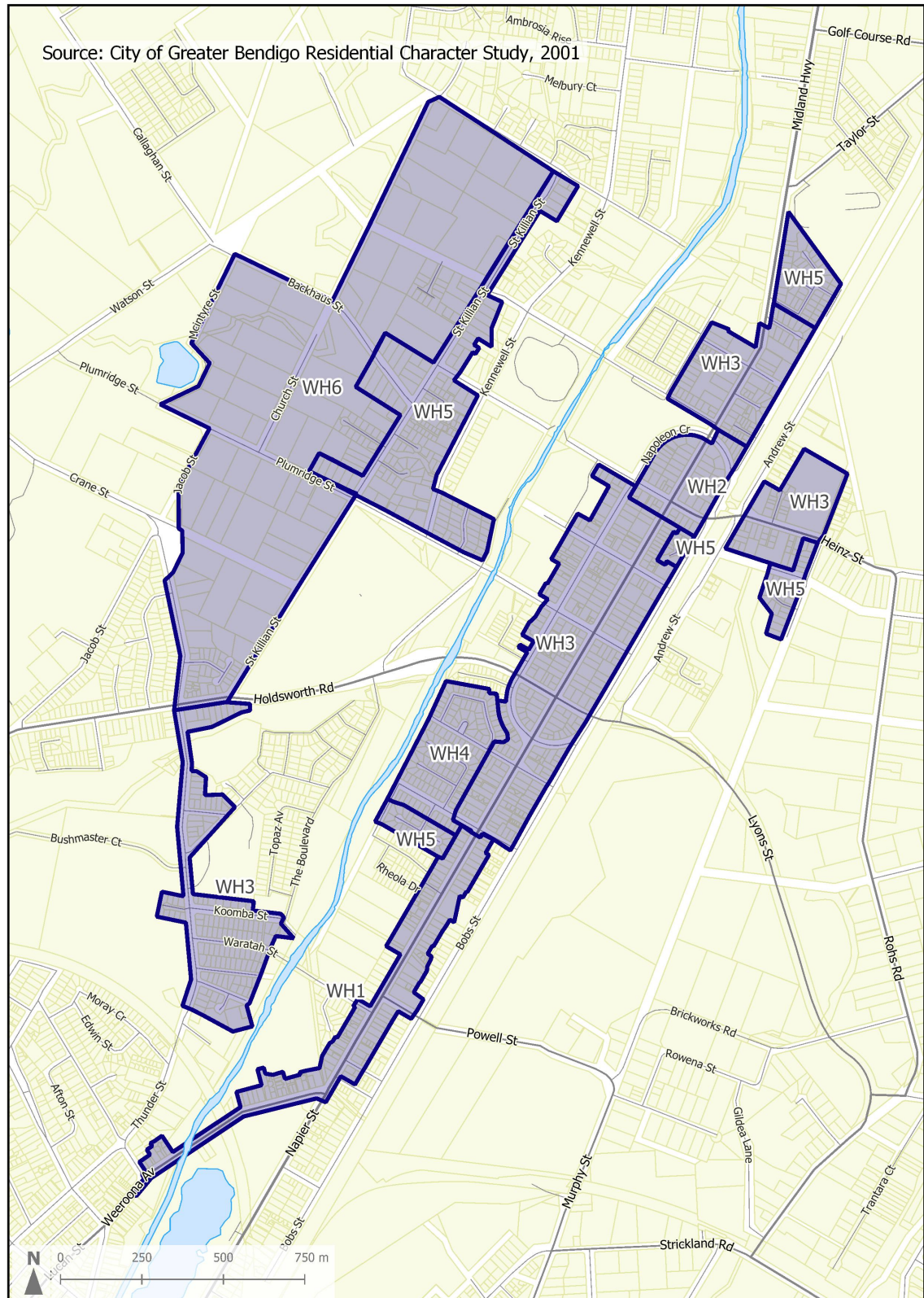
Policy guidelines

Consider as relevant:

- Limiting fence heights to no more than 1.2 metres high.
- Providing the following setbacks for specific precincts.

Precinct	Building setbacks from side boundaries
WH1	Both sides
WH3	Between 1m and 3m on both side boundaries
WH4	Both sides
WH5	Between 1m and 3m on both side boundaries
WH6	Large distances on both side boundaries

White Hills neighbourhood character precinct map



15.01-5L-16 Neighbourhood character - Huntly

11/03/2022
C256gben

Policy application

This policy applies to applications for development in the areas shown on the Huntly neighbourhood character precinct map that form part of this clause.

Strategies

Maintain the native streetscape character by retaining and planting indigenous large trees and understorey species.

Maintain the bushland setting and rhythm of dwelling spacing by setting buildings substantial distances from both side boundaries.

Ensure new buildings and extensions do not dominate the streetscape by ensuring they do not protrude above the canopy line and use low, horizontal building forms.

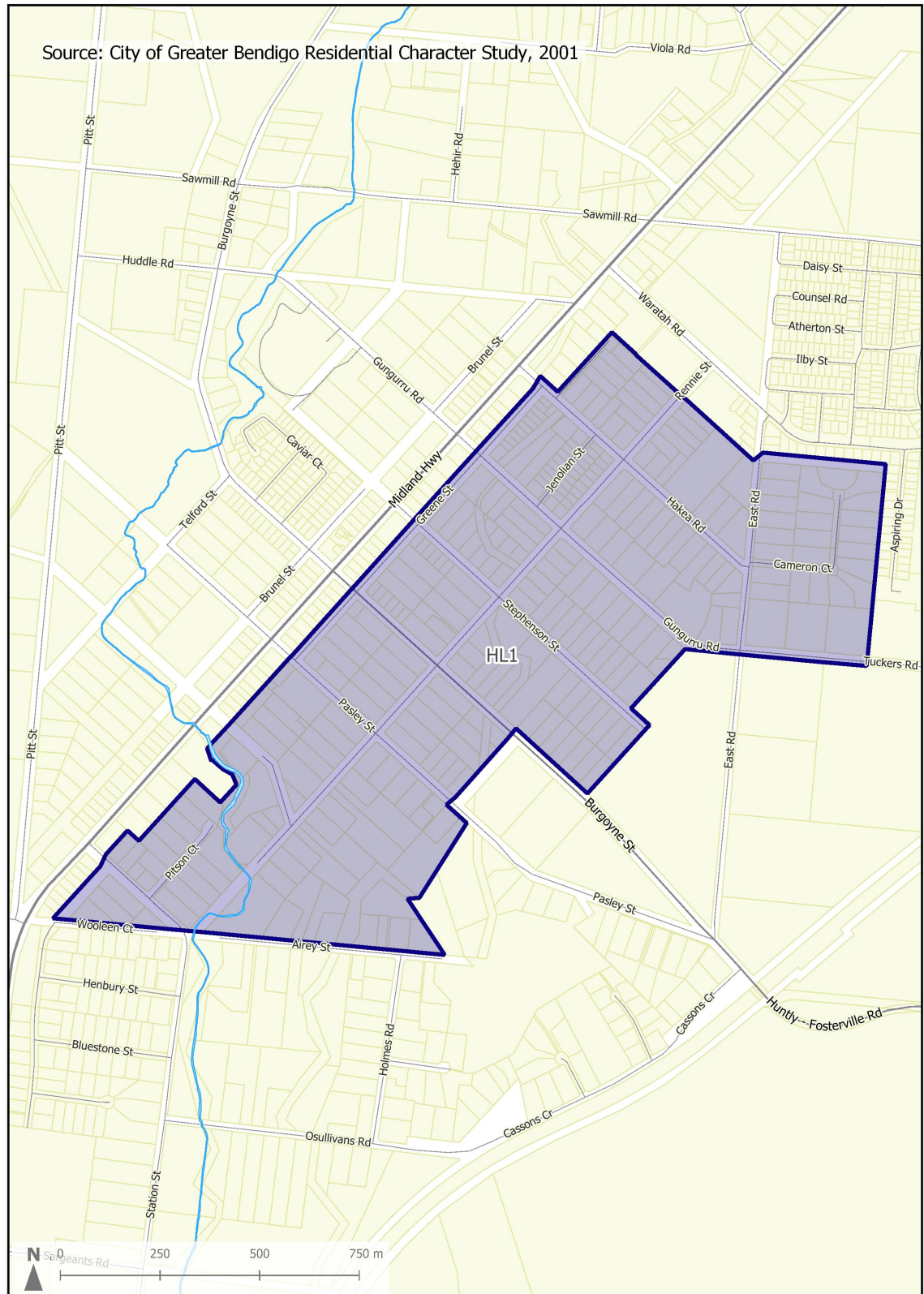
Design buildings with materials and finishes that complement the surrounding native vegetation.

Maintain a continuous flow of vegetation across the landscape by requiring no front fencing or post and wire.

Maintain the existing neighbourhood character of this precinct that is drawn from:

- Low, ranch style dwellings set amongst large indigenous trees with large front and side setbacks.
- Open and informal streetscapes with vegetation flowing from front gardens to wide roadside verges due to the absence of front fencing and transparent side and rear fencing.
- Weatherboard interwar dwellings with small setbacks and timber picket fences along the Midland Highway.

Huntly neighbourhood character precinct map



15.01-5L-17 Neighbourhood character - Strathfieldsaye11/03/2022
C256gben**Policy application**

This policy applies to applications for development in Precincts 3, 5 and 6 shown on the Strathfieldsaye local area map that forms part of clause 11.03-6L-03.

General strategy

Support a rural character by building with a mix of materials including timber and earthy coloured render.

Support development within a native vegetated setting that preserves the natural and rural character.

Precinct 3 strategy

Support mostly lower scale development with the retention of native vegetation.

Precinct 5 strategy

Maintain the existing neighbourhood character in Precinct 5, that is drawn from a sense of spaciousness and a prevalence of native vegetation with:

- Dwellings setback from front and side boundaries.
- Dwelling heights set below the tree canopy.
- No front fencing and farm style side fences.

Precinct 6 strategy

Maintain the existing neighbourhood character in Precinct 6 that is drawn from a prevalence of native vegetation with limited visual intrusion from development, including:

- Dwellings that are low scale and follow the contours of the site with large setbacks from front and side boundaries.
- No front fencing and farm style side and rear fences.

Policy guidelines

Consider as relevant:

- Setting dwellings in Precinct 3 back 4-6 metres from the front boundary.
- Designing development in Precinct 3 to have a frontage facing existing roads, with corner lots to have two frontages.
- Encouraging no front fencing in Precinct 3 but if required limiting to 1.2 metres in height and minimum 75 per cent transparency.
- Limiting site building coverage in Precinct 6 to not greater than 50 per cent to enable native vegetation plantings.
- Locating car parking facilities at least 1 metre behind building facades in Precincts 3, 5 and 6.

15.01-6S

31/07/2018
VC148

Design for rural areas

Objective

To ensure development respects valued areas of rural character.

Strategies

Ensure that the siting, scale and appearance of development protects and enhances rural character.

Protect the visual amenity of valued rural landscapes and character areas along township approaches and sensitive tourist routes by ensuring new development is sympathetically located.

Site and design development to minimise visual impacts on surrounding natural scenery and landscape features including ridgelines, hill tops, waterways, lakes and wetlands.

17.03

31/07/2018
VC148

INDUSTRY

17.03-1S03/03/2023
VC215**Industrial land supply****Objective**

To ensure availability of land for industry.

Strategies

Provide an adequate supply of industrial land in appropriate locations including sufficient stocks of large sites for strategic investment.

Identify land for industrial development in urban growth areas where:

- Good access for employees, freight and road transport is available.
- Appropriate buffer areas can be provided between the proposed industrial land and nearby sensitive land uses.

Protect and carefully plan existing industrial areas to, where possible, facilitate further industrial development.

Preserve locally significant industrial land for industrial or employment generating uses, unless long-term demand for these uses can be demonstrably met elsewhere.

Avoid approving non-industrial land uses that will prejudice the availability of land in identified industrial areas for future industrial use.

Policy documents

Consider as relevant:

- *Recommended separation distances for industrial residual air emissions* (Publication 1518, Environment Protection Authority, March 2013)

17.03-1L

Industrial land supply - Greater Bendigo

44/03/2022 - / - / -
G256gben Proposed C282gben

Policy application

This policy applies to applications for use and development in the industrial areas shown on the Industrial strategic framework plan that forms part of this clause and applications for industrial use in non industrial zones.

Objective

To encourage diversification and expansion of the municipality's industrial base.

Strategies

Direct industrial development and infrastructure to the areas shown on the Industrial strategic framework plan particularly:

- East Bendigo and Wellsford Estate Industrial Precinct.
- Goornong Industrial Precinct.
- Bendigo Airport Business Park Special Use Zone.
- Marong Business Park Comprehensive Development Zone.

Support industrial subdivisions that provide a variety of lot sizes to support different industry types.

Hierarchy	Industrial area	Strategies
Municipal	Bendigo Regional Employment Precinct (future) Marong West (future) Bendigo East	Support a range of uses and employment for the municipality and broader region. Support industrial subdivisions in municipal precincts that provide a variety of lot sizes to support different industry types. Plan for the future Bendigo Regional Employment Precinct to deliver land which supports a range of industrial uses and development. Retain land to the west of Marong for industrial uses and development in the longer term. Encourage a variety of uses including industry, warehouses, limited retail premises and offices in the Bendigo East industrial area. Support the redevelopment of the Railway Workshop in the Bendigo East industrial area. Support the establishment of a business park at the Bendigo Airport.

Hierarchy	Industrial area	Strategies
Secondary	<p>Bendigo North</p> <p>Epsom</p> <p>Golden Square/Golden Gully</p> <p>Kangaroo Flat West</p>	<p>Maintain secondary industrial areas for a range of lower intensity industrial uses and employment opportunities which do not impact on nearby sensitive uses.</p> <p>Limit the expansion of the Bendigo North industrial area to protect more sensitive land uses.</p> <p>Encourage additional warehouses in the Epsom industrial area.</p> <p>Support a suitable mix of low impact industry and other uses which will protect the amenity of adjoining residential areas including service industry, trade supplies, limited retail premises and associated offices in the Golden Square/Golden Gully industrial area.</p> <p>Provide a mix of industry and other uses including service industry and limited retail premises in the Kangaroo Flat West industrial area but limit its expansion.</p>
Local	<p>California Gully</p> <p>Charleston Road, East Bendigo</p> <p>Epsom North</p> <p>Epsom South</p> <p>Epsom South-West</p> <p>Heathcote</p> <p>Kangaroo Flat East</p> <p>Long Gully</p> <p>Specimen Hill</p> <p>Marong</p>	<p>Support low impact industrial, associated business and employment opportunities with limitations on heavy industry and expansion.</p> <p>Retain the existing function of the western part of the California Gully industrial area given its interface with the Eaglehawk Landfill.</p> <p>Limit the expansion and intensification of industrial uses in the Charleston Road, East Bendigo industrial area to protect surrounding sensitive land uses.</p> <p>Support light industry, warehouses and materials recycling in the Epsom North industrial area.</p> <p>Consolidate the Epsom South industrial area with the Epsom Activity Centre over time.</p> <p>Support industry and warehouses in the western part of the Epsom South-West industrial area.</p> <p>Support industrial development, warehouses and limited retail at the Depot Road Industrial Area in Heathcote.</p> <p>Encourage the expansion of warehouses in the Kangaroo Flat East industrial area.</p> <p>Retain land for industry and other uses including warehouses, service industry, trade supplies and limited retail premises in the Long Gully industrial area.</p>

Hierarchy	Industrial area	Strategies
Specialised	Big Hill Eaglehawk Goornong Huntly Junortoun	<p>Limit expansion and support a limited range of uses in specialised industrial areas.</p> <p>Support a mix of industry and warehouses within the Big Hill industrial area.</p> <p>Retain a mix of industry and other uses including warehouses, materials recycling, service industry, trade supplies, limited retail and associated offices in the Eaglehawk industrial area.</p> <p>Provide for rural industries, warehousing, and rural stores in the Goornong industrial area.</p> <p>Provide for diversification and increased development of the existing Huntly industrial area which supports a circular economy and considers separation distances of existing uses.</p> <p>Support land for low intensity industry and limit the expansion of the Junortoun industrial area.</p>

Support the redevelopment of older and underutilised industrial areas for newer types of industry to make more effective use of existing infrastructure.

Support environmentally compatible and ecologically sustainable industry.

Protect existing industrial uses from encroachment by non-industrial uses.

Ensure land in undeveloped areas is not fragmented and remains in large holdings until it is required for development.

Support the revitalisation and renewal of older industrial areas.

Support industrial development in rural townships in areas that will not impact on existing residential amenity.

Discourage industrial use or development in rural areas other than for rural industry.

East Bendigo and Wellsford Industrial Precinct

Facilitate the growth and development of both new and existing local, regional and international industries.

Support development that does not adversely impact on the heritage and environmental values of the surrounding area.

Support the redevelopment of the East Bendigo Railway Workshop for freight or transport related activities.

Goornong Industrial Precinct

Facilitate rural based industries that are compatible with the surrounding rural area.

Avoid subdivision of large landholdings to assist in the attraction of rural based industries to the precinct.

Locate industries that require higher threshold buffer distances under Clause 53.10 in the north of the precinct.

Avoid impacts on surrounding rural land through design, siting and use of buffers.

Provide landscaping to enhance the rural setting of the precinct. Direct industrial development and infrastructure to the areas shown on the Industrial strategic framework plan.

Protect existing remnant vegetation as part of Avoid the fragmentation of land in undeveloped areas that should remain in large holdings until it is required for development.

Bendigo Airport Business Park Special Use Zone

Support ~~new industries at the Bendigo Airport Business Park that are compatible with airport operations~~ the revitalisation and renewal of older industrial areas.

Policy guideline

Consider as relevant:

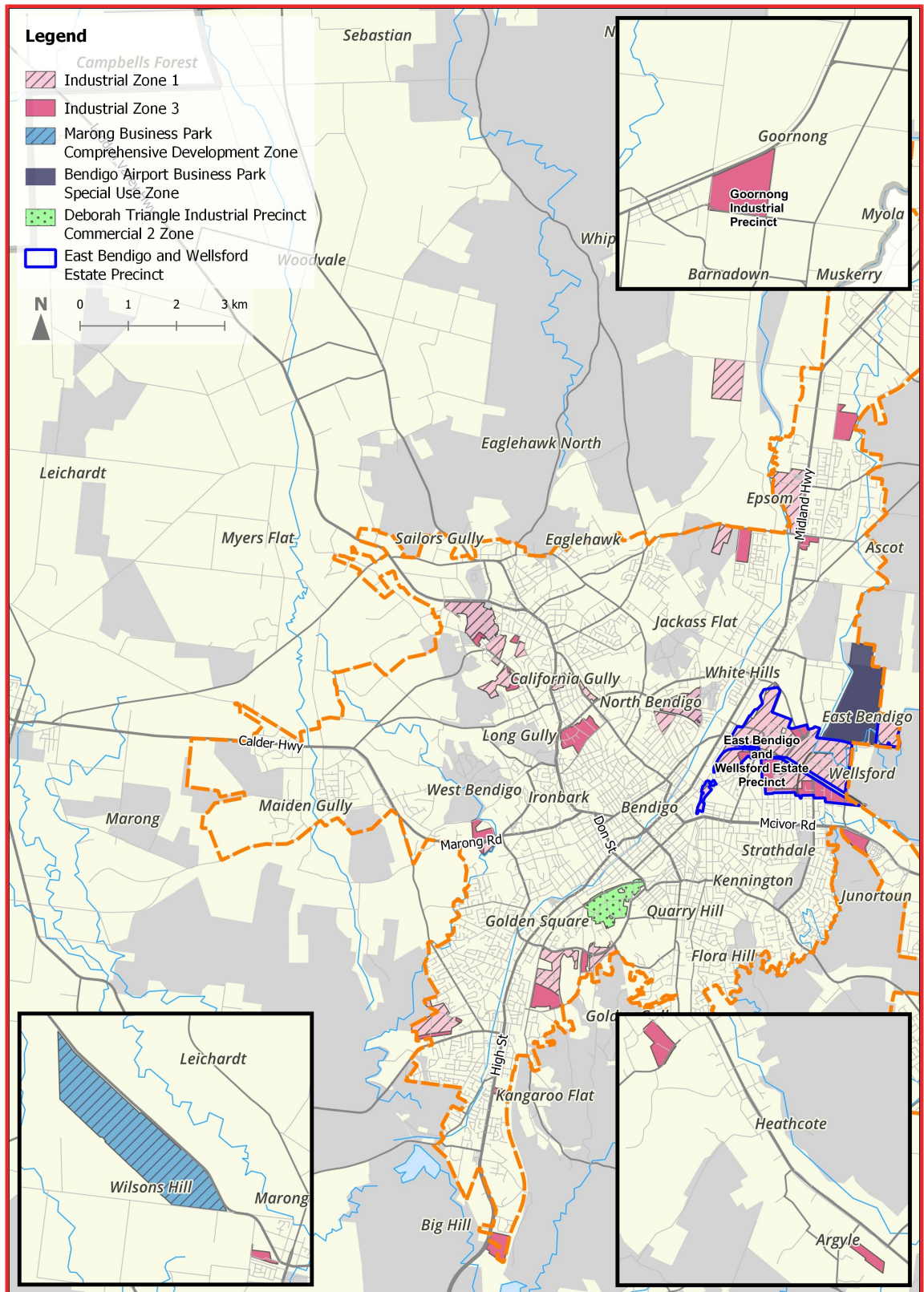
- Providing local species of vegetation as part of any approved landscaping plan in the Goornong Industrial Estate.

Policy documents

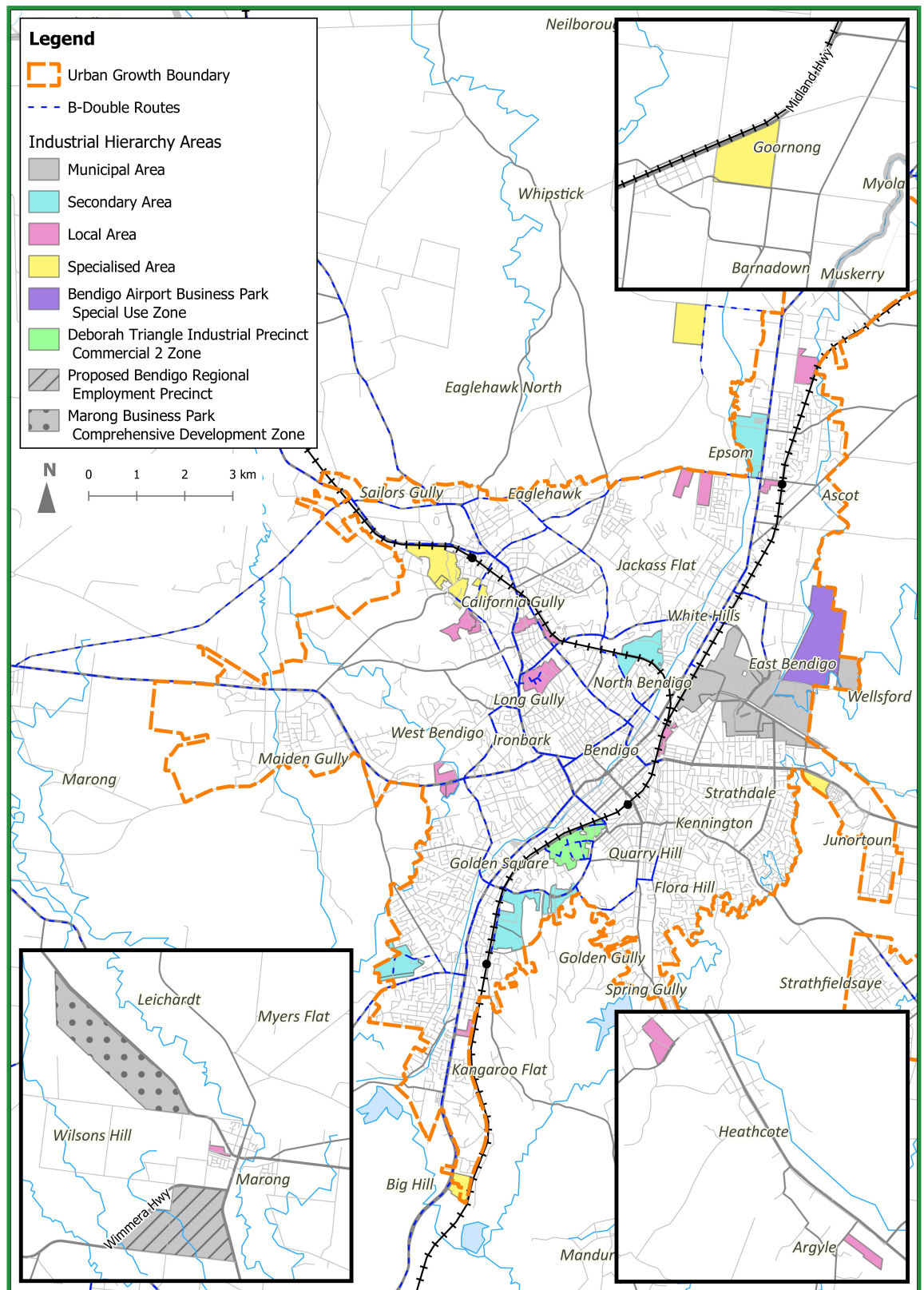
Consider as relevant:

- ~~*Bendigo Industrial Land Strategy* (GHD, June 2002)~~
- ~~*Review of Demand and Supply for Industrial Land in Greater Bendigo*~~ *Greater Bendigo Industrial Land Development Strategy* (SGS Economics and Planning, February 2012 City of Greater Bendigo, February 2024)
- *East Bendigo Local Structure Plan* (Maunsell Australia, 2006 amended 2013)
- *Golden Square Structure Plan* (City of Greater Bendigo, January 2022)

Industrial strategic framework plan



GREATER BENDIGO PLANNING SCHEME



17.03-2S03/03/2023
VC215**Sustainable industry****Objective**

To facilitate the sustainable operation of industry.

Strategies

Ensure that industrial activities requiring substantial threshold distances are located in the core of industrial areas.

Encourage activities with minimal threshold requirements to locate towards the perimeter of the industrial area.

Minimise inter-industry conflict and encourage like industries to locate within the same area.

Protect industrial activity in industrial zones from the encroachment of commercial, residential and other sensitive uses that would adversely affect industry viability.

Encourage industrial uses that meet appropriate standards of safety and amenity to locate within activity centres.

Support the retention of small-scale industries servicing established urban areas through appropriate zoning.

Provide adequate separation and buffer areas between sensitive uses and offensive or dangerous industries and quarries to ensure that residents are not affected by adverse environmental effects, nuisance or exposure to hazards.

Encourage manufacturing and storage industries that generate significant volumes of freight to locate close to air, rail and road freight terminals.

Policy documents

Consider as relevant:

- *Recommended separation distances for industrial residual air emissions* (Publication 1518, Environment Protection Authority, March 2013)

17.03-3S03/03/2023
VC215**State significant industrial land****Objective**

To protect industrial land of state significance.

Strategies

Protect state significant industrial precincts from incompatible land uses to allow for future growth. State significant industrial precincts include but are not limited to:

- Southern Industrial Precinct - Dandenong South.
- Northern Industrial Precinct - Campbellfield, Somerton and Thomastown.
- Western Industrial Precinct - Laverton North and Derrimut.
- Officer / Pakenham Industrial Precinct.
- Port of Hastings Industrial Precinct.

Ensure sufficient availability of strategically located land for major industrial development, particularly for industries and storage facilities that require significant threshold distances from sensitive or incompatible uses.

Protect heavy industrial areas from inappropriate development and maintain adequate buffer distances from sensitive or incompatible uses.

Policy documents

Consider as relevant:

- *Melbourne Industrial and Commercial Land Use Plan* (Department of Environment, Land, Water and Planning, 2020)

SCHEDULE TO CLAUSE 72.08 BACKGROUND DOCUMENTS

1.0

Background documents

44/04/2024 - / - / -
G247gben Proposed C282gben

Name of background document	Amendment number - clause reference
<i>2013-2019 North Central Regional Catchment Strategy</i> (North Central Catchment Management Authority, 2013)	C256gben - Clause 12.01-1L
<i>2014-2022 North Central Waterway Strategy</i> (North Central Catchment Management Authority, 2014)	C256gben - Clause 12.01-1L
<i>A Land Capability Study of the City of Greater Bendigo, Huntly District</i> (Bluml, M et al, November 1995)	NFPS - Clause 14.01-1L, Clause 14.01-2L-01, Clause 16.01-3L
<i>A Land Capability Study of the City of Greater Bendigo, Strathfieldsaye District</i> (Bluml, M et al, October 1995)	NFPS - Clause 14.01-1L, Clause 14.01-2L-01, Clause 16.01-3L
<i>A Land Capability Study of the Rural City of Marong</i> (Bryant, E and Lorimer, M, April 1993)	NFPS - Clause 14.01-1L, Clause 14.01-2L-01, Clause 16.01-3L
<i>All Saints' Anglican Church, School and Master's Residence Conservation Management Plan</i> (City of Greater Bendigo, August 2012)	C197 - Clause 15.03-1L
<i>Axedale Community Plan 2018-2022</i> (Greater Bendigo City Council, December 2017)	C256gben - Clause 42.03s02
<i>Axedale Township Structure Plan</i> (Greater Bendigo City Council, March 2009)	C108 - Clause 42.03s02, Clause 43.02s09
<i>Bendigo Aerodrome Master Plan 2007-2022</i> (Airport Plus Pty Ltd, July 2007)	C175 - Clause 18.04-1L
<i>Bendigo Airport Australian Noise Exposure Forecast for 2032</i> (ANEF 2032) (Kneebone Planning, November 2012)	C175 - Clause 18.04-1L
<i>Bendigo Airport Strategic Plan</i> (City of Greater Bendigo, June 2009)	C175 - Clause 18.04-1L
<i>Bendigo and Eaglehawk Heritage Study</i> (Butler, G and Associates, 1993)	NFPS - Clause 15.03-1L
<i>Bendigo CBD Parking Precinct Plan</i> (City of Greater Bendigo, 2009)	C169 - Clause 45.09s01
<i>Bendigo CBD Parking Strategy</i> (GTA Consultants, October 2008)	C169 - Clause 45.09s01
<i>Bendigo CBD Plan: New Visions, New Opportunities</i> (Planisphere, December 2005)	C86 - Clause 43.02s05, Clause 43.04s20
<i>Bendigo City Centre Heritage Study Stage 1, Volume 2: Individually Significant Places</i> (GML Heritage Victoria Pty Ltd trading as Context, June 2021)	C235gben - Clause 43.01s
<i>Bendigo Highway Entrances and Boulevard Study</i> (TBA Planners et al, 1994)	NFPS - Clause 18.02-3L-01
<i>Bendigo Industrial Land Strategy</i> (GHD, June 2002)	C41 - Clause 17.03-1L
<i>Bendigo Liquor Accord</i> (Victorian Commission for Gaming and Liquor Regulation, September 2019)	C256gben - Clause 13.07-1L
<i>Bendigo Region Destination Management Plan</i> (Urban Enterprises, November 2015)	C256gben - Clause 17.04-1L
<i>Bendigo Urban Flood Study</i> (Water Technology, November 2013)	C221 - Clause 13.03-1L, Clause 44.04s01, Clause 44.04s02

GREATER BENDIGO PLANNING SCHEME

Name of background document	Amendment number - clause reference
<i>Big Hill Enterprise Park Landscape Development Report</i> (Spiire, 2014)	C200 - Clause 43.02s19
<i>Certificate of Environmental Audit, part 47 Lansell Street, East Bendigo</i> (Golder Associates Pty Ltd, January 2016)	C220 - Clause 43.04s16
<i>City of Greater Bendigo Annual Report 2018-2019</i> (City of Greater Bendigo, October 2019)	C256gben - Clause 02.01
<i>City of Greater Bendigo Community Plan 2017-2021</i> (City of Greater Bendigo, June 2019)	C256gben - Clause 02.02, Clause 02.03-9, Clause 19.02-4L
<i>City of Greater Bendigo Domestic Wastewater Management Strategy 2014-15</i> (City of Greater Bendigo, 2014)	C214 - Clause 16.01-3L, Clause 19.03-3L, Clause 42.01s02, Clause 42.01s03
<i>City of Greater Bendigo Gaming Policy Framework – “Accessible but not convenient”</i> (Coombes Consulting Group, October 2007)	C110 - Clause 52.28s
<i>City of Greater Bendigo Good Design Guide for Industry</i> (City of Greater Bendigo, 1997)	NFPS - Clause 15.01-1L-02
<i>City of Greater Bendigo Heritage Study Stage 2: Former Shires of Mclvor and Strathfieldsaye. Volume 1 Key Findings and Recommendations</i> (City of Greater Bendigo, 2009)	C139 Pt 1 - Clause 15.03-1L
<i>City of Greater Bendigo Heritage Study Stage 2: Former Shires of Mclvor and Strathfieldsaye. Volume 2 Heritage Place and Precinct Citations</i> (City of Greater Bendigo, 2009)	C139 Pt 1 - Clause 15.03-1L
<i>City of Greater Bendigo (Marong District) Heritage Study, Stage 1 Report</i> (Andrew Ward, 1994)	C256gben - Clause 15.03-1L
<i>City of Greater Bendigo Residential Character Study</i> (Planisphere, 2001)	C29 - Clause 15.01-5L
<i>City of Greater Bendigo Rural Communities Strategy</i> (City of Greater Bendigo, August 2016)	C256gben - Clause 02.03-2, Clause 02.03-4
<i>Code of Practice for the Operation of Boarding Establishments</i> (Department of Economic Development, Jobs, Transport and Resources, August 2018)	C256gben - Clause 14.01-2L-02
<i>Code of Practice for the Keeping of Racing Greyhounds</i> (Department of Economic Development, Jobs, Transport and Resources, April 2018)	C256gben - Clause 14.01-2L-02
<i>Code of Practice for the Operation of Dog Training Establishments</i> (Department of Economic Development, Jobs, Transport and Resources, August 2018)	C256gben - Clause 14.01-2L-02
<i>Commercial Land and Activity Centre Strategy</i> (City of Greater Bendigo, November 2015 (updated January 2017))	C224 - Clause 11.03-1L, Clause 17.02-1L, Clause 42.02s08, Clause 43.02s04
<i>Connecting Greater Bendigo Integrated Transport and Land Use Strategy</i> (City of Greater Bendigo, August 2015)	C227 - Clause 18.01-1L, Clause 18.02-1L, Clause 18.02-2L, Clause 18.02-3L-01
<i>Eaglehawk Structure Plan</i> (Hansen Partnership, July 2013)	C213 - Clause 43.02s23
<i>East Bendigo Local Structure Plan</i> (Maunsell Australia, July 2006 (amended 2013))	C191 - Clause 17.03-1L
<i>Environmental Management Plan, Capped Area within Crown Allotment 2081, 107 to 125 Holdsworth Road, North Bendigo</i> (URS Australia Pty Ltd, August 2013)	C173 - Clause 37.01s11

GREATER BENDIGO PLANNING SCHEME

Name of background document	Amendment number - clause reference
<i>Environmental Management Plan, Roadways and Fenced Area, 107 to 125 Holdsworth Road, North Bendigo</i> (URS Australia Pty Ltd, September 2013)	C173 - Clause 37.01s11
<i>Forest Park Master Plan</i> (Roberts Day, December 2013)	C190 - Clause 43.04s28
<i>Fortuna Villa Environmental Audit Report</i> (Coffey Environments, October 2012)	C204 - Clause 37.02s01
<i>Greater Bendigo Environment Strategy 2016-2021</i> (City of Greater Bendigo, 2016)	GC110 - Clause 15.02-1L
<i>Greater Bendigo Health and Wellbeing Plan 2017-2021</i> (City of Greater Bendigo, October 2017)	C256gben - Clause 02.03-9, Clause 11.03-1L, Clause 19.02-4L
<i>Greater Bendigo Heritage Policy Citations Review, Revision 2</i> (City of Greater Bendigo, 2011)	C162 Pt 2 - Clause 15.03-1L
<i>Greater Bendigo Housing Strategy</i> (City of Greater Bendigo, January 2018)	C256gben - Clause 02.03-1, Clause 11.01-1L-01
<i>Greater Bendigo Industrial Development Guidelines</i> (City of Greater Bendigo, 2024)	C282gben - Clause 15.01-1L-02
<i>Greater Bendigo Industrial Land Development Strategy</i> (City of Greater Bendigo, February 2024)	C282gben - Clause 17.03-1L
<i>Greater Bendigo Public Space Plan</i> (City of Greater Bendigo, June 2019)	C256gben - Clause 02.03-2, Clause 02.03-9, Clause 12.01-1L, Clause 12.05-2L, Clause 15.01-1L-01, Clause 15.01-3L, Clause 15.03-1L, Clause 18.01-1L, Clause 18.02-1L, Clause 18.02-2L, Clause 18.02-3L-01, Clause 19.02-6L-01, Clause 19.02-6L-02
<i>Greater Bendigo Residential Strategy</i> (City of Greater Bendigo, October 2014 (amended March 2016))	C215 - Clause 11.01-1L-01
<i>Greater Bendigo Thematic Environmental History</i> (City of Greater Bendigo, 2013)	C201 - Clause 15.03-1L
<i>Greater CREATIVE Bendigo</i> (City of Greater Bendigo, November 2018)	C256gben - Clause 02.03-9, Clause 17.04-1L
<i>Heathcote Flood Study</i> (BMT WBM Pty Ltd, March 2016)	C243gben - Clause 13.03-1L, Clause 44.04s01, Clause 44.04s02, Clause 44.04s03
<i>Heathcote-Strathfieldsaye Heritage Study Thematic Environmental History</i> (City of Greater Bendigo, 2002)	C139 Pt 1 - Clause 15.03-1L
<i>Heritage Assessment, Former City of Bendigo Abattoir</i> (Anthemion Consultancies, August 2014)	C220 - Clause 43.04s16
<i>Hospital Precinct Structure Plan</i> (City of Greater Bendigo, September 2014)	C216 - Clause 11.03-6L-02, Clause 43.02s21, Clause 43.02s22, Clause 45.09s02
<i>Huntly Township Plan</i> (Parsons Brinckerhoff, revised December 2009)	C136 - Clause 43.04s25
<i>Infrastructure Design Manual</i> (Local Government Infrastructure Design Association, March 2020)	GC112 - Clause 19.03-2L
<i>Ironbark Heritage Study 2010: volume 1</i> (City of Greater Bendigo, 2010)	C129 - Clause 15.03-1L
<i>Ironbark Heritage Study 2010: volume 2 citations</i> (City of Greater Bendigo, revised July 2011)	C129 - Clause 15.03-1L

GREATER BENDIGO PLANNING SCHEME

Name of background document	Amendment number - clause reference
<i>Jackass Flat Local Structure Plan</i> (Hansen Partnership, April 2007 (amended October 2009))	C133 - Clause 43.04s21
<i>Kangaroo Flat South Regional Centre Structure Plan</i> (Hansen Partnership, May 2006)	C87 - Clause 43.04s17
<i>Land Capability Mapping and Assessment Tools for Wastewater Management</i> (City of Greater Bendigo, 2015)	C214 - Clause 14.01-1L, Clause 16.01-3L, Clause 19.03-3L
<i>Maiden Gully Structure Plan</i> (TBA Planners and Planning Australia Consultants, October 1996)	C128 Pt 2 - Clause 43.02s10
<i>North Central Biolinks Principles and Approaches</i> (RMCG, December 2009)	C256gben - Clause 12.01-1L
<i>North Central Native Vegetation Plan</i> (North Central Catchment Authority, 2005)	C60 - Clause 12.01-1L
<i>Northern Corridor and Huntly Local Structure Plan</i> (Conceptz et al, February 2005)	C69 - Clause 43.02s04, Clause 43.02s08
<i>Plan Greater Bendigo Action Plan</i> (City of Greater Bendigo et al, January 2018)	C256gben - Clause 02.02
<i>Public Open Space Contributions Background Report to Amendment C266gben</i> (City of Greater Bendigo, December 2022)	C266gben - Clause 53.01s
<i>Review of Demand and Supply for Industrial Land in Greater Bendigo</i> (SGS Economics and Planning, February 2012)	C161 Pt 1 - Clause 17.03-1L
<i>Rural Areas Strategy</i> (City of Greater Bendigo, September 2009)	C256gben - Clause 14.01-1L, Clause 16.01-3L
<i>Site Environmental Management Plan, Former VicRoads Depot Buildings, 47 Lansell Street, Bendigo East</i> (Beveridge Williams, January 2016)	C220 - Clause 43.04s16
<i>Statement of Environmental Audit 47 Lansell Street East Bendigo</i> (Golder Associates, December 2005)	C34 - Clause 43.04s16
<i>Strategic Directions Rural Roadside Conservation</i> (City of Greater Bendigo, 2011)	C256gben - Clause 12.01-1L
<i>Strathfieldsaye Township Plan</i> (Centrum Town Planning, amended March 2012)	C232gben - Clause 11.03-6L-03, Clause 43.04s26
<i>Strathfieldsaye Urban Design Framework</i> (City of Greater Bendigo, February 2017)	C232gben - Clause 11.03-6L-03, Clause 43.02s27, Clause 43.02s28, Clause 43.02s29
<i>Urban Stormwater Best Practice Environmental Management Guidelines</i> (CSIRO, May 2006)	C161 Pt 1 - Clause 43.04s29
<i>Vision and Transition Strategy for a Water Sensitive Bendigo</i> (Cooperative Research Centre for Water Sensitive Cities Ltd, July 2018)	C256gben - Clause 02.03-9, Clause 19.03-3L
<i>Walk, Cycle Greater Bendigo</i> (City of Greater Bendigo, September 2019)	Clause 256gben - Clause 02.03-8, Clause 11.01-1L-01, Clause 18.01-1L, Clause 18.02-1L, Clause 18.02-2L

SCHEDULE TO CLAUSE 74.02 FURTHER STRATEGIC WORK**1.0 Further strategic work**44/04/2024
G247gben Proposed C282gben

Review, prepare and implement as appropriate:

- ~~The Industrial Land Strategy and Good Design Guide for Industry.~~
- The City Centre Plan and Parking Strategy.
- A municipal settlement strategy – urban settlement plan including:
 - A bushfire risk assessment.
 - A review of residential and mixed use zones.
 - An investigation of future growth areas.
- A municipal settlement strategy – rural settlement plan including:
 - A review of the Rural Areas Study 2009.
 - Protection for productive farm land and activities including intensive animal industries.
 - Identifying the role of rural townships, small townships and rural living areas.
 - Providing policy guidance for rural industry.
 - Identifying and protecting significant landscapes.
- An environmental significance study including:
 - A review of existing provisions.
 - A native vegetation protection strategy.
 - Urban forest interface and biolink protections.
- A Greater Bendigo greening strategy including:
 - Identification of significant urban trees.
 - An analysis of heat island effect.
 - Landscape and subdivision design guidelines.
 - An urban forest strategy.
- A climate change adaptation strategy.
- Structure plans and development contributions plans for major new greenfield areas:
 - Marong Township.
 - Maiden Gully North East.
- A development contributions plan for Huntly West growth area.
- A future growth plan and development contributions plan for Huntly.
- Public open space projects including:
 - Open Space Contributions policy and schedule.
 - Streetscape protection policy.
 - Zoning and overlay review.
- A Bendigo Creek plan.

- A review of neighbourhood character overlays and policies and design and development overlays.
- Implement flood studies for:
 - Marong.
 - Redesdale.
 - Lockwood
 - Flood mitigation for urban Bendigo.
- A review of the Highway Entrances & Boulevards Study 1994.
- A municipal wide heritage strategy.
- Heritage studies for:
 - The Bendigo City Centre.
 - Golden Square.
 - The former Huntly Shire.
 - Significant trees.
 - Bendigo/Quarry Hill.
 - The urban area that was formerly in Strathfieldsaye Shire.
 - Post War.
 - Eaglehawk/Sailors Gully.
 - Marong.
- Buffers controls for:
 - Eaglehawk Landfill.
 - Bendigo Water Reclamation Plant.
- A review to identify contaminated land including closed landfills.
- Commercial design guidelines, including for shopping centres.
- Residential infill urban design guidelines.
- Urban design frameworks for:
 - Ironbark.
 - Marong.
 - Maiden Gully.
 - Epsom.
 - Kangaroo Flat.
 - Golden Square.
 - Heathcote.
 - Elmore.
 - The University Precinct (including Kennington).
- Structure plans for 10 minute neighbourhoods, in order to apply appropriate residential zones and schedules and overlays and schedules:

- Golden Square.
- Epsom.
- Kangaroo Flat.
- Strathdale and Kennington.
- Kangaroo Flat South.
- Eaglehawk.
- Huntly.
- Maiden Gully.
- Bendigo.
- Strathfieldsaye.
- A structure plan for East Bendigo and Junortoun.
- Structure plans for rural townships:
 - Heathcote.
 - Elmore.
 - Goornong.
 - Redesdale.
 - Structure plan for Lake Eppalock.
- Residential rezonings, as appropriate, in accordance with the housing strategy.
- An affordable housing plan.
- Freight corridor and precinct plans to protect key freight routes, identify heavy vehicle and trailer exchange facilities, and a freight terminal hub.
- Water sensitive urban design guidelines.
- A review of planning controls for the Bendigo Airport.
- A Greater Bendigo development contributions plan framework.
- Prepare a design and development overlay to replace Clause 18.03-2L Calder Freeway and Calder Highway environs.
- A review of current development plan overlay schedules, particularly:
 - The content and application of DPO4.
 - References to external documents in DPOs 16, 20, 25 and 29.
- A review of the application of the SLO and whether it is the most appropriate control to achieve its intended purpose.



Greater Bendigo Industrial Development Guidelines

2024

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Part A - Introduction

1 About the Guidelines

1.1 Purpose of the Guidelines

The purpose of the guidelines is to provide guidance for industrial subdivision and development in Greater Bendigo and to support the recommendations of the Greater Bendigo Industrial Land Development Strategy under Clause 17.03-1L of the Greater Bendigo Planning Scheme.

The guidelines aim to ensure that future industrial subdivision and development is environmentally sustainable, functional and attractive for business operators, employees, visitors and residents, attracting businesses to Greater Bendigo into the future.

1.2 What the Guidelines Do

The guidelines outline how existing and future industrial areas should look, function and how they should respond to the surrounding context and local environment.

The guidelines will:

- Outline the City's vision and expectations for future industrial subdivision and development, and provide applicants with the right information to achieve best practice outcomes.
- Encourage good design outcomes.
- Ensure new industrial subdivision and development contributes to improving the amenity of the surrounding area.
- Outline best practice environmentally sustainable development (ESD) initiatives.
- Ensure new industrial subdivision and development responds to a range of current and future business needs.



Figure 1. A contemporary design approach is preferred for future industrial development

1.3 How the Guidelines Apply

The guidelines apply to all industrial subdivision and development that requires a permit under the City of Greater Bendigo Planning Scheme. The guidelines are an assessment tool that sets out the standards for new subdivision and development, supporting the objectives of the Planning Scheme. The guidelines should be considered for industrial subdivision and development, except in the case where site specific guidance is provided by the City of Greater Bendigo.

1.4 Reference Documents

In addition to the Greater Bendigo Industrial Land Development Strategy and the Greater Bendigo Planning Scheme, applicants should refer to the following documents for further details and guidance:

- City of Greater Bendigo Guide to Disposing Waste
- Infrastructure Design Manual (IDM), and
- Sustainable Infrastructure Guidelines (part of the IDM).

1.5 Document Structure

The guidelines are structured into three parts:

Part A - Introduction
Outlines the permit application process and Environmentally Sustainable Development principles and policy

Part B - Subdivision Guidelines
Please refer to this section if you are applying for a subdivision permit

Part C - Development Guidelines
Please refer to this section if you are applying for a development permit

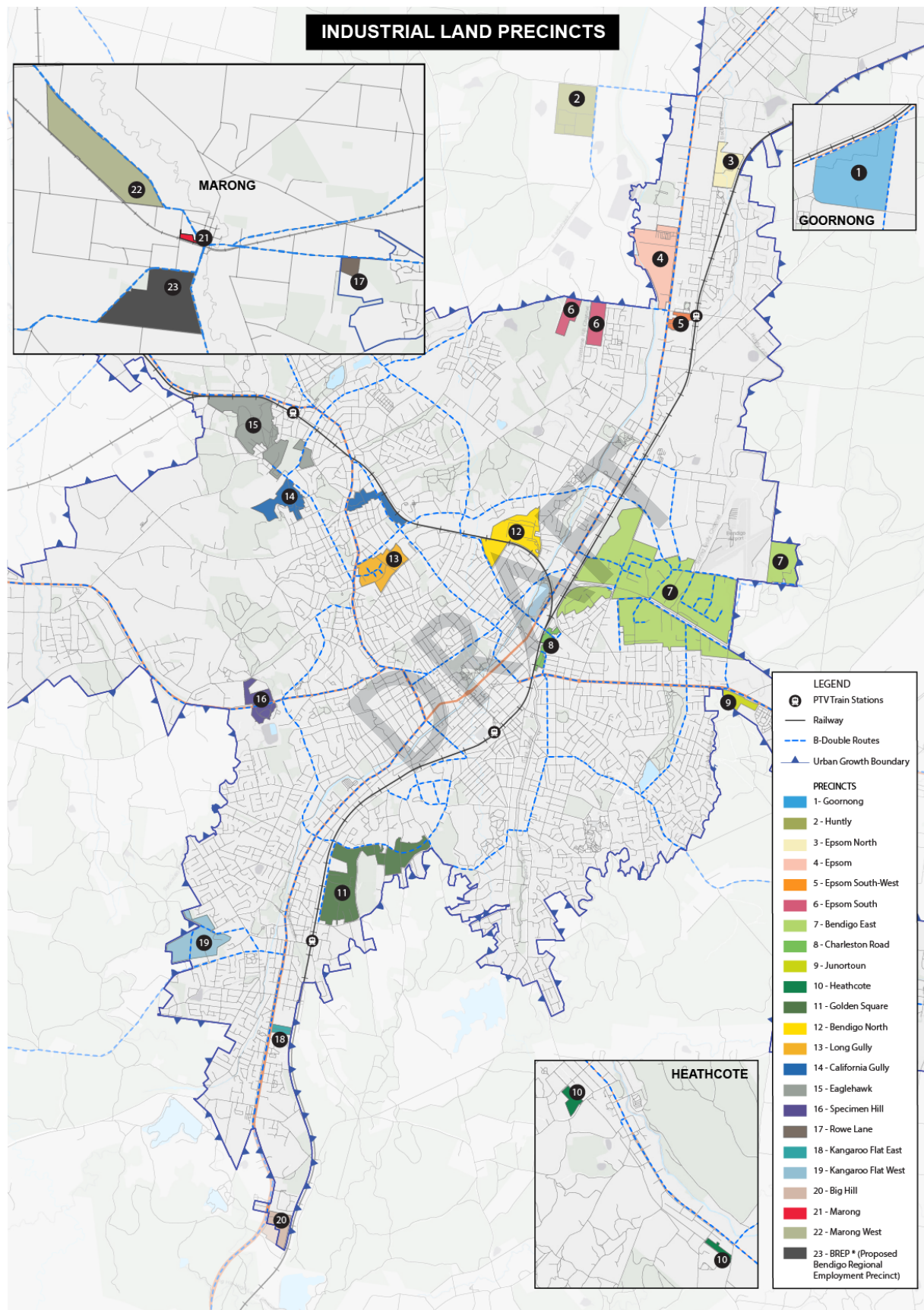


Figure 2. Industrial areas in Greater Bendigo

*These guidelines do not apply to this precinct as the planning and design of the precinct is subject to a separate process.

- **Part B - Subdivision Guidelines** sets out the design guidelines that apply when industrial zoned land is subdivided in the City of Greater Bendigo.

The key sections in Part B are:

- **Section 1 - Site Responsive Design**
Provides guidance on how subdivision design should respond to the local context.
- **Section 2 - Access, Circulation and Parking**
Provides guidance on street network considerations for subdivision design.
- **Section 3 - Lot Layout**
Provides guidance on lot size, shape and orientation.
- **Section 4 - Landscape and Open Space**
Provides guidance on how landscaping should be provided in new subdivisions.
- **Section 5 - Interface Treatments**
Provides guidance on the typical interface types between the public and private realms, and the recommended treatments.
- **Section 6 - Stormwater Management**
Provides guidance on network scale stormwater treatments.

- **Part C - Development Guidelines** sets out the design guidelines that apply to the development of industrial zoned land within the City of Greater Bendigo.

The key sections in Part C are:

- **Section 1 - Site Layout**
Provides guidance on how development should be sited and orientated on sites.
- **Section 2 - Access, Parking and Circulation**
Provides guidance on pedestrian and cyclist access, car parking, vehicle access and loading and servicing.
- **Section 3 - Built Form**
Provides guidance on building design and detail, building heights, colours, materials and finishes and indoor environment quality.
- **Section 4 - Landscaping**
Provides guidance on landscape design, including planting, fencing and outdoor amenity.
- **Section 5 - Services and Infrastructure**
Provides guidance on site services, stormwater treatment, waste and external lighting.
- **Section 6 - Interface Treatments**
Provides guidance on interface treatments including residential, open space, roads and railways.

1.6 Approvals Process

Before applying for a planning permit, applicants are encouraged to meet with City officers to:

- Discuss what information is required for the application.
- Discuss any relevant development constraints.
- Confirm which guidelines are relevant to their particular application.

1.7 Assessing Permit Applications

Development proposals will be assessed on their merits, taking into account the particular characteristics of the development and its context.

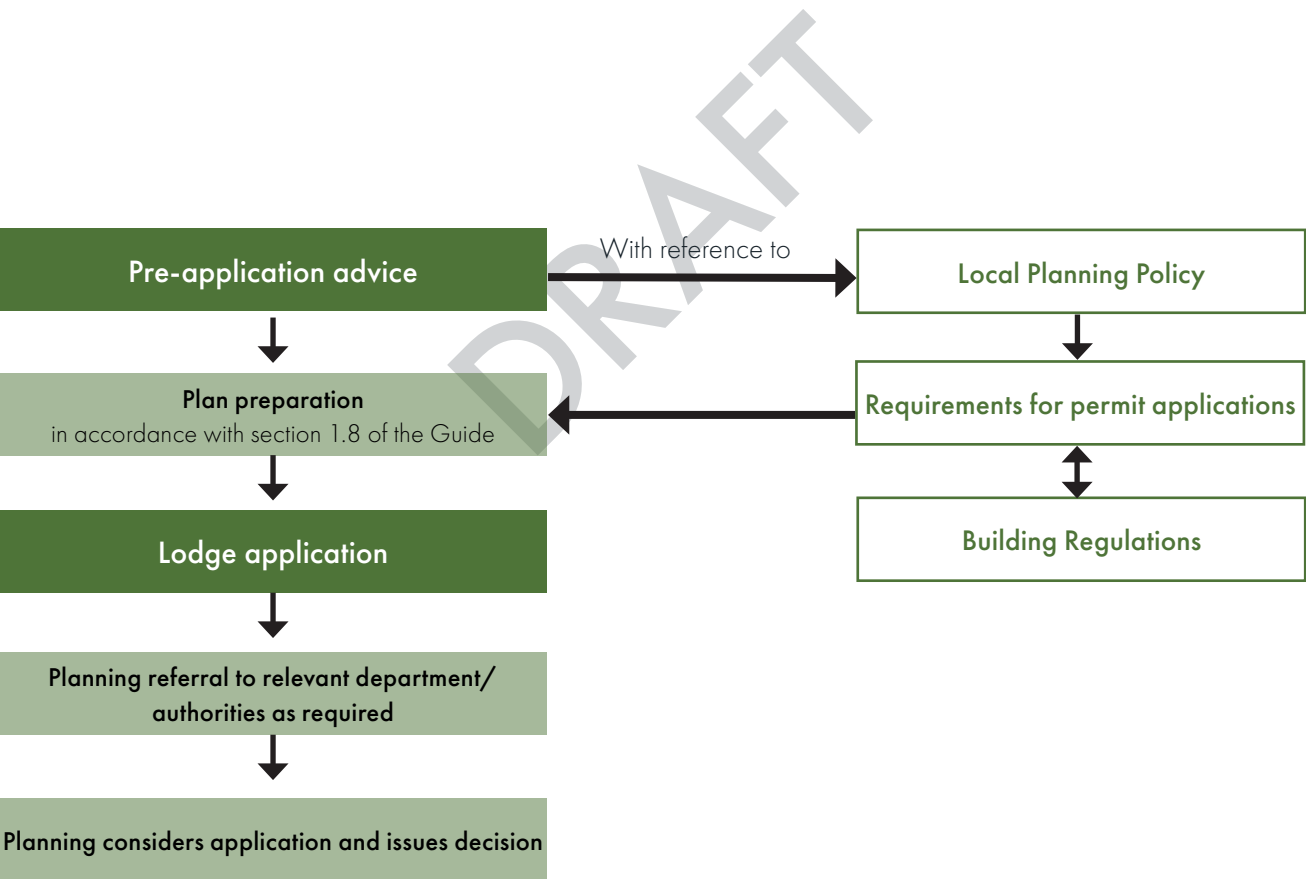


Figure 3. Key steps in the permit approval process

1.8 Requirements For Permit Applications

For subdivision and development applications the Planning Scheme requires that the following drawings and reports are to be prepared and submitted as part of the permit application.

Subdivision and Development Applications:

- **Site Context Plan** - Identifies surrounding land uses, built form siting, landscape elements and transport networks.
- **Site Layout Plan** - Details the boundaries and dimensions of the site, adjoining roads, relevant ground and drainage levels, the layout of existing and proposed buildings and works, driveways and vehicle parking and loading areas, proposed landscape areas, and external storage and waste treatment areas.
- **Landscape Plan** - includes a description of vegetation to be planted, the surfaces to be constructed, a site works specification and the method of preparing, draining, watering and maintaining the landscape area.
- **Floor Plans** - Building layout plans.
- **Elevations and Cross Sections** - Required as necessary to show the dimensions, colours and materials of all buildings and works.
- **Guidelines Response Submission** - A policy statement outlining the details on how the development responds to the objectives and, in the case that guidelines are not met, providing justification on how the objectives are being satisfied.

In addition, other plans and reports that will be required by the responsible authority or referral authorities as part of an application include:

- Traffic Report and Management Plan
- Swept paths/vehicle turning movement Plan
- Site Management Plan
- Soil Management Plan (for contaminated sites)
- Acoustic Assessments (for change of use applications).



Figure 4. The purpose of this Guide is to encourage high quality subdivision and development outcomes in industrial areas throughout the Greater Bendigo

2 Environmentally Sustainable Development

2.1 Overview

The City is committed to creating an environmentally sustainable municipality. Critical to achieving this commitment is for development to incorporate appropriate environmentally sustainable design principles and standards where relevant.

Greater Bendigo's Environmentally Sustainable Development (ESD) policy is outlined under Clause 15.01-2L of the Greater Bendigo Planning Scheme. Some industrial development applications will trigger the requirement for a sustainable design assessment to be prepared and submitted as outlined under Clause 15.01-2L. The consideration and adoption of ESD principles is encouraged nonetheless, and can provide a number of benefits that include:

- Reductions in operational and running costs through the improved efficiency of buildings.
- Improved amenity and comfort for building occupants.
- Avoiding or minimising excessive future costs of retrofitting ESD principles/features into a building.
- Overall improved standards of environmental sustainability.



Figure 5. Fixed external shading devices are a simple and effective design element that reduce the heat transfer through the buildings fabric resulting in reduced energy demands

2.2 Objectives

Best practice ESD is defined as a combination of commercially proven techniques, methodologies and systems, appropriate to the scale of development and site specific opportunities and constraints, which are demonstrated and locally available and have already led to optimum ESD outcomes. Best practice in the built environment encompasses the full life of the building and not only the upfront construction costs of a development.

ESD objectives and guidelines have been incorporated into any applicable section of subdivision and development guidelines throughout the guide.

Part B - Subdivision Guidelines

1 Site Responsive Design

1.1 Site and Context Assessment

Objectives

- To ensure new subdivisions are designed to respond to the local characteristics of the site and its context.

Guidelines

- 1.1.1** Undertake a site investigation before any subdivision design is undertaken so that the new subdivision will respond to the surrounding context in the most appropriate way. It is desirable to undertake analysis of and provide a design that responds to:
- Surrounding land uses and sensitive interfaces.
 - Surrounding transport networks, detailing connections to existing (and any proposed) road, pedestrian and cycle paths, and public transport services (refer to Figure 7).
 - Areas of high-retention value vegetation.
 - Climatic conditions including solar access and prevailing winds.
 - Predominant landscape and cultural heritage character of the area.
 - Assessment of drainage systems both within and beyond the site.
 - Views from within the site to significant land forms and from key public locations (refer to Figure 8).

2 Access and Circulation

2.1 Street Network

Objectives

- To ensure interconnected street networks provide efficient transport movements and integration with surrounding urban and rural areas.
- To provide sufficient capacity within the road network to cater for the needs of industrial uses and emergency vehicles.
- To provide site responsive street networks that integrate with the environmental and landscape features of the site.
- To limit the impacts of heavy vehicles on adjoining residential areas.

Guidelines

- 2.1.1** Provide a logical road hierarchy that can be easily understood by all road users. Streets should connect to existing established road networks with consideration of future connections to adjoining areas (refer to Figure 6).
- 2.1.2** Provide connected road networks to enable greater pedestrian, cycle and vehicle permeability, avoiding the use of cul-de-sacs in new subdivisions.
- 2.1.3** Design street networks to integrate with natural drainage systems and accentuate the topographic features of the site (refer to Figure 8).
- 2.1.4** Maximise passive solar access opportunities for allotments by orientating roads on a north-south and east-west axis (refer to Figure 6).
- 2.1.5** Design roads and streets so lots front onto open space (refer to Figure 6).
- 2.1.6** Design roads in accordance with the Infrastructure Design Manual and Sustainable Infrastructure Guidelines.

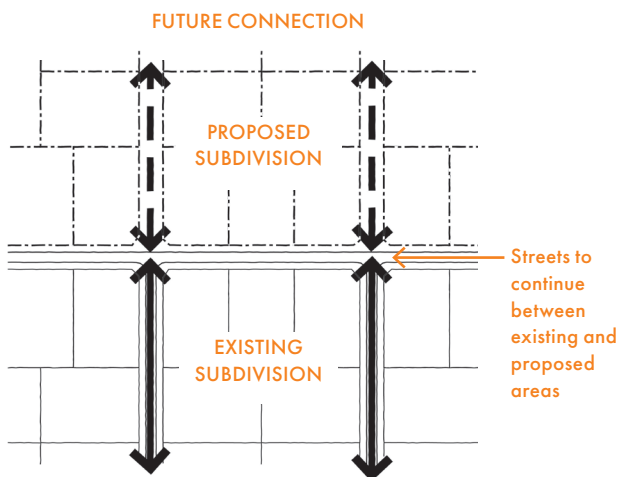


Figure 6. Connection to adjoining subdivisions

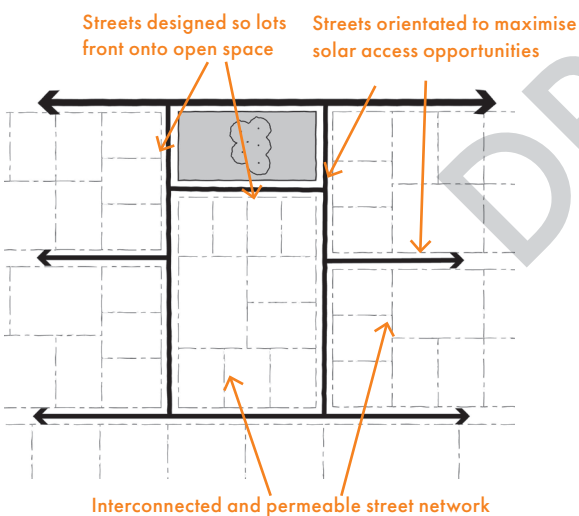


Figure 7. Indicative subdivision layout

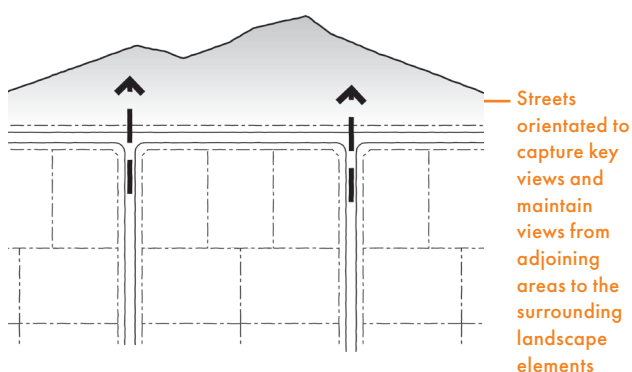


Figure 8. Orientation of streets to key views

2.2 Pedestrian and Bicycle Access

Objectives

- To ensure pedestrian and cycle access is integrated into the design of future subdivisions.
- To provide for safe and convenient access for pedestrians and cyclists, ensuring there is adequate separation of pedestrian, cyclists and heavy vehicles.

Guidelines

- 2.2.1 Develop a pedestrian and bicycle network as part of the subdivision application that provides for continual and safe access between the future allotments and the surrounding services, facilities and public transport within the area. The network should connect into existing trails where possible and provide signage to direct people to these connections.
- 2.2.2 Provide shared paths to allow for a comfortable level of separation between pedestrians and cyclists.
- 2.2.3 Provide shared paths with a sealed surface and a minimum width of 2.5m.
- 2.2.4 Provide sealed pedestrian paths on both sides of the road (except where there is a shared path). that are a minimum width of 1.5m.



Figure 9. A sealed pedestrian path, street trees and landscaping are key elements that contribute to a walkable environment

3 Lot Layout

3.1 Lot Size and Shape

Objectives

- To create suitably sized allotments that are functional, accessible and contribute positively to future streetscapes.
- To provide for a diversity of lot sizes and enable flexibility within allotments to cater for a range of industrial and business uses.
- To ensure lot design responds to key site constraints and features whilst providing lots of a feasible size.
- To maximise passive solar design through the orientation of allotments.

Guidelines

- 3.1.1** Design lots so the primary frontage is addressing the higher order road. In the case where there are two street frontages, ensure the lot is orientated to allow the building to front onto the higher order road (refer to Figure 10).
- 3.1.2** Design lots to ensure efficient building envelopes can be achieved. Lots should be regular in shape to provide for efficient use of land and enable a range of industrial and business uses to be accommodated on the lot.
- 3.1.3** Maximise passive solar access opportunities for allotments by orientating roads on a north-south and east-west axis (refer to Figure 10).
- 3.1.4** Orientate lots so that buildings, where possible, can capture views to the surrounding landscape, and with consideration of significant trees and local topography (Refer to Figure 10).

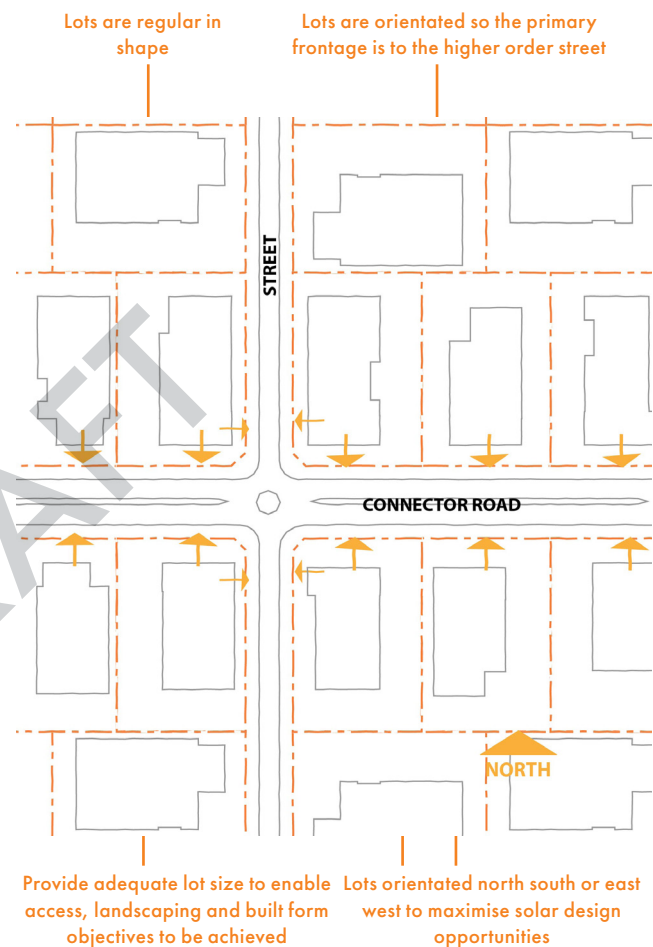


Figure 10. Indicative lot layout where the lots are orientated north south or east west to maximise passive solar design opportunities, and with the primary frontage addressing the higher order street

4 Landscape & Open Space

4.1 Streetscapes

Objectives

- To provide streetscapes that respond to particular characteristics of the site and area and encourage the protection of high-retention value trees.
- To ensure landscape areas within streetscapes are durable and require minimal maintenance.

Guidelines

- 4.1.1** Develop a landscape masterplan for new streetscapes in subdivisions. The landscape masterplan will outline how the design:
- Incorporates elements of the local character, through the provision of verges, incorporating existing significant vegetation and utilising swale drains where practical. Verges should be wide enough to accommodate large street trees, particularly when located adjacent to a creek reserve.
 - Utilises street tree spacing and siting to reinforce the desired character for an area. This could include formalised avenue planting for areas such as estate entries and planting to reinforce the character of a street.
 - Utilises low level native or indigenous shrubs and grasses in conjunction with canopy trees.
 - Utilises low maintenance passive irrigation techniques to irrigate street trees with captured stormwater.



Figure 11. Landscaping is a key design element in sub-division design



Figure 12. Incorporating trees into car park design

5 Interface Treatments

5.1 Site Interface Treatment

Objectives

- To carefully manage the interface between industrial uses and adjoining sensitive land uses, rural areas, and sensitive environmental areas.
- To ensure adequate visual and sound buffers are provided to adjoining residential areas.

Guidelines

- 5.1.1** Ensure there is adequate separation between proposed industrial areas and adjacent residential, low density residential and sensitive uses. A road with a landscape buffer or a substantial open space area are effective ways of creating attractive separation between uses. Buffers should incorporate landscape screening and noise attenuation techniques such as planting and mounding. In the case where these are not considered practical by the responsible authority, provide larger lots at the interface to residential, low density residential, or rural areas so that a substantial landscaping screen can be accommodated within the proposed industrial allotment (refer to Figure 13).
- 5.1.2** Design the road network so that development will front onto the major road. Provide direct access to the road where considered appropriate, or utilise service roads.
- 5.1.3** Provide a road between open space, creek or any water bodies and the proposed subdivision so that development can front onto the interface to provide passive surveillance and capture an attractive outlook. Alternatively a pedestrian path / driveway can be provided if a road is not required or feasible.

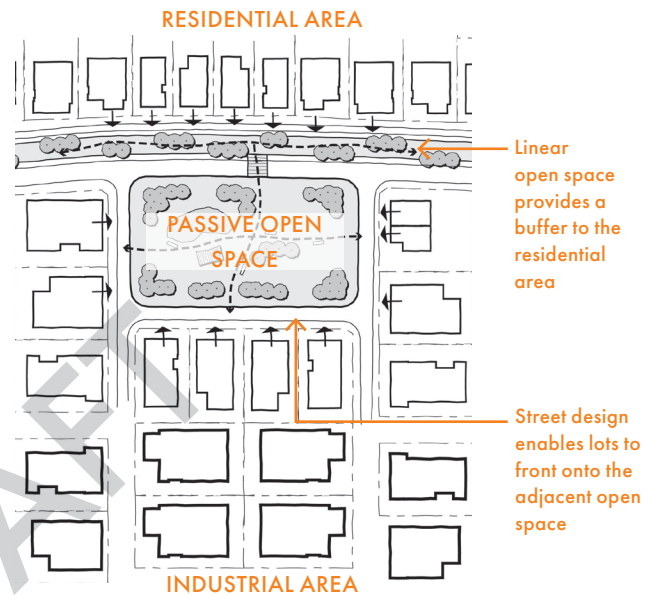


Figure 13. This plan demonstrates the recommended lot frontages to open space

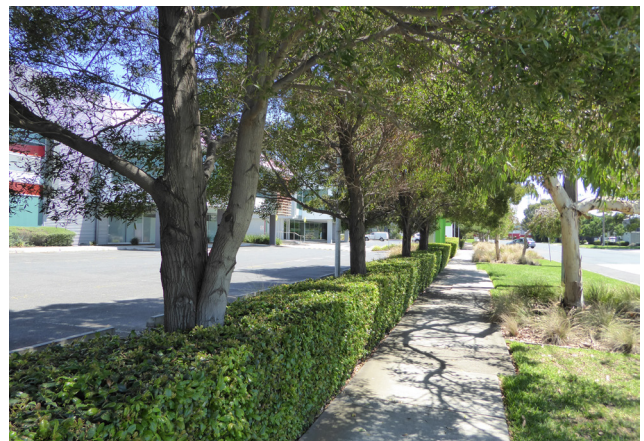


Figure 14. Example of a landscape treatment that improves the streetscape amenity

6 Stormwater Management

6.1 Stormwater Management

Objectives

- To ensure streets and drainage perform during storm events.
- To minimise any increase in stormwater run-off and protect receiving waters from environmental degradation.
- To capture, retain, treat and re-use stormwater before it is discharged into natural systems.

Guidelines

- 6.1.1** Ensure stormwater and drainage infrastructure is provided in accordance with Council's Engineering Requirements as outlined in the Infrastructure Design Manual (IDM). An integrated 'whole of cycle' approach to water management, involving capture optimisation, retention, treatment and re-use of water on site should be undertaken with consideration of:
- Responding to natural site drainage characteristics.
 - Retaining and enhancing the function of natural drainage features in the area including drainage corridors and waterways. Development should be set back from the drainage corridors and waterways in accordance with any referral authority requirements and State Planning Policies.
 - Utilising pervious surfaces to maximise infiltration and incorporating other water sensitive urban design (WSUD) treatments to manage storm water run-off in streets.
 - Treating stormwater on-site before it is discharged into the drainage system or waterways to the satisfaction of the relevant referral authority.
 - Meeting the relevant flood protection criteria as determined by the responsible authority.
 - Creating attractive landscape features within sites or streetscapes, that are easily maintained.



Figure 15. A grass channel incorporated into the road verge will passively treat storm-water run-off



Figure 16. Locating a naturally vegetated swale within a car park increases visual amenity whilst providing passive infiltration

Part C - Development Guidelines

1 Site Layout

1.1 Site Responsive Design

Objectives:

- To ensure new development is designed to respond to the local site characteristics and surrounding context.
- To ensure new buildings are appropriately located to prevent any significant loss of vegetation and amenity to adjacent buildings, residential areas and surrounding streetscapes.
- To utilise opportunities the site presents to employ Environmentally Sustainable Design (ESD) principles.

Guidelines:

- 1.1.1** Develop a site responsive design with consideration of:
- Existing and future land uses and how they might interface with the site.
 - Treatment of any surrounding sensitive interfaces.
 - Existing and future transport networks, and connections to road, pedestrian and cycle paths, and public transport services.
 - Existing built form character and heights of buildings on adjoining sites.
 - Areas of existing vegetation.
 - Predominant landscape and cultural heritage character of the area.
 - The drainage systems both within and beyond the site.
 - Views both from within and to the site.
 - Maximising passive design techniques such as capturing northern light and prevailing winds.

1.2 Building Setbacks

Objectives:

- To create cohesive streetscapes that are characterised by consistent building setbacks.
- To ensure the siting of buildings provides adequate space for landscaping and planting and strengthens the landscape character of the area.

Guidelines:

- 1.2.1** Set the building back from the property boundary on a major road to be consistent with the predominant front setbacks in the street, where the surrounding lot sizes and uses are consistent.
- 1.2.2** Provide side setbacks to create adequate space for standalone buildings and spaciousness between buildings.
- 1.2.3** Avoid locating rainwater tanks, secondary buildings or storage areas in front setbacks where practical.

1.3 Building Siting and Orientation

Objectives:

- To ensure buildings are appropriately sited to address the primary street frontage.
- To ensure building frontages provide opportunities for passive surveillance of the surrounding public realm.
- To provide opportunities for access to daylight and natural ventilation in buildings.
- To minimise impacts of overshadowing development on adjoining uses.
- To maximise opportunities for passive heating and cooling techniques.

Guidelines:

- 1.3.1 Site buildings so that the building frontage (i.e. entrance, reception, customer service area) is parallel to and opens onto the primary street frontage.
- 1.3.2 Orientate buildings so that loading and servicing, and large areas of car park (greater than 20 spaces) are preferably located to the rear or the side of the site.
- 1.3.3 Where practical, orientate habitable areas, particularly offices, to take advantage of the northern aspect and shading devices to control internal light and height.
- 1.3.4 Ensure no structures are built over existing or required easements.



Figure 17. Front entrances of industrial buildings, usually the office area, should be identifiable from the street



Figure 18. Buildings are to be setback from the property to create a cohesive, landscaped street frontage

2 Access, Parking and Circulation

2.1 Pedestrian and Cyclist Access

Objectives:

- To provide safe and convenient pedestrian access throughout new developments.
- To provide safe cyclist access and the provision of comfortable end of trip facilities.
- To minimise conflict between vehicles, bikes and pedestrians.

Guidelines:

- 2.1.1 Provide clearly defined pedestrian and cyclist entry points from the footpath or shared path into the site.
- 2.1.2 Provide clear sight lines at vehicle crossover points to minimise potential conflict between vehicles, pedestrians and cyclists.
- 2.1.3 Separate pedestrian and bicycle circulation from vehicle movements, particularly loading and servicing vehicles, where possible.



Figure 19. Clearly defined pedestrian pathways are important within car parks to avoid potential pedestrian vehicle conflict



Figure 20. Landscaping provides greenery whilst delineating a clear pedestrian path through a car park

2.2 Vehicle Access

Objectives:

- To provide safe, convenient and efficient access for all vehicles within industrial sites.
- To minimise the impacts of vehicle crossovers on pedestrian and cyclist access and streetscape, where possible.

Guidelines:

- 2.2.1** Locate site entry and exit points to enable clear sight lines from the street.
- 2.2.2** For small sites, limit driveway crossovers to one consolidated entry and exit point in order to minimise disruption to footpaths.
- 2.2.3** Design vehicle accessways to enable all vehicles to enter and exit the site in a forward direction. Additional crossovers are permitted where there is a loop circulation network within the site. For sites where B-double access is required, a Traffic Engineer's report should be provided to demonstrate that the vehicle can enter and exit and manoeuvre within the site safely, efficiently and with minimal impact on the streetscape and surrounding uses.

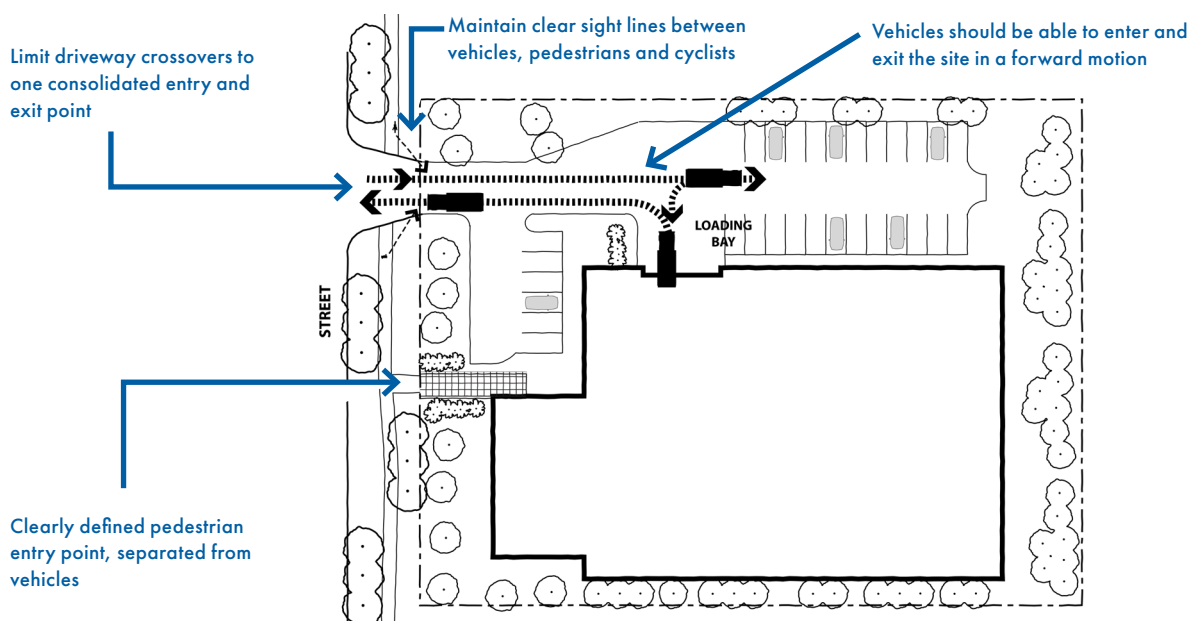


Figure 21. Vehicle and pedestrian movement plan

2.3 Loading and Servicing

Objectives:

- To provide safe and efficient loading and servicing of industrial sites and operational premises.
- To minimise the visual impact of loading bays and service areas when viewed from the surrounding streets and public realm.

Guidelines:

- 2.3.1 Locate loading areas to the rear or side of the site away from the primary street frontage (refer to Figure 22).
- 2.3.2 Locate loading and servicing areas so that all loading activities are completely contained within the site. No part of the vehicle should extend into the public road reserve when loading/unloading.
- 2.3.3 Integrate loading areas into the design of the building so that loading occurs internally, where practical. If loading areas are visible from adjoining land uses, utilise landscaping or articulated built form to screen loading areas.
- 2.3.4 Separate loading areas from pedestrian and bicycle access routes, and where practical, from vehicle access routes.
- 2.3.5 Ensure storage and loading areas are of sufficient size and dimensions to avoid the use of car parks for temporary storage of goods.
- 2.3.6 Define loading areas with line marking to allow unobstructed vehicle access and provide appropriate turning areas in accordance with Australian Standards AS 2890.2 - Parking facilities Part 2: Off-street commercial vehicle facilities.

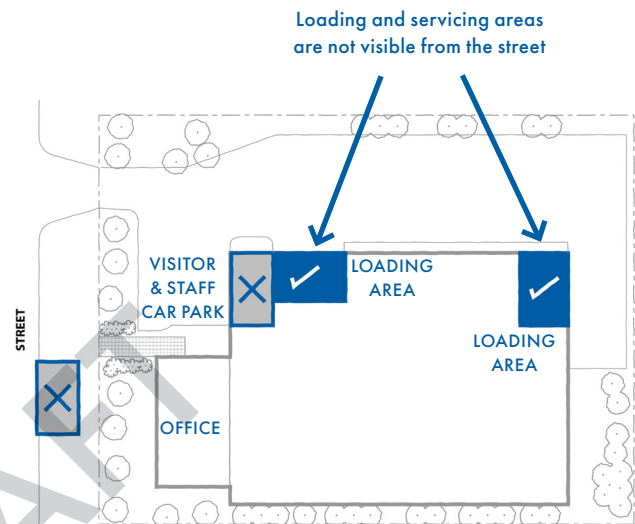


Figure 22. Loading areas should be located away from primary road frontages

2.4 Car Parking Provision, Layout and Design

Objectives:

- To ensure the location, design and layout of vehicle parking areas are integrated into the site planning, and are logical and legible to employees and visitors.
- To provide safe and secure car parking that meets the maximum safety standards, reducing conflict between vehicles, pedestrians and cyclists.
- To provide adequate parking spaces and facilities.
- To encourage the delivery of attractive and sustainable vehicle parking areas that integrate WSUD principles.

Guidelines:

- 2.4.1 Vehicle access and parking bays must be drained and sealed with an all weather surface.
- 2.4.2 Customer car parking and accessible car spaces should be conveniently located in proximity to the primary building entrance.
- 2.4.3 Minimise the visual impact of large parking areas by locating them at the side or rear of the site (refer to Figure 23).
- 2.4.4 Maximise tree canopy coverage in car parks to provide shading and reduce urban heat island effect.
- 2.4.5 Design car parks with integrated WSUD treatments to treat stormwater and irrigate surrounding vegetation.
- 2.4.6 Provide security lighting in car parking areas.

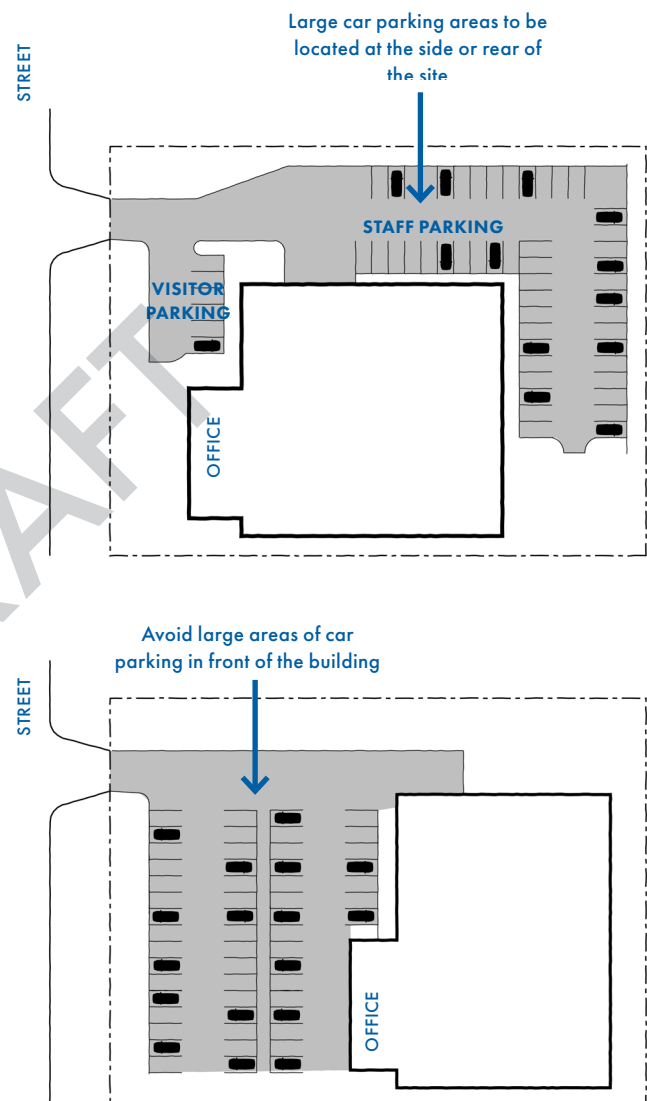


Figure 23. Locate small visitors car parks at the building's front entrance and large parking areas at the side or rear of the site

3 Built Form

3.1 Building Design and Detail

Objectives:

- To encourage site responsive and ESD outcomes that improve the amenity, environmental performance and minimise on-going operational costs of industrial development.
- To provide industrial buildings that are fit for purpose and representative of industrial use.
- To encourage flexible and innovative industrial building design that allows for a variety of uses and future adaptation as industry needs change over time.

Guidelines:

- 3.1.1 Design industrial buildings to be reflective of an industrial form of development.
- 3.1.2 Locate primary building entrances at the front of the building and design windows to overlook the street and surrounding public realm.
- 3.1.3 Design office areas to read as a separate architectural component in design and scale from the industrial component of the building, locating office areas at the front of the building and factory and warehouse facilities to the rear of the building.
- 3.1.4 Provide weather protection at the front building entry.
- 3.1.5 Design facade treatments with variation in articulation, materials and colour but avoiding excessive detailing.
- 3.1.6 Maximise north facing windows and ensure appropriate external shading.
- 3.1.7 Minimise west facing windows and where necessary, provide adjustable external shading.
- 3.1.8 Use light coloured, low solar absorption roofing materials.
- 3.1.9 Ensure expansive building walls visible from the street, public open space or key public viewing areas are articulated to provide visual interest. Avoid excessive blank walls in areas visible from the primary street entrance.
- 3.1.10 Design secondary buildings to be consistent with the overall design theme of the site.

3.1.11 Design and specify glazing ensuring the performance criteria responds to the location, size, quality and shading requirements to ensure:

- Natural daylight penetrates into office and workshop areas without being converted to heat.
- Sufficient levels of daylight are achieved to illuminate work areas and reduce artificial lighting levels.
- Glare is minimised.
- Access to external views.



Figure 24. An example of a building addressing both street frontages on a corner lot



Figure 25. The office component of the factory is expressed as a separate architectural element that is of a human scale

3.2 Building Height

Objectives:

- To ensure building heights respond to the predominant scale of the built form in the surrounding area.
- To ensure buildings are appropriately scaled to maintain key views in surrounding areas.
- To ensure new buildings have minimal impact on the amenity of any adjoining public realm and residential areas.

Guidelines:

- 3.2.1** Building heights should respond to the scale of existing development in surrounding areas, particularly to adjoining residentially zoned areas.
- 3.2.2** Where an industrial development is visible from a surrounding sensitive area, it should be demonstrated that the tallest building element will have minimal visual impact on the sensitive use.

3.3 Roof Design

Objectives

- To provide articulated roof forms that create visual interest and variation in the surrounding streetscape.
- To maximise the use of ESD initiatives such as rooftop solar photovoltaic systems and green roofs, where feasible.

Guidelines:

- 3.3.1** Design roof forms to integrate with the prevailing roof forms in the surrounding area, be simple in design, and detailed to reflect their non-residential character. Roof forms should be low pitched unless necessitated by the particular industry function. Where appropriate, steeper pitched roof elements may be used to reduce the apparent bulkiness of large roof areas.
- 3.3.2** Design the roof form to delineate the office and entry areas from the industrial components of the building.
- 3.3.3** Locate and screen roof mounted building infrastructure and services to minimise visibility from the street.
- 3.3.4** Design the roof pitch with a minimum 10 degree angle to accommodate the installation and use of photo voltaic panels.
- 3.3.5** Design roofs in large span buildings to harness natural light for ambient daylight.
- 3.3.6** Consider incorporating green facades or green roofs (where feasible) to reduce heat loads on internal building spaces.

3.4 Colour, Materials and Finishes

Objectives:

- To support the desired contemporary character of industrial development and encourage the detailing of high quality materials and appropriate architectural treatments.
- To encourage the use of materials that are robust, durable and require low maintenance.
- To encourage the use of a coordinated palette of building colours, material and finishes.
- To encourage the use of sustainable and recycled materials during the design, construction and operational stages of development.
- To use light coloured roofing materials.

Guidelines:

- 3.4.1 Design new buildings using contemporary materials and finishes.
- 3.4.2 Use materials, finishes and/or colours to provide articulation in the building facade. Avoid the excessive use of unfinished pre-cast concrete walls.
- 3.4.3 Design building entries, foyers and office spaces with a high level of transparent facade materials to provide passive surveillance opportunities over the surrounding public realm.
- 3.4.4 Specify high performance facade treatments that are well sealed for improved environmental performance.
- 3.4.5 Use recycled and sustainably sourced materials, where possible.
- 3.4.6 Use a cohesive colour palette that compliments the surrounding context.

3.5 Indoor Environment Quality

Objectives:

- To provide healthy and comfortable indoor work environments for all occupants.

Guidelines:

- 3.5.1 Design and configure office areas to minimise internal noise reverberation and reduce noise levels and leakage from adjacent operational areas.
- 3.5.2 Design the office and amenity areas of industrial buildings with appropriate levels of insulation to stop heat gain, loss and fluctuation through walls, windows, ceilings and floors.
- 3.5.3 Ensure the office and internal amenity areas of buildings have internal ventilation systems that provide high quality, fresh air.
- 3.5.4 Ensure primary office areas achieve a daylight factor of at least 2% for at least 30% of the office area.
- 3.5.5 Ensure building glazing has a Visual Light Transmittance (VLT) of equal or greater than 40%.

4 Landscaping

4.1 Landscape Design

Objectives:

- To encourage sustainable landscape design principles that respond to the characteristics and qualities of the particular site and local area.
- To encourage high quality, attractive landscaping that positively contributes to the streetscape, particularly within front setbacks.
- To protect significant trees and vegetation.
- To encourage the use of local, drought tolerant, and low ongoing maintenance species.
- To provide definition and screening between properties.

Guidelines:

Tree siting and area requirements

- 4.1.1 Design and site buildings to retain existing high retention value vegetation on site where possible. Remnant trees should be retained and included in the landscape design. Incorporate existing vegetation into building setbacks, building recesses or within open space areas.
- 4.1.2 New buildings, driveways, and vehicle crossovers should be setback from tree protection zones areas of trees that are to be retained.
- 4.1.3 Avoid locating tree species where the root system might impact on services and assets within the road reserve.
- 4.1.4 Provide for the effective impact of vegetation by planting at appropriate densities, and where possible, consolidating landscape areas. Shrubs, grasses, hedges and ground covers should be planted at a minimum of 2-4 plants per m².
- 4.1.5 Site large trees with consideration of their ability to shade windows (and minimise the need for internal mechanical cooling).

Primary frontage landscape zones

- 4.1.6 Landscaping must be incorporated into 1.5m wide (minimum) front setback. Where the primary frontage is adjacent to a residential area, or a major road, a landscape zone is required (refer to Figure 26).
- 4.1.7 Use a two-layer planting of semi mature trees and low growing shrubs (less than 900mm high) to maintain visibility and surveillance in front setbacks.
- 4.1.8 Consider providing elements within the front landscape setback that will encourage use of the space by staff and visitors.
- 4.1.9 Corner sites should provide landscaped setbacks to both street frontages to the satisfaction of the responsible authority.

Side and rear boundary landscape zones

- 4.1.10 Provide a landscape buffer along the rear property setback if the site adjoins a public street or is visible from a railway line, freeway or residential area. Where the property abuts open space the landscape treatment should encourage passive surveillance opportunities.
- 4.1.11 Use landscaping treatments to minimise the visual impact of blank walls.

Visual and acoustic screening treatments

- 4.1.12 Design landscape buffers to be a minimum of 5m deep and planted with species that provide an appropriate level of coverage for visual screening.
- 4.1.13 Utilise landscaped mounding in combination with planting of shrubs and canopy trees for effective and aesthetically pleasing screening (refer to Figure 27).
- 4.1.14 Use landscape screening on large building façades, to improve the appearance of the building.

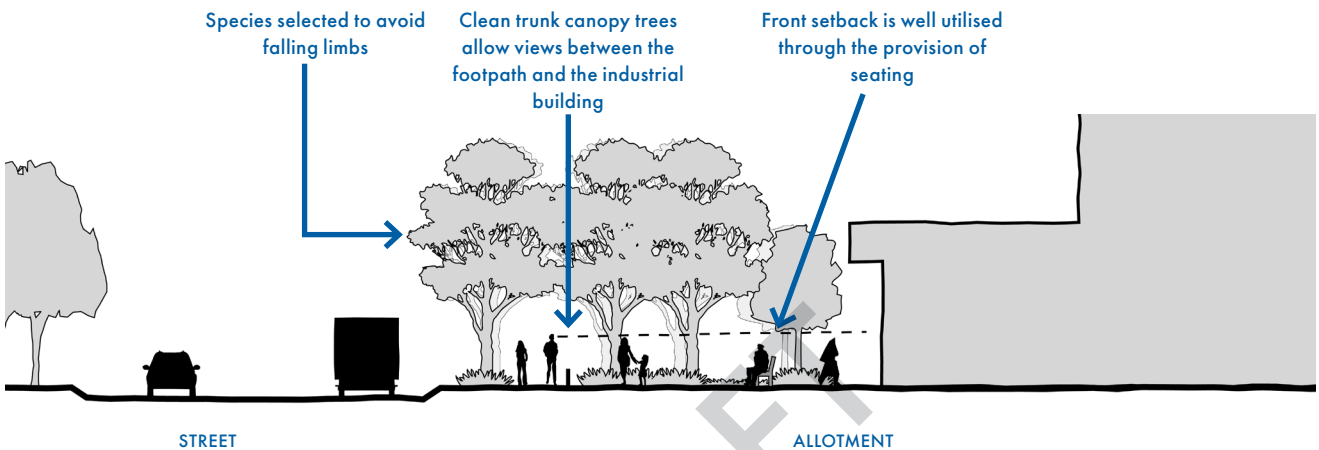


Figure 26. Recommended front setback design

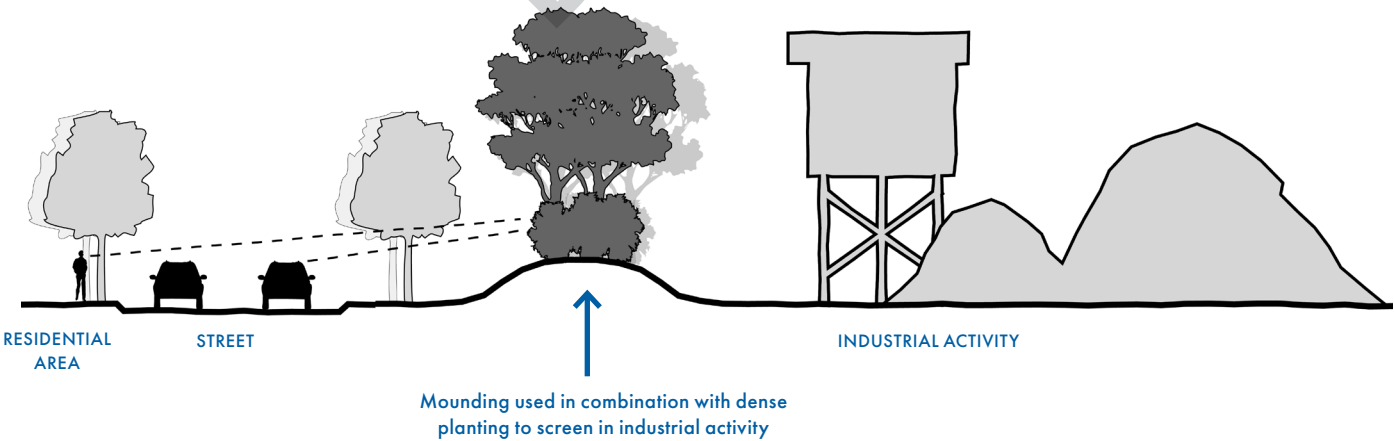


Figure 27. Mounding used in combination with dense landscaping is the preferred treatment where visual and or acoustic screening is required

Species selection

- 4.1.15** Select species suited to the local site conditions, with consideration of growing habits, available root space, and potential impacts on neighbouring properties.
- 4.1.16** Select species to integrate with the surrounding landscape character and of a scale commensurate with the scale of built form elements within their setting.
- 4.1.17** Group plants with similar water needs and irrigate accordingly.

4.2 Outdoor Amenity Space

Objectives:

- To provide well located, integrated areas of attractive outdoor space with weather protection, lighting and seating for staff and visitors.
- To encourage the siting of outdoor amenity space in areas that contribute to an activated public realm.

Guidelines:

- 4.2.1** Incorporate outdoor space for staff and visitors into new development, locating the space to take advantage of the northern aspect, where possible.
- 4.2.2** Avoid locating services, such as air conditioning units, rainwater tanks and hot water units in outdoor amenity areas.



Figure 28. A well located outdoor area with sheltered seating options for staff and visitors

4.3 Fencing

Objectives:

- To ensure the front boundary treatment contributes positively to the appearance of the streetscape and clearly delineates the public and private realms.
- To ensure fencing provides for adequate site security.
- To ensure fencing is a coordinated design element within the site.
- To enable passive surveillance of car parks, street and the surrounding public realm through the use of transparent front fencing.

Guidelines:

- 4.3.1 Use transparent fencing, and where possible, avoid the use of high, solid fencing where front fencing is required.
- 4.3.2 Locate security fencing at or behind the building line where front security fencing is required. Avoid the use of razor or barbed wire fencing.

4.4 Paving and Surface Treatments

Objectives:

- To increase opportunities for rainwater capture and reduce negative impacts of stormwater run off.
- To provide areas of paving and hardscaping that are appropriate in an industrial environment.
- To minimise large areas of impervious surfaces.

Guidelines:

- 4.4.1 Minimise the use of impervious paving materials where practical to reduce stormwater runoff from hardscape areas.
- 4.4.2 Specify paving materials for internal site pathways that are robust and durable and can withstand heavy loads.
- 4.4.3 Provide shade over large paved areas to minimise urban heat island effect.



Figure 29. Example of a landscaping and preferred fencing treatment located at the front of a site

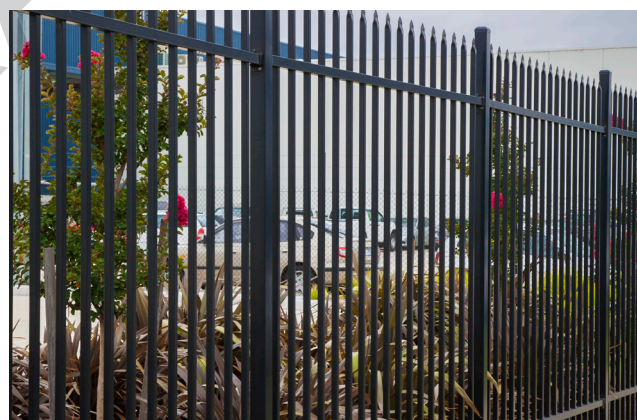


Figure 30. Black palisade fencing is an ideal fencing material because of its transparency and durability

5 Services and Infrastructure

5.1 Stormwater Management

Objectives:

- To encourage on-site approaches to stormwater harvesting to mitigate the impacts of stormwater runoff.
- To encourage water efficient practices including reducing potable water consumption and encouraging passive irrigation of landscaping areas.

Guidelines:

- 5.1.1 Use porous paving, raingardens and appropriate WSUD treatments where possible to filter rainwater and prevent stormwater runoff.
- 5.1.2 Use rainwater collection systems to capture rainwater for use as a potable water source.
- 5.1.3 Incorporate rainwater tanks into each building to collect runoff from roof areas. Grey water should be used for landscape irrigation and toilet flushing. If treated, water should be used for drinking.

5.2 Site Services

Objectives:

- To ensure public utilities (water, power, gas, waste and communications/ICT infrastructure) can be provided in a cost effective way, and can be easily accessed and maintained.
- To minimise the visual impact of site services.
- To ensure site services comply with the relevant Australian standards.

Guidelines:

- 5.2.1 Provide adequate space within developments to accommodate the installation and maintenance of services.
- 5.2.2 Consider the most appropriate location for all site services such as sub-stations and fire fighting equipment when undertaking site planning, and provide screening where necessary.
- 5.2.3 Plan for potential future installation of additional services such as third pipe water infrastructure.
- 5.2.4 Confirm the location of any infrastructure or utilities easement prior to submitting a planning application.



Figure 31. Example of a rain garden located within a car park to break up large areas of impervious parking areas



Figure 32. Timber batons provide an aesthetically pleasing screen of a storage area

5.3 Recycling and Goods and Waste Storage

Objectives:

- To ensure adequate access to recycling facilities on each site.
- To ensure goods storage areas are appropriately sited and designed to minimise impacts on the surrounding streetscape.
- To ensure the storage of goods does not adversely impact on the quality of stormwater.

Guidelines:

- 5.3.1 Provide a dedicated back of house recycling and waste storage area for storage of recycling and waste.
- 5.3.2 Undertake waste management planning to reduce waste and increase recycling and demonstrate methods to minimise the production of waste and where possible, the re-use of waste materials.
- 5.3.3 Locate goods storage areas behind the building line. Goods should not be stored in stormwater drainage areas, landscape areas, or adjacent to driveways and car parks.
- 5.3.4 Provide a safe pedestrian path to storage areas.

5.4 External Lighting

Objectives:

- To ensure lighting is adequate for the purposes of navigation for pedestrians and security but does not detrimentally affect the safety and amenity of adjoining properties or nearby residential properties.
- To compliment building design and form with appropriate external, integrated lighting.

Guidelines:

- 5.4.1 Use high efficiency LED lighting to illuminate building surrounds, pedestrian paths and car parking areas, ensuring it does not impede the safety of road users.
- 5.4.2 Ensure external light sources are directed, baffled and at a height that prevents light spillage onto adjoining properties.
- 5.4.3 Use sensor lighting to reduce energy consumption, where appropriate.

5.5 Acoustic Protection

Objectives:

- To ensure acoustic treatments are designed to achieve their purpose and integrate with the surrounding context.
- To ensure noise impacts on building occupants and surrounding uses are minimised.

Guidelines:

- 5.5.1 Employ internal acoustic treatments such as insulation and room configuration to reduce reverberation and noise levels.
- 5.5.2 Employ external acoustic treatments when required to buffer noise levels reducing the impact on surrounding areas. In the case of the use of mounding or acoustic walls ensure the treatment positively contributes to the surrounding public realm.

6 Interface Treatments

6.1 Residential Interfaces

Objectives:

- To protect the amenity of residential areas and other sensitive uses.
- To ensure the desired character is maintained when industrial precincts are viewed from key public areas.

Guidelines:

- 6.1.1 Provide a transition in height so new development relates to the scale of the surrounding residential buildings located at the interface edge where an industrial site abuts or is located opposite a residential property (refer to Figure 33).
- 6.1.2 Provide vegetated screening or mounding to soften the visual impact of the proposed development where an industrial site shares a side or rear boundary with a residential property. The screen should be located within the property setback.
- 6.1.3 Site new development away from surrounding sensitive interfaces and provide sufficient visual and acoustic screening within the industrial property.

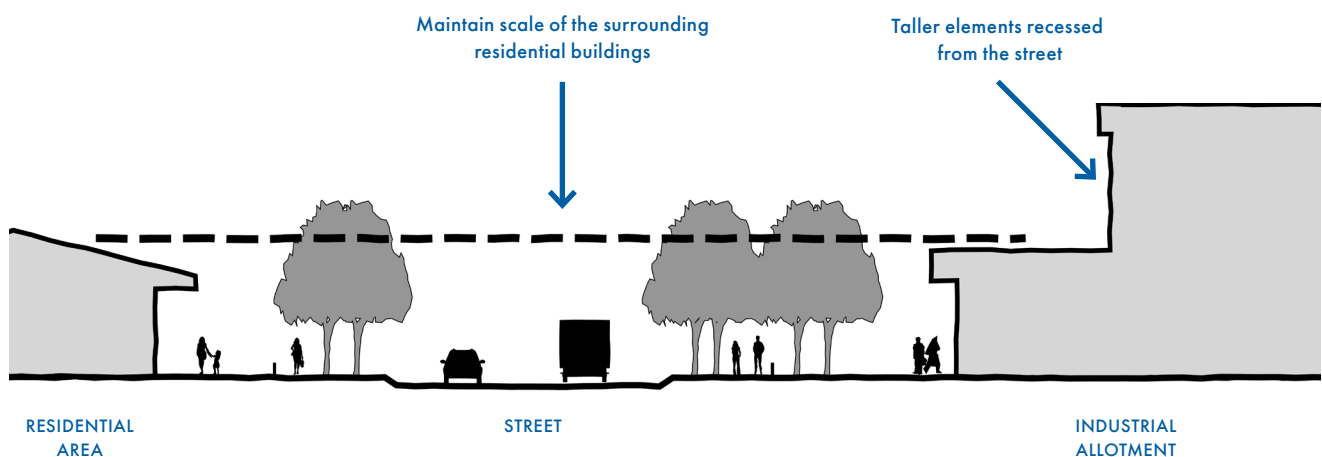


Figure 33. Preferred treatment where the building height of the industrial building responds to the surrounding residential scale

6.2 Open Space Interface

Objectives:

- To protect the amenity and local character of open space areas.
- To ensure industrial areas contribute to a high quality built environment within the municipality when viewed from surrounding open space areas.

Guidelines:

- 6.2.1** Ensure built form addresses surrounding open space. Where development fronts public open space, the building should address the open space by providing:
- Primary building entrance to be located on the primary street frontage, with a footpath connection to the public realm.
 - Windows and openings at ground level.
 - Internal uses located within the building to provide passive surveillance opportunities over the public open space.
- 6.2.2** Where development backs onto public open space the building should seek to address the open space by providing windows overlooking the open space.
- 6.2.3** Where development backs onto public open space, avoid having large blank walls visible from the open space (if possible the wall should be articulated in its form and detailing).
- 6.2.4** Avoid the use of high, solid fencing along property boundaries that interface with open space.

6.3 Main Road Interface

Objectives:

- To protect the amenity and desired character of main roads, particularly those considered as gateway locations.
- To ensure industrial areas contribute to a high quality built environment within the municipality when viewed from main roads.

Guidelines:

- 6.3.1** Ensure built form located on main roads and key arrival routes contributes to creating a continuous built form edge.
- 6.3.2** Encourage development located along key arrival routes to be of an appropriate scale to act as a defining gateway marker.
- 6.3.3** Ensure signage and advertising does not detract from a visually pleasing arrival experience. Avoid the placement of signage on front fences or footpaths.
- 6.3.4** Encourage the retention of existing vegetation where the vegetation contributes to the main road character.
- 6.3.5** Provide a landscape buffer along the rear property setback if the site adjoins a public street or is visible from a freeway.

6.4 Railway Interface

Objective:

- To ensure industrial areas contribute to a high quality built environment within the municipality when viewed from train corridors.

Guidelines:

- 6.4.1** Provide dense vegetated screening or mounding to soften the visual impact of the proposed development, in the case where an industrial site interfaces with a rail corridor.
- 6.4.2** Encourage the articulation of building façades and roof forms that face onto a railway corridor to provide an attractive visual interface for passengers.

DRAFT



CITY OF GREATER
BENDIGO



Review of Future Industrial Land Supply in Bendigo

The City of Greater Bendigo

24 | 02 | 2023





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Executive summary

Introduction

There are less than 11 years of viable/serviced industrial zoned land remaining in Bendigo and strong jobs growth is forecast in the industrial sector; around 3,300 industrial jobs are expected to be added over the coming 15 years.¹ Short-term and medium-long-term land supply challenges must be understood and addressed to secure a viable future for Bendigo's industrial base. Table provides an overview of key industrial land supply metrics in the City of Greater Bendigo.

In August 2022, SGS was commissioned by the City of Greater Bendigo (the City) to conduct an independent review of the supply of industrial lands in Greater Bendigo and the relevance of the Marong Business Park (MBP) and the Bendigo Regional Employment Precinct (BREP) as part of the stated release of industrial land supply.

The MBP was rezoned to Comprehensive Development Zone (CDZ) for employment and industrial uses in 2016². It was intended to be the focus for additional industrial development and meet future demand in the short to medium term. The Greater Bendigo Industrial Land Development Strategy (GBILDS)³ however suggests that the MBP is not considered likely to be developed in the short term due to it being privately owned and utilised for farming. The GBILDS therefore proposes that the MBP is not progressed in the short-term, and instead additional land is required elsewhere in the LGA

While this focus exists at the strategic level, current planning policy does not identify and support BREP as a short to medium-term industrial precinct.

TABLE A: THE CITY OF GREATER BENDIGO INDUSTRIAL LAND SUPPLY ASSESSMENT – SUMMARY

Category	Result
Vacant zoned land ⁴	100ha
Proposed MBP land	313ha
Proposed BREP land ⁵	294ha
Historic consumption rate ⁶	9ha per year

¹ REMPLAN (2019), Bendigo Industrial Land Review - Strategic Inputs Report.

² Amendment C161 Part 1

³ The GBILDS was adopted by Council in 2020.

⁴ The City of Greater Bendigo (2020). *Greater Bendigo Industrial Land Development Strategy: Background Report*, p.50. Based on a March 2020 audit referenced in the GBILDS background report. This only includes development ready land does not include Marong Business Park.

⁵ NAVIRE. (2022) *Bendigo Regional Employment Precinct – Infrastructure Funding Prospectus*.

⁶ REMPLAN (2019), Bendigo Industrial Land Review - Strategic Inputs Report, p.3.

Category	Result
Forecast consumption rate (2027 onwards)	11ha per year
Lot sizes of zoned land ⁷	0.5ha or less (74%) 0.5-1ha (14%) 1-5ha (7%) Over 5ha (6%)
Recent growth & development patterns	<p>Planning permit data (2017-2021) reveals the diversity of sub-sectors of manufacturing operating in Greater Bendigo, including:</p> <ul style="list-style-type: none"> – Big players, such as Gilmac and Hoffman engineering, with a requirement for large industrial lots; and – A concentration of small businesses in Greater Bendigo's main industrial precinct, East Bendigo, contained within smaller lots.

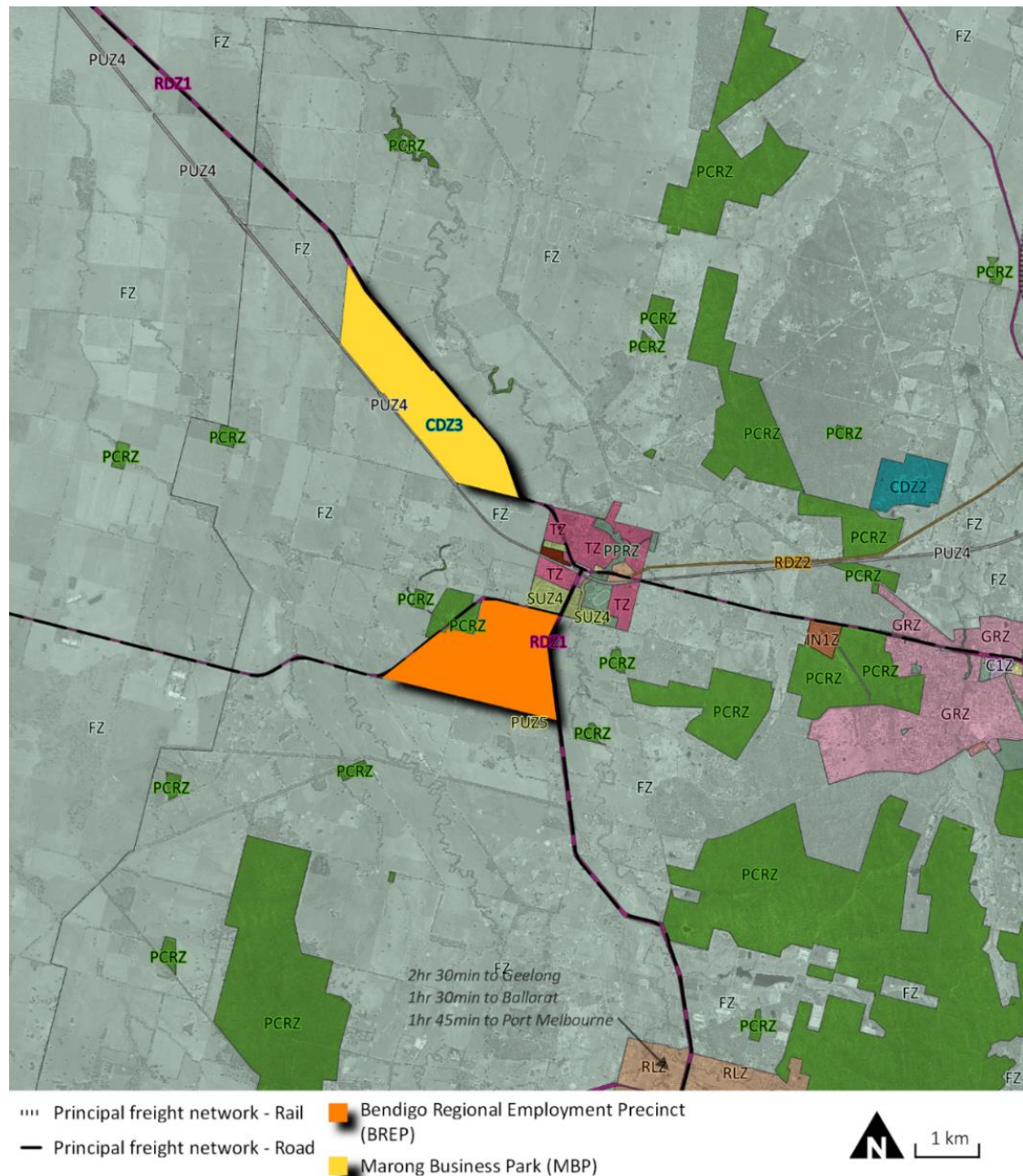
Source: SGS Economics and Planning (2022)

⁷ The City of Greater Bendigo (2020). *Greater Bendigo Industrial Land Development Strategy: Background Report*.

Study area

MBP and BREP are two potential sites earmarked to accommodate Bendigo's future industrial growth. These sites are north-west of the established area of Bendigo outside the Marong township (see Figure A).

FIGURE A: BENDIGO REGIONAL EMPLOYMENT PRECINCT (BREP) AND MARONG BUSINESS PARK (MBP)



Source: SGS Economics and Planning, 2022

Five Pillars Framework

Table B identifies the considerations for assessing the merits of the proposed industrial/employment land supply. In aggregate, they provide a comprehensive assessment and justification for a future pipeline of supply that includes both the BREP and MBP.

TABLE B: FIVE PILLARS FRAMEWORK

Pillar	Relevance
Strategic Context of Industrial Land	To understand any strategic and policy support for the inclusion of the sites as industrial land.
Demand and Supply Considerations	To determine the level of demand and any shortfalls of supply in Greater Bendigo.
Employment Land Spatial Context	To underline the role of the sites and their appropriateness as industrial land.
Comparator Areas	To benchmark the land supply picture in Greater Bendigo as compared to other regional Australian markets.
Demand Drivers and Industry Profiling	To understand the current and future market, and what may be required.

Source: SGS Economics and Planning (2022)

Using the Five Pillars framework, the following key findings were determined:

TABLE C: KEY FINDINGS

Chapter	Key findings	Implications
Strategic context	Greater Bendigo is a critical economic hub for the region, and it has significant locational advantages as the central node in the proposed Loddon Campaspe Employment and Innovation Corridor.	A long-term pipeline of industrial zoned land is fundamental to realisation of the aims in regional strategies such as the Employment and Innovation Corridor.
Demand and supply considerations	According to recent estimates, Greater Bendigo has 11 years of industrial zoned land and an even greater shortage of large lots (over 5ha). At minimum, somewhere between an additional 170ha to 270ha of industrial	The LGA cannot accommodate future businesses or the expansion of existing firms without a pipeline of land and diverse lot sizes. BREP is critical in the short term, but the forecast indicates its lots will be exhausted by 2039. By which point introduction of the MBP will be necessary to maintain industrial land

Chapter	Key findings	Implications
	land supply is required for a 30-year pipeline.	supply. Together, both precincts provide a future supply buffer, important for a competitive market.
Employment land spatial context	Most of the existing industrial land is constrained by residential and park land while the MBP and BREP sites offer several unique locational advantages including freight line access, separation from residential areas, the potential for large lots and co-location. These advantages are most potent when BREP and MBP are both realised.	The MBP and BREP sites each have merits that could strengthen Bendigo's industrial economy. In tandem they offer unparalleled opportunity for amalgamation, efficient freight movement, and adaptability to meet the LGAs changing needs.
Comparator areas	Other key regional areas have an adequate supply of industrial lands, although are not without their constraints. In Victoria, Geelong and Ballarat both have new industrial precincts, owned in part by government (State and/or local).	Other regional areas will have a competitive advantage over Greater Bendigo if its industrial land supply shortage is not addressed. Moreover, other key regional areas have shown the advantage of government ownership to bring forward large industrial precincts and ensure a long-term development perspective (not provided by the private sector).
Demand Drivers and Industry Profiling	Manufacturing is critical to Bendigo's economy and the future of industrial precincts will rely on greater connectivity, adaptability, and co-location to accommodate the industry.	Realisation of both the MBP and BREP sites offer significant opportunity for co-location. While local and small industries could be accommodated by Bendigo's existing stock of industrial land, larger, national, or state-wide companies are likely to be deterred by the LGA's land supply pipeline. A greater quantum and quality of well-connected and diverse industrial lands are needed to accommodate key industries and attract state-and-nationwide industries such as food-product manufacturing.

Source: SGS Economics and Planning (2022)

Recommendations and Implementation

To lay the foundations for future industrial development, Greater Bendigo should signal to potential investors and businesses that there is a long-term industrial land supply pipeline. The big occupiers, with significant employment and which attract other businesses and downstream supplies, often need large industrial lots that aren't currently being provided by the private market.

Industrial land development to attract these users requires a long-term perspective, upfront investment in infrastructure and a more patient approach to risk and return. Government intervention (State and/or local) in developing industrial lands can overcome this barrier in Greater Bendigo, as it has done in other comparator regions.

A staged release of industrial land – whereby industrial land is strategically released to market over time – will enable a sufficient pipeline of industrial supply and, in turn, will reinforce a maturing manufacturing economy. Developing BREP in the short term will help to consolidate the existing hierarchy of industrial lands while maintaining the MBP will ensure that there are long term options available. There are numerous options that could be applied to enable a staged release. These planning mechanisms should be explored in a further study.

In light of the key findings, it is recommended that **both BREP and MBP are retained** for industrial land use in the region.

The following enabling actions are proposed for Greater Bendigo:

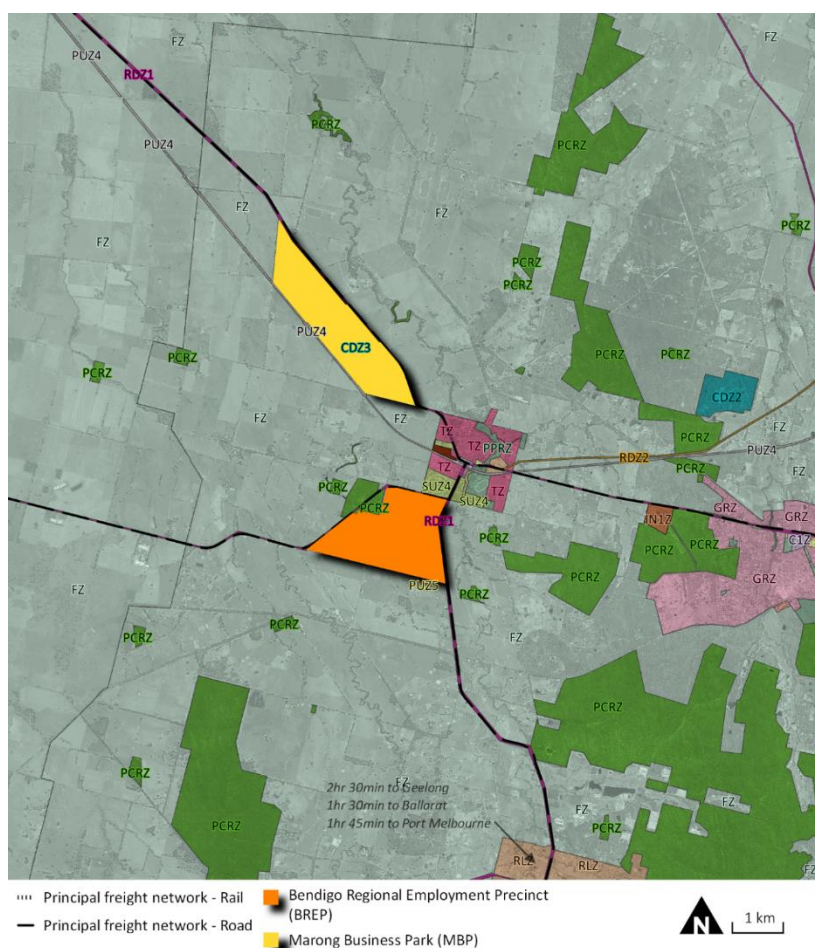
1. Develop BREP in the short term;
2. Maintain MBP for further review and staged release; and
3. Investigate appropriate planning mechanisms in further studies to support the staged release of land.

Introduction

Background

There are less than 11 years of viable/serviced industrial zoned land remaining in Bendigo and strong jobs growth is forecast in the industrial sector; around 3,300 industrial jobs are expected to be added over the coming 15 years.⁸ Short-term and medium-long-term land supply challenges must be understood and addressed to secure a viable future for Bendigo's industrial base. There are two potential sites earmarked to accommodate Bendigo's future industrial growth: the Marong Business Park (MBP) and the Bendigo Regional Employment Precinct (BREP). These sites are north-west of the established area of Bendigo outside the Marong township.

FIGURE 1: BENDIGO REGIONAL EMPLOYMENT PRECINCT (BREP) AND MARONG BUSINESS PARK (MBP)



⁸ REMPLAN (2019), Bendigo Industrial Land Review - Strategic Inputs Report

Source: SGS Economics and Planning, 2022

The MBP was rezoned as Comprehensive Development Zone (CDZ) for employment and industrial uses in 2016. It was intended to be the focus for additional industrial development and meet future demand in the short to medium term. The Greater Bendigo Industrial Land Development Strategy (GBILDS)⁹ however suggests that the MBP is not considered likely to be developed in the short term due to it being privately owned and utilised for farming. The GBILDS therefore proposes that the MBP is not progressed in the short-term, and instead additional land is required elsewhere in the LGA.

While this focus exists at the strategic level, current planning policy does not identify and support BREP as a short to medium-term industrial precinct.

Study context

In August of 2022, the City of Greater Bendigo (the City) commissioned SGS to complete a review of industrial land supply in Greater Bendigo. The objective of this study is to review the need, location, and timing for future industrial land. This will be focussed on Marong Business Park (MBP) and Bendigo Regional Employment Park (BREP), to validate and justify the shift in short-term focus from the MBP to the BREP site.

SGS, being commissioned by the City, has conducted an independent review of the supply of industrial land in Greater Bendigo. The review considers strategic justifications for the BREP and MBP sites and the appropriateness of the proposed timeframes in releasing these sites.

Structure of the report

The methodology for assessing this need and providing recommendations involved five pillars:

1. **Strategic Context of Industrial Land** to understand any strategic and policy document support for the inclusion of these sites as industrial land.
2. **Demand and Supply Considerations** to determine the level of demand and any shortfalls of supply in Greater Bendigo.
3. **Employment Land Spatial Context** to underline the role of the sites and their appropriateness as industrial land.
4. **Comparator Areas** to benchmark the land supply picture in Greater Bendigo as compared to other regional Australian markets.
5. **Demand Drivers and Industry Profiling** to understand the current and future market, and what may be required.
6. Finally, **Recommendations and Implementation** bring these pillars together and provide recommendations on staging and planning mechanisms.

⁹ The GBILDS was adopted by Council in 2020.

1. Strategic Context of Industrial Land

This section reviews key policies, strategies and other relevant documents to reveal the strategic context of industrial land in Greater Bendigo.

1.1 Strategic documents

Loddon Mallee South Regional Growth Plan

The Loddon Mallee South Regional Growth Plan, which aims to guide growth and change in the region over the next 30 years, encourages the provision of adequate industrial land across Bendigo to attract and maintain manufacturing businesses and industries.

The significance of manufacturing as the largest employer in the region is recognised in the Plan and it aims to support the sector through developing supply chain linkages. The Plan identifies Marong Business Park as a key new location for attracting new businesses and investment in the region as it provides significant employment opportunities and is strategically located to enable supply chain links such as food processing and freight. As such, the Plan advocates for the acceleration of the Marong Business Park development.

Bendigo is identified as “the powerhouse of the region’s economy” due to strategic assets such as its central location, accessibility for freight and transport on the Calder transport corridor, and a well-established agricultural sector. The Plan recognises that while manufacturing has been Bendigo’s largest economic output, its industrial base is diversifying to include population serving and professional sectors, intense agriculture, and the equine industry, among others.

Loddon Campaspe Regional Economic Development Strategy

The Loddon Campaspe Regional Economic Development Strategy emphasises the region’s culture of innovation centred around the growth corridor between metropolitan Melbourne and Greater Bendigo. Moreover, regional readiness to activate strategic directions is supported by the presence of universities and education institutions such as Kangan Institute and La Trobe University and collaborative industry groups such as the Bendigo Manufacturing Group.

The Strategy outlines strategic directions in the region, including the following relevant to Bendigo’s industrial lands:

- Growth in agriculture and food product manufacturing
- Maximise gains in the ‘employment and innovation corridor’ to attract professional services workers and entrepreneurial activity (see Figure 2)
- Foster better links between industry, education providers, research, employers, and students to develop career pathways and a workforce that meets the future needs of the region, and

- Leverage local opportunities to strengthen value chains and diversify into new industries, including mining, renewable energy, and waste processing.

Industrial land availability is a critical component of achieving these strategic directions by better positioning the region to attract large investment for business growth and investment.

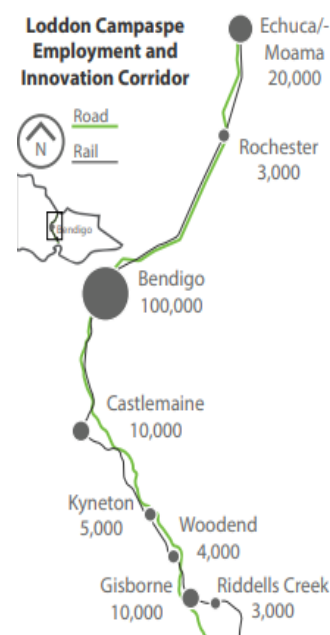
Loddon Campaspe Economic Growth Strategy

The Loddon Campaspe Economic Growth Strategy provides strategic direction for the region to invest in skills and leverage capital infrastructure. The Strategy identifies the food industry as a regional focal investment and aims to attract new business investment which will translate into increased value of the manufacturing sector.

Figure 2 illustrates the Regional Employment & Innovation Corridor between Echuca-Moama and Gisborne that connects key regional centres and Melbourne via road and rail networks. With Bendigo as the central city, the corridor aims to attract highly valued services and industries.

The Strategy prioritises the provision of adequate industrial land to support the growth of manufacturing, construction, and logistics industries in the region. Should industrial land be exhausted, the Strategy recognises the negative effect this could have on regional economic growth, specifically in Bendigo which remains a critical economic hub for the region.

FIGURE 2: CONCEPTUAL EMPLOYMENT & INNOVATION CORRIDOR



Source: The City of Greater Bendigo, 2019

Loddon Campaspe Freight Hub Study

This study examines freight demand and supply chains across the region and identifies four key actions, including ensuring sufficient industrial zoned land is available for freight hubs and protecting existing industrial zoned land in Greater Bendigo.

The Study also profiles industries and future trends in the region that are reliant on an effective freight network, primarily in agriculture. The Study finds that the intensification of the agricultural industry is, and will continue to, increase outputs from the region and grow related industries.

A Stronger Greater Bendigo 2030

A Stronger Greater Bendigo, the LGA's Economic Development Strategy, outlines the area's ambitions and responses to challenges over the next decade. The document outlines what success will look like in Greater Bendigo in 2030, notably including:

- Serviced, zoned industrial land is readily available for businesses looking to open or expand;
- Opportunities in the region are harnessed and Bendigo is viewed as an enviable location to do business, and
- Investment takes place in key facilities, infrastructure and locations that drive jobs, better more accessible facilities and sustained population growth.

To achieve these aspirations, the Strategy identifies the need to unlock underutilised land to support job growth and investment, as well as develop leading-edge business parks for the expansion of businesses in strategic locations. The Strategy highlights that Greater Bendigo is well positioned to capitalise on opportunities in the manufacturing and advanced manufacturing sector as Australia focuses on becoming less reliant on imported manufactured goods.

In comparison to other regional centres, Bendigo has limited greenfield land set aside for industrial expansion, and where land is zoned for industrial use, it is often constrained and/or not easily accessible to the transport network.

“It [Industrial zoned land] will also increase Bendigo’s competitive ranking with many other regional centres who have established large scale modern business park facilities that can attract new investment and drive local employment growth.”

Marong Township Structure Plan

The Marong Township Structure Plan identifies BREP (referred to as the industrial employment investigation area, or Precinct IE) as an area that should accommodate a mix of industrial land uses and could be expected to provide 2,000-3,000 new jobs for Greater Bendigo. The Plan outlines several assets that make BREP a suitable location for industrial zoned land, including:

- The area has the potential to accommodate larger parcels of land that cannot be situated elsewhere in the City
- It has high accessibility as it is near Marong township and two state highways and adjacent to the proposed Western Bypass Investigation Corridor, and
- The land has limited constraints.

The Plan recommends the zoning of BREP be amended to Industrial 1 Zone, replacing the farming zone.

Greater Bendigo Industrial Land Development Strategy (2020)

The Greater Bendigo Industrial Land Development Strategy, developed in partnership with the VPA, provides a strategic framework and road map for a 30-year pipeline of future industrial land. The major objective of the Strategy is to provide 30 years of industrial land supply in Greater Bendigo to address the severe shortage of serviced, zoned industrial land that limits the LGA’s ability to meet short and longer term demands for land to support industrial expansion and new jobs. The Strategy identifies that there will be an additional 3,300 jobs provided in the industry by 2036 if sufficient industrial zoned land is made available.

It is recommended, however, that the 313 ha of land zoned Comprehensive Development Zone (CDZ) (the Marong Business Park) not progress in the short term due to the land currently being used for

farming. Instead, it is recommended in the Strategy that the local planning policy be changed to show this land as potentially meeting the longer term needs of the region and reviewed in five years.

The Strategy draws on an internal 2018 audit, a 2019 assessment of industrial land supply by REMPLAN (see 1.4) and cites a recent internal audit (2020), which indicates that there is 100 ha of available industrial land. However, it should be noted that this estimate is likely to be even less as some of this land is subject to land banking and constraints. The various industrial land audits are explored further in section 1.4.

Alongside identifying the shortfall of industrial land supply, the Strategy outlines further objectives and demands for industrial land:

- There is a more urgent need to provide larger industrial lot sizes (between 1-5ha).
- The location of industrial zoned land should reduce the impacts of freight movements on residential urban areas.
- Industrial land availability is necessary to increase regional competitiveness and grow investment and employment. There is no large business park in Greater Bendigo, putting it at a disadvantage compared to other large regional cities such as Ballarat and Geelong.

1.2 Marong Business Park documents

Marong Business Park Development Contributions Plan

In 2017, a Development Contributions Plan (DCP) was prepared to support the funding of infrastructure for the development of the Marong Business Park over a 30-year timeframe. The DCP would require contributions from all landowners and developers on the site towards 27 infrastructure items within the following six categories:

- Land
- Roads and intersections
- Trails
- Open space
- Drainage, and
- Planning.

The delivery timing of the infrastructure items is not specified but instead provision is triggered by the start of development of the Business Park or the achievement of development thresholds. The total infrastructure cost of the Marong Business Park is over \$32 million (2016 dollars) and of this, the levies payable under the DCP total \$133,618.27 (2016 dollars.).

Proposed Marong Business Park Socio-Economic Impact Assessment (SGS, 2012)

In a 2012 socio-economic impact assessment of the Marong Business Park, SGS found that the potential benefits of Marong Business Park outweigh costs by a factor of four (4.18). Therefore, indicating that the Marong Business Park would provide a sound return on community capital after considering economic, social, and environmental effects.

Population and labour force analysis revealed population growth in Greater Bendigo and a strong employment base in machinery and equipment manufacturing as well as food processing. Based on SGS's forecasts of industrial employment in the area, Aurecon adopted the following anticipated demand for industrial floor space with the Marong Business Park:

TABLE 1: DISTRIBUTION OF FLOORSACE AT THE PROPOSED MARONG BUSINESS PARK (AS OF 2012)

Industry type	Site area requirements (sqm)	% demand
Manufacturing	5,000-30,000sqm	42%
Freight	20,000-40,000sqm	30%
Service	1,500sqm	19%
Utilities	5,000sqm-20,000sqm	9%
Total	1,500sqm-40,000sqm	100%

Source: Aurecon

The assessment found that businesses with close ties to the community have indicated a high willingness to stay in Bendigo and hire local staff. However, there is a risk that firms will outgrow Bendigo and relocate to other areas if they do not believe that the area offers sufficient potential. The provision of adequate industrial land of sufficient size, price and quality allows innovative firms to enter the market and grow.

The density of industrial activity proposed through the Marong Business Park also presents the following benefits:

- Synergies can develop between the production chain and suppliers, servicers and distributors;
- The availability of large land parcels allows growth and investment, leading to specialised infrastructure, and

- Technological/knowledge transfer between firms which helps bolster innovation.

1.3 Bendigo Regional Employment Precinct documents

Bendigo Regional Employment Precinct – Infrastructure Funding Prospectus (NAVIRE, 2021)

A 2021 Infrastructure Funding Prospectus prepared by NAVIRE for the Greater City of Bendigo seeks \$42 million in infrastructure funding to underpin the first stage of development of the Bendigo Regional Employment Precinct (BREP). Unviable as a private sector development due to upfront infrastructure costs, including water services and delivery of major road and drainage works, BREP requires strategic infrastructure investment from Government to help facilitate new industrial land.

The following key advantages and attributes of the proposed BREP site are identified:

- High level of accessibility to arterial roads, highways, freight routes, and proximity to the planned Marong Western Freight Corridor
- The site is large (294ha) and relatively free of constraints, and
- It is near existing services and utility infrastructure.

Assuming a 70 per cent take-up of lot occupancy on the Council owned land of BREP (see Table 2), NAVIRE found that the total economic benefits for Greater Bendigo include over 3,000 jobs and over \$1.5 million in output.

TABLE 2: BREP LAND AREA

	Total land area (ha)	Council owned land area (ha)
BREP	294ha	155ha

Source: NAVIRE, 2021.

1.4 Previous land audits

Several industrial land audits and assessments have been undertaken, revealing a decreasing supply of industrial lots in the LGA throughout the years. The audits include:

- The City of Greater Bendigo Industrial Land Audit (2018);
- Bendigo Industrial Land Review – Economic Inputs (REMPAN, 2019);
- The City of Greater Bendigo Industrial Land Audit (March 2020) as cited in the Greater Bendigo Industrial Land Development Strategy Background Report; and
- The City of Greater Bendigo Industrial Land Audit (December 2022)

The findings of these audits are summarised in Table 3 and explored in more detail in Appendix A.

TABLE 3: INDUSTRIAL LAND SUPPLY AUDITS

	REMPPLAN 2019	March 2020 Audit	December 2022 Audit
Available industrial land	120 ha	100 ha	97 ha
Consumption rate	9 ha per year	9 ha per year	9 ha per year
Years of supply	14 years	11 years	11 years
Additional supply required (30-year pipeline)	170ha (minimum)		

Source: The City of Greater Bendigo, 2020. REMPLAN, 2019. Notes: The consumption rate assumes near-perfect efficiency.

Of the available industrial land, 50 ha of this total supply is held in 4 ownerships. Furthermore, the consumption rate and ‘years of supply’ assume a take up rate that may not allow for latent or unfulfilled demand for larger lots. Whilst some additional land has become available during the period measured, the consumption rate continuously exceeds the additional supply.

It also is important to note that the above assessment of available land supply does not consider several constraints, such as land banking, proximity to existing residential development, vegetation cover, topography, and accessibility. These constraints limit the development capacity of much of the zoned industrial land, meaning that the land supply is likely even less than stated. As such, the additional supply of industrial zoned land for a 30-year pipeline - according to the 2019 REMPLAN assessment- is 170ha minimum. However, once constraints on the ‘available’ 100ha of industrial land are taken into account, Council inputs suggest that somewhere between 170 and 270 ha of additional industrial zoned land is required to have a 30-year pipeline available.

Bendigo Industrial Land Review – Strategic Economic Inputs (REMPPLAN, 2019)

The Bendigo Industrial Land Review was undertaken by REMPLAN for the City of Greater Bendigo in 2019. The Review found employment trends across the LGA are consistent with those observed across the State. However, crucially, this trend differs in the manufacturing sector which has declined across the State but remained stable in Bendigo, driven by growth in subsectors (food product and transport equipment manufacturing).

The Review demonstrates the central role industry plays in Bendigo and in turn, for the broader region. However, it also points to structural change as a result of the decline of value-added by industries such as manufacturing and wholesale trade (which decreased by 6 per cent and 5 per cent between 2011 and 2017 respectively) and population growth. These changes indicate that industry will be forced to adapt to support the population, shifting to services and logistics, and leveraging its agricultural base to expand its regional exports.

For industry to grow and adapt in Greater Bendigo, adequate industrial land must be secured. The Review highlights key issues with Bendigo’s industrial land supply:

- The majority of land classified as 'available' is privately owned.
- Industrial land is fragmented and in small plots (less than 0.5 ha).
- There is a shortage of industrial land supply, especially in medium to large size plots (see Table 15).

The Review identifies a clear requirement for medium and larger lots between 5,000sqm and 5ha; REMPLAN's analysis indicates that lots between 1-5 ha will be exhausted by 2027 while lots between 5,000sqm–1 ha will be exhausted by 2029. This estimate assumes that all industrial lots are appropriate for commercial use, which is unlikely to be the case, therefore REMPLAN forecasts that land supply shortages could be an issue by 2024.

1.5 Summary

Local and regional policies and strategic documents highlight the role of Greater Bendigo as the economic hub for northern and central Victoria. It is identified as the central node in the Loddon Campaspe Employment and Innovation Corridor which is proposed in the Loddon Campaspe Economic Growth Strategy (and reiterated in the Loddon Campaspe Regional Economic Development Strategy).

These and other strategies and policies highlight the key economic role that Bendigo plays in regional Victoria. Action is required to provide a long-term pipeline of industrial zoned land and secure the region's future economic development consistent with strategy aims.

2. Demand and Supply Considerations

This chapter looks at the supply and demand of industrial land in Greater Bendigo and profiles existing occupiers to reveal land use needs.

2.1 Supply and demand

The future and current supply of industrial land, according to the latest audit undertaken by the City and an assessment by REMPLAN in 2019, is summarised in the table below. With an 11-year supply of industrial land, Greater Bendigo falls short of meeting the 15-year minimum supply benchmark set in state policy (Clause 11.02).

In addition to the shortfall of industrial land supply, other key issues include:

- There is a limited supply of larger lot sizes; of the 100-120ha vacant industrial land, 74 per cent are 0.5ha or less.¹⁰
- Industrial land is fragmented and scattered across Bendigo which increases freight traffic through urban areas and limits the growth and expansion of existing businesses.
- There is no large business park in the area.

While there is potential for industrial lots to come to market through subdivision, Greater Bendigo is already experiencing a shortage of large lots and subdivision into smaller lots limits prospects for land hungry and larger industrial businesses. Smaller lots in some precincts, such as East Bendigo, are suited to small industrial businesses with commercial links.

TABLE 4: GREATER BENDIGO INDUSTRIAL LAND SUPPLY AND DEMAND

Total industrial land (ha)	968ha (65% IN1Z, 35% IN3Z)
Available industrial land (ha)	100ha
Consumption rate (ha)	9ha per year
Years of supply	11 years
Additional supply required (30-year pipeline) (ha)	170-270 ha

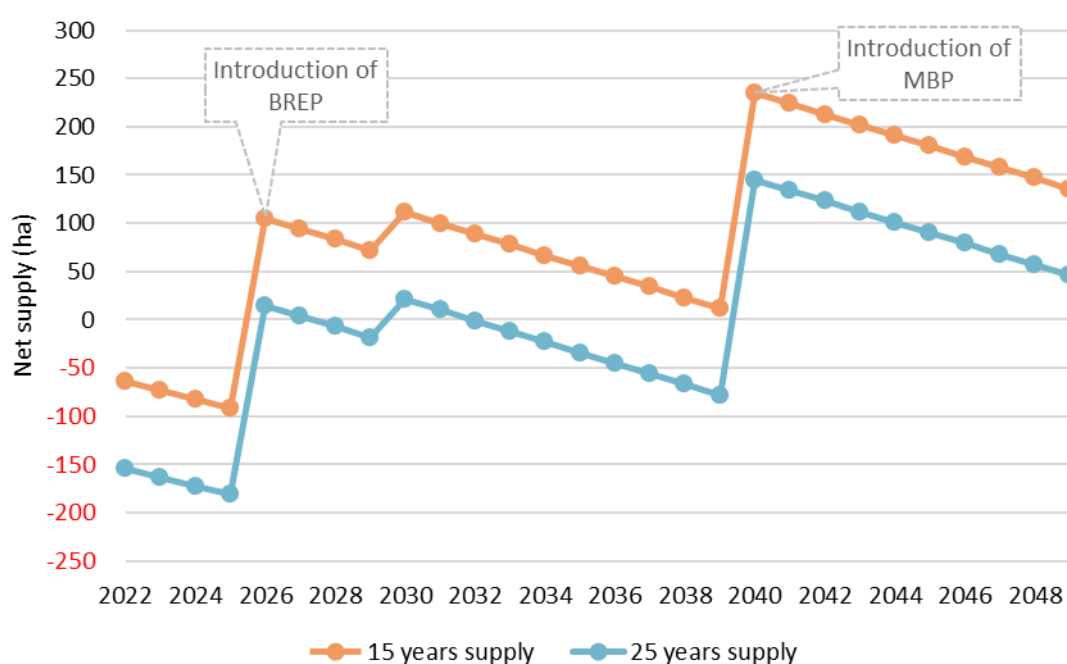
Source: The City of Greater Bendigo, 2020 and REMPLAN, 2019.

¹⁰ The City of Greater Bendigo (2020). *Greater Bendigo Industrial Land Development Strategy: Background Report*. The full breakdown of lot sizes can be found in Table 15.

Figure 3 shows how the supply of industrial land in Greater Bendigo is forecast to meet the minimum 15-year supply and a 25-year supply; 0 and above indicates where this supply requirement is being met. This model assumes that the consumption rate continues at a 9 ha per year rate, increasing to 11 ha per year from 2027 onwards. In 2026 it is assumed that BREP is introduced to the market, followed by MBP in 2040.

This analysis shows that Greater Bendigo currently has an undersupply of industrial land to meet the 15-year and 25-year supply targets. The introduction of BREP in the short term enables Greater Bendigo to sustain a 15-year supply pipeline until 2039, when the introduction of MBP is again critical to replenish the supply of industrial land.

FIGURE 3: INDUSTRIAL LAND SUPPLY FORECAST WITH BREP AND MBP, 2022-2051



Source: SGS Economics and Planning with land supply inputs from the City (2022).

2.2 Current occupiers

Permit approval data provided by the City of Greater Bendigo between 2017 and 2022 indicates the types of industry active in the LGA, as well as the demand for lot size and floorspace. This data is illustrated spatially in Figure 5, which reveals the concentration of industrial development in the Bendigo East precinct. While smaller developments predominantly occur in Bendigo East, larger developments are shown to occur in precincts further afield from Bendigo's urbanized centre.

Anecdotal evidence, derived from approved planning permits within industrial lands between 2017 and 2022, indicates a decrease in development on large lot sizes over this period. This could be attributed to:

- A lack of large industrial lots in Greater Bendigo, and/or

- Less demand for large lots by occupiers.

The former is acknowledged in strategic documents as a key issue in the LGA; analysis by REMPLAN (2019) indicates that lots between 1-5 ha will be exhausted by 2027 while lots between 5,000sqm–1 ha will be exhausted by 2029. Table 5 provides an overview of some of the key transactions of approved permits on industrial zoned land between 2017 and 2022. Within this dataset, the largest lots are occupied by manufacturing businesses.

TABLE 5: INDUSTRIAL PERMIT APPROVALS – KEY TRANSACTIONS

Zone	Suburb	Year	Lot size (sqm)	Estimated floorspace (sqm)	Occupier	Industry type	Development description
IN3Z	Goornong	2017	509,200	38,100	Gilmac	Manufacturing (hay & straw)	Construction of a car port
IN1Z	Golden Square	2018	112,694	5,600	Ortech Industries	Manufacturing	Construction of a storage shed
IN1Z	Kangaroo Flat	2019	133,210	4,000	Abri Group/ C&M Brick	Manufacturing	Construction of a weighbridge
IN1Z	North Bendigo	2018	59,120	20,000	Hofmann Engineering	Manufacturing	Construction of a storage shed
IN3Z	Golden Square	2019	3,790	916	Central Vic Auto Carriers Pty Ltd	Transport	Construction of a warehouse
IN1Z	East Bendigo	2018	2,114	842	Trans Air & Electrics	Manufacturing	Construction of an industrial building & reduction in parking
IN3Z	Strathdale	2018	1,754	550	Simon Rosa Landscaping	Construction/retail trade	Construction of a demo swimming pool
IN3Z	Strathdale	2018	1,462	650	Dja Wurrung Enterprises	Professional, scientific, and technical services	Construction of office/warehouse & reduction in parking

Source: City of Greater Bendigo, 2017-2022.

The industrial permit approvals are shown spatially in Figure 4, revealing a pattern of industrial development across Greater Bendigo's precincts.

The East Bendigo precinct has the highest concentration of development but is primarily made up of small lots (under 5ha). Occupiers in this are primarily wholesale trade but also include manufacturing and transport. Companies such as Bendigo Widows, U-lock Self Storage, and First Aid Distributions & Choice operate from this precinct. In close proximity to the urban centre, occupiers of this precinct benefit from access to the commercial centre but are also heavily constrained by the limits this poses to freight movement. The largest occupier (by lot size and floorspace) identified in the permit approval data is located in the Goornog suburb, in the north east of Bendigo.

2.3 Summary

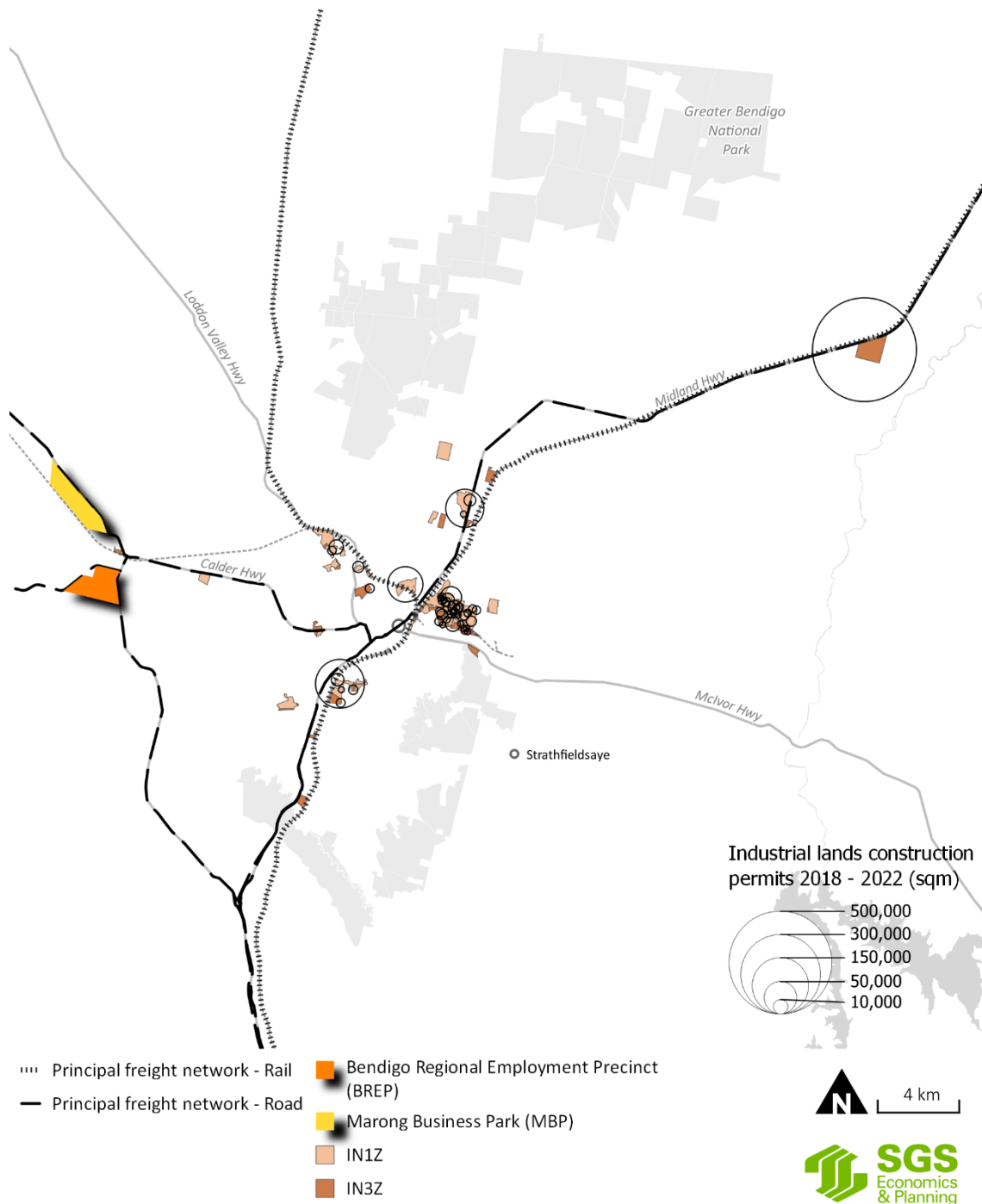
The industrial land audits have identified a critical shortage of industrial zoned land in Greater Bendigo; the most recent audit indicates there is a maximum of 11-year supply of industrial land and an additional 170 to 270 ha is required for a 30-year pipeline.¹¹¹² Moreover, the audits reveal a shortage of large industrial lots (over 5ha), which is reflected in the permit approvals data. While the permit approval data evidence is selective, it highlights:

- The varied sub-sectors of manufacturing operating in Greater Bendigo and, in the case of big players such as Gilmac and Hoffman engineering, their requirement for large industrial lots; and
- The concentration of small industrial lots in Greater Bendigo's main industrial precinct, East Bendigo.

¹¹ The City of Greater Bendigo (2020). *Greater Bendigo Industrial Land Development Strategy: Background Report*.

¹² REMPLAN. (2019) *Bendigo Industrial Land Review: Strategic Economic Inputs*.

FIGURE 4: BENDIGO INDUSTRIAL LANDS CONSTRUCTION PERMITS 2018-2022



Source: SGS Economics and Planning, 2022

3. Employment Land Spatial Context

In this section, the employment lands in Greater Bendigo are mapped to provide the spatial context to the region's industrial land supply and the two proposed sites, MBP and BREP.

The land uses in Greater Bendigo are depicted in Figure 5 alongside principal freight networks and the proposed BREP and MBP sites. This spatial visualisation reveals a conflict between existing industrial land uses, residential areas, and parkland; the concentration of industrial land uses in the centre and the east is surrounded by residential and park land which implies a high level of constraint.

The analysis pulls on the industrial land search criteria proposed in the Greater Bendigo Industrial Land Development Strategy Background Report (2020)¹³ and analyses the MBP and BREP sites across three key considerations:

- **Transport and freight movement:** reduce the amount of freight passing through the urban centre and enhance trade gateways.
- **Amalgamation opportunity:** proximity to other industrial lands than enable synergies and could create clusters.
- **Lot size and adaptability:** provide sites at a scale to supply new industrial activity.

Transport and freight movement

Marong Business Park

The MBP site abuts a principal road freight network and a principal freight rail network and proximity to the planned Marong Western Freight Corridor. The rail connection is likely to increase in importance as industries seek ways to employ sustainability in their operations and access trade gateways.

The site is also located on the urban periphery which would alleviate the pressures on Bendigo's town centre which is currently subject to considerable freight movement.

Bendigo Regional Employment Precinct

BREP has access to arterial roads with frontages to two main highways and national freight routes, and proximity to the planned Marong Western Freight Corridor.¹⁴ Similar to the MBP site, BREP's position to the west of Marong township and Bendigo's centre, ensures that freight can access key trade gateways without disturbing residential settlements.

¹³ The City of Greater Bendigo. (2020) *Greater Bendigo Industrial Land Development Strategy: Background Report*.pp.58-63.

¹⁴ NAVIRE. (2022) *Bendigo Regional Employment Precinct – Infrastructure Funding Prospectus*.

Amalgamation opportunity

Marong Business Park

The MBP site is close to an existing settlement (Marong Township and Bendigo) which strengthens trade links and efficiencies. The site is surrounded by primary production land (farm zoned land), and it would result in a reduction of farm zoned land at the cost of private owners. However, the site has the potential to add value to Bendigo's agricultural outputs; its location enables strong distribution links between industries such as food product manufacturing and the agriculture industry. The food-product manufacturing industry is identified as a regional focus in the Loddon Campaspe Regional Economic Plan (2020) and a key sub-sector of Greater Bendigo's growing manufacturing sector.

Bendigo Regional Employment Precinct

The BREP site is located near an existing settlement, without abutting residential areas. Moreover, the site is surrounded by land use zoned for primary production which has the potential to unlock greater co-location and distribution links, such as in the food product manufacturing industry.

The potential for amalgamation opportunity would be strengthened by the realisation of both the MBP and BREP sites. The proximity of the MBP and BREP sites to each other is a significant advantage to industrial operations. Co-location benefits include more efficient supply chain operations and technology and knowledge transfer between firms. Bendigo's current industrial land is fragmented; the MBP and BREP sites could negate this issue.

The Loddon Campaspe Employment and Innovation Corridor, which has Bendigo as its central node, aims to harness amalgamation opportunities between traditional industries, education institutions, and research to encourage innovation and economic development in the region.¹⁵

Lot size and adaptability

Marong Business Park

The MBP site, at 313ha, would provide a significant supply of industrial land for the region. As well as the sheer size of the site, the proposed CDZ zone provides flexibility for Council to tailor uses and include restrictions such as locational requirements.

Bendigo Regional Employment Precinct

The BREP site's current developable area is approximately 294ha in size, providing the opportunity to meet the long-term industrial land supply needs of the region.

Of the land currently classified as 'available' in Greater Bendigo, the majority is privately owned.¹⁶ Whereas, 155ha of the BREP site is owned by Council which grants the local government a greater degree of control over development activities.¹⁷ Partial government ownership of the site also addresses some of the market barriers that prevent the availability of large industrial lots, such as the initial infrastructure costs.

¹⁵ Loddon Campaspe. (2019) *Loddon Campaspe Economic Growth Strategy*.p.40

¹⁶ The City of Greater Bendigo. (2020). *Industrial Land Needs and Gaps Analysis*.p.9

¹⁷ NAVIRE. (2022) *Bendigo Regional Employment Precinct – Infrastructure Funding Prospectus*.

With a critical shortage of large industrial lots evidenced in the strategic documents and audits¹⁸¹⁹, a clear spatial advantage of MBP and BREP is their potential to bring large industrial lots to the market. Industrial land supply and availability of large lots could reduce the displacement ripple effect that will inevitably force out businesses as industrial sites are exhausted and could help to attract new industries to Greater Bendigo. The adaptability of industrial precincts, compared with the relative inflexibility of an established urban centre, means that they are vital places of nurturing for emerging sectors.

3.1 Summary

Existing industrial lands in Greater Bendigo are constrained by proximity to parkland and residential areas, and fragmentation. Greater Bendigo's main industrial precinct, in East Bendigo, is close to the urban centre which provides advantages for the co-location of industrial businesses and access to the commercial centre. However, it also restricts industrial freight and heavy vehicle movement which is a disturbance to urban areas.

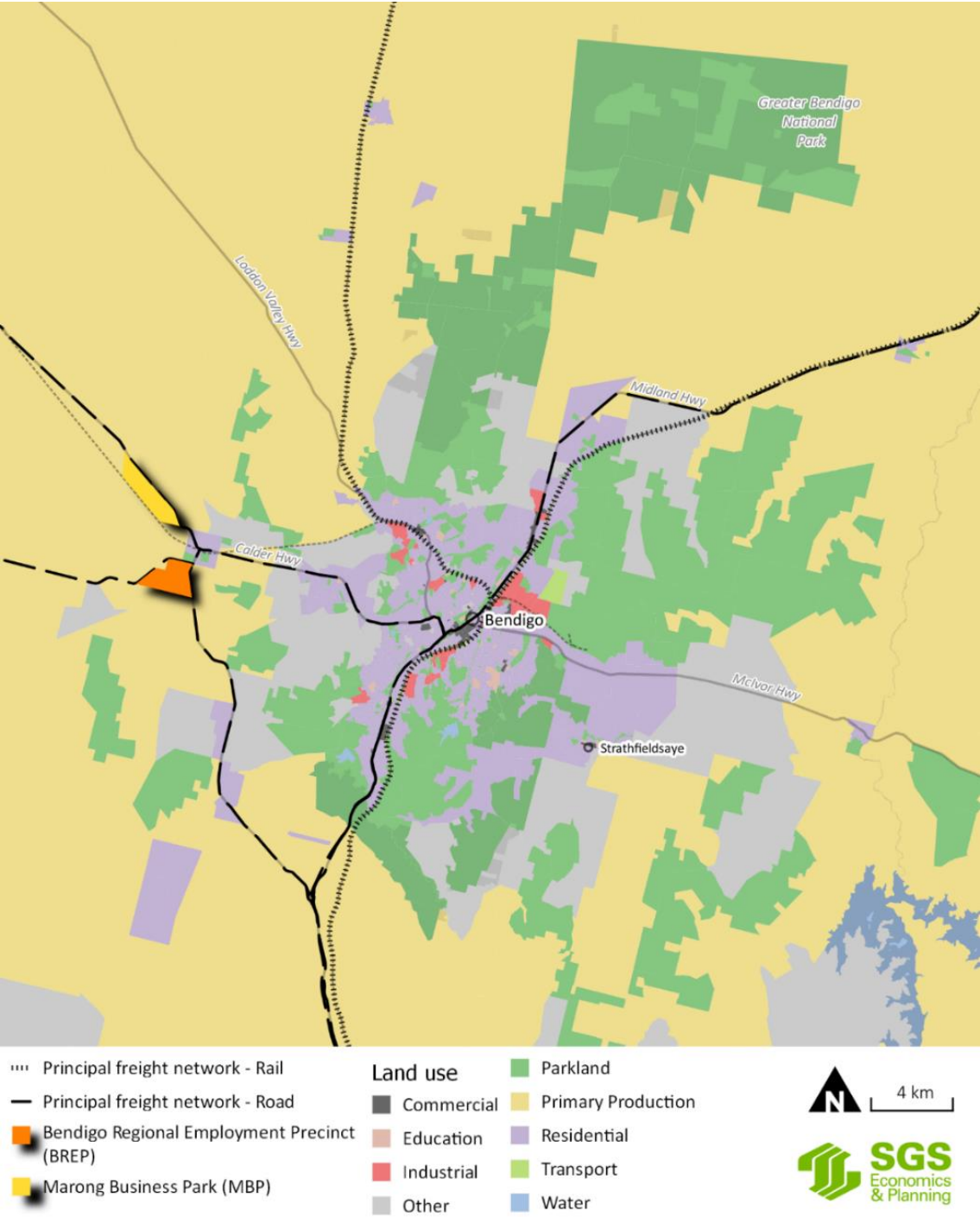
The MBP and BREP sites each have merits that could strengthen Bendigo's industrial economy, but in tandem, they represent a unique and high-quality expansion to the competitive offer. They provide:

- Access to dedicated road-based freight movement corridors;
- Access to rail freight corridors (particularly in the case of MBP);
- Separation from residential areas;
- Amalgamation opportunities and distribution links with the agricultural industry;
- Co-location benefits; and
- Large and adaptable lots to meet the LGAs changing needs.

¹⁸ REMPLAN. (2019) *Bendigo Industrial Land Review: Strategic Economic Inputs*.

¹⁹ The City of Greater Bendigo. (2020) *Greater Bendigo Industrial Land Development Strategy: Background Report*.

FIGURE 5: GREATER BENDIGO LAND USES AND LOCATION OF BREP AND MBP SITES



Source: SGS Economics and Planning, 2022.

4. Comparator Areas

A comparison of industrial zoned land supply in other regional centres in Victoria and New South Wales (NSW) provides insights into regional industrial trends.

Limitations

Looking at key indicators (e.g., population, industrial land supply, available land) in comparator areas provides context to the state of industrial land in key regions. These indicators are intended to be illustrative, rather than definitive, as direct comparisons are difficult to make between regions due to contextual differences and the unique factors at play in each area.

Greater Bendigo is not the only LGA in its region possessing industrial land supply. As Table 6 below demonstrates, both the quantum and vacancy rate of industrial land in Greater Bendigo relative to other regional Victorian LGAs is low.

The City of Greater Geelong and the City of Ballarat provide competition for industrial activities which are linked to Western Victoria as they offer a range of industrial lot sizes. Most significantly, these LGAs offer large lot sizes through new industrial parks (GREP and BWEZ) that are well serviced and connected to major transport networks. Bendigo also has less available industrial land than the comparator LGAs, as demonstrated in Table 6 and illustrated in Figure 6. As a result, Geelong and Ballarat have a competitive advantage over Bendigo as they offer greater flexibility for potential firms in both availability of industrial land and lot size.

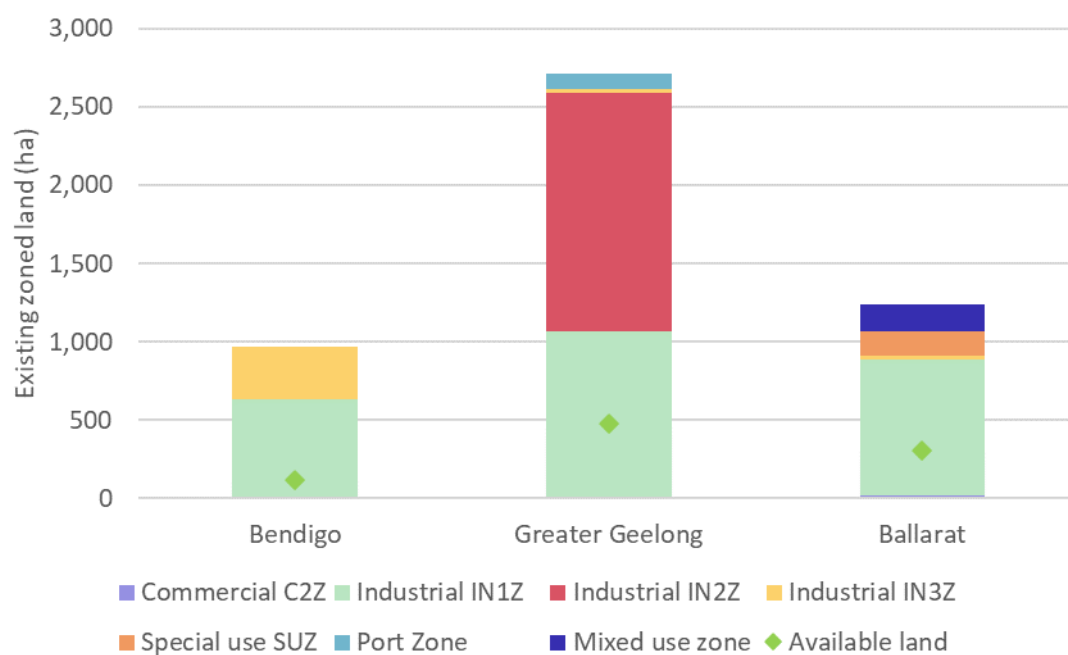
TABLE 6: REGIONAL INDUSTRIAL LAND SUPPLY (HA) – EXISTING ZONED LAND

	Bendigo	Greater Geelong	Ballarat
Greater population (SA4 level)	167,764	327,878	173,937
Commercial C2Z	-	-	18ha
Industrial IN1Z	630ha	1,067ha	867ha
Industrial IN2Z	-	1,525ha	
Industrial IN3Z	338ha	23ha	25ha
Special use SUZ	-	.*	156ha

	Bendigo	Greater Geelong	Ballarat
Port Zone	-	94ha	-
Mixed use zone	-	-	175ha
Total (ha)	968ha	2,709ha	1,241ha
Available land (ha)	120ha	480ha	301ha
Vacancy rate (%)	12%	18%	24%

Source: ABS (SA4) Place of Usual Residence, 2021. City of Greater Bendigo, 2020. The City of Greater Geelong, 2018. The City of Ballarat, 2021. Notes: *Greater Geelong has 1,755ha of zoned SUZ11 land for industrial use (Avalon Airport precinct) which is not included here.

FIGURE 6: EXISTING ZONED INDUSTRIAL LAND, COMPARATOR LGAS (HA)



Source: REMPLAN, 2019. The City of Greater Geelong, 2018. The City of Ballarat, 2021.

TABLE 7: REGIONAL INDUSTRIAL LAND CONSUMPTION AND SUPPLY

	Bendigo	Greater Geelong	Ballarat
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Consumption rate (ha per year)	9ha per year	19.5ha per year*	9ha per year
Total existing supply (years)	14 years	21 years*	31 years^

Source (from left to right): REMPLAN, 2019. The City of Greater Geelong, 2018. The City of Ballarat, 2021.

Notes: *Excluding Avalon SUZ11 (the consumption rate of 23ha per year if Avalon SUZ11 is included). ^The supply for Ballarat includes, more broadly, 'employment lands' (rather than just industrial zoned land), which include commercial 1 zone but exclude the CBD.

4.1 Greater Geelong

According to the *Greater Geelong Industrial Land Supply Report* (2018), the LGA has a total of 2,709ha zoned industrial land. This figure excludes Avalon Airport (1,755ha), which is classified as a Special Use Zone (SUZ11) for industrial use, and the Western Employment Precinct (158ha), which is awaiting a precinct structure plan to be rezoned from an Urban Growth Zone (UGZ). Of this total land supply, 18 per cent is vacant, classified as available for industrial development and free from constraints.²⁰

With a consumption rate of 19.5ha per year, demand for industrial zoned land in Geelong has increased in line with population and economic growth in the LGA (as of 2018). Applying this consumption rate, in total, there is approximately 21 years supply of industrial zoned land across the LGA and a further 7 years of additional, unzoned supply. Similar to Greater Bendigo, the majority of industrial zoned lots in Geelong are 0.5ha or less (85%). However, the industrial areas are largely substitutable to each other and can contain large industrial lots.

Despite a seemingly high supply of industrial land, Geelong faces some of the following issues:

- The Moolap site (located at Point Henry) is an ageing asset, and it is expected that some of the demand from the precinct will be transferred to Armstrong Creek. A masterplan is being developed by the State to transition the site to housing and marina development.
- The Armstrong Creek precinct has been very slow to come to market, with the West Industrial Precinct (excluded from this assessment) still waiting to be rezoned from UGZ to industrial zone.
- Industrial land to the south of Avalon Airport is a quarry site.

²⁰ The City of Greater Geelong. (2018) *Greater Geelong Industrial Land Supply Report 2018*.

- Within the Geelong Port Precinct, some industrial zoned land is unavailable for development as it surrounds a former Shell site and acts a buffer.

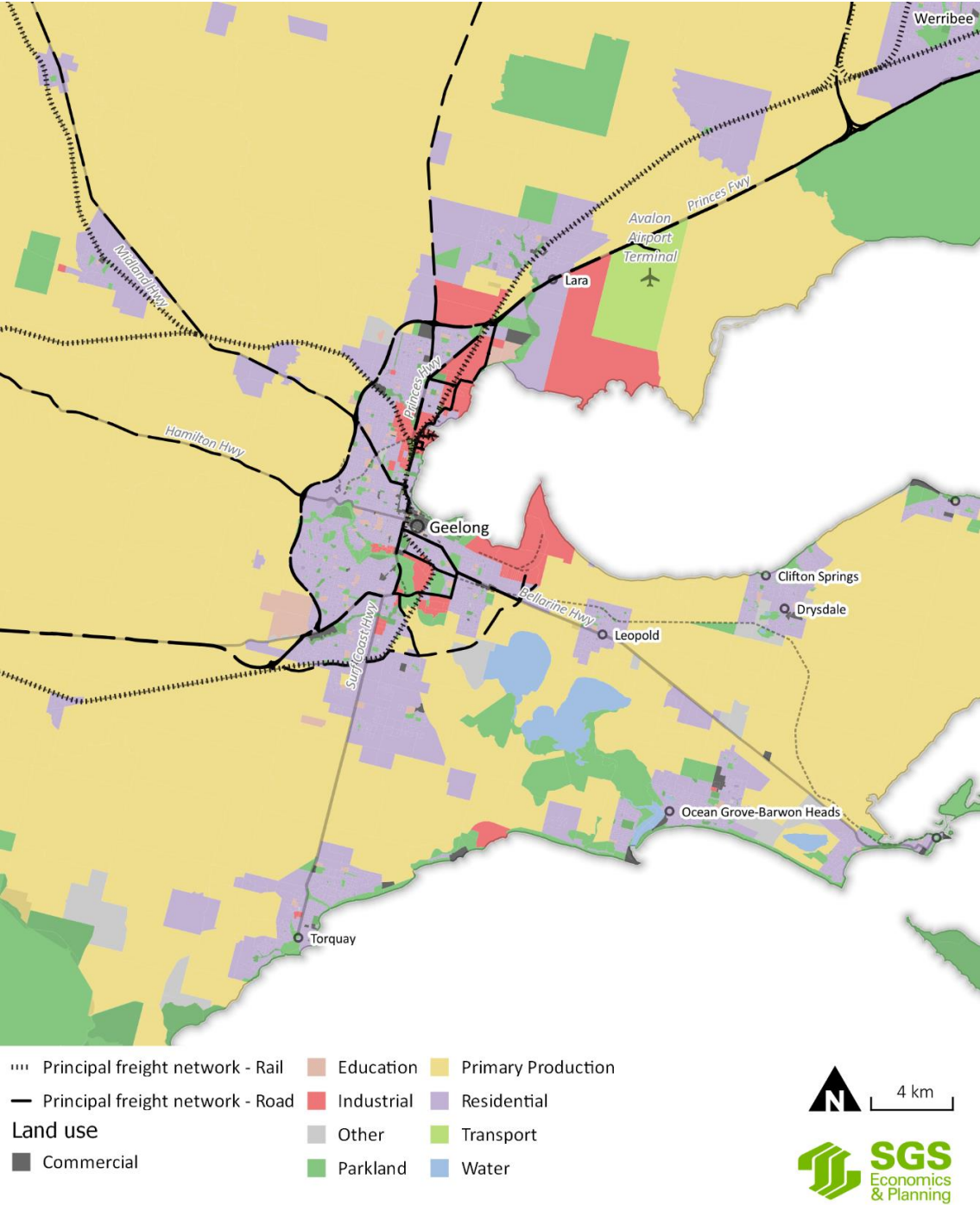
Geelong Regional Ring Road Employment Precinct (GREP)

GREP provides 491ha of industrial land (IN1Z and INZ2) with a range of lot sizes (164 below 0.1ha and 14 lots greater than 5ha). GREP is located adjacent to the Geelong Ring Road, providing high accessibility to transport networks. Between 2015 and 2018, GREP had the highest consumption rate in the LGA at 14ha per year. The City of Greater Geelong expect that demand for sites at GREP will continue to increase as older industrial precincts in the LGA are built out.

The City of Greater Geelong Council owned 50 per cent of the precinct and have played a major role in securing funds and delivering infrastructure.

With a 21-year supply of industrial zoned land, the Greater Geelong has adequate industrial land stock to meet demand, surpassing the 15-year minimum supply benchmark set in state policy (Clause 11.02).

FIGURE 7: GREATER GEELONG LAND USES



Source: SGS Economics and Planning, 2022

4.2 Ballarat

The *2021 City of Ballarat Employment Lands Strategy* (draft) identifies a total 1,241ha of industrial zoned land in the LGA. Of this land supply, 24 per cent is vacant and available for industrial development. Between 2012 and 2021, the consumption rate of industrial land was 9ha per year. The LGA has an estimated 31-year supply of employment land,²¹ however, it should be noted this estimate includes Commercial 1 Zone (107ha), excluding the CBD, which does not provide for industrial development. The average size of I1Z and I3Z lots are 3,000 to 3,500sqm, while the Ballarat West Employment Zone (BWEZ) provides larger lots, averaging around 4.45ha. The Strategy notes there is a need to provide small to medium lots elsewhere in the LGA (1,500sqm to 3ha) to accommodate a range of industrial uses.

Ballarat West Employment Zone (BWEZ)

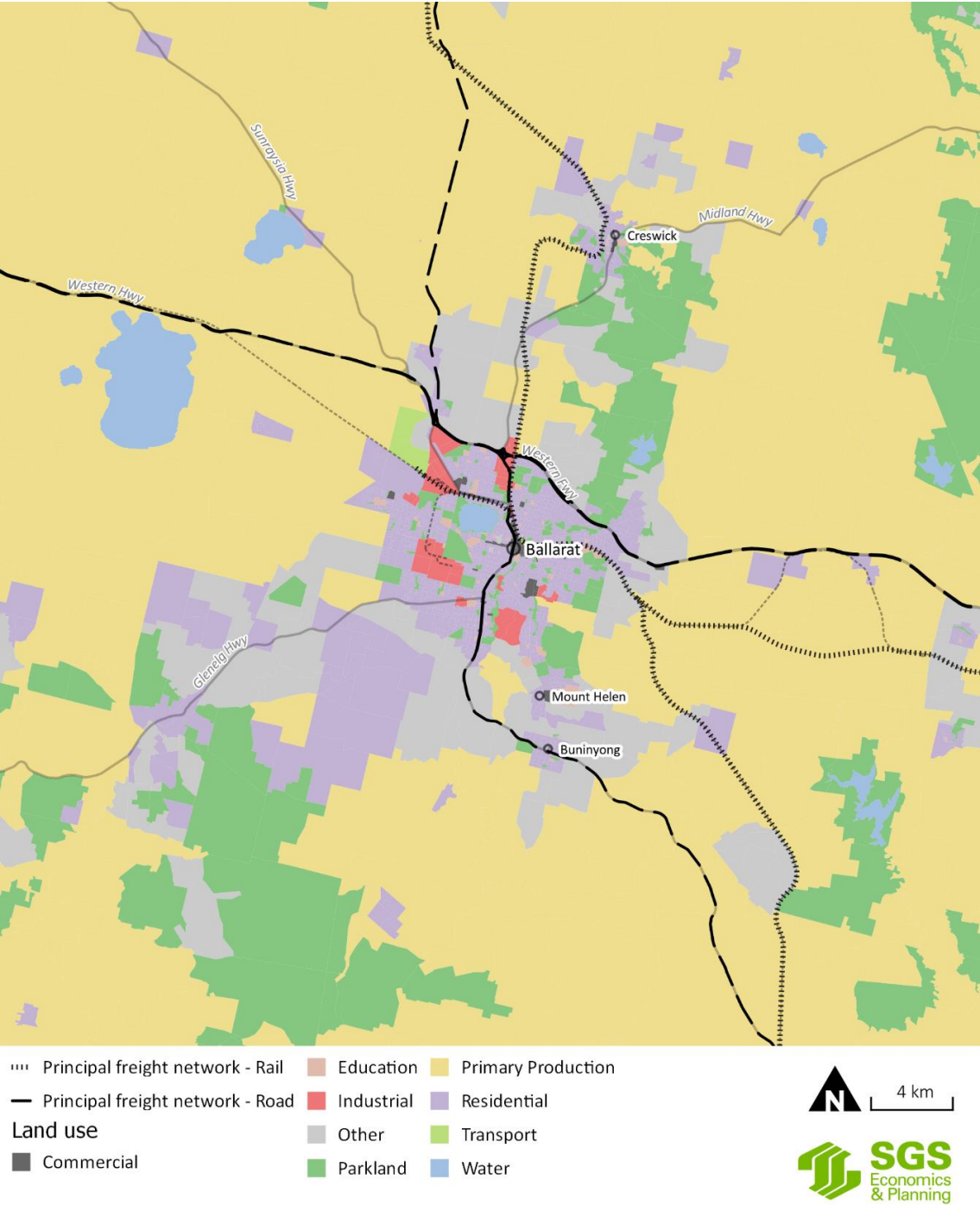
BWEZ is a 623ha precinct (430ha developable) that is earmarked for the LGA's industrial growth and is expected to support over 9,000 new jobs with completion and titled lots available late 2022/early 2023.¹ BWEZ is planned to accommodate a range of sectors, including, industrial, advanced manufacturing, freight, logistics, and aviation. The precinct is well serviced by infrastructure and connected to major transport networks.¹ The precinct fulfills Ballarat's demand for large industrial lots as the area is intended to provide lots of 6ha or greater. This enables firm to consolidate holdings and promotes larger scale development.

BWEZ is also Council owned land that is being developed by Development Victoria. There are strict controls for development in the precinct that make it difficult to buy land. As a result, the precinct provides a boutique land supply for large tenancies.

With a 31-year supply of industrial zoned land, the City of Ballarat has adequate industrial land stock to meet demand, surpassing the 15-year minimum supply benchmark set in state policy (Clause 11.02).

²¹ The Strategy uses three methods to estimate the supply of industrial zoned land based on the demand of: historical land take up (41 years supply), forecast population growth (21 years), and historic floorspace development (32+ years).

FIGURE 8: BALLARAT LAND USES



Source: SGS Economics and Planning, 2022

4.3 New South Wales Regions

The NSW Employment Lands Development Monitor (2021) provides an overview of employment lands supply in key regions. Table 8 shows the supply of land for the Hunter region and the Illawarra-Shoalhaven region.

TABLE 8: NSW REGIONAL INDUSTRIAL LAND SUPPLY - EXISTING ZONED LAND

	Hunter region	Illawarra-Shoalhaven
Total population	774,587	404,000
IN1 (ha)	3,015.3	645
IN2 (ha)	1,623	708.6
IN3 (ha)	873.6	1,207.8
IN4 (ha)	37.6	5.3
B5 (ha)	711.3	163.4
B6 (ha)	74.5	130
B7 (ha)	256.1	92.5
SP1 (ha)	1,503.9	1,291.8
SP2 (ha)	41	18.4.8
Total (ha)	8,136.3ha	4,429.2ha
Available land (ha)	4,097.3	1,270.8

Source: NSW Department of Planning and Environment, Employment Lands Development Monitor, 2021.

The Hunter region

The Hunter region comprises of 10 LGAs: Cessnock, Dungog, Lake Macquarie, Maitland, Mid Coast, Muswellbrook, Newcastle, Port Stephens, Singleton, and the Upper Hunter. Almost 79 per cent (3,228ha) of the undeveloped employment land is within the Greater Newcastle metropolitan area.²²

As the largest regional economy in Australia in terms of economic output, industrial lands are critical to support the Hunter region's diversifying economy which includes advanced manufacturing and renewable energy.²³ The Hunter Region Employment Lands (2010) report found that take up of employment lands was influenced by key trends and attributes, including:

- Proximity to transport infrastructure
- Low constraint, serviced land; and
- Expansion and growth of existing local businesses.

²² NSW Department of Planning and Environment, (2021). *Employment Lands Development Monitor*.

²³ NSW Department of Planning and Environment, (2016). *Hunter Regional Plan 2036*.

The Illawarra-Shoalhaven region

The Illawarra-Shoalhaven region comprises four LGAs: Kiama, Shellharbour, Shoalhaven, and Wollongong. Of the 2,567ha of industrial zoned land in the region, 72 per cent is in the Wollongong LGA. The take up of industrial land in the region was 7ha in 2020, the majority of which occurred in Wollongong.²⁴ The industrial land take up rate and supply data is not yet available at an LGA level, but it is likely that Wollongong would have a higher take up rate than the broader region due to a higher concentration of industrial activity.

According to the Illawarra-Shoalhaven Regional Plan (2015), the supply of industrial land in the region is projected to be sufficient to meet long term demands. However, the Regional Plan recognises the constraints such as flooding and bushfire risks, that limit the supply of industrial land in the region. Action 1.4.2 aims to “support the development of new industrial land through ongoing collaboration between State and Local Government and servicing authorities to coordinate delivery.”²⁵

4.4 Summary

The comparison of industrial land supply in regional areas in Victoria and NSW provides a high-level indication of the quantum of available industrial land in different contexts. In the case of Geelong and Ballarat, the supply of available industrial land surpasses the state benchmark to provide a minimum of 15-years supply (Clause 11.02). While the needs, context, and constraints vary between regions, against this benchmark there appears to be a shortfall in Greater Bendigo, where most recent estimates suggest there is only 11-years of supply (likely less as this was identified 2 years ago).

TABLE 9: COMPARATOR AREAS SUMMARY

	Greater Bendigo	Greater Geelong	Ballarat	Hunter region	Illawarra-Shoalhaven region
Total population	167,764*	327,878*	173,937*	774,587	404,000
Total (ha)	968ha	2,709ha	1,241ha	8,136.3ha	4,429.2ha
Available land (ha)	120ha	480ha	301ha	4,097.3	1,270.8
Indicative Per capita (sqm per person)^	58sqm	82sqm	71sqm	105sqm	110sqm

Notes: *The greater population of the region, using SA4 level data. ^The per capita indicator is only indicative and does not account for limitations to land in each context nor discrepancies in the use of different zones to capture industrial zoned land or more broadly, employment lands.

²⁴ NSW Department of Planning and Environment, (2021). *Employment Lands Development Monitor: Summary Report*.

²⁵ NSW Department of Planning and Environment, (2015). *Illawarra-Shoalhaven Regional Plan*. Pp.27

5. Demand Drivers and Industry Profiling

In this section, the emerging industry trends and the consequences for Greater Bendigo's industrial land supply are explored.

5.1 Major investments and growth

There are several significant markers of growth in Greater Bendigo, including:

- The introduction of regular direct flights to Sydney from Bendigo Airport in 2019;
- Local, State and Federal Government funded upgrades, just shy of \$10 million, to the Bendigo Airport to increase flight capacity and establish a dedicated airport business park²⁶;
- Nearly \$400 million worth of new government buildings and facilities are to be constructed in Greater Bendigo²⁷;

Greater Bendigo's population is growing, welcoming around 2,000 new residents each year. If the region continues to grow at the current rate (1.6-1.7 per cent), by 2050 the LGA will need more than 33,000 new homes and upwards of 35,000 jobs.²⁸ Greater Bendigo is forecast to experience significant growth, whether that be through new infrastructure or welcoming 2,000 new residents per annum, the LGA needs to be able to position itself to reap the benefits of these changes.²⁹

5.2 Industry profile

According to the latest ABS Census (2021), around 77 per cent of Greater Bendigo's residents in the workforce are employed locally.³⁰ While top industries of employment in the LGA include health care and social assistance (8.9 per cent) and retail trade (4.6 per cent), traditional industries such as manufacturing and mining are a significant employer in the region. For example, in 2021, 3.9 per cent of people in Greater Bendigo were employed in manufacturing compared to 3.3 per cent in the rest of Victoria and 3.4 percent in Greater Melbourne.³¹

²⁶ Magrath, J, (2022), 'Airport upgrade taking flight', Bendigo Times, September 01 2022, <https://timesnewsgroup.com.au/bendigotimes/news/airport-upgrade-taking-flight/>

²⁷ The City of Greater Bendigo, (2020), 'A Stronger Greater Bendigo 2030: Economic Development Strategy 2020-2030', p.19.

²⁸ The City of Greater Bendigo, (2022), 'Managed Growth Strategy: Draft Issues and Opportunities Paper', p.2.

²⁹ The City of Greater Bendigo, (2020), 'A Stronger Greater Bendigo 2030: Economic Development Strategy 2020-2030', p.10.

³⁰ Calculated using the ABS 2021 Place of Work (PoW) census data. Counting persons aged 15 and over.

³¹ ABS Census (2021), INDP Industry of Employment.

In the following section, Greater Bendigo's industry profile is explored through a Location Quotient and analysis of key industries.

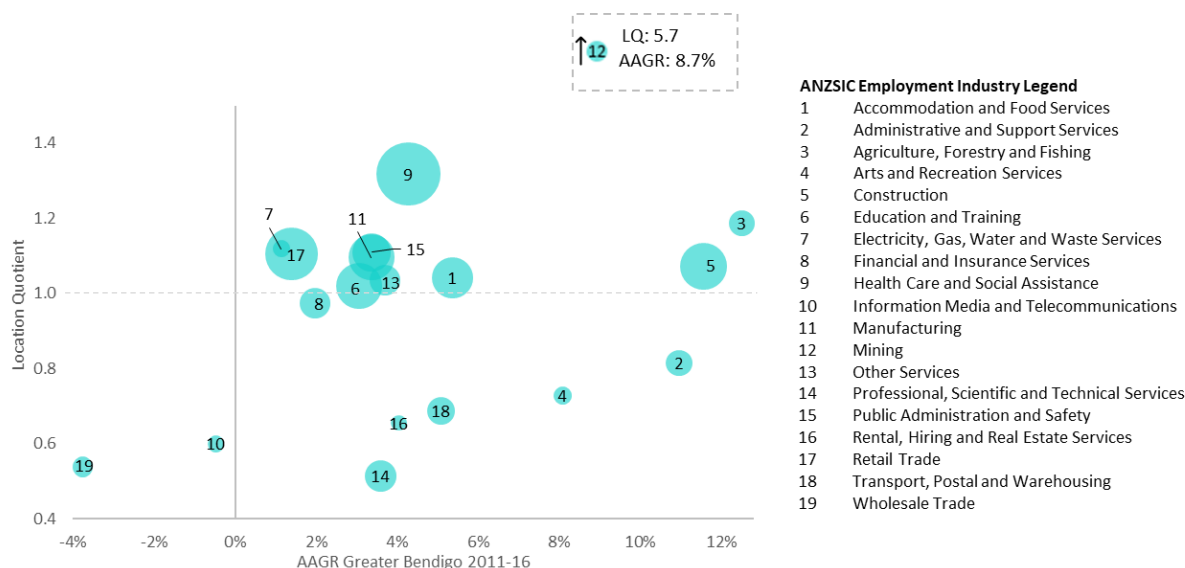
Location Quotient

Location Quotient (LQ) analysis is a measure of how similar or different an economy is compared to a reference economy. It can be used to identify relative specialisation of the region by selected industries and underrepresented industries which might present opportunities or market gaps/failures.

- An LQ equal to 1.0 indicates a local employment share equal to that of the broader region for that industry;
- Less than 1.0 indicates the industry is less represented at a local level, compared to the broader region; and
- Greater than 1.0 indicates the local industry is more represented at a local level compared to the broader region.

Figure 9 shows the LQ for the Greater Bendigo LGA compared to Victoria according to ABS 2016 data. The size of the bubble indicates the number of people employed in the industry. Several sectors have an LQ score above 1.0, indicating that they are more concentrated in Greater Bendigo than in the state, and employment in these industries has increased (the average annual growth rate (AAGR) between 2011-2016 is above 0). These industries are important driver sectors for the LGA.

FIGURE 9: GREATER BENDIGO INDUSTRY EMPLOYMENT LOCATION QUOTIENT AND GROWTH RELATIVE TO VICTORIA, 2016



Source: SGS Economics and Planning, 2022. ABS, Place of Work 2011-2016. Notes: The dashed box contains an industry (mining) which is beyond the bounds of the axis.

The profile of industries in Greater Bendigo can also be understood through the gross revenue generated by sectors. Manufacturing is the largest output generating sector, representing 18 per cent of the total output in Greater Bendigo (see Table 10).

TABLE 10: OUTPUT (\$M) BY INDUSTRY, GREATER BENDIGO 2019-2020

Industry	Output (\$ million)	%
Manufacturing	\$3,112.990	18%
Construction	\$2,338.437	14%
Rental, Hiring & Real Estate Services	\$1,499.379	9%
Financial & Insurance Services	\$1,422.423	8%
Health Care & Social Assistance	\$1,210.892	7%
Mining	\$1,187.576	7%
Public Administration & Safety	\$771.541	5%
Retail Trade	\$728.334	4%
Electricity, Gas, Water & Waste Services	\$705.486	4%
Education & Training	\$656.671	4%
Professional, Scientific & Technical Services	\$609.066	4%
Transport, Postal & Warehousing	\$526.487	3%
Agriculture, Forestry & Fishing	\$412.160	2%
Accommodation & Food Services	\$402.167	2%
Information Media & Telecommunications	\$392.801	2%
Wholesale Trade	\$331.728	2%
Other Services	\$299.307	2%
Administrative & Support Services	\$273.985	2%
Arts & Recreation Services	\$127.828	1%

Source: REMPLAN, 2021 Economy, Jobs, and Business Insights. Notes: Output data represents the gross revenue generated by businesses/organisations in each of the industry sectors in Greater Bendigo.

Key industries

The LQ and output generated (gross revenue) by each industry reveals employment specialisation in Greater Bendigo, including:

Manufacturing

Greater Bendigo has a legacy of manufacturing that shapes the identity of the region, produces high-value outputs in Australia and offshore, and supports the local economy.³² This is reflected in the industries output value which makes up 18 per cent of Greater Bendigo's total output revenue. The sector's LQ is 1.1 and employment increased by 3.4 percent on average between 2011-2016 compared to the decrease in employment witnessed at the state level (-2.8 per cent on average).

The manufacturing industry in Greater Bendigo produces high-value goods across a range of sub-sectors, including defence equipment, food and beverages, engineering products and transport equipment.³³ Greater Bendigo is positioning itself as a highly skilled source of manufacturing for Australia and overseas, embracing technological change, innovation, and collaboration through initiatives such as the Bendigo Regional Manufacturing Group.³⁴

Greater Bendigo competes nationally for Defence contracts. In 2015, Bendigo-based Thales secured a \$1.3 billion contract to manufacture the next generation of armoured vehicles. The company employs around 280 people locally and benefits from the areas co-location to other industries, skilled labour force, and proximity to Melbourne.³⁵

Construction

Greater Bendigo's construction industry has an LQ of 1.1 and employment in the sector grew on average by 11.6 per cent between 2011-2016, compared to the state average of just 4.1%. The industry contributes 14 per cent of Greater Bendigo's output revenue, second only to manufacturing. The sector's growth aligns with the demand in housing in Greater Bendigo; around 1,000 new homes are constructed each year.³⁶ The industry also benefits from the co-location of building manufacturing in Greater Bendigo which creates supply chain efficiencies.

For example, Abri Masonry occupy a 133,210sqm lot in Greater Bendigo's Kangaroo Flat industrial precinct. The company is Australia's leading masonry manufacturer, and they produce around 5,500 tonnes of concrete building materials at their Bendigo factory each month.

Mining

The mining sector has the highest LQ at 5.7. Although it employs a relatively small proportion of people it has experienced higher employment growth than the state average - close to 7 per cent more between 2011 and 2016. The industry is powered by metal ore mining (including gold) and is responsible for over \$1,187 million in exports, equivalent to 7 per cent of the LGA's export economy.

³² The City of Greater Bendigo. (2013) *Greater Bendigo's Manufacturing & Mining Industries*.

³³ The City of Greater Bendigo. (2016) *Made in Bendigo: Working locally, competing globally*.

³⁴ Bendigo Regional Manufacturing Group. Accessed: 25/10/22, URL: <https://www.bendigomanufacturing.com/>

³⁵ The City of Greater Bendigo. (2016) *Made in Bendigo: Working locally, competing globally*.pp.10-13

³⁶ The City of Greater Bendigo. (2016) *Made in Bendigo: Working locally, competing globally*.pp.23

Mining companies in Greater Bendigo benefit from the co-location of industry resources and expertise. For example, Hanson, a company that produces building materials from a quarry 20km to the east of Bendigo, employs 75 staff and accesses 95 per cent of their resources locally.³⁷

Agriculture, Forestry and Fishing

In Greater Bendigo, the agriculture industry has a LQ of 1.2 and employment in the sector grew by 12.5 per cent on average between 2011-2016 compared to the state average of 3.5 per cent. While the sector generates just 2 per cent of Greater Bendigo's output revenue, the co-location of agriculture and food product manufacturing enable greater supply chain efficiencies in the region.

For example, Gilmac, a manufacturer of hay and straw, occupy a 509,200sqm lot in north east Bendigo.³⁸ Gilmac export hay and straw to markets in Japan, Taiwan and South Korea and are responsible for 30 per cent of Australia's hay and straw exports. Their Goornong site represents 20 per cent of the company's overall production.³⁹

Service and professional industries


Industries such as Health Care and Social Assistance, and Accommodation and Food Services are dominant in Greater Bendigo. The Health Care and Social Assistance industry in particular generates a significant proportion of the LGA's output revenue at 7 per cent and has an LQ of 1.3. This reflects a nationwide trend of a shift to a higher skilled, services-based economy.

The growth of services-based industries presents a challenge for land-use planning for a traditionally manufacturing and agriculture-based economy like Greater Bendigo; industrial lands are encroached by commercial and residential uses as the urban centre expands.

5.3 Consultation findings

Consultation with sales and lettings agents was conducted in September 2022. This included perspectives from Colliers, McKean McGregor, Savills, and professionals working across regional Victoria. The following table is a synopsis of key findings relevant to the industrial market in Greater Bendigo.

TABLE 11: CONSULTATION FINDINGS

Category	Finding
Demand profile 	Substantial undersupply of industrial land, strong take-up
	Strong demand in East Bendigo for 300-400sqm lots, indicates smaller occupiers currently prefer this as it is close to existing residential
	Post-covid, there has been a large influx of tradesman requiring greater space close to the 'action' (commercial and industrial real estate)

³⁷ The City of Greater Bendigo. (2016) *Made in Bendigo: Working locally, competing globally*.pp.31

³⁸ The City of Greater Bendigo. (2017) Permit approvals data on industrial land.

³⁹ The City of Greater Bendigo. (2016) *Made in Bendigo: Working locally, competing globally*.pp.15

Category	Finding
Price movements 	<p>Leasing values have increased from \$70 psm to \$90/\$100 psm in 2.5 years</p> <p>Prices vary significantly for sales, but vacant possession values have skyrocketed</p>
Market dynamics 	<p>Slow movement for larger sheds (>1,000 sqm, which stifles supply to existing demand) – demand for approx. 2-4 large lots over 3ha, 4-5 looking for 1ha</p> <p>While Ballarat and Geelong have more industrial land, there are still supply constraints there – every regional city is feeling pressure</p>

Source: SGS consultation, 2022

5.4 Demand drivers

There are a number of emerging trends and drivers influencing the current and future role of industrial precincts. It is important to understand how these drivers will affect the short-term and medium-long-term land supply challenges in Greater Bendigo.

Institutional co-location

Co-location benefits that accrue to the economy include increased efficiency, knowledge sharing and decreased transaction costs through reduced transport movements. Australia's supply and value chain advantage is most acute in the intersection of the knowledge economy and advanced manufacturing capabilities; in niche low-volume high-value markets requiring specialisation, strong links to world-class R&D and high levels of quality control. This advantage has a clear spatial dimension to it, with precincts close to the places where knowledge is developed and funded (Universities, hospitals, and commercial districts) being well placed to play this role.

The desire to increase the translation capabilities of Australian universities and businesses with a strong R&D focus will increase the importance of industrial precincts close to where these activities occur. This is reflected in the Loddon Campaspe Regional Economic Development Strategy which emphasises the necessity to link industry and education providers to develop career pathways and a workforce that meets the future needs of the region. Several education institutions are present in Greater Bendigo and run manufacturing-focused programs, including the Kangan Institute, Latrobe University, and Bendigo TAFE which partners with Deakin University.

Adaptable and accessible floorspace

The growth of emerging sectors, and particularly those with strong links to R&D and fabrication, will require adaptable floorspace that is not easily provided for in established commercial centres. Adaptability is likely to be even more important in Bendigo's short-to-medium term post-COVID-19 economy. The uncertainty of what industries will emerge requires a commensurate degree of flexibility.

Industrial precincts, with their more adaptable build form and ability to accommodate industries with different operational requirements, will likely to be in high demand.

Industrial land audits carried out in Greater Bendigo reveal a lack of large lot sizes; as of 2020, there was only one 'very large' lot (over 5ha).⁴⁰ This, alongside the fragmented nature of industrial land in the LGA, has a limiting effect on existing businesses who want to expand and may prevent industries from establishing in Bendigo. Moreover, Bendigo, unlike many other regional cities, does not have a business park to accommodate large lots and adaptable floorspaces.

Strong distribution links

The continued growth of ecommerce and the allied Freight and Logistics sector places high value on access to trade gateways. With a Post-COVID-19 rethink of what Australia manufactures domestically, these precincts may also play an even greater role in the exporting of value-added goods. In the Loddon Campaspe region, strong links between research and the manufacturing and agriculture sectors are intended to benefit the region's food industry and produce world class exports for the highly competitive household food produce markets of Asia and the Middle East.⁴¹

Displacement ripple effect

Increased competition for finite industrial land will price out some of the traditional, 'lower value' industrial tenants who cannot compete with higher value industrial users. This will create a displacement impact with those businesses seeking to locate as close to supply chains as possible. The displacement ripple effect is already evident in Greater Bendigo⁴² and is likely to worsen as industrial land supply is exhausted; shortages will be an issue by as early as 2024 according to REMPLAN.⁴³

5.5 The changing nature of industrial precincts

The concept of global mega trends has gained currency in the past few years, with a focus on their role in shaping the future of cities and global economies. Many of these are not examined from a spatial perspective and not all relate specifically to industrial precincts in Greater Bendigo.

The CSIRO's 2016 report on Advanced Manufacturing has a specific focus on industrial-related industries and, by extension on industrial precincts. The report identifies five Global Megatrends that it contends will influence the future of manufacturing. These trends will have both spatial and supply chain implications that will influence the role, form, and function of industrial precincts in the future.

⁴⁰ The City of Greater Bendigo (2020). *Greater Bendigo Industrial Land Development Strategy: Background Report*.

⁴¹ Loddon Campaspe. (2019) *Loddon Campaspe Economic Growth Strategy*.

⁴² O'Callaghan, T. (2022) "Manufacturer Laila and Me warns it could be forced to leave Bendigo." *Bendigo Advertiser*. Accessed: 20/10/2022. URL: <https://www.bendigoadvertiser.com.au/story/7924553/manufacture-warns-it-could-be-forced-to-leave-bendigo/?cs=80>

⁴³ REMPLAN. (2019) *Bendigo Industrial Land Review – Strategic Economic Inputs*.

These five trends are summarised in Table 12 and the relevance to industrial precincts in Greater Bendigo is explored.

TABLE 12: CSIRO'S MANUFACTURING MEGATRENDS AND THEIR IMPLICATIONS AND RELEVANCE TO INDUSTRIAL PRECINCTS

CSIRO Manufacturing Megatrends	Implications	Relevance to industrial lands in Greater Bendigo
Made to measure	Increase in bespoke manufacturing	A build to order model could decrease demand for warehouses and increase the output value of manufacturing.
Service expansion	Vertical integration of role from production into services	Diversification of users in industrial precincts. Increased demand in precincts close to commercial centres.
Smart and connected	Increased technological systems supporting manufacturing Increased data analytics capabilities	Increasing connection between manufacturing and tech sectors may drive demand for precincts close to technology/creative urban precincts to increase knowledge spill overs, such as the Loddon Campaspe Employment & Innovation corridor.
Sustainable operations	Demand for value chain efficiency Growth in net zero or circular economy precincts (energy, water, waste etc) Increased focus on reduced transportation energy costs	Demand for precincts of scale that support local sustainable supply chains. Need to retain local precincts to ensure a distributed network that minimise transport costs - In Bendigo, this could include industrial precincts proximity to, and efficient use of, rail networks.
Supply chain transformations	Increased collaboration along supply chains Desire to co-locate to improve efficiency	Anchor industries increasing attracting upstream and downstream supply chain links continue to increase demand for industrial land.

Source: CSIRO, 2016 'Advanced Manufacturing: A roadmap for unlocking future growth opportunities for Australia & SGS Economics and Planning, 2022.

5.6 Summary

Manufacturing is critical to Bendigo's economy and the future of industrial precincts will rely on greater connectivity, adaptability, and co-location to accommodate the industry which feeds into many other sectors (such as construction and mining) and contributes high-value outputs. For Greater Bendigo to keep up with the manufacturing megatrends and maintain its place on the national and global map as a manufacturing hub of high-value outputs, the area must display innovation in its supply of industrial lands.

Strategically located on principal freight roads and rail, with a skilled workforce, and co-located with education, research, and existing industries, Greater Bendigo just lacks the quantum and quality of industrial lands to attract new businesses and encourage the growth of existing firms.

5.7 Recommendations and Implementation

In this section, the key findings are summarised and the next steps for implementation are outlined.

Five Pillar Justification

TABLE 13: KEY FINDINGS

Chapter	Key findings	Implications
Strategic context	Greater Bendigo is a critical economic hub for the region, and it has significant locational advantages as the central node in the proposed Loddon Campaspe Employment and Innovation Corridor.	A long-term pipeline of industrial zoned land is fundamental to realisation of the aims in regional strategies such as the Employment and Innovation Corridor.
Demand and supply considerations	According to recent estimates, Greater Bendigo has 11 years of industrial zoned land and an even greater shortage of large lots (over 5ha). At minimum, somewhere between an additional 170ha to 270ha of industrial land supply is required for a 30-year pipeline.	The LGA cannot accommodate future businesses or the expansion of existing firms without a pipeline of land and diverse lot sizes. BREP is critical in the short term, but the forecast indicates its lots will be exhausted by 2039. By which point introduction of the MBP will be necessary to maintain industrial land supply. Together, both precincts provide a future supply buffer, important for a competitive market.
Employment land spatial context	Most of the existing industrial land is constrained by residential and park land while the MBP and BREP sites offer several unique locational advantages including freight line access, separation from residential areas, the potential for large lots and co-location. These advantages are most potent when BREP and MBP are both realised.	The MBP and BREP sites each have merits that could strengthen Bendigo's industrial economy. In tandem they offer unparalleled opportunity for amalgamation, efficient freight movement, and adaptability to meet the LGAs changing needs.

Chapter	Key findings	Implications
Comparator areas	Other key regional areas have an adequate supply of industrial lands, although are not without their constraints. In Victoria, Geelong, and Ballarat both have new industrial precincts, owned in part by government	Other regional areas will have a competitive advantage over Greater Bendigo if its industrial land supply shortage is not addressed. Moreover, other key regional areas have shown the advantage of government ownership to bring forward large industrial precincts and ensure a long-term development perspective (not provided by the private sector).
Demand Drivers and Industry Profiling	Manufacturing is critical to Bendigo's economy and the future of industrial precincts will rely on greater connectivity, adaptability, and co-location to accommodate the industry.	Realisation of both the MBP and BREP sites offer significant opportunity for co-location. While local and small industries could be accommodated by Bendigo's existing stock of industrial land, larger, national, or state-wide companies are likely to be deterred by the LGA's land supply pipeline. A greater quantum and quality of well-connected and diverse industrial lands are needed to accommodate key industries and attract state-and-nationwide industries such as food-product manufacturing.

Source: SGS Economics and Planning (2022)

5.8 Implementation and staging

To lay the foundations for future industrial development, Greater Bendigo should signal to potential investors and businesses that there is a long-term industrial land supply pipeline. The big occupiers, with significant employment and which attract other businesses and downstream supplies, often need large industrial lots that aren't currently being provided by the private market.

Industrial land development to attract these users requires a long-term perspective, upfront investment in infrastructure and a more patient approach to risk and return. Government intervention (State and/or local) in developing industrial lands can overcome this barrier in Greater Bendigo, as it has done in other comparator regions.

Strategy

Industrial land is often misunderstood and suffers from connotations of being dirty, noisy, and low value precincts. In modern economies and developed regional cities such as Bendigo, however, this is far from the truth. Industrial land supports a myriad of activities that in aggregate, make a significant economic contribution to Bendigo's economy.

Yet the value of these precincts remains underappreciated. While from a land value or per capita perspective, industrial lands and industrial jobs may be less productive than jobs and land in CBDs, they are critical enablers of downstream value. This is rarely taken into account in evaluating industrial land

‘value’ but is a fundamentally important point when considering the role and function of industrial precincts in the future of Bendigo’s economy.

The adaptability of future industrial precincts, particularly when compared with the relative inflexibility of an established urban centre, means that they are vital places of nurturing for emerging sectors. Disruptions to supply chains, automation, climate change, the growth of bottom-up community enterprises, and micro and small businesses all present demands for new and flexible types of floor space models and clusters of industry.

As Victoria’s economy transitions, and the nature of work changes, it is expected that industrial precincts will accommodate more diverse job types than previously. This is because many traditional industrial businesses now include higher-tech functions, and subsequently employ higher-skilled workers.

The transformation of the BREP and then MBP is a longer-term strategy. As evidenced in this report, the economy will continue to be dynamic, and have an interplay with the development life cycle.

The Three Horizons approach⁴⁴ proposes that in order to achieve significant transformation, places need to plan across three horizons simultaneously. These are:

- **Horizon 1: Consolidate** the existing hierarchy and support long term options.
- **Horizon 2: Reinforce** and augment a maturing regional economy.
- **Horizon 3: Transform** the economy through innovation, major investment, and new opportunities.

In many ways, developing BREP in the short term helps to consolidate the existing hierarchy of industrial lands in line with strategic documents. Maintaining the MBP will ensure that there are long term options available. Providing a pipeline of industrial supply will help to reinforce a maturing manufacturing economy. The strategic rail connections will help to transform this maturing industrial base into a site that hosts innovation.

Stepped approach

The following enabling actions are proposed for the Greater Bendigo:

1. Develop BREP in the short term;
2. Maintain MBP for further review and staged release; and
3. Investigate appropriate planning mechanisms in further studies to support the staged release of land.

The role of government

Developments here will involve both local and state governments to facilitate the actions over both a medium and longer-term period. This will require input from other consideration such as land use, transport connectivity and design to make both a sustainable and successful precinct.

⁴⁴ Baghai, Coley and White (1999) *The Alchemy of Growth*. Originally designed for business planning, the framework has been adapted for the development of cities and places.

When looking ahead, the importance of Planning both as a mechanism to intervene and as a tool for economic visioning becomes increasingly important. Employment precincts will be at the forefront of an economic recovery out of COVID-19. The push to grow Australia's Advanced Manufacturing capabilities, which can be fostered in Bendigo, requires productive, flexible, and accessible floor space close to the commercial centres.

From a population-serving perspective, the increase in eCommerce will continue and require a network of distribution points close to areas of employment and population density and major trade gateways.

Without Planning, the ability to realise these future economic aspirations risks being compromised through the short-term financial aspirations that seek increased land value rather than public interest outcomes.

Government intervention in Queensland

As seen in Ballarat and Geelong government (State and/or local) intervention is a significant strategy for supporting industrial lands. A key example of this practice is the Queensland Government. The Queensland Government has invested in large industrial precincts over many years, recognising the private market 'gap' and the importance of ensuring a long-term supply in key areas. Economic Development Queensland owns and develops a number of industrial areas across the state.

Source: Economic Development Queensland (2022)

Planning Instruments

Development Contributions Plan and Development Contributions Plan Overlay

The VPA⁴⁵ defines Development Contributions Plans and the Development Contributions Plan Overlay as:

Development contributions are payments or in-kind works, facilities or services provided by developers towards the supply of infrastructure required to meet the future needs of the community.

A **Development Contributions Plan (DCP)** sets contribution rates and outlines how future residents, visitors and workers will be provided with timely access to the services and infrastructure they need.

A **Development Contributions Plan Overlay** identifies the land that is subject to a DCP. The approved planning scheme amendment includes a Development Contributions Plan Overlay which supersedes the interim overlay and introduces new rates in accordance with the DCP.

⁴⁵ <https://vpa.vic.gov.au/faq/what-is-a-development-contributions-plan-and-development-contributions-plan-overlay/>

A Development Plan Overlay (DPO) is a planning tool used to guide the future uses and development of land in question. Planning Practice Note 23⁴⁶ articulates when the DPO is relevant for use in developments.

A DPO should be underpinned by a strategic framework that sets out the desired development outcomes and the overall layout of the land including, if relevant, the design principles for the development, major land uses, transport, and open space networks.

Currently, there is an existing Development Contributions Plan (DCP)⁴⁷ and Development Plan Overlay (DPO) for MBP. A further review of planning controls and corresponding advice on the appropriate use and implementation of them is recommended to take place in an additional study. \

Monitoring and Review

Monitoring consumption of land will be key to understand the future “take-up” rate. Key data to collect could include:

- Amount of floorspace built;
- Area of site;
- Industry of occupier;
- Number of stories;
- Mezzanine floorspace, proportion of office, and other requirements; and
- Freight requirements (road vs. rail and split).

5.9 Summary

In light of the key findings, it is recommended that **both BREP and MBP are retained** for industrial land use in the region.

The following enabling actions are proposed for Greater Bendigo:

1. Develop BREP in the short term;
2. Maintain MBP for further review and staged release; and
3. Investigate appropriate planning mechanisms in further studies to support the staged release of land.

⁴⁶ https://www.planning.vic.gov.au/__data/assets/pdf_file/0026/97154/PPN23-Appling-the-IPO-and-DPO-Sept-2022.pdf

⁴⁷ <https://www.planning.vic.gov.au/resource-library/incorporated-documents/greater-bendigo/gben-C161Part-1-Marong-Business-Park-Development-Contributions-Plan,-March-2017.PDF>

Appendix A – Industrial Land Audits

Industrial Land Audit (City of Greater Bendigo, 2018)

The City of Greater Bendigo conducted an Industrial Land Audit in 2018, updating the previous audit undertaken in 2002. The audit identified 964ha of zoned industrial land, 120ha (12.5 per cent) of which is vacant or available for consumption. The Industrial land comprises Industrial Zone 1 (65 per cent) and Industrial Zone 3 (35%). The Audit assesses the effective utilisation of the industrial sites and categorises them into 21 precincts.

Looking at the total commercial and industrial land supply compared to other LGAs in regional Victoria (Campaspe, Central Goldfields, Loddon, Macedon Ranges, and Mount Alexander), Bendigo is shown to have the highest supply. The report argues that this indicates Bendigo's competitive position as a leader in industrial and commercial investment opportunities.

Greater Bendigo Industrial Land Development Strategy – Background Report (City of Greater Bendigo, 2020).

The Background Report provides an updated audit of industrial land supply in Greater Bendigo to inform the Greater Bendigo Industrial Land Development Strategy. The Report includes a breakdown of the status of industrial land (see Table 14) and the lot sizes of available land (see Table 15).

TABLE 14: GREATER BENDIGO STATUS OF INDUSTRIAL ZONED LAND, THE CITY OF GREATER BENDIGO 2020

Status	Industrial zoned land (ha)	Share of total industrial zoned land (%)
Occupied – currently developed	553.4	57%
Occupied - underutilised	91.2	9.5%
Vacant – available for consumption	120	12.5%
Not available –constraints or under development	199.2	21%
Total land	967.5	100%

Source: The City of Greater Bendigo, 2020.

TABLE 15: GREATER BENDIGO AVAILABLE INDUSTRIAL LAND LOT SIZES, THE CITY OF GREATER BENDIGO 2020

Lot size	Number of lots	% of total lots
Small (0.5ha or less)	90	74%
Medium (0.5-1 ha)	17	14%
Large (1-5ha)	8	7%
Very large (over 5ha)	7	6%
Total	122	100%

Source: The City of Greater Bendigo, 2020.

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