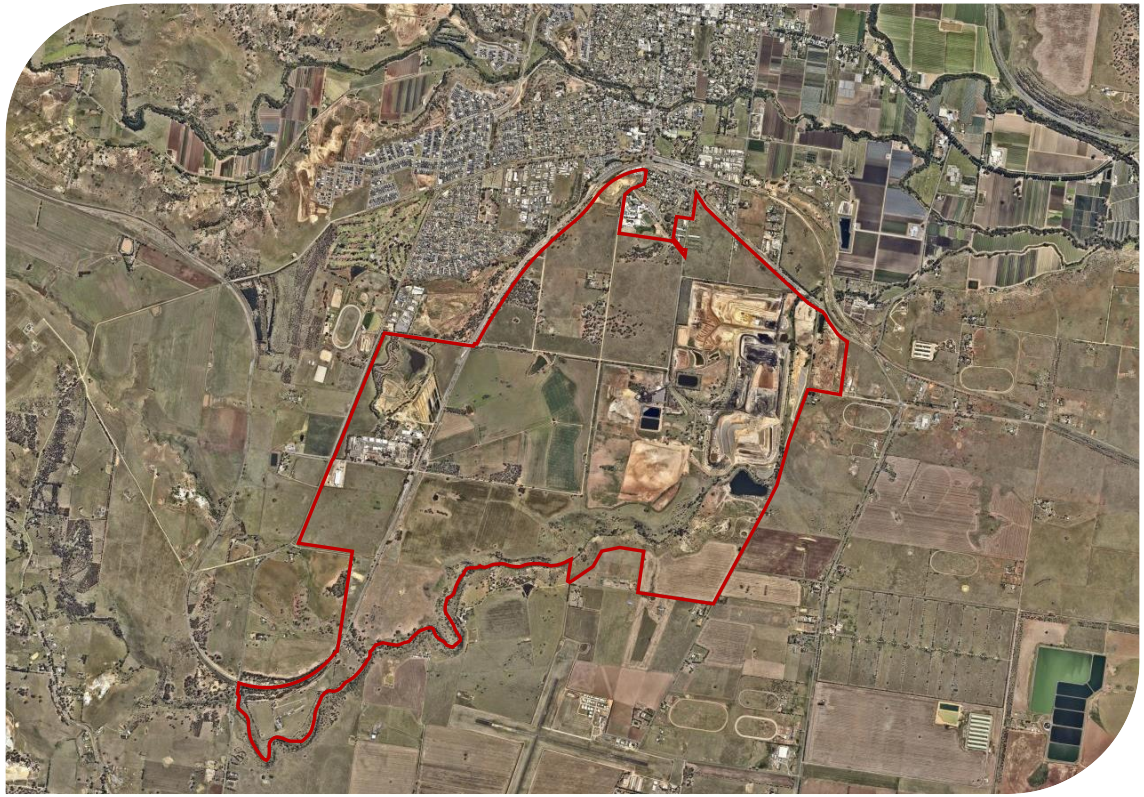
Maddingley Planning Study



October, 2025

Prepared for

Moorabool Shire Council

Prepared by

centrum
TOWN PLANNING

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Contents

Acknowledgement of country

We acknowledge the Traditional Owners of the land on which Moorabool Shire sits, the Wadawurrung, Wurundjeri Woi Wurrung and the Dja Dja Wurrung peoples. On behalf of the municipality, Council pays respect to their Elders past and present. Council commits to celebrating our region's rich First Nations history, the diversity of its people and their important ongoing connections to Country.

Abbreviations

Commonly used abbreviations in this report are set out in the table below.

Abbreviation	Full description
Bacchus Marsh UGF	Bacchus Marsh Urban Growth Framework
Background Report	Planning Study - Background Report, March, 2019
Council	Moorabool Shire Council
DELWP	Department of Environment, Land, Water and Planning
EES	Environment Effects Statement
EP Act	Environment Protection Act 2017
EPA	Environment Protection Authority (Victoria)
ESO	Environmental Significance Overlay
GED	General Environmental Duty
GRZ	General Residential Zone
IN1Z / IN2Z / IN3Z	Industrial 1, 2 & 3 Zones
MBC	Maddingley Brown Coal Pty Ltd
MRSD Act	Mineral Resources (Sustainable Development) Act 1990
MSS	Municipal Strategic Statement
P&E Act	Planning & Environment Act 1987
PEP	Parwan Employment Precinct
PPF	Planning Policy Framework
SEPPs	State Environment Protection Policies
SUZ	Special Use Zone
VPP	Victoria Planning Provisions
WRR	Waste and Resource Recovery
WRRG	Waste and Resource Recovery Group

Definitions

Key definitions used in this report are set out in the table below.

Term	Definition	Source
Agent of change	Principle that the person or entity that is responsible for the change is responsible for managing the impact of the change.	ERM, 2018
Amenity	The circumstances needed for a person need to live comfortably, such as the absence of excessive dust, odour and noise.	ERM, 2018
Buffer	The land that is used to achieve a separation distance between uses to minimise amenity impacts	This document
Long term	15+ years.	
Maddingley Brown Coal	Calleja Group and subsidiary companies	This document
Maddingley WRR Hub	The land comprising MBC's operations as defined in the Bacchus Marsh Urban Growth Framework Plan	Bacchus Marsh UGF, 2018
Medium term	5 - 15 years.	
Putrescible waste	Readily decomposes and includes food and organic material from gardens.	SWRRIP
Reverse amenity	Impact of sensitive uses affecting an industrial or similar activity in a way that limits their operations.	This document
Section 173 Agreement	Legal agreement registered on title under the provisions of Section 173 of the Planning and Environment Act.	This document
Sensitive use	Any land use that requires a focus on protecting human health and wellbeing, local amenity and aesthetic enjoyment.	EPA 1949
Solid inert waste	Neither chemically nor biologically reactive and will not decompose and includes glass, sand and concrete.	SWRRIP
Separation distance	Distance between land uses that require a buffer.	This document
Short term	Up to 5 years.	
Threshold distance	Point beyond which a planning permit or assessment is needed for a use.	This document and Clause 53.10.
Upset conditions	Breakdown in plant or extreme weather conditions which results in emissions above and beyond what the site is licensed to emit.	ERM, 2018

Term	Definition	Source
Waste hub	Facilities, or groups of facilities, that process or manage waste and material streams.	SWRRIP
Waste to energy	The production of usable forms of energy from individual or mixed material streams. Energy products include electricity, heat, biogas and process derived fuels.	SWRRIP

Source: Centrum Town Planning, 2021, ERM, 2018, 3, Sustainability Victoria, 2018, Moorabool Planning Scheme

Executive summary

The Maddingley Planning Study (the Planning Study) provides the strategic foundation for changes to the Moorabool Planning Scheme that will guide future land use and development within the study area and within separation distances to industrial uses.

The Planning Study is also intended to be used as an engagement and advocacy tool for communicating the standards that industries are expected to uphold. This includes expectations in relation to best practice operations, social responsibility and the consideration of the surrounding community.

Notwithstanding this role, there are some factors that have a major impact on people and businesses, but which cannot be addressed by planning policy or planning controls and must be taken up by direct engagement with stakeholders and co-regulators.

The study area

The study area (shown in Figure ES1) is strategically located immediately to the south of the existing urban area of Bacchus Marsh, which is a rapidly growing regional centre that is located mid-way between Melbourne and Ballarat.

The study area is predominantly rural in character with large areas of land zoned for farming and industry. Major land uses in the study area include the JBD Industrial Estate, Calix and the Maddingley Waste and Resource Recovery (WRR) Hub, which is a facility of state importance (comprising a landfill, resource recovery, composting activities and a coal mine). The study area also includes 13 dwellings.

Brown coal is located underneath much of the study area. Since the late 1990s, approximately half of the study area has been zoned Special Use Zone (SUZ1), which facilitates coal mining and discourages dwellings.

The study area contains no reticulated sewerage and only limited reticulated water and stormwater drainage infrastructure. There is an existing electricity network, however, it is understood that the capacity of existing sub-station infrastructure is limited. Prior to any future rezoning of land to facilitate urban development, further strategic work will be required to identify options and costs for augmenting utility services.

Bacchus Marsh Grammar School, a growing primary and secondary school, is located immediately to the north of the study area.

Background

The Planning Study was developed in 2018-2021 and was informed by a comprehensive consultation program.

The need for the Planning Study was identified in the Bacchus Marsh Urban Growth Framework (UGF; 2018), which identifies urban growth investigation areas that form part of the settlement vision for the town.

The study area is closely connected with this vision as it is located immediately to the west of the future Parwan Station residential and commercial growth precinct and to the north west of the future Parwan Employment Precinct.

By 2041, the population of the Bacchus Marsh District is forecast to almost double from approximately 24,000 to approximately 46,000. This will create demand and ongoing pressure for commercial, industrial, and other land uses associated with residential development and population growth to meet the needs of residents.

Executive summary

One of the key issues in the study area is that EPA recommended separation distances (associated with existing industrial and mining uses) extend up to 2,200 metres around the activity area at the Maddingley WRR Hub. These separation distances aim to protect both existing industries and sensitive uses, however, they affect two schools and large numbers of dwellings, both within the study area and beyond. This situation has a number of significant and complex implications for future land use and development in these areas, which are explored in the Planning Study.

Another key issue is that the SUZ1 (coal mining) is currently applied to a large number of properties (including 10 dwellings) that are located beyond the the boundaries of Mining Licence 4701 associated with the Maddingley WRR Hub.

The Planning Study represents an important step in balancing the various interests that exist within and beyond the study area. It will also guide future planning decisions with a focus on more mutually beneficial outcomes for all stakeholders.

Planning objectives for the study area

The Planning Study has developed a suite of objectives, strategies and planning principles which seek to provide long term net community benefit outcomes.

It has established the following overarching objectives for the study area:

- To protect sensitive land uses against encroachment from land uses with adverse amenity potential.
- To protect industrial land uses against unplanned encroachment from sensitive land uses.
- To achieve an appropriate mix of land use and development, compatible with surrounding land uses.
- To support the implementation of Victoria's circular economy policy.
- To respect the existing statutory approvals in the study area and uses with existing use rights.
- To outline the best practice expectations for the Maddingley WRR Hub, coal mining and other industrial uses within the study area.
- To protect environmental values such as significant remnant native vegetation, the Parwan Creek environs, waterways and other catchments.
- To protect and conserve Aboriginal cultural heritage values.

Recommended changes to the Moorabool Planning Scheme

The Planning Study recommends the following changes to the Moorabool Planning Scheme through the preparation of a planning scheme amendment in three phases:

Phase 1 – Policy Amendment

The initial planning scheme amendment stage will introduce planning policy and a land use framework for the Maddingley East area. Planning Scheme changes will include:

- Amend the Municipal Planning Strategy (MPS) and Planning Policy Framework (PPF) to incorporate the relevant objectives, strategies and planning principles from the Planning Study, as appropriate.
- Introduce a new strategic framework plan to identify strategic directions for the study area, including future land uses.
- Introduce a local planning policy to encourage circular economy type land uses to establish on industrial zoned land in Maddingley.
- Introduce a local policy statement to protect the Brooklyn-Ballan high pressure gas pipeline.

Executive summary

Phase 2 - Rezoning of land short to medium term

Phase 1 provides the strategic guidance for future rezoning amendments to be delivered in Phase 2 and 3 amendments. This phase will reduce the extent of the SUZ to remove it from land outside of the Maddingley Brown Coal licence area. The following changes to the Planning Scheme are proposed as part of the Phase 2 amendment:

- Prepare a new Schedule 6 to the Special Use Zone and apply it to the licensed area of the Maddingley WRR Hub, in accordance with EPA Licence 45288 and Mining Licence 4701.
- Rezone the existing FZ land in Sub-area 1 (East) to the new SUZ6;
- Rezone crown land known as Parwan Creek Water Frontage Reserve (portion of Sub-area 2 (South west)) from Farming Zone (FZ) to Public Conservation and Resource Zone (PCRZ).
- Rezone land south of Rowsley Station Road in Sub-area 3 (West) from Industrial 1 Zone (IN1Z) to Industrial 2 Zone (IN2Z).
- Rezone the balance of land to the east of Osborne Street in Sub-area 4 (North west) from SUZ1 to Industrial 3 Zone (IN3Z), subject to a review of industrial land supply and demand in the municipality, with a particular focus on land for light/service industry. Alternatively, if IN3Z cannot be strategically justified, rezone the land to FZ.
- Consider rezoning land described as Plan of Consolidation 380604 (west of South Maddingley Road in Sub-area 4 (North west)) from SUZ Schedule 1 to SUZ Schedule 4 (Bacchus Marsh Grammar School), subject to the proponent providing evidence that:
  - a reduced separation distance is appropriate from the Maddingley WRR Hub to the satisfaction of the EPA and Council; and
  - soil conditions are appropriate for the use having regard to Ministerial Direction No.1.
- Rezone all of the land in Sub-area 5 (North) from SUZ1 to IN3Z, subject to a review of industrial land supply and demand in the municipality, with a particular focus on land for light/service industry. Alternatively, if IN3Z cannot be strategically justified, rezone the land to FZ.
- Rezone all of the land in Sub-area 6 (North east) from SUZ1 to IN3Z, subject to a review ofindustrial land supply and demand in the municipality, with a particular focus on land for light/service industry. Alternatively, if IN3Z cannot be strategically justified, rezone the land to FZ.

Phase 3 – Rezoning of land medium-longer term

The Planning Study also recommends that consideration should be given to the following longer term changes (Phase 3) to the Moorabool Planning Scheme:

- Rezone land bound by Kerrs Road, Gullines Road, Rowsley Station Road and the railway line (in Sub-area 2) from SUZ1 and FZ to IN1Z and/or IN2Z. Prior to further consideration of this option, there is a need to undertake an industrial land supply and demand assessment.
- Rezone land bound by Osborne Street, Kerrs Road and the railway line (in Sub-area 4) from FZ to IN3Z. This option should be considered if land to the south of Kerrs Road is rezoned to IN1Z or IN2Z in the longer term (refer to Sub-area 2 [south west] Recommendation SW4).

These changes are shown in Figure ES2 below.

Executive summary

Other Recommendations

The Planning Study also recommends that Council engage with Maddingley Brown Coal (MBC) to:

- gain an understanding of their long-term plans for their landholding;
- encourage open air composting to be converted to in-vessel;
- encourage best practice operations to minimise adverse impacts to the surrounding community and environment; and
- explore the potential application of the Buffer Areas Overlay, with MBC to be responsible for undertaking the technical assessment work needed to inform the preparation of a planning scheme amendment.

Maddingley Planning Study

LEGEND

- Study Area
- Sub-area Boundaries
- Property Boundaries
- Mining License Area MIN4701
- Road
- Railway Line
- Waterway

Note: Arrow locations show conceptual areas only

0 250 500 750 1,000 m

GIS maps produced by BlueSphere Environmental

Data Sources

Aerial imagery: Nearmap Ltd, photograph dated 02/05/2025.

Basemap Layers: Vicmap data, 2019. The State of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the State of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

FIGURE ES1

AERIAL MAP OF STUDY AREA

PLANNING STUDY

Prepared for **Moorabool Shire Council**

Prepared by centrum TOWN PLANNING

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Date: 18/09/2025

Revision: FINAL Rev14

Maddingley Planning Study

LEGEND

- Study Area
- Sub-area Boundaries
- Property Boundaries
- Parcel Boundaries
- Current Mining Licence and EPA Landfill Licence Area

Road

- Railway Line
- Aerodrome
- Waterway

Planning Zone (within Study Area)

- FARMING ZONE (FZ)
- INDUSTRIAL 1 ZONE (IN1Z) or INDUSTRIAL 2 ZONE (IN2Z)
- INDUSTRIAL 2 ZONE (IN2Z)
- INDUSTRIAL 3 ZONE (IN3Z)
- TRANSPORT ZONE - CATEGORY 1 (TRZ1)
- RURAL ACTIVITY ZONE (RAZ)
- SPECIAL USE ZONE - SCHEDULE 1 (SUZ1)
- SPECIAL USE ZONE - SCHEDULE 6 (SUZ6)
- Public Conservation and Resource Zone (PCRZ)
- COMMERCIAL 2 ZONE (C2Z)

Data Sources

Basemap Layers and Planning Zones: Vicmap data, 2019. The State of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the State of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

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GIS maps produced by BlueSphere Environmental

FIGURE ES2 RECOMMENDED ZONE MAP

PLANNING STUDY

Prepared for **Moorabool Shire Council**

Prepared by centrum TOWN PLANNING

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Date: 18/09/2025 Revision: FINAL Rev14

Introduction

Bacchus Marsh is a rapidly growing regional centre that is located mid-way between Melbourne and Ballarat. By 2041, the population of the Bacchus Marsh District is forecast to almost double from approximately 24,000 to approximately 46,000.

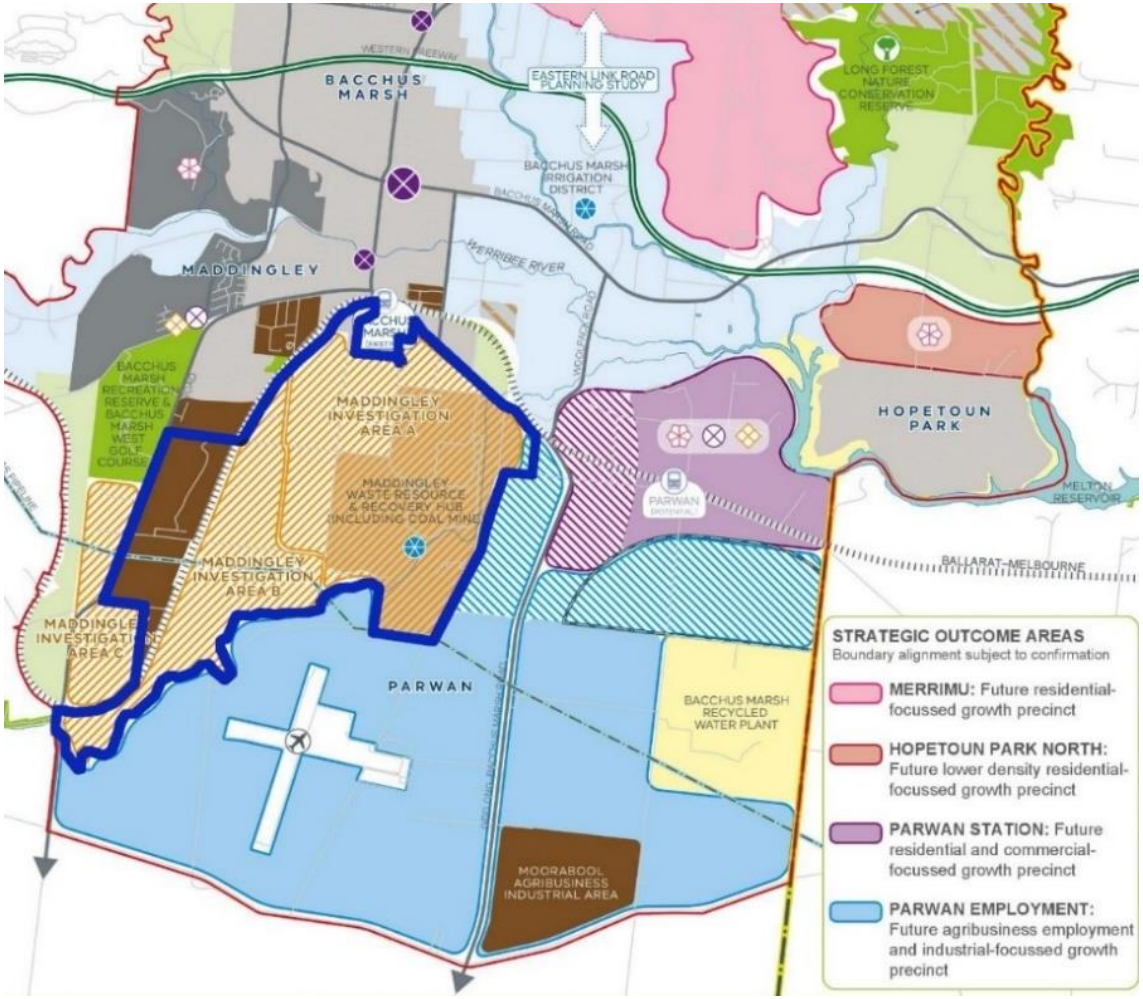
The Planning Study focuses on an area which is located immediately to the south of the existing urban area of Bacchus Marsh. The study area, which is identified in Figure 1, is located in close proximity to residential areas, schools, the Bacchus Marsh Railway Station and a short distance from the Bacchus Marsh town centre.

The study area is also located immediately to the west of the future Parwan Station residential and commercial growth precinct and to the north west of the future Parwan Employment Precinct. These precincts are shown on the *Bacchus Marsh Urban Growth Framework* ('Bacchus Marsh UGF') Plan shown opposite in Figure 1.

The study area is mainly rural in character; however, parts of the study area are used intensively for industry, mining, landfill and waste management. There are also a number of dwellings in the study area.

These influences, namely, the diverse range of land uses within the study area and urban growth in the adjoining areas, are the fundamental influences that shape most elements of the Planning Study.

Figure 1. Excerpt from Bacchus Marsh Urban Growth Framework Plan in Clause 11.01-1L-02 of the Moorabool Planning Scheme



Source: Moorabool Planning Scheme, Clause 11.01-1L-02; study area added by Moorabool Shire Council.

Study area boundary

Introduction

Purpose

The main purpose of the Planning Study is to provide the strategic foundation for potential changes to the Moorabool Planning Scheme that will guide future land use and development within the study area and within separation distances to industrial uses. These changes will also allow appropriate new uses to establish and grow within a clear and robust planning framework.

The need for the Planning Study was identified in the Bacchus Marsh UGF. The Planning Study represents an important step in balancing the various interests that exist within and beyond the study area. It will also guide future planning decisions with a focus on more mutually beneficial outcomes for all stakeholders.

The Planning Study is intended to be used as an engagement and advocacy tool for communicating the standards that industries are expected to uphold. This includes best practice operations, social responsibility and the consideration of the surrounding community. It is recognised that there are some factors that have a major impact on people and businesses, but which cannot be addressed by planning policy or planning controls and must be taken up by direct engagement with stakeholders and co-regulators.

The Planning Study has been prepared to be understood by a wide audience, including stakeholders with little prior knowledge of strategic land use planning.

Planning Study aims

The aims of the Planning Study are to:

- review the existing planning controls that apply to the study area;
- review the application of the SUZ1 to land beyond the the current boundaries of Mining Licence 4701;
- identify opportunities for uses that can leverage off the strategic relationship with activities at the Maddingley WRR Hub which is a facility of state importance;
- explore issues relating to separation distances and buffers to the Maddingley WRR Hub based on past planning processes and existing information;
- investigate options for future compatible land uses within the study area;
- develop a planning framework for the study area that will better align with the long term vision for the growing regional centre of Bacchus Marsh, as identified in the Bacchus Marsh UGF;
- develop new planning provisions for the study area and its various sub-areas.

Introduction

Project methodology

Centrum Town Planning was engaged by Moorabool Shire Council (Council) in December 2018 to prepare the Planning Study. The key steps in the project are shown below.

Part A | Context

Location

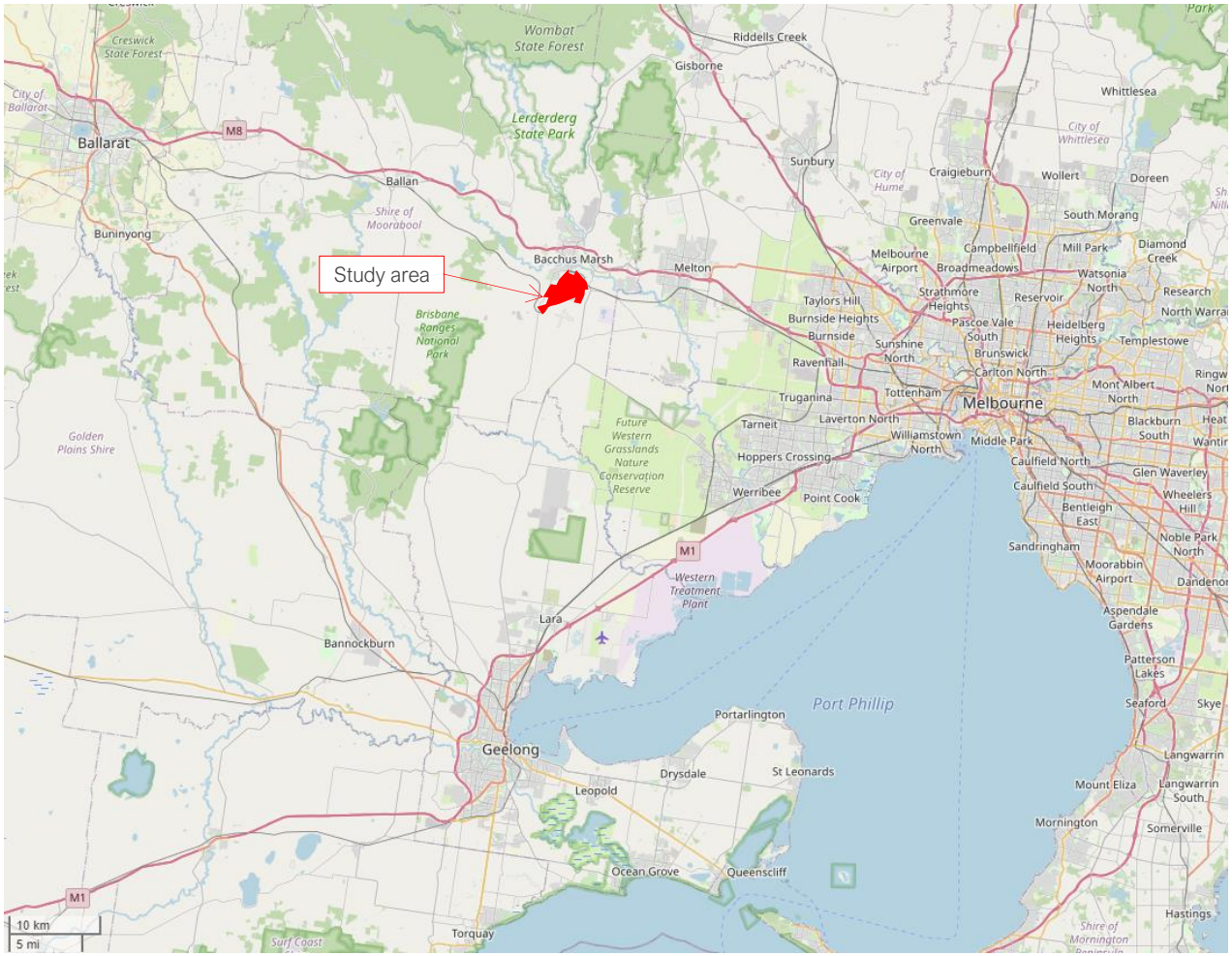
The study area is strategically located to the south of Bacchus Marsh in Moorabool Shire. Bacchus Marsh is located between the three largest urban centres in Victoria: Metropolitan Melbourne, Geelong and Ballarat, as shown in Figure 2.

Bacchus Marsh is positioned along the major road and rail transport corridors between Melbourne and Adelaide. The town straddles Victoria's Western Highway and the Melbourne-Ballarat railway line.

The study area is located the following distances from key destinations and infrastructure in the region:

- 6 kilometres to the west of the Melbourne Metropolitan area and Urban Growth Boundary, in Melton;
- 31 kilometres to the west of the Western Ring Road;
- 42 kilometres to the north of the Port of Geelong;
- 45 kilometres to the west of the Melbourne Central Business District (Melbourne CBD) and Port of Melbourne;
- 50 kilometres to the east of the Ballarat CBD.

Figure 2. Regional location map



Source: https://www.openstreetmap.org/, prepared by Centrum Town Planning, 2021.

Regional role and vision

Moorabool Shire is set to experience significant growth and change over the coming decades. The population of Bacchus Marsh and its immediate surrounds including Darley, Maddingley, Merrimu/Hopetoun Park and Parwan Station, is expected to almost double from 24,000 in 2021 to 46,000 in 2041 (www.profile.id.com.au/moorabool).

Traditional economic drivers such as agriculture, timber, wool and beef production and mineral, stone and water extraction remain extremely important to Moorabool Shire's economy. Residential growth, construction, retail and service industries, light manufacturing and tourism are emerging areas of growth.

Plan for Victoria (2025)

Bacchus Marsh is identified in *Plan for Victoria (2025)* as a regional service centre where growth should be supported in order to contribute to Moorabool Shire's housing target of 20,000 additional houses by 2051 (Pillar 1).

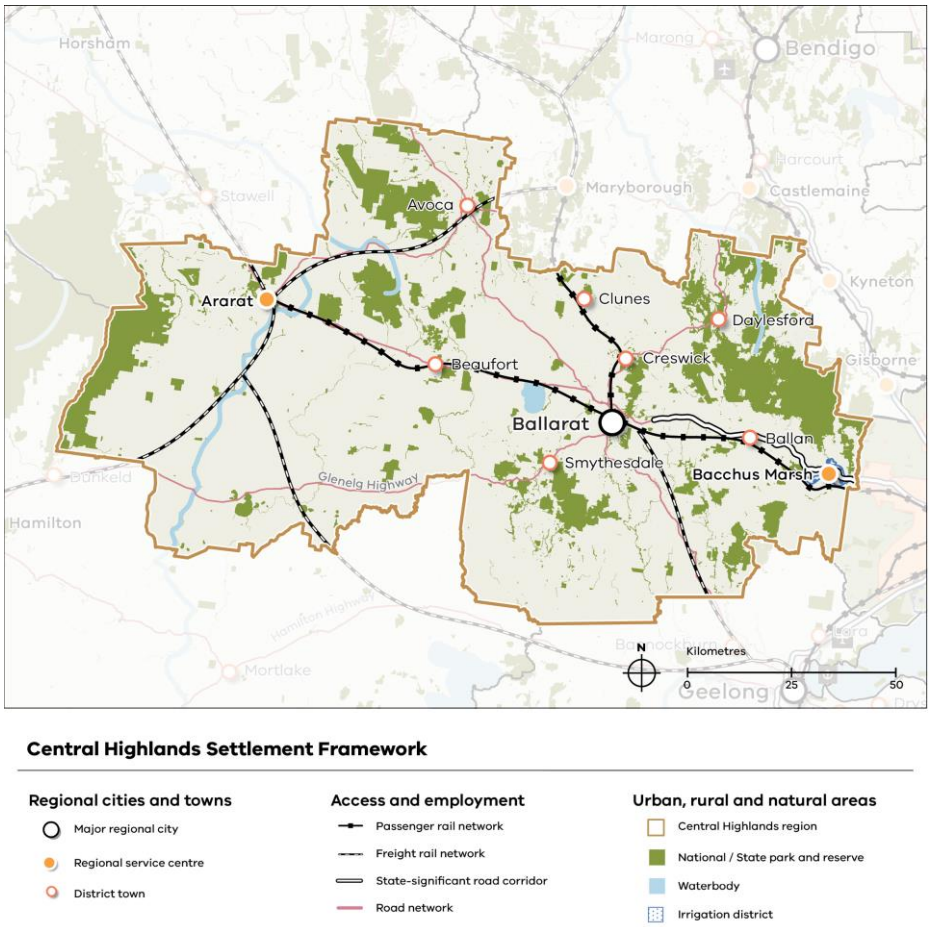
Regional planning strategy

Amendment VC283 introduced new regional strategic direction at Clause 11.01-1R Settlement - Central Highlands on 2 September 2025 (replacing and superseding Central Highlands Regional Growth Plan, 2014). It sets out strategies to:

- *Support the development of Central Highlands' Regional service centres, Ararat and Bacchus Marsh, as the key service centres for each end of the region.*
- *Direct growth to well serviced settlements with good access to Melbourne or Ballarat, particularly including Bacchus Marsh.*

The Central Highlands Settlement Framework shows Bacchus Marsh as a regional service centre.

Figure 3. Central Highlands Settlement Framework from Clause 11.01-1R of the Moorabool Planning Scheme



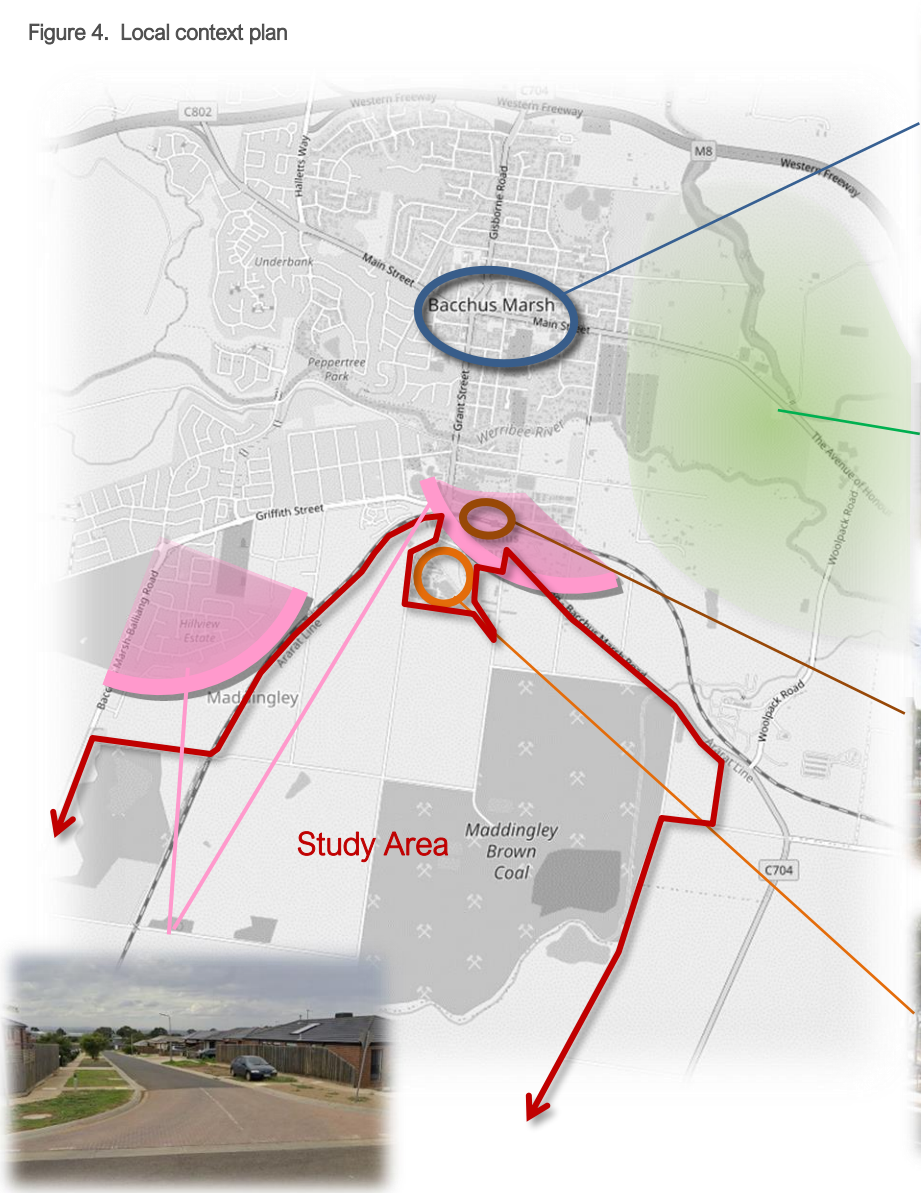
Moorabool Planning Scheme, Clause 11.01-1R

Local context

The study area is strategically located immediately to the south of the Bacchus Marsh urban area. It is located the following distances from key destinations and features in the Town, as shown in Figure 4:

- immediately adjoins the Bacchus Marsh Grammar School campus to the north, a large and growing Prep to Year 12 school with 2,500 students and a regional catchment;
- 20-50 metres from land zoned General Residential to the north east and north west, some of which has development potential;
- 200 metres to the south of Bacchus Marsh Railway Station, which connects the town to Melbourne and Ballarat by rail;
- 500 metres to the south west of the Bacchus Marsh Irrigation District, a state significant irrigation and agricultural district on the Werribee River;
- 600 metres to the north of the Bacchus Marsh Aerodrome; a centre for gliding and pilot training facilities;
- 1.3 kilometres to the south of the Bacchus Marsh Town Centre; which offers extensive retail, commercial and civic services;
- 2.5 kilometres to the south west of the Western Freeway, which provides access to Melbourne and Ballarat.

Figure 4. Local context plan



Bacchus Marsh Town Centre

Bacchus Marsh Irrigation District

Bacchus Marsh Railway Station

Bacchus Marsh Grammar School

Interfaces with General Residential zoned land

Local settlement vision

Bacchus Marsh Urban Growth Framework

Moorabool Shire has undertaken a significant amount of high-level settlement planning work in response to the expected future population growth in Bacchus Marsh and a closely related objective to create additional employment in the local area. Moorabool Shire's long-term framework for settlement is the Bacchus Marsh UGF, which has the following vision:.

> *"Bacchus Marsh will be an emerging regional growth centre, providing metropolitanedge convenience, set within a distinctive agricultural valley framed by steep escarpments and significant waterways. Bacchus Marsh will be planned as a rural city in a farming district, and as the gateway to Victoria's Central Highlands region. Bacchus Marsh will draw new residents, investors and tourists due to its liveability, comparatively affordable land, diversity of residential lot sizes, access to services and attractive landscapes. The Bacchus Marsh Irrigation District is a food bowl for Victoria, and a range of other state-significant natural resources present opportunities for economic growth. As a rural city, Bacchus Marsh's service role and investment in education, health, retail and local industry will be strengthened. The combination of landscape, natural resources and liveability are unique to Bacchus Marsh and will be central to managing future growth." (VPA, 2018, 6).*

The Bacchus Marsh UGF seeks to ensure that housing, employment, community infrastructure, transport networks, open space and other opportunities are provided in an appropriate and timely way. Relevant features of the Bacchus Marsh UGF and their relationship with the study area are:

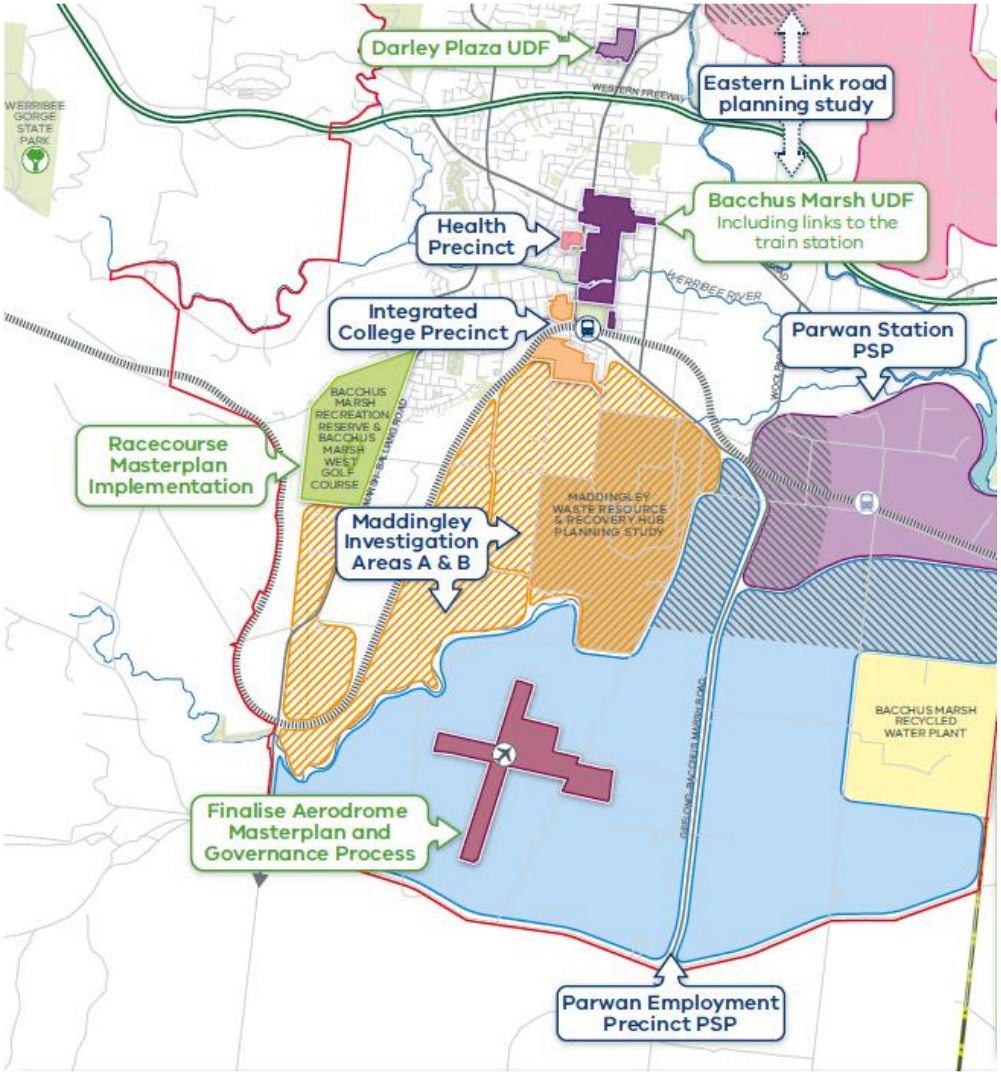
- a future residential and commercial precinct at Parwan Station to the east;
- the Parwan agribusiness and employment precinct to the south and east;
- future residential focused growth precincts at Merrimu and Hopetoun Park;
- planning for an 'Integrated College Precinct' comprising Bacchus Marsh Secondary College and Bacchus March Grammar School;
- planning for an Eastern Link Road, connecting Gisborne Road with Geelong-Bacchus Marsh Road via the Western Freeway.

These directions are shown in the Bacchus Marsh UGF Framework Plan (Figure 1) and in the 'Key Actions Plan' from the Bacchus Marsh UGF, shown in Figure 5.

The Bacchus Marsh UGF aims to support and protect the ongoing operation of the Maddingley WRR Hub (including coal mining), for employment, synergies with future industries and its state significant waste role. It recommends that further strategic investigations be undertaken for the study area to manage negative off-site amenity impacts on sensitive land uses, provide adequate separation distances and support opportunities for new and advanced onsite treatment to manage off-site amenity impacts (VPA, 2018).

Local settlement vision

Figure 5. Excerpt from Bacchus Marsh Urban Growth Framework Plan – Plan 8 Key Actions (2018)



Source: Victorian Planning Authority, 2018, 88.

Local settlement vision

How is the local settlement vision being implemented?

There are a number of initiatives underway that seek to implement or support Council's local settlement vision.

The Victorian Planning Authority (VPA) is the planning authority for the Parwan Employment, Merrimu and Parwan Station precincts. This means that the VPA is responsible for the preparation of precicnt structure plans and planning scheme amendments in these areas.

In consultation with Council, the VPA is currently preparing a Development Plan for the Parwan Employment Precinct, together with Precinct Structure Plans for Merrimu and Parwan Station. The Parwan Employment Precinct is expected to provide for a mix of agribusiness and industrial land uses. The Parwan Station Precinct is expected to accommodate a future mixed-use precinct with up to 3,558 lots and a potential new train station. The Merrimu Precinct is expected to provide for up to 6,116 lots.

In line with the findings of the Bacchus Marsh UGF, the Department of Transport and Planning has recently completed the Bacchus Marsh Eastern Link Road Planning Study, which has identified a preferred alignment for a future north-south bypass road, to divert heavy vehicles and through traffic to the east of the Bacchus Marsh town centre.

What will the vision mean for the study area?

The level of change anticipated by the Bacchus Marsh UGF is significant. The town is expected to effectively double in population over the next 20 years, bringing with it greater demand for commercial, industrial, and other land uses associated with residential development and population growth.

The Bacchus Marsh UGF vision will ultimately elevate the strategic position of the study area by placing it more centrally within the Bacchus Marsh urban area and key activity generators such as the Bacchus Marsh Grammar, Bacchus Marsh College and Bacchus Marsh Railway Station. It will also place it in a more prominent and accessible location in relation to key emerging areas of residential, commercial, agribusiness and industrial uses in Parwan to the east and south.

Key infrastructure upgrades, such as the Eastern Link Road, will enhance the appeal of the study area for businesses and 'open up' the study area to a wider range of uses. These could include bulky goods, light industry, logistics and freight, horticulture and a range of other users that can benefit from good access to the Bacchus Marsh urban area, arterial road networks and existing industries.

Ultimately, many of these opportunities will need to be realised by the private sector, however an updated planning framework will assist in capturing the opportunities that emerge.

Study area

The study area is shown in Figure ES1 and Figure 6. It is mainly located on an elevated plateau that extends from the southern boundary of the Bacchus Marsh urban area to Parwan Creek. It has an area of approximately ten square kilometres and is predominantly rural in character, with unmade roads and mostly cleared of native vegetation, as shown in the Photographs 1-4.

There are approximately 34 properties in the study area. Maddingley Brown Coal (MBC) owns or controls approximately 72% of the land in the study area.

Industry, mining and waste management land uses occupy a large portion of the study area. The Maddingley WRR Hub, which is a facility of state importance, is the dominant use in the study area in terms of land area and visual presence. It occupies approximately 288 hectares of land in the eastern half of the study area and comprises a solid inert landfill, resource recovery and composting activities that are operated under EPA Licence 45288 and Planning Permit PA2011338-1. The WRR hub also includes an active coal mine which operates under mining licence 4701.

Brown coal is located underneath much of the study area and is mined at the Maddingley WRR Hub under Mining Licence 4701. The spatial extent of the mining licence is consistent with EPA Licence 45288. The remainder of the study area is located within an Exploration Licence for coal mining (EL5294).

The area that has been most intensively developed for buildings in the study area is the JBD Industrial Estate on the north side of Rowsley Station Road in the west of the study area. This complex contains a cluster of large and small industrial buildings that are used by approximately 12 businesses.

There are also approximately 13 dwellings in the study area. Eight dwellings are located in the north western part of the study area, in South Maddingley Road and Osborne Street. Four dwellings are located in the north eastern part of the study area, in East Maddingley Road and Geelong-Bacchus Marsh Road. One dwelling is located in the western part of the study area, in Albys Lane.

The study area contains no reticulated sewerage and only limited reticulated water and stormwater drainage infrastructure. There is an existing electricity network, however, it is understood that the capacity of existing sub-station infrastructure is limited.

The study area is predominantly zoned Special Use Zone – Schedule 1 – Coal Mining (SUZ1) under the Moorabool Planning Scheme. There are also areas zoned Farming, Industrial 1, Industrial 2 and Public Use Zone (PUZ4).

The study area directly supports in the order of 170 full time equivalent jobs, with the majority in the waste management, manufacturing and mining sectors (SGS, 2015, 49).

For the purposes of the Planning Study, the study area has been divided into six sub-areas, as outlined in the table below and shown in Figure 6:

Sub-area 1	East
Sub-area 2	South west
Sub-area 3	West
Sub-area 4	North west
Sub-area 5	North
Sub-area 6	North east

Part D of the Planning Study contains a detailed description of, and strategic directions for, each sub-area.

Study area

Photograph 1 Melbourne-Ballarat railway line

Photograph 2 JBD Industrial Estate, Rowsley Station Road

Photograph 3 View to the north towards Maddingley WRR Hub from Cummings Road

Photograph 4 Looking north west at Parwan Creek and Railway Bridge near Bacchus Marsh-Balliang Road

Maddingley Planning Study

LEGEND

- Study Area
- Sub-area Boundaries
- Maddingley Brown Coal controlled land (No. 1)
- Property Boundaries

Parcel Boundaries

Road

- Railway Line
- Waterway
- Inferred Dwelling Locations

Existing PLanning Zones (within Study Area)

- FARMING ZONE (FZ)
- INDUSTRIAL 1 ZONE (IN1Z)
- INDUSTRIAL 2 ZONE (IN2Z)
- SPECIAL USE ZONE - SCHEDULE 1 (SUZ1)
- TRANSPORT ZONE - CATEGORY 1 (TRZ1)
- TRANSPORT ZONE - CATEGORY 2 (TRZ2)
- TRANSPORT ZONE - CATEGORY 3 (TRZ3)

0 200 400 600 800 m

GIS maps produced by BlueSphere

Data Sources

Land Use Activity Areas: GIS data provided by Moorabool Shire Council, based on Figure F1, Separate Sensitive Use Buffers, from report "Environmental Matters Concerning Proposed Amendment C81 to the Moorabool Planning Scheme" by Peter J Ramsay and Associates, Rev. 00.

Inferred Dwelling Locations are approximate only, and have been digitised by KnightVision based on aerial imagery interpretation.

Racing Dog Breeding Facility: Digitised by KnightVision based on planning permit application site plan provided by Moorabool Shire Council.

Proposed Materials Recycling Facility and Garden Supplies / Concrete Batching Plant location based on drawing 'Concept Site Plan', in Planning Permit Application 2018239 by Gunnawaunday Holdings Pty Ltd, dated 09/09/2018.

FIGURE 6

SUB-AREAS AND EXISTING ZONES

PLANNING STUDY

Prepared for **Moorabool Shire Council**

Prepared by centrum TOWN PLANNING

File: O:\6_GIS\Projects\30805_Centrum_Maddingley WRRH Planning GIS Stage 2\01\Maps\DRAFT\Fig06_Study_Precincts_and_Existing_Zones.qgz

Date: 18/09/2025

Revision: FINAL Rev17

Legislative context

Relevant legislation

The acts that are most relevant to the Planning Study include:

- *Planning and Environment Act 1987*
- *Mineral Resources (Sustainable Development) Act 1990*
- *Environment Protection Act 2017*
- *Environment Effects Act 1978*

Appendix 1 provides an overview of these acts. It endeavours to explain how the acts and their subordinate legislation interact with one another to manage the likely future planning issues in the study area. Commentary regarding the *Environment Protection Act 2017* ('EP Act') is included below, as it provides important background to the discussion in Part C relating to separation distances and buffers.

Environment Protection Act 2017

The *Environment Protection Act 2017* ('EP Act') is the overriding piece of legislation for pollution control and environmental protection in Victoria. It is administered by the Environment Protection Authority Victoria (EPA). The EP Act regulates the discharge or emission of waste to water, land or air by a system of permits and licences. The EP Act also specifically controls the emission of noise and the transport and disposal of waste.

The EP Act came into effect on 1 July, 2021 and replaced the previous *Environment Protection Act 1970*. The EP Act includes *Environment Protection Regulations 2021* and Environment Reference Standards that replace the previous State Environment Protection Policies (SEPPs). These changes give the EPA more powers and tools to prevent risks to the environment and human health.

The EP Act includes a 'general environmental duty' (GED) that requires members of the community and businesses to be proactive in preventing and minimising risks of harm to human health and the environment from their pollution or waste associated with their activities (www.epa.vic.gov.au). The GED will require businesses to implement controls that are "reasonably practicable" and proportionate to the risk of harm to the environment. These hazards might relate to chemicals, stormwater contamination, fire, dust, odour and other hazards.

The GED expects that operators are familiar with information about the risks and options to control the risks that are relevant to their industry. This information may come from business, industry, regulators, government agencies or other organisations (www.epa.vic.gov.au). The GED represents an important change to the previous situation under the *Environment Protection Act 1970* which only required compliance with relevant permits, licenses and works approvals.

The EPA has also introduced a series of new regulations for waste to assist with compliance with the GED. These regulations came into effect with the commencement of the EP Act. They relate to the classification, transportation and receipt of the waste in a 'lawful place'.

The responsibilities or 'duties' that apply, and the level of control, depends on the type of waste. The types of waste are industrial waste, priority waste and reportable priority waste. The way in which the controls work is that they are proportionate to the level of risk and allow flexibility for different outcomes and business needs (EPA 1756.2, 2021).

Legislative context

The planning system interacts with the EP Act and EPA in various ways. Under Ministerial Direction Number 19 (Parts A&B), the advice of the EPA must be sought and addressed for any planning scheme amendment that may significantly impact the environment, amenity and human health, including amendments that may allow land use and development within an EPA recommended separation distance. Ministerial Direction 19 also requires that the advice of the EPA must be sought and addressed for any planning scheme amendment that may allow the use and development of land within a recommended separation distance to a waste and resource recovery facility.

The EPA is also a statutory referral authority for permit applications that require a works approval, licence, or to use land for an industry, utility installation or warehouse for a purpose listed in the table to Clause 53.10 of the Moorabool Planning Scheme with no threshold distance specified or if the threshold distance is not met.

Moorabool Planning Scheme

The Planning Study has been informed by, and gives effect to, the following policies and strategic directions at the state, regional and local levels.

Municipal Planning Strategy

The Moorabool Planning Scheme contains the Municipal Planning Strategy (MPS), which sets out the vision and strategic directions for planning at the local level.

The key findings of the Bacchus Marsh UGF have been integrated in various clauses of the MPS, including Clause 02.03-1 (Settlement), Clause 02.03-4 (Natural resource management), Clause 02.03-5 (Built environment and heritage), Clause 02.03-6 (Housing), Clause 02.03-7 (Economic development) and Clause 02.03-8 (Transport).

The strategic directions of the MPS that relate directly to the study area include:

- Clause 02.03-1 (Settlement): This clause notes that the Maddingley WRR Hub is one of a number of strategically important land uses surrounding Bacchus Marsh that are incompatible with residential development due to their offsite impacts.
- Clause 02.03-7 (Economic development): This clause notes that the Maddingley WRR Hub is one of three state-significant natural resources and export-based industries that make significant employment and economic contributions to Bacchus Marsh.

  Council seeks to protect existing and future industrial and agribusiness land uses from the encroachment of sensitive land uses (particularly Maddingley WRR Hub, South Maddingley industrial precinct south of Kerrs Road, and others).
- Clause 02.03-9 (Community infrastructure): Council seeks to:
  - Improve social and physical infrastructure in the Shire to support the growing population.
  - Provide equitable and integrated open space and recreation facilities.
  - Ensure that provision of education and health services matches projected demand.
  - Secure long-term water supplies for urban and agricultural use.

Planning Policy Framework

The Moorabool Planning Scheme contains the Planning Policy Framework (PPF), which sets the state, regional and local policies for land use and development in Moorabool Shire. The policies most relevant to the Planning Study are summarised below:

- Clause 11 (Settlement): Planning is to anticipate and respond to the needs of existing and future communities through provision of zoned and serviced land for housing, employment, recreation and open space, commercial and community facilities and infrastructure.

  Planning is to recognise the need for, and as far as practicable contribute towards:

  - Health, wellbeing and safety.
  - Diversity of choice.
  - Adaptation in response to changing technology.
  - Economic viability.
  - A high standard of environmental sustainability, urban design and amenity.

Moorabool Planning Scheme

- Climate change adaptation and mitigation.
- Prevention of land, water, air and noise pollution.
- Protecting, conserving and improving biodiversity, waterways and other natural resources.
- Accessibility.
- Land use and transport integration.
- Waste minimisation and resource recovery.

Planning is to prevent environmental, human health and amenity problems created by siting incompatible land uses close together.

Planning is to facilitate sustainable development that takes full advantage of existing settlement patterns and investment in transport, utility, social, community and commercial infrastructure and services.

- Clause 11.01-1R (Settlement – Central Highlands) aims to support the development of Bacchus Marsh as a key service centre for the eastern portion of the region. Maintaining sufficient supplies of urban land and planning strategically for these areas through structure planning are important strategies for managing this growth, as expressed through Clause 11.01.
- Clause 11.01-1L (Settlement – Bacchus Marsh) applies to land identified on the Bacchus Marsh UGF Plan which is included in this clause. This clause also includes the B*acchus Marsh Residential Settlement Framework Plan* (see Figure 7) which relates to land located outside the study area. Some of this land is directly affected by EPA recommended separation distances, as discussed in Part C of the Planning Study. Relevant strategies include:

  – Contain short term residential development within the existing urban areas and existing greenfield residential development areas.
  – Encourage residential growth within Merrimu and Parwan Station where it would facilitate the provision of an Eastern Link Road.
  – Ensure that a clear separation between urban development and farming activities is retained.
  – Prioritise the development of housing in locations that are easily accessible to activity centres and public transport.

  In Minimal Residential Growth Areas:

  – Encourage future residential development to predominantly comprise of detached dwellings, generally of a modest scale.
  – Support dual occupancies of one to two storeys only where the preferred character is not compromised.

  In Natural Residential Growth Areas:

  – Allow for modest housing growth and a variety of housing typologies while maintaining detached houses as a dominant housing type.
  – Support low scale, medium density housing and alternative housing typologies (such as co-housing, retirement villages, aged care) in areas that are accessible to public transport, activity centres and open space.
  – Encourage well designed infill development, including multi-unit developments, that complements the preferred character of the area.

  In Increased Residential Growth Areas:

  – Provide for housing growth with increased densities.

Moorabool Planning Scheme

  - Provide housing generally in the form of townhouse and multi-dwelling developments with opportunities for apartments and alternative forms of housing (cohousing, aged care, retirement villages, etc.).

  In Greenfield Residential Growth Areas:

  - Provide a diverse range of lot sizes that will be capable of accommodating a range of housing typologies.

- Clause 11.02-1S (Supply of urban land) seeks to ensure a sufficient supply of land is available for residential, commercial, retail, industrial, recreational, institutional and other community uses. Relevant strategies include:
  - Ensure the ongoing provision of land and supporting infrastructure to support sustainable urban development.
  - Ensure that sufficient land is available to meet forecast demand.
  - Plan to accommodate projected population growth over at least a 15 year period and provide clear direction on locations where growth should occur.
- Clause 11.02-2S (Structure planning) seeks to facilitate the fair, orderly, economic and sustainable use and development of urban areas.
- Clause 11.02-2L (Structure planning in Moorabool) includes strategies to:
  - Manage urban growth through Development Plans or Precinct Structure Plans and the implementation of Development Contributions Plans where appropriate.
  - Discourage large subdivisions unless they are in accordance with an approved Precinct Structure Plan or a Development Plan.
- Clause 11.03-2S (Growth Areas) provides the high level strategies for planning for growth areas, with particular focus on the importance of public transport and local and regional infrastructure, employment generators and encouraging the use of 'Growth Area Framework Plans' to establish the vision for urban growth.
- Clause 11.03-3S (Peri-urban areas) identifies Bacchus Marsh as a 'peri-urban area' where strategically important resources exist in sensitive areas that need to be carefully managed.
- Clause 13 (Environmental risks and amenity): Planning should strengthen the resilience and safety of communities by adopting a best practice environmental management and risk management approach.

  Planning should identify, prevent and minimise the risk of harm to the environment, human health, and amenity through:

  - Land use and development compatibility.
  - Effective controls to prevent or mitigate significant impacts.

  Planning should identify and manage the potential for the environment and environmental changes to impact on the economic, environmental or social wellbeing of society.

  Planning should ensure development and risk mitigation does not detrimentally interfere with important natural processes.

  Planning should prepare for and respond to the impacts of climate change.
- Clause 13.02-1S (Bushfire planning). This policy must be applied to all planning and decision making under the *Planning and Environment Act 1987* relating to land that is:
  - Within a designated bushfire prone area;

Moorabool Planning Scheme

  - Subject to a Bushfire Management Overlay; or
  - Proposed to be used or developed in a way that may create a bushfire hazard.

  The objective of this policy is to strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life.

- Clause 13.05-1S (Noise management) aims to assist in the management of noise effects on sensitive land uses through land use separation techniques, as appropriate, having regard to noise requirements in accordance with the Environment Protection Regulations under the EP Act.
- Clause 13.06-1S (Air quality management) aims to assist the protection and improvement of air quality through integrating land use planning and infrastructure and separating land uses that cause amenity impacts from sensitive land uses.
- Clause 13.07-1S (Land use compatibility) aims to protect community amenity while facilitating appropriate land uses with potential off-site effects. The strategies to achieve this objective include managing land use compatibility, avoiding or minimising adverse off-site impacts through land use separation, siting and building design and operational measures and avoiding the encroachment of sensitive uses on industry. This clause requires consideration of the following as relevant:
  - *Separation Distance Guideline* (Environment Protection Authority, August 2024)
  - *Landfill Buffer Guideline* (Environment Protection Authority, August 2024)
- Clause 13.07-1L (Land use compatibility in Moorabool) includes the following strategies:
  - *Provide heavily vegetated buffers between industrial and residential land to protect the amenity of the residential areas.*
  - *For rezoning or larger subdivisions, designing buffers between industrial and residential land to be at least 50 metres in width.*
- Clause 14 (Natural resource management): Planning is to assist in the conservation and wise use of natural resources including energy, water, land, stone and minerals to support both environmental quality and sustainable development.

  Planning should ensure agricultural land is managed sustainably, while acknowledging the economic importance of agricultural production.
- Clause 14.01-1S (Protection of agricultural land) aims to protect the state's agricultural base by preserving productive farmland, including by managing land use change and protecting it from incompatible land uses.
- Clause 14.01-1L (Agriculture, rural dwellings and subdivision) applies to all land within the Farming Zone. This local policy aims to discourage subdivision and dwellings unless they are directly related to the agricultural use of land.
- Clause 14.01-2S (Sustainable agricultural land use) aims to encourage sustainable agricultural land uses through innovation, adaptation and infrastructure.
- Clause 14.01-2L-02 (Sustainable agricultural land use) aims to facilitate value-adding enterprises associated with the Bacchus Marsh Irrigation District by working with landowners to achieve vertical or horizontal integration.

Moorabool Planning Scheme

- Clause 14.03-1S (Resource exploration and extraction) aims to "encourage the exploration and extraction of natural resources in accordance with acceptable environmental standards", by developing and maintaining buffers around mining and quarrying, having regard to a variety of considerations.
- Clause 16.01-1S (Housing supply) aims to facilitate well-located and diverse housing in established urban areas.
- Clause 16.01-1L (Housing supply in Moorabool) aims to encourage a combination of greenfield and infill opportunities.
- Clause 17.01-1S (Diversified economy) aims to strengthen and diversify the economy through protecting new and existing employment areas in various sectors that are accessible to the community.
- Clause 17.01-1R (Diversified economy - Central Highlands) contains strategies at the Central Highlands regional level to support greater economic self sufficiency for the region.
- Clause 17.03-1S (Industrial land supply) aims to ensure the availability of land for industry through providing land in appropriate locations with suitable buffers for the long-term.
- Clause 17.03-1L (Industrial land supply) includes strategies to:
  - Ensure that industrial land supply in the Shire's major urban centres can readily meet the needs of new industries.
  - Encourage service industries to establish in Maddingley (north of Kerrs Road) and Ballan.
  - Encourage manufacturing and other heavy industries to establish on industrial zoned and serviced land in Maddingley (south of Kerrs Road), with large separation distances to sensitive uses.
  - Facilitate the development of the Parwan Employment Precinct.
  - Support new industries in locations with the potential to utilise the existing road and rail infrastructure along the Western Highway corridor or the proposed Eastern Link Road, which will provide a north-south bypass to the east of Bacchus Marsh.
  - Focus agribusiness related industries in the Moorabool Agribusiness Industrial Area in Parwan as shown in the Bacchus Marsh Urban Growth Framework Plan.
- Clause 17.03-2S (Sustainable industry) aims to facilitate the sustainable operation of industry by applying threshold distances and locating industries and sensitive uses accordingly.
- Clause 17.03-2L (Sustainable industry) includes strategies to:
  - Avoid sensitive land uses within recommended separation distances from existing industrial uses, such as the Maddingley Waste and Resource Recovery Hub, the Darley/Coimadai sand quarries and the Bacchus Marsh Recycled Water Plant.
  - Support best practice management of industrial uses to minimise offsite amenity impacts.
- Clause 18.01-1S (Land use and transport integration) aims to create a safe and sustainable transport system through long-term planning and integration with land use planning and infrastructure.
- Clause 19: Planning for development of social and physical infrastructure should enable it to be provided in a way that is efficient, equitable, accessible and timely.

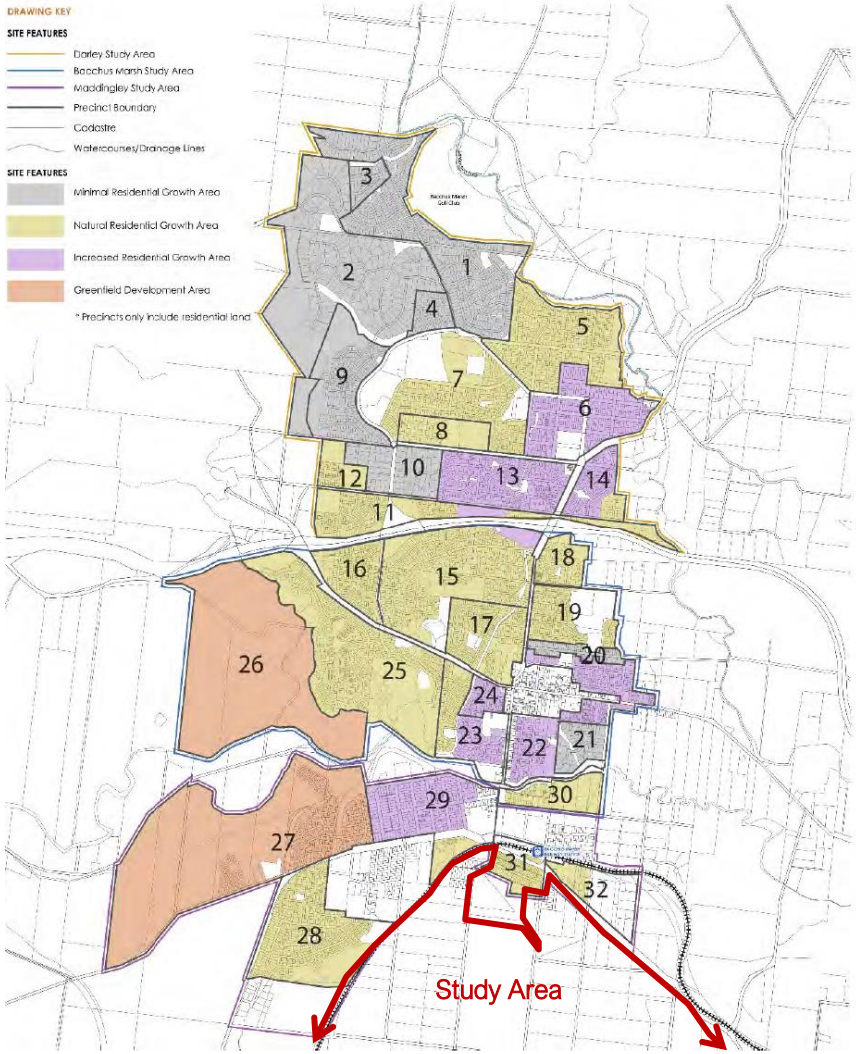
Moorabool Planning Scheme

Planning is to recognise social needs by providing land for a range of accessible community resources, such as education, cultural, health and community support (mental health, aged care, disability, youth and family services) facilities.

- Clause 19.02-2S (Education facilities) aims to integrate educational facilities in communities by facilitating their expansion in accessible locations.
- Clause 19.03-3S (Integrated water management) seeks to sustainably manage water supply and demand, water resources, wastewater, drainage and stormwater through an integrated water management approach. Relevant strategies include:
  - Ensure that new urban development has access to potable water supplies.
  - Encourage development in any urban growth precinct or employment growth precinct to include alternative water supplies.
  - Support best practice water use efficiency, including the use of recycled water, in existing and new agricultural land use and development.
  - Ensure stormwater runoff is managed to minimise impacts on the Werribee River and its tributaries.
  - Incorporate best practice water sensitive urban design into all development
- Clause 19.03-5S (Waste and resource recovery) aims to reduce waste and maximise resource recovery so as to reduce reliance on landfills by identifying their buffers and protecting them from encroachment, siting them close together, and ensuring that they operate so as to minimise impacts on surrounding communities and the environment.
- Clause 19.03-5L (Waste and resource recovery) includes a strategy to discourage any open pit areas from being used as putrescible waste dumps.

Moorabool Planning Scheme

Figure 7 Residential Settlement Framework Plan from Clause 11.01-1L-02 of the Moorabool Planning Scheme



Source: Moorabool Planning Scheme, Clause 11.01-1L-02, Centrum Town Planning, 2024

Victorian Waste and Resource Recovery Policy and Legislation

Victorian Waste and Resource Recovery Infrastructure Planning Framework

The Victorian Waste and Resource Recovery Infrastructure Planning Framework (framework) is comprised of:

- The Statewide Waste and Resource Recovery Infrastructure Plan (Statewide Plan);
- The Metropolitan Waste and Resource Recovery Implementation Plan 2016 (Metro Implementation Plan); and
- The six Regional Waste and Resource recovery Implementation Plans (Regional Implementation Plans).

This framework enables Victoria to establish a waste and resource recovery system that is integrated, supports resource recovery and plans for effective management of waste. The Metropolitan Implementation Plan and the Grampians Central West Waste and Resource Recovery Implementation Plan 2017 (Grampians Implementation Plan) are an important part of the framework.

The Maddingley WWR Hub is identified as a hub of state importance in the Statewide Plan, the Metropolitan Implementation Plan and the Grampians Implementation Plan, for the following reasons:

- It accepts significant amounts of solid inert waste from the metropolitan region. It is the only landfill licensed to accept metal recycling shredder residue (shredder floc);
- It supports organic composting and mulching, concrete and aggregate crushing and soil screening; and
- It is located strategically close to the edge of metropolitan region and the Bacchus Marsh transfer station.

Metropolitan Waste and Resource Recovery Implementation Plan 2016

The Metropolitan Implementation Plan sets out how the waste and resource recovery needs of metropolitan Melbourne will be met for at least the next 10 years, with a 30 year outlook. The Metropolitan Implementation Plan looks out to a 30 year horizon to align with other metropolitan planning strategies and plans.

The Metropolitan Implementation Plan acknowledges the important role the Maddingley WWR Hub plays in providing landfill opportunities for a significant volume of solid inert waste from metropolitan Melbourne (estimated 400,000 tonnes per annum) and notes it is the only landfill in the state permitted to receive shredder floc. If the Maddingley WWR Hub ceased to accept shredder floc, it would severely affect the reprocessing of end-of-life cars and white goods across the state. The site also provides materials recovery, composting and soil blending opportunities for coal and organic waste from metropolitan Melbourne.

Grampians Central West Waste and Resource Recovery Implementation Plan 2017

The Grampians Implementation Plan sets out how the waste and resource recovery infrastructure needs of the region will be met over the next 10 years.

The Grampians Implementation Plan has an approved landfill schedule that identifies the Maddingley WWR Hub as a long term solid inert landfill to 2042. This landfill provides a critical service to the metropolitan area as highlighted previously; it also has an important role in servicing the Grampians Central West region.

Victorian Waste and Resource Recovery Policy and Legislation

The Maddingley WWR Hub will continue to play a pivotal role in landfill provision for the foreseeable future, as it is the only landfill licensed to accept metal recycling shredder residue, it is strategically located, has long term airspace capacity and potential for future uses including increased organics processing. It also provides a significant source of regional employment and economic development.

Recycling Victoria policy and new Circular Economy (Waste Reduction and Recycling) Act 2021

A key purpose of the *Circular Economy (Waste Reduction and Recycling) Act 2021* is to introduce a circular economy in Victoria that maximises the continued use of products and waste material over their life cycle and accounts for their environmental impacts.

The Victorian government's circular economy policy, *Recycling Victoria – A new economy (DELWP, February, 2020)*, sets out the systemic change that is needed to cut waste and boost recycling and reuse of the state's precious resources. The policy aims to achieve a cleaner, greener Victoria with less waste and pollution, more jobs and a sustainable and thriving circular economy.

A circular economy continually seeks to reduce the environmental impacts of production and consumption, while enabling economic growth through more productive use of natural resources.

A circular economy seeks to avoid waste with good design and effective recovery of materials that can be reused. It promotes more efficient business models that encourage intense and efficient product use, such as sharing products between multiple users, or supplying a product as a service that includes maintenance, repair and disposal.

The policy contains a plan for reforming the waste and recycling system to 2030. It has a particular focus on making the recycling system more effective and viable. The policy aims to stimulate investment in recycling by the private sector, including waste to energy and organics proposals.

In line with the aims of all strategic waste plans and policies over the past decade, the policy also aims to better align the land use planning system with waste infrastructure planning through a new Victorian Recycling Infrastructure Plan, which will replace the *Statewide Waste and Resource Recovery Infrastructure Plan* (SWRRIP) (DELWP, 2020, 31).

This further highlights the need to acknowledge the importance of Maddingly WRR Hub as critical infrastructure, to enable Victoria to implement the new circular economy policy and legislation.

Consultation

Background Report

Consultation events

In order to obtain feedback on the Background Report, community and stakeholder consultation was undertaken from November to December, 2019, as follows:

- Three notices in Moorabool News.
- Letters to stakeholders (landowners and businesses within the study area, relevant State Government departments/agencies, Bacchus Marsh Grammar and holders of mining/exploration licences within the study area), inviting written submissions.
- Display of project information on Council's website for a period of six weeks, with a link to the Background Report and inviting written submissions via 'Have your say'.
- Background Report available for inspection at Council offices and the Lerderderg Library.
- A series of meetings with stakeholders, including landowners and businesses within the study area, government agencies, Bacchus Marsh Grammar, holders of mining/exploration licences within the study area and Council service units. These meetings included a summary presentation of the project and Background Report, together with a workshop/discussion session. Attendees were encouraged to prepare written submissions.
- Two community drop-in sessions for the wider community. Attendees were encouraged to prepare written submissions.
- Council received 34 written submissions in relation to the Background Report.

Key issues raised

The consultation process for the Background Report revealed a range of strongly held views, particularly from non-industrial landowners in relation to land use, amenity issues and the future of coal resources. Agencies and government departments also offered important advice to the Planning Study in relation to their area of responsibility. Key issues raised during the consultation process for the Background Report include:

- land use options;
- future of coal;
- environment;
- transport and infrastructure;
- buffers and amenity.

Consultation

Draft Planning Study

Consultation events

Council undertook community and stakeholder consultation on the draft Planning Study from 3 May to 1 July 2022, as follows:

- Four notices in the Moorabool News.
- Letters sent to landowners and occupiers within the study area, previous submitters to the Background Report and relevant government agencies.
- A 'Have your say' project page on Council's website, including all project documentation and an online submission tool.
- Meetings with key agencies including the Environment Protection Authority (EPA), Sustainability Victoria (SV), Recycling Victoria (RV), Department of Jobs Precincts and Regions (DJPR) and Department of Land Water and Planning (DELWP).
- Meetings and telephone conversations with landowners and other stakeholders and agencies upon request.

Seventeen written submissions were received, which included support for the draft Planning Study, clarification or refinement, and a few submissions opposing the draft Planning Study. Submissions from agencies expressed a range of perspectives, of which some were in conflict.

Key issues raised

Key issues raised in submissions include:

- State importance of the Maddingley WRR Hub;
- State importance of coal and hard rock resources;
- importance of buffers / separation distances;
- proposed rezoning of JBD industrial estate from IN2Z to IN1Z;
- proposed rezoning of land from SUZ1 to IN3Z/C2Z;
- threats to Aboriginal cultural heritage;
- language used in the draft Planning Study document.

The Planning Study was subsequently updated by Moorabool Shire Council in response to submissions, in partnership with Centrum Town Planning.

Part B | Objectives and Strategies for the Study Area

Overview

The flow chart in Figure 8 outlines the approach that was used to determine the Planning Study's recommendations. It also shows the relationship between each of the components of the Planning Study and where they are located (Parts A-G).

The objectives and strategies provide high level direction for the Planning Study. These have been developed based on the brief for the project and consideration of the strategic, legislative and policy context, as outlined in Part A of the study.

The objectives and strategies 'flow through' to the main body of the Planning Study (Parts C-G). These sections have been developed, firstly, through an analysis of the issues and then through the development of 'recommended planning principles' that provide the basis for the Planning Study's recommendations.

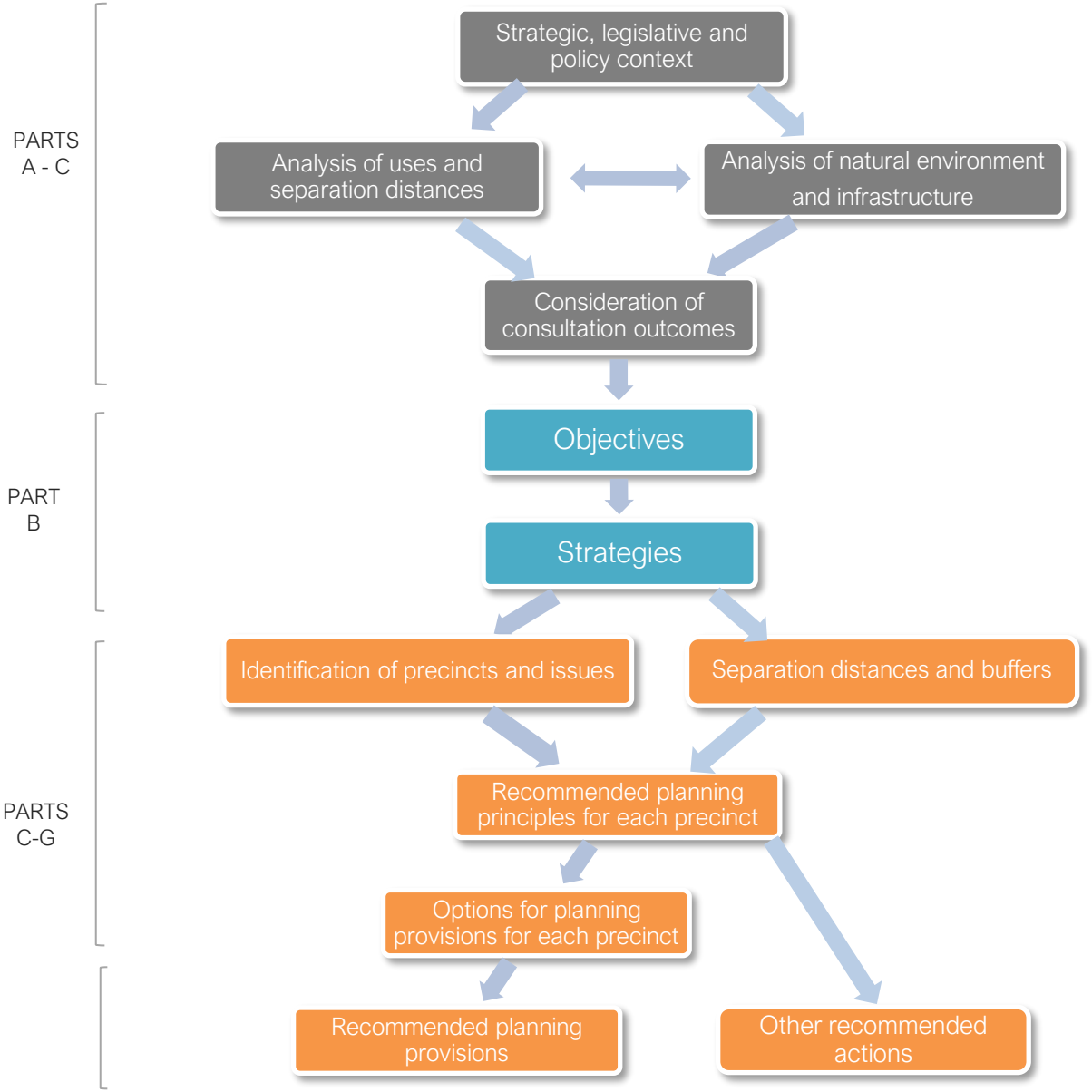


Figure 8 Approach to Planning Study (opposite)

Objectives

The Planning Study is guided by the eight objectives, listed in the table opposite. These objectives form the foundation for the strategies, and recommendations of the Planning Study.

The objectives of the Planning Study primarily reflect the community's desire to protect the amenity of residential land and sensitive uses.

They also reflect Council's desire to protect the vision of the Bacchus Marsh UGF for major urban growth.

Objective 1	To protect sensitive land uses against encroachment from land uses with adverse amenity potential.
Objective 2	To protect industrial land uses against unplanned encroachment from sensitive land uses.
Objective 3	To achieve an appropriate mix of land use and development, compatible with surrounding land uses.
Objective 4	To support the implementation of Victoria's circular economy policy.
Objective 5	To respect the existing statutory approvals in the study area and uses with existing use rights.
Objective 6	To outline the best practice expectations for the Maddingley WRR Hub, coal mining and other industrial uses within the study area.
Objective 7	To protect environmental values such as significant remnant native vegetation, the Parwan Creek environs, other waterways and catchments.
Objective 8	To protect and conserve Aboriginal cultural heritage values.

Strategies

A series of strategies have been developed to give effect to the objectives outlined in the previous section of the Planning Study.

The key strategic directions for transport and utility infrastructure and the environment are shown spatially in Figure 49 and 53, which are provided in Part E (Transport and Utility Infrastructure) and Part G (Natural Environment).

Land use and economy strategies

Strategy LE1	Encourage land uses which incorporate circular economy principles, such as uses relating to the Maddingley WRR Hub which is a facility of state importance.
Strategy LE2	Encourage industrial uses in appropriate locations close to the existing urban area, subject to land supply and demand assessment and subject to providing appropriate separation distances from sensitive land uses.
Strategy LE3	Encourage a range of activities associated with agriculture and a limited range of other land uses compatible with rural areas.
Strategy LE4	Identify land with potential for the expansion of education facilities, subject to the proponent providing evidence to demonstrate that a reduction in EPA recommended separation distances is appropriate.
Strategy LE5	Identify land with potential for a bulky goods retail precinct, subject to land supply and demand assessment.

Strategies

Land use compatibility and buffer strategies

Strategy LC1	Strongly discourage the expansion of the Maddingley WRR Hub beyond the current 'premises' boundaries described in EPA Licence 45288 due to the close proximity of existing and future proposed sensitive land uses.
Strategy LC2	Strongly discourage the use and development of coal mining in the study area beyond the current boundaries of Mining Licence 4701, due to the close proximity of existing and future proposed sensitive land uses.
Strategy LC3	Avoid the intensification of sensitive land uses within EPA recommended separation distances from existing industrial land uses, except where evidence demonstrates that a reduced separation distance is appropriate.
Strategy LC4	Avoid the intensification of industrial land uses within EPA recommended separation distances from existing sensitive land uses, land currently zoned for sensitive land uses, and land identified for future residential growth in Parwan Station precinct, except where evidence demonstrates that a reduced separation distance is appropriate.
Strategy LC5	Facilitate economic development opportunities that are compatible with existing land uses.
Strategy LC6	Preserve larger landholdings in industrial zoned areas with large separation distances from existing sensitive uses or land currently zoned for sensitive uses.

Strategies

Environment strategies

Strategy E1	Encourage best-practice environmental management at the Maddingley WRR Hub and other industrial land use facilities.
Strategy E2	Take a cautious approach to decision making that may affect biodiversity in the study area in recognition of the lack of past detailed assessment work.
Strategy E3	Retain and protect all areas of 'moderate' and 'high' environmental values in the study area based on detailed assessment.
Strategy E4	Promote initiatives that improve the environmental and water quality condition of the waterways in the study area, with a particular focus on Parwan Creek.
Strategy E5	Avoid development on steep land in the vicinity of Parwan Creek to maintain its environmental values.

Strategies

Transport infrastructure strategies

Strategy TI1	Improve the condition of local roads in the study area, with an emphasis on key intersection works as short-term priorities.
Strategy TI2	Integrate strategic transport planning in the study area with the future planning of adjoining urban growth precincts, in consultation with relevant agencies.
Strategy TI3	Fund future integrated transport infrastructure through a combination of Council investment and developer contributions.
Strategy TI4	Provide strategic input to the development of the Eastern Link Road and upgrades to Geelong-Bacchus Marsh Road to facilitate urban development and investments in the study area.

Utility infrastructure strategies

Strategy UT1	Improve the provision of utility infrastructure to the study area to facilitate investment opportunities and urban development in identified areas.
Strategy UT2	Use the Moorabool Planning Scheme to identify and protect major items of utility infrastructure, if possible.
Strategy UT3	Retard stormwater flows from new development in the area to avoid downstream flooding and water quality issues.

Part C | Separation Distances and Buffers

Overview

This section of the Planning Study provides an overview of the role and operation of separation distances and buffers as they relate to the study area. It explores the issues associated with land use conflict in the study area and the role that separation distances and buffers have played in these conflicts. It also provides principles and recommendations for how they should be resolved through the Planning Study.

Separation distances and buffers can be challenging to understand without a working knowledge of planning schemes, so attempts have been made to begin with first principles, progressing to how these are incorporated into planning schemes and what they mean for the Planning Study.

It is important to note that the Planning Study does not present new technical work on amenity impacts, separation distances or buffers. Instead, it relies upon past planning strategies adopted by Council and the recommended separation distances in the Moorabool Planning Scheme and relevant EPA guidelines.

What are separation distances and buffers?

The term 'buffers' refers to land that is used to achieve a separation distance between uses to minimise amenity impacts. They are used to separate uses with potential for adverse amenity impacts from sensitive uses in order to minimise impacts. These impacts may include dust, odour, noise, vibration or landfill gas. Buffers can also be used to separate industries that are not compatible with one another.

The distance between land uses that require a buffer is known as a 'separation distance'. This difference between the physical 'buffer' and the separation distance between land uses is an important distinction from a policy perspective and is fundamental to the discussion and findings of the Planning Study.

For this reason, the terms 'buffer' and 'separation distance' are not used interchangeably in the Planning Study. Nevertheless, it is recognised that the term 'buffer' is a term that is commonly used when referring to the separation of incompatible land uses.

During the preparation of the Planning Study, the EPA advised that buffers are not an alternative to source control of emissions and industries should aim to eliminate emissions through technology and good management. These principles are now enshrined in the GED and are supported by the EP Act, *Environment Protection Regulations 2021* and the Environment Reference Standard (ERS) and other guidance published by EPA (EPA 1994, 4). Notwithstanding this new, stronger, legislative framework, buffers will continue to play an important role in avoiding land use conflict as they recognise that minor equipment failure, minor accidents and minor changes in weather can lead to emissions beyond site boundaries (EPA 1949).

Ideally, buffers should be entirely located on the land where the industrial use is located, however, this is not always possible due to land ownership patterns or past planning decisions. In practice, buffers often benefit both the sensitive use or receptor, and industry, as they facilitate the operation of the industrial use by minimising complaints and can provide a level of amenity for the sensitive receptor.

Policy context

What is a sensitive use?

EPA Publication 1949 (Aug 2024) defines sensitive uses as follows:

> *Any land use that requires a focus on protecting human health and wellbeing, local amenity and aesthetic enjoyment, for example dwellings, accommodation, child care centres, education centres, informal outdoor recreation, outdoor recreation facilities, indoor recreation facilities, camping and caravan parks, medical centres, hospitals, residential aged care facilities and retirement villages (EPA 1949, Appendix D).*

It is worth noting that the definition of 'sensitive use' has been the subject of debate across different forms of legislation. It was discussed extensively in the *Major Hazard Facilities Advisory Committee Final Report (2016)*, which observed that various definitions are used across a range of relevant legislation for major hazard facilities. It found, however, that a 'fit for purpose' approach is preferred. This approach has carried through recent changes to the PPF, which does not provide a definition of sensitive use. Similarly, Clause 53.10 operates under its own list of 'sensitive uses' and 'sensitive zones'.

What policies apply to managing land use compatibility?

The main legislation for managing separation distances and buffers in the planning system is the P&E Act and the Moorabool Planning Scheme. The most relevant policies are found in:

- the MPS at Clauses 02.03-1 (Settlement) and 02.03-7 (Economic development); and
- the PPF at Clauses 13.05-1S (Noise management), 13.06-1S (Air quality management), 13.07-1S and 13.07-1L (Land use compatibility).

These clauses provide the high level policy direction for the protection of amenity and sensitive land uses.

Their policies are balanced by the 'reverse amenity' policies of Clause 17.03-2S (Sustainable industry), 17.03-2L (Sustainable industry) and 19.03-5S (Waste and resource recovery), which aim to protect industry from the encroachment of sensitive uses by providing "adequate" separation and buffer areas.

Each of these PPF clauses (except for Clause 13.05-1S) require decision makers to give consideration to the following EPA guidelines as relevant:

- Publication 1949 - *Separation Distance Guideline* (EPA, August 2024); and
- Publication 1950 - *Landfill Buffer Guideline* (EPA, August 2024).

Clause 19.03-5S (Waste and resource recovery) also requires decision makers to give consideration to a number of other EPA guidelines as relevant, including:

- Publication 1588 - *Designing, Constructing and Operating Composting Facilities* (EPA, June 2015).

  (Note: This publication was recently superseded by Publication 1588.2 - Operating Organic Waste Processing Facilities (EPA, May 2024).

Clause 17.03-2L (Sustainable industry) includes a strategy to *"avoid sensitive land uses within recommended separation distances of the Maddingley WRR Hub"*. The implication of this strategy is that some consideration needs to be given to the relevant EPA recommended separation distances in all forms of decision making, particularly planning scheme amendments.

There is also a specific framework for determining buffers for extractive industries under Clause 14.03-1S (Resource exploration and extraction), which is discussed later in this section of the Planning Study.

The tools that give effect to the policies of the MPS and PPF are found in the zone and overlay controls, which operate together with Clause 53.10 (Uses with Adverse Amenity Potential) of the Planning Scheme.

Policy context

How are separation distances determined and measured?

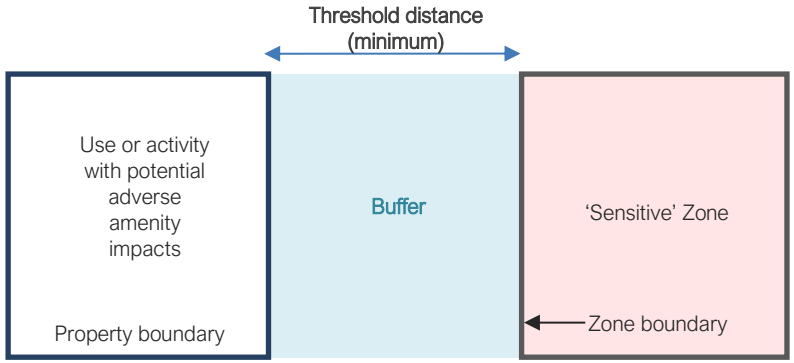
Clause 53.10 sets out the 'threshold distances' for particular uses and is supported by additional guidance in EPA 1949, as explained below.

Clause 53.10 (Uses with Adverse Amenity Potential)

Clause 53.10 mainly aims to protect sensitive uses from the encroachment of industry. This clause identifies industries that can cause adverse amenity impacts on residential areas and other sensitive uses. The "threshold distance" is the shortest distance from any part of the land to the zone boundary of the sensitive use, as shown in Figure 9. The threshold distances in Clause 53.10 are mainly between 100 and 1,000 metres, with only a small number that are 2,000 metres or greater.

Clause 53.10 does not itself trigger the need for a permit. The zones determine whether the threshold distance will make a use as-of-right, permit required, or prohibited. For example, industrial uses that have a threshold distance in Clause 53.10 are prohibited in the Township Zone.

Figure 9 'Threshold distance' method for measuring buffers from Clause 53.10



Source: Moorabool Planning Scheme, Clause 53.10, prepared by Centrum Town Planning, 2021.

EPA Publication 1949 –Separation distance guideline (2024)

The purpose of this guideline is to support land use and development decisions that:

- protect the community from human health and amenity risks associated with unintended offsite odour and dust generated by industry/activity; and
- protect industry/activities from inappropriate land use and development nearby that may constrain operations.

The guideline supports decision-makers to direct land use and development to the most appropriate locations based on the level of risk. It also supports planning decision-makers to prevent underuse of land adjacent to industrial land by identifying compatible land uses within a separation distance.

This guideline applies to offsite odour and dust emissions from industrial uses and activities that have the potential to impact human health and wellbeing, local amenity and aesthetic enjoyment. Ambient (or criteria air pollutants) and hazardous air pollutants are not included in the scope of this guideline.

EPA 1949 provides advice on 'recommended' separation distances between industrial land uses that emit odour or dust and sensitive land uses. It aims to prevent new sensitive land uses from affecting existing industrial areas/uses, and new or expanded industrial uses from affecting sensitive land uses. Importantly, it notes that the recommended separation distances are not an alternative to the control of emissions at their source.

The separation distances in this document aim to provide protection for sensitive uses from odour and dust producing industries during upset conditions. Unlike Clause 53.10, they do not address all amenity impacts, including noise.

Policy context

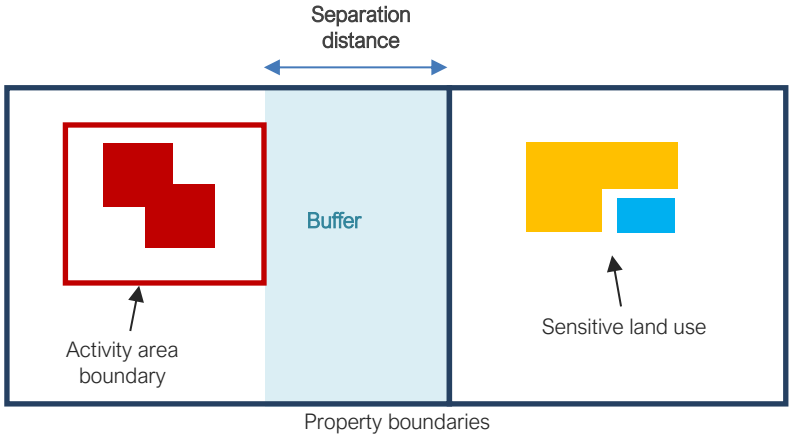
The recommended separation distances in this guideline do not account for incidents such as major abnormal weather conditions, major accidents, or major equipment failure. Emissions resulting from these events can extend beyond a specified separation distance and should be managed by implementing reasonably practicable contingency measures.

EPA 1949 identifies two methods for measuring separation distances for odour and dust, which allow for consideration of sensitive land uses in either an 'urban' or 'rural' geographical context.

In urban areas, the separation distance is measured from the activity boundary of the industry/activity to the property boundary of the nearest sensitive land use, as shown in Figure 10.

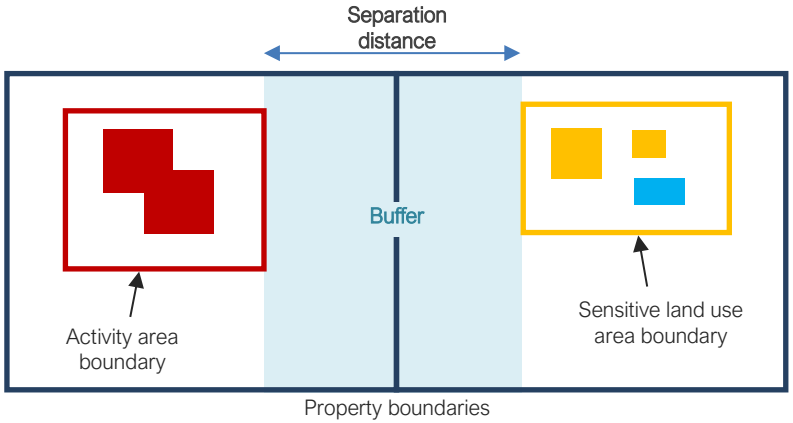
In rural areas, the separation distance is measured from the activity boundary of the industry/activity to the activity boundary of the sensitive land use, as shown in Figure 11.

Figure 10 'Urban method' for measuring separation distances from EPA 1949



Source: EPA 1949, 2024, prepared by Centrum Town Planning, 2025.

Figure 11 ' 'Rural method' for measuring separation distances from EPA 1949



Source: EPA 1949, 2024, prepared by Centrum Town Planning, 2021.

Policy context

EPA Publication 1950 – Landfill buffer guideline (2024)

The purpose of this guideline is to support land use and development decisions that:

- protect human health and amenity from the effects of pollution and waste associated with operating and closed landfills; and
- protect landfills from inappropriate land use and development nearby that may constrain operations.

This guideline provides guidance on what to consider when preparing and assessing planning scheme amendments, precinct structure plans and planning permit applications for landfills, or those that would lead to use or development within the buffer of an operating or closed landfill.

EPA 1950 categorises landfills according to the types of waste accepted and recommends separation distances for different landfill types. The Maddingley WRR Hub landfill is categorised as a 'Type 2 landfill', as it is licensed to receive specific types of priority wastes (e.g. category C contaminated soil).

For a Type 2 landfill that is not licenced to accept putrescible waste (such as the Maddingley WRR Hub landfill), EPA 1950 states that the separation distance whould be determined on a case-by-case basis, supported by an appropriate landfill gas risk assessment. No risk assessment has been undertaken as part of the Planning Study, as it is not considered necessary at this point in time. A risk assessment may be required as part of the background work to inform future planning scheme amendments to resone land in the study area.

When are separation distances considered in planning?

Existing land uses that require separation have the right to continue to operate, as long as they do so in accordance with their statutory obligations under any relevant licence, works approvals, work authority, EES or planning permit. Generally, these statutory obligations require that waste and offensive odours are not discharged beyond the boundaries of the site.

Under the Moorabool Planning Scheme, separation distances are considered when a planning permit is required for a new or amended industrial use or sensitive land use. The EPA recommended separation distances applicable to composting and coal mining operations at the Maddingley WRR Hub are important considerations when planning applications are assessed on sites in the surrounding area.

The agent of change principle requires the person or entity proposing a land use or development (new or expanding, modified or varied) that may result in conflicting land uses to provide evidence to the decision maker that variation from a specified separation distance is appropriate. The agent of change has the responsibility to:

- consider their obligations under the GED, including minimising the risks of harm to human health or the environment from pollution or waste from the proposed activity;
- avoid land use conflict; and
- ensure potential impacts on nearby land uses are appropriately mitigated and managed.

The agent of change principle applies to both planning permit applications and strategic planning matters including planning scheme amendments. Depending on the proposal, the agent of change could be either the industry/activity or the sensitive use/development.

Policy context

To seek a variation of a recommended separation distance, the proponent should:

- provide the decision maker with a risk assessment based on the source, pathway, receptor model, considering cumulative impacts where relevant;
- based on the findings of the risk assessment, propose an alternative separation distance; and
- demonstrate that the proposed separation distance poses a low risk of dust impact.

In response to reviews of the EPA and the planning system, consideration of separation distances has been elevated through the introduction of *Ministerial Direction 19 (Parts A&B)*. This direction requires a planning authority to consult with the EPA in the preparation of a planning scheme amendment, strategy, policy or plan that allows for the use or development of land within separation distances.

What uses can establish within separation distances?

Interface land uses are those that can be located within separation distances between industrial land uses and sensitive land uses. EPA 1949 provides the below examples of activities and their suitability as interface land uses. This is not intended to be an exhaustive list of all activities. Other activities not listed should be assessed following the principles contained in EPA 1949.

- To be encouraged: Land uses with minimal sensitivity to odour and dust, such as agriculture, car parks, emergency services facilities, natural systems, service stations, garden supplies, plant nurseries and veterinary centres.
- To be considered (subject to odour/dust risk assessment): Land uses with potential sensitivity to odour and dust, such as utilities (except for sewage works), offices, research centres, retail premises and informal outdoor recreation.
- To be prevented: Land uses sensitive to odour and dust, including dwellings, hospitals, aged care facilities, education centres, childcare centres, places of worship, corrective institutions.

Advice obtained from the EPA during the consultation process for the Planning Study is that the following land uses may be suitable within the Maddingley WRR Hub separation distances:

- all land uses inside the 'Agriculture' group (animal husbandry, aquaculture, crop raising);
- 'most' uses within the 'Industry' group;
- all uses in the 'Earth and Energy Resources' group (extractive industry, greenhouse gas sequestration and exploration, geothermal energy exploration)
- consideration of 'other' selected uses in other land use groups (EPA letter to Moorabool Shire Council, 17/2/2020) .

This advice has informed the discussion of land use options that is provided in Part D relating to the Planning Study sub-areas.

Policy context

What about 'best practice' operations?

The EPA defines 'best practice' as:

> *the best combination of eco-efficient techniques, methods, processes or technology used in an industry sector or activity that demonstrably minimises the environmental impact of a generator of emissions in that industry sector or activity (EPA 1517.1).*

In its guidance on best practice, the EPA recognises, however, that best practice operations need to be cost-effective, available, proportional and risk based. The EPA also makes it clear that a degree of pragmatism and practicality needs be applied to expectations relating to best practice. Operators do not need to achieve maximum possible outcomes at all costs, but they need to go further than the minimum needed to achieve compliance (EPA 1517.1, 2) with Environment Reference Standards and *Environment Protection Regulations 2021*. It is noted that the new GED does not require 'best practice' outcomes, however, it places the responsibiltiy for identifying and managing risks clearly in the hands of business owners and operators.

The Moorabool Planning Scheme encourages best practice operations as a means of managing and reducing amenity impacts in the introductory section of Clause 13 (Environmental risks and amenity), and through a strategy in the local policy at Clause 17.03-2L (Sustainable industry).

In addition, best practice is an important theme in Clause 53.14 (Resource Recovery) of the Planning Scheme, which refers to three EPA and Sustainability Victoria guidelines that promote best practice as a core principle for composting, organics recovery and resource recovery centres:

- *Designing, Constructing and Operating Composting Facilities (Environmental Protection Authority, 2015)*
- *Guide to Best Practice for Organics Recovery (Sustainability Victoria, 2009); and*
- *Guide to Best Practice at Resource Recovery Centres (Sustainability Victoria, 2009).*

Separation distances applicable to the study area

What recommended separation distances apply in the study area?

There are approximately 17 industries in the study area that have a recommended 'threshold' or 'separation' distance under Clause 53.10 of the Planning Scheme or in EPA 1949. Table 1 provides a list of the uses in the study area that have recommended separation distances of more than 500 metres.

There are also at least four other uses in the study area that have the potential for adverse amenity impacts, but which have a recommended separation distance that is variable depending on the processes or materials used.

These uses and their recommended separation distances are shown visually in Figures 12 and 12A (enlargement of the JBD Industrial Estate). For the purposes of the Planning Study, the separation distances have been measured using the 'activity area' method from EPA 1949, but adopting the threshold distance from Clause 53.10 if this is greater, recognising that they would ultimately be applied in different ways, as explained in the 'policy context' section.

There are also a number of small uses in JBD Industrial Estate (existing IN2Z in Sub-Area 3) where there was insufficient information available to the Planning Study for the separation distances to be mapped. These uses have not been shown in Figures 12 and 12A, although are understood to be relatively small in scale. A detailed list of the existing industrial uses in the study area and their recommended separation distances is provided in Appendix 2.

Only two of the recommended separation distances encroach on land zoned for sensitive uses in the Bacchus Marsh urban area; the MBC composting separation distance for odour (2,200 metres) and the MBC coal mining separation distance for dust (2,000 metres). The activity area on which the composting buffer is based is a relatively small and narrow area that is centrally located within the EPA Licence 45288 area.

These separation distances have been recently updated and are referred to hereafter as the *"Maddingley WRR Hub separation distances (EPA 1949 & 1950)"*. MBC owns approximately 27% of the land affected by the Maddingley WRR Hub separation distances (EPA 1949 & 1950) for coal mining and composting.

The separation distances for some of the uses in the JBD Industrial Estate affect a number of dwellings in the Farming Zone to the west of Bacchus Marsh-Balliang Road.

Have any buffers been created in the study area?

Buffers are land that acts, or is maintained, as a physical separation between land uses. The only land in the study area that is actively maintained in this way is the MBC landholding, which is shown in Figure 6.

In practice, the entire SUZ1 currently operates as a buffer to the Maddingley WRR Hub, as proposals for new sensitive uses have been unable to obtain approvals due to the purpose and operation of SUZ1.

Separation distances applicable to the study area

Table 1 Uses with separation distances of 500 metres or greater in the study area

Ref.	Business Name	Activity description	Separation distance	Source	Properties Affected (Sensitive Zone)	Total Properties Affected
1	Maddingley Brown Coal	Composting	2,200 metres (odour)	EPA 1949	431	662
3	Maddingley Brown Coal	Coal mine	2,000 metres (dust)	EPA 1949	1,904	2,406
4	Interstate Energy Group	Manufacturer of soil conditioner and fertiliser products	1,000 metres (odour)	EPA 1949	2	27
11	Greyhound keeping	Keeping and racing 50 greyhounds	500 metres	Moorabool Planning Scheme Clause 14.01-2L-01	0	19
15	Lebrex Car and Truck Wreckers	Metal recycling	500 metres	Clause 53.10 & EPA 1949	50	66
17	Transfer station	Transfer station accepting timber, green waste, cardboard, metals inside building	500 metres	EPA 1949 and Moorabool Planning Scheme Clause 53.10	0	10
19	Hughes metal fabrication	Metal fabrication	500 metres	Clause 53.10	0	15
27	Bacchus Marsh Transfer Station	Transfer station accepting organic waste	500 metres	EPA 1949 and Moorabool Planning Scheme Clause 53.10	239	387

Source: Centrum Town Planning, 2025, based on EPA 1949, EPA 1950 Landfill buffer guideline and Moorabool Planning Scheme.

Notes

'Sensitive zone' includes land in the following zones: General Residential, Mixed Use, Rural Living Zone, Special Use Zone (Schedule 4) and Public Use Zone 2.

Property numbers include properties that are located both inside and outside of the study area boundary.

Property numbers include all properties that are partially or wholly affected by the separation distance, including reserves and public land.

The table does not include uses within the study area that have a separation distance that is calculated on a case-by-case basis or through a risk assessment or other specialist assessment.

Recommended Separation Distances
1. Maddingley WRR Hub separation distance (composting) [2200 m] *
2. Maddingley WRR Hub (landfill) (case by case basis)
3. Maddingley WRR Hub (coal mine) [2000 m]
4. Interstate Energy Group [1000 m]
5. QP Lubes [300 m]
6. Parwan Wastewater Plant [1414 m]
7. Browns Lane Broiler Farm [425 m]
8. Geelong-Bacchus Marsh Road Broiler Farm [686 m]
9. West Side Meats [500 m]
10. Mushroom Farm [Unknown]
11. Racing Dog Breeding Facility [500 m]
12. Smartwood Mouldings [100 m]
13. Metals Recycling [Unknown]
14. VSF Bulk Grain andMinerals Storage Facility [300 m]
15. Lebrex Car and Truck Wreckers [500 m]
16. Proposed Garden Supplies /Concrete Batching Plant [300 m]
17. Transfer Station accepting timber, green waste, cardboard, metals inside building [500 m]
18. Kerrs Road Fomer Landfill
19. Hughes metal fabrication [500 m]
20. Timber search [100 m]
21. Eco Timber [100 m]
22. Environmental Clean Technologies [Unknown]
23. Environmental remediation contracting services [Unknown]
24. Visy [200 m]
25. Australian Bio Fert [Unknown]
26. Molecular Mediation [Unknown]
27. Council owned transfer station [500 m]

*EPA Publication 1949 recommends a separation distance of 2,200 metres (for odour) for new composting facilities receiving lowest risk wastes up to 50,000 tonnes/year and using open turned windrow technology. As this existing facility is licensed to receive high risk waste streams, a site-specific risk assessment may be necessary to inform future planning proposals.

Existing Planning Zone (within Study Area)
- FARMING ZONE (FZ)
- INDUSTRIAL 1 ZONE (IN1Z)
- INDUSTRIAL 2 ZONE (IN2Z)
- SPECIAL USE ZONE - SCHEDULE 1 (SUZ1)
- TRANSPORT ZONE - CATEGORY 1 (TRZ1)
- TRANSPORT ZONE - CATEGORY 2 (TRZ2)
- TRANSPORT ZONE - CATEGORY 3 (TRZ3)

Sub-area 1 East
Sub-area 2 South West
Sub-area 3 West
Sub-area 4 North West
Sub-area 6 North East

Closed landfill, buffer to be confirmed

See Figure 12a for Enlargement

Maddingley Planning Study

LEGEND
- Study Area
- Sub-area Boundaries
- Property Boundaries
- Parcel Boundaries
- Railway Line
- Major Roads
- Local Roads
- Minor Roads
- Waterway
- Inferred Dwelling Location

Land Use Activity Areas
- Existing Land Uses Requiring Separation Distances

Recommended Separation Distances
- Existing Land Use Separation Distance

0 300 600 900 1,200 m

GIS maps produced by BlueSphere

Data Sources

Land Use Activity Areas: GIS data provided by Moorabool Shire Council, based on Figure F1, Separate Sensitive Use Buffers, from report "Environmental Matters Concerning Proposed Amendment C81 to the Moorabool Planning Scheme" by Peter J Ramsay and Associates, Rev. 00.

Land uses are based on information available at the time of preparation of this document.

Tenancy map for JBD industrial park provided by JBD industrial park and Moorabool Shire Council.

Separation distances based on:
- EPA 1949: Recommended Separation Distances for Industrial Residual Air Emissions – Guideline
- EPA 1950: New guidelines for industry separation distances and landfill buffers
- Moorabool Shire Council Planning Scheme Clause 53.10.

Inferred Dwelling Locations are approximate only, and have been digitised by KnightVision based on aerial imagery interpretation.

Racing Dog Breeding Facility: Digitised by KnightVision based on planning permit application site plan provided by Moorabool Shire Council.

Proposed Materials Recycling Facility and Garden Supplies / Concrete Batching Plant location based on drawing 'Concept Site Plan', in Planning Permit Application 2018239 by Gunnawaunday Holdings Pty Ltd, dated 09/09/2018.

Basemap Layers and Planning Zones: Vicmap data, 2019. The State of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the State of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

FIGURE 12 EXISTING RECOMMENDED SEPARATION DISTANCES IN THE STUDY AREA

PLANNING STUDY

Prepared for **Moorabool Shire Council**

Prepared by centrum TOWN PLANNING

File: O:\6_GIS\Projects\30805_Centrum_Maddingley WRRH Planning GIS Stage 2\01\Maps\DRAFT\Fig12_Existing_Land_Use_Buffers.qgz

Date: 18/09/2025

Revision: FINAL Rev14

Recommended Separation Distances
4. Interstate Energy Group [1000 m]
5. QP Lubes [300 m]
12. Smartwood Mouldings [100 m]
13. Metals Recycling [Unknown]
14. VSF Bulk Grain andMinerals Storage Facility [300 m]
15. Lebrex Car and Truck Wreckers [500 m]
16. Proposed Garden Supplies /Concrete Batching Plant [300 m]
17. Transfer Station accepting timber, green waste, cardboard, metals inside building [500 m]
19. Hughes metal fabrication [500 m]
20. Timber search [100 m]
21. Eco Timber [100 m]
22. Environmental Clean Technologies [Unknown]
23. Environmental remediation contracting services [Unknown]
25. Australian Bio Fert [Unknown]
26. Molecular Mediation [Unknown]

Existing Planning Zone (within Study Area)
- FARMING ZONE (FZ)
- INDUSTRIAL 1 ZONE (IN1Z)
- INDUSTRIAL 2 ZONE (IN2Z)
- SPECIAL USE ZONE - SCHEDULE 1 (SUZ1)
- TRANSPORT ZONE - CATEGORY 1 (TRZ1)
- TRANSPORT ZONE - CATEGORY 2 (TRZ2)
- TRANSPORT ZONE - CATEGORY 3 (TRZ3)

MADDINGLEY PARK DRAIN
5 - 300 m
20 - 100 m
21 - 100 m
16 - 300 m
19 - 500 m
3 - 2000 m
12 - 100 m
IN2Z
TRZ3
TRZ1
IN1Z
Bacchus Marsh - Balliang Rd
Rowsley Station Rd
4
12
20
19
5
21
25 - ?m
26 - ?m
22 - ?m
13 - ?m
23 - ?m
17
16
Sub-area 2 South West
Sub-area 3 West

Maddingley Planning Study

LEGEND
- Study Area
- Sub-area Boundaries
- Property Boundaries
- Parcel Boundaries
- Railway Line
- Major Roads
- Local Roads
- Minor Roads
- Waterway
- Inferred Dwelling Location

Land Use Activity Areas
- Existing Land Uses Requiring Separation Distances

Recommended Separation Distances
- Existing Land Use Separation Distance

0 40 80 120 160 m

GIS maps produced by BlueSphere environmental

Data Sources

Land Use Activity Areas: GIS data provided by Moorabool Shire Council, based on Figure F1, Separate Sensitive Use Buffers, from report "Environmental Matters Concerning Proposed Amendment C81 to the Moorabool Planning Scheme" by Peter J Ramsay and Associates, Rev. 00.

Land uses are based on information available at the time of preparation of this document.

Tenancy map for JBD industrial park provided by JBD industrial park and Moorabool Shire Council.

Separation distances based on:
- EPA 1949: Recommended Separation Distances for Industrial Residual Air Emissions – Guideline
- EPA 1950: New guidelines for industry separation distances and landfill buffers
- Moorabool Shire Council Planning Scheme Clause 53.10.

Inferred Dwelling Locations are approximate only, and have been digitised by KnightVision based on aerial imagery interpretation.

Racing Dog Breeding Facility: Digitised by KnightVision based on planning permit application site plan provided by Moorabool Shire Council.

Proposed Materials Recycling Facility and Garden Supplies / Concrete Batching Plant location based on drawing 'Concept Site Plan', in Planning Permit Application 2018239 by Gunnawaunday Holdings Pty Ltd, dated 09/09/2018.

FIGURE 12a EXISTING RECOMMENDED SEPARATION DISTANCES IN SUB-AREA 3

PLANNING STUDY

Prepared for **Moorabool Shire Council**

Prepared by centrum TOWN PLANNING

File: O:\6_GIS\Projects\30805_Centrum_Maddingley WRRH Planning GIS Stage 2\01\Maps\DRAFT\Fig12_Existing_Land_Use_Buffers.qgz

Date: 18/09/2025

Revision: FINAL Rev14

Planning history

What technical assessment work has been done?

Since 2010, there have been two strategic planning processes that have considered variations to the EPA recommended separation distances. The outcomes of the two most relevant cases are summarised below. The Planning Study has not reviewed other historical environmental assessment work that may have been carried out for separation distances and buffers as these are unlikely to assist in consideration of future strategic matters.

Amendment C81 – Bacchus Marsh Urban Growth Framework

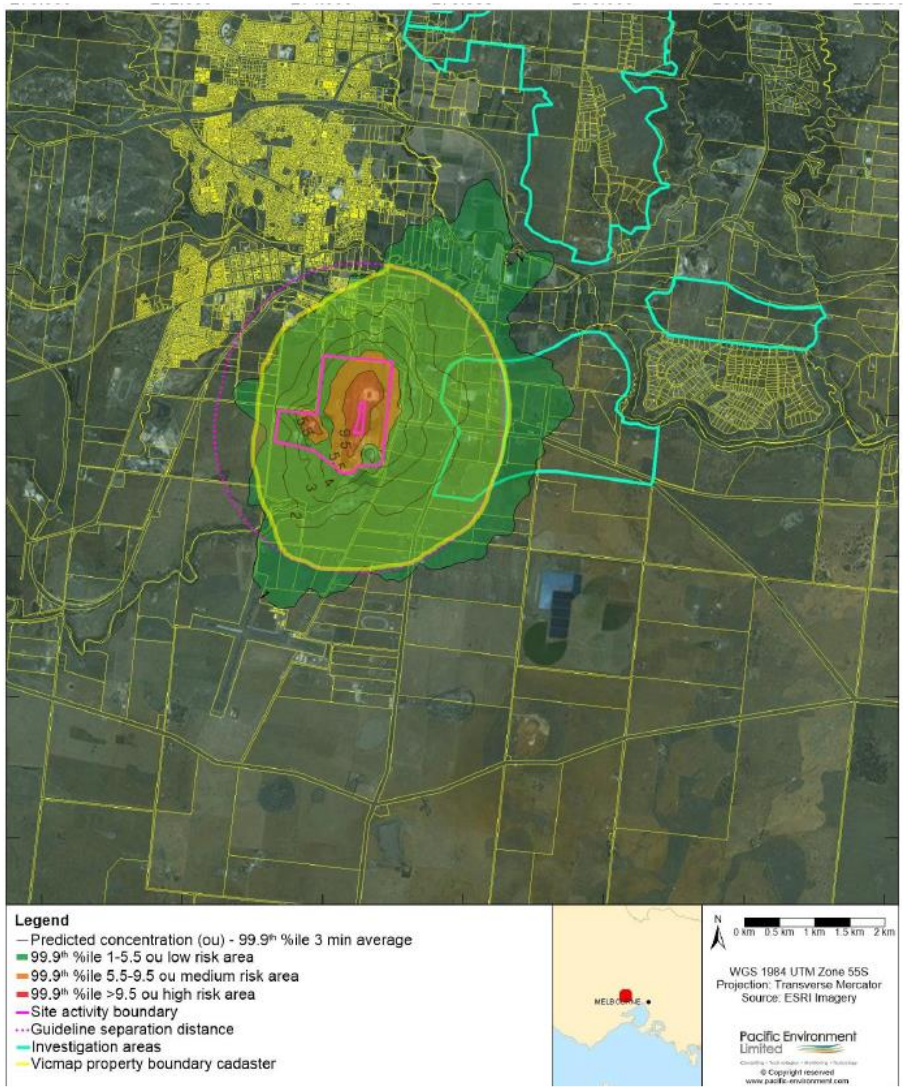
As part of its background work for the Bacchus Marsh UGF, Council commissioned an odour assessment that included consideration of the EPA recommended separation distances, odour dispersion modelling and field odour observations, the *Bacchus Marsh Urban Growth Framework Bacchus Marsh Buffer Assessment* (Pacific Environment, 2017). This assessment showed that a reduced 1,500 metres separation distance to the west of the Maddingley WRR Hub could be supported (Pacific Environment, 2017, iv). The results of the dispersion modelling for the Maddingley WRR Hub composting operations are shown in Figure 13. The recommended separation distance is shaded in yellow.

In 2018, during the implementation of the Bacchus Marsh UGF through the Moorabool Planning Scheme Amendment C81 process, there was debate about the extent of the separation distances required for coal mining and composting at the Maddingley WRR Hub. At the Planning Panel, the reduced 1,500 metre separation distance was not supported by the EPA due to a lack of licence limits on composting production under the facility's EPA licence 45288.

The C81 Planning Panel ultimately supported the Maddingley WRR Hub separation distances based on EPA guidelines applicable at the time, including a 1,000 metre separation distance for coal mining (based on recently superseded EPA 1518) and a 2,000 metre separation distance for open air composting (based on recently superseded EPA 1588.1). These separation distances are shown in Figure 14 and are referred to hereafter as the "*Maddingley WRR Hub separation distances (C81)*".

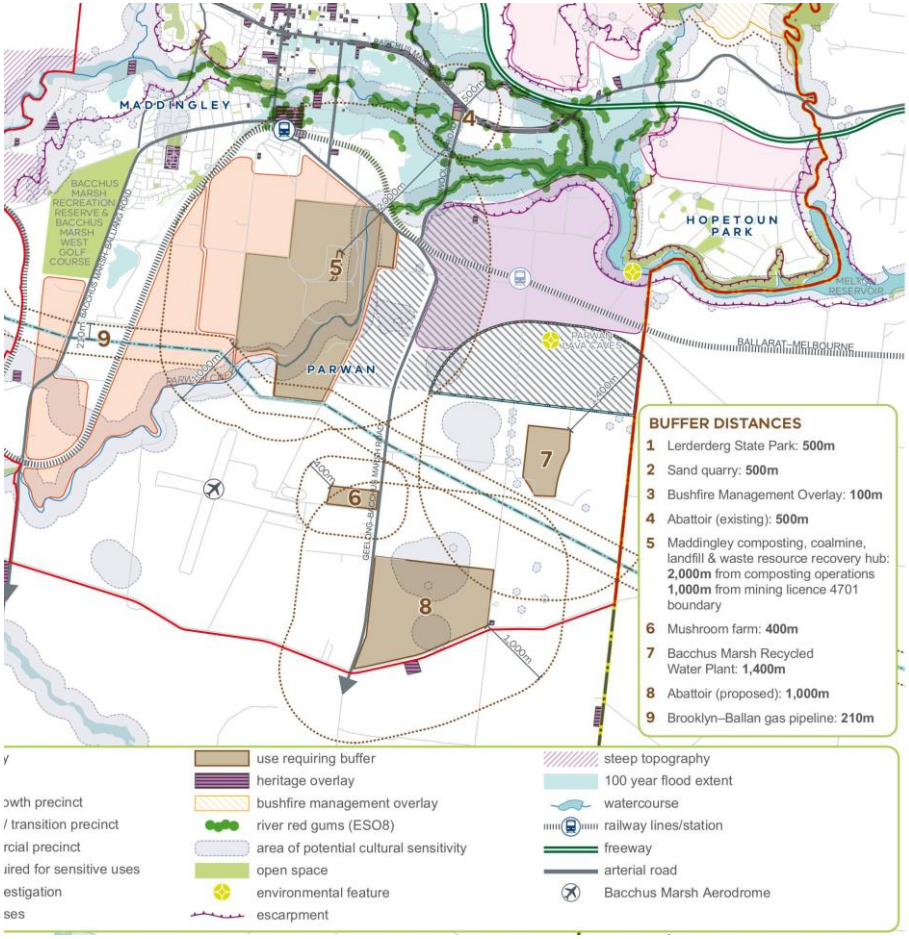
Planning history

Figure 13 Dispersion modelling results Maddingley composting operations (current operations)



Source: Pacific Environment, 2017, 26.

Figure 14 Excerpt from Bacchus Marsh Urban Growth Framework – Plan 4 (Physical Constraints)



Source: Victorian Planning Authority, 2018.

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Planning history

Amendment C40 – Bacchus Marsh Grammar School (2010)

In 2010, the Planning Panel for Amendment C40 to the Moorabool Planning Scheme gave some consideration to separation distances in assessing the suitability of land to be rezoned for the expansion of Bacchus Marsh Grammar School and the recommended separation distances to activities at the Maddingley WRR Hub.

The Planning Panel found that the land to be rezoned was outside the recommended separation distances of 1,000 metres for coal mining based on EPA 1518 (recently superseded by EPA 1949) and 500 metres for landfill, but within an 1,800 metre separation distance for composting. The origin of this separation distance is not explained in the Panel Report.

The Planning Panel supported a risk assessment that was conducted by Council that found that a reduced composting separation distance to the subject land of 1,000 metres would be appropriate having regard to the prevailing wind direction in the area (Panels Victoria, Amendment C40 Panel Report, 2010, 7).

Complaints history

In the absence of physical testing or odour surveys, pollution reports can assist in providing an impression of existing impacts on amenity from industries in the study area. Complaints to Council and the EPA reveal that the amenity impacts felt by the neighbours and surrounding community relate to dust, odour, litter, and noise.

It may be reasonably concluded that amenity impacts do exist, although the lack of strong patterns and the spatial variation suggest that there may be multiple odour sources and a complex range of factors at play. Further investigation would be required to establish whether the complaints are in response to emissions that exceed relevant EPA guidelines or other environmental regulations.

Potential planning responses

What form can buffer controls take?

There are considered to be five broad methods that Council and industry can use to actively identify separation distances and protect buffers both inside and outside the planning system, as follows: .

- direct ownership or control of buffer land by the operator;
- provision of general information or publicity to landowners in an informal way, such as information on Council's website;
- land information certifications under the *Local Government Act 1989*;
- through the planning scheme, which includes the MPS, PPF, zones, overlays and their associated schedules and incorporated documents;
- Section 173 Agreements under the P&E Act, imposed as permit conditions when new developments and subdivisions take place to warn future landowners of the presence of industrial uses and potential adverse amenity impacts.

What matters should be considered when evaluating a method?

Each of the five methods has advantages and disadvantages, as discussed in the Background Report. Each method can be adopted in part or in combination with other methods. The key considerations for evaluating the effectiveness of the potential buffer methods include:

- protection: the ability to adequately and effectively protect the buffer;
- exposure: the degree to which potential purchasers of land are likely to become aware of the buffer at an early opportunity;
- flexibility: the capacity for the tools to be tailored to appropriately respond to the particular issues that need to be addressed;
- cost: the level of funds required to prepare and implement the option;
- timeframe: the time it would take to formally introduce the option or bring it into effect.

These considerations were evaluated in Table 6 of the Background Report and given a low to very high rating. The results of this evaluation were, in summary:

- 'direct ownership' was found to offer very high levels of protection, but with very high associated costs;
- 'general information' was found to offer very low levels of protection at a low cost, but high degrees of flexibility in operation;
- 'land information certificates' were found to offer low levels of protection, but with high levels of exposure at a low cost;
- 'planning scheme tools' varied in their effectiveness and operation but generally offered high levels of protection but with high implementation costs and timeframe;
- 'Section 173 Agreements' rated highly for flexibility at a low cost with a relatively high level of protection offered, but with the major drawback that they can only be applied when there is a trigger for a planning permit (Centrum Town Planning, 2019 25).

The results of this analysis have been further considered following the consultation and feedback process and applied to the recommendations throughout the Planning Study.

Potential planning responses

What planning tools can be used to identify or protect buffers?

Planning zones act as a primary source of land use control within separation distances, by prohibiting or minimising the potential for new sensitive land use and development. Nevertheless, overlays in the planning scheme warrant particular consideration in the Planning Study as they are the planning tool that is most often associated with buffers. They have received general support from many planning panels for this purpose, particularly to protect public infrastructure such as wastewater treatment plants. The key advantages of overlays, as opposed to other forms of development control, are that they:

- can trigger the need for planning approvals when no other triggers exist;
- can explicitly enable the consideration of issues that aim to avoid or mitigate land use conflict between sensitive uses and industrial uses;
- can trigger referrals to authorities or other parties;
- are easily identified in planning scheme maps.

The key disadvantages of overlays are that:

- a significant level of strategic planning work is usually required in order to introduce them into the planning scheme and to subsequently amend them;
- planning permits triggered by overlays generate additional workload on councils.

In practice, overlays are usually more effective when applied to buffers in greenfield or rural areas, where sensitive uses are not as-of-right under a zone control. Since the Victoria Planning Provisions were introduced in the 1990s, the Environmental Significance Overlay (ESO) has been used as the overlay 'of best fit' to identify and protect buffers in Victorian planning schemes.

Its application and effectiveness as a buffer tool has, however, been limited by the fact that it has a purpose that does not relate specifically to land use and it cannot trigger a permit for land uses. Instead, it has been adapted to protect buffers by controlling development associated with sensitive uses. It therefore has limited capacity to be tailored appropriately for the needs of buffers, where the use of land is the primary consideration.

Overlays are a tool for implementing state, regional or local planning policy within a defined geographic area. In order to provide greater policy support for an overlay, there may be benefit in introducing/amending strategic directions in the MPS, and/or introducing local policy in the PPF.

Buffer Area Overlay

Recognising the need for more effective tools to address land use compatibility, the State Government introduced the Buffer Area Overlay (BAO) into the Victoria Planning Provisions in March, 2021. This overlay has a specific purpose to identify buffer areas where there is potential for off-site impacts on human health or safety from industry, warehouse or other uses and to ensure that use and development within buffer areas is compatible with potential off-site impacts. According to DELWP, the BAO is intended to replace the use of the ESO for buffer purposes.

Guidance on the application of the BAO is provided in *Planning Practice Note 92 "Managing buffers for land use compatibility" (March 2021).* The BAO is intended to apply only when land uses are generally compliant with relevant regulations and standards, including EPA licences and planning permits, but still pose unintended impacts on human health or safety.

It can also apply where there are "significant" impacts on amenity, having regard to the frequency, duration, intensity and character of impacts (PPN92, 2021). The BAO is not intended to apply to low-level or intermittent amenity impacts that are short-term in nature or inconvenient (DELWP, 2020).

Potential planning responses

The BAO is a relatively flexible tool that can directly control the use of land, subdivision and buildings and works, through the use of a schedule. Key elements of the BAO are a 'statement of risk' and the objectives to be achieved by the overlay. The notice and review requirements and decision guidelines can also be substantially tailored to suit the operation and objectives of the overlay.

There is a significant body of work that is required to introduce the BAO into a planning scheme. It requires technical assessment work to be undertaken to establish compliance with regulations, licences, permits and other approvals. It also requires an understanding of the development potential of the area and a detailed assessment of potential off-site impacts. This assessment work must be carried out in consultation with, and based upon the advice of, authorities such as EPA and Council.

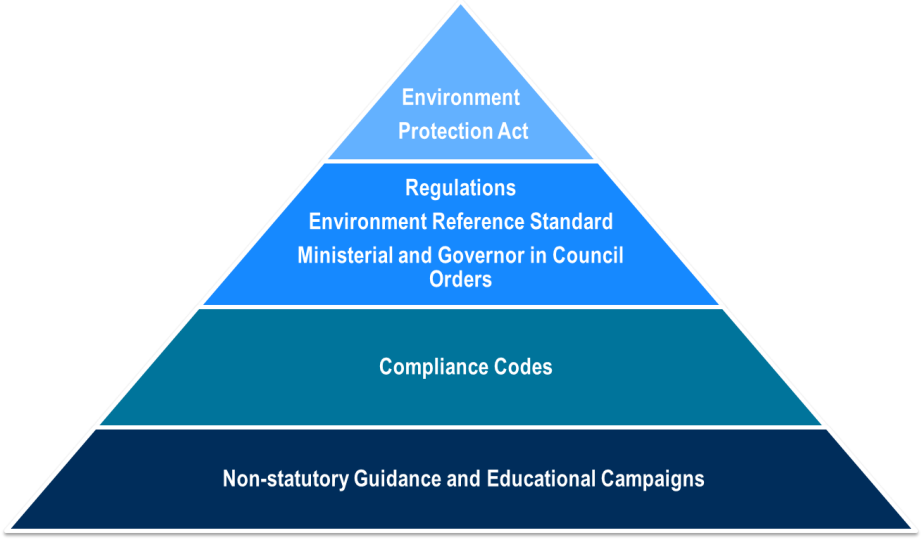
In practice, it is therefore likely that a high degree of support and co-operation would be required from the operator of the industry, to enable a planning authority to implement the BAO in a planning scheme.

What EPA influences are emerging?

There are a series of recent changes to legislation and state policy relevant to the waste and resource recovery sector that will influence the implementation of the Planning Study. Recent changes include:

- the introduction of the new EP Act 2017 (effective from 1 July 2021), which includes new licensing arrangements and the new 'general environmental duty', which places the onus on operators to identify and mitigate environmental risks, as discussed in Part A;
- a suite of other instruments and guidelines to support the new EP Act 2017, including the Environment Protection Regulations 2021, Environment Reference Standards, orders, compliance codes and other guidance, as shown in Figure 15;
- introduction of a revised separation distance guideline (EPA 1949) to replace EPA 1518;
- introduction of new landfill buffer guideline (EPA 1950);
- introduction of a new guideline for operating organic waste processing facilities (EPA 1588.2).

Figure 15 New EPA Environment Protection framework



Source: EPA 1756.2, 2021, 4

Discussion of key planning issues

This section identifies the key issues relevant to the planning and policy framework for buffers and separation distances and what they mean for the Planning Study.

Key planning issue 1: Applying the 'agent of change' principle

The close physical proximity of industry to sensitive uses and the Bacchus Marsh urban area is the planning issue that is of overwhelming importance for the study area. This issue relates primarily to separation distances for composting and coal mining at Maddingley Brown Coal, which affect approximately 2,406 properties and includes:

- approximately 1,904 properties in zones outside the study area that generally allow sensitive uses as-of-right, including the General Residential, Mixed Use and Rural Living zones, Special Use Zone Schedule 4 (Bacchus Marsh Grammar School) and Public Use Zone 2 (Bacchus Marsh College), as explained in Table 1;
- various private properties in the study area in the Farming Zone and SUZ1, several of which have vacant lots where applications could be made for new dwellings;
- a number of more intensive land uses to the north of the study area that would be considered as sensitive receptors, including the Villa Maria Catholic Homes retirement village in Griffith Street, Bacchus Marsh Grammar School and part of Bacchus Marsh College.

If a planning permit or planning scheme amendment is required for a proposed new or expanded sensitive use within a separation distance, the applicant, as the 'agent of change', would need to demonstrate why a variation to the recommended separation distances is appropriate.

This would usually require the agent of change to commission a detailed technical assessment into noise, odour and dust, as appropriate, including dispersion modelling and odour testing.

The proposals that would most likely need to justify a reduction in the separation distance are likely to be applications for the use and development of single dwellings in the Farming Zone or SUZ1. Sensitive uses that require approval for use within the General Residential Zone (e.g. schools, group accommodation, hotel, motel, residential village and retirement village) may also need to justify a reduction in the separation distance.

Key planning issue 2: Tension between recommended separation distances and Council's settlement vision

Whilst there is often a need to balance competing objectives in planning decisions, there is a fundamental contradiction between amenity considerations associated with the Maddingley WRR Hub separation distances and the purpose of the General Residential and Mixed Use zones, which allow dwellings and some other sensitive uses as-of-right.

This issue is most clearly revealed through Council's strategic settlement vision for the existing urban area, where there is a tension between Council's desire to increase urban densities and the potential need to limit the density of development to recognise the separation distances at Maddingley Brown Coal. At present, the Moorabool Planning Scheme aims to promote infill development across the many properties in the residential zones within these separation distances. Whilst most of these properties are fully developed, a range of infill development opportunities exist.

Discussion of key planning issues

For example, all of the lots in the Gaynor Street area to the north of Bacchus Marsh Grammar School have been developed, typically with single detached dwellings. Some of these lots may have potential for infill or more intensive development as many of the lots are quite large, in the order of 1,000 square metres or greater. There is also land on the west and east sides of Fisken Street, zoned General Residential and Mixed Use, that has potential for more intensive residential development. These zones allow sensitive uses without the need for a planning permit.

The areas mentioned above are located within a 'natural residential growth area' in the 'Residential Settlement Framework Plan in Clause 11.01-1L-02 of the Moorabool Planning Scheme (Precincts 30 & 31 in Figure 7). Under this clause, multi-unit developments including low scale medium density housing, retirement villages and aged care may be appropriate if located in close proximity to transport, activity centres and open space. These areas are within 1.5 kilometres of the town centre and are close to open space at Maddingley Park and the Bacchus Marsh Railway Station, so comfortably satisfy some of the key high level criteria applicable to medium density development.

Key planning issue 3: How to encourage best practice operations

Council aims to strongly encourage industry to adopt best practice operating processes and procedures in order to reduce the risk of potential off-site amenity impacts. This view is supported by the advice in EPA 1949, which states that separation distances are not an alternative to source control of emissions and industries should aim to eliminate emissions through technology and good management.

Until the introduction of the EP Act 2017 (on 1 July 2021), the opportunities to achieve best practice outcomes were usually limited to negotiations as part of permit application processes. During these processes, councils are guided to a large degree by the advice of the EPA on whether a proposal is acceptable as the EPA has the technical expertise to assess and guide best practice outcomes.

The EP Act 2017 should assist in promoting best practice outcomes, although how this might occur for key uses in the study area such as the Maddingley WRR Hub is not yet clear. For example, the GED will require risk management and monitoring programs to demonstrate compliance with licence conditions. The implications of these new statutory expectations for EPA Licence 45288 are not known, but it may provide an opportunity for improvements to composting operations.

This situation reinforces the potential for the Planning Study to play a role in encouraging industry to implement best practice operations. For example, the Planning Study can support the important opportunity that exists to explore in-vessel composting at the Maddingley WRR Hub. The conversion of composting operations to in-vessel has the potential to significantly reduce the recommended composting separation distance (EPA 1949). In order to achieve these beneficial outcomes, further expert advice may be required to engage with MBC and stakeholders to identify specific barriers to investment, which may include identifying funding opportunities.

The implications of achieving best practice outcomes are significant for the study area as the better management of emissions will assist in reducing separation distances. It suggests that significant attempts should be made to engage with industries to reduce emissions as a matter of priority, before changes to the Planning Scheme are considered.

Discussion of key planning issues

These issues are important because the community and landowners are likely to expect that Council has explored all other avenues to minimise separation distances and buffers before planning controls are imposed upon private land. Importantly, the need to explore all reasonable measures to minimise off-site impacts is also a pre-requisite for consideration of the BAO (PPN92, 2021).

Key planning issue 4: Limitations of planning schemes in managing separation distances and buffers

The Victoria Planning Provisions emphasise performance based approaches to assessing impacts and proposals. That is, the preference is for proposals to be tested on their merit against objectives and policies in order to achieve a preferred outcome, rather than being assessed against inflexible criteria.

Performance based approaches to planning are effective when managing impacts that can be measured in a physical way such as built form measures that are considered by in accordance with the residential development provisions of clauses 54 and 55 of the Planning Scheme. They are, however, less effective in managing fluctuating air based amenity impacts that are harder to measure, such as noise and odour.

A further issue is that the zones and overlays upon which Planning Schemes operate need mapped boundaries and clear permit triggers to operate properly, which requires consensus about how a buffer should be mapped.

Evidence of these complexities is revealed by the fact that there are relatively few examples in Victorian planning schemes of overlay provisions for buffers that contain performance based controls or guidelines to address potential amenity impacts such as noise and odour. Overlay schedules that attempt to protect industrial uses from sensitive uses include:

- ESO4 in the Benalla Planning Scheme, which aims to protect the Benalla Wastewater Treatment Plant from sensitive uses and encourages a range of building and siting measures for new buildings to minimise odour impacts.
- ESO5 in the Wodonga Planning which aims to protect the Baranduda and West Wodonga Wastewater Treatment Plant from sensitive uses and encourages a range of building and siting measures for new buildings to minimise odour impacts.
- ESO7 in the Horsham Planning Scheme, which aims to protect the Wimmera Intermodal Freight Terminal Precinct from specified sensitive uses but contains little detail in the decision guidelines to assist applicants or council in assessing the application.

Resolution of these applications is often left in the hands of referral authorities or outcomes that are negotiated as part of the application process. This situation creates uncertainty that is undesirable, and suggests that, if planning tools are to be used, they should contain meaningful guidance to users about how the objectives of the overlay can bet met.

The Buffer Area Overlay (BAO) allows planning authorities to translate the risks associated with offsite amenity and human health impacts into meaningful planning controls..

Discussion of key planning issues

Key planning issue 5: Implications of separation distances for the Parwan Station residential and commercial growth precinct

The strategic planning for the Parwan Station residential and commercial growth precinct has begun in the form of a precinct structure planning process. The Amendment C81 process determined that, from a strategic planning perspective, the separation between commercial and residential uses in this precinct should be based on the *Maddingley WRR Hub separation distances (C81)* and a buffer to the Bacchus Marsh Recycled Water Plant to the south, as shown in Figures 12 and 12A. Reflecting the need to respect this separation distance, the Bacchus Marsh UGF anticipates that commercial opportunities within these buffer areas should exclude uses with adverse amenity potential (VPA, 2018, 75-77).

The Maddingley WRR Hub separation distances (C81) cover an area which is approximately 2,000 metres in radius and affects almost a third of the land area in the Parwan Station residential and commercial growth precinct. This represents a relatively large area of commercial and employment focused land for an urban growth precinct. It is possible that the commercial section of the precinct may take considerable time to develop and that large areas of land may remain disconnected from the existing Bacchus Marsh urban area for some time.

Nevertheless, this may also present opportunities for the preferred mix of land uses to be reviewed from time to time, if the need for the separation distances changes.

These issues will need to be explored in more detail through the Parwan Station Precinct Structure Plan but are likely to remain live issues for the overall strategic planning of the area over the medium to long term.

Key planning issue 6: How to assess and achieve 'acceptable' planning outcomes

In the areas affected by separation distances, there is likely to be significant resistance from the community and landowners to any measures that limit the use and development potential, and therefore the economic value, of their land. Likewise, industrial landowners will also have a strong interest in ensuring that encroachment from non-compatible land uses does not occur so as to maintain the use and development potential of their land.

Land use planning is often required to balance competing objectives. One of the key strategic tests that is often applied in these situations is to examine whether a proposal, or changes to a planning scheme, will have a 'net community benefit' from a social, economic and environmental perspective. One way of framing this assessment is to ask whether the community benefit will outweigh the cost. The value and importance of the proposed use or development are also relevant considerations. These principles are enshrined in the objectives of planning set out in Section 4 of the P&E Act.

If changes to the Planning Scheme are being considered that affect large numbers of properties, such as overlay controls, evaluating the social, environmental and economic costs of health, safety and amenity impacts could be challenging for Council or private proponents. In considering these issues, there may be an expectation, at least from the community's perspective, that an evaluation of costs and benefits has been undertaken for various planning options. Managing these expectations will therefore be important for Council, as detailed examinations of cost and benefits are not usually required through planning scheme amendment or EES processes if these processes are privately sponsored (DSE, 2006, 17). The close involvement of key agencies such as the EPA and DTP will be required to identify the most appropriate pathways through these issues.

Summary of issues

Summary of issues relating to separation distances and buffers to industry

Key issue 1	Applying the 'agent of change' principle presents challenges due to the close proximity of industry to sensitive uses and the Bacchus Marsh urban area. The Maddingley WRR Hub separation distances affect approximately 2,406 properties, including 1,904 in zones that allow for sensitive uses. Sensitive use proposals within the Farming Zone or SUZ1 would need to justify a reduction in the separation distance. Sensitive uses that require approval for use within the General Residential Zone may also need to justify a reduction in the separation distance.
Key issue 2	Tension between recommended separation distances and Council's settlement vision. There is a fundamental contradiction between amenity considerations associated with the Maddingley WRR Hub separation distances and the purpose of the General Residential and Mixed Use zones, which allow dwellings and some other sensitive uses as-of-right.
Key issue 3	How to encourage best practice operations. The EP Act 2017 and GED requirements should assist in promoting best practice outcomes. The implications of these new statutory expectations for EPA Licence 45288 are not known, but they may provide an opportunity for improvements to composting operations at the Maddingley WRR Hub.
Key issue 4	Limitations of planning schemes in managing separation distances and buffers. Most planning scheme provisions require spatial boundaries and measurable limits in order to operate properly, which makes them less effective in managing fluctuating air based amenity impacts such as noise and odour. If an overlay is to be applied, it should contain meaningful guidance to users about how the objectives of the overlay can bet met.
Key issue 5	Implications of separation distances for the Parwan Station residential and commercial growth precinct. The Maddingley WRR Hub separation distances will be a key influence on the extent of commercial and employment focused land in the Parwan Station precinct over the medium to long term.
Key issue 6	How to assess and achieve acceptable planning outcomes that provide a net benefit to the community.

Key findings

What are the key findings and implications for the Planning Study?

Key finding 1	There is strong legislative and policy support for separating land uses in relevant acts and in the PPF.
Key finding 2	There is a need to transition the study area away from heavy industrial uses with adverse amenity potential to avoid and minimise issues relating to land use compatibility.
Key finding 3	Recent improvements to the PPF and the VPPs have clarified some of the policy considerations for land use compatibility, but balancing competing objectives is still highly challenging in the study area, where legacy issues exist.
Key finding 4	Buffers have the potential to benefit all users of the planning system and the wider community if they are well-formulated and suitable methods are used to identify and manage them through the property and planning systems.
Key finding 5	Buffers are not an alternative to source control of emissions and industries should aim to eliminate emissions through technology and best practice management.
Key finding 6	The greatest conflict has arisen in the study area when industries and sensitive land uses have sought to expand or change.
Key finding 7	The BAO should be implemented, but only after the industry that generates the emissions has implemented all reasonable and practical measures to minimise off-site impacts through changes to operating practices.

Recommended planning principles

Recommended planning principles

Principle SB1	Recognise that industrial and other uses with adverse amenity impacts have co-existed with sensitive uses within, and beyond, the study area for a long period of time.
Principle SB2	Recognise that a pragmatic approach is required in all planning responses to balance various competing objectives in an acceptable way.
Principle SB3	Provide an acceptable level of protection for existing industrial uses and uses with adverse amenity potential from the encroachment of new sensitive uses.
Principle SB4	Provide greater certainty for industrial operators and landowners affected by separation distances and buffers by clarifying Council's expectations for the provision of further technical work on amenity impacts, where required.
Principle SB5	Encourage a performance based approach to addressing adverse amenity impacts on new sensitive uses within the Maddingley WRR Hub separation distances, in accordance with the principles of the Victoria Planning Provisions.
Principle SB6	Encourage best-practice technologies and processes for all uses with adverse amenity potential in order to reduce off-site impacts.

Planning scheme options

Planning provisions – options considered

In response to the recommended planning principles, the Planning Study has considered the following main options for buffers and separation distances:

Recommended Option: Local planning policy and potential application of a schedule to the Buffer Area Overlay (BAO)

This option would involve:

- introducing/amending strategic directions in the MPS at Clause 02.03;
- introducing a strategic framework plan in the PPF;
- introducing local policy in the PPF (e.g. at 17.03-2L Sustainable Industry).

This option would also involve encouraging the operator of the Maddingley WRR Hub to undertake technical assessment work to inform the preparation of the BAO. A planning scheme amendment would be required to implement the BAO.

The overlay would most likely trigger the need for a planning permit for use and development associated with sensitive uses. The overlay would not affect any other uses such as industry, which would continue to be controlled by the zone.

This option would offer the general advantages offered by an overlay, namely effective permit triggers and assessment and high levels of transparency through the planning and property system.

This option also offers the following advantages:

- it supports the advice offered by DTP that the BAO is the preferred planning tool to be used to identify and protect buffers;
- it will ensure that the necessary technical assessment work is undertaken by the operator, who is best placed to address the various requirements of *Planning Practice Note 92 "Managing buffers for land use compatibility"* (March, 2021), in relation to site operations and demonstrating compliance with current licences, permits and other statutory approvals;
- it will ensure that the spatial extent and provisions of the BAO schedule are informed by technical assessment work, which is the standard required to support the preparation of a planning scheme amendment.

Given the uncertainty and likely long timeframe involved in applying a schedule to the BAO, it is recommended that this option be implemented via two planning scheme amendments, as follows:

- Phase one: introducing/amending strategic directions in the MPS, introducing a strategic framework plan and introducing local policy content in the PPF;
- Phase two: applying a schedule to the BAO.

This is the recommended option.

Option 2: No change to current situation

This option would avoid the need to amend the planning scheme, however, it is not considered appropriate for the following reasons:

- there are no planning permit triggers specifically designed to require consideration of key recommended separation distances such as the Maddingley WRR Hub separation distances;
- prospective purchasers of properties affected by the Maddingley WRR Hub separation distances may not become aware of these distances and the 'agent of change' principle;

Planning scheme options

- there is a high likelihood of ongoing objections and VCAT appeals relating to separation distances and buffer issues within or near the study area, creating uncertainty;
- there would be little local level guidance for Council in how to consider separation distance and buffer issues in planning permit applications.

Option 3: Use of Section 173 Agreements

This option would involve Council requiring Section 173 Agreements via conditions in planning permits relating to the use and development of land that may be affected by EPA recommended separation distances. The Agreement would be registered on the title to the land and would alert the landowner and future purchasers about the potential for nearby industrial uses to affect the amenity of sensitive uses. This option is not considered to be appropriate for the following reasons:

- they can only be applied when a planning permit is required for a new use or development;
- there are no planning permit triggers specifically designed to require consideration of the Maddingley WRR Hub separation distances;
- the Agreement may ultimately hold little weight in preventing objections, appeals and future planning issues, as decision makers are still bound by the provisions of the Planning Scheme and other legislation;
- they are resource intensive and put pressure on Council to enforce.

Option 4: Apply a new schedule to the Environmental Significance Overlay

This option would involve applying a new schedule to the Environmental Significance Overlay to trigger the need for planning permits for development associated with sensitive uses. DELWP has advised, however, that the BAO is now the preferred overlay for applying to buffers, so the ESO is no longer considered a viable option for the Planning Study.

Recommended actions

Recommended planning provisions

Recommendation SB1	Amend the Moorabool Planning Scheme (Phase one), by: • introducing/amending strategic directions in the MPS at Clause 02.03; • introducing a strategic framework plan in the PPF; • introducing local policy in the PPF (e.g. at 17.03-2L Sustainable Industry).
Recommendation SB2	Amend the Moorabool Planning Scheme (Phase two), by applying a schedule to the BAO, depending on the outcome of action Action SB4.

Other recommended actions

Action SB1	Monitor the State Government's review of the waste management framework and evaluate the effect of changes on the recommendations of the Planning Study.
Action SB2	Monitor changes to EPA policies relating to separation distances, buffers and the assessment of cumulative impacts, including any changes to EPA 1949.
Action SB3	Monitor the implementation of the 'General environmental duty' requirements of the EP Act 2017 and engage with the EPA and MBC to implement best practice operational improvements at the Maddingley WRR Hub.
Action SB4	Encourage MBC to explore the potential application of the BAO and undertake the technical assessment work needed to inform the preparation of a planning scheme amendment.

Part D | Sub-area Land Use Directions

Sub-area 1 – East

Description of the sub-area

This sub-area is bounded by Tilleys Road in the north, Geelong-Bacchus Marsh Road and Cummings Road in the east, Smiths Road and Parwan Creek in the south, and Gullines Road, Kerrs Road and East Maddingley Road in the west, as shown in Figure 16.

The sub-area has an area of approximately 357 hectares. It represents approximately 34% of the privately owned land in the study area. The land in the sub-area is mostly owned by MBC, apart from a relatively small area of crown land along Parwan Creek.

Parwan Creek is a major environmental feature in the sub-area. It traverses the southern and eastern parts of the sub-area. The land in the sub-area is undulating and falls to Parwan Creek.

The sub-area has been historically used for coal mining and large former coal pits exist, some of which are used as dams. The large pits in the central part of the sub-area are being filled with solid inert waste by MBC under EPA Licence 45288 and planning permit PA2011338-1, as described in Part A of the Planning Study.

A large former coal pit known as the 'Star Dam' lies to the south of Parwan Creek. There is a large earthen bund on the south side of Tilleys Road in the north east corner of the sub-area. Other uses include the Bacchus Marsh Motorcross Track, which is located on School Lane in the north east corner of the sub-area.

Part of the Maddingley coal seam lies beneath the sub-area. This is a relatively thin seam of coal that extends to a depth of 40 metres. Within this sub-area, there is little basalt overlaying the coal resource, making it accessible for mining. Coal mining is currently being undertaken under mining licence MIN 4701.

Recommended Separation Distances
1. Maddingley WRR Hub separation distance (composting) [2200 m] *
2. Maddingley WRR Hub (landfill) (case by case basis)
3. Maddingley WRR Hub (coal mine) [2000 m]

*EPA Publication 1949 recommends a separation distance of 2,200 metres (for odour) for new composting facilities receiving lowest risk wastes up to 50,000 tonnes/year and using open turned windrow technology. As this existing facility is licensed to receive high risk waste streams, a site-specific risk assessment may be necessary to inform future planning proposals.

Existing Planning Zone (within Study Area)
- FARMING ZONE (FZ)
- INDUSTRIAL 1 ZONE (IN1Z)
- INDUSTRIAL 2 ZONE (IN2Z)
- SPECIAL USE ZONE - SCHEDULE 1 (SUZ1)
- TRANSPORT ZONE - CATEGORY 1 (TRZ1)
- TRANSPORT ZONE - CATEGORY 2 (TRZ2)
- TRANSPORT ZONE - CATEGORY 3 (TRZ3)

Sub-area 4 North West
Sub-area 6 North East
Sub-area 5 North
Sub-area 1 East
Sub-area 1 East
Sub-area 2 South West
Finn Ct
Gaynor St
Parwan Rd
Love Cl
Fisken St
South Maddingley Rd
East Maddingley Rd
Vallence Rd
MELBOURNE-BALLARAT LINE
Tilleys Rd
Warde Cl
UNNAMED WATERWAY
Kerrs Rd
Gullines Rd
School Lane
Browns Lane
Parwan - Exford Rd
Rowsley Station Rd
Smiths Rd
Smiths Rd
Cummings Rd
Geelong - Bacchus Marsh Rd
WERRIBEE RIVER
TRZ1
TRZ2
FZ
15 -500 m
18 - ?m
4 -1000 m
19 -500 m
9 -500 m
7 -425 m
6 -1414 m
3 -2000 m
8 -686 m
2 - ?m
1
3
15
7

Maddingley Planning Study

LEGEND
- Study Area
- Sub-area Boundaries
- Property Boundaries
- Parcel Boundaries
- Railway Line
- Major Roads
- Local Roads
- Minor Roads
- Waterway
- Inferred Dwelling Location

Land Use Activity Areas
- Existing Land Uses Requiring Separation Distances

Recommended Separation Distances
- Existing Land Use Separation Distance

0 100 200 300 400 m

GIS maps produced by BlueSphere

Data Sources

Land Use Activity Areas: GIS data provided by Moorabool Shire Council, based on Figure F1, Separate Sensitive Use Buffers, from report "Environmental Matters Concerning Proposed Amendment C81 to the Moorabool Planning Scheme" by Peter J Ramsay and Associates, Rev. 00.

Land uses are based on information available at the time of preparation of this document.

Tenancy map for JBD industrial park provided by JBD industrial park and Moorabool Shire Council.

Separation distances based on:
- EPA 1949: Recommended Separation Distances for Industrial Residual Air Emissions – Guideline
- EPA 1950: New guidelines for industry separation distances and landfill buffers
- Moorabool Shire Council Planning Scheme Clause 53.10.

Inferred Dwelling Locations are approximate only, and have been digitised by KnightVision based on aerial imagery interpretation.

Racing Dog Breeding Facility: Digitised by KnightVision based on planning permit application site plan provided by Moorabool Shire Council.

Proposed Materials Recycling Facility and Garden Supplies / Concrete Batching Plant location based on drawing 'Concept Site Plan', in Planning Permit Application 2018239 by Gunnawaunday Holdings Pty Ltd, dated 09/09/2018.

FIGURE 16 EXISTING RECOMMENDED SEPARATION DISTANCES IN SUB-AREA 1

PLANNING STUDY

Prepared for **Moorabool Shire Council**

Prepared by centrum TOWN PLANNING

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Date: 18/09/2025

Revision: FINAL Rev14

Sub-area 1 – East

Existing planning directions and zone provisions

The sub-area is identified in Clause 11.01-1L-02 (Bacchus Marsh Urban Growth Framework Plan) as the 'Maddingley Waste and Resource Recovery Hub (including coal mine)'.

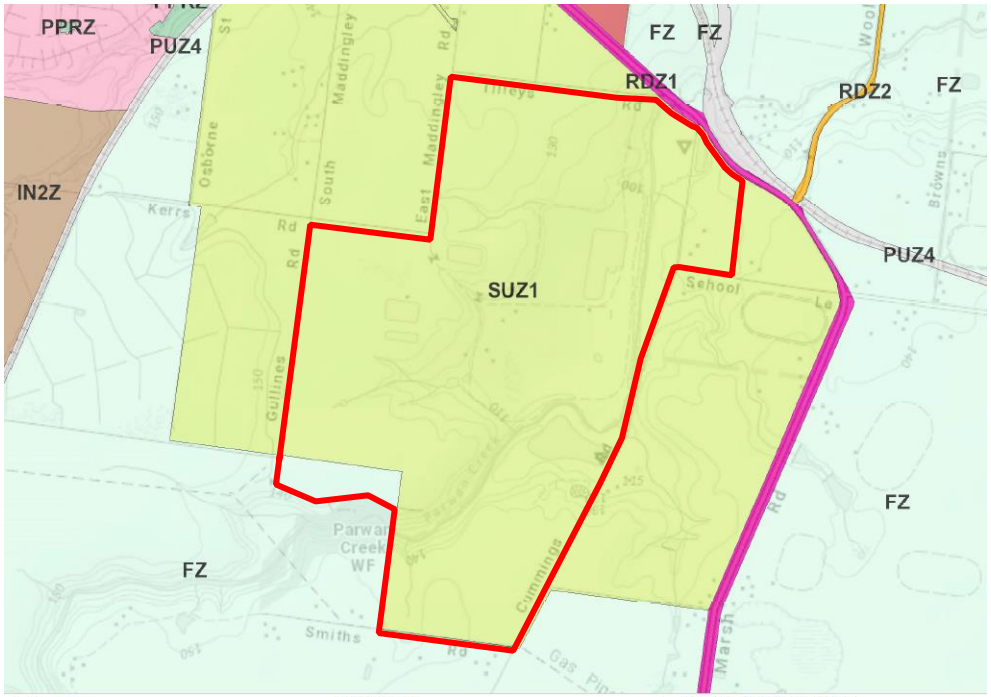
PPF Clause 19.03-5S (Waste and resource recovery) seeks to reduce waste and maximise resource recovery to reduce reliance on landfills and minimise environmental, amenity and public health impacts.

MPS Clause 02.03-7 includes a strategic direction which aims to protect the Maddingley WRR Hub from the encroachment of sensitive land uses.

Most of the land in the sub-area is zoned SUZ1 under the Moorabool Planning Scheme, as shown in Figure 17. This zone aims to recognise and provide for the use and development of the land for coal mining.

A relatively small area of land in the south west of the sub-area is zoned Farming Zone.

Figure 17 Sub-area 1 – Sub-area boundaries and existing zones



Sub-area 1 – East

Existing overlay provisions

The existing overlay provisions that apply in the study area are shown in Figure 18, and are summarised below.

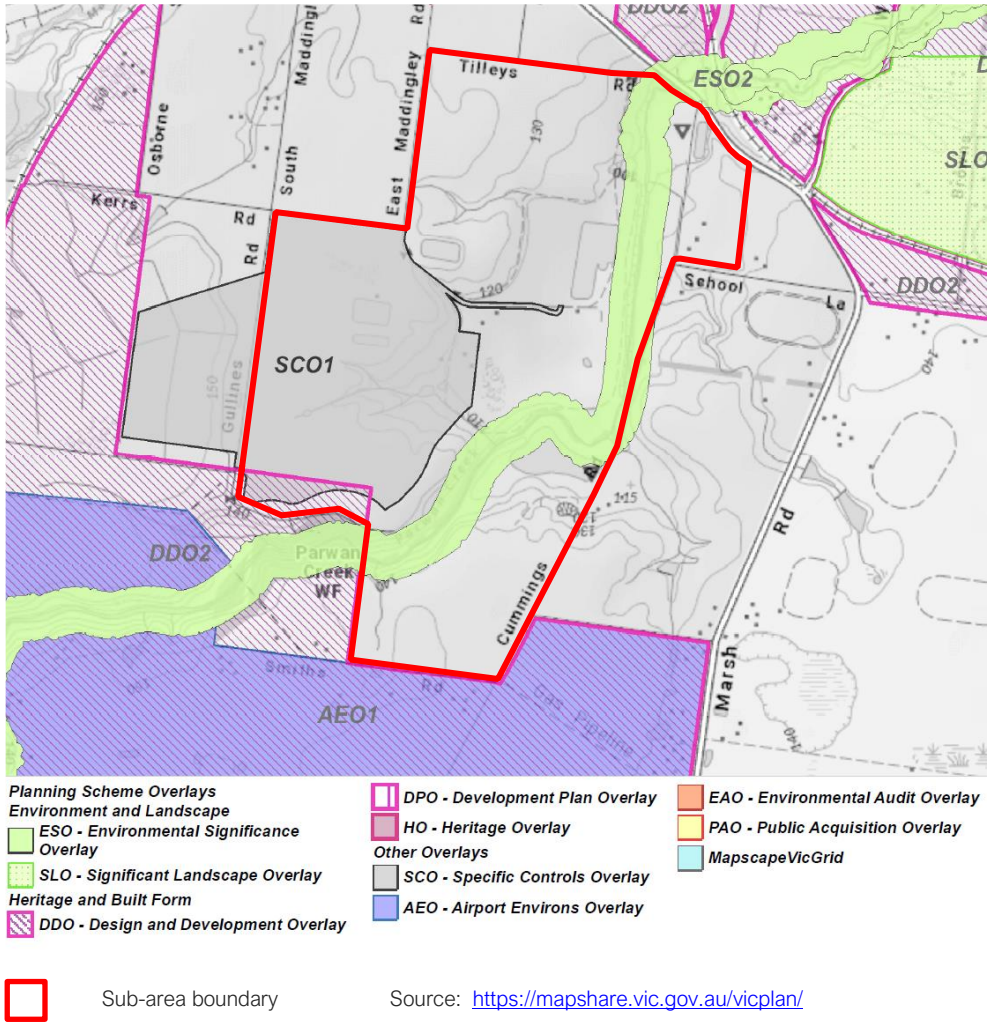
The Environmental Significance Overlay Schedule 2 (ESO2) applies to all land approximately 100 metres each side of Parwan Creek. It aims to protect waterways, by protecting vegetation, preventing pollution, preventing increased turbidity and preventing increased stormwater runoff.

The Design and Development Overlay Schedule 2– Visual Amenity and Building Design (DDO2) applies to the small area of Farming zoned land in the south western corner of the sub-area. It aims to enhance visual amenity, by encouraging the use on non-reflective cladding on buildings. The overlay requires a permit for all buildings and works and signage unless all external surfaces are constructed of non-reflective materials. It requires particular consideration of appearance, visual amenity and landscaping.

The Specific Controls Overlay (Schedule 1 – Maddingley Spoil Processing Facility, October, 2020) applies to the western part of the SUZ1. It refers to an Incorporated Document, which sets out conditions and controls that allow for spoil processing associated with the West Gate Tunnel project.

The Incorporated Document effectively allows all activities associated with the storage, handling and treatment of spoil, to occur, subject to compliance with various approved plans and documents, as approved by the Minister for Planning. The Incorporated Document controls expire in April, 2024, unless they are extended.

Figure 18 Sub-area 1 – Sub-area boundaries and existing overlays



Sub-area 1 – East

Existing planning approvals

The Maddingley WRR Hub is owned and operated by MBC. It comprises a solid inert landfill, resource recovery activities including composting and extraction of earth resources (coal mining). The landfill operates under Planning Permit PA2011338-1. This permit allows for:

"*Use and development of land for a landfill, production of soil and soil products (including composting) and works associated with those uses; use and development of the land for the purpose of materials recycling (metals and construction and demolition waste); and construction of a treatment plant for leachate management" (Planning Permit PA2011338-1).*

The permit will expire if:

- The development is not completed by 7 November, 2044, apart from works that are incidental to the uses allowed under the permit, including the depositing of waste and associated movement of soil; or
- The use is discontinued for a period of two years (s68(3d) of P&E Act).

Council has also issued a planning permit that allows the former coal pit known as the Star Dam on Cummings Road to be filled with Potential Acid Sulphate Soil (Planning Permit PA2018319).

Existing environmental approvals

The site has an EPA Licence to operate prescribed industrial waste management, solid inert landfill and composting under the *Environment Protection Act 2017* (EPA Licence 45288). The 'premises boundary' for the Licence is shown in Figure 19. EPA Licence 45288 contains conditions that relate to amenity, acceptance and management of waste, landfill audits, and protection of the environment. Key conditions include:

- requirements for waste not to be discharged, emitted or deposited beyond the boundaries of the site, including to groundwater;
- requirements to ensure that offensive odours are not discharged or released beyond the boundaries of the site;
- requirements for only scheduled waste to be accepted at the site (Category C contaminated soil, compost waste and general waste);
- requirements for a monitoring program to be prepared and approved by an environmental auditor, including assessments of risks, landfill gas, leachate, groundwater, land, air, odour, noise, dust and surface water; and
- requirements for approval and verification of constructed cells, including landfill caps and rehabilitation plans.

The Works Approval that has been issued under EPA Licence 45288 allows for the construction of Cells 6-7 and design of cells 8-10 to the west (all shown in the Stage 2 area in Figure 20). Stage 1 has been completed. The ultimate completion of Stage 2 would require the relocation of the composting bench.

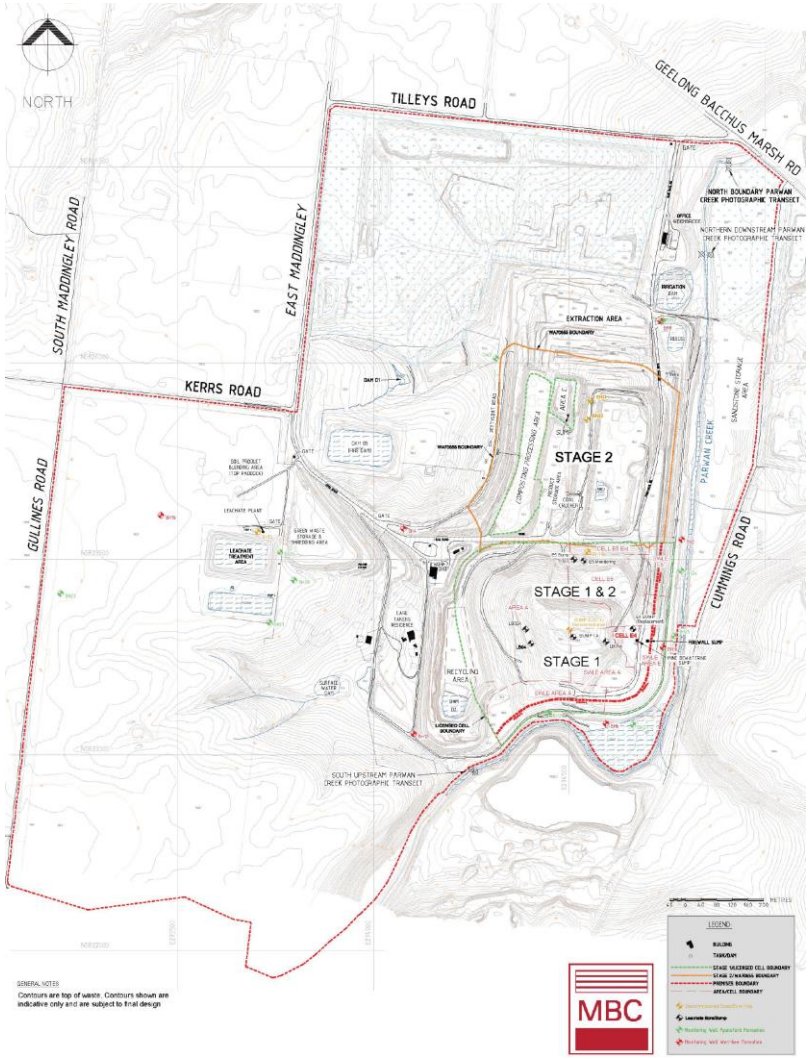
As part of its community relations initiatives, MBC convenes the 'Maddingley Brown Coal Consultative Committee', which plays a role in sharing information about the facility and addressing amenity related issues at the Hub such as litter, traffic and operations.

Recommended separation distances

As discussed in Part C, the recommended separation distances applicable to the existing uses in the sub-area include 2,200 metres for the composting activities and 2,000 metres for coal mining (Clause 53.10 of the Planning Scheme and EPA 1949). These separation distances are shown in Figure 12.

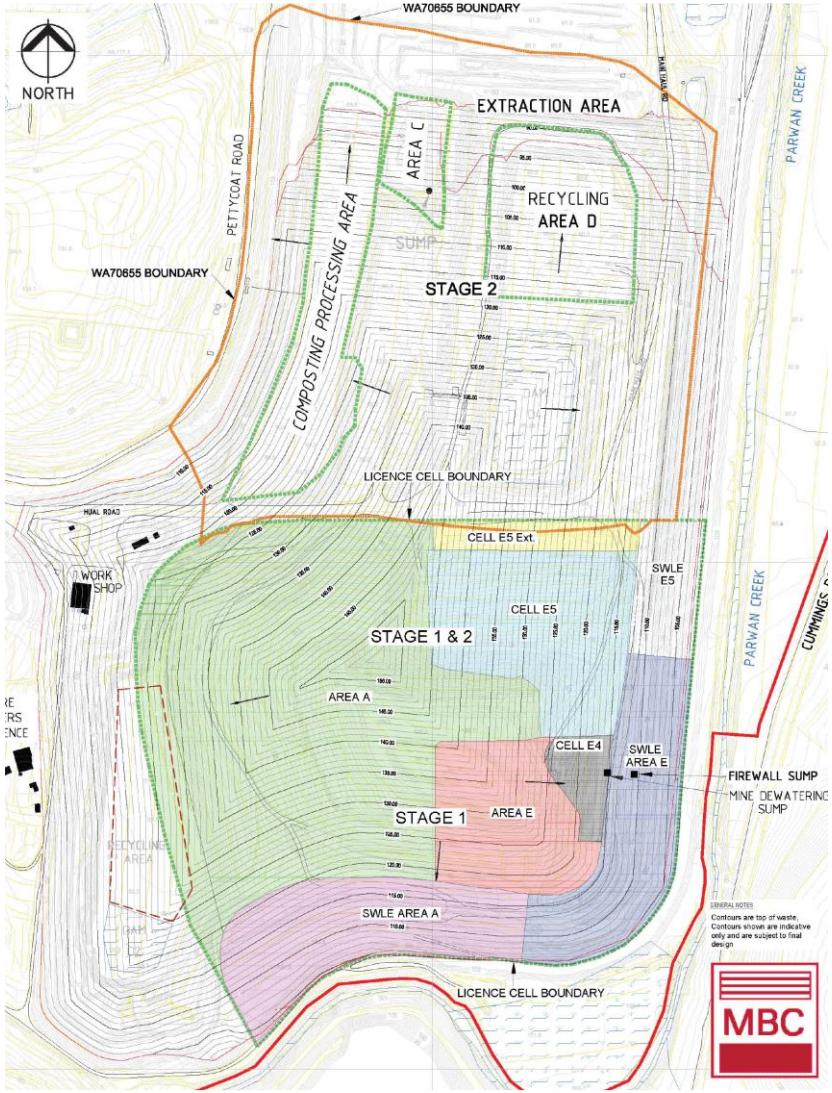
Sub-area 1 – East

Figure 19 Premises Plan from EPA Licence 45288



Source: EPA Licence 45288

Figure 20 Contour Plan from EPA Licence 45288



Source: Extract from EPA Licence 45288

Sub-area 1 – East

Existing mining approvals

Most of the land in Sub-area 1 (East) lies within Mining Licence 4701, as shown in Figure 21. Areas not covered by the Mining Licence include the landfill cells, land on the south side of Parwan Creek, the access road and dams in the west of the sub-area and the land on the east side of Cummings Road.

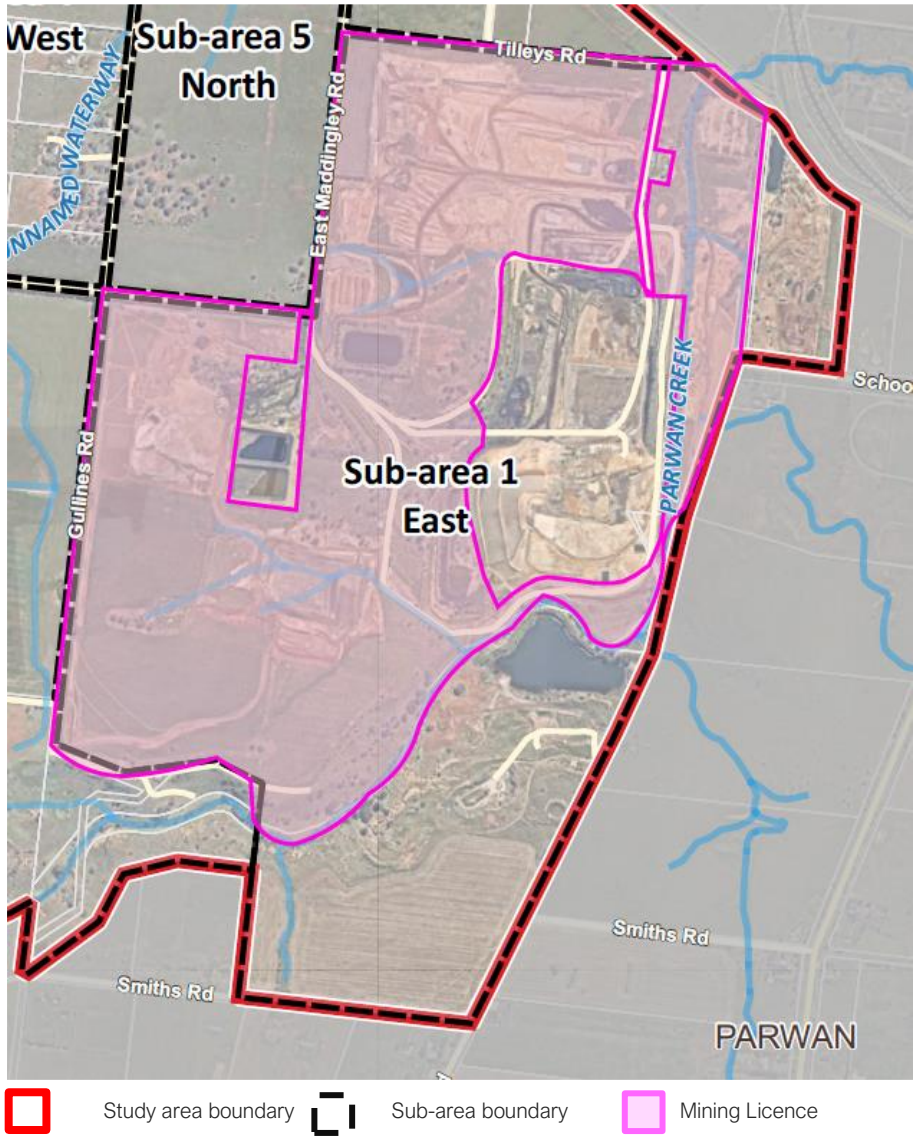
Mining Licence 4701 allows for the mining of black and brown coal. It expires in 2033. The conditions of the Mining Licence contain requirements for (in summary):

- works to take place in accordance with an Approved Work Plan;
- requirements for public safety, fire risk and complaints management;
- soil management, including erosion, drainage and water controls;
- visual screens and vegetated buffer zones;
- air, noise, dust and lighting conditions;
- roads, working hours and rehabilitation;
- blasting, vibration and the use of cyanide and explosives.

It is understood that a Work Plan has been approved under the MRSD Act, although this document has not been available to the Planning Study.

The 'premises boundary' of EPA Licence 45288 is generally consistent with the outermost boundary of Mining Licence 45288, as shown in Figures 19 and 21.

Figure 21 Sub-area 1 – Mining licence boundaries



Sub-area 1 – East

Photograph 5 Maddingley WRR Hub from the eastern edge on Cummings Road showing the completed Stage 1 (left photograph) and Stage 2 landfill cell construction (right photograph), January, 2019.

Photograph 6 Earthen bund on the northern boundary of the Maddingley WRR Hub near Tillevs Road.

Photograph 7 Eastern boundary of the Maddingley WRR Hub showing a large litter fence.

Sub-area 1 – East

Emerging uses and opportunities

It is understood that MBC is exploring a number of potential developments within its landholding, which includes relationships with other companies. These include:

- the potential to extract methane from the landfill and compress the gas for use in trucks and transport vehicles; and
- the potential for various waste-to-energy uses including solid recovered fuel, and anaerobic digesters, to create electricity for use in the sub-area or for the grid (Centrum Town Planning, 2019).

Planning Permit PA2011338-1 allows the composting area to be moved to the north with no change to the Maddingley WRR Hub separation distances. Condition 27 requires that this change would be subject to an odour and amenity assessment showing no "*additional, unreasonable impact on the amenity of nearby sensitive receptors including residential and educational uses*". This proposal was also discussed in the Amendment C81 Panel Report (Amendment C81 Panel Report, 2018, 30).

Photograph 8 Composting bench at Maddingley WRR Hub (shown in foreground).

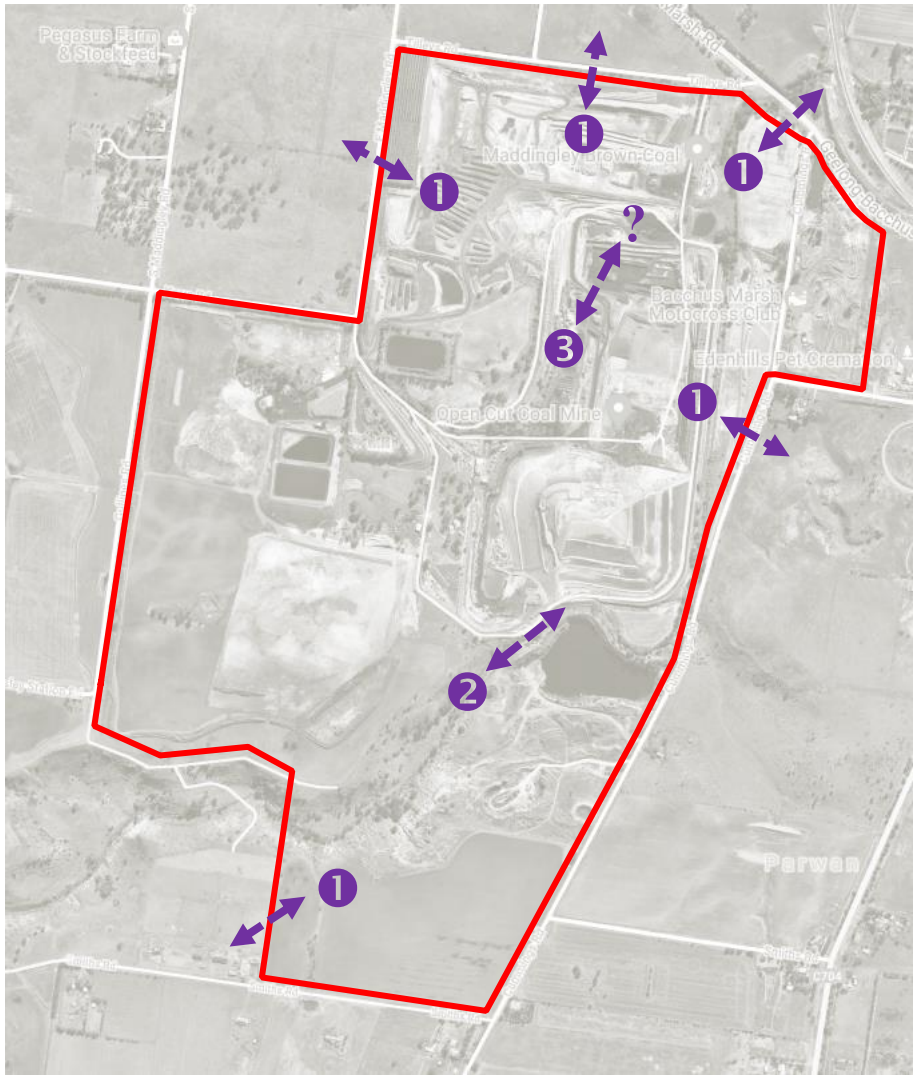
Sub-area 1 – East

Land use planning issues – physical and operational

The land use planning issues within the sub-area are summarised below, with a location reference shown in Figure 22:

Issue 1	How to limit the visual impact of the solid inert landfill and coal mine.
Issue 2	How to treat Parwan Creek and its environs, which have been significantly modified in the sub-area over time.
Issue 3	Whether the composting activities can be relocated to the north without any additional, unreasonable impacts on the amenity of nearby sensitive receptors.
Issue 4	How to establish and maintain a social licence to operate the WRR hub within the community.

Figure 22 Sub-area 1 – Key issues and influences plan (physical and operational)



Sub-area boundary

Source: Nearmap & Centrum Town Planning, 2021

Sub-area 1 – East

Land use planning issues – statutory

The land use planning issues relating to the existing planning provisions, current EPA licence 45288 and current mining licence (MIN 4701) and associated approvals in the sub-area are summarised below, with a location reference shown in Figure 23:

Issue 1 How to protect the Maddingley WRR Hub against the encroachment of sensitive land uses.

Issue 2 Lack of information about the future vision for activities at MBC, including the current Work Plan under Mining Licence 4701.

Issue 3 The SUZ1 is no longer suitable for the following reasons:

- it is outdated and not operating effectively in managing current and future uses.
- there is a mismatch between the purpose and content of the zone (which is for coal mining) and the current approved land uses at the Maddingley WRR Hub, which are focused on landfill, composting materials recycling and coal mining;
- the proper operation of the zone relies upon the preparation of an endorsed Management Plan and Development Plan, yet there is no trigger in the SUZ1 that requires this plan to be prepared;
- approval of a Management Plan and Development Plan could pre-empt future land use and development that should be considered through an application process;
- if there is no endorsed Management Plan and Development Plan, Council is obliged to give public notice of buildings and works applications that may cause material detriment, which has the potential to undermine the proper operation of the site and the zone;
- there is a lack of relevance of the decision guidelines to current approved activities that take place on the site;
- it is not structured in accordance with the current Ministerial Direction on form and content of planning schemes;

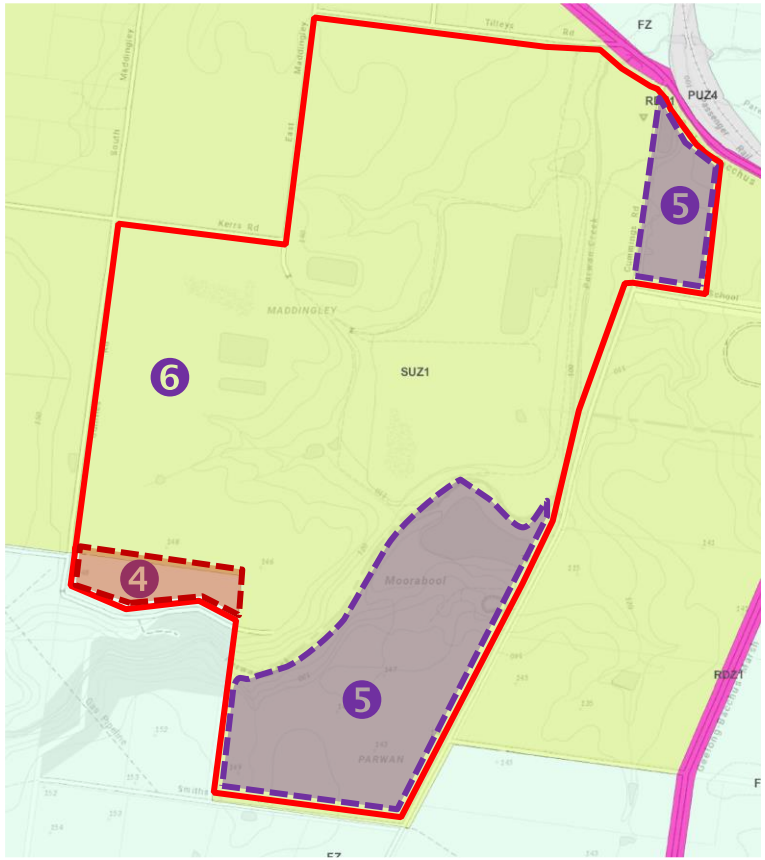
Issue 4 Land inside Mining Licence 4701 in the south western corner of the sub-area is zoned Farming, as shown as '4' in Figure 23.

Issue 5 Whether a different zone control should be applied to the land outside the mining licence boundary as these areas do not currently have statutory approvals for mining or landfill uses, as shown as '5' in Figure 23.

Issue 6 Council has limited influence over planning controls in the area affected by the Specific Controls Overlay (Schedule 1 – Maddingley Spoil Processing Facility)

Sub-area 1 – East

Figure 23 Sub-area 1 – Key issues and influences plan (statutory)



Sub-area boundary

Areas outside Mining Licence 4701 and EPA Licence 45288

FZ land within Mining Licence 4701 (refer to issue 4).

Source: https://mapshare.vic.gov.au/vicplan/

Sub-area 1 – East

Recommended planning principles

Principle E1	Discourage the expansion of the Maddingley WRR Hub beyond the current 'premises' boundary described in EPA Licence 45288.
Principle E2	Acknowledge the use and development of a Waste and Resource Recovery Hub within the current 'premises' boundary described in EPA Licence 45288.
Principle E3	Discourage coal mining beyond the boundaries of Mining Licence 4701.
Principle E4	Acknowledge the use and development of the land for coal mining within the boundaries of Mining Licence 4701.
Principle E5	Encourage best-practice technologies and processes for all use and development in the sub-area.
Principle E6	Discourage the height of all landfilling above the current approved height (153 metres AHD).
Principle E7	Further establish vegetated buffers around the perimeter of the Maddingley WRR Hub, where possible.
Principle E8	Encourage the establishment of vegetated earthen bunds where appropriate, to reduce amenity and visual impacts.
Principle E9	Ensure that the proponent of changes to activities in the sub-area contributes to the upgrading of roads, if the changes will generate substantial additional truck movements.
Principle E10	Encourage the long-term rehabilitation of land in the sub-area to best-practice environmental standards.
Principle E11	Encourage long-term uses of closed landfill cells that are beneficial to the community and/or the environment.
Principle E12	Enable third-party involvement in significant planning applications that would be of interest to the community.
Principle E13	On land outside the premises boundary of EPA Licence 45288 and Mining Licence 4701, encourage land uses that are compatible with the future use of adjoining land outside the sub-area.
Principle E14	Respect and conserve tangible and/or intangible Aboriginal cultural heritage along the Parwan Creek corridor including the escarpment and watercourse banks.

Sub-area 1 – East

Planning provisions for the Maddingley WRR Hub

In order to give effect to the recommended planning principles, the following recommended planning scheme provisions are proposed to apply to the Maddingley WRR Hub, as defined by the 'premises' boundary in EPA Licence 45288 and the boundary of Mining Licence 4701.

Recommendation: Apply a new Schedule to the Special Use Zone (Schedule 6) to the Maddingley WRR Hub

This option would require a planning scheme amendment, to prepare a new schedule to the Special Use Zone (Schedule 6) (SUZ6) and apply it to land defined by the 'premises' boundary in EPA Licence 45288 and the boundary of Mining Licence 4701. The new Schedule 6 would provide for use and development of the land for waste and resource recovery hub (not including putrescible refuse disposal) and coal mining.

This option would also involve rezoning the existing FZ land (within the licensed area) to the new SUZ6. It is recommended that the existing Design and Development Overlay Schedule 2 (DDO2) be removed from the FZ land, as the primary objective of the overlay ("to enhance visual amenity in rural, township and vegetated areas of the Moorabool Shire.") is not considered appropriate.

The new SUZ6 would bemore relevant, practical and effective in managing the current and future use and development of land within the spatial extent of the EPA licence and mining licence.

This option would involve removing the requirement for a Management Plan and Development Plan on the basis that it has not operated successfully to date and cannot be given status under the current template for the Special Use Zone.

Key existing land uses, including materials recycling, refuse disposal and mining would remain Section 2 uses.

Planning provisions for land outside Mining Licence 4701

In order to give effect to the recommended planning principles for the land in the sub-area that is located outside Mining Licence 4701, the following planning provisions are recommended. (The land outside Mining Licence 4701 is located on the south side of Parwan Creek (181 Cummings Road, Parwan) and on the east side of Cummings Road (55 Cummings Road, Maddingley), as shown in Figure 23.)

Retain the SUZ1 (Coal mining) on all land outside Mining Licence 4701

This option would involve retaining the SUZ1 (Coal mining) on land at 181 Cummings Road, Parwan, and 55 Cummings Road, Maddingley. Although these properties are located outside Mining Licence 4701, they are both owned by the operator of the Maddingley WRR Hub and thus the SUZ1 is not an impediment. Although coal mining is the primary purpose of the SUZ1, other uses are permissible, subject to them being compatible with coal mining.

This is the recommended option, as rezoning these properties could be considered premature until future strategic directions are determined for the Parwan Employment Precinct which adjoins these properties to the south east.

Sub-area 1 – East

Recommended planning provisions

Recommendation E1	Prepare a new Schedule to the Special Use Zone (Schedule 6) and apply it to the reduced Maddingley WRR Hub area, with the content based on the existing SUZ1 but amended as follows: • Amend the purpose to: – provide for use and development of the land for waste and resource recovery hub, not including putrescible refuse disposal; – provide for use and development of the land for coal mining; – encourage the use of best-practice technologies and processes to limit adverse off-site amenity impacts; – encourage rehabilitation of land to a high standard in accordance with best practice. • Remove all references to the Maddingley Brown Coal Management Plan and Development Plan. • Amend Section 3.0 (use of land) and Section 4.0 (subdivision) and Section 5.0 (buildings and works) to better reflect the recommended planning principles for this sub-area. • Amend Sections 3.0 (use of land) and Section 4.0 (subdivision) and Section 5.0 (buildings and works) with information requirements and decision guidelines that are more consistent with refuse disposal, materials recycling and coal mining, with the potential to use the provisions of the IN1Z as a guide.

Sub-area 1 – East

Recommended planning provisions cont'd

Recommendation E2	Retain the existing SUZ1 (Coal mining) on all land beyond the boundary in EPA Licence 45288 and Mining Licence 4701.
Recommendation E3	Rezone the land identified in the south west corner of the sub-area from Farming Zone to the proposed Special Use Zone (Schedule 6), as shown in Figure ES2 and remove DDO2 from this land.
Recommendation E4	Delete the Design and Development Overlay (DDO2) from the existing Farming zoned land in the sub-area.

Other recommended actions

Action E1	Engage with the operators of the Maddingley WRR Hub to: • encourage open air composting to be converted to in-vessel only to reduce odour and dust emissions as a priority; • gain an understanding of their long-term plans for their landholding to enable these plans to be considered in future strategic planning initiatives.

Sub-area 2 – South west

Description of sub-area

This sub-area is bounded generally by Kerrs Road in the north, Parwan Creek in the south, the Melbourne-Ballarat Railway line in the west and Gullines Road in the east. Rowsley Station Road traverses the central part of the sub-area in an east-west direction, as shown in Figure 24.

The alignment of the Melbourne-Ballarat railway line takes a tight loop near Parwan Creek to avoid the steep topography to the west, which includes a railway bridge over Bacchus Marsh-Balliang Road.

Parwan Creek is the major environmental feature in the sub-area. It is lined with remnant native vegetation including Plains Grassy Woodland (EVC 55_61) and Creekline Grassy Woodland (EVC 68).

There are several patches of remnant Plains Grassland native vegetation on the north side of Rowsley Station Road.

The land in the sub-area is substantially owned by MBC, apart from a property in the south-west known as 2612 Bacchus Marsh-Balliang Road, Rowsley and an area of crown land adjoining Parwan Creek in the south east.

Coal lies beneath most of the sub-area. The holder of the Exploration Licence (EL5294) estimates that approximately 40 million tonnes of coal is located in this sub-area.

There are approximately 24 dwellings within one kilometre of the sub-area to the north, west and south.

Recommended Separation Distances
1. Maddingley WRR Hub separation distance (composting) [2200 m] *
2. Maddingley WRR Hub (landfill) (case by case basis)
3. Maddingley WRR Hub (coal mine) [2000 m]
4. Interstate Energy Group [1000 m]
11. Racing Dog Breeding Facility [500 m]
14. VSF Bulk Grain andMinerals Storage Facility [300 m]

*EPA Publication 1949 recommends a separation distance of 2,200 metres (for odour) for new composting facilities receiving lowest risk wastes up to 50,000 tonnes/year and using open turned windrow technology. As this existing facility is licensed to receive high risk waste streams, a site-specific risk assessment may be necessary to inform future planning proposals.

Existing Planning Zone (within Study Area)
- FARMING ZONE (FZ)
- INDUSTRIAL 1 ZONE (IN1Z)
- INDUSTRIAL 2 ZONE (IN2Z)
- SPECIAL USE ZONE - SCHEDULE 1 (SUZ1)
- TRANSPORT ZONE - CATEGORY 1 (TRZ1)
- TRANSPORT ZONE - CATEGORY 2 (TRZ2)
- TRANSPORT ZONE - CATEGORY 3 (TRZ3)

Sub-area 4 North West
Sub-area 1 East
Sub-area 3 West
Sub-area 2 South West
Kerrs Rd
Warde Cl
Osborne St
UNNAMED WATERWAY
South Maddingley Rd
Gillines Rd
Rowsley Station Rd
IN2Z
IN1Z
TRZ1
TRZ3
FZ
15 -500 m
17 -500 m
5 -300 m
16 -300 m
20 -100 m
21 -100 m
14 -300 m
11 -500 m
~1-2200m
PARWAN CREEK
DOG TRAP GULLY
Paces Lane
Albys Lane
Bacchus Marsh - Balliang Rd
MELBOURNE-BALLARAT LINE
Daisybank Lane
Skylark Way
Aerodrome Rd
Smiths Rd
Cummings Rd
18 - ?m
2 - ?m
10 - ?m
25 - ?m
26 - ?m
22 - ?m
13 - ?m
23 - ?m

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GIS maps produced by BlueSphere

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Land uses are based on information available at the time of preparation of this document.

Tenancy map for JBD industrial park provided by JBD industrial park and Moorabool Shire Council.

Separation distances based on:
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Inferred Dwelling Locations are approximate only, and have been digitised by KnightVision based on aerial imagery interpretation.

Racing Dog Breeding Facility: Digitised by KnightVision based on planning permit application site plan provided by Moorabool Shire Council.

Proposed Materials Recycling Facility and Garden Supplies / Concrete Batching Plant location based on drawing 'Concept Site Plan', in Planning Permit Application 2018239 by Gunnawaunday Holdings Pty Ltd, dated 09/09/2018.

FIGURE 24 EXISTING RECOMMENDED SEPARATION DISTANCES IN SUB-AREA 2

PLANNING STUDY

Prepared for **Moorabool Shire Council**

Prepared by centrum TOWN PLANNING

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Date: 18/09/2025

Revision: FINAL Rev14

Sub-area 2 – South west

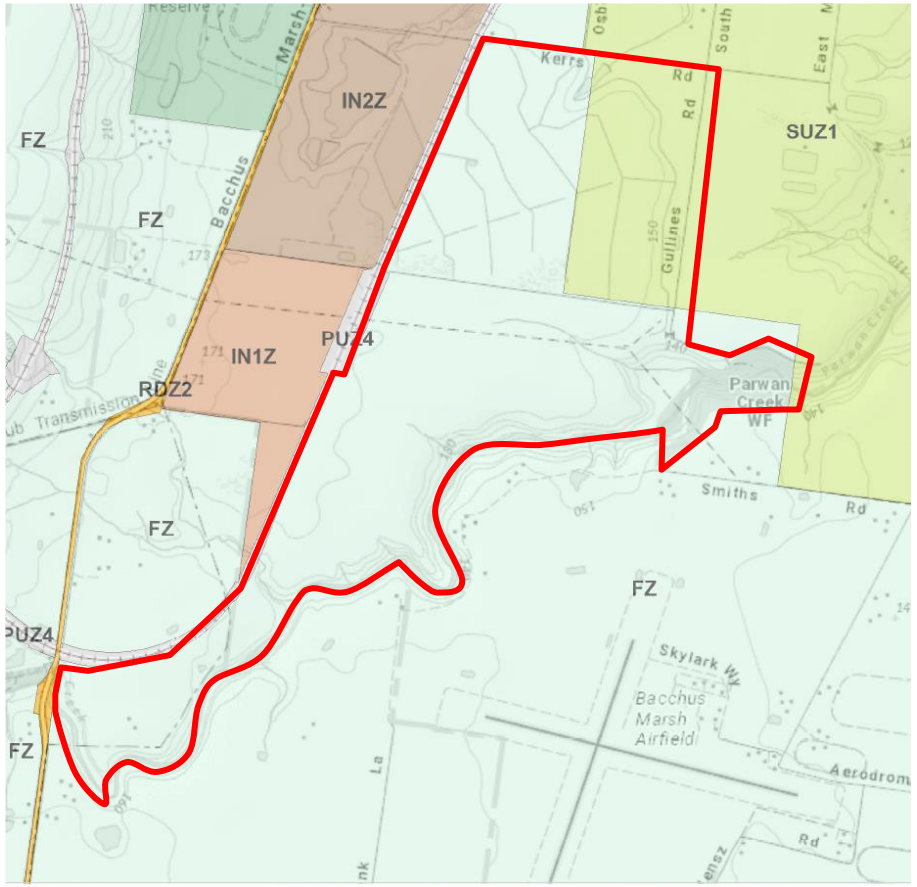
Existing planning directions and zone provisions

The existing zones that apply to the sub-area are shown in Figure 25.

The north eastern part of the sub-area is zoned SUZ1. This zone aims to recognise and provide for the use and development of the land for coal mining. The remainder of the land in the sub-area is zoned Farming, the primary purpose of which is to provide for the use of land for agriculture.

Parwan Creek is an area of Cultural Heritage Sensitivity under the *Aboriginal Heritage Act 2006*, as shown in Figure 53. A tributary of Parwan Creek, Dog Trap Gully, is located at the southern end of the sub-area near Albys Lane. This waterway is also an area of Cultural Heritage Sensitivity, as shown in Figure 53.

Figure 25 Sub-area 2 – Sub-area boundaries and existing zones



Sub-area 2 – South west

Existing overlay provisions

The existing overlays that apply to the sub-area are shown in Figures 26-28.

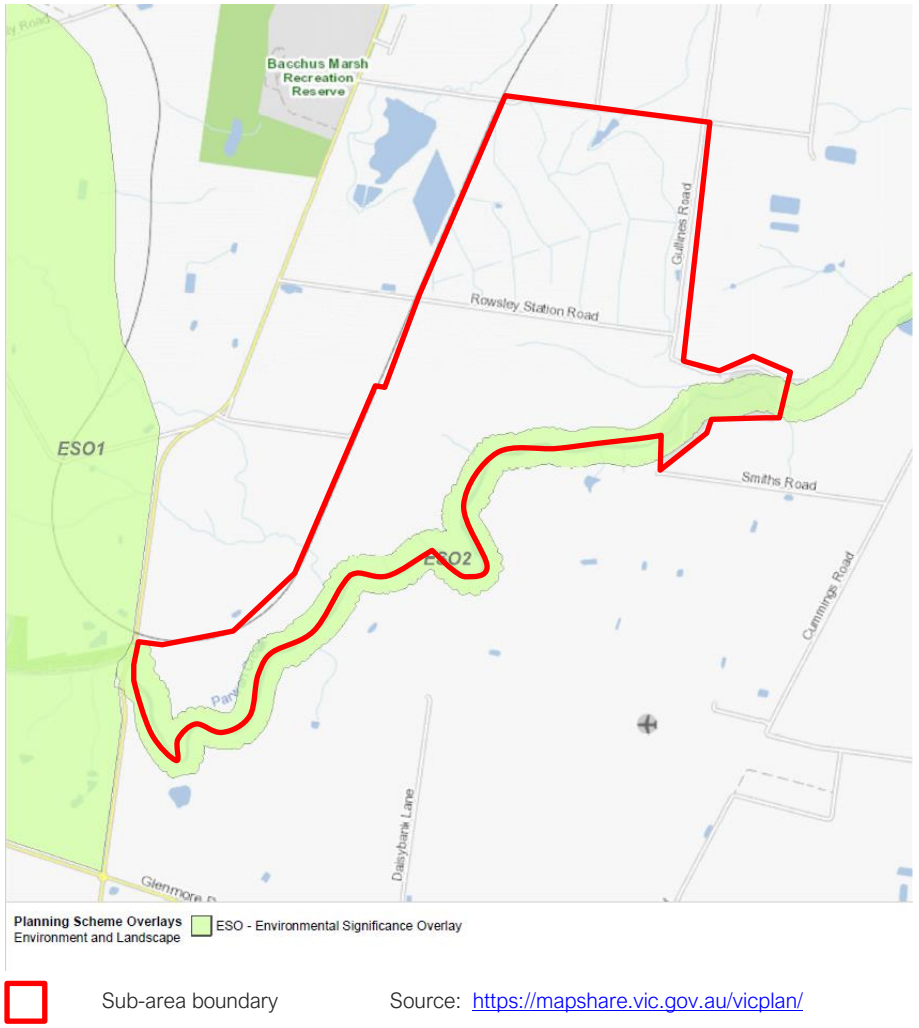
The Environmental Significance Overlay (Schedule 2 – Waterway Protection) applies to all land approximately 100 metres each side of Parwan Creek, as shown in Figure 26. It aims to protect waterways by protecting vegetation, preventing pollution, preventing increased turbidity and preventing increased stormwater runoff.

The Design and Development Overlay (Schedule 2 – Visual Amenity and Building Design) applies to all of the land in the study area that is zoned Farming and Industrial 1, as shown in Figure 27. It aims to enhance visual amenity by encouraging the use on non-reflective cladding on buildings. The overlay requires a permit for all buildings and works and signage unless all external surfaces are constructed of non-reflective materials. It requires particular consideration of appearance, visual amenity and landscaping.

The Airport Environs Overlay (Schedule 1) applies to land on the north side of Parwan Creek, as shown in Figure 28. It aims to protect airports and limit impacts on people from aircraft noise. The overlay requires buildings to be constructed with noise attenuation measures and prohibits sensitive uses other than dwelling, dependent persons unit, host farm and residential hotel.

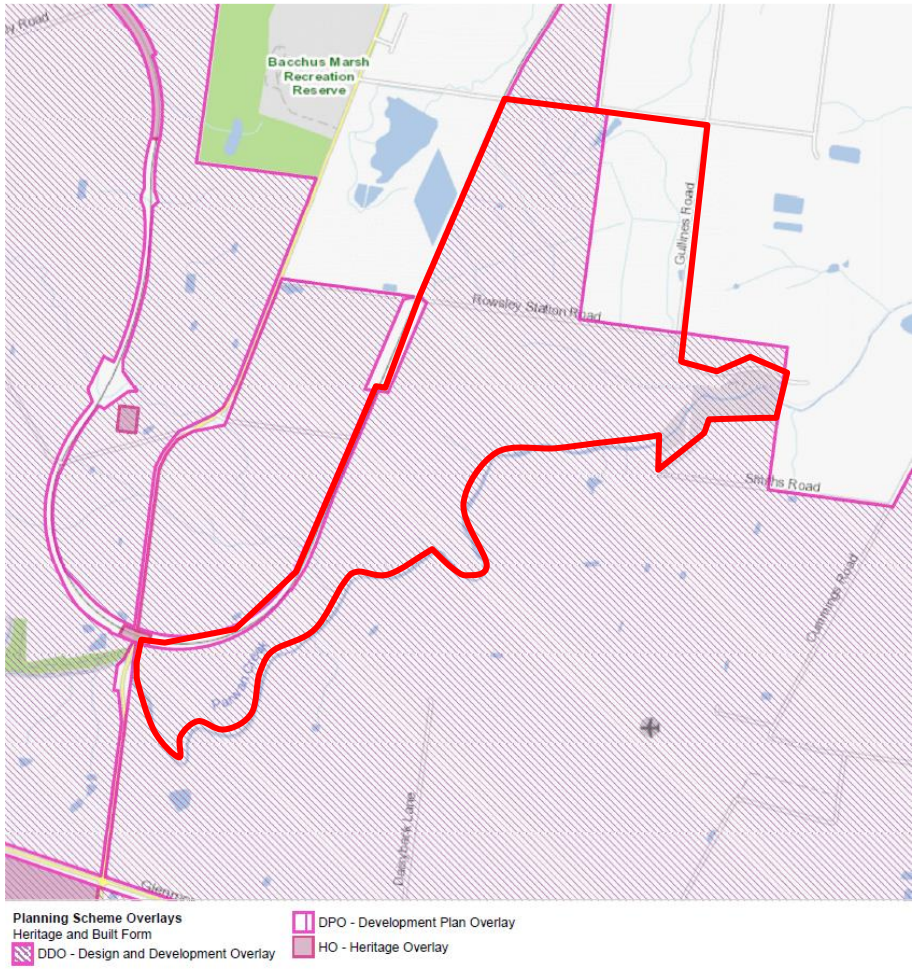
The Specific Controls Overlay (Schedule 1 – Maddingley Spoil Processing Facility, October, 2020) applies to the southern part of the SUZ1, as shown in Figure 28. It refers to an incorporated document, which sets out conditions and controls that allow for spoil processing associated with the West Gate Tunnel project.

Figure 26 Sub-area 2 – Environment and landscape overlays - existing



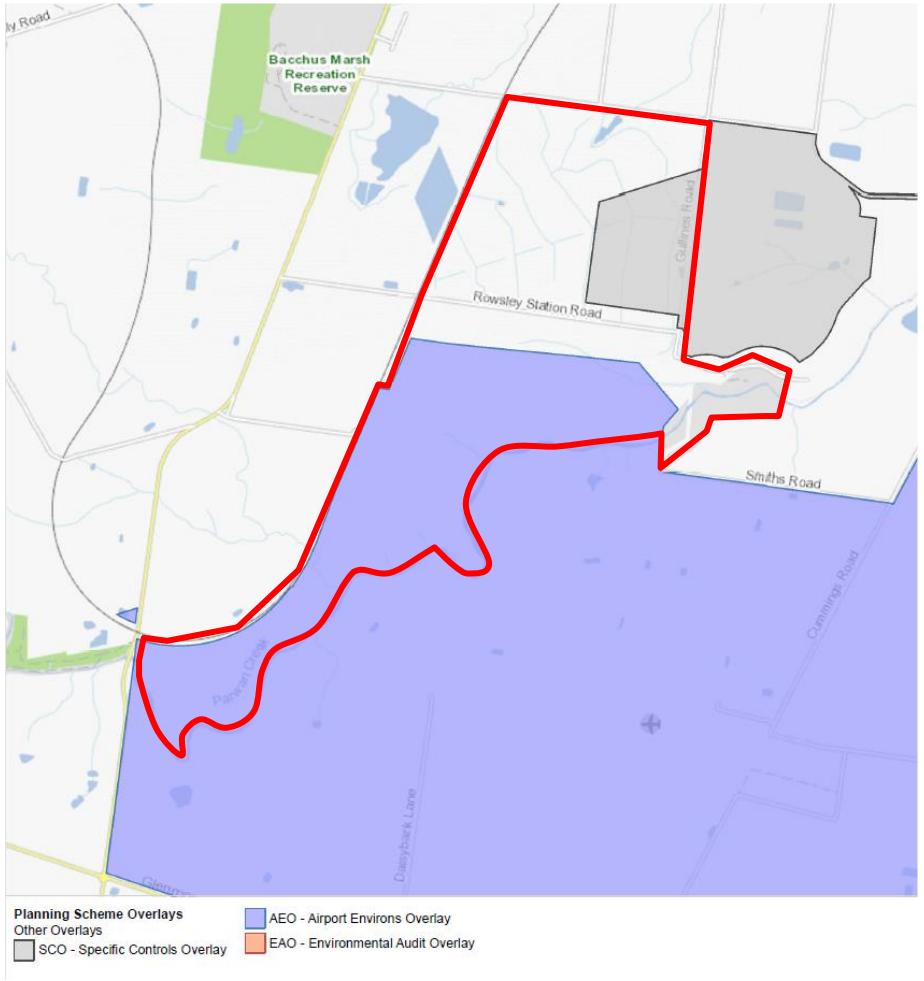
Sub-area 2 – South west

Figure 27 Sub-area 2 – Heritage and built form overlays - existing



Sub-area boundary Source: https://mapshare.vic.gov.au/vicplan/

Figure 28 Sub-area 2 – Other overlays - existing



Sub-area boundary Source: https://mapshare.vic.gov.au/vicplan/

Sub-area 2 – South west

Existing uses and approvals

The land in the sub-area is used largely for grazing. There is a greyhound training facility at 2612 Bacchus Marsh-Balliang Road, Rowsley, in the south western corner of the sub-area that has a recommended separation distance of 500 metres under local policy Clause 14.01-2L-01of the Moorabool Planning Scheme.

The Brooklyn-Ballan high pressure gas pipeline traverses the land to the south of Rowsley Station Road, as shown in Figure 29 and in Figure 47 in Part E of the Planning Study.

Emerging uses and opportunities

The sub-area presents a range of land use opportunities that are able to capitalise on the relatively large lot sizes and large expanses of cleared land.

Industrial land uses could be a consideration in the northern portion of the sub-area (i.e. north of Rowsley Station Road), which is in close proximity to the existing urban area and adjoins existing industrial zoned land to the west and the Maddingley WRR Hub to the east. However, this is likely to be a longer term proposition, due to the apparent abundance of vacant or under-utilised industrial zoned land in Maddingley and Parwan with potential for heavier industrial uses. Prior to further consideration of this option, there is a need to undertake an an assessment of industrial land supply and demand.

In the southern portion of the sub-area, opportunities could include various forms of agriculture, including glasshouse horticulture, some intensive animal industries, or other land uses that can co-exist with agriculture and the presence of dwellings within one kilometre.

There is a proposal underway to modify the mining licence boundaries in the sub-area. The proposed modification seeks to expand Mining Licence 4701 to the south-west, as shown in Figure 29. The application to expand the mining licence will be decided by the Minister for Resources under the MRSD Act.

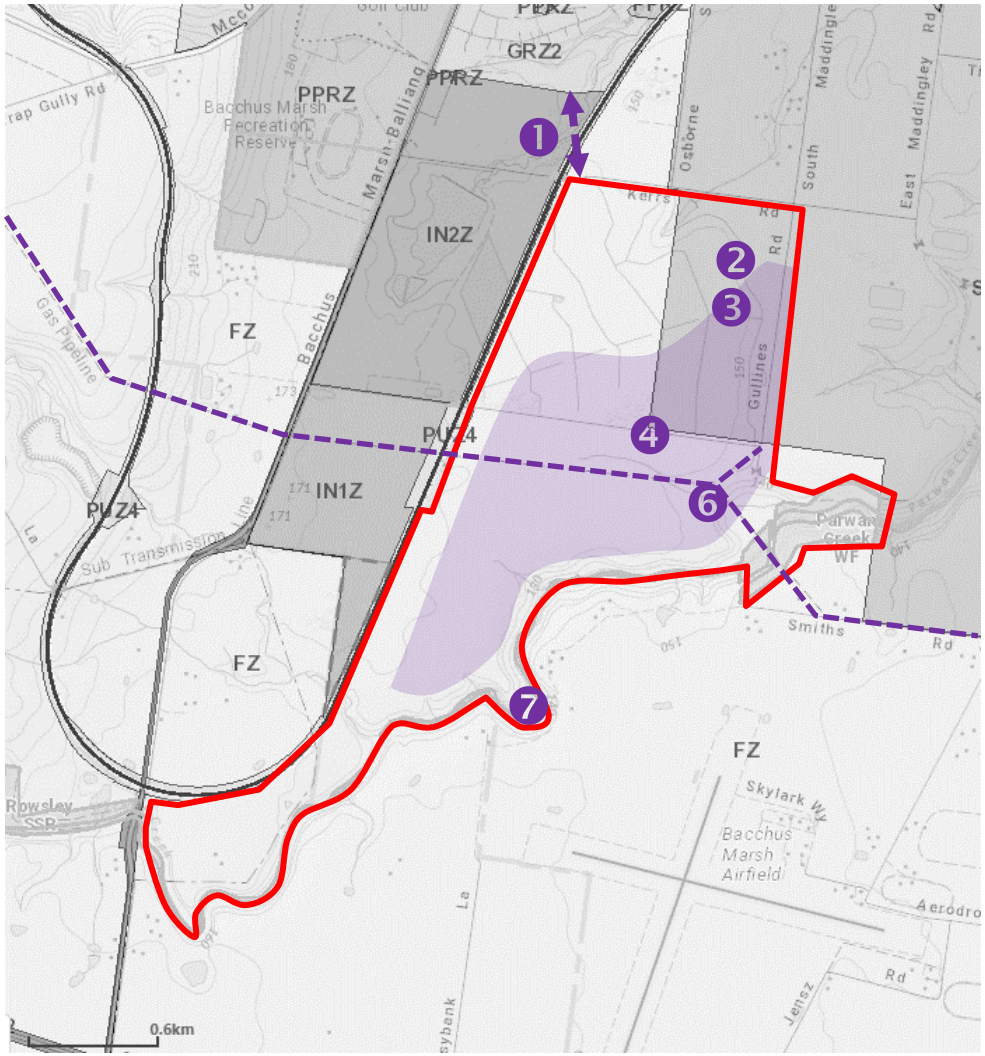
Photograph 9 View of rural land in the sub-area in the vicinity of Albys Lane

Sub-area 2 – South west

Land use planning issues

Issue 1	Sub-area is located 400 metres at its closest point, from land zoned General Residential north of Kerrs Road.
Issue 2	The existing SUZ1 is outdated, not structured correctly and no Management or Development Plan has been approved under the Zone.
Issue 3	Land currently zoned SUZ1 lies beyond the spatial extent of mining licence 4701.
Issue 4	Uncertainty about the outcome of a current application under the MRSD Act to expand Mining Licence 4701 fto include land in the sub-area to facilitate coal mining (shown in Figure 29).
Issue 5	Presence of a number of dwellings in relatively close proximity, although these are not within sensitive use zones.
Issue 6	Brooklyn-Ballan high pressure gas pipeline will limit some land uses 210 metres either side, and the need for easements could significantly restrict the layout of new development (refer to Part E – Transport and Utility Infrastructure for more details).
Issue 7	How to protect Parwan Creek and its environs, which have been modified over time.

Figure 29 Sub-area 2 – Key issues and influences plan



Sub-area boundary

Area subject to application to expand Mining Licence 4701

Source: https://mapshare.vic.gov.au/vicplan/

Sub-area 2 – South west

Recommended planning principles

Principle SW1	Respect and protect the amenity of the existing General Residential Zone to the north of Kerrs Road.
Principle SW2	Discourage all forms of coal mining to reflect the relatively close proximity of existing dwellings and zones that allow for sensitive uses.
Principle SW3	Discourage the use and development of refuse disposal.
Principle SW4	Encourage horticulture and forms of intensive agriculture such as glasshouses or intensive animal production (excludes abattoir, poultry farm and pig farm) in the sub-area.
Principle SW5	In the longer term, encourage industrial uses which incorporate circular economy principles (such as uses relating to coal and the Maddingley WRR Hub), in the northern portion of the sub-area, subject to providing appropriate separation distances from sensitive land uses.
Principle SW6	Encourage revegetation of riparian areas along Parwan Creek, particularly steeper land, including freehold and crown land.
Principle SW7	Respect and conserve tangible and/or intangible Aboriginal cultural heritage along the Parwan Creek corridor including the escarpment and watercourse banks.

Sub-area 2 – South west

Planning provisions

In order to give effect to the recommended planning principles for the sub-area, the following planning scheme changes are recommended:

- **Rezone the Parwan Creek Water Frontage Reserve from Farming Zone (FZ) to Public Conservation and Resource Zone (PCRZ) and retain the existing SUZ1 and Farming Zone (FZ) in the balance of the sub-area.**
- **In the longer term, consider rezoning the land bound by Kerrs Road, Gullines Road, Rowsley Station Road and the railway line from SUZ1 and FZ to Industrial 1 Zone (IN1Z) and/or Industrial 2 Zone (IN2Z).**

In the short term, this option would involve:

- Rezoning the Parwan Creek Water Frontage Reserve from FZ to PCRZ;
- Retaining the balance of the existing FZ; and
- Retaining the existing SUZ1 (Coal mining).

The Public Conservation and Resource Zone is the appropriate zone for crown land known as the Parwan Creek Water Frontage Reserve (annotated as Parwan Creek WF in Figure 29).

The Farming Zone is primarily concerned with keeping land in agricultural production and avoiding land uses that could limit future farming or constrain agricultural activities. According to Planning Practice Note 42 (DELWP, 2015) the Farming Zone should be applied where all other uses are subordinate to farming. This zone is appropriate for Sub-area 2, given the large size of the landholdings and the existing agricultural and rural land uses.

Although this sub-area is located outside Mining Licence 4701, the existing SUZ1 land is owned by the operator of the Maddingley WRR Hub and thus the SUZ1 is not an impediment.

Although coal mining is the primary purpose of the SUZ1, other uses are permissible, subject to them being compatible with coal mining. Rezoning the SUZ1 land in the short term could be considered premature, given its longer term potential for broader industrial land uses.

In the longer term, consideration should be given to rezoning the land bounded by Kerrs Road, Gullines Road, Rowsley Station Road and the railway line from SUZ1 and FZ to IN1Z and/or IN2Z. Prior to further consideration of this option, there is a need to undertake an industrial land supply and demand assessment.

This option would result in an industrial land use connection to the north of Rowsley Station Road, between the Maddingley WRR Hub and existing industrial zoned land in Sub-area 3 to the west of the railway line.

The purpose of the IN1Z is to provide for manufacturing industry, the storage and distribution of goods and associated uses in a manner which does not affect the safety and amenity of local communities.

The purpose of the IN2Z is similar to IN1Z, except that it promotes heavier industries by also including the following two statements:

- *To promote manufacturing industries and storage facilities that require a substantial threshold distance within the core of the zone.*
- *To keep the core of the zone free of uses which are suitable for location elsewhere so as to be available for manufacturing industries and storage facilities that require a substantial threshold distance as the need for these arises.*

Either the IN1Z or IN2Z would provide an appropriate planning framework for the land to the north of Rowsley Station Road. This option would have the benefit that the purpose of these zones is not for coal mining, an approach that would support Planning Principle SW2 to discourage all forms of coal mining in the sub-area.

Sub-area 2 – South west

Recommended planning provisions

Recommendation SW1	Rezone the crown land known as the Parwan Creek Water Frontage Reserve from Farming Zone to Public Conservation and Resource Zone (PCRZ).
Recommendation SW2	Retain the balance of the existing Farming Zone for the short to medium term.
Recommendation SW3	Retain the existing SUZ1 for the short to medium term.
Recommendation SW4 (longer term)	In the longer term, consider rezoning the land bound by Kerrs Road, Gullines Road, Rowsley Station Road and the railway line from SUZ1 and FZ to IN2Z and/or IN1Z (subject to a review of industrial land supply and demand in the municipality).
Recommendation SW5 (longer term)	Apply a Schedule to the Development Plan Overlay (DPO) to all IN2Z and/or IN1Z land in the sub-area. The DPO Schedule should: • allow for permits to be granted prior to the approval of a Development Plan if the responsible authority is satisfied that the permit will not prejudice the future use and development of the land; • contain requirements for a development plan that include the recommended planning principles for this sub-area; • contain requirements that the development plan be generally in accordance with a concept plan; • require that a development plan considers potential impacts of the Maddingley WRR Hub on use and development in the sub-area

Sub-area 3 – West

Description of sub-area

This sub-area is bounded generally by Kerrs Road in the north, Albys Lane in the south, the Melbourne-Ballarat railway line in the east and Bacchus Marsh-Balliang Road in the west, as shown in Figure 30. Rowsley Station Road traverses the central part of the sub-area in an east-west direction. Plains Grassy Woodland is scattered throughout the northern part of the sub-area.

Existing planning directions and provisions

The Industrial 2 Zone (IN2Z) applies to the land to the north of Rowsley Station Road, as shown in Figure 31. This zone has purposes to provide for industry that does not affect the safety and amenity of local communities and to promote industry that requires substantial threshold distances within the core of the zone. It also aims to protect the core of the zone from other uses until the area is needed.

The Industrial 1 Zone (IN1Z) applies to the land to the south of Rowsley Station Road, as shown in Figure 31. This zone has purposes to provide for manufacturing industry, the storage and distribution of goods and associated uses in a manner which does not affect the safety and amenity of local communities.

The Public Use Zone (PUZ4) applies to the reserve of the Melbourne-Ballarat railway line. The zone recognises the use of the land for transport purposes.

The Design and Development Overlay (Schedule 2) applies to all of the land in the sub-area that is zoned Industrial 1, as shown in Figure 32. It aims to enhance visual amenity by encouraging the use on non-reflective cladding on buildings. The overlay requires a permit for all buildings and works and signage unless all external surfaces are constructed of non-reflective materials. It requires particular consideration of appearance, visual amenity and landscaping.

Recommended Separation Distances
4. Interstate Energy Group [1000 m]
5. QP Lubes [300 m]
12. Smartwood Mouldings [100 m]
13. Metals Recycling [Unknown]
14. VSF Bulk Grain andMinerals Storage Facility [300 m]
15. Lebrex Car and Truck Wreckers [500 m]
16. Proposed Garden Supplies /Concrete Batching Plant [300 m]
17. Transfer Station accepting timber, green waste, cardboard, metals inside building [500 m]
19. Hughes metal fabrication [500 m]
20. Timber search [100 m]
21. Eco Timber [100 m]
22. Environmental Clean Technologies [Unknown]
23. Environmental remediation contracting services [Unknown]
24. Visy [200 m]
25. Australian Bio Fert [Unknown]
26. Molecular Mediation [Unknown]

Existing Planning Zone (within Study Area)
- FARMING ZONE (FZ)
- INDUSTRIAL 1 ZONE (IN1Z)
- INDUSTRIAL 2 ZONE (IN2Z)
- SPECIAL USE ZONE - SCHEDULE 1 (SUZ1)
- TRANSPORT ZONE - CATEGORY 1 (TRZ1)
- TRANSPORT ZONE - CATEGORY 2 (TRZ2)
- TRANSPORT ZONE - CATEGORY 3 (TRZ3)

Sub-area 4
North West
Sub-area 3 West
Sub-area 2 South West
Kerrs Rd
Bacchus Marsh - Balliang Rd
MELBOURNE - BALLARAT RAILWAY
Rowsley Station Rd
Albys Lane
Paces Lane
MADDINGLEY PARK DRAIN
DOG TRAP GULLY
PARWAN CREEK
IN2Z
IN1Z
FZ
SUZ1
TRZ1
TRZ3
4 -1000 m
3 -2000 m
15 -500 m
19 -500 m
17 -500 m
5 -300 m
16 -300 m
20 -100 m
25 - ?m
26 - ?m
22 - ?m
13 - ?m
23 - ?m
21 -100 m
12 -100 m
1 -2200 m
14 -300 m
11 -500 m
4
12
21
20
19
5
16
17
14

Maddingley Planning Study

LEGEND
- Study Area
- Sub-area Boundaries
- Property Boundaries
- Parcel Boundaries
- Railway Line
- Major Roads
- Local Roads
- Minor Roads
- Waterway
- Inferred Dwelling Location

Land Use Activity Areas
- Existing Land Uses Requiring Separation Distances

Recommended Separation Distances
- Existing Land Use Separation Distance

0 100 200 300 400 m

GIS maps produced by BlueSphere

Data Sources

Land Use Activity Areas: GIS data provided by Moorabool Shire Council, based on Figure F1, Separate Sensitive Use Buffers, from report "Environmental Matters Concerning Proposed Amendment C81 to the Moorabool Planning Scheme" by Peter J Ramsay and Associates, Rev. 00.

Land uses are based on information available at the time of preparation of this document.

Tenancy map for JBD industrial park provided by JBD industrial park and Moorabool Shire Council.

Separation distances based on guidelines provided in "EPA 1949: Recommended.

Separation Distances for Industrial Residual Air Emissions – Guideline", "EPA Publication 1950, New guidelines for industry separation distances and landfill buffers" and Moorabool Shire Council Planning Scheme Clause 53.10.

Inferred Dwelling Locations are approximate only, and have been digitised by KnightVision based on aerial imagery interpretation.

Racing Dog Breeding Facility: Digitised by KnightVision based on planning permit application site plan provided by Moorabool Shire Council.

Proposed Materials Recycling Facility and Garden Supplies / Concrete Batching Plant location based on drawing 'Concept Site Plan', in Planning Permit Application 2018239 by Gunnawaunday Holdings Pty Ltd, dated 09/09/2018.

Basemap Layers and Planning Zones: Vicmap data, 2019. The State of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the State of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

FIGURE 30 EXISTING RECOMMENDED SEPARATION DISTANCES IN SUB-AREA 3

PLANNING STUDY

Prepared for **Moorabool Shire Council**

Prepared by centrum TOWN PLANNING

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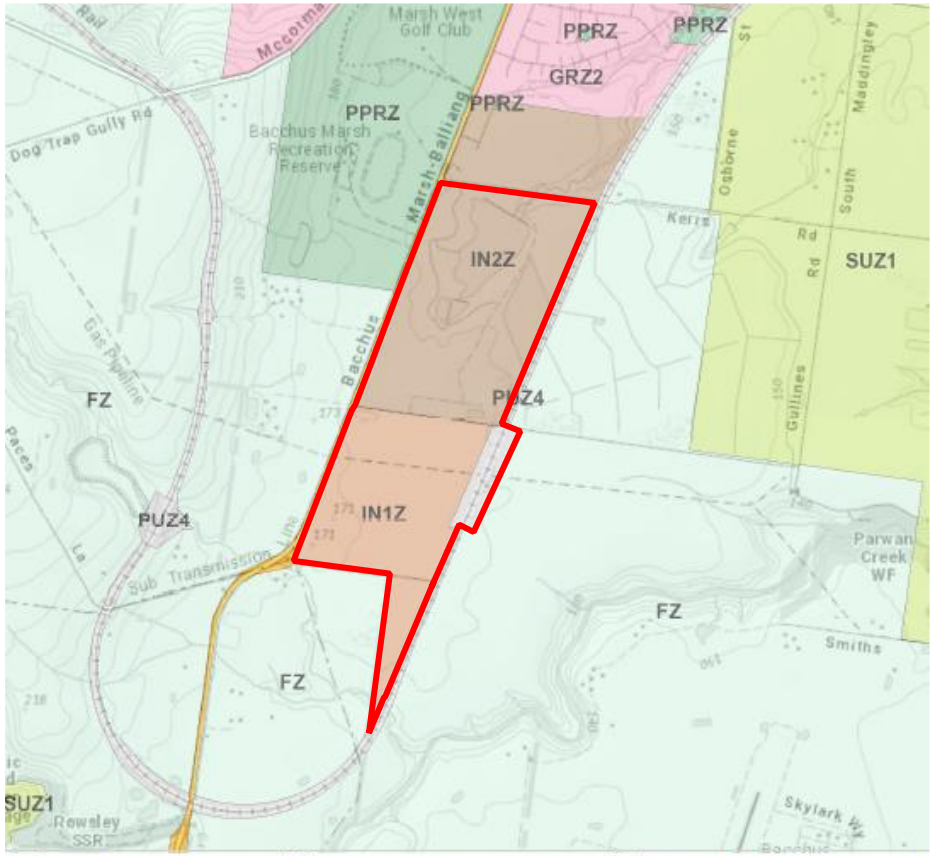
Date: 18/09/2025

Revision: FINAL Rev14

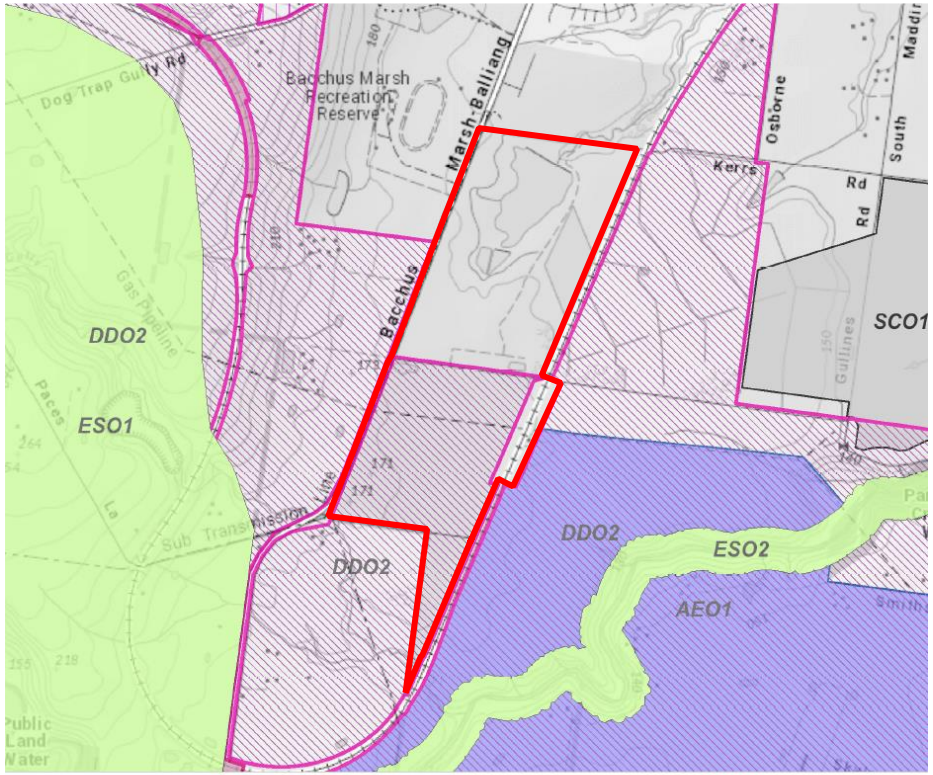
Sub-area 3 – West

Figure 31 Sub-area 3 – Existing zone provisions



Sub-area boundary Source: https://mapshare.vic.gov.au/vicplan/

Figure 32 Sub-area 3 – Existing overlay provisions



Sub-area boundary Source: https://mapshare.vic.gov.au/vicplan/

Sub-area 3 – West

Existing uses and approvals

This sub-area has a strongly rural feel due to the large expanses of undeveloped land that are used for cropping or grazing. The most intensively developed part of the sub-area is the JBD Industrial Estate, on the north side of Rowsley Station Road.

The JBD Industrial Estate was first developed in the 1960s as the CSR Wood Panels Bacchus Marsh Mill. Today, there are approximately 11 industrial tenants that occupy original and more recent buildings on the site. Uses include timber processors, fertiliser production, coal processing, and a magnesium oxide producer. A number of the uses operate under individual planning permits, although a planning permit was issued in 2008 that provides a broad approval to use all buildings in the JBD Industrial Estate for industrial use (Planning Permit PA2008329). The conditions of this permit focus on the need for uses to protect the environment and amenity of surrounding land, including odour, dust and contaminated waste. The uses in the JBD Industrial Estate are described in more detail in Appendix 2.

The land to the north of the JBD Industrial Estate contains physical reminders of a past sand and cement washing operation and is partially affected by flooding (refer to Part G – Waterways and catchments).

Most of the land on the south of Rowsley Station Road is vacant and has subdivision potential. There is a private transfer station and concrete batching plant that has been established in this area near the corner of Rowsley Station Road and Bacchus Marsh-Balliang Road. It is known as the 'Western Regional Waste Recycling Centre' and is shown in Figure 12a (separation distance number 17).

The Brooklyn-Ballan high pressure gas pipeline traverses the land to the south of Rowsley Station Road, as shown in Figure 33 and in Figure 47 in Part E of the Planning Study.

There is a grain storage facility in the southern most sliver of industrial land on the south side of Albys Lane.

Recommended separation distances

The recommended separation distances applicable to the existing uses in the JBD Industrial Park vary between 100 metres and 1,000 metres (Clause 53.10 of the planning scheme and EPA 1949), as shown in Figure 12A.

Emerging uses and opportunities

MBC has identified the potential for waste-to-energy uses to generate electricity at the JBD Industrial Estate. The facility would involve the combustion of solid recovered fuel and anaerobic digesters to create electricity for use in the sub-area or for the grid.

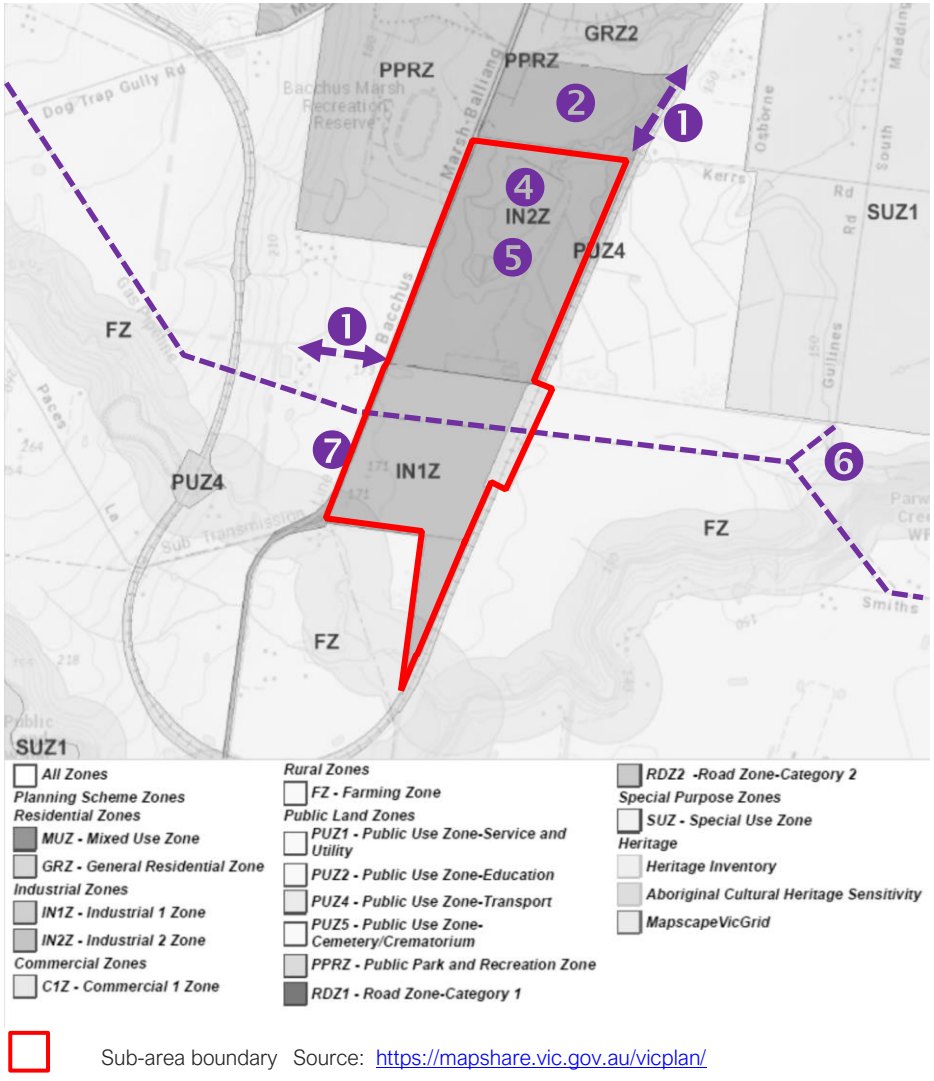
There is evidence that some clustering of similar uses is occurring in the sub-area, including those that rely upon coal from the Maddingley WRR Hub, and uses relating to materials recycling and timber processing.

Sub-area 3 – West

Land use planning issues

Issue 1	Local planning policy Clause 17.03-1L encourages manufacturing and other heavy industries to establish on industrial zoned and serviced land south of Kerrs Road, with large separation distances to sensitive uses
Issue 2	Existing Industrial 2 Zone aims to provide for uses that require substantial separation distances, yet the IN2Z land in the sub-area is located only 400 metres at its closest point from land zoned General Residential north of Kerrs Road and less than 400 metres from existing dwellings to the west.
Issue 3	Lack of reticulated sewerage in the sub-area, which may limit the nature and intensity of future uses.
Issue 4	Large portion of the sub-area north of Rowsley Station Road is a dam or retarding basin and is subject to flooding, limiting the development potential of this area (refer also to discussion about proposed LSIO in Part G – Waterways and Catchments).
Issue 5	Land previously used for sand cleaning requires rehabilitation.
Issue 6	Brooklyn-Ballan high pressure gas pipeline will limit some land uses 210 metres either side, and the need for easements could significantly restrict the layout of new development.
Issue 7	Potential for new industrial development to adversely affect the appearance of Ballan-Balliang Road.

Figure 33 Sub-area 3 – Key issues and influences plan



Source: https://mapshare.vic.gov.au/vicplan/

Sub-area 3 – West

Recommended planning principles

Principle W1	Respect and protect the amenity of the existing General Residential Zone to the north of Kerrs Road and existing dwellings in the Farming Zone in the vicinity of the sub-area.
Principle W2	Encourage industrial land uses which incorporate circular economy principles, such as uses relating to coal and the Maddingley WRR Hub, subject to providing appropriate separation distances from sensitive land uses.
Principle W3	Encourage uses that require large tracts of land to locate to the south of Rowsley Station Road.
Principle W4	Allow a range of lot sizes, subject to retention of the core area for industries that require large separation distances to sensitive uses.
Principle W5	Encourage the rehabilitation of the land that was previously used for sand cleaning in the central part of the existing IN2Z to facilitate alternative uses of the land.
Principle W6	Establish a significant landscape buffer between Bacchus Marsh-Balliang Road and new buildings and works to act as a visual buffer to industrial development.

Sub-area 3 – West

Planning provisions

In order to give effect to the recommended planning principles for the sub-area, the following planning scheme changes are recommended:

Rezone the land to the south of Rowsley Station Road from Industrial 1 Zone (IN1Z) to Industrial 2 Zone (IN2Z)

The purpose of the IN2Z is:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To provide for manufacturing industry, the storage and distribution of goods and associated facilities in a manner which does not affect the safety and amenity of local communities.*
- *To promote manufacturing industries and storage facilities that require a substantial threshold distance within the core of the zone.*
- *To keep the core of the zone free of uses which are suitable for location elsewhere so as to be available for manufacturing industries and storage facilities that require a substantial threshold distance as the need for these arises.*

The purpose of the IN2Z promotes heavier industries, due to the inclusion of the third and fourth bullet points which are not included in the IN1Z provisions. The IN2Z is an appropriate planning framework for the land to the south of Rowsley Station Road, given it is located approximately 1,500 metres from the General Residential Zone (GRZ) at its closest point. The land is substantially undeveloped and therefore presents an opportunity for the IN2Z to operate properly, including protection of the core area use and development of heavier industries. The Industrial 2 Zone offers a level of protection to existing sensitive uses by requiring a planning permit for all new industrial uses.

The rezoning of land south of Rowsley Station Road to IN2Z would remove the opportunity for landowner and community involvement in the planning process. Applications for use and buildings and works under the IN2Z would be exempt from notice and review rights under the provisions of the zone, as the land is more than 30 metres from a residential zone, hospital or education centre.

It is recommended that the existing Design and Development Overlay Schedule 2 (DDO2) be removed from the land south of Rowsley Station Road, as the primary objective of the overlay ("to enhance visual amenity in rural, township and vegetated areas of the Moorabool Shire") is not apprpriate for urban zoned land.

This option would involve no changes to the current planning framework for the land to the north of Rowsley Station Road, which is currently zoned IN2Z. The IN2Z is appropriate in this location, given that the land is well separated (approximately 400 metres) from the GRZ at its closest point.

This option would require the development of local policies to identify the recommended planning principles for the sub-area in the Planning Scheme.

Sub-area 3 – West

Recommended planning provisions

Recommendation W1	Rezone the land to the south of Rowsley Station Road from Industrial 1 Zone (IN1Z) to Industrial 2 Zone (IN2Z).
Recommendation W2	Introduce local policies to: • encourage the rehabilitation of the land that was previously used for sand cleaning; • encourage uses that require large tracts of land to locate to the south of Kerrs Road; • encourage a range of lot sizes, subject to retention of the core area for industries that require large separation distances to sensitive uses; • maintain significant setback distances from Bacchus Marsh-Balliang Road to new buildings and works.
Recommendation W3	• Consider rezoning the Industrial 2 zoned land immediately north of Kerrs Road to Industrial 3 as part of the implementation of the Planning Study.

Sub-area 4 – North west

Description of sub-area

This sub-area is bounded generally by the Melbourne-Ballarat railway line in the west and north, South Maddingley Road in the east and Kerrs Road in the south, as shown in Figure 34. The Sub-area contains some remnant vegetation, comprising scattered Plains Grassy Woodland and an area of Red Gum Swamp. The sub-area falls generally from the south to the north. It has a relatively steep fall to the Railway Line in the northern part of the sub-area, and views across Bacchus Marsh and beyond from this area.

Existing planning directions and provisions

The eastern part of the sub-area (east of Osborne Street) is zoned SUZ1 (refer to Figure 35). This zone recognises and provides for the use and development of the land for coal mining. The remainder of the land in the sub-area (west of Osborne Street) is zoned Farming, which aims to provide for agriculture.

The Design and Development Overlay (Schedule 2) applies to all of the land in the study area that is zoned Farming, as shown in Figure 36. It aims to enhance visual amenity by encouraging the use on non-reflective cladding on buildings. The overlay requires a permit for all buildings and works and signage unless all external surfaces are constructed of non-reflective materials. It requires particular consideration of appearance, visual amenity and landscaping.

The Design and Development Overlay (Schedule 15) applies to the Bacchus Marsh Hospital Emergency Medical Services Helicopter Flight Path Protection (inner area), as shown in Figure 36. However, the planning maps show the incorrect schedule number, with the correct schedule being Schedule 16 which applies to the Bacchus Marsh Hospital Emergency Medical Services Helicopter Flight Path Protection (outer area), It aims to protect the flight path by requiring a planning permit for buildings and works over 110.8 metres in height (Australian Height Datum).

Recommended Separation Distances
1. Maddingley WRR Hub separation distance (composting) [2200 m] *
2. Maddingley WRR Hub (landfill) (case by case basis)
3. Maddingley WRR Hub (coal mine) [2000 m]
15. Lebrex Car and Truck Wreckers [500 m]
27. Council owned transfer station [500 m]

*EPA Publication 1949 recommends a separation distance of 2,200 metres (for odour) for new composting facilities receiving lowest risk wastes up to 50,000 tonnes/year and using open turned windrow technology. As this existing facility is licensed to receive high risk waste streams, a site-specific risk assessment may be necessary to inform future planning proposals.

Existing Planning Zone (within Study Area)
- FARMING ZONE (FZ)
- INDUSTRIAL 1 ZONE (IN1Z)
- INDUSTRIAL 2 ZONE (IN2Z)
- SPECIAL USE ZONE - SCHEDULE 1 (SUZ1)
- TRANSPORT ZONE - CATEGORY 1 (TRZ1)
- TRANSPORT ZONE - CATEGORY 2 (TRZ2)
- TRANSPORT ZONE - CATEGORY 3 (TRZ3)

Labilliere St
Barry St
Moore St
Inglis St
Powlett St
Mccrae St
Franklin St
Grant St
Griffith St
Rembrandt Dr
Glasheen Dr
South Maddingley Rd
Park St
Mitchem St
Parwan Rd
Gaynor St
East Maddingley Rd
Cemetery
Hillside St
Smith St
Osborne St
Harry Vallence Dr
Dewar Cr
Mcpherson St
Tess Ct
Ethan St
Sonny Cl
Duval Dr
Kennedy Pl
Peters Ct
Doolan St
Mclennan Av
Darcy St
Davison Ct
Slattery Ct
Guy Pl
Hegarty Pl
Tilley Dr
Warde Cl
Kerrs Rd
Tilleys Rd
MADDINGLEY PARK DRAIN
MADDINGLEY PARK CREEK
UNNAMED WATERWAY
500 m
1 -2200 m
15 -500 m
4 -1000 m
18 - ?m
15
27
3
TRZ1
TRZ3
SUZ1
FZ
IN2ZZ

Sub-area 2
South West

Sub-area 4
North West

Sub-area 5
North

Sub-area 6
North East

Maddingley Planning Study

LEGEND
- Study Area
- Sub-area Boundaries
- Property Boundaries
- Parcel Boundaries
- Railway Line
- Major Roads
- Local Roads
- Minor Roads
- Waterway
- Inferred Dwelling Location

Land Use Activity Areas
- Existing Land Uses Requiring Separation Distances

Recommended Separation Distances
- Existing Land Use Separation Distance

0 90 180 270 360 m

GIS maps produced by BlueSphere

Data Sources

Land Use Activity Areas: GIS data provided by Moorabool Shire Council, based on Figure F1, Separate Sensitive Use Buffers, from report "Environmental Matters Concerning Proposed Amendment C81 to the Moorabool Planning Scheme" by Peter J Ramsay and Associates, Rev. 00.

Land uses are based on information available at the time of preparation of this document.

Tenancy map for JBD industrial park provided by JBD industrial park and Moorabool Shire Council.

Separation distances based on:
- EPA 1949: Recommended Separation Distances for Industrial Residual Air Emissions – Guideline
- EPA 1950: New guidelines for industry separation distances and landfill buffers
- Moorabool Shire Council Planning Scheme Clause 53.10.

Inferred Dwelling Locations are approximate only, and have been digitised by KnightVision based on aerial imagery interpretation.

Racing Dog Breeding Facility: Digitised by KnightVision based on planning permit application site plan provided by Moorabool Shire Council.

Proposed Materials Recycling Facility and Garden Supplies / Concrete Batching Plant location based on drawing 'Concept Site Plan', in Planning Permit Application 2018239 by Gunnawaunday Holdings Pty Ltd, dated 09/09/2018.

FIGURE 34 EXISTING RECOMMENDED SEPARATION DISTANCES IN SUB-AREA 4

PLANNING STUDY

Prepared for **Moorabool Shire Council**

Prepared by centrum TOWN PLANNING

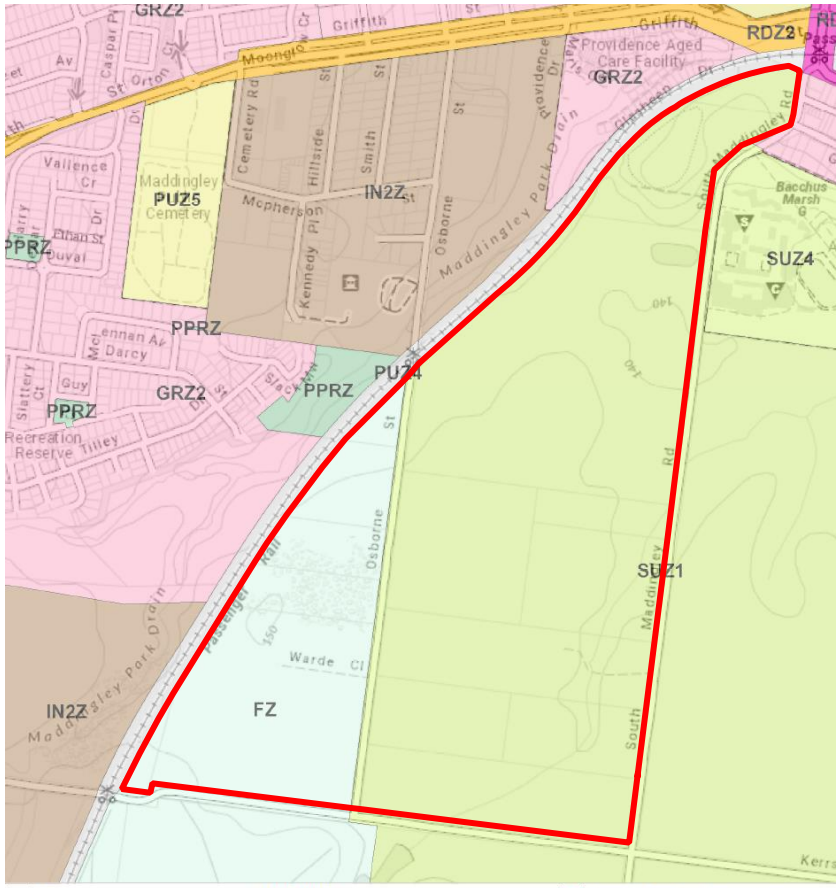
File: O:\6_GIS\Projects\30805_Centrum_Maddingley WRRH Planning GIS Stage 2\01\Maps\DRAFT\Fig12_Existing_Land_Use_Buffers.qgz

Date: 18/09/2025

Revision: FINAL Rev14

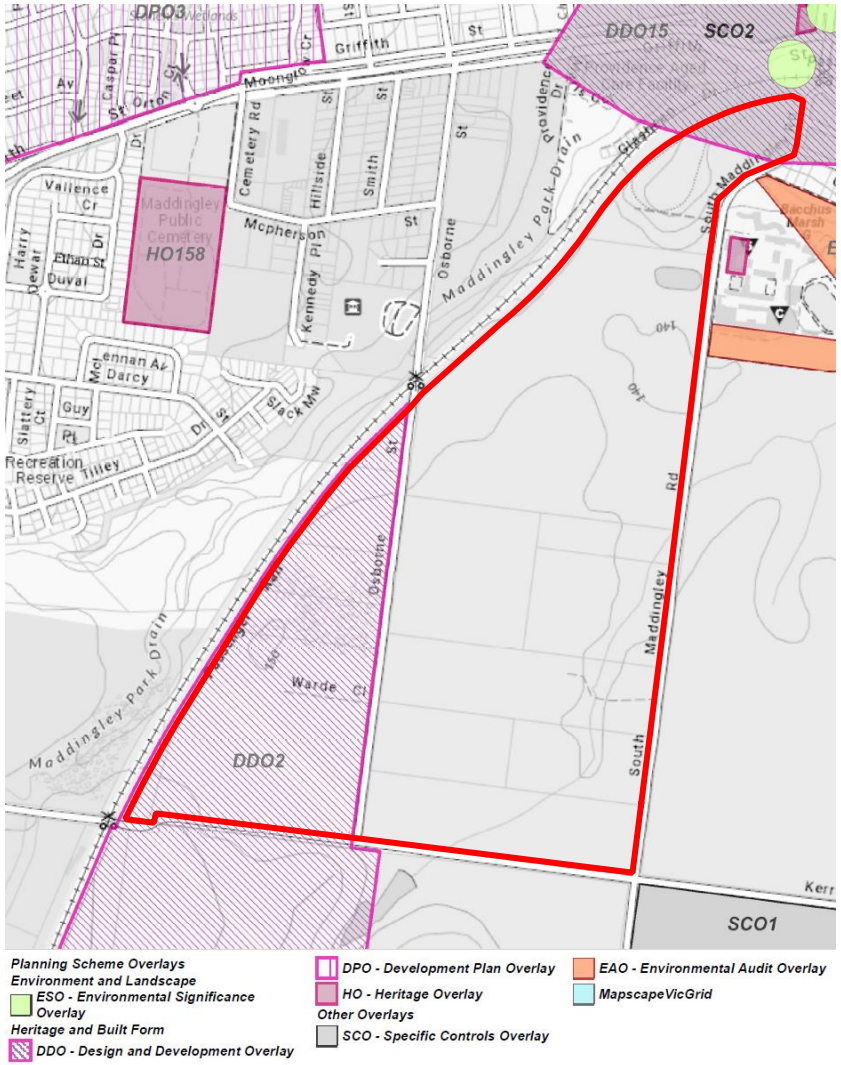
Sub-area 4 – North west

Figure 35 Sub-area 4 – Existing zone provisions



Source: https://mapshare.vic.gov.au/vicplan/

Figure 36 Sub-area 4 – Existing overlay provisions



Source: https://mapshare.vic.gov.au/vicplan/

Sub-area 4 – North west

Existing uses and approvals

The sub-area comprises mainly farming and grazing land. It contains lots that are mainly in the range of two to eight hectares in size. There are approximately 15 properties in the sub-area.

There are eight dwellings in the sub-area, two in the Farming Zone and six in the SUZ1. There is a stockfeed and farm supplies business associated with a dwelling in South Maddingley Road, as shown in Photograph 10.

The northern part of the sub-area features a former coal pit, which has been levelled and filled with compacted spoil to create a site that is more suitable for development. This land is shown in purple in Figure 37. This land is identified as part of an 'Integrated College Precinct' in the housing and community section of the Bacchus Marsh UGF.

There is a hardware store and associated car park and storage areas in the northern corner of the sub-area, which is shown in orange in Figure 37 and in Photograph 11.

Emerging uses and opportunities

Bacchus Marsh Grammar School recently acquired the land shown in purple in Figure 37 (described as PC 380604) which has an area of approximately six hectares. The school proposes to develop and use the land for a mix of sports facilities/education, performing arts and car parking.

The land recently acquired by Bacchus Marsh Grammar is not affected by the odour footprint identified in the dispersion modelling for the Maddingley WRR Hub composting operations (as shown in Figure 13 in Part D), as part of the Bacchus Marsh Urban Growth Framework Bacchus Marsh Buffer Assessment (Pacific Environment, 2017).

As described previously, a private company is exploring the potential for new open cut coal mining in the sub-area and commercial applications for the brown coal.

Potential uses that were identified by landowners during the consultation process for the Background Report included agriculture, horticulture, rural residential or hobby farm uses, light industry, bulky goods, solar farms and other forms of 'commercial' use.

Sub-area 4 – North west

Land use planning issues

Issue 1 Tension between Clause 14.03-1S of the Planning Policy Framework, which aims to protect and encourage the extraction of natural resources, and the views of landholders and other members of the community, who strongly object to any future coal mining (refer also to Part F).

Issue 2 Presence of General Residential zoned land and education uses (Bacchus Marsh Grammar School) within close proximity to the sub-area and limitations on the capacity for coal resources to be extracted on the basis that the agent of change (i.e. a mining proponent) would need to demonstrate acceptable amenity impacts (refer also to Part C).

Issue 3 Dwelling related issues:

- presence of eight existing dwellings in the sub-area;
- history of planning permit applications for new dwellings in the SUZ1 being refused due to objections from MBC and the Department administering the MRSD Act (refer also to Part C);
- frustration from landowners that their options for the use and development of land are limited under the provisions of the SUZ1 due to the purpose of the zone being to recognise and provide for the use and development of land for coal mining;
- desire amongst many of the landowners in the sub-area to construct dwellings and outbuildings without the ability for MBC to object.

Issue 4 The significant change to the landscape that would result from open cut mining and significant limitation on the land use options available post-rehabilitation (refer also to Part F).

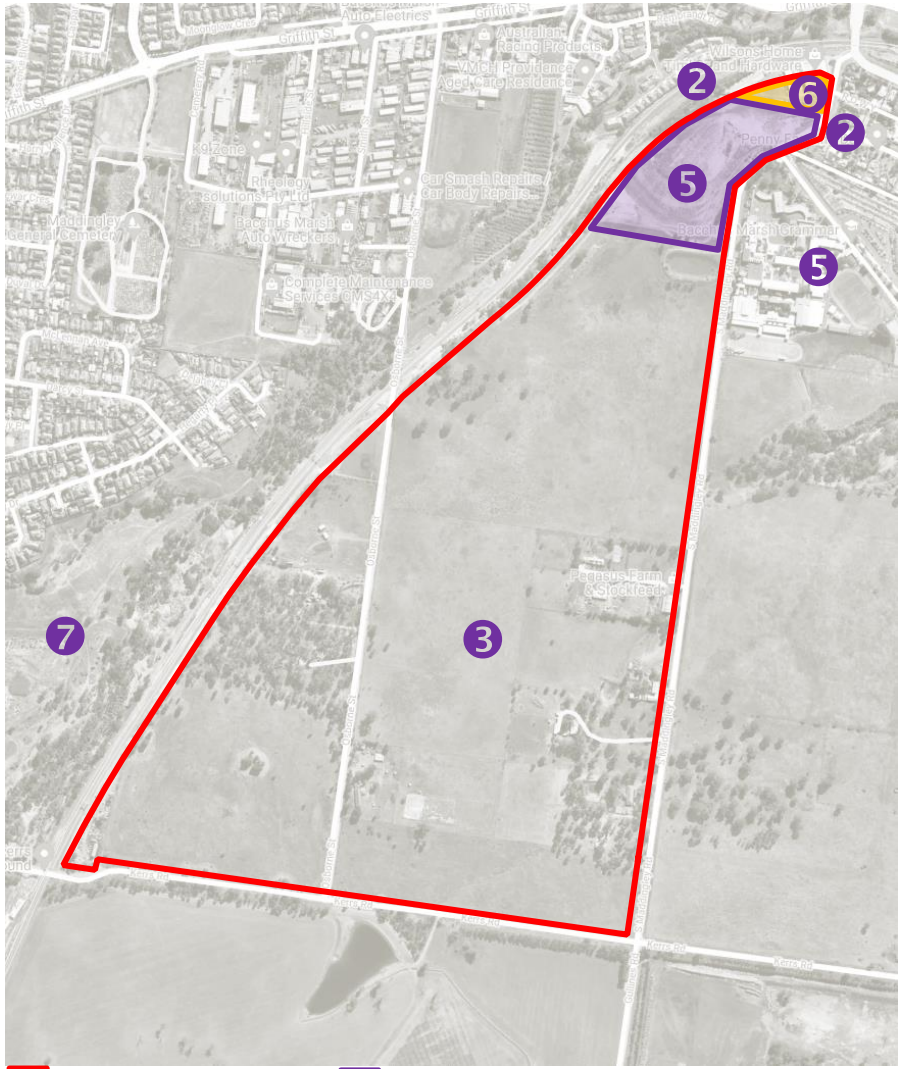
Issue 5 The need to establish an appropriate planning framework for the expansion of Bacchus Marsh Grammar School and an 'Integrated College Precinct'.

Issue 6 The SUZ1 applies to land that is used for a hardware store in the north of the sub-area, which is an inappropriate planning framework for a commercial use.

Issue 7 Potential investigations required to confirm that there is no risk of landfill gas impacts on new buildings from the closed former municipal landfill to the north of Kerrs Road, which is a priority site on the EPA Priority Site Register.

Sub-area 4 – North west

Figure 37 Sub-area 4 – Key issues and influences plan



Photograph 10 Stockfeed business on South Maddingley Road.

Photograph 11 Hardware Store on South Maddingley Road in the north of the sub-area

Sub-area 4 – North west

Recommended planning principles

Principle NW1	Strongly discourage the use and development of coal mining and refuse disposal in the sub-area due to the close proximity of existing sensitive uses both within, and outside the sub-area.
Principle NW2	Facilitate opportunities for uses compatible with existing nearby sensitive uses and industries.
Principle NW3	Allow a greater diversity of land use and development in the sub-area to capitalise on the close proximity of the Bacchus Marsh urban area.
Principle NW4	Facilitate the development of light and service industry, warehouses and other uses that are appropriate for a buffer area between sensitive uses and the Maddingley WRR Hub (subject to an assessment of industrial land supply and demand, with a particular focus on light and service industry type land uses).
Principle NW5	Ensure the orderly development of land, adequate consideration of site constraints, high quality urban design (including buildings and landscaping), and building design to reduce adverse amenity impacts.
Principle NW6	Provide limited opportunities for new sensitive uses, subject to strict policies to manage the location and density of these uses (refer to Part C – Separation Distances and Buffers).
Principle NW7	Maintain the rural appearance and character of the western portion of the sub-area.
Principle NW8	Respect existing uses.
Principle NW9	Provide opportunities to retain and enhance native vegetation, particularly through strategic landscape plantings that provide visual buffers between land uses.
Principle NW10	Encourage land uses which incorporate circular economy principles, such as uses relating to the Maddingley WRR Hub, subject to providing appropriate separation distances from sensitive land uses.

Sub-area 4 – North west

Planning provisions

In order to give effect to the recommended planning principles for the sub-area, the following planning scheme changes are recommended:

Medium-long term:

- Rezone land east of Osborne Street from SUZ1 to Industrial 3 Zone (IN3Z) and retain the existing Farming Zone (FZ) west of Osborne Street.
- Consider rezoning land described as Plan of Consolidation 380604 (west of South Maddingley Road) from SUZ1 to SUZ Schedule 4 (Bacchus Marsh Grammar School).

Long term:

- Consider rezoning the land to the west of Osborne Street from Farming Zone (FZ) to IN3Z.

Medium-long term:

The Industrial 3 Zone is an appropriate zone for land east of Osborne Street, as it contains purposes that specifically allow for the consideration of the nature and impacts of industrial use, or to avoid inter-industry conflict. The zone purpose also attempts to provide a buffer between heavy industries and 'local communities'. These purposes are well suited to the sub-area, which has land zoned for sensitive uses to the west, north and north east.

The zone allows for warehouse and service industry uses without the need for a permit, but with a permit only required for development. Whilst there are existing dwellings within the sub-area, they are all sited on large lots of at least two hectares and thus there will be opportunities for separation and landscape screening.

The zone allows for industry, subject to a permit for use and development, which is an appropriate planning outcome and will ensure that consideration of use impacts is considered at the permit stage. The zone also allows for trade supplies premises, subject to a permit for use and development, and is therefore an appropriate zone for the existing hardware store located on the land shown in orange in Figure 37 (described as 1 South Maddingley Road, Maddingley).

The zone allows for 'leisure and recreation' uses (other than 'informal outdoor recreation', 'major sports and recreation facility', and 'motor racing track') subject to a permit for use and development.

Supermarkets would be prohibited under the zone as the land does not comply with mandatory conditions under the zone: the land is not within 30 metres of land in a Road Zone and is not within an urban growth boundary and in Metropolitan Melbourne. The zone would also prohibit all forms of accommodation other than Caretaker's house. The sub-area contains eight existing dwellings which would benefit from existing use rights in accordance with Clause 63 of the Moorabool Planning Scheme.

This zone would operate most effectively with a planning provision that can ensure the orderly development of land, quality urban design (including buildings and landscaping), building design to reduce adverse amenity impacts, and adequate consideration of site constraints. The only planning provisions that can control land use in this way are the Incorporated Plan Overlay and Development Plan Overlay. In this case, the Development Plan Overlay is considered to be the most suitable overlay as it has a purpose that enables land use to be considered yet is sufficiently flexible to be modified in an efficient way.

Prior to proceeding with this option, there is a need to undertake an industrial land supply and demand assessment, with a particular focus on light/service industry uses.

Sub-area 4 – North west

For the land shown in purple in Figure 37 (described as PC 380604), SUZ Schedule 4 (Bacchus Marsh Grammar School) is potentially an appropriate zone, subject to the proponent providing evidence that:

- a reduced separation distance is appropriate from the Maddingley WRR Hub to the satisfaction of the EPA and Council; and
- soil conditions are appropriate for the use having regard to Ministerial Direction No.1.

The purpose of this zone is to recognise and provide for the use and continuing development of the Bacchus Marsh Grammar School.

It is considered appropriate to retain the existing Farming Zone on land to the west of Osborne Street, given the extent of remnant native vegetation in this area and the surrounding land use context.

Long term:

In the longer term, consideration should be given to rezoning the land to the west of Osborne Street (bounded by Kerrs Road and the railway line) from FZ to IN3Z. This option should be considered if land to the south of Kerrs Road is rezoned to IN1Z or IN2Z in the longer term (refer to Sub-area 2 - Recommendation SW4).

This would alleviate the issue of a remnant triangle of FZ land surrounded by industrial zones (mostly) and residential zones (to a lesser extent). The application of a Development Plan Overlay to the sub-area would assist in the identification and protection of significant native vegetation. Consideration should also be given to the application of a Vegetation Protection Overlay, if deemed appropriate.

Sub-area 4 – North west

Recommended planning provisions

Recommendation NW1	Rezone the land described as Plan of Consolidation 380604 (west of South Maddingley Road, Maddingley; shaded purple in Figure 37) from SUZ1 to SUZ4 (Bacchus Marsh Grammar School), subject to the proponent demonstrating that: • a reduced separation distance is appropriate from the Maddingley WRR Hub to the satisfaction of the EPA and Council; and • the soil conditions are appropriate for the proposed sensitive use, having regard to Ministerial Direction No.1.
Recommendation NW2	Rezone the balance of the SUZ1 land to Industrial 3 Zone (IN3Z), subject to a review of industrial land supply and demand in the municipality, with a particular focus on land for light/service industry.
Recommendation NW3	Retain the existing Farming Zone (FZ) west of Osborne Street for the short to medium term
Recommendation NW4 (longer term)	In the longer term, consider rezoning the land from FZ to IN3Z. This option should be considered if land to the south of Kerrs Road is rezoned to IN1Z or IN2Z in the longer term - refer to Sub-area 2 (South west) -Recommendation SW4.
Recommendation NW5	Apply a Schedule to the Development Plan Overlay (DPO) to all IN3Z land in the sub-area.

Sub-area 5 – North

Description of sub-area

This sub-area is bounded generally by Bacchus Marsh Grammar School in the north, South Maddingley Road in the west, East Maddingley Road in the east and Kerrs Road in the South, as shown in Figure 38. An un-named waterway traverses the northern part of the sub-area, which is lined with native vegetation.

The sub-area contains some scattered remnant native vegetation comprising Plains Grassy Woodland in the north and scattered Plains Grassland in the west. The sub-area falls generally from the south to the north. Coal resources lie beneath the sub-area.

Existing planning directions and provisions

The sub-area is zoned SUZ1, as shown in Figure 39. This zone aims to recognise and provide for the use and development of the land for coal mining. There are no overlay provisions that apply to the sub-area, as shown in Figure 40.

Existing uses and approvals

The sub-area comprises two segregated parts. The first part is a large property of approximately 60 hectares in size that appears to be used for grazing, or no specific use. There are no buildings or other structures on this land.

The second part is separated from the main part of the sub-area by the vehicle entrance to Bacchus Marsh Grammar. This comprises properties of approximately 2.6 and 0.3 hectares at 11&13 East Maddingley Road, Maddingley. The larger property contains several former poultry sheds. The smaller property has been developed for a car service centre and a dwelling.

Recommended Separation Distances
1. Maddingley WRR Hub separation distance (composting) [2200 m] *
3. Maddingley WRR Hub (coal mine) [2000 m]

*EPA Publication 1949 recommends a separation distance of 2,200 metres (for odour) for new composting facilities receiving lowest risk wastes up to 50,000 tonnes/year and using open turned windrow technology. As this existing facility is licensed to receive high risk waste streams, a site-specific risk assessment may be necessary to inform future planning proposals.

Existing Planning Zone (within Study Area)
- FARMING ZONE (FZ)
- INDUSTRIAL 1 ZONE (IN1Z)
- INDUSTRIAL 2 ZONE (IN2Z)
- SPECIAL USE ZONE - SCHEDULE 1 (SUZ1)
- TRANSPORT ZONE - CATEGORY 1 (TRZ1)
- TRANSPORT ZONE - CATEGORY 2 (TRZ2)
- TRANSPORT ZONE - CATEGORY 3 (TRZ3)

Sub-area 2 South West
Sub-area 4 North West
Sub-area 5 North
Sub-area 6 North East

SUZ1
TRZ1
TRZ2
FZ

South Maddingley Rd
Mitchem St
Gaynor St
East Maddingley Rd
Parwan Rd
Geelong - Bacchus Marsh Rd
Fisken St
Tilleys Rd
Kerrs Rd
Gullines Rd
Warde Cl
MADDINGLEY PARK CREEK
MELBOURNE-BALLARAT LINE
UNNAMED WATERWAY
27 -500 m
15 -500 m
27
3
1

Maddingley Planning Study

LEGEND
- Study Area
- Sub-area Boundaries
- Property Boundaries
- Parcel Boundaries
- Railway Line
- Major Roads
- Local Roads
- Minor Roads
- Waterway
- Inferred Dwelling Location

Land Use Activity Areas
- Existing Land Uses Requiring Separation Distances

Recommended Separation Distances
- Existing Land Use Separation Distance

0 80 160 240 320 m

GIS maps produced by BlueSphere Environmental

Data Sources

Land Use Activity Areas: GIS data provided by Moorabool Shire Council, based on Figure F1, Separate Sensitive Use Buffers, from report "Environmental Matters Concerning Proposed Amendment C81 to the Moorabool Planning Scheme" by Peter J Ramsay and Associates, Rev. 00.

Land uses are based on information available at the time of preparation of this document.

Tenancy map for JBD industrial park provided by JBD industrial park and Moorabool Shire Council.

Separation distances based on:
- EPA 1949: Recommended Separation Distances for Industrial Residual Air Emissions – Guideline
- EPA 1950: New guidelines for industry separation distances and landfill buffers
- Moorabool Shire Council Planning Scheme Clause 53.10.

Inferred Dwelling Locations are approximate only, and have been digitised by KnightVision based on aerial imagery interpretation.

Racing Dog Breeding Facility: Digitised by KnightVision based on planning permit application site plan provided by Moorabool Shire Council.

Proposed Materials Recycling Facility and Garden Supplies / Concrete Batching Plant location based on drawing 'Concept Site Plan', in Planning Permit Application 2018239 by Gunnawaunday Holdings Pty Ltd, dated 09/09/2018.

FIGURE 38 EXISTING RECOMMENDED SEPARATION DISTANCES IN SUB-AREA 5

PLANNING STUDY

Prepared for **Moorabool Shire Council**

Prepared by centrum TOWN PLANNING

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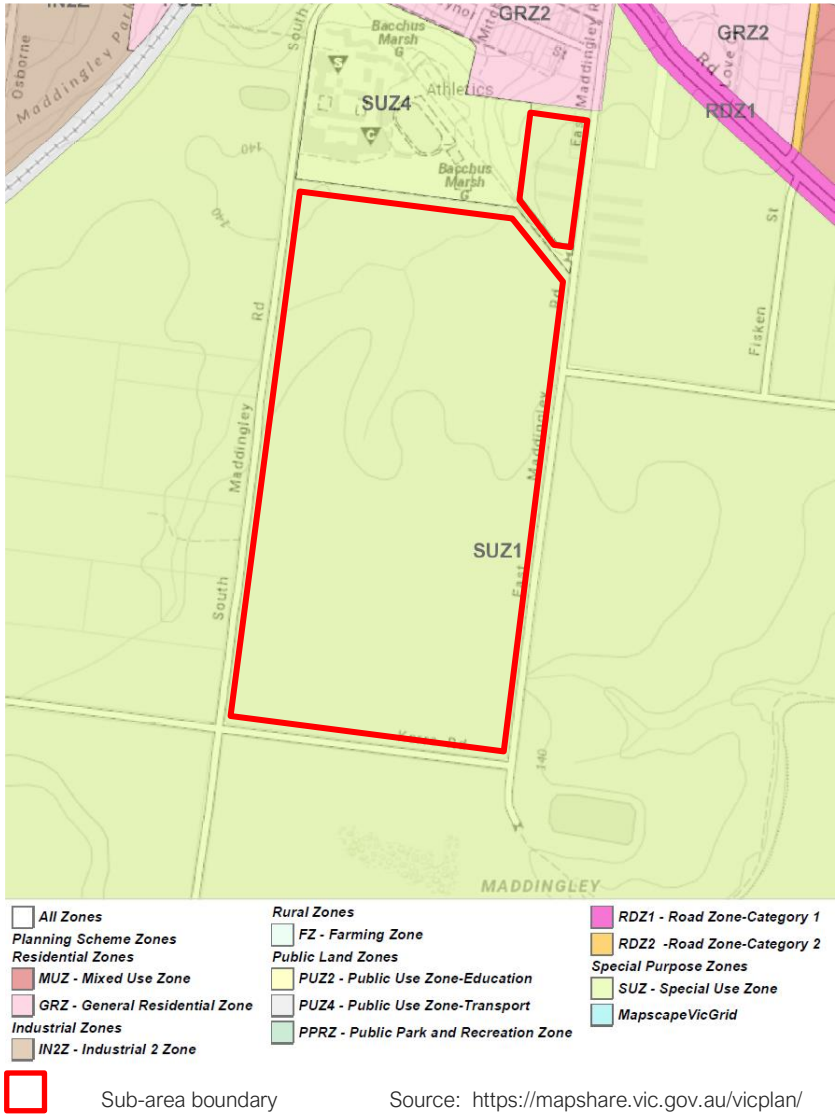
Date: 18/09/2025

Revision: FINAL Rev14

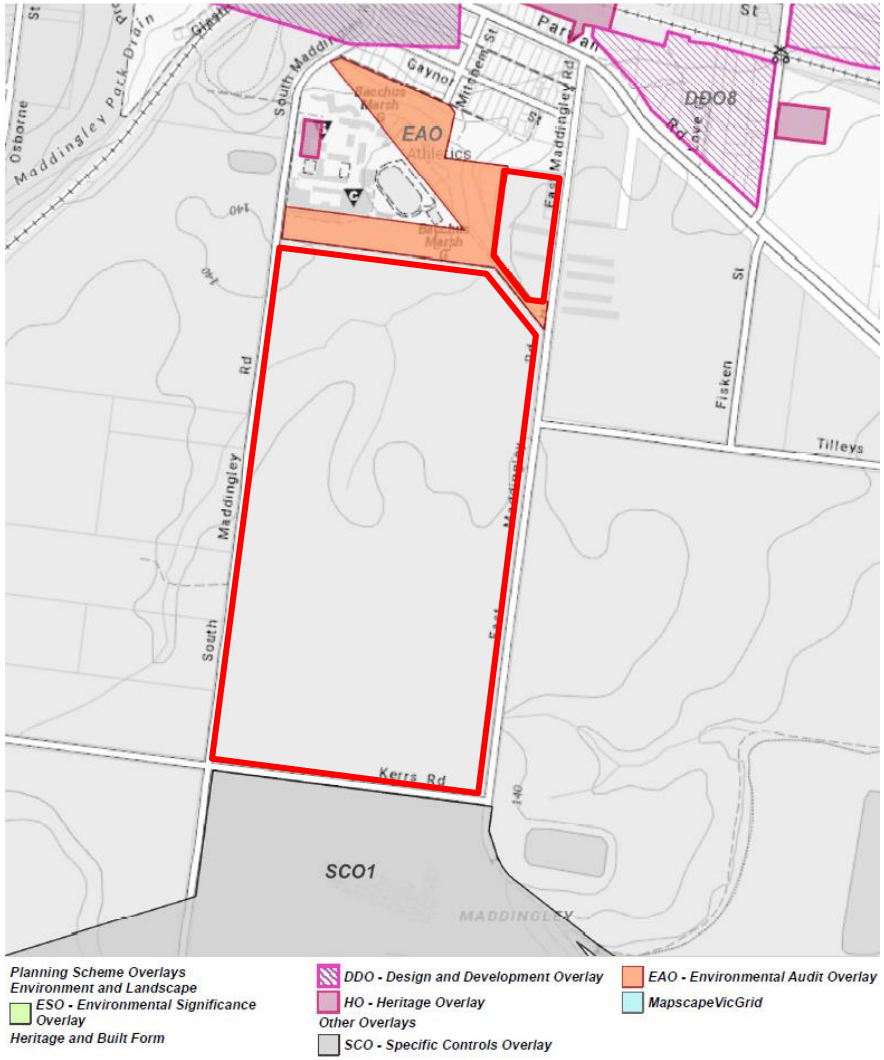
Sub-area 5 – North

Figure 39 Sub-area 5 – Existing zone provisions



Sub-area boundary Source: https://mapshare.vic.gov.au/vicplan/

Figure 40 Sub-area 5 – Existing overlay provisions



Sub-area boundary Source: https://mapshare.vic.gov.au/vicplan/

Sub-area 5 – North

Emerging uses and opportunities

The owner of the larger landholding in the sub-area has requested planning provisions that are tailored to the land use opportunities in the area, and which accommodate a wide range of land uses that respond to evidence based buffers.

Bacchus Marsh Grammar has expressed an interest in expanding the school into the northern part of the large landholding in the sub-area. This area may have potential for the use and development of ovals and open space adjacent to the existing school campus. There is also potential to create a wooded area/urban forest to provide protection for the school from other potential future uses to the south.

Under the current planning framework for the area, this concept would require a planning scheme amendment to rezone the land and would need to be supported by technical assessments that demonstrate that the type of activities proposed are suitable within a reduced separation distance from the Maddingley WRR Hub.

The consultation process for the Planning Study has not revealed any other proposals for new land use or development in this sub-area. It is noted that the large landholding was the subject of various unsuccessful proposals in the 1990s for residential development or subdivisions.

Sub-area 5 – North

Land use planning issues

Issue 1 Tension between Clause 14.03-1S of the PPF and the current SUZ1, which aims to protect and encourage the extraction of natural resources, and the views of landholders and other members of the community, who strongly object to any future coal mining (refer also to Part F)

Issue 2 Presence of General Residential zoned land and education uses (Bacchus Marsh Grammar School) within close proximity to the sub-area, which presents limitations on the capacity for coal resources to be extracted on the basis that the agent of change (i.e. a mining proponent) would need to demonstrate acceptable amenity impacts (refer also to Part C)

Issue 3 Presence of one existing dwelling in the sub-area.

Issue 4 Frustration from landowners that their options for the use and development of land are limited under the provisions of the SUZ1 due to the purpose of the zone being to recognise and provide for coal mining.

Issue 5 The significant change to the landscape that would result from open cut mining and significant limitation on the land use options available post-rehabilitation (refer also to Part F)

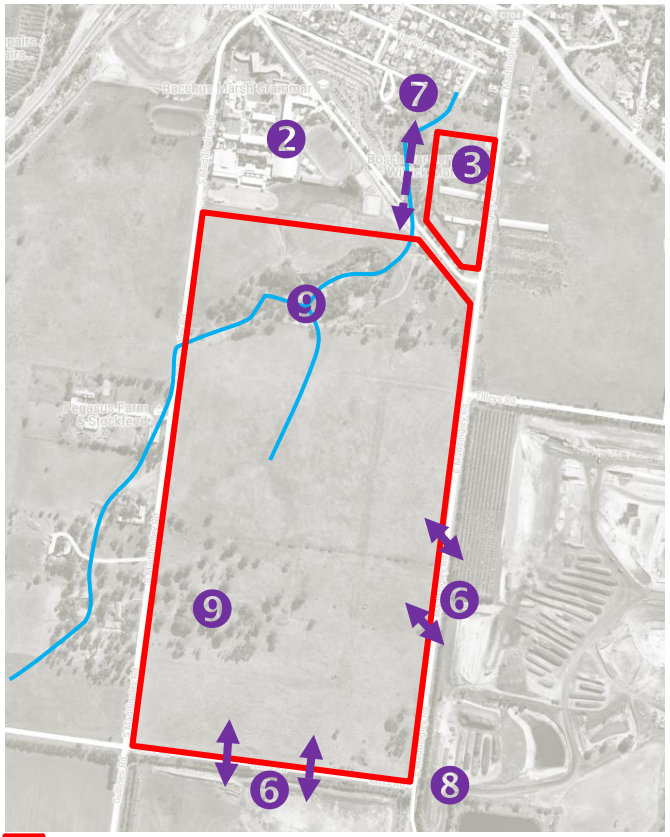
Issue 6 Close proximity of the Maddingley WRR Hub (including associated coal mine) and the potential for adverse amenity impacts..

Issue 7 Land zoned GRZ exists within 0-210 metres the northern boundaries of the sub-area, which limits future land use options.

Issue 8 Investigations required to confirm that landfill gas from the Maddingley WRR Hub does not affect the land in the sub-area.

Issue 9 How to protect and enhance remnant vegetation and the un-named waterway that traverses the sub-area.

Figure 41 Sub-area 5 – Key issues and influences plan



Sub-area boundary Source: Nearmap & Centrum Town Planning, 2021

Sub-area 5 – North

Recommended planning principles

Principle N1	Strongly discourage the use and development of coal mining and refuse disposal in the sub-area due to the close proximity of existing sensitive uses both within, and outside the sub-area.
Principle N2	Facilitate the development of light and service industry, warehouses and other uses that are appropriate for a buffer area between sensitive uses and the Maddingley WRR Hub (subject to an assessment of industrial land supply and demand, with a particular focus on light and service industry type land uses).
Principle N3	Ensure the orderly development of land, adequate consideration of site constraints, high quality urban design (including buildings and landscaping), and building design to reduce adverse amenity impacts.
Principle N4	Prevent sensitive uses, unless these are considered through a strategic process such as a planning scheme amendment (refer also to Part C – Separation Distances and Buffers).
Principle N5	Create landscape and open space buffers at the interface with the Maddingley WRR Hub and between existing and potential future industry and existing sensitive uses.
Principle N6	Provide opportunities to retain and enhance native vegetation, particularly through strategic landscape plantings along the waterways in the sub-area.
Principle N7	Encourage land uses which incorporate circular economy principles, such as uses relating to the Maddingley WRR Hub, subject to providing appropriate separation distances from sensitive land uses.

Sub-area 5 – North

Planning provisions

In order to give effect to the recommended planning principles for the sub-area, the following planning scheme changes are recommended:

Rezone the land from SUZ1 to the Industrial 3 Zone (IN3Z), subject to an industrial land supply and demand assessment.

The Industrial 3 Zone contains purposes that specifically allow for the consideration of the nature and impacts of industrial use, or to avoid inter-industry conflict. The zone purpose also attempts to provide a buffer between heavy industries and 'local communities'. These purposes are well suited to the sub-area, which has sensitive uses immediately adjacent to the north and the Maddingley WRR Hub to the east and south.

The zone allows for warehouse and service industry uses without the need for a permit, but with a permit only required for development. Whilst there is residential land that is located adjacent to the sub-area, this outcome is considered to be acceptable if the interface areas are carefully landscaped and managed in accordance with Principle N5.

The zone allows for industry, subject to a permit for use and development, which is an appropriate planning outcome and will ensure that consideration of use impacts is considered at the permit stage.

The zone allows for 'leisure and recreation' uses (other than 'informal outdoor recreation', 'major sports and recreation facility', and 'motor racing track') subject to a permit for use and development. Intensive forms of leisure and recreation including 'major sports and recreation facility' and 'motor racing track' would be prohibited, which is considered to be appropriate as this would not be consistent with the planning principle to discourage uses that attract large numbers of people.

Supermarkets would be prohibited under the zone as the land does not comply with mandatory conditions under the zone: the sub-area is not within 30 metres of land in a Road Zone and is not within an urban growth boundary and in Metropolitan Melbourne. The zone would also prohibit all forms of accommodation other than Caretaker's house. The sub-area contains one existing dwelling which would benefit from existing use rights in accordance with Clause 63 of the Moorabool Planning Scheme.

This zone would operate most effectively with a planning provision that can ensure the orderly development of land, quality urban design (including buildings and landscaping), building design to reduce adverse amenity impacts, and adequate consideration of site constraints. The Development Plan Overlay is considered to be the most suitable overlay as it has a purpose that enables land use to be considered yet is sufficiently flexible to be modified in an efficient way.

Prior to proceeding with this option, there is a need to undertake an industrial land supply and demand assessment, with a particular focus on light/service industry uses. Nevertheless, most of the land in this sub-area is held in one major landholding, making it more likely that urban development can occur in a coordinated way.

Sub-area 5 – North

Planning provisions - recommendations

Recommendation N1	Rezone all of the land in the sub-area to Industrial 3 Zone, subject to a review of industrial land supply and demand in the municipality, with a particular focus on land for light/service industry.
Recommendation N2	Apply a Schedule to the Development Plan Overlay (DPO) to all land in the sub-area.

Sub-area 6 – North east

Description of sub-area

This sub-area is bounded by Parwan Road (Geelong-Bacchus Marsh Road) in the north, East Maddingley Road in the west and Tilleys Road in the south, as shown in Figure 42. The sub-area contains a small area of scattered Plains Grassy Woodland on the east side of East Maddingley Road, although is generally cleared of trees. The sub-area falls to the north and east from a high point near the intersection of Tilleys Road and East Maddingley Road. There are views across Bacchus Marsh and beyond from this area.

Existing planning directions and provisions

The sub-area is zoned SUZ1, as shown in Figure 43. This zone aims to recognise and provide for the use and development of the land for coal mining. There are no overlay provisions that apply to the sub-area, apart from ESO2, which applies to a small area in the eastern corner of the sub-area. The overlays that apply to land in the surrounding area are shown in Figure 44.

Existing uses and approvals

The sub-area comprises mainly farming and grazing land. There are five properties and three dwellings in the sub-area. There is a former poultry shed located in the western part of the sub-area.

The sub-area contains lots that are mainly in the range of one to eight hectares in size, however, there is a cluster of 23 lots (each less than 0.5 hectares in area) in the north western corner of the sub-area. These are visible in Figure 42 and are specifically identified in Figure 45. These lots form part of a subdivision that was never constructed. All of the lots, apart from three that contain two dwellings and associated sheds, are vacant. Access to a number of these lots is from an unused road reserve off Parwan Road.

Recommended Separation Distances
1. Maddingley WRR Hub separation distance (composting) [2200 m] *
3. Maddingley WRR Hub (coal mine) [2000 m]

*EPA Publication 1949 recommends a separation distance of 2,200 metres (for odour) for new composting facilities receiving lowest risk wastes up to 50,000 tonnes/year and using open turned windrow technology. As this existing facility is licensed to receive high risk waste streams, a site-specific risk assessment may be necessary to inform future planning proposals.

Existing Planning Zone (within Study Area)
- FARMING ZONE (FZ)
- INDUSTRIAL 1 ZONE (IN1Z)
- INDUSTRIAL 2 ZONE (IN2Z)
- SPECIAL USE ZONE - SCHEDULE 1 (SUZ1)
- TRANSPORT ZONE - CATEGORY 1 (TRZ1)
- TRANSPORT ZONE - CATEGORY 2 (TRZ2)
- TRANSPORT ZONE - CATEGORY 3 (TRZ3)

Sub-area 4 North West
Sub-area 6 North East
Sub-area 5 North
Sub-area 2 South West
Bond St
Reddrop St
Park St
Vallence Rd North
Finn
Gaynor St
South Maddingley Rd
East Maddingley Rd
Love Cl
Fisken St
MELBOURNE-BALLARAT LINE
MADDINGLEY PARK CREEK
UNNAMED WATERWAY
27-500 m
TRZ2
Vallence Rd
Tilleys Rd
SUZ1
PARWAN CREEK
Geelong - Bacchus Marsh Rd
Parwan Park Rd
Cummings Rd
Kerrs Rd
3
1

Maddingley Planning Study

LEGEND
- Study Area
- Sub-area Boundaries
- Property Boundaries
- Parcel Boundaries
- Railway Line
- Major Roads
- Local Roads
- Minor Roads
- Waterway
- Inferred Dwelling Location

Land Use Activity Areas
- Existing Land Uses Requiring Separation Distances

Recommended Separation Distances
- Existing Land Use Separation Distance

0 80 160 240 320 m

GIS maps produced by BlueSphere

Data Sources

Land Use Activity Areas: GIS data provided by Moorabool Shire Council, based on Figure F1, Separate Sensitive Use Buffers, from report "Environmental Matters Concerning Proposed Amendment C81 to the Moorabool Planning Scheme" by Peter J Ramsay and Associates, Rev. 00.

Land uses are based on information available at the time of preparation of this document.

Tenancy map for JBD industrial park provided by JBD industrial park and Moorabool Shire Council.

Separation distances based on:
- EPA 1949: Recommended Separation Distances for Industrial Residual Air Emissions – Guideline
- EPA 1950: New guidelines for industry separation distances and landfill buffers
- Moorabool Shire Council Planning Scheme Clause 53.10.

Inferred Dwelling Locations are approximate only, and have been digitised by KnightVision based on aerial imagery interpretation.

Racing Dog Breeding Facility: Digitised by KnightVision based on planning permit application site plan provided by Moorabool Shire Council.

Proposed Materials Recycling Facility and Garden Supplies / Concrete Batching Plant location based on drawing 'Concept Site Plan', in Planning Permit Application 2018239 by Gunnawaunday Holdings Pty Ltd, dated 09/09/2018.

FIGURE 42 EXISTING RECOMMENDED SEPARATION DISTANCES IN SUB-AREA 6

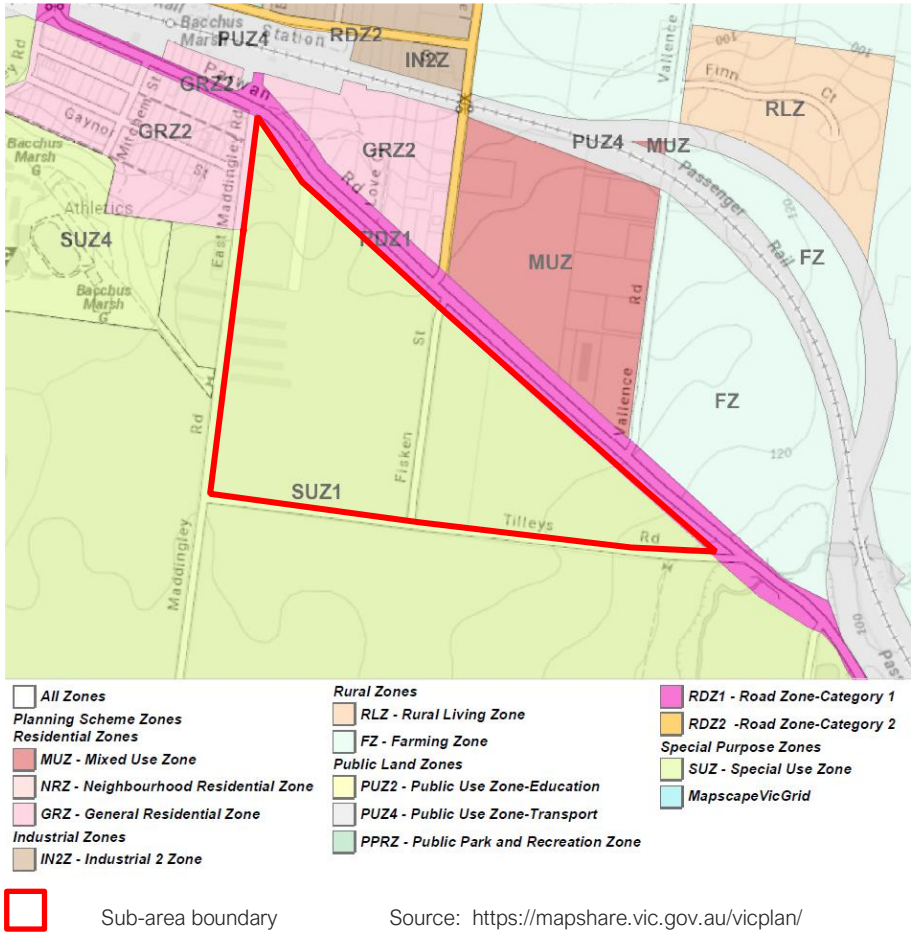
PLANNING STUDY

Prepared for **Moorabool Shire Council**

Prepared by centrum TOWN PLANNING

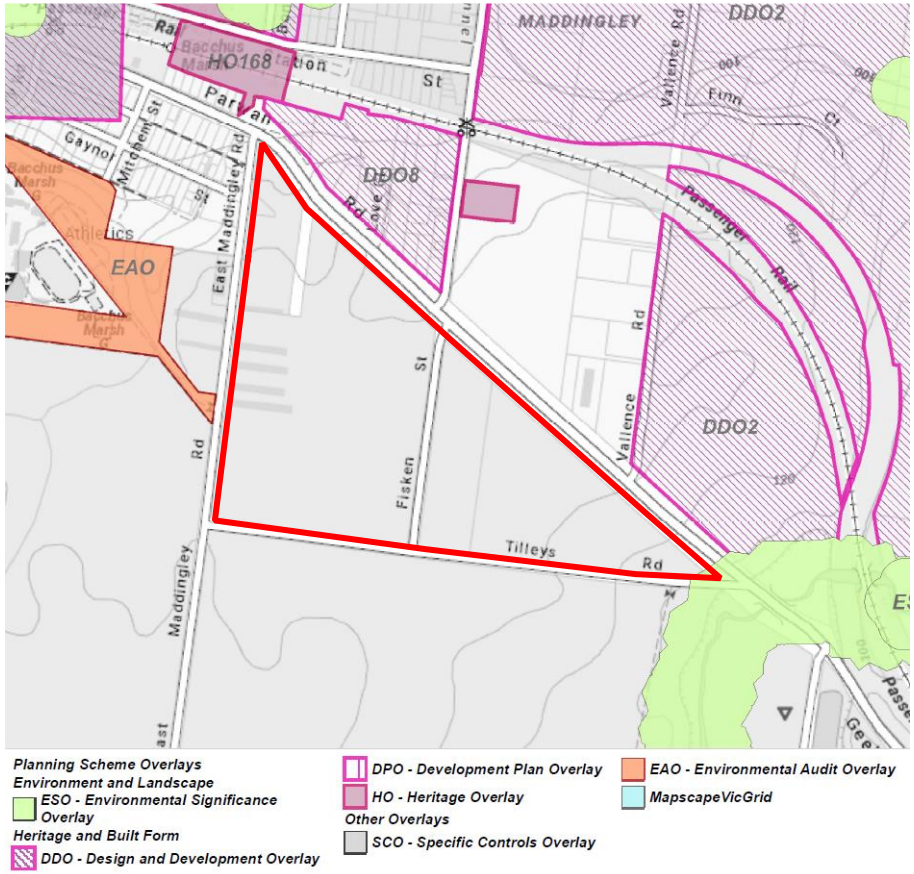
Sub-area 6 – North east

Figure 43 Sub-area 6 – Existing zone provisions



Sub-area boundary Source: https://mapshare.vic.gov.au/vicplan/

Figure 44 Sub-area 6 – Existing overlay provisions



Sub-area boundary Source: https://mapshare.vic.gov.au/vicplan/

Sub-area 6 – North east

Emerging uses and opportunities

The consultation process for this project has revealed a desire amongst one of the landowners in the sub-area to allow for residential development. In accordance with EPA 1949, the Bacchus Marsh UGF and Clauses 13.07-1S and 17.03-2L of the Moorabool Planning Scheme, sensitive land uses should be avoided within the EPA recommended separation distances from existing industrial uses, such as the Maddingley WRR Hub. Residential uses in this area are therefore unlikely to be appropriate, unless they are supported by the detailed further investigations that are undertaken as recommended in Part C of the Planning Study.

The sub-area has potential for a range of light/service industry land uses, or a range of commercial land uses that are generally discouraged within activity centres.

The *Moorabool Shire Retail Strategy 2024*, which has been adopted by Council, provides direction on the supportable bulky goods retail floorspace for Bacchus Marsh. It found that Bacchus Marsh had an undersupply of approximately 12,000 square metres of bulky goods floorspace in Moorabool, which could rise to 24,000 sqm depending on future development scenarios. An area of 10 to 12 hectares would allow for anticipated demand with a healthy margin for growth as well as car-parking and landscaping. This may be even larger if developed as part of a location for more general light industrial activity such as warehousing, wholesale showrooms, small factories and the like.

This strategy supports a general location on the western edge of the Parwan Station PSP area with access to the main Geelong-Bacchus Marsh Road and to the proposed Eastern Link Road. The land area estimate is based on forecast population growth, and may be revised at a later date.

The *Bacchus Marsh Strategic Bulky Goods Retail Assessment (2018),* which has not been adopted by Council, builds upon the *Moorabool Retail Strategy 2041* (2016) and provides an assessment of the preferred locations for bulky goods development in Bacchus Marsh. The assessment analysed the particular needs of the bulky goods sector in terms of size and location. It considered two sites in the study area, both of which are located in this sub-area (sites 1A and 1B), as shown in Figure 45.

The assessment concluded that sites 1A and 1B, together with the MUZ land to the north (outside the study area), are the preferred location for a long-term bulky goods precinct. It should be noted, however, that Sub-area 6 (i.e. sites 1A & 1B) has an area of approximately 34 hectares, which is well in excess of the indicative land area requirement of approximately 4.2 to 4.7 hectares by 2041, as identified in the assessment.

At the time of the assessment, sites 1A and 1B were considered unlikely to be able to attract successful bulky goods retailers in the short to medium-term, as the sites lacked exposure to sufficient traffic volumes. However, the eventual development envisaged in the Bacchus Marsh UGF will result in increased traffic volumes, which is expected to improve the commercial appeal of the site. The assessment was also prepared prior to the preparation of the Bacchus Marsh UGF and, therefore, it did not explore the potential for bulky goods retail sites within the 'buffer areas' in the Parwan Station commercial and residential growth precinct to the east.

Sub-area 6 – North east

Land use planning issues

Issue 1 Tension between Clause 14.03-1S of the PPF and existing SUZ1, which aims to protect and encourage the extraction of natural resources, and the views of landholders and other members of the community, who strongly object to any future coal mining (refer also to Part F).

Issue 2 Presence of General Residential zoned land and education uses (Bacchus Marsh Grammar School) within close proximity to the sub-area, which presents limitations on the capacity for coal resources to be extracted on the basis that the agent of change (i.e. a mining proponent) would need to demonstrate acceptable amenity impacts (refer also to Part C).

Issue 3 Presence of three existing dwellings in the sub-area.

Issue 4 The significant change to the landscape that would result from open cut mining and significant limitation on the land use options available post-rehabilitation.

Issue 5 Frustration from landowners that their options for the use and development of land are limited under the provisions of the SUZ1 due to the purpose of the zone being to recognise and provide for the use and development of land for coal mining.

Issue 6 IN3Z is a more appropriate zone, as it has less potential for sensitive land uses than C2Z, noting the key differences below:

- Primary or secondary school: Prohibited use in IN3Z. Permit required use in C2Z.
- Residential hotel: Prohibited use in IN3Z. Permit required use in C2Z.
- Education centre (other than primary or secondary school): Permit required use in C2Z and IN3Z.
- Caretaker's house: Permit required use in C2Z and IN3Z.
- Informal outdoor recreation: No permit required in IN3Z or C2Z.

Issue 7 Direct visual connection between the sub-area and the Maddingley WRR Hub to the south.

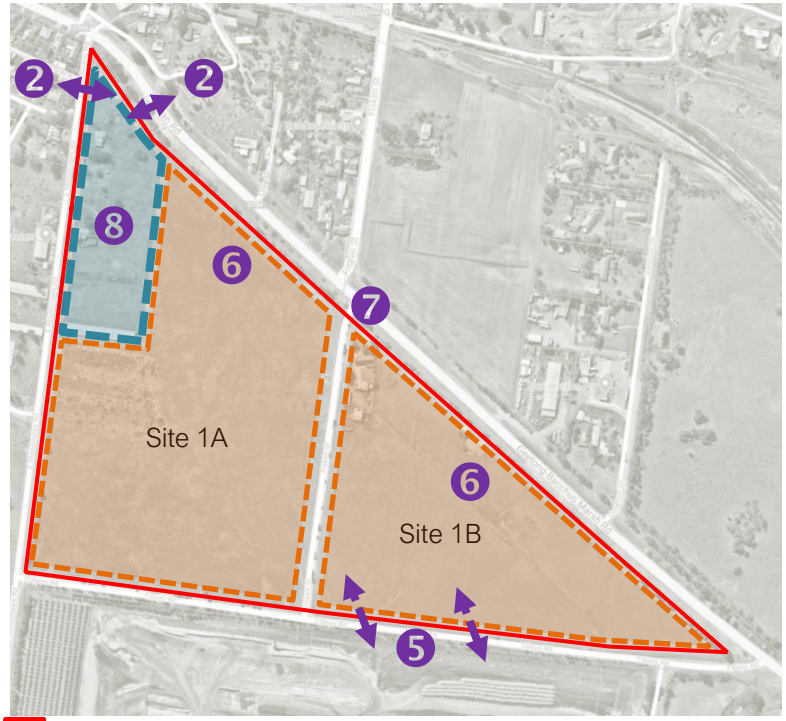
Issue 8 The undulating topography of the land.

Issue 9 Extensive frontage to Parwan Road, a Category 1 Road Zone, and the need to satisfy Department of Transport policies for the siting of new access points.

Issue 10 Whether the development of the existing small lots in the north west of the sub-area would be an appropriate planning outcome.

Sub-area 6 – North east

Figure 45 Sub-area 6 – Key issues and influences plan



Sub-area boundary Source: Nearmap & Centrum Town Planning, 2024

Potential long term bulky goods sites as per the Bacchus Marsh Strategic Bulky Goods Retail Assessment (Essential Economics, 2018, 30)

Small lots with potential for consolidation

Sub-area 6 – North east

Recommended planning principles

Principle NE1	Strongly discourage the use and development of coal mining and refuse disposal in the sub-area due to the close proximity of existing sensitive uses both within, and outside the sub-area.
Principle NE2	Subject to assessments of industrial land supply and demand, facilitate the development of light and service industry, warehouses and other Industrial 3 Zone uses that are appropriate for a buffer area between sensitive uses and the Maddingley WRR Hub.
Principle NE3	Ensure the orderly development of land, adequate consideration of site constraints, high quality urban design (including buildings and landscaping), and building design to reduce adverse amenity impacts.
Principle NE4	Prevent new sensitive uses unless these are considered through a strategic process such as a planning scheme amendment (refer also to Part C – Separation Distances and Buffers).
Principle NE5	Respect existing uses.
Principle NE6	Create landscape and open space buffers between new development and the Maddingley WRR Hub.
Principle NE7	Limit the number of access points to Parwan Road to maintain road safety and encourage areas of common car parking to service multiple development sites where feasible.
Principle NE8	Encourage land uses which incorporate circular economy principles, such as uses relating to the Maddingley WRR Hub, subject to providing appropriate separation distances from sensitive land uses.

Sub-area 6 – North east

Planning provisions

In order to give effect to the recommended planning principles for the sub-area, the following planning scheme changes are recommended:

Rezone the land from SUZ1 to the Industrial 3 Zone (IN3Z)

The IN3Z contains purposes that specifically allow for the consideration of the nature and impacts of industrial use, or to avoid inter-industry conflict. The purpose also attempts to provide a buffer between heavy industries and 'local communities'. These purposes are well suited to the sub-area, which has sensitive uses immediately adjacent to the north and west and the WRR Hub to the south.

The zone allows for restricted retail uses subject to a permit for use and development, which would ensure that consideration of use impacts is considered at the permit stage.

The zone allows for warehouse and service industry uses without the need for a permit, but with a permit only required for development which would need to be managed in an appropriate way due to the close proximity of residential zoned land.

The zone allows for 'leisure and recreation' uses (other than 'informal outdoor recreation', 'major sports and recreation facility', and 'motor racing track') subject to a permit for use and development. Intensive forms of leisure and recreation including 'major sports and recreation facility' and 'motor racing track' would be prohibited, which is considered to be appropriate is this would not be consistent with the planning principle to discourage uses that attract large numbers of people.

Supermarkets would be prohibited under the zone as the land does not comply with mandatory conditions under the zone. The zone would also prohibit all forms of accommodation, other than Caretaker's house which would require a permit for use and development.

The sub-area contains three existing dwellings which have existing use rights in accordance with Clause 63 of the Moorabool Planning Scheme.

The IN3Z would operate most effectively with a planning provision that can ensure the orderly development of land, adequate consideration of site constraints, high quality urban design (including buildings and landscaping), and building design to reduce adverse amenity impacts. The Development Plan Overlay is considered to be the most suitable overlay as it has a purpose that enables land use to be considered yet is sufficiently flexible to be modified in an efficient way.

Prior to proceeding with this option, there is likely to be a need to undertake an industrial land supply and demand assessment, with a particular focus on light/service industry uses.

Sub-area 6 – North east

Planning provisions – recommendations

Recommendation NE1	Rezone all of the land in the sub-area to Industrial 3 Zone, subject to a review ofindustrial land supply and demand in the municipality, with a particular focus on land for light/service industry.
Recommendation NE2	Apply a Schedule to the Development Plan Overlay to all land in the sub-area that requires consideration of: • potential impacts of the Maddingley WRR Hub on use and development in the sub-area; • an appropriate mechanism to consolidate or restructure the 23 existing small lots in the north western corner of the sub-area.

Part E | Transport and Utility Infrastructure

Overview

Transport infrastructure, including roads, railway lines and walking and cycling paths, are vital for the proper functioning of urban areas and rural economies.

This section of the Planning Study:

- describes the existing transport infrastructure in the study area;
- describes the policies that apply to transport infrastructure at the state and local levels;
- identifies the most important road and transport issues that face the study area; and
- provides direction for future investigations and initiatives in the context of the recommendations for the six -sub-areas in Part D of this Study.

Utility infrastructure is also essential for modern urban development. The Planning Study considers the future need for utility infrastructure in the study area, commensurate with the type of development anticipated in the six sub sub-areas described in Part D of the Planning Study. This section of the Planning Study:

- identifies the policy context for utility infrastructure;
- broadly describes the existing level of utility infrastructure provision;
- identifies key issues for each utility; and
- identifies planning principles and recommended actions.

Reference should also be made to Figure 47, which shows the existing transport and utility infrastructure network.

Existing infrastructure

Road network

The study area is serviced by two main roads that flank its eastern, northern and western boundaries: Bacchus Marsh-Geelong Road (Parwan Road) and Bacchus Marsh Balliang Road.

Bacchus Marsh-Geelong Road is an arterial road managed by Department of Transport that carries an estimated 2,500 vehicles in each direction per day between Woolpack Road and Parwan-Exford Road, including 250 commercial vehicles (VicRoads, 2017). Bacchus Marsh-Balliang Road is a collector road that is managed by Council.

Within the study area itself, the road network comprises a series of north-south and east-west local roads that are aligned in a consistent pattern. There are also two unused road reserves; one at the southern extension of Gullines Road to Parwan Creek and one in Sub-area 6 off Parwan Road. East Maddingley Road and Cummings Road are the only local roads that are sealed with bitumen along the full length. Local roads that are partly sealed with bitumen include:

- the western part of Rowsley Station Road;
- the northern part of Osborne Street;
- the western part of Kerrs Road; and
- the northern part of South Maddingley Road extending south to Bacchus Marsh Grammar School.

Apart from concrete footpaths in the northern part of South Maddingley Road to Bacchus Marsh Grammar, there are no formal footpaths or walking and cycling trails in the study area, however, Bacchus Marsh-Balliang Road is a popular recreational on-road cycling route.

Photograph 12 Fisken Street at the intersection of Bacchus Marsh-Geelong Road showing load limit sign

Existing infrastructure

Public transport network

There are currently no public transport services that service the study area, which reflects the study area's location to the south of the Bacchus Marsh urban area. Nevertheless, the study area has good access to Bacchus Marsh Railway Station which is located only 200 metres to the north of the study area at its closest point. From Bacchus Marsh Railway Station, there are regular services to Melbourne, Ballarat, Melton and Ballan on the Melbourne-Ballarat railway line, which is shown in Photograph 13, opposite.

The Melbourne to Ballarat railway line has recently been the subject of major investments by the State Government to increase capacity and reliability. The line has been duplicated and a southern platform has been constructed at Bacchus Marsh Railway Station to accommodate additional patronage.

The State Government has recently constructed a new stabling yard including train tracks and a shed between Kerrs Road and Rowsley Station Road as part of the 'Rowsley Crossing Loop Project'. These new works have provided more opportunities for trains to pass, increasing reliability on the line.

The closest public bus services to the study area are:

- bus route 433, that connects the Hillview Estate (Maddingley) to the north west of the study area with central Bacchus Marsh;
- bus route 434 that connects Bacchus Marsh Station with Tellford Park, Darley via the Bacchus Marsh Town Centre and Underbank Boulevard; and
- bus route 435 that connects Bacchus Marsh Station with Darley via the Bacchus Marsh Town Centre.

Photograph 13 Melbourne-Ballarat railway line at Albys Lane (Sub-area 3)

Existing infrastructure

Road and rail freight networks

The study area is located within close proximity to two major items of infrastructure that form part of the principal freight network in Victoria: the Melbourne-Ballarat railway line and the Western Freeway. The Principal freight network in Victoria is shown visually in Figure 46, opposite.

The State Government's plan for the future of freight in Victoria is outlined in *Delivering the Goods – Victorian Freight Plan* (State of Victoria, 2018, 10-11). The Plan has four key priorities that are focused on protecting and better managing the principal freight network, with a particular focus on better using rail freight assets and planning that anticipates the use of larger, heavier road vehicles in the future.

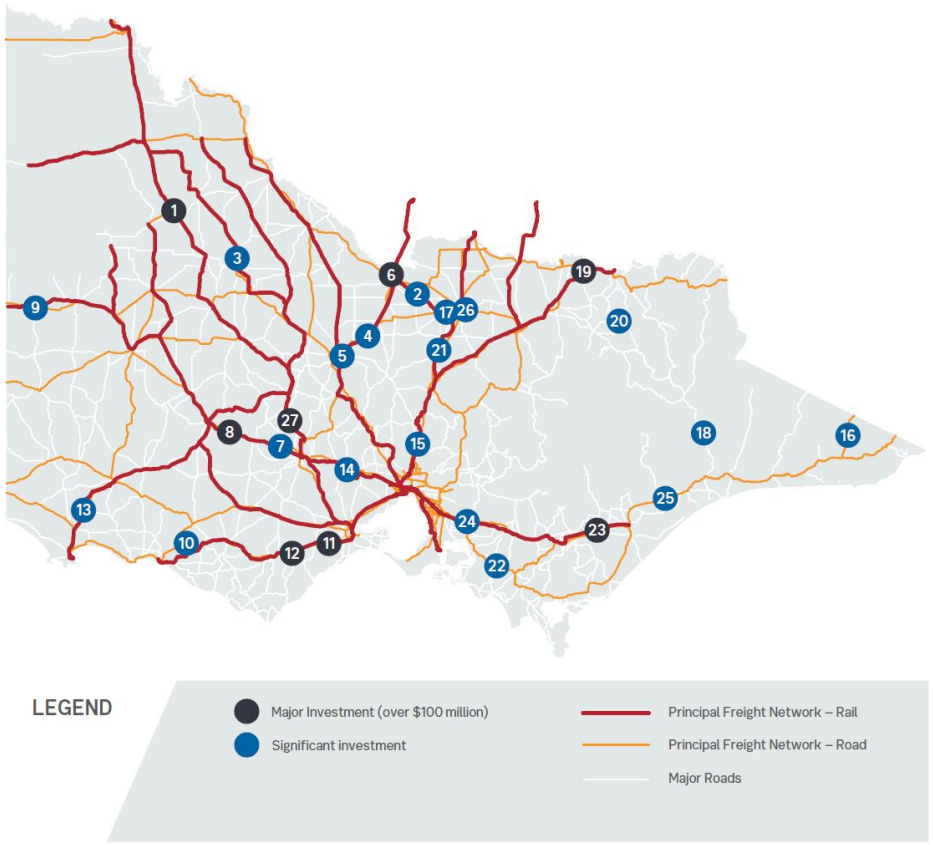
The Plan does not identify any specific infrastructure projects that are relevant to the study area but notes that new freight terminals and precincts should be supported in regional areas (State of Victoria, 2018, 31).

Bacchus Marsh Aerodrome

The Bacchus Marsh Aerodrome is located to the south of Parwan Creek, adjacent to the study area. It has two runways and is owned by the Shire of Moorabool, but is operated by Bacchus Marsh Aerodrome Management Inc. The Aerodrome has a strong focus on gliding and is the largest gliding centre in Australia. Several gliding clubs and a pilot training school are based at the Aerodrome.

The Aerodrome is strategically located near Geelong and the Melbourne Metropolitan area, which presents opportunities for the further development of recreational and gliding activities as well as pilot training and associated uses.

Figure 46 Principal freight network from Delivering the Goods - Victorian Freight Plan (2018)



Source: State of Victoria, 2018, 11. The study area is located at the number 14.

Existing infrastructure

Gas

The Brooklyn-Ballan high pressure gas pipeline traverses the southern part of the study area, including Sub-areas 2 (South west) and 3 (West). The JBD Industrial Estate has a pipeline from this main, which is used solely by Calix. There are no other gas services in the study area.

Electricity

Overhead powerlines are located along most of the road reserves in the study area, with the exception of Gullines Road, Fisken Street and the northern part of Osborne Street. An electricity substation is located on the corner of Kerrs Road and Bacchus Marsh-Balliang Road just outside the study area.

Telecommunications

The NBN is available to all parts of the study area.

Reticulated water

Reticulated water is available to the land that is located generally north of Kerrs Road, along Bacchus Marsh-Geelong Road and at the JBD Industrial Estate.

Reticulated sewerage

The study area is not serviced with reticulated sewerage. Wastewater at the JBD Industrial Estate is treated by two on-site wastewater systems.

The closest sewer main to the study area is located in the Rutherford Court industrial estate that abuts the study area to the north west. An existing sewer main is also located in Gaynor Street, to the north of Bacchus Marsh Grammar.

Drainage

Approximately half of the study area falls to the south and south east to Parwan Creek. The other half of the study area falls to the north and north west to Maddingley Park Drain and an un-named waterway, and ultimately to the Werribee River. Water flows overland in the study area and there is no formal drainage infrastructure to convey flows.

Melbourne Water is the authority responsible for managing the Parwan Creek and other waterways/drains downstream of the 60 hectare catchment limit. Council is generally responsible for local drainage infrastructure with a catchment of less than 60 hectares.

Maddingley Planning Study

PENTLAND HILLS
MADDINGLEY
ROWSLEY
PARWAN
Bacchus Marsh Aerodrome
WERRIBEE RIVER
DOG TRAP GULLY
MADDINGLEY PARK DRAIN
UNNAMED WATERWAY
PARWAN CREEK
MELBOURNE-BALLARAT LINE
Brooklyn - Ballan
Werribee Vale Rd
Mccormacks Rd
Ironbark Rd
Dog Trap Gully Rd
Cosgrove Dr
Stonehill Dr
Bacchus St
Barry St
Moore St
Inglis St
Powlett St
Mccrae St
Labilliere St
Griffith St
Grant St
Hilliside St
Smith St
Leahy St
Darcy St
Tilley Dr
Osborne St
South Maddingley Rd
East Maddingley Rd
Gaynor St
Parwan Rd
Station St
Park St
Taverner St
Fisken St
Finn Ct
Vallence Rd
Tilleys Rd
Kerrs Rd
Bacchus Marsh Rd
Woolpack Rd
Browns Lane
School Lane
Parwan - Exford Rd
Balliang Rd
Gullines Rd
Rowsley Station Rd
Paces Lane
Albys Lane
Smiths Rd
Skylark Way
Daisybank Lane
Aerodrome Rd
Cummings Rd
Geelong - Bacchus Marsh Rd
Jensz Rd

LEGEND

- Study Area
- Property Boundaries
- Railway Line
- Railway Station
- Aerodrome
- Water body
- Waterway

Roads

- Local Road (Sealed)
- Proposed Road
- Minor Road
- Arterial Road

Utilities

- Power Line
- Electricity Substation
- Water Mains
- Sewer Mains
- High Pressure Gas Pipeline

0 250 500 750 1,000 m

GIS maps produced by BlueSphere ENVIRONMENTAL

Data Sources

Utilities Layers: Provided by Moorabool Shire Council on 01/02/2019.

Basemap Layers and Roads: Vicmap data, 2019. The State of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the State of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

FIGURE 47

EXISTING TRANSPORT AND INFRASTRUCTURE

PLANNING STUDY

Prepared for **Moorabool Shire Council**

Prepared by centrum TOWN PLANNING

File: O:\6_GIS\Projects\30805_Centrum_Maddingley WRRH Planning GIS Stage 2\01\Maps\DRAFT\Fig47_Existing_Transport_and_Infrastructure.qgs

Date: 18/09/2025

Revision: FINAL Rev14

Policy context

Transport

The importance of integrated and sustainable transport for local communities and the economy is outlined in Clause 18 of the PPF. Key policy principles set out in the clause include the need for the transport system to be reliable, safe, sustainable, and integrated with land use planning.

As most of the new use and development activity envisaged for the study area will be non-residential, the policies relating to freight movements are of particular importance to the study area. For example, Clause 18.01-2S states that uses that generate freight should be designed to minimise impacts on other urban development and transport networks. Clause 18.05-1S aims to develop freight routes by linking areas of production and manufacturing to export markets.

At the local level, the MPS contains a number of strategic directions that relate to integrated transport at Clause 02.03-8. These strategic directions seek to:

- "Facilitate a high quality, sustainable and connected transport network within Moorabool Shire including roads, rail and air".
- "Facilitate an integrated public transport network with improved coverage, accessibility and capacity".
- "Develop a north-south Eastern Link Road to the east of Bacchus Marsh, including connections to Gisborne Road, Western Freeway and Geelong-Bacchus Marsh Road".
- "Limit freight traffic movement through Bacchus Marsh".
- "Strengthen the potential for Bacchus Marsh district road networks to manage local traffic movements."
- "Facilitate active commuting by pedestrians and cyclists".
- "Better utilise the Bacchus Marsh Aerodrome".

Bacchus Marsh Integrated Transport Strategy (2015)

This document provides a strategic plan for the Bacchus Marsh transport network, however, it was prepared prior to the Bacchus Marsh UGF. The document is a Background Document in the Schedule to Clause 72.08 of the Moorabool Planning Scheme and provides background information that supports transport related strategic directions at Clause 02.03-8.

The document identifies the need to work with VicRoads to upgrade Grant Street as a short-term priority and deliver an eastern bypass road to facilitate freight movements between the Western Freeway and Geelong-Bacchus Marsh Road as a long-term priority (Moorabool Shire Council, 2015, 40-43).

Utility infrastructure

The policy context for utilities is found in Clause 19 (Infrastructure) of the Planning Scheme. The clause contains objectives and strategies to:

- facilitate appropriate development of energy supply infrastructure;
- promote the provision of renewable energy;
- ensure the safe delivery of gas and oil through pipeline infrastructure;
- ensure that infrastructure is provided and designed in a timely, efficient and integrated way;
- ensure that water supply and wastewater are provided and managed in an integrated way.

Key issues – transport infrastructure

Arterial roads

Arterial roads are crucial for connecting towns and cities, and for the movement of goods and services. In Victoria, they are managed by the Department of Transport.

The arterial road that is of most significance to the study area is Geelong-Bacchus Marsh Road, which directly abuts Sub-areas 1 and 6. According to Department of Transport, Geelong-Bacchus Marsh Road is an important freight route between Geelong and Bacchus Marsh, serving as a key road for agricultural industries. The road is also important for commuters, connecting the towns of Lara, Bacchus Marsh and the city of Geelong. Geelong-Bacchus Marsh Road has been identified as one of Victoria's high-risk rural roads, with six fatalities and 32 serious injuries occurring between 2010 and 2017.

The Department of Transport has recently undertaken improvements to Geelong-Bacchus Marsh Road. These include safety improvements, comprising wire rope barriers and rumble strips. Roundabouts have also recently been constructed on Bacchus Marsh-Geelong Road at the intersections of Parwan-Exford Road and Nerowie Road, to the east of the study area.

The Department of Transport has advised that there is potential for the duplication of the Geelong-Bacchus Marsh Road over the long-term, subject to environmental impact and native vegetation assessments and other considerations. Subject to the type and rate of development, there is potential for developers to pay for upgrades to the road.

Key issues – transport infrastructure

Eastern Link Road

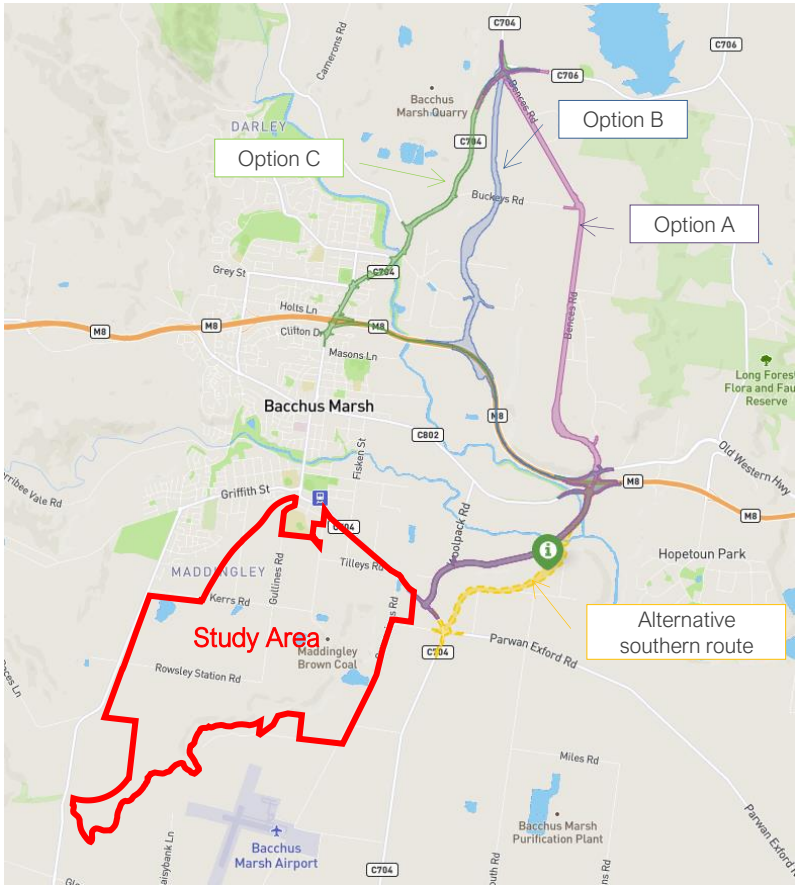
All of the recent strategic planning and transport studies undertaken for the area recognise the major importance of a future 'Eastern Link Road' in opening up the Parwan Employment Precinct and Parwan Station Precinct to the east of the study area.

This road would assist at the local level in providing an important north-south connection to bypass Bacchus Marsh town centre by joining the Western Freeway and Gisborne Road to the north. It would also provide much improved inter-regional links to northern Victoria and Geelong. The road has the potential to make the land in the study area more attractive for a range of uses, particularly for uses that rely heavily on road transport. The intention of the bypass is to reduce congestion and improve safety and amenity in the town.

Regional Roads Victoria has prepared an Eastern Link Road Planning Study. The project has shortlisted three route options between Gisborne Road and Geelong-Bacchus Marsh Road, with Option B the preferred option at February 2025. All three options are shown in Figure 48.

There is currently no funding commitment for the construction of the road, which could be split into two projects, to the north and south of the Western Freeway. According to the Bacchus Marsh Urban Growth Framework, the project is likely to be constructed in stages, and could rely on developer contributions from new residential growth precincts (VPA, 2018, 56).

Figure 48. Eastern Link Road study area shortlisted options map



Source: https://transport.mysocialpinpoint.com/bacchus-marsh-eastern-link-phase-two-map#//, with labels by Centrum Town Planning, 2021.

Key issues – transport infrastructure

Local roads

Good local road access that accommodates heavy vehicles in all weather conditions is important for urban land uses and many forms of rural land use. The local roads in the study area are, however, currently constructed to a rural standard that is not suitable for increased traffic volumes associated with new use and development activity. Whilst the study area itself has experienced little new development activity in recent times, the Bacchus Marsh urban area is growing quickly, and issues are emerging with some roads that connect closely with the study area. For example, as part of the consultation undertaken for the Background Report, Council has identified issues relating to two intersections in the study area that require attention in the short term:

- the Tilleys Road / Geelong-Bacchus Marsh Road intersection, which requires major improvement work (refer to Photograph 14, opposite); and
- the South Maddingley Road/Parwan Road intersection, which is a choke point due to the location of the rail crossing.

Landowners in the study area are also aware of issues associated with the condition of local roads, particularly in relation to the unsealed state of the roads and dust. In response to these issues, a number of the landowners who prepared submissions to the Background Report expressed the firm view that industry should directly contribute to road construction and maintenance.

A key challenge for the Planning Study is that costs associated with road upgrades will fall on new developments and could act as a major disincentive for future land use change in the study area. This is a particular issue for Sub-areas 4, 5 and 6, where some new forms of urban development are envisaged as part of the Planning Study.

The development of these sub-areas will rely to a significant degree on South Maddingley Road and Osborne Street, which are largely unsealed, and East Maddingley Road, which is sealed but would need to be upgraded to accommodate increased development activity. Other local roads may need to be constructed and sealed to facilitate urban development, including Kerrs Road, Tilleys Road and Fisken Street.

The condition of local roads is also likely to become an issue if applications emerge for major new developments in Sub-area 3 that use coal, or which rely on the direct provision of materials from the Maddingley WRR Hub in the east. If this occurs, it is likely that any such development will place a greater reliance on unmade roads such as Rowsley Station Road, Kerrs Road and Gullines Road.

In the short term, Rowsley Station Road is likely to be the preferred route for increased east-west movements due to the fact that the western section of the road is already constructed, and it does not pass through any areas with existing dwellings.

Photograph 14 Intersection of Tilleys Road and Bacchus Marsh-Geelong Road

Key issues – transport infrastructure

Rail transport

Rail transport has the potential to provide an efficient and effective way of transporting bulk materials, if it is located in a convenient and cost-effective location for industries that are receiving or supplying goods. These benefits have been acknowledged by the companies that are investigating the potential for the production of urea and other fertiliser products in the study area. The companies have indicated that rail access is important to their proposals, both for access to Victoria's agricultural areas and also to the Port of Geelong.

There is a large undeveloped rail siding on the south side of Rowsley Station Road that may have the potential to assist in the development of a rail transport hub to transport products to and from the study area. The location if this siding is shown in Figure 49. Confirmation from VicTrack is required to determine whether this opportunity exists.

There are also a number of rail crossings on the Melbourne-Ballarat railway line that may need to be upgraded to facilitate major traffic-generating use or development in the study area, namely at Kerrs Road, Rowsley Station Road and Osborne Street. These crossings currently have warning systems in place; however, they are generally on unsealed roads and would require improvement.

Integrated Transport Management Plan

In order to address issues relating to local roads and the road network more broadly, an Integrated Transport Management Plan should be prepared prior to consideration of any future proposal for rezoning or development of land with traffic-generating potential. The Plan would provide a strategic approach to transport in the study area that responds to potential future urban development in Sub-areas 3, 4, 5 and 6. The Plan would make recommendations relating to transport infrastructure improvements, development contributions and trigger points for implementation.

As part of the consultation that was undertaken for the Background Report, Department of Transport expressed support for the preparation of an Integrated Transport Management Plan, which would provide a strategic approach to assessing the future role and function of Geelong-Bacchus Marsh Road and other arterial road connections that may be affected by future development in the study area. Depending on timing, this work could form part of a review of the Bacchus Marsh Integrated Transport Strategy (2015).

Key issues – transport infrastructure

Summary of key issues

Key issue 1	Most of the roads in the study area are currently of a rural standard and are therefore not suitable for urban or other forms of intensive use or development.
Key issue 2	Lack of a strategic transport plan for the area to guide planning and funding initiatives by Council, including negotiations with developers about infrastructure upgrades.
Key issue 3	Formal planning for development contributions is difficult in the study area due to uncertainties about the location, form and timeframe of new development in the study area.
Key issue 4	High likelihood that future local road upgrades will need to be funded by private development on an as-needs basis.
Key issue 5	Eastern Link Road is likely to offer significant benefits to the study area and attract new uses but is a long-term project for which funding is uncertain and timeframes are unclear.
Key issue 6	Intersections at South Maddingley Road/Parwan Road and Tilleys Road and Geelong-Bacchus Marsh Road require immediate improvement; however, no funding currently exists for design or construction.
Key issue 7	Likely need to upgrade rural-standard rail crossings in the study area to facilitate any major traffic-generating use or development.

Key issues – utility infrastructure

Gas

APA Group (APA) is the owner and operator of the Brooklyn-Ballan high pressure gas pipeline. As part of the consultation phase for the Background Report, they provided a range of advice on safety, access and risk matters relating to the pipeline. The main element of the advice from a land use perspective is that there are various uses that should not be located 210 metres either side of this pipeline, including sensitive uses, retail premises and uses that are difficult to evacuate in an emergency including hospitals, aged care facilities and prisons. It is noted that many of these uses will not be possible in Sub-area 2 under the provisions of the proposed Rural Activity Zone that is recommended by the Planning Study.

The future development of the land to the south of Rowsley Station Road in Sub-area 3 may, however, be affected by the pipeline as it is recommended that this land remain in the Industrial 1 Zone and has the potential for future development and subdivision. APA has advised that a 20 metre wide easement will be required to protect the pipeline using the following guidelines:

- structures and vegetation should not exist on the easement;
- roads should ideally not be located over the easement other than perpendicular crossings;
- easements should be included in open space, if possible;
- the easement should not be located in the rear of industrial lots.

These guidelines will therefore affect the future form and layout of any future development in Sub-areas 2 and 3.

Photograph 15 Brooklyn-Ballan gas pipeline at Rowsley Station Road

Telecommunications

These services are connected by individual businesses, and developers when land is subdivided. The Planning Study has not identified the need to provide any specific direction for these uses (www.nbnco.com.au).

Key issues – utility infrastructure

Electricity

No information was made available to the Planning Study about the capacity of the electricity network to provide for future development in the study area, however, it is understood that the capacity of existing sub-station infrastructure is limited. This is likely to act as a constraint on all forms of urban development, particularly for Sub-areas 3, 4, 5 and 6, where additional development activity is foreshadowed through the Planning Study. It may also act as a constraint on the development of waste-to-energy or renewable energy initiatives in the study area, which rely on appropriate grid-based infrastructure to be economically viable.

These issues suggest that some strategic investigations into electricity supply would be beneficial. The investigations should identify any land requirements that may be needed for additional infrastructure and identify any grants or other types of funding that may be available. Developers will be required to fund any necessary infrastructure upgrades.

Reticulated water

Whilst there are reticulated water services within the study area, these provide limited capacity and would not be sufficient for any additional demand. Greater Western Water has not forecast any additional demand for water, in the short term, in the study area. There are several issues with servicing this area, including:

- The closest water tank that could support future development in the area is located on McCormacks Road.
- Water supply to the area comes from the north and runs through Bacchus Marsh. If there is significant demand, then this infrastructure may need to be upgraded.

Greater Western Water has advised that the Bacchus Marsh Recycled Water Plant produces Class C recycled water, and this water may be available for irrigation uses in the study area. This may be particularly beneficial for Sub-area 2, much of which is proposed to remain Farming Zone and has the greatest potential for new horticultural development, including hydroponics.

Prior to any future rezoning of land to facilitate urban development, a water supply servicing strategy would need to be prepared by, or in consultation with, Greater Western Water. Due to the limited availability of potable water, there may be scope for a recycled water scheme if there is enough demand. As such, the strategy would need to consider demand for recycled water (both Class A and C) as well as potable water.

Reticulated sewerage

There are currently no sewer assets within the study area. The services just outside the study area will not support further development within the study area. Significant augmentation would be required to support future development.

Greater Western Water has identified a range of upgrades that would be necessary to facilitate new industrial development in the study area. These include a new sewer pump station for new industries in the JBD Industrial Estate and increased pipe capacity for the limited sewer infrastructure to the west of the Railway Line.

Greater Western Water has also advised that a large new pressure sewer would be needed to support major industry and have indicated that this should be planned for in conjunction with the development of the Parwan Employment Precinct.

Key issues – utility infrastructure

The consultation undertaken for the Background Report revealed that costs associated with providing reticulated sewerage have been a barrier to development in Sub-area 3 (West) in the past. This suggests that some level of coordination between landowners in Sub-area 3 (West) would be beneficial to achieve an equitable and shared funding outcome. A coordinated approach is also likely to be beneficial for Sub-areas 4 (North west), 5 (North) and 6 (North east), as urban development is anticipated for these areas.

Prior to any future rezoning of land to facilitate urban development, a sewer servicing strategy would need to be prepared by, or in consultation with, Greater Western Water.

Drainage

Melbourne Water is yet to commence investigation of a drainage scheme or strategy to service the study area. This type of scheme or strategy would include conceptual design works for overland flow paths, pipelines and retarding basins. The development of a drainage scheme will ensure that planning for future development occurs on a catchment basis and meets appropriate standards for flood protection and environmental performance.

Key issues – utility infrastructure

Summary of key issues

Key issue 1	Lack of stormwater drainage infrastructure in the study area and lack of drainage scheme or strategy for the area.
Key issue 2	Very limited reticulated water services in the study area.
Key issue 3	Lack of reticulated sewerage services in the study area.
Key issue 4	Existing industrial development in the study area is not serviced with reticulated sewerage and an upgrade of the existing pump station is required.
Key issue 5	Existing electrical sub-station that services the area has limited capacity and an upgrade is needed to service major new uses or developments.
Key issue 6	Evidence that the high cost of utility infrastructure and lack of infrastructure planning has been a significant barrier to urban development in the study area in the past.
Key issue 7	Need for detailed strategic utility planning to facilitate urban development in Sub-area 3 (West), Sub-area 4 (North west), Sub-area 5 (North) and Sub-area 6 (North east), which will require major upgrades to drainage, sewerage and electricity.
Key issue 8	Presence of the Brooklyn-Ballan high pressure gas pipeline restricts land use and development along its route; however, this is currently not recognised through Planning Scheme maps or controls.

Development contributions

New road and utility infrastructure that is needed for developing urban areas in Victoria can be funded through contributions from developers, as long as the contribution is proportionate and there is a nexus between the development and the infrastructure. Development contributions can take the form of payments or works-in-kind contributions.

In areas such as the study area, there are three ways that that development contributions can be collected under the *Planning and Environment Act 1987*:

- planning permit conditions;
- voluntary agreements under Section 173 of the P&E Act;
- development contributions plans.

Generally, the use of development contributions plans is only appropriate when significant change is expected and planned for over a short to medium term timeframe. At this point in time, there is too much uncertainty about the location, form and timeframe of new development in the study area to utilise this form of infrastructure funding. It is therefore likely to be more efficient and effective to negotiate infrastructure upgrades on a project basis until clear development patterns emerge.

Notwithstanding the fact that development contributions plans are unlikely to be suitable for the area for many years, Council should capture the opportunity to use the preparation of an Integrated Transport Management Plan to calculate the future land requirements and costs associated with the upgrades to the existing road network, if reasonable assumptions can be developed to guide this work.

The Department of Transport has advised that the development of the Eastern Link Road may also require development contributions in the form of land contributions and developer contributions from new residential growth precincts. The large size of the project and the extensive potential benefits it offers to different growth areas in Bacchus Marsh, including the study area, suggests that development contributions for this project could potentially be considered during the preparation of a comprehensive Integrated Transport Management Plan, if a sufficient level of preliminary design work and traffic modelling has been undertaken.

Recommendations

Recommended planning principles

Principle TUI1	Improve the condition of local roads in the study area, with an emphasis on key intersection works as short-term priorities.
Principle TUI2	Plan strategically for the development of the road and rail transport network in the study area, taking into account the development of nearby growth areas.
Principle TUI3	Improve the provision of utility infrastructure to the study area to facilitate investment opportunities and urban development in identified areas.
Principle TUI4	Encourage the planning of utility infrastructure in a strategic and coordinated way to maximise efficiencies and long-term benefits, in consultation with landowners, authorities and agencies.
Principle TUI5	Support upgrades to electricity infrastructure to facilitate new investment including waste-to-energy and renewable energy proposals.
Principle TUI6	Improve the provision of reticulated water and sewerage infrastructure to service existing and future development in the study area, in conjunction with planning for the Parwan Station growth precinct and the Parwan Employment Precinct.
Principle TUI7	Encourage the use of recycled water in new horticultural developments in the study area.
Principle TUI8	Retard stormwater flows from new development in the area.
Principle TUI9	Use the Planning Scheme to identify and protect major items of utility infrastructure, if possible, including the protection of the Brooklyn-Ballan high pressure gas pipeline from the encroachment of sensitive uses and works.
Principle TUI10	Fund future road infrastructure improvements through developer contributions for large scale projects, where there is a nexus.

Recommendations

Recommended actions

Action TUI1	Prepare a comprehensive 'Integrated Transport Management Plan' for the study area, in consultation with Department of Transport and VicTrack, prior to preparing a planning scheme amendment to rezone land for urban purposes. The Integrated Transport Management Plan should include recommendations for road and intersection upgrades, together with trigger points and estimated costs for such works. The Integrated Transport Management Plan should also consider: • how to improve the internal road network in the study area most appropriately, including staging, construction standards and access management; • the future of the rail siding to the south of Rowsley Station Road and how this might service new industrial development; • potential upgrades to railway crossings at Osborne Street, Kerrs Road and Rowsley Station Road; • the impact of the future Eastern Link Road on the use and development of the area; • how infrastructure will be funded by developers.
Action TUI2	Require development contributions for road and intersection upgrades on a project basis for the study area through permit conditions and/or Section 173 Agreements, as appropriate.
Action TUI3	Prepare an Infrastructure Servicing Plan prior to preparing a planning scheme amendment to rezone land for urban purposes.
Action TUI4	Require a Safety Management Study to be prepared for any major land use or development in the study area that is located within 210 metres either side of the Brooklyn-Ballan high pressure gas pipeline, to the satisfaction of APA Group, prior to approval.
Action TUI5	Engage with APA Group and DTP to investigate the potential to apply a Design and Development Overlay (DDO) or Buffer Areas Overlay (BAO) to land within 210 metres of the Brooklyn-Ballan high pressure gas pipeline, supported by local policy in Clause 19 of the PPF, if appropriate.
Action TUI6	Initiate discussions with Powercor to identify any future land requirements for sub-stations and potential funding opportunities to facilitate urban development in Sub-areas 3 (West), 4 (North west), 5 (North) and 6 (North east).

Recommendations

Action TUI7	Initiate discussions with Greater Western Water to: • plan for a new sewer pump station to service new industries on existing industrial zoned land to the west of the railway line in Sub-area 3; • plan for increased pipe capacity for the limited sewer infrastructure to the west of the railway line, including the potential for shared funding outcomes; • prepare strategies for the provision of reticulated water supply and sewerage infrastructure to Sub-areas 2 (South west), 4 (North west), 5 (North) and 6 (North east). • consider the provision of Class A and C recycled water, to augment potable water services in the study area.
Action TUI8	Engage with Melbourne Water to seek the preparation of a drainage scheme in consultation with Council to provide: • a catchment-based drainage strategy; • the functional designs of the relevant infrastructure required to service urban growth; and • detail on how financial contributions will be paid by developers.
Action TUI9	Consider the preparation of a local drainage strategy to: • identify Council drainage infrastructure requirements for the various sub-areas, as appropriate; and • detail how financial contributions will be paid by developers.
Action TUI10	Require development contributions for upgraded drainage and other infrastructure on a project basis for the study area through permit conditions and/or Section 173 Agreements, as appropriate.

Maddingley Planning Study

Utilities (Sub-areas 2, 4, 5 and 6)

- Need to upgrade existing electrical sub-station to cater for major new uses or development activity
- Consider the preparation of a drainage strategy to identify Council drainage infrastructure requirements
- Plan for the provision of reticulated water supply and sewerage infrastructure.

Utilities (Sub-area 3)

- Initiate discussions with relevant agencies to plan for new sewer pump station to service new industries
- Need to upgrade existing electrical sub-station to cater for major new uses or development activity

Investigate future role of existing rail siding

Eastern Link Road

Provide strategic input to the development of the Eastern Link Road and upgrades to Geelong- Bacchus Marsh Road to facilitate urban development and investments in the study area.

Integrated Transport Management Plan

Prepare a comprehensive Integrated Transport Management Plan that considers:

- Priority road and intersection upgrades
- The impact of the future Eastern Link Road on the use and development of the area
- Potential upgrades to railway crossings
- Preferred internal road network
- Development contributions

Brooklyn-Ballan Gas Pipeline

- Manage land uses 210 metres either side of pipeline and investigate potential overlay controls in Planning Scheme
- Plan for the layout of new development to satisfy easement requirements

Development contributions (all sub-areas)
Require development contributions for upgraded road, drainage and other infrastructure on a project basis for the study area through permit conditions and/or Section 173 Agreements, as appropriate.

Utilities (Sub-area 2)

- Initiate discussions with Western Water for the provision of Class C Water to land south of Rowsley Station Road to facilitate horticultural development.

Drainage (all sub-areas)
Engage with Melbourne Water to seek the preparation of a Drainage Scheme in consultation with Council.

LEGEND

- Study Area
- Sub-area Boundaries
- Property Boundaries
- Parcel Boundaries
- Railway Line
- Major Roads
- Local Roads
- Minor Roads
- Waterway
- High Pressure Gas Pipeline
- High Pressure Gas Pipeline Buffer (210m)
- Electricity Substation
- Potential road and intersection improvement projects subject to recommendations from future integrated transport management plan
- Potential upgrades to railway crossings
- Priority road intersection upgrades

Eastern Link Road

- Eastern Link Road - Route Option A, B & C
- Eastern Link Road - Alternative Southern Route

Note:
Arrow locations show conceptual areas only.
Areas of 'high' and 'moderate' environmental values based on the findings of Practical Ecology, 2016, refer to pages 46 and 55.

0 250 500 750 1,000 m

GIS maps produced by BlueSphere ENVIRONMENTAL

Data Sources

Aerial imagery: Nearmap Ltd, photograph dated 02/05/2025.
Utilities Layers: Provided by Moorabool Shire Council on 01/02/2019.

FIGURE 49

TRANSPORT AND INFRASTRUCTURE STRATEGIC DIRECTIONS

PLANNING STUDY

Prepared for **Moorabool Shire Council**

Prepared by centrum TOWN PLANNING

File: O:\6_GIS\Projects\30805_Centrum_Maddingley WRRH Planning GIS Stage 2\01\Maps\DRAFT\Fig49_Trans_Infra strategic directions.qgs.qgz

Date: 18/09/2025 Revision: FINAL Rev14

Part F | Coal Mining

Overview

What does coal mean for the Planning Study?

Brown coal lies beneath much of the study area and coal mining is connected with the historical development of the Bacchus Marsh area. Since coal mining began in the 1920s, the extraction of the resource has changed the appearance and form of the landscape in the study area through the creation of deep coal pits. An example, the Star Dam, is shown in Photograph 16, opposite.

More broadly, the presence of coal has shaped the physical extent of the Bacchus Marsh urban area in a variety of ways. It has historically acted as a constraint to the expansion of the urban area, as revealed by a number of controversial and complex planning processes that sought to allow residential development in the northern part of the study area from the 1970s to the 1990s.

The brown coal in the study area was historically used for energy production but has particular qualities that now make it most suitable and valuable as a soil conditioner, and for production of fertiliser products. The coal resource continues to be of commercial interest to various companies, but there are very different expectations about the role it should play in the future and what this might mean for the study area.

The community and local non-industrial landowners feel strongly that open cut coal mining is inappropriate for the study area given the close proximity of the Bacchus Marsh urban area, dwellings and schools and the environmental values of the area. Stakeholders that have commercial interests in coal, however, feel strongly that the resource should be protected and exploited.

Given the above range of views, the coal resource presents a very complex set of issues for the future strategic planning framework in the study area from a policy, process and community perspective. The relevant acts, regulations and other legislation such as planning schemes provide the framework for balancing these views.

Photograph 16 The Star Dam, a former coal pit, at the Maddingley WRR Hub.

This section of the Planning Study explores these issues in order to establish planning principles for coal mining in the study area that are consistent with the overall objectives for land use in the study area and the urban growth vision of the Bacchus Marsh UGF. These principles have, in turn, informed the sub-area directions in Part D of the Planning Study. They will assist Moorabool Shire in engaging with the community, mining companies and the State Government about a preferred position on coal mining for the future.

Importantly, the Planning Study recognises that coal mining will continue to occur at the Maddingley WRR Hub in accordance with current mining licence and work plan approvals.

Policy context

What is the State Government's position on coal?

The State Government's high level policy position on brown coal is set out in the *Statement on Future Uses of Brown Coal (2017).* This statement recognises the importance of brown coal to Victoria but acknowledges that the way in which it will be used in the future will be different from the way it has been used in the past, which has primarily been as a source of energy.

The statement recognises strong investor interest in using brown coal to make alternative high value, low emission products for domestic and international markets. It sets emissions standards for new brown coal projects and aims to encourage mining at, or adjacent to, existing mines (Victoria State Government, 2017, 2). This position is supported in state planning policy, which aims to protect and encourage the extraction of natural resources, but only in accordance with 'acceptable' environmental standards and appropriate buffers (Clause 14.03-1S).

The Central Highlands Regional Growth Plan aims to "maintain access to earth resources" and to maximise their benefits and minimise their impacts (State of Victoria, 2014, 27).

Where is the coal and what does the State Government say about it?

As part of the consultation for the Planning Study, DJPR has reiterated the importance of coal to Victoria and its potential for industry and jobs growth (DJPR letter to Moorabool Shire Council, 31/1/2020). It has not yet expressed a clear position on how much of the resource should be protected and how much could be 'foregone' for the purposes of the Planning Study. As such, it is useful to understand the findings of past reviews into coal resources in the study area as these have high level relevance to the Planning Study.

Policy context

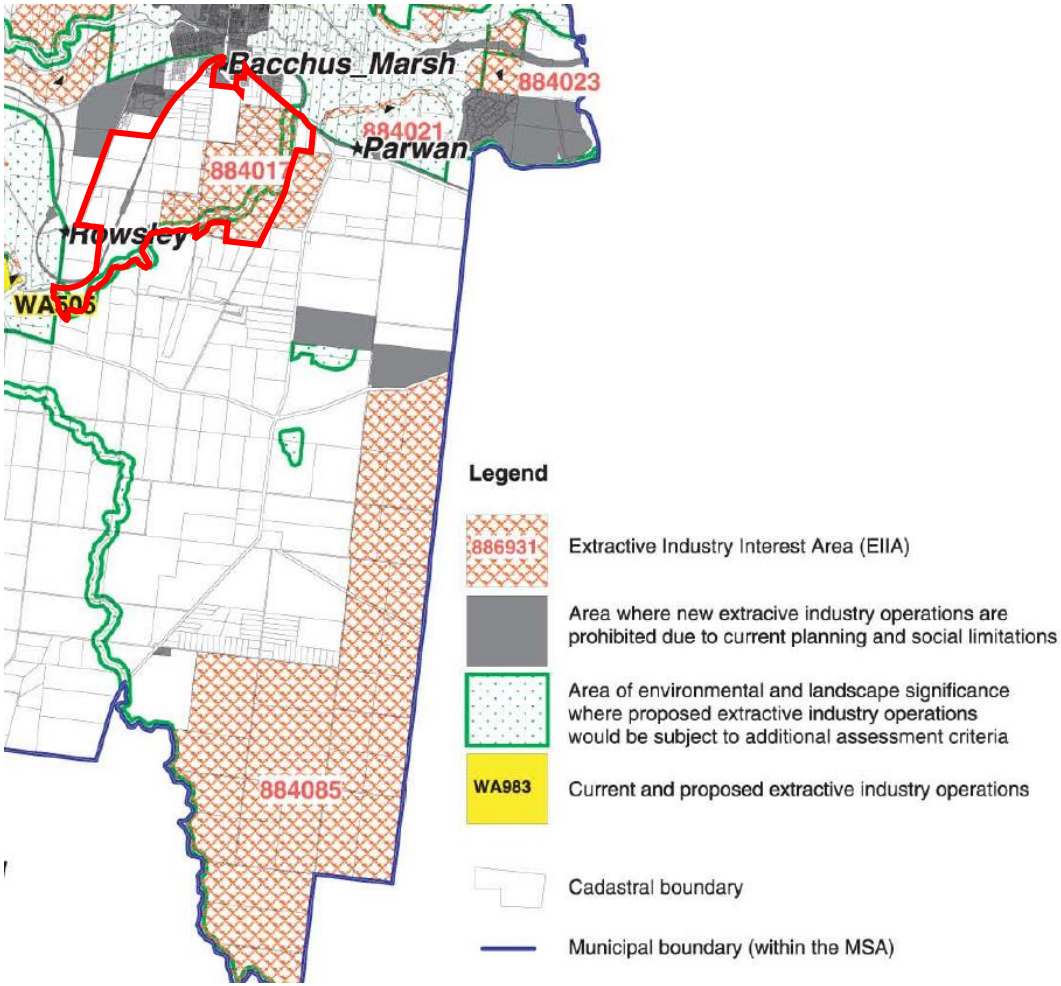
Melbourne Supply Area - Extractive Industry Interest Areas Review (2003/2)

The first review is the *Melbourne Supply Area - Extractive Industry Interest Areas Review ('Interest Areas Review', Department of Primary Industries, 2003).* This is a policy document in Clause 14.03-1S (Resource exploration and extraction) of the Planning Scheme. As a policy document, it must be considered in decision making under the Planning Scheme.

The Interest Areas Review identifies 'extractive industry interest areas' based on a set of criteria relating to size, capacity and environmental or landscape significance. The relevant extract from the Interest Areas Review is shown in Figure 50 on the following page. It shows 'extractive industry interest areas' within the area covered by Mining Licence MIN 4701 and adjoining areas to the south, west and east. No direction is provided for the land in the remainder of the study area, except for the Parwan Creek environs, which are identified as areas of 'environmental and landscape significance', where proposed extractive industry operations would be "subject to additional assessment criteria".

According to the explanatory information in the Interest Areas Review, the 'extractive industry interest areas' were identified based on some consideration of the relevant planning schemes, including the presence of urban land where extractive industries would be inappropriate or 'prohibited' (Department of Primary Industries, 2003, 16).

Figure 50 Extract from Figure 22, Melbourne Supply Area - Extractive Industry Interest Areas Review



Source: Department of Primary Industries, 2003, 77,

Policy context

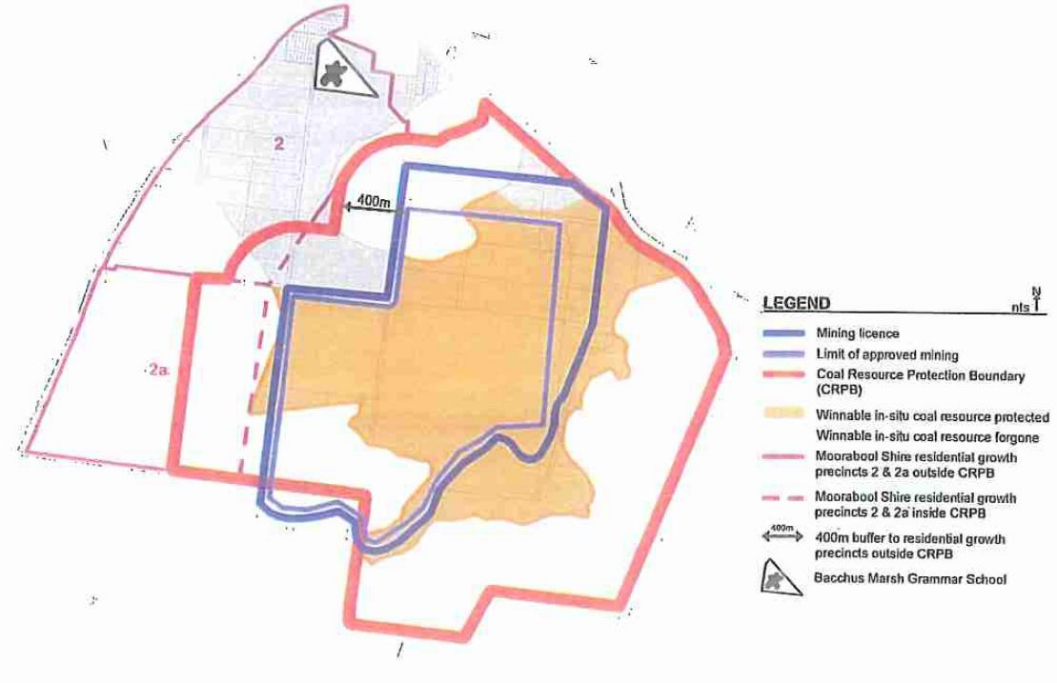
Maddingley Brown Coal Resource Strategic Review, 2006

The State Government has previously taken a position on the extent of coal with strategic value in the study area through the Maddingley Brown Coal Resource Strategic Review, 2006 ('the 2006 Strategic Review'). The 2006 Strategic Review was prepared in consultation with stakeholders, including relevant government departments, EPA and stakeholders.

The 2006 Strategic Review found that the coal resource is of strategic value and has potential to be used for a range of purposes, yet significant areas of the coal resource have potential for future urban development. The 2006 Strategic Review supported a scenario ('Scenario 2') that included a 'coal resource protection boundary' generally extending beyond the MBC mining licence (MIN 4701) boundary to protect approximately 103 million tonnes of coal, as shown in Figure 51.

This 2006 Strategic Review is understood to be the last detailed investigation of the Maddingley coal resource by the State Government but was not referenced in the Moorabool Planning Scheme in any way. The key drivers behind the 2006 Strategic Review, namely, the vision for residential development to the south of the Bacchus Marsh urban area, were revised as part of Council's settlement vision in the Bacchus Marsh UGF.

Figure 51 'Scenario 2'map from Maddingley Brown Coal Resource Strategic Review, 2006



Source: DSE, 2006,5

Policy context

What is the recommended separation distance for coal mining and what land does it affect?

Under EPA 1549, which is a policy document under Clause 13.07-1S (Land use compatibility) of the Moorabool Planning Scheme, the recommended separation distance between coal mining and sensitive uses is 2,000 metres.

There are 2,406 properties within 2,000 metres of the boundary of Mining Licence MIN4701, as shown in Figure 12 in Part C. This includes:

- 1,904 properties in 'sensitive zones' outside the study area, as explained in Table 1; and
- Bacchus Marsh Grammar's campus, which is located 350-900 metres from the boundary of the Mining Licence, or 200 metres if measured to the vehicle entrance on South Maddingley Road.

Can the recommended separation distance be reduced?

If a lesser separation distance than 2,000 metres was proposed for any new mining proposal, the proponent would need to provide evidence to demonstrate that such distance is appropriate. In practice, the appropriate separation distance is likely to depend on many factors, including bunding, the types of machines and processes used and the size and scale of the operation.

From an assessment perspective, the planning framework for determining the extent of buffer areas between extractive activities and sensitive land uses is set out in Clause 14.03-1S of the Planning Scheme. The key policy tests in this clause that are applicable to the study area are:

- whether appropriate limits on effects can be met at the sensitive locations;
- whether a change of land use in the vicinity is proposed;
- whether the use of land within the buffers is limited by the adverse effects; and
- how a proposal satisfies the performance standards identified under 'relevant legislation'.

Policy context

How are sensitive uses considered in new coal mining proposals?

In the event of a proposal for a new coal mine in the study area, the P&E Act, EP Act, *Environment Effects Act 1978* and the MRSD Act establish the process for approvals and consideration of separation distances and buffers, although how and when they are considered depends on a number of factors.

An application to obtain a mining licence or amend an existing mining licence is considered under the MRSD Act, and is decided upon by the Minister for Resources. As part of the application process, a mining company has to consult with landowners and Council, which would provide the opportunity for objections to be considered by the Minister. According to advice provided by DJPR during the consultation process for the Planning Study, consideration does not need to be given to proximity of the urban area and buffer issues as part of the mining licence application process. Instead, these matters are considered at the draft work plan stage prior to the lodgement of a planning permit application or commencement of an EES process.

If a mining licence is granted, the proponent would then need to apply for a planning permit, unless the Minister for Planning determines that an EES is required under the *Environment Effects Act 1978*. As part of the permit application or EES process, the proponent would need to prepare a draft work plan. The proponent must also identify potential hazards and prepare a risk management plan. The risk management plan must consider how risks and hazards may affect sensitive receptors and how these are to be minimised (Section 44 *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019*).

Typically, hazards that may affect sensitive receptors from coal mines are noise, dust and particulates, vibrations and fire risk, but there are many other hazards that may need to be considered as well as environmental impacts.

If the Minister for Planning determines that a mining proposal might have significant environmental or health impacts, an EES may be required. The EES process provides a specific opportunity to consider residential amenity and social well-being, and requires consideration of perceptions of the landscape, aesthetic values and attitudes to the development. It also requires consideration of cumulative effects and alternative options (DSE, 2006). More details on the EES process are provided in Appendix 1.

Current interests

What is the current interest in coal in the study area?

There is currently one active coal mine in the study area, which is located at the Maddingley WRR Hub, as shown in Photograph 17. It is understood that coal mining at the WRR Hub is relatively small in scale and that the coal is used in soil products. The current Mining Licence (MIN 4701) will expire in 2033.

In addition, there is interest from the private sector in exploring the potential for new open cut coal mining in the study area. These companies are exploring the potential to mine the brown coal and use it as a soil conditioner and for fertiliser production. No proposals have yet been submitted to Council for consideration.

Based on the information provided to the Planning Study, there is no intention from these companies to use coal as a fuel source for electricity generation.

Photograph 17 Coal face at the northern end of the Maddingley WRR Hub

Discussion of key planning issues

Key planning issue 1 – Balancing environmental, amenity and economic impacts

The need to balance various competing objectives is at the heart of future decision making for coal resources and has been brought into focus by the opposing views about coal mining that were revealed as part of the consultation process for the Planning Study (refer to Part A). The issues that need to be balanced include impacts on the physical environment and impacts on amenity, which includes health and safety, and the economic benefits created by mining.

According to DJPR, any future coal mining in the study area would need to be open cut as the coal resource is mostly covered with basalt. Therefore, any future coal mining will by its nature have major and permanent environmental and visual impacts on the land, irrespective of the measures that are taken to reduce impacts on nearby land such as landscaping, setbacks and other forms of screening.

From an amenity perspective, the main constraints on new coal mining in the study area are the proximity of existing or potential sensitive receptors, namely the dwellings in the study area, the proximity of the Bacchus Marsh urban area including schools, and the proposed Parwan Station residential and commercial growth precinct to the east.

From an economic perspective, the coal in the study area is inherently valuable as a resource with particular applications for soil conditioners and fertilisers. It has the potential to attract jobs and investment in Bacchus Marsh. These opportunities have been identified in a range of past reports, including the Panel and Advisory Committee Report for the new format Moorabool Planning Scheme in 1999, the 2006 Strategic Review and in the submissions to the Background Report.

As such, all economic benefits will need to be balanced with extensive consideration of environmental and amenity impacts. The need to balance these competing objectives in relation to earth resources is reflected in state planning policy, which is to protect and encourage the extraction of coal resources, but only in accordance with 'acceptable' environmental standards and appropriate buffers (Clause 14.03-1S).

The standards that are 'acceptable' and buffers to sensitive uses that might be appropriate have not been established for the study area through any recent approvals processes or technical assessment work. There is a strong assessment framework in place to assess these impacts through the EES process, which is likely to be the most appropriate process for decision making.

In the absence of any technical assessment or detailed mining proposals, it is appropriate for the Planning Study to rely upon the 'precautionary principle' in its recommendations for separation distances and buffers to coal mining. That is, in the absence of scientific or technical work to demonstrate that no harm will be caused, it is better to be cautious in decision making.

Informed by this position and having regard to other factors, the Planning Study has taken an in-principle position that coal mining is not an appropriate use for the study area. This is reflected in the objectives of the Planning Study and the recommended planning principles set out in this section.

Notwithstanding this clear strategic position, the remainder of this discussion of key issues recognises that coal mining will continue in the study area in accordance with current approvals. It also recognises that future proposals for coal mining may emerge that will require assessment and consideration by Council and relevant government agencies.

Discussion of key planning issues

Key planning issue 2 – State government position on future coal mining in the study area

The State Government's policy position that coal mining should take place at, or adjacent to, existing mines, provides the theoretical opportunity for further mining in the study area, as a mining licence and active mine exists at the Maddingley WRR Hub. This potential is currently reflected in the application of the SUZ1 to land in the study area.

Whilst the State Government has given a commitment that all proposals will be assessed through a "transparent and robust framework", Council would benefit from a clearer position from the State Government about the future of the Maddingley coal resource based on an all-of-government approach (State of Victoria, 2017, 2). Until this occurs, coal will continue to present a barrier to resolving strategic issues relating to the growth of the Bacchus Marsh urban area, as envisaged through the Bacchus Marsh UGF, and future land use and development in the study area.

Significantly, no proposals for new coal mining in the study area have advanced to the planning approvals stage and the mining exploration licence is currently under review. The MBC coal Mining Licence (MIN 4701) will expire in 2033, so within the medium term, the State Government has the opportunity to take a clearer position on coal mining in the study area that will provide Council and landowners with confidence in planning for future land use change.

Key planning issue 3 – Protection of coal and hard rock resources

The coal and hard rock resources in the study area are a viable asset to the state. These resources serve both a current and future purpose, and may be subject to future scientific and technology innovations for alternative resource uses.

The state government's *Extractive Resources Strategy* (2018) identifies the importance of extractive resource supply (rock, sand and gravels) for the construction industry, enabling infrastructure and urban development.

The state government's *Future Use of Brown Coal Statement* (2017) recognises brown coal as a viable asset to the state.

Consideration should be given to the application of the State Resources Overlay (SRO), subject to further consultation with DEECA in regard to details such as the spatial extent, permit triggers and referral requirements. The SRO has the purpose "to protect areas of mineral, stone and other resources, which have been identified as being of state significance, from use and development that would prejudice the current or future productive use of the resource". A schedule to the SRO must contain:

- A statement of the significance of the resource.
- The management objectives to be achieved.

An application of a kind specified in a schedule to the SRO must be referred to the referral authority specified in the schedule, in accordance with Section 55 of the *Planning and Environment Act 1987*. The appropriate referral authority would be the department administering the *Mineral Resources (Sustainable Development) Act 1990*.

Discussion of key planning issues

Key planning issue 4 – How to establish an appropriate separation distance to sensitive uses

It is expected that any EES or planning permit application for coal mining would include technical assessment work on whether the EPA recommended 2,000 metre separation distance should be reduced or increased given the proximity of the Bacchus Marsh urban area and many sensitive uses such as dwellings and schools.

By means of background, the 2006 Strategic Review recommended a 400 metre 'buffer' between the mining licence boundary and proposed residential growth precincts. It considered that this distance was appropriate based on the 'small scale' of coal mining operations at the Maddingley WRR Hub. In forming this view, the 2006 Strategic Review noted that the coal mining at the Maddingley WRR Hub was similar to an extractive industry operation, for which a 200 metre separation distance was recommended by the EPA at the time (DSE, 2006, 18).

In order to formalise the appropriate distance through a planning scheme amendment, however, the 2006 Strategic Review concluded that more detailed assessment work into noise, dust and air emissions was required. This work was not completed at the time.

These findings reinforce the need for any new coal mining proposals to consider amenity impacts, and potential separation distances, based on expert assessments of noise, dust and air emissions.

Discussion of key planning issues

Key planning issue 5 – How to measure separation distances

The research undertaken for the Planning Study has revealed that there is some uncertainty about the point at which the separation distance to sensitive uses should be measured from at the coal mine. According to DJPR, it is normally measured from the top of the batter slope, however, there is little formal guidance from the State Government on this matter.

In the Latrobe Planning Scheme, buffer areas around coal mines extend for a distance of 750 metres from any 'urban settlement' to the perimeter of a 250 metre wide 'operational area' (Latrobe Planning Scheme, Clause 14.03-1R and Schedule 1 to Clause 42.01 (Environmental Significance Overlay). It is unclear as to whether an 'operational area' approach would be suitable for the study area.

At the Amendment C81 Panel Hearing for the Bacchus Marsh UGF, it was agreed by experts and the Panel that the EPA recommended 1,000 metre coal mining buffer (based on EPA 1518) should be measured from the boundary of the mining licence, as mining can, in theory, take place anywhere within this area (C81 Panel Report, 31). This appears to be a sound and cautious approach from a strategic planning perspective, in the absence of any technical assessment to support an alternative approach.

Key planning issue 6 – Timing of consideration of strategic land use impacts

There is lack of a specific framework for strategic land use considerations under the MRSD Act early in the mining approvals process. Mining licences can be issued, and draft work plans developed, without specific consideration of strategic land use issues such as the development potential of vacant urban land.

Proposals for larger mines would undertake these assessments as a matter of course. However, smaller mining proposals or variations to existing work plans may not necessarily be required to consider strategic planning issues.

This situation highlights the importance of the planning permit and EES processes considering amenity impacts at a more strategic level, having regard to the existing and future development potential of the land.

Key planning issue 7 – Rehabilitation of former coal mining pits

Mining creates significant and permanent changes to the landscape that need to be managed over the long term. There is a need to ensure that any future mining does not create legacy issues for Council or the community, such as inadequate rehabilitation, or difficulties in attributing responsibility for the land to the mining company or entity.

In order to address these risks, the MRSD Act requires rehabilitation plans to be developed prior to the commencement of mining. Key components of the plan relate to the physical decommissioning of the site, and a concept plan for post-mining land uses. Miners are also required to pay a 'rehabilitation bond' to the State. Under the MRSD Act, the Minister for Resources must consult with the municipal council prior to determining the amount of the bonds (Section 80).

The State Government is actively reviewing the policies that underpin this process, following a 2020 Victorian Auditor General's Report, *Rehabilitating Mines*, which identified a large number of issues that relate to rehabilitating mines (VAGO, 2020). These include issues relating to the abandonment of mines and difficulties for the State in attributing responsibility for rehabilitation to a company or individual.

Discussion of key planning issues

This is an issue that may be relevant to the Maddingley WRR Hub, where there are a number of former coal pits. For example, it is unclear as to what rehabilitation bonds are held by the State in relation to the coal pits at the Maddingley WRR Hub or what the approved work plans anticipate in relation to the rehabilitation of land that has been mined for coal. These issues require further investigation and should also be at the forefront of Council's assessment of any new coal mining proposals.

Having regard to the high level of Council and community interest in the study area, it is expected that any rehabilitation should strive to achieve best practice standards.

Key planning issue 8 – Use of former coal mining pits

Connected closely with the issue of rehabilitation of former coal mining pits is how they are used and managed after mining is completed. In the study area, former coal pits have been used and treated in a range of different ways, including solid inert waste landfill and dams.

Most recently, a former coal pit on the west side of South Maddingley Road opposite Bacchus Marsh Grammar has been filled to create land with development potential. Council has also issued a planning permit that allows the former coal pit known as the Star Dam on Cummings Road to be filled with Potential Acid Sulphate Soil (Planning Permit PA2018319).

Potential future uses of rehabilitated coal mining pits include:

- passive open space suitable for walking, bicycle activities or other forms of informal recreation;
- revegetation of land to enable apiary or forestry;
- grazing or some limited forms of horticulture;
- renewable energy opportunities such as solar installations;
- specialist uses requiring visual or physical separation from surrounding land uses.

Former coal pits are also attractive for use as landfills, although this is unlikely to be an acceptable outcome for Council and the community in any form in the future, beyond the extent of current statutory approvals.

The preferred uses will ultimately depend on a range of factors, including location, land ownership, size, nature of rehabilitation and final landform. The Planning Study can help to establish some of the key principles for future land use so these can be included in the Planning Scheme and guide future decision making.

Key planning issue 9 – Availability of current approved work plans

Unless work plans have been approved through a planning process, they are 'commercial in confidence', and may not be available to the public. For example, the approved work plan for coal mining at the Maddingley WRR hub is not available to the public and has not been provided to Council for consideration as part of the Planning Study. For the Maddingley WRR Hub, assumptions have been made about the limit of approved mining based on information available in the 2006 Strategic Review.

Unless the work plan is voluntarily provided by the licence holder, this can lead to difficulties in determining separation distances, potential amenity impacts and any other conditions that may relate to the rehabilitation of the land.

Summary of issues

Summary of key issues relating to coal mining

Key issue 1	How to balance the environmental and amenity impacts of open cut coal mining with the potential economic benefits at the local level.
Key issue 2	The state government's position on the future of coal mining and associated exploration and mining licences in the study area is unclear.
Key issue 3	The protection of coal and hard rock resources is important, as these resources are a viable asset to the state. Consideration should be given to the application of the State Resources Overlay, subject to further consultation with DEECA in regard to details such as the spatial extent, permit triggers and referral requirements.
Key issue 4	How to establish an appropriate separation distance to sensitive uses. There is a lack of technical assessment work to determine an appropriate separation distance for coal mining in the study area.
Key issue 5	How to measure separation distances. There is uncertainty about the point at which the separation distance to sensitive uses should be measured from at the coal mine
Key issue 6	Timing of consideration of strategic land use impacts. Opportunities for consideration of strategic land use issues associated with any future mining proposals are limited until they are well advanced or require an EES.
Key issue 7	Rehabilitation of former coal mining pits. The existence and adequacy of rehabilitation bonds for the former coal pits in the study area are unknown.
Key issue 8	Use of former coal mining pits. Rehabilitated coal pits have potential for a range of future uses including landfills, however, new statutory approvals for landfills are unlikely to be an acceptable outcome for Council and the community.
Key issue 9	Availability of current approved work plans. Work plans are usually not available to the public, which can lead to difficulties in determining separation distances, potential amenity impacts and any other conditions that may relate to the rehabilitation of the land

Key findings

Summary of key findings relating to coal mining

Key finding 1	Coal mining is a barrier to the development of a diverse range of land uses in the study area and Council's vision for growth in the Bacchus Marsh UGF.
Key finding 2	It is very difficult to develop a planning scheme framework that can accommodate coal mining in the absence of formal proposals for coal mining or detailed assessment work on potential amenity impacts.
Key finding 3	There is a need to transition the study area away from heavy industrial uses with adverse amenity potential, including coal mining.
Key finding 4	In the absence of technical assessments or mining proposals, it is appropriate for the Planning Study to rely up the 'precautionary principle' in relation to the separation distances for coal mining.
Key finding 5	It is in the interest of Council and the community to be closely and constructively involved with rehabilitation planning for former coal mining sites.

Recommendations

Recommended planning principles

Principle CM1	Respect existing licences and approvals that allow for coal mining.
Principle CM2	Strongly discourage any new open cut coal mining in the study area beyond the current boundaries of Mining Licence 4701.
Principle CM3	Respect and protect the amenity of the following uses as a priority and above other planning considerations: • existing dwellings in the study area; • the existing General Residential Zone to the north; • future sensitive uses in the Parwan Station residential and commercial growth precinct; • Bacchus Marsh Grammar School; • Bacchus Marsh Secondary College.
Principle CM4	Encourage the rehabilitation of coal pits to best-practice environmental standards and for uses that are beneficial to the community and/or the environment.
Principle CM5	Identify and protect coal and hard rock resources, to the extent that they are considered to be of state significance.

Recommended actions

Action CM1	Refer any new proposals for coal mining or other forms of extractive industry to the Minister administering the *Environment Effects Act 1978*.
Action CM2	When considering any new proposals for coal mining, encourage the State Government to adopt planning processes that allow the greatest potential for Council, community and landowner involvement.
Action CM3	Consult with Earth Resources Regulation at the Department of Energy, Environment and Climate Action (DEECA), to investigate the application of the State Resource Overlay (SRO) to protect any areas of coal resources which have been identified as being of state significance.

Part G | Natural Environment

Biodiversity

Biodiversity values are important considerations for all forms of strategic planning. The preservation of these values is particularly important for the study area given the largely rural nature of the study area, presence of waterways and past impacts on biodiversity due to agriculture, coal mining and other forms of use and development.

This section provides an overview of the biodiversity values in the study area based on existing information, provides a summary of the policy context, identifies key issues and principles, and provides a series of recommendations for the Planning Study.

Strategic environmental values

During the preparation of the *Bacchus Marsh UGF*, Council prepared the *Bacchus Marsh Environmental Assessment (Practical Ecology, 2016).* The study area falls within two of the five areas that were assessed in this work: the 'South Central' area and the 'South West' area'. This assessment used a variety of information to divide flora values into high, medium and low categories to guide further field assessment work.

The work identified a range of areas of 'moderate' and 'high' environmental values in the study area, as shown in Figure 53 at the end of this section (Practical Ecology, 2016).

The areas of 'high' environmental values are concentrated in Sub-areas 4 and 5, and along most of Parwan Creek in Sub-areas 1 and 2. Areas of 'moderate' environmental values are found in in Sub-areas 1,2,3 and 5.

The scope of the Planning Study did not include any further assessment of native vegetation, so little additional information is known about the precise extent and condition of native vegetation in the study area beyond the information in the *Bacchus Marsh Environmental Assessment*.

Photograph 18 Creekline Grassy Woodland vegetation on the banks of Parwan Creek

Biodiversity

Flora values

Most of the study area is cleared of native vegetation. The main exceptions are the banks of the Parwan Creek, which has Plains Grassy Woodland (EVC 55_61) and Creekline Grassy Woodland (EVC 68) vegetation, as shown in Photograph 18. Scattered Plains Grassland and Plains Grassy Woodland vegetation also exists in patches throughout the study area.

All of the vegetation types form part of the Victorian Volcanic Plains Bioregion. They have a Bioregional Conservation Status of 'endangered', which means that they are significantly depleted from their former or pre-European range.

The vegetation communities that exist in the study area are also listed as 'threatened' or 'endangered' under the *Flora and Fauna Guarantee Act 1988* and under the Federal *Environment Protection and Biodiversity Conservation Act 1999*.

Fauna values

Known fauna values in the study area include:

- eight species of rare and threatened flora and fauna species have been recorded within the study area, four of which are listed under the *Flora and Fauna Guarantee Act 1988*;
- the endangered Growling Grass Frog has been recorded in the study area; it is listed under the Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act)and has a status of vulnerable under the Federal *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act);
- other threatened species including the Striped Legless Lizard and Golden Sun Moth have been recorded adjacent to the study area and might be present in the study area (DELWP email 17/1/2020).

The study area has been identified as likely to contain habitat that would support the Victorian Grassland Earless Dragon (VGED) (Tympanocryptis pinguicolla). The VGED is listed as 'critically endangered' under the Victorian Flora and Fauna Guarantee Act 1988 and 'critically endangered' under the Federal Environment Protection and Biodiversity Conservation Act 1999.

Biodiversity

Policy context

There is a strong policy framework in place to protect native vegetation in the study area. The removal of native vegetation on land in the study area requires planning approval under Clause 52.17 of the Moorabool Planning Scheme, as all of the landholdings are greater than 0.4 hectares, unless particular permit exemptions apply. In addition, the Environmental Significance Overlay (Schedule 2) also applies to all land approximately 100 metres either side of Parwan Creek. It aims to protect water catchments, water quality and vegetation. It requires a permit for most buildings and works and for all vegetation removal.

The policies that support these provisions are found in Clause 12.01-1S (Protection of biodiversity) of the Planning Scheme, which aims to protect and enhance Victoria's biodiversity in a strategic way by considering cumulative impacts, habitat fragmentation and the impact of pests, particularly on important areas of biodiversity.

Biodiversity

Key issues

Key issue 1	All remnant native vegetation in the study area has a Bioregional Conservation Status of 'endangered', which means it is significantly depleted.
Key issue 2	Areas of 'moderate' and 'high' environmental values exist throughout the study area and are concentrated in Sub-areas 4 and 5, and along most of Parwan Creek in Sub-areas 1 and 2.
Key issue 3	The precise extent of native grassland, which is often difficult to identify without expert knowledge and on-ground assessments, is not known, and could be a constraint to development across the study area.
Key issue 4	Limited on-ground or detailed investigations have been carried out into flora and fauna values across the study area, with the *Bacchus Marsh Environmental Assessment* limited to roadside assessments and desktop information (Practical Ecology, 2016).
Key issue 5	Biodiversity values in the study area have not been fully assessed in the local or regional context to guide the application of policy and overlay provisions.
Key issue 6	Additional flora and fauna assessment (including site surveys) and mapping work may be required to properly inform the application of controls (such as overlays) to protect native vegetation and habitat of threatened species and communities listed under the FFG Act or the EPBC Act..

Biodiversity

Recommended planning principles

Principle B1	Take a cautious approach to decision making that may affect biodiversity in the study area in recognition of the lack of past detailed assessment work.
Principle B2	Retain and protect all areas of 'moderate' and 'high' environmental values in the study area unless detailed assessment work demonstrates that these values are not accurate.
Principle B3	Direct development that is likely to have detrimental effects on biodiversity to areas of 'low' environmental values.
Principle B4	Promote the retention of remnant native vegetation in the design, siting, layout and landscaping of new development.
Principle B5	Encourage the landscaping and remediation of commercial, industrial and mining sites to use indigenous species, if possible.

Recommended actions

Action B1	As part of the preparation of a planning scheme amendment to rezone land, undertake more detailed investigations into the biodiversity values of the study area (using State biodiversity information as the basis), with a focus on native vegetation and habitat of threatened species and communities listed under the FFG Act or the EPBC Act. Such investigations will help to guide the potential application of the Vegetation Protection Overlay or Environmental Significance Overlay.
Action B2	Require ecological assessment reports to be prepared as part of the information that is to be provided under new schedules to the Development Plan Overlay.

Waterways and catchments

Parwan Creek flows along the southern boundary of the study area. It has steep banks in some sections, which includes sections of gorge. The condition of the creek appears to have been modified over time, including changes to its alignment and riparian vegetation.

Parwan Creek flows into the Werribee River to the north east of the study area. The Werribee River provides water for irrigation districts at Bacchus Marsh and Werribee and water for urban areas. There are other smaller watercourses and overland flow paths in the study area. These include:

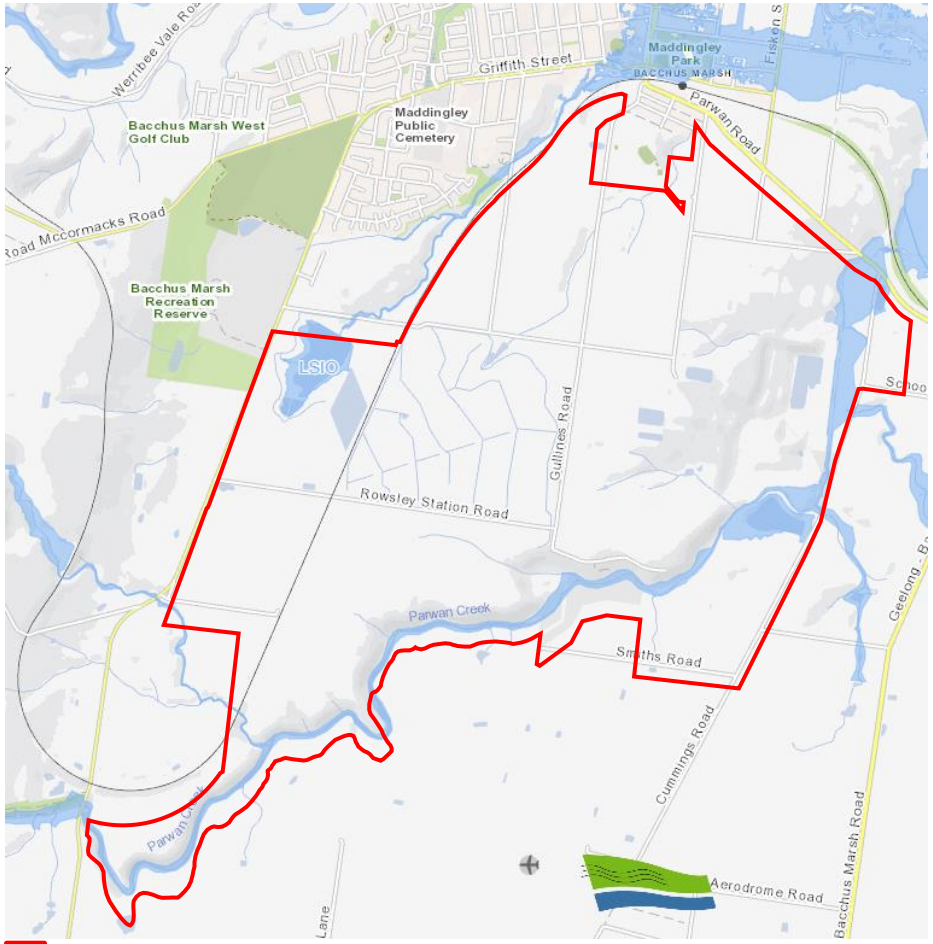
- Maddingley Park Drain in Sub-area 3;
- an un-named waterway that extends through Sub-areas 4 and 5, and which is surrounded by some of the key areas of remnant native vegetation in the study area ('the un-named waterway');
- Dog Trap Gully, which traverses Sub-area 2 and is a tributary of Parwan Creek.

These waterways form part of the Port Phillip Catchment, which is administered by the Port Phillip and Westernport Catchment Management Authority and Melbourne Water. Groundwater aquifers also exist beneath the study area. The waterways are shown in Figure 53 at the end of this section.

Cultural heritage

There are several areas of Aboriginal Cultural Heritage Sensitivity under the *Aboriginal Heritage Act 2006* that are present in the study area. These include areas extending 200 metres either side of Parwan Creek and Dog Trap Gully, and an area to the south of Kerrs Road, as shown in Figure 53. These areas are unlikely to come under pressure for development as they are confined mainly to the Parwan Creek environs. Nevertheless, unidentified cultural heritage may exist elsewhere in the study area and all cultural heritage is protected under the *Aboriginal Heritage Act 2006*.

Figure 52 Proposed application of the LSIO to the study area through Amendment C91



Waterways and catchments

Key issues

Key issue 1	The heavily degraded condition of Parwan Creek in the vicinity of the Maddingley WRR Hub
Key issue 2	How to manage erosion issues along Parwan Creek both in new development and as a general environmental initiative
Key issue 3	Location of Parwan Creek partly on private land in the north east corner of Sub-area 1, with no clear intention by Council or the State Government to acquire the land for public or environmental purposes
Key issue 4	Farming Zone that applies to Parwan Creek and surrounds does not allow for subdivision of land, which prevents acquisition through the subdivision process;
Key issue 5	Whether the content and operation of the Environmental Significance Overlay is appropriate given the high biodiversity and other values along Parwan Creek (refer also to previous section on Biodiversity);
Key issue 6	How to appropriately identify and protect the unnamed waterway that traverses Sub-areas 4 and 5 through the Planning Scheme.
Key issue 7	How to reflect Traditional Owners' priorities, expectations and aspirations for Country so planning outcomes are more inclusive, respectful and sustainable.

Waterways and catchments

Recommended planning principles

Principle WC1	Improve the environmental and water quality of the waterways in the study area, with a particular focus on Parwan Creek and the unnamed waterway in Sub-areas 4 and 5.
Principle WC2	Avoid development within 50 metres of the top of bank of Parwan Creek, or any greater distance recommended in a future assessment of erosion potential.
Principle WC3	Plan for a vegetated drainage corridor or reserve on both sides of all waterways of at least 30 metres in width or as determined by the relevant drainage authority.
Principle WC4	Adopt a culture positive approach including early liaison with Traditional Owners' to incorporate their priorities, expectations and aspirations for Country in decision making.

Recommended actions

Action WC1	Review the Environmental Significance Overlay (ESO2) that applies to Parwan Creek as part of an appropriate strategic planning process, such as a planning scheme review.
Action WC2	Engage with Melbourne Water to investigate the following matters in relation to Parwan Creek, Dog Trap Gully, Maddingley Park Drain and the un-named waterway that traverses Sub-areas 4 and 5: • identification and protection of a vegetated natural drainage corridor of at least 50 metres on both sides of Parwan Creek other waterways; • whether public/drainage reserves should be created along the waterways • the preferred strategies for achieving these outcomes, such as open space contributions through subdivision.

Maddingley Planning Study

Waterway in Sub-areas 4 and 5

- Improve environmental and water quality
- Encourage revegetation of riparian areas to a minimum of 30m or as determined by the relevant drainage authority

Sub-area 3 (West)

- Encourage rehabilitation of land formerly used for sand cleaning
- Manage flooding risks

Sub-area 1 including Maddingley WRR Hub

- Further establish vegetated bunds and perimeter plantings
- Encourage long-term uses of closed landfill cells that are beneficial to the community and/or the environment.

Native vegetation (all areas):

- Retain native vegetation in the design, siting and layout of new development
- Encourage the landscaping and remediation of commercial, industrial and mining sites to use indigenous species

Biodiversity values (all areas):

Unless further assessment work demonstrates otherwise:

- Retain and protect all areas of 'moderate' and 'high' environmental values
- Direct development to areas of 'low' environmental values.

Parwan Creek and waterways

- Improve the environmental and water quality
- Avoid development within 50 metres of the top of bank of Parwan Creek (at minimum)
- Encourage revegetation of riparian areas at least 50m wide on each side, together with steep banks beyond

LEGEND

- Study Area
- Sub-area Boundaries
- Property Boundaries
- Parcel Boundaries
- Railway Line
- Aboriginal Cultural Heritage Sensitivity

Biodiversity values based on findings of Bacchus Marsh Environmental Assessment (Practical Ecology, 2016)

- High
- Moderate

Note:
Arrow locations show conceptual areas only.
Areas of 'high' and 'moderate' environmental values based on the findings of Practical Ecology, 2016, refer to pages 46 and 55.

0 250 500 750 1,000 m

GIS maps produced by BlueSphere ENVIRONMENTAL

Data Sources

Aerial imagery: Nearmap Ltd, photograph dated 02/05/2025.
Utilities Layers: Provided by Moorabool Shire Council on 01/02/2019.

FIGURE 53 NATURAL ENVIRONMENT STRATEGIC DIRECTIONS

PLANNING STUDY

Prepared for **Moorabool Shire Council**

Prepared by centrum TOWN PLANNING

File: O:\6_GIS\Projects\30805_Centrum_Maddingley WRRH Planning GIS Stage 2\01\Maps\DRAFT\Fig53_Natural environment strategic directions.qgs.qgz

Date: 18/09/2025 Revision: FINAL Rev14

Bushfire risk

Study area

Bushfire risk is an important consideration, given that most of the study area is within a designated bushfire prone area (BPA). The hazard primarily comprises grasslands. A grassfire, especially moving from the south-west, poses a bushfire risk to future development. The lack of larger landscape hazards, however, means that bushfire risk is likely capable of being addressed as part of future planning scheme amendments.

Key issues

Key issue 1	Future development in the study area may be at risk of bushfire, particularly a grassfire moving from the south-west.

Recommended planning principles

Principle BR1	Ensure that any future planning scheme amendment does not result in the introduction or intensification of development in an area that has, or will on completion have, more than a BAL-12.5 rating.

Recommended actions

Action BR1	Undertake a bushfire risk assessment as part of any future planning scheme amendment to rezone land for urban purposes. The bushfire risk assessment should respond to Clause 13.02-1S 'Bushfire Planning' of the planning scheme and should consider 'Design Guidelines: Settlement Planning at the Bushfire Interface' (DELWP & CFA, 2020) which provides advice for managing bushfire, especially on land outside of the BMO.

Part H | Implementation

Implementation overview

The implementation table in the following section outlines the actions to implement the Planning Study, based on the recommendations in Sections C-G. Reference should also be made to Figure ES2 (Recommended Zone Map) and Figure 55 (Recommended Overlay Map).

The main responsibility for implementing the Planning Study lies with Council, although a number of the actions will need to be led by other agencies, as stated in the table.

The first column of the table identifies an action item number and reference to the relevant section of the Planning Study. The actions are generally listed in priority order. The table lists stakeholders who will have an interest in each action, or who will need to partner with Council in order to implement the action.

Implementation into the Moorabool Planning Scheme is to be undertaken in 3 phases:

Phase 1 – Policy Amendment

The initial planning scheme amendment stage will introduce planning policy and a land use framework for the Maddingley East area that will guide rezoning amendments over the medium-long term (refer Figure 54).

Phase 2 - Rezoning of land short to medium term

Phase 1 provides the strategic guidance for future rezoning amendments to be delivered in Phase 2 and 3 amendments. Phase 2 will reduce the extent of the SUZ to remove it from land outside of the Maddingley Brown Coal licence area and substitute the SUZ with zones that facilitate industrial and education uses where justified.

Phase 3 – Rezoning of land medium to longer term

Longer term zoning changes that incrementally transition the area for industrial uses are to be considered where strategically justified.

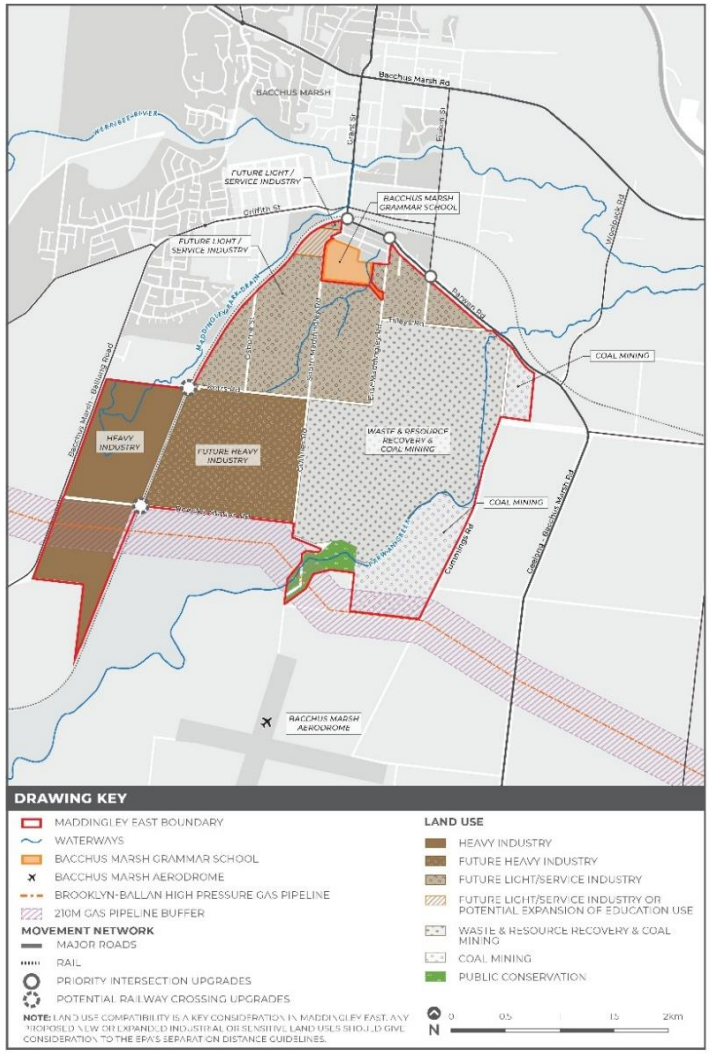


Figure 54 Maddingley East Strategic Framework Plan

Implementation table

Table 2 Implementation table

Item	Report section reference	Recommendation	Responsibility	Stakeholders	Timeframe
1	Part D – Recommendations SW4, NW2, N1 and NE1	Commence a review of industrial land supply and demand in the municipality.	Council	Department of Transport and Planning (DTP)	Prior to preparation of the Phase 1 planning scheme amendment to implement the Planning Study.
2	Part G – Action BR1	Undertake a 'Bushfire Risk Assessment' which responds to Clause 13.02-1S 'Bushfire Planning' of the planning scheme.	Council	Country Fire Authority (CFA), DTP	Prior to preparation of the Phase 2 and 3 planning scheme amendments to implement the Planning Study.
3	Part F – Action CM3	Consult with Earth Resources Regulation at the Department of Energy, Environment and Climate Action (DEECA), to investigate the application of the State Resource Overlay (SRO) to protect areas of any areas of coal resources which have been identified as being of state significance.	Council	Department of Energy, Environment and Climate Action (DEECA), DTP, landowners	Prior to preparation of the Phase 2 planning scheme amendment to implement the Planning Study.

Implementation table

Item	Report section reference	Recommendation	Responsibility	Stakeholders	Timeframe
4	Part C – Action SB4 Part D – Action E1	Engage with MBC to: • encourage open air composting to be converted to in-vessel; • gain an understanding of their long-term plans for their landholding; and • explore the potential application of the Buffer Area Overlay (BAO) and undertake the technical assessment work needed to inform the preparation of a planning scheme amendment.	Council	MBC, Recycling Victoria (RV), EPA, DTP.	Short term
5	Part C – Recommendation SB1	Prepare a 'phase 1' amendment to the Moorabool Planning Scheme to implement the following recommendations outlined in the Planning Study: • introduce/amend strategic directions in the MPS; • introduce a new strategic framework plan in the MPS or PPF, to identify strategic directions for the study area, such as future land uses and buffers; • introduce/amend local policies in the PPF.	Council	RV, DTP, DEECA, MBC, other landowners.	Short term

Implementation table

Item	Report section reference	Recommendation	Responsibility	Stakeholders	Timeframe
6	Part E – Action TUI7	Consult with Greater Western Water (GWW), to: • plan for a new sewer pump station to service new industries on existing industrial zoned land to the west of the railway line in Sub-area 3; • plan for increased pipe capacity for the limited sewer infrastructure to the west of the railway line, including the potential for shared funding outcomes; and • prepare a strategy for the provision of reticulated water supply and sewerage infrastructure to the study area, including detail on how financial contributions will be paid by developers. The strategy would need to consider demand for recycled water (both Class A and C) as well as potable water.	Council – responsible for consulting with GWW; GWW – responsible for planning for water supply and sewerage infrastructure.	GWW, landowners	Prior to preparation of the Phase 2 planning scheme amendment to rezone land for urban purposes.

Implementation table

Item	Report section reference	Recommendation	Responsibility	Stakeholders	Timeframe
7	Part E - Action TUI8 Part G - Action WC2	Consult with Melbourne Water to: • seek the preparation of a drainage scheme in consultation with Council to provide: – a catchment-based drainage strategy; – the functional designs of the relevant infrastructure required to service urban growth; and – detail on how financial contributions will be paid by developers. • investigate environmental and management matters in relation to Parwan Creek, Dog Trap Gully, Maddingley Park Drain and the un-named waterway that traverses Sub-areas 4 and 5.	Council – responsible for consulting with MW; MW – responsible for planning for drainage infrastructure in catchments > 60ha.	Melbourne Water, landowners	Prior to preparation of the Phase 2 planning scheme amendment to rezone land for urban purposes.
8	Part E - Action TUI9	Consider the preparation of a local drainage strategy to: • identify Council drainage infrastructure requirements for the various sub-areas as appropriate; and • detail how financial contributions will be paid by developers.	Council	Melbourne Water, landowners	Prior to preparation of the Phase 2 planning scheme amendment to rezone land for urban purposes
9	Part E – Action TUI6	Initiate discussions with Powercor to identify any future land requirements for sub-stations and potential funding opportunities to facilitate urban development in Sub-areas 3 (West), 4 (North west), 5 (North) and 6 (North east).	Council	Powercor, landowners	Short term

Implementation table

Item	Report section reference	Recommendation	Responsibility	Stakeholders	Timeframe
10	Part C – Recommendation SB2 Part D - Recommendations E1, SW1, W1, NW1, NW2, NW5, N1, N2, NE1 and NE2. Part F – Action CM3	Prepare 'phase 2' amendments to the Moorabool Planning Scheme, to • Apply a BAO, depending on the outcome of Recommendation SB4 (Item 4 in this table). • Introduce a new SUZ schedule and apply it to the spatial extent of Mining Licence 4701and EPA Licence 45288 (landfill) at the Maddingley WRR Hub; and • Consider applying the SRO, depending on outcome of Action CM3 (item 3 in this table). • Rezone land within each sub-area, in accordance with the relevant medium term recommendations. Planning scheme amendments would need to respond to the 'Strategic Assessment Guidelines' (PPN46) and would need to be informed by detailed background reports.	Landowners / developers	Council, RV, EPA, DEECA, DTP, landowners	Phase 2 amendments - Medium term
11	Part D – Recommendations SW4, SW5, NW4 and NW5.	Prepare 'phase 3' amendments to the Moorabool Planning Scheme, to rezone land within each sub-area, in accordance with the relevant longer term recommendations. Planning scheme amendments would need to respond to the 'Strategic Assessment Guidelines' (PPN46) and would need to be informed by detailed background reports.	Landowners / developers	Council, state government agencies, DTP, landowners	Phase 3 amendments - Long term
12	Part C – Action SB1	Monitor the State Government's review of the waste management framework.	Council	EPA, RV	Ongoing

Implementation table

Item	Report section reference	Recommendation	Responsibility	Stakeholders	Timeframe
13	Part C – Action SB2	Monitor changes to EPA policies and guidelines relating to separation distances, buffers and the assessment of cumulative impacts.	Council	EPA, RV, DTP	Ongoing
14	Part C – Action SB3	Monitor the implementation of the new 'general environmental duty' requirements of the EP Act 2017 in relation to best practice operational improvements at the Maddingley WRR Hub.	Council	EPA, RV, MBC	Ongoing
15	Part F - Action CM1	Refer any new proposals for coal mining or other forms of extractive industry to the Minister administering the *Environment Effects Act 1978.*	Council	DEECA, DTP	As required
16	Part F - Action CM2	When considering any new proposals for coal mining, encourage the State Government to adopt planning processes that allow the greatest potential for community and landowner involvement.	Council	DEECA, DTP	As required
17	Part G – Action WC1	Review the Environmental Significance Overlay (ESO2) that applies to Parwan Creek.		DEECA, Melbourne Water	As part of Planning Scheme review (Strategic direction 4 – Water supply catchments and waterway protection)
18	Part E – Action TUI6	Engage with APA Group to investigate the potential to apply a Design and Development Overlay (DDO) or Buffer Areas Overlay (BAO) to land within 210 metres of the Brooklyn-Ballan high pressure gas pipeline.		APA Group, landowners	As part of Planning Scheme review (Strategic direction 12 – Large pipelines planning)
19	Part E – Action TUI4	Require a Safety Management Study to be prepared for any major land use or development in the study area that is located within 210 metres either side of the Brooklyn-Ballan high pressure gas pipeline.		APA Group, landowners	As part of planning permit applications, as appropriate.

Maddingley Planning Study

LEGEND

- Study Area
- Sub-area Boundaries
- Property Boundaries
- Parcel Boundaries
- Current Mining Licence and EPA Landfill Licence Area
- Railway Line
- Waterway
- Aerodrome

Proposed Overlays (in study area)

- DEVELOPMENT PLAN OVERLAY (DPO)

Existing overlays to be retained

- AIRPORT ENVIRONS OVERLAY (AEO1)
- DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 2 (DDO2)
- DEVELOPMENT PLAN OVERLAY - SCHEDULE 3
- ENVIRONMENTAL AUDIT OVERLAY
- ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 1
- ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 2 (ESO2)
- ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 8
- HERITAGE OVERLAY (HO158)
- HERITAGE OVERLAY (HO160)
- HERITAGE OVERLAY (HO163)
- HERITAGE OVERLAY (HO164)
- HERITAGE OVERLAY (HO168)
- HERITAGE OVERLAY (HO201)
- SPECIFIC CONTROLS OVERLAY - SCHEDULE 1 (SCO1) - due to expire in April, 2024.

Note: This Figure does not show the overlays to be deleted, only those that are recommended to apply.

Data Sources

Basemap Layers and Planning Zones: Vicmap data, 2019. The State of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the State of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

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GIS maps produced by BlueSphere Environmental

FIGURE 55 RECOMMENDED OVERLAY MAP

PLANNING STUDY

Prepared for **Moorabool Shire Council**

Prepared by centrum TOWN PLANNING

File: O:\6_GIS\Projects\30805_Centrum_Maddingley WRRH Planning GIS Stage 2\01\Maps\DRAFT\Fig54_Proposed_Overlay_Map.qgz

Date: 21/10/2025

Revision: FINAL Rev14

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Map information sources

Sources for Figures ES1, ES2, 6, 12,12A, 47, 49, 53 & 54.

Aerial imagery: Nearmap Ltd, photograph dated up to 20/5/2025.

Basemap Layers and Planning Zones: Vicmap data, 2019. The State of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the State of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

Coal Resource Layers: Digitised by KnightVision from Figure 5 - Scenario 2 Coal Resource Protection Boundary in "Maddingley Brown Coal Resource Strategic Review", Department of Sustainability and Environment and the Department of Primary Industries (Victoria), October 2006.

Crown Land: Based on VicMap data and updated based on information provided by Moorabool Shire Council on 13/02/2019.

Land Use Activity Areas and Buffers: GIS data provided by Moorabool Shire Council, based on Figure F1, Separate Sensitive Use Buffers, from report "Environmental Matters Concerning Proposed Amendment C81 to the Moorabool Planning Scheme" by Peter J Ramsay and Associates, Rev. 00.

Land Use Points of Interest: Digitised by KnightVision based on aerial imagery and site visit notes provided by Centrum Town Planning.

Land Use Polygons and Landholder information: Provided by Moorabool Shire Council.

Proposed Dwelling Location from drawing 'Plan of Proposed Dwelling', in Planning Permit Application 2018189 by T.G. Sullivan & Associates Pty Ltd, dated July 2018.

Proposed Materials Recycling Facility and Garden Supplies / Concrete Batching Plant location based on drawing 'Concept Site Plan', in Planning Permit Application 2018239 by Gunnawaunday Holdings Pty Ltd, dated 09/09/2018.

Racing Dog Breeding Facility: Digitised by KnightVision based on planning permit application site plan provided by Moorabool Shire Council.

Utilities Layers: Provided by Moorabool Shire Council on 01/02/2019.

Appendix 1 – Legislative Context

Acts and regulations

Planning & Environment Act 1987

The *Planning and Environment Act 1987* ('the P&E Act') has a broad range of objectives that are set out in Section 4(1) of the P&E Act. These include providing for the "*fair, orderly, economic and sustainable use and development of land*". The objectives also aim to protect natural resources and to provide a "*pleasant, efficient and safe working, living and recreational environment*", which introduces the concept of amenity as a planning principle. Other key principles set out in the P&E Act relate to balancing current and future interests of Victorians and the need for decision making that integrates economic, social and environmental considerations. The P&E Act aims to achieve these objectives by:

- providing the legislative basis for the Victoria Planning Provisions, which assist in providing a consistent and coordinated framework for planning schemes;
- providing for planning schemes to regulate the use and development of land, mainly through planning permits;
- setting the legislative framework for all decision making that relates to strategic planning, including planning scheme amendments;
- establishing a planning framework that involves the public and affected landowners at key points, particularly in relation to changes to planning schemes.

One of the responsibilities of planning authorities in preparing planning schemes or amendments is to take into account "any significant effects which it considers the scheme or amendment might have on the environment or which it considers the environment might have on any use or development envisaged in the scheme or amendment" (Section 12(2b)). This requirement is reflected in the matters a responsible authority must consider before issuing a planning permit under Section 60 of the P&E Act.

Mineral Resources (Sustainable Development) Act 1990

The purpose of the *Mineral Resources (Sustainable Development) Act 1990* (MRSD Act) is to "encourage mineral exploration and facilitate exploration and economically viable mining and extractive industries which make the best use of, and extract the value from, resources in a way that is compatible with the economic, social and environmental objectives of the State" through a legal and regulatory framework (Section 1). This framework allows access to land for exploration, mining and extractive industries, and a process for rehabilitation and compensation.

The connection between the MRSD Act and the PPF is established at Clause 14.03-1S (Resource exploration and extraction), which has similar aims and contains an objective and strategies to provide for the protection of natural resources in Victoria over the long-term.

For the purposes of the Planning Study, it is important to note that minerals in Victoria are owned by the State and can be accessed by licence holders subject to appropriate processes, approvals (including a work authority) and bonds. Section 42(6) of the MRSD Act provides that a planning permit may be granted for the use or development of land for mining even if the Planning Scheme prohibits that use or development. This provision is reflected in Clause 52.08 of the Moorabool Planning Scheme.

Acts and regulations

Environment Protection Act 2017

The *Environment Protection Act 2017* ('EP Act') is the overriding piece of legislation for pollution control and environmental protection in Victoria. It is administered by the Environment Protection Authority Victoria (EPA). The EP Act regulates the discharge or emission of waste to water, land or air by a system of permits and licences. The EP Act also specifically controls the emission of noise and the transport and disposal of waste.

The EP Act came into effect on 1 July, 2021 and replaced the previous *Environment Protection Act 1970*. The EP Act includes *Environment Protection Regulations 2021* and Environment Reference Standards that replace the previous State Environment Protection Policies (SEPPs). These changes give the EPA more powers and tools to prevent risks to the environment and human health.

The EP Act includes a 'general environmental duty' (GED) that requires members of the community and businesses to be proactive in preventing and minimising risks of harm to human health and the environment from their pollution or waste associated with their activities (www.epa.vic.gov.au). The GED will require businesses to implement controls that are "reasonably practicable" and proportionate to the risk of harm to the environment. These hazards might relate to chemicals, stormwater contamination, fire, dust, odour and other hazards. The GED expects that operators are familiar with information about the risks and options to control the risks that are relevant to their industry. This information may come from business, industry, regulators, government agencies or other organisations (www.epa.vic.gov.au). The GED represents an important change to the previous situation under the *Environment Protection Act 1970* which only required compliance with relevant permits, licenses and works approvals.

The planning system interacts with the EP Act and EPA in various ways. Under Ministerial Direction Number 19 (Parts A&B), issued by the Minister for Planning, the advice of the EPA must be sought and addressed for any planning scheme amendment that may significantly impact the environment, amenity and human health, including amendments that may allow land use and development within an EPA recommended separation distance. Ministerial Direction 19 also requires that the advice of the EPA must be sought and addressed for any planning scheme amendment that may allow the use and development of land within a recommended separation distance to a waste and resource recovery facility.

The EPA is also a statutory referral authority for permit applications that require a works approval, licence, or to use land for an industry, utility installation or warehouse for a purpose listed in the table to Clause 53.10 of the Moorabool Planning Scheme with no threshold distance specified or if the threshold distance is not met.

Acts and regulations

Environment Effects Act 1978

The *Environment Effects Act 1978* allows for the assessment of projects that may have a significant effect on the environment. The Minister for Planning is responsible for administering the *Environment Effects Act 1978*. For example, if significant environmental or health impacts could arise from a mining proposal in the study area, the Minister for Planning would consider whether an Environment Effects Statement (EES) is required under this Act. Councils can also refer projects to the Minister for consideration as to whether an EES is required.

The EES process is a major and complex exercise. The EES needs to be prepared by the proponent of the development or mine and usually involves extensive technical studies. There is a public notification and review process. The Minister then makes an assessment of environmental effects, which must be considered by decision makers such as planning and responsible authorities (usually councils).

Mining proposals are exempt from the need for a planning permit if an EES has been prepared under the *Environment Effects Act 1978*. The EES process is also discussed in Part F of the Planning Study in the context of coal mining.

Appendix 2 – Details of Existing Land Uses

Figure 12 & 12A Reference	Business Name	Activity description	Separation Distance	Source / status
1	Maddingley Brown Coal	Composting	2,200 metres (odour)	EPA 1949
2	Maddingley Brown Coal	Landfill & Category C soils	Case by case basis	EPA 1950
3	Maddingley Brown Coal	Coal mine	2,000 metres (dust)	EPA 1949
4	Interstate Energy Group	Manufacturer of soil conditioner and fertiliser products, uses coal from MBC	1,000 metres	EPA 1949
5	QP Lubes	Storage, mixing and packaging of high performance mechanical lubricants	300 metres	EPA 1549
11	Greyhound keeping	Keeping and racing 50 greyhounds	500 metres	Clause 14.01-2L-01
12	Smartwood Mouldings	Joinery	100 metres	Clause 53.10
13	Metals recycling at JBD	Metals recycling	Unknown	-
14	VSF Bulk Grain and Minerals Storage Facility	Bulk grain and minerals storage	0 - 250m	Clause 53.10 & EPA 1949
15	Lebrex Car and Truck Wreckers	Metal recycling	500 metres	Clause 53.10 & EPA 1949
16	Transfer station	Concrete batching plant	300 metres	Clause 53.10
17	Transfer station	Transfer Station accepting timber, green waste, cardboard, metals inside building	500 metres	Clause 53.10

Figure 12 & 12A Reference	Business Name	Activity description	Separation Distance	Source / status
19	Hughes metal fabrication	Metal fabrication	500 metres	Clause 53.10
20	Timber search	Joinery	100 metres	Clause 53.10
21	Eco Timber	Joinery	100 metres	Clause 53.10
22	Environmental Clean Technologies	Research and development facility for brown coal densification, uses coal from MBC	Unknown	-
23	Industrial Environmental	Environmental remediation contracting services	Unknown	-
24	Visy	Transfer Station accepting cardboard / recyclables	200m -250m	Clause 53.10 & EPA 1949
25	Australian Bio Fert	Unknown	Unknown	
26	Molecular Mediation	Unknown	Unknown	
27	Council owned transfer station at 50 Osborne Street Maddingley.	Transfer Station accepting accepting organic wastes	500 metres	Clause 53.10