



# **AGENDA**

## **S86 Moorabool Growth Management Committee Meeting Wednesday, 4 March 2020**

**I hereby give notice that a S86 Moorabool Growth Management Committee Meeting will be held on:**

**Date: Wednesday, 4 March 2020**

**Time: 4.00pm**

**Location: Council Chamber, 15 Stead Street, Ballan**

**Derek Madden  
Chief Executive Officer**

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**1 OPENING****2 PRESENT AND APOLOGIES****3 RECORDING OF MEETING**

As well as the Council for its minute taking purposes, the following organisations have been granted permission to make an audio recording of this meeting:

- The Moorabool News; and
- The Star Weekly.

**4 CONFIRMATION OF MINUTES**

S86 Moorabool Growth Management Committee Meeting - Wednesday 4 December 2019

**5 MATTERS ARISING FROM PREVIOUS MINUTES****6 DISCLOSURE OF CONFLICTS OF INTERESTS**

Under the Local Government Act (1989), the classification of the type of interest giving rise to a conflict is; a direct interest; or an indirect interest (section 77A and 77B). The type of indirect interest specified under Section 78, 78A, 78B, 78C or 78D of the Local Government Act 1989 set out the requirements of a Councillor or member of a Special Committee to disclose any conflicts of interest that the Councillor or member of a Special Committee may have in a matter being or likely to be considered at a meeting of the Council or Committee.

Definitions of the class of the interest are:

- A direct interest (section 77A, 77B)
- An indirect interest (see below)
  - indirect interest by close association (section 78)
  - indirect financial interest (section 78A)
  - indirect interest because of conflicting duty (section 78B)
  - indirect interest because of receipt of gift(s) (section 78C)
  - indirect interest through civil proceedings (section 78D)
  - indirect interest because of impact on residential amenity (section 78E)

**Time for Disclosure of Conflicts of Interest**

In addition to the Council protocol relating to disclosure at the beginning of the meeting, section 79 of the Local Government Act 1989 (the Act) requires a Councillor to disclose the details, classification and the nature of the conflict of interest immediately at the beginning of the meeting and/or before consideration or discussion of the Item.

Section 79(6) of the Act states:

While the matter is being considered or any vote is taken in relation to the matter, the Councillor or member of a special committee must:

- (a) Leave the room and notify the Mayor or the Chairperson of the special committee that he or she is doing so; and
- (b) Remain outside the room and any gallery or other area in view of hearing of the room.

The Councillor is to be notified by the Mayor or Chairperson of the special committee that he or she may return to the room after consideration of the matter and all votes on the matter.

There are important reasons for requiring this disclosure immediately before the relevant matter is considered.

- Firstly, members of the public might only be in attendance for part of a meeting and should be able to see that all matters are considered in an appropriately transparent manner.
- Secondly, if conflicts of interest are not disclosed immediately before an item there is a risk that a Councillor who arrives late to a meeting may fail to disclose their conflict of interest and be in breach of the Act.

## **7 COMMUNITY PLANNING REPORTS**

### **7.1 ID POPULATION FORECASTS**

**Author:** Sarah Kernohan, Co-ordinator Strategic Planning

**Authoriser:** Henry Bezuidenhout, Executive Manager Community Planning & Economic Development

**Attachments:** 1. Population Forecast Presentation

#### **PURPOSE**

To provide Councillors with the updated .id population forecasts.

#### **EXECUTIVE SUMMARY**

- Council .id population forecasts were updated in December 2019.
- The update reflects a number of changes in Moorabool since the last major forecast update, most significantly the identification of new residential growth areas in Bacchus Marsh and Ballan.
- In addition to the publicly available .id population forecast, a high growth scenario has been prepared, providing for an ultimate population of 90,000 people.
- The population forecast is used across service units to assist in the planning and delivery of Council infrastructure and facilities, advocacy for funding, and to estimate future budget.
- Officers will continue to monitor the population forecast for its performance against actual on the ground lot releases and building certificate of occupancy and seek updates to the forecast if needed.

#### **RECOMMENDATION**

**That Council:**

1. **Receives 2019 .id Moorabool population forecasts update**
2. **Notes that Council Officers will work with .id to monitor and update the forecasts annually**

#### **BACKGROUND**

At the 5 December 2019 s.86 Growth Management Committee Meeting, a verbal update was provided on a number of strategic planning projects. During this update Councillors were advised that Council's population forecasts had been updated and published online.

The update specifically stated that;

*"ID Projections*

- *New 2019 forecasts published through to 2041. Information is publicly available on ID website.*
- *A high growth scenario was also developed.*
- *Councillors will be provided with a link and a future presentation be done".*

Councils population forecasts are undertaken by .id a population and demographics company. .id provide population forecasts to over 130 Councils across Australia. Council has subscribed to the services of .id since the mid-2000s. The most recent update of Councils population forecasts in November 2019 is the sixth iteration of the forecast since 2006.

## **PROPOSAL**

### 2019 Update

Councils last major update to the population forecasts was undertaken in September 2015. Since this time the forecast has been monitored annually to check that it is tracking well against census data and building approvals.

It is important at a Council-wide level to have accurate population forecasts. Population forecasts are used across service units to assist in the planning and delivery of Council infrastructure and facilities, advocacy for funding, and to estimate future budget.

A major update to the forecasts was undertaken in late 2019 to reflect a number of recent changes in Moorabool, most significantly the identification of new land for residential development within the Bacchus Marsh Urban Growth Framework and the Ballan Strategic Directions. These two strategies identify areas for new greenfield development that will provide for an additional 28,000 people in Bacchus Marsh and 5,800 people in Ballan. Significant additional infill development is also anticipated in both towns.

### Key Changes

A number of key changes made to the forecasts since the last update are as follows;

- Amendment to the Bacchus Marsh forecast area to include the entirety of the Underbank Estate. This estate was previously split between the Bacchus Marsh and Rural East forecast areas
- Creation of two new forecast areas 'Parwan Station' and 'Merrimu Hopetoun Park' to reflect the residential growth in these two areas. Land within these two forecast areas was previously located with the Rural East forecast area.
- Revised 'Bacchus Marsh and surrounds' forecast area, which includes the individual areas of Darley, Bacchus Marsh, Maddingley, Merrimu Hopetoun Park and Parwan Station.
- Revised population forecasts, with significant changes in Ballan, Merrimu Hopetoun Park and Parwan Station areas.
  - Ballan – 2,496 (2019) to 6,741 (2041) – increase of 169%
  - Merrimu Hopetoun Park – 1,580 (2019) to 11,426 (2041) – increase of 623%
  - Parwan Station – 47 (2019) to 6,056 (2041) – increase of 12,901%

### High Growth Scenario

.id have prepared an additional 'high growth' forecast for Council. This forecast is for Council only and is not published online. The high growth forecast differs from the published forecast in that it provides for an accelerated level of growth within the Merrimu and Parwan Station precincts and provides an extended forecast through to 2051 (the published forecast forecasts to 2041). In the accelerated forecast, all Bacchus Marsh growth precincts are 100% complete by 2051, with the Ballan growth precincts at 71% complete. Accounting for 100% completion of the Ballan growth precincts, this provides for a forecasted ultimate population of 90,000 people within Moorabool Shire.

The high growth scenario provides a useful understanding of population growth if development occurs at a faster rate, and the implications that this increased level of growth will have on Council infrastructure and facilities, and delivery of services. It is also a useful tool for advocacy to state and federal government, as it provides an ultimate population of the Shire.

#### .id Forecast website

Council's .id forecast is published online at <https://forecast.id.com.au/moorabool>. The website not only includes the current and forecast population for the various forecast areas, but also includes information such as average household size, demographic change (births, death, migrations etc) age structure and household type. The website also includes a function to create tailored reports e.g. number of three year olds within Maddingley in 2018 compared with 2041.

#### Forecast Monitoring

The forecast is monitored annually for performance. .id will review the forecast and advise if it is tracking higher or lower than that forecasted. It is at this point that .id will also ask that Council advise if there have been any changes that might impact the forecast e.g. rezoning, or strategic plans that identify new development areas. Council can also advise .id if it believes the forecast isn't accurately representing actual growth, and request changes to the forecast.

Council Officers (strategic planning, GIS and revenue) are currently working together to develop a system to 'track' lot releases and building certificate of occupancy. This will assist Council in more accurately tracking growth as it occurs. This will be an important tool in monitoring the performance of the .id forecast and reporting to .id, but also for Council in having a greater understanding of the growth, including how and where it is occurring. The more accurately we can track and forecast growth, the more accurately we can match this to our provision of services, infrastructure and facilities.

### **COUNCIL PLAN**

The Council Plan 2017-2021 provides as follows:

**Strategic Objective 3:** Stimulating Economic Development

**Context 3A:** Land Use Planning

The updated population forecasts are consistent with the Council Plan 2017 – 2021, in that they assist Council in planning for the growth of the municipality by providing information on the type of growth and where the growth is occurring.

### **FINANCIAL IMPLICATIONS**

The service provided by .id is an annual subscription service that is covered by Council's ICT budget.

The more accurate Council's population forecast is, the more accurately Council can forward estimate future budgets. It also assists Council in better planning for and delivering infrastructure and services to its growing community.

### **RISK & OCCUPATIONAL HEALTH & SAFETY ISSUES**

There are no direct risk or occupation health and safety issues associated with the recommendation within this report.

There are risks associated with having a inaccurate or poorly tracking population forecast. As outlined above, population forecasts are an important input to the services the Council provides. It is important that if growth is occurring at a faster or slower rate than projected, if it is occurring in a different location, or if the growth profile is different e.g. an increased number 0-5 year olds, that

Council is able to forecast this change and adapt its infrastructure and service delivery to match that of the forecast. This is particularly important as the Council experiences increased growth and associated demand for increased infrastructure and service delivery.

### **COMMUNICATIONS & CONSULTATION STRATEGY**

The forecasts were prepared by .id based on census and building approval data, and information provided by Statutory Planning on existing approved developments and developments that are currently being assessed by Council, and Strategic Planning on future development areas.

As noted above, discussions have commenced with revenue and GIS to create a system to track lot releases and building certificate of occupancy.

### **VICTORIAN CHARTER OF HUMAN RIGHTS & RESPONSIBILITIES ACT 2006**

In developing this report to Council, the officer considered whether the subject matter raised any human rights issues. In particular, whether the scope of any human right established by the Victorian Charter of Human Rights and Responsibilities is in any way limited, restricted or interfered with by the recommendations contained in the report. It is considered that the subject matter does not raise any human rights issues.

### **OFFICER'S DECLARATION OF CONFLICT OF INTERESTS**

Under section 80C of the *Local Government Act 1989* (as amended), officers providing advice to Council must disclose any interests, including the type of interest.

*Executive Manager – Henry Bezuidenhout*

In providing this advice to Council as the General Manager, I have no interests to disclose in this report.

*Author – Sarah Kernohan*

In providing this advice to Council as the Author, I have no interests to disclose in this report.

### **CONCLUSION**

Councils population forecasts have recently been updated to reflect a number of identified new residential growth areas in Bacchus Marsh and Ballan. The changes to the projections are important as they enable Council to plan for, and deliver, the infrastructure and services needed to accommodate this growth, by understanding how and where this growth is occurring.

Officers are working to develop a system to track lot releases and building certificate of occupancy. This will assist Council in more accurately tracking growth as it occurs. Officers will continue to monitor the performance of the population forecast and will seek its review if it is found to be tracking higher or lower than that forecast.



# Moorabool Population Forecasts

S86 Growth Management Committee  
4 March 2020



## Population Forecasts

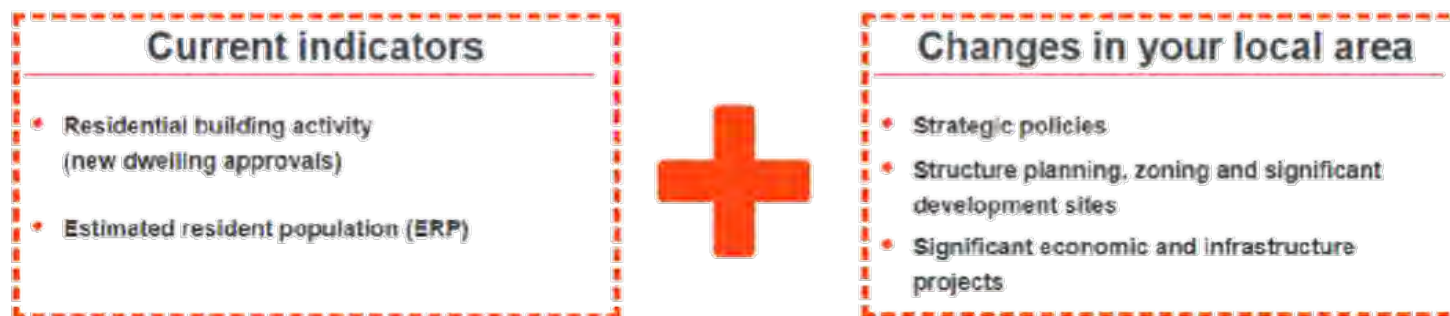
- Population forecasts are provided by .id
- .id are a company of population experts, demographers, spatial analysts, urban planners, forecaster, census data and IT experts.
- .id provide forecasts for Councils across Australia and New Zealand
- Last major update to Moorabool forecasts were Sept 2015
- Recent strategic planning will significantly alter projected population
  - Bacchus Marsh Urban Growth Framework
  - Bacchus Marsh Housing Strategy
  - Ballan Strategic Directions





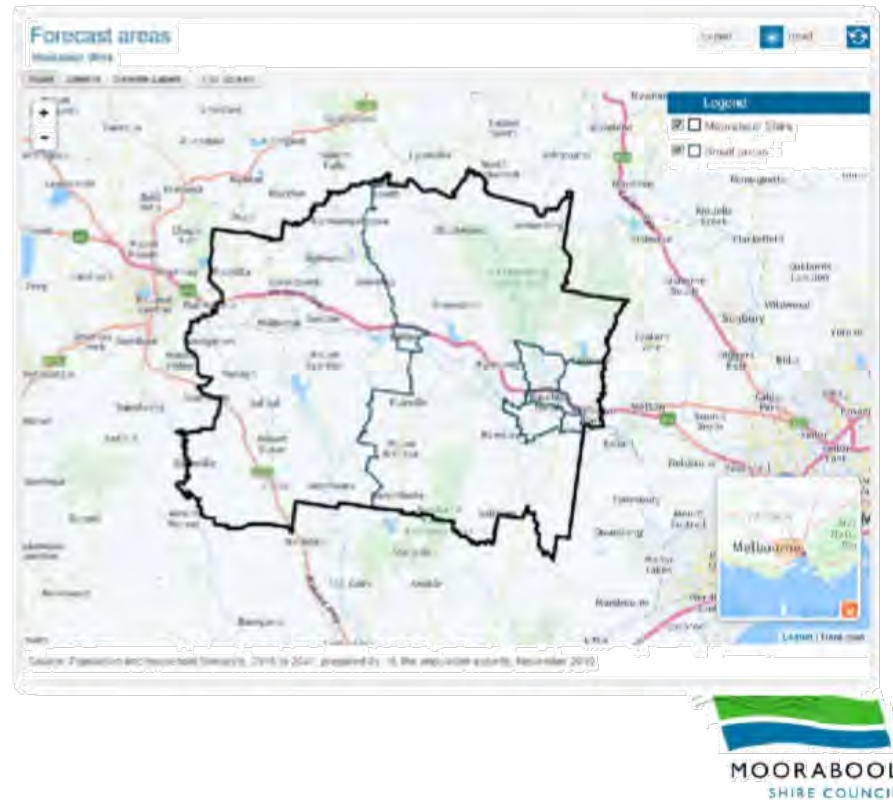
## How is population forecasted?

- Official data sources (census and residential building approvals) is the starting point for the forecasts.
- Assumptions about demographic factors (birth's, deaths, area-specific fertility and mortality rates) and net migration rates drive the forecasts.
- **Assumed rates of residential development** are a very important input. Housing supply, assumed demand and rates of development directly affect rates of population growth and change.
- Significant new employment (or loss of employment) can impact a forecast e.g. Parwan Employment Precinct.



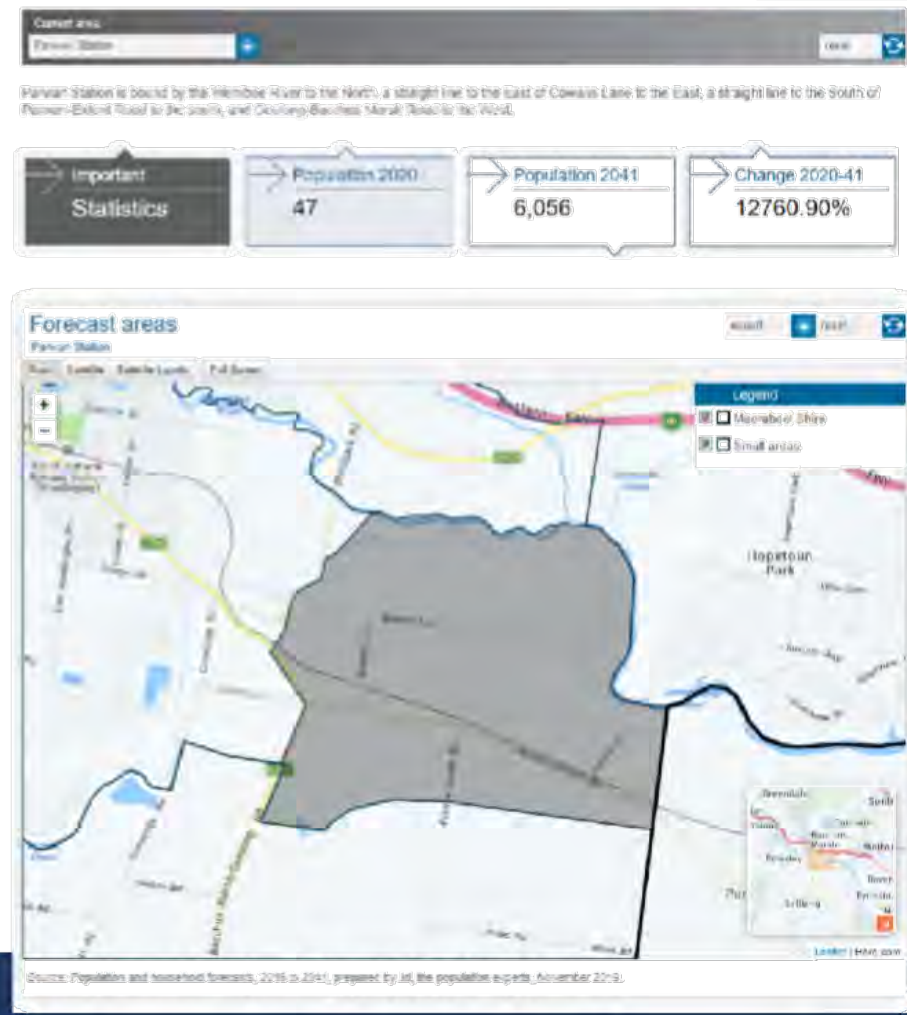
## Key Changes

- Amended Bacchus Marsh forecast area to include the entirety of the Underbank Estate. Estate was previously split between the Bacchus Marsh and Rural East forecast areas
- Creation of two new forecast areas 'Parwan Station' and 'Merrimu Hopetoun Park' to the residential growth in these two areas. Land within these two forecast areas was previously located with the Rural East forecast area.



## Key Changes

- Significant changes in Ballan, Merrimu Hopetoun Park and Parwan Station areas.
- Ballan – 2,496 (2019) to 6,741 (2041) – increase of 169%
- Merrimu Hopetoun Park – 1,580 (2019) to 11,426 (2041) – increase of 623%
- Parwan Station – 47 (2019) to 6,056 (2041) – increase of 12901%



## 2019 Updated Forecasts

- Council's .id forecast is published online at <https://forecast.id.com.au/moorabool>
- Current and forecast population for the various forecast areas.
- Average household size, demographic change (births, death, migrations etc) age structure and household type.
- Function to create tailored report e.g. number of three years olds within Maddingley in 2018 compared with 2041.

### Moorabool Shire

#### Data exporter

Open Share

In this section of the community forecast you can export individual data items from each LGA in the community forecast for each year and each geographic area. This enables you to configure your own tables. For example, you may want to compare data from a single point in time (e.g. 2018) with the age structure table across many geographic areas. Or you may want to look at a single topic across multiple years. In use this may look like:

Just follow the steps to create your own data export.

Selected area: Moorabool Shire

Select a data type

Population and households | Geographic change | Age Structure | Household type

Select data items

Average household size  
Families  
Households  
Resident population in non-private dwelling  
Resident population in private dwelling  
Total Population

Hold down the control (cmd) key to select multiple items.

At least one area must be selected to proceed.

Go Reset





## High Growth Scenario

- Additional 'high growth' forecast prepared.
- Accelerated level of growth within the Merrimu and Parwan Station precincts
- Extended forecast through to 2051 (the published forecast forecasts to 2041).
- All Bacchus Marsh growth precincts are 100% complete by 2051
- Ballan growth precincts at 71% complete
- Accounting for 100% completion of the Ballan Growth precincts, this provides for a forecasted ultimate population of **90,000 people within Moorabool Shire.**



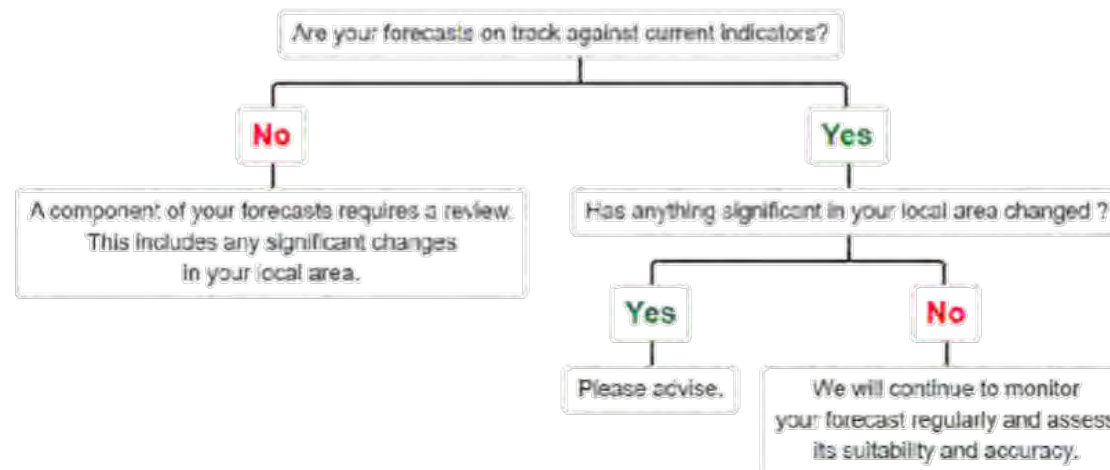
## Why population forecasts are important?

- Understanding where/how growth is occurring
- Planning and delivery of infrastructure, facilities and service to match growth.
- Estimate future budget
- Advocacy to state and federal government



## Forecast Monitoring

- Forecast is monitored annual for performance.
- Is the forecast tracking higher or lower than expected? Have there been any changes to future assumptions e.g. new development areas?
- Finance/GIS/Strategic Planning working to set up a system to more actually track 'real time' lot and dwelling approvals. This will put us in a good position to adjust the forecast, if needed.





**Questions?**





## 7.2 URBAN DESIGN GUIDELINES

**Author:** Ana Mitrov, Strategic Planner

**Authoriser:** Henry Bezuidenhout, Executive Manager Community Planning & Economic Development

**Attachments:** 1. Urban Design Guidelines

### PURPOSE

#### EXECUTIVE SUMMARY

- The preparation of Urban Design Guidelines is an action of the Bacchus Marsh Housing Strategy, *Housing Bacchus Marsh to 2041*. The Guidelines provide specific guidance for both infill and greenfield development across Moorabool Shire.
- The Guidelines provides a guidance tool for applicants and statutory planners to assist with the preparation of applications and assessment processes to ensure improved urban design outcomes can be achieved.
- The Urban Design Guidelines will be published on Council's website along with relevant strategic documents that provide direction on Council's preferred neighbourhood character.

### RECOMMENDATION

**That Council:**

1. **Notes the preparation of the Urban Design Guidelines at Attachment 1.**
2. **Implements the Urban Design Guidelines on a 12-month trial period and reviews the Guidelines on completion of the trial period.**

### BACKGROUND

In 2016, Moorabool Shire Council (Council) engaged Mesh Urban Planning and Design (Mesh) to develop the Bacchus Marsh Housing Strategy, *Housing Bacchus Marsh to 2041*. The strategy, which was implemented through the Planning Scheme Amendment C79, states that Council does not have any guidelines/Council policy regarding urban design, environmentally sustainable design and landscaping requirements.

An action of the housing strategy is to *"Prepare Urban Design Guidelines for residential developments within Bacchus Marsh and use them to assist planners and applicants"*. The action goes on to state that *"The Guidelines should consider the public realm, built form, subdivision design, natural environment and landscape, front fencing and sustainability"*.

The preparation of the Urban Design Guidelines is timely as Moorabool, and in particular Bacchus Marsh, Ballan and Gordon experience increased levels of development. The guidelines will assist both developers and applicants in understanding concepts of good urban design and neighbourhood character, but also assist Officers in the assessment process.

The guidelines are based on best practice planning and urban design and seek to ensure a high-quality built form in both new estates and in infill development.

## PROPOSAL

Officers engaged Mesh to prepare the Urban Design Guidelines (the Guidelines) (Attachment 1). The Guidelines were prepared in conjunction with Council Officers, Council's Heritage Advisor and included a workshop with a number of development industry representatives. It is important to note that while the action to prepare Urban Design Guidelines relates specifically to Bacchus Marsh (as it stems from the Bacchus Marsh Housing Strategy) the Guidelines have been prepared to apply to all residential development within the Shire.

The Guidelines note that there is a clear gap between planning scheme provisions and housing design, which both inadequately address the interface between the public realm, being the street, and within front setback areas of dwellings. How built form responds to the site context and established character is also a gap. This area is critical in the establishment and enhancement of distinctive neighbourhood character. As the municipality continues to grow, there will inevitably be an increased tension between existing and new development. There is a need to reduce this tension to ensure new development is positively contributing to the established character of towns and to ensure that the towns do not lose their valued characteristics.

The objectives of the Guidelines are to:

- Fill the strategic gaps between planning scheme policy and housing design standards.
- Provide a clear link between design outcomes and outcomes intended within Moorabool's various strategic plans for residential growth.
- Achieve site responsive design outcomes that complement their setting and the character of the area.
- Improve sustainability within residential developments.
- Develop a guidance tool for applicants and statutory planners to assist with the preparation of applications and assessment processes to ensure improved urban design outcomes can be achieved.

The Guidelines are structured to provide guidance on both infill and greenfield development separately, noting that both development types provide for a different set of challenges and opportunities.

### Infill development

The infill development guidelines are structured across four key elements: neighbourhood character, context, built form and sustainability. These four elements have a particular focus on improving the design outcomes between the public and private realm front yards, front facades of dwellings, fencing, landscaping and the streetscapes. The four key elements are explained below:

- Neighbourhood character aims to provide high quality and safe streetscapes that encourage residents to exercise, socialise and deliver sense of place for the community. This element sets out the guidelines for streetscapes, front yards and setbacks, front fencing and retaining walls, crossovers, car parking and access.
- Context ensures that the future development takes into consideration the existing characteristics of the site that is proposed for the development such as existing landscaping, heritage, landform and views, density and zoning, vegetation and biodiversity, easements, infrastructure, and microclimate.

- Built form sets out the guidelines for the development and ensures that the built form consist of similar architectural style, materials and colours, facades and articulation, height and massing, and advertising signs.
- Sustainability encourages the sustainable design features to be considered for the development. This will reduce the development impact on the environment and increase energy efficiency of the development.

### Greenfield development

The greenfield development guidelines are structured across four key elements: streetscape character, site planning, diversity and amenity, and landscaping. In greenfield development the relationship the subdivision layout has with the content of the site and the wider content will play a critical role later on in achieving increased diversity in streetscapes housing and landscaping. The four key elements are explained below:

- Streetscape character encourages roads and lot sizes to follow the topography of the land. Roads should provide good visual and physical connectivity to key places at the site such as open space, natural features and services.
- Site planning is aimed at ensuring that the subdivision layout is suitable for a site. The Guidelines outline the importance of good site planning such as maximising the number of east to west orientated lots, good pedestrian access, avoiding use of the irregular shaped lots and cul-de-sacs.
- Diversity and amenity seeks to ensure lot and housing diversity across developments, and encourage design elements throughout the streetscape.
- Landscaping should comprise of street trees on both sides of all streets at appropriate intervals. The existing mature trees on the site should be retained along with the key landscape features that are not affected by the development.

### Implementation of the Guidelines

The Guidelines will be used as a guidance tool for applicants and statutory planners to assist with the preparation of applications and assessment processes to ensure improved urban design outcomes can be achieved. Whilst it is proposed to adopt the Guidelines, it is not proposed to include them within the planning scheme.

It is proposed that the Guidelines would form part of a 'tool kit' that would be available on Council's website and could be given to applicants as part of the pre-application process to assist in informing and encouraging preferred design outcomes.

Applicants will be encouraged to complete an assessment of their proposal against the Guidelines. The assessment will demonstrate that the proposal complies with the Guidelines, or alternatively demonstrate why compliance cannot be achieved.

The Guidelines will be published on Council's Strategic Planning webpage, together with the relevant strategic documents that provide direction on Council's preferred neighbourhood character. These include the neighbourhood character brochures that form part of the Bacchus Marsh Housing Strategy, and the precinct design objectives that form part of the Ballan Strategic Directions. The Guidelines will be also located on the Building and Planning webpage along with checklists, application forms and fees for the residential and subdivisions planning permit applications.

It is proposed to use the Guidelines for a 12-month trial period, and on completion of the trial period review the Guidelines (including consultation with users) and report the Guidelines to Council for adoption.

It should be noted that the Guidelines do not seek to replace, override or differ from the objectives, standards and decision guidelines that are set out in Clause 54 and 55 ("ResCode") of the Planning Scheme, but rather will fill in the gap within the interface between the street and built form.

### **COUNCIL PLAN**

The Council Plan 2017-2021 provides as follows:

**Strategic Objective 3:** Stimulating Economic Development

**Context 3A:** Land Use Planning

The proposal to adopt the Urban Design Guidelines is consistent with the Council Plan 2017 – 2021.

### **FINANCIAL IMPLICATIONS**

There are no immediate financial implications associated with the consideration of this report.

### **RISK & OCCUPATIONAL HEALTH & SAFETY ISSUES**

There are no direct risk or occupational health and safety issues associated with the recommendation within this report.

### **COMMUNICATIONS & CONSULTATION STRATEGY**

The Guidelines were prepared in conjunction with Council Officers, Council's Heritage Advisor and included a workshop with a number of development industry representatives.

The Guidelines will be published on Council's website and promoted through Council's strategic and statutory planning teams.

### **VICTORIAN CHARTER OF HUMAN RIGHTS & RESPONSIBILITIES ACT 2006**

In developing this report to Council, the officer considered whether the subject matter raised any human rights issues. In particular, whether the scope of any human right established by the Victorian Charter of Human Rights and Responsibilities is in any way limited, restricted or interfered with by the recommendations contained in the report. It is considered that the subject matter does not raise any human rights issues.

### **OFFICER'S DECLARATION OF CONFLICT OF INTERESTS**

Under section 80C of the *Local Government Act 1989* (as amended), officers providing advice to Council must disclose any interests, including the type of interest.

*Executive Manager Community Planning and Economic Development – Henry Bezuidenhout*


In providing this advice to Council as the Executive Manager, I have no interests to disclose in this report.

*Author – Ana Mitrov*

In providing this advice to Council as the Author, I have no interests to disclose in this report.

**CONCLUSION**

The Guidelines are proposed as a non-statutory tool to assist applicants and statutory planners in encouraging improved urban design outcomes. They will assist in informing and encouraging preferred design outcomes and will fill the gaps between an applicant's response to the requirements of planning scheme and improved neighbourhood character.



MOORABOOL SHIRE COUNCIL

# URBAN DESIGN GUIDELINES



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# PART A

## INTRODUCTION

### STRATEGIC RESPONSE TO PROJECTED GROWTH

Moorabool has specifically been identified in Plan Melbourne and the Central Highlands Regional Growth Plan as a suitable location to accommodate growth due to its regional service centre role, its relative accessibility to Melbourne, Geelong and Ballarat, its well established town centres, and the availability of greenfield and infill development opportunities.

At the township scale, it is anticipated by 2041 that Bacchus Marsh will grow by approximately 24,127 residents and Ballan by approximately 4,218 residents.

To accommodate the projected population growth it is anticipated that there will be ongoing demand for both greenfield and infill development. This is largely due to the location and intrinsic characteristics of the municipality where opportunities for both greenfield and infill development exist.



### STRATEGIC DIRECTION

In response to the need to manage growth in Moorabool's largest townships, Council has prepared strategic plans to provide clear strategic directions for residential growth.

The relevant Documents are:

- *Bacchus Marsh Urban Growth Framework 2018;*
- *Housing Bacchus Marsh to 2041, 2018;*
- *Ballan Strategic Directions, 2018.*
- *Small Towns and Settlements Strategy, 2016;* and
- *Gordon Structure Plan, 2011.*

The documents identify preferred and non-preferred locations to accommodate growth with careful consideration also given to the unique characteristics of the towns. It is accepted within the documents that growth will be experienced, however it is critical that any new growth contributes to the sense of place and existing character.

Ensuring new development responds to the interface between private and public realm, is the key purpose of preparing the Urban Design Guidelines.



Ensuring growth *positively contributes* to the towns is challenging and is a key purpose to preparing the Urban Design Guidelines.









## KEY ISSUES WITH DEVELOPMENT APPROVALS IN MOORABOOL




There is a clear gap between planning scheme provisions and housing design, which both inadequately address the interface between the public realm, being the street, and within front setback areas of dwellings. How built form responds to the site context and established character is also a gap. This area is critical in the establishment and enhancement of distinctive neighbourhood character.

As the towns within the municipality continue to grow, there will inevitably be an increased tension between existing and new development. There is a need to reduce this tension to ensure new development is positively contributing to the established character of towns and to ensure that the towns do not lose their valued characteristics.

As part of the Documents prepared for Moorabool, a number of issues and threats to the existing character and preferred character for new development have been identified, which include:

-  **new development that is not in harmony with the site and surrounding context.** This includes the natural landscape qualities of the area, in particular in Bacchus Marsh with the loss of rural views due to inappropriate development on surrounding ridgelines/hills and plateaus;
-  **new developments that have minimal landscaping, in particular street tree plantings** which are often inconsistently planted, not established or in some instances non-existent. The lack of landscaping has a significant impact on the character of the towns, whilst also not achieving sustainable development outcomes which all developments should be aspiring to;
-  **road cross section layouts** being applied that:
  -  limit landscaping and street tree planting opportunities;
  -  often create streets that are too narrow with several cul-de-sacs and dead ends, all of which provide poor vehicle access and manoeuvrability; and

-  include overly wide street pavements. Although wide streets are often a feature of regional towns, there are a number of streets that have excessively wide road pavements. Such pavements do not contribute to sustainable design through significant amounts of hard surfaces and often a lack of landscaping. Further, excessively wide pavements encourage greater speed of vehicles and are often windswept if they are not heavily landscaped and therefore not contributing to creating pedestrian friendly environments.

-  multi-unit developments that **lack passive surveillance and have no sense of address.** Several multi-unit developments are dominated by hard paving, with insufficient soft landscaping and are inward focussed;
-  **new development that does not respond to adjacent public realm;** and
-  a number of **poor built form outcomes due to dwellings lacking articulation**, not responding to the context they sit within or complementing the character of the area.



There will often be an *increased tension* between existing and new development.

## OBJECTIVES OF THE URBAN DESIGN GUIDELINES

Taking into account the projected growth and demand for new residential development, the directions of the Documents and the key issues identified in some development approvals across Moorabool, the Guidelines have been prepared to:



**Fill the strategic gaps** between planning scheme policy and housing design standards



Provide a clear link between design outcomes and outcomes intended within Moorabool's various strategic plans for residential growth



Achieve **site responsive design outcomes** that **complement their setting and the character** of the area



**Improve sustainability** within residential developments



Develop a guidance tool for applicants and statutory planners **to assist with the preparation of applications and assessment processes** to ensure improved urban design outcomes can be achieved

## HOW WERE THE URBAN DESIGN GUIDELINES PREPARED?

In response to the issues identified with some recent infill and greenfield development approvals, there is a need for improved and consistent urban design outcomes which can be broadly applied across the municipality.

Council have therefore chosen to prepare these Urban Design Guidelines, to provide further guidance in regards to desired urban design outcomes for infill and greenfield developments.

In preparing the Guidelines the steps shown to the right were undertaken.

### STEPS TAKEN:

#### Workshop with Council officers where Council officers identified:

- ➡ concerns with the inconsistency of the urban design assessments of planning permit applications;
- ➡ concerns with the lack of urban design direction in the Planning Scheme

#### Workshop with a number of key development industry representatives in the Municipality, where they identified:





- ➡ concerns with timeframes of issuing of planning permits;
- ➡ concerns with the inconsistency of the urban design assessments between Council officers; and
- ➡ identified their interest in a fast track planning permit application process.

#### Draft Guidelines provided to Council officers for review

#### Finalisation of the Guidelines with a recommendation for the Guidelines to be adopted by Council.

## GUIDELINES FRAMEWORK

Building on the strategic directions, key issues, objectives and feedback from the development industry, the Guidelines have evolved under the following framework.

| Framework   |   |
|---|---|
|   | Responding to the strategic context ( <i>Bacchus Marsh Urban Growth Framework, Housing Bacchus Marsh to 2041, Ballan Strategic Directions, Small Towns &amp; Settlements Strategy, 2016 and Gordon Structure Plan, 2011</i> ).  |
|   | Concerns regarding the standard of quality of some residential development.   |
|   | Identified the need for consistency and urban design guidance for both infill & greenfield developments.  |
|   | Taking into account the key urban design issues identified for Moorabool, the Guidelines have sought to provide guidance in the following key areas for <b>all residential development</b> :  |
|   | 1) <b>Neighbourhood Character</b> - Streetscape emphasis  |
|  | 2) <b>Context</b> – Site and wider context emphasis   |
|  | 3) <b>Built Form</b>  |
|  | 4) <b>Sustainability</b>  |
|   | Taking into account the key urban design issues identified for Moorabool, and in addition to the key areas identified for all residential development (as per above), the Guidelines have sought to provide guidance for the design and layout of lots within <b>greenfield development</b> . |
|   | Promotion of high quality urban design and sustainability outcomes.   |



## WHERE WILL THE GUIDELINES APPLY?

The Guidelines will apply to residential planning permit applications in residential zones (including in growth areas where the underlying zone is a residential zone) and overlays where the objectives seek to maintain visual amenity and scenic qualities of townships.

This includes planning permit applications for:

- ▣ subdivision in an infill and greenfield context;
- ▣ medium density housing proposals (two or more dwellings on a lot); and
- ▣ a single dwelling on a lot less than 300 sqm.



Medium density housing

The location of these permit applications will be in the following zones and overlays:

➡ **General Residential Zone** (noting that strategic directions for Bacchus Marsh and Ballan encourage some growth within this zone).

➡ **Neighbourhood Residential Zone** (noting that strategic directions for Bacchus Marsh and Ballan generally does not encourage increased development in this zone).

➡ **Low Density Residential Zone** where land is proposed to be further subdivided.

➡ **Urban Growth Zone** (where the underlying zone is residential).

➡ **Township Zone** (where residential infill development can occur).

➡ **Mixed Use Zone** (where residential infill development can occur).

➡ **Environmental and Landscape Overlays** (where development can impact on visual amenity objectives).

➡ **Heritage and Built Form Overlays** (where development can impact on heritage significance, character and specific design objectives).

## RELATIONSHIP TO CLAUSES 54, 55 & 56 OF THE MOORABOOL PLANNING SCHEME

The Moorabool Planning Scheme contains specific provisions in relation to development of dwelling/s on a lot and residential subdivision of land.

Clause 54 contains provisions relating to where dwellings are triggered under the zones or overlays or for single dwellings on lots less than 300 sqm.

Clause 55 relates to two or more dwellings on a lot and Clause 56 in relation to residential subdivision of land.

Clauses 54 and 55 have the following specific purpose:

- ➔ To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
- ➔ To achieve residential development that respects the existing neighbourhood character or which contributes to a preferred neighbourhood character.
- ➔ To encourage residential development that provides reasonable standards of amenity for existing and new residents.
- ➔ To encourage residential development that is responsive to the site and the neighbourhood.

In terms of its operation, Clauses 54 and 55 contain:





- ➔ **Objectives:** An objective describes the desired outcome to be achieved in the completed development.
- ➔ **Standards:** A standard contains the requirements to meet the objective. A standard should normally be met. However, if the responsible authority is satisfied that an application for an alternative design solution meets the objective, the alternative design solution may be considered.
- ➔ **Decision guidelines:** The decision guidelines set out the matters that the responsible authority must consider before deciding if an application meets the objectives.

To ensure that the general purpose of Clauses 54 and 55 are achieved, detailed requirements are specified in relation to:

- .01 | Neighbourhood and Site Description and Design Response
- .02 | Neighbourhood Character (and Infrastructure)
- .03 | Site Layout and Building Massing
- .04 | Amenity Impacts
- .05 | On Site Amenity and Facilities
- .06 | Detailed Design

It is very important to state that the Guidelines do not seek to replace, override or vary from the objectives, standards and decision guidelines that are set out in Clauses 54 and 55 of the Planning Scheme but rather fill in the gaps within the interface between the street and built form.

The Guidelines, in relation to more than one dwelling on a lot – infill development, seek to provide further Moorabool specific guidance in relation to **four key areas**:

-  **1. Neighbourhood Character**
-  **2. Context**
-  **3. Built Form**
-  **4. Sustainability**

Clause 56 has the following specific purpose:

- 🚩 To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
- 🚩 To create livable and sustainable neighbourhoods and urban places with character and identity.
- 🚩 To achieve residential subdivision outcomes that appropriately respond to the site and its context for:
  - ➡ Metropolitan Melbourne growth areas.
  - ➡ Infill sites within established residential areas.
  - ➡ Regional cities and towns.
- 🚩 To ensure residential subdivision design appropriately provides for:
  - ➡ Policy implementation.
  - ➡ Livable and sustainable communities.
  - ➡ Residential lot design.
  - ➡ Urban landscape.
  - ➡ Access and mobility management.
  - ➡ Integrated water management.
  - ➡ Site management.
  - ➡ Utilities.

In terms of its operation, Clause 56 contains:

- 🚩 **Objectives:** An objective describes the desired outcome to be achieved in the completed subdivision.
- 🚩 **Standards:** A standard contains the requirements to meet the objective. A standard should normally be met. However, if the responsible authority is satisfied that an application for an alternative design solution meets the objective, the alternative design solution may be considered.
- 🚩 **Requirement:** An application to subdivide land:

- ➡ Must be accompanied by a site and context description and a design response.
- ➡ Must meet all of the objectives included in the clauses specified in the zone.
- ➡ Should meet all of the standards included in the clauses specified in the zone.

It is very important to state that the Guidelines do not seek to replace, override or vary from the objectives, standards and requirements that are set out in Clause 56 of the Planning Scheme.

## HOW WILL THE GUIDELINES BE IMPLEMENTED?

The Guidelines will be implemented in the following ways:

- 📦 The Guidelines will form part of the pre-application meeting for relevant planning permit applications.
- 📦 Applicants will be encouraged to complete an assessment against the Guidelines and submit to Council as part of their planning permit application to demonstrate their proposal is complying with the Guidelines.

## PART B

### URBAN DESIGN GUIDELINES

#### KEY ELEMENTS OF RESIDENTIAL DEVELOPMENT

As identified in Part A, the Guidelines have included **four key elements** that are the focus for new residential development, particularly within infill subdivision.

The four elements have a particular focus on improving design outcomes between the public and private realm (front yards, front façade of a dwelling, fencing, landscaping and the streetscape).

Influencing the interface between the public and private realm has the ability to significantly enhance existing streetscapes and the preferred character of an area. Whilst landscaping is a critical component in achieving positive residential outcomes, complementary architectural styles and materials are also important elements.

Despite the Guidelines having a focus on improving the urban design outcomes between the public and private realm, the balance of the lot (backyards, side and rear of a dwelling) is still an important consideration, in particular ensuring new development achieves satisfactory amenity outcomes for future residents and the development has minimal impact on adjoining properties.

Clauses 54 and 55 include a number of objectives and standards in regards to achieving positive amenity outcomes and should be relied upon as part of the assessment of permit applications to ensure appropriate amenity outcomes are achieved.

It is for the above reasons that the Guidelines have a particular focus on improving the interface between the public and private realm, while ensuring new development is both site responsive and building on the strategic directions identified in

the relevant Strategies.

#### FOUR KEY ELEMENTS:



##### Neighbourhood Character

This element has a particular emphasis on enhancing the landscape within the public and private realm to assist in shaping the character of a neighbourhood.

Providing high quality streetscapes will encourage residents to walk, cycle and engage with one another. It will also play an important role in the perception of safety, and sense of place for the community.



##### Context

This element emphasises the importance for new development to take advantage of existing site features and views, whilst responding to the site and locality context.



##### Built Form

Built form provides a back drop to streetscapes and therefore housing design, in particular elements visible from the street, play a key role in shaping the neighbourhood character.



##### Sustainability

Encouraging residential development to achieve sustainable development outcomes can not only improve the environment, but also has the ability to increase energy efficiency.



## Neighbourhood Character



## 1. Neighbourhood Character

The design and composition of streetscapes and their relationship to homes and front yards, shape the character of our neighbourhoods and the way we experience them in our daily lives. High quality streetscapes encourage residents to walk, cycle and engage with one another, and also play an important role in the perception of safety, and sense of place for the community.

A well landscaped streetscape can enhance a street character, provide shelter to paths, and help unite a street particularly in the absence of a consistent architectural or building style.

Front yards are an extension of the streetscapes. They define and consolidate the character and experience of neighbourhoods, and compliment the built form.

### Key Elements

- ⇒ Streetscapes
- ⇒ Front yards and setbacks
- ⇒ Front fencing and retaining walls
- ⇒ Cross overs, car parking and access

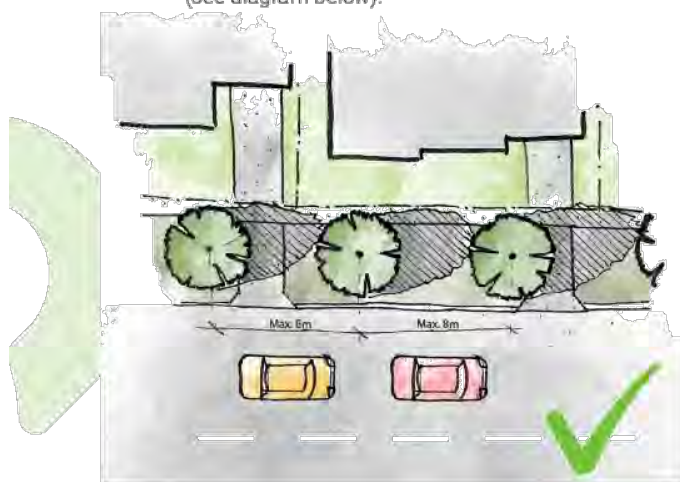




## DESIGN GUIDELINES

### Streetscapes

- ➔ Development within existing urban areas should be in keeping with surrounding streetscape character and contribute to the continuity, rhythm and unity of the streetscape.
- ➔ Existing trees within the streetscape (nature strip) should be protected from new development and appropriate tree protection zones should be applied. **Note: Tree removal should only be supported if it is proven to Council's satisfaction that no other viable options are available to the developer.**
- ➔ Nature strips should be planted and maintained as lawn. **Note: Plantings within the verge are subject to Council approval.**
- ➔ Development adjacent open space should address this interface as the primary frontage.
- ➔ Planting of streetscapes should be consistent with Council's approved street tree species guide.
- ➔ Street trees should be planted in the streets established pattern. In the absence of an established pattern, trees should be planted at 8m intervals, where possible, to maximise shade, cover and continuity of canopy cover. (see diagram below).



### Front yards and setbacks

- ➔ Front setbacks should be landscaped to compliment the streetscape and at least one advanced canopy tree be planted within the front setback.
- ➔ Hard paving (driveways, paths and carparking) should not dominate the front setback or negatively impact on existing trees, with large expanses of concrete to be avoided.
- ➔ Hard paving, internal private access streets and shared driveways should be softened and complimented by low level landscaping, garden beds and vegetation.
- ➔ Streetscapes should clearly define the public and private realm, areas for car parking, verges and footpaths.
- ➔ Existing mature trees within the front setback of a lot, or within communal areas, should be protected from development and appropriate tree protection zones applied. **Note: Tree removal will only be considered if it is proven to Council's satisfaction that no other viable other options are available to the developer.**
- ➔ The communal areas of multi-unit developments visible from the public realm, should be landscaped to compliment the streetscape. At least one advanced canopy tree is required to be planted within the front setback or along internal private access streets or shared driveways.

## Neighbourhood Character



## DESIGN GUIDELINES

## Front fencing and retaining walls

- ➔ Front fencing should not dominate the streetscape. It should be at least 50% transparent, comprise of natural materials or tones, and appropriately respond to the neighbourhood character (see diagram below).
- ➔ Front fencing should be complimentary in both tone and style with the dominant fencing style within the street (provided it meets the above guideline).
- ➔ Large continuous expanses of fencing and/or retaining walls, should be discouraged unless appropriate to the existing and preferred character of the streetscape. If appropriate, render should be in a neutral textured tone and consider use of articulation.
- ➔ Where no fencing is proposed (which is encouraged if this is the dominant character) landscaping should be used to define the public and private realm.
- ➔ Fencing height or transparency should allow for a visual relationship between the street and landscaping within a front yard or setback and communal areas. Fencing height should not exceed 1.2 metres.
- ➔ Side fencing within the front setback (between dwelling frontage and front property boundary) and visible from the street, should not dominate the streetscape and be consistent with the height of the front fence on the site.
- ➔ Where no front fence is proposed or exists on adjoining land, side fencing within the front setback should be low scale (less than 1.2 metres in height at the point closest to street, graduating up a height to match side fencing behind front setback) and comprise of natural materials.
- ➔ Where fences front a street or non-residential interface, fencing must be low scale and visually permeable to facilitate public safety and increased passive surveillance.
- ➔ Colorbond fencing is not considered appropriate where it is highly visible from the street. Exceptions can be made for side fencing forward of the dwelling frontage, which incorporates landscape screening, or is of a colour, height and scale which does not detract from the visual appearance of the streetscape.
- ➔ Where retaining walls are used in lieu of front fencing, they should generally be less than 1.2 metres in height and should incorporate natural elements such as timber and stone. **Note: Terracing is a preferred alternative to retaining walls and is highly encouraged.**

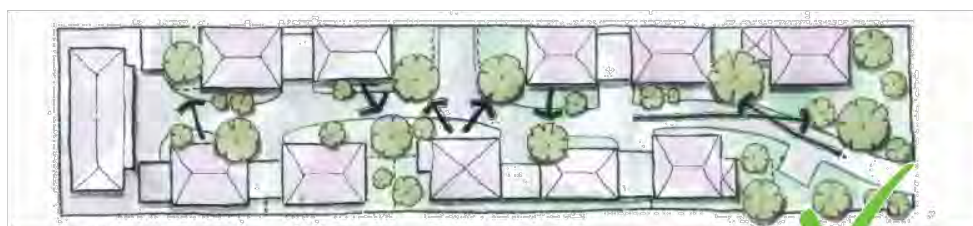




## DESIGN GUIDELINES

### Cross overs, carparking and access

- ➔ Cross overs should be located to minimise the impact on existing vegetation and provide appropriate space / buffers / tree protection zones for existing and additional tree planting(s).
- ➔ Multiple double crossovers should be discouraged unless in direct response to access or vegetation constraints, and the visual impact of these larger crossovers is minimised through appropriate landscaping.
- ➔ In multi-unit developments, car parking should not compromise the quality of the streetscape or limit the ability to plant street trees within the verge.
- ➔ For multi-unit developments, garages should be accessed from the rear where possible (via a laneway or internally positioned driveways) to manage the number of driveway and garages along the streetscape.
- ➔ For multi-unit developments, consideration should be given to the end view and view lines along internal private access roads and shared driveways to minimise the dominance of hardscape areas. This may be achieved through offsetting or meandering shared driveways / private access roads, strategic placement of landscaping and building placement (see diagram below).

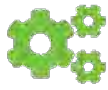


- ➔ For multi-unit developments, internal private access roads or shared driveways should be designed to establish opportunities for internal vistas and landscape nodes within the development.
- ➔ In multi-unit developments, the number of crossovers should be kept to a minimum to minimise negative impacts on the streetscape and vegetation. (see diagram below)
- ➔ In multi-unit developments where more than one crossover is proposed, any loss of on street parking should be offset by setting back of garages / carports to accommodate additional onsite car parking opportunities. Large expanses of hard stand off street carparking should be avoided.
- ➔ In multi-unit developments, car parking should be clearly defined to avoid informal parking on verges, nature strips and footpaths.





## Context



## 2. Context

The Moorabool municipality offers a wide variety of natural features, housing typologies, character precincts, community facilities and infrastructure. An important component of the success of a new development is taking careful consideration of the physical environment within and around the site.

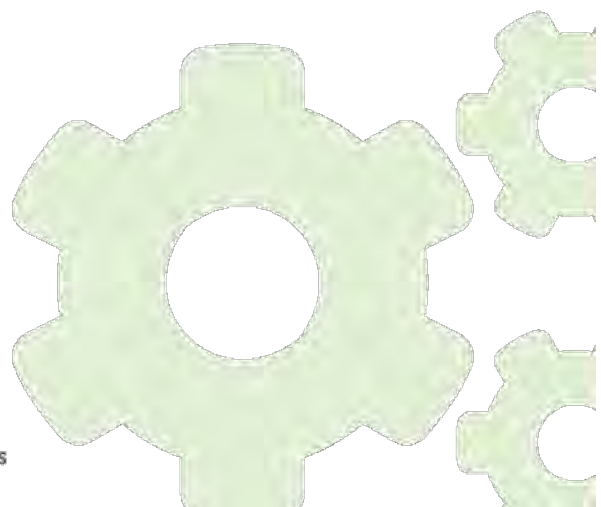
Development should demonstrate an appropriate response to the surrounding landform, landscape, key views, solar orientation, buildings and infrastructure, existing vegetation and biodiversity. It should also consider proximity to activity centres, community services and public transport.

A development or dwelling that takes full advantage of the opportunities presented by its context and site is more likely to sit comfortably within its setting and contribute to a broader sense of place.

### Key Elements

Relationship to:

- ↔ Landform and views
- ↔ Vegetation and biodiversity
- ↔ Density and zoning
- ↔ Easements and infrastructure
- ↔ Heritage and Place
- ↔ Microclimate





## DESIGN GUIDELINES

### Landform and views

- ➔ Development should respond to the topography and slope of the site and be designed in a way which minimises the need for major earthworks.
- ➔ Where there is a significant level difference between the site and the street, the design response should seek to maintain a visual relationship between the dwelling and the street. This should be demonstrated by ensuring windows on the front façade are visible from, and look onto, the street. (see diagram below)
- ➔ In multi-unit developments, where landform is sloping or steep, dwellings should be designed to stagger up and down the slope.
- ➔ On steeper slopes, slope responsive building types should be explored that sit more sensitively in the landscape (split level or stepped, stumps, undercroft garages, pavilion style housing etc).
- ➔ Residential lots that are located on highly prominent hills or undulating topography should ensure future built form does not penetrate above the ridgeline of the hill and be softened by vegetation around the dwelling.
- ➔ In steep areas, wider front and side setbacks should be provided to allow transitioning of driveways and pathways to the dwelling/s.
- ➔ Meandering or switchback driveways and paths should be utilised where appropriate to manage slope and access.
- ➔ Vegetation should be used to stabilise sloped areas and screen dwellings that sit high in the landscape.
- ➔ Private open space should be landscaped to compliment the landform and views.
- ➔ Dwelling/s should be designed to respond to natural drainage lines, and ensure they do not interrupt natural drainage flows across the site.
- ➔ Retaining walls that are required for slope management should not dominate the streetscape or front setback.



## Context



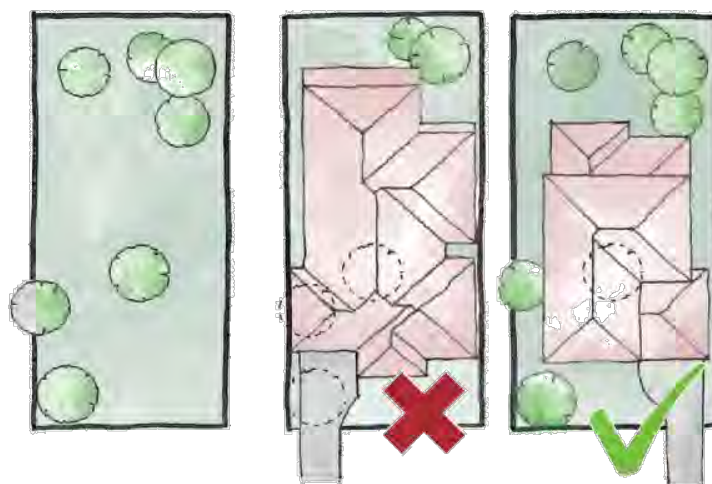
## DESIGN GUIDELINES

## Landform and views (continued)

- ➔ Retaining walls/fencing within the front setback and/or visible from the street should not exceed 1.2 metres in height in order to maintain a visual relationship between the public and private realm.
- ➔ Landscaping proposed at the base or top of retaining walls should soften their appearance from the street.
- ➔ Softer landscaping solutions such as terracing and plantings (low planting and boulders) should be used to manage slope and minimise the need for retaining walls within the front setback or boundary of the lot.
- ➔ Dwelling/s should be oriented and designed to sensitively respond to significant view corridors and vistas.
- ➔ Dwelling/s should be designed to maximise the relationship to the streetscape as a priority. The dwelling/s should not interrupt significant views from other adjacent dwellings, and manage solar orientation.

## Vegetation &amp; biodiversity

- ➔ Where there are no existing trees proposed for retention on the site, at least one advanced canopy tree per dwelling should be planted to provide shade and amenity for future residents and contribute to the broader amenity of the neighbourhood.
- ➔ Dwelling/s should avoid planting of known weed species and use native plantings, particularly if located close to creeks, waterways or conservation areas. *Note: Refer to 'Neighbourhood Character' section for further guidance around vegetation.*
- ➔ Existing established trees and vegetation with landscape amenity or biodiversity values within and adjacent to the lot, should be protected and retained, where possible, in common property, front setbacks or private open space (see diagram below). *Note: Tree removal within the lot will only be considered if the tree compromises development and no other options are available, however justification to the satisfaction of Council should be provided.*

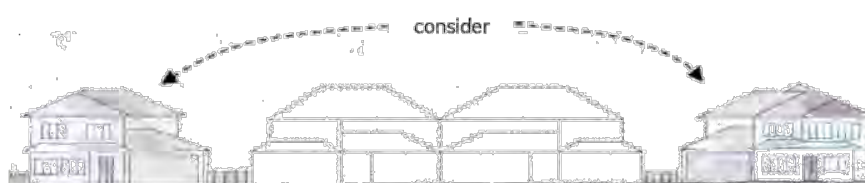




## DESIGN GUIDELINES

### Density and zoning

- ➔ Subject to zone and overlay requirements, dwellings proposed within close proximity to existing and planned activity centres, community facilities and public transport should be designed to reflect an urban character and include appropriate densities to support the vibrancy of these neighbourhoods.
- ➔ Dwellings in low density areas should be designed to respond sensitively to the character of the surrounding neighbourhood. Dwelling/s should reference elements or housing types found in the area, which may include vegetation coverage, open rural fencing styles and a general sense of openness.
- ➔ The development should respond to the context of any adjacent dwelling/s and the streetscape, contributing to the rhythm or pattern created by the positioning, desired character, zone objectives, orientation, setback and site coverage of the neighbourhood (see diagram below).
- ➔ The development should respect the privacy and amenity of neighbouring dwellings.



### Easements and infrastructure

- ➔ The development should take into consideration any services, easements, building or infrastructure asset requiring protection.



## Context



## DESIGN GUIDELINES

## Heritage and Place

- ➔ New development should have complimentary scale, form, bulk, massing and setbacks to other heritage places either adjacent or within the immediate streetscape context of a precinct (see diagram below).
- ➔ Built form should strive for design excellence and achieve high aesthetic outcomes through either good contemporary design which responds to the heritage context in which it sits, or a simple design form which relies on overall design principles of the surrounding heritage buildings without resorting to mock heritage.
- ➔ Ensure that adjacent or nearby heritage places retain their prominence through careful consideration of the new development's scale, building volume, massing and form.
- ➔ New development should not visually dominate adjoining heritage buildings or block views to their principal elevations.
- ➔ Development of heritage places and adjacent to heritage places, should be clearly distinguishable as new work, while referencing and responding to the surrounding built form and character of heritage places.
- ➔ New development should seek to integrate harmoniously into the streetscape and reinforce the existing spatial and visual characteristics of the area if located within a heritage precinct.
- ➔ Ensure that key sight lines to heritage places are maintained through careful positioning of garages and front and side setbacks. Setbacks should be consistent with adjacent heritage buildings. Where the street has inconsistent setbacks, the average setback of the nearest heritage buildings on either side should be used as a guide.





## DESIGN GUIDELINES

- ➔ Seek to avoid the integration of garages and carports into the façade of the new development.
  - ➔ Ensure that garages and car parking are a subsidiary element. This can be achieved by any new garage being detached from the main building, set behind front wall of the heritage place (at a minimum) and designed to be of a scale and form which is respectful of the heritage place.
  - ➔ Subdivision of a heritage place lot should retain separate elements with a shared significance on the same title.
  - ➔ Ensure the subdivision of a heritage place retains principal views to major elevations of a heritage building.
  - ➔ Maintain the heritage place to retain adequate setting and context when subdividing a heritage place lot.
- Alterations and additions to existing heritage places**
- ➔ Development should not adversely affect the significance, character and appearance of the heritage place or heritage precinct.
  - ➔ Seek to retain as much of the original fabric of the heritage place as possible, with new development to read as secondary to the original.
  - ➔ Ensure that where additions are proposed to heritage places on corner sites, the appearance, bulk, scale and massing does not detract from the adjacent heritage building/s.
  - ➔ New development should present as fully concealed from the street frontage/s. Oblique views to the addition should also be largely concealed.
  - ➔ Replication of heritage features or ornamentation, should be avoided.

## Context



### DESIGN GUIDELINES

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#### **New development adjacent to Heritage Overlay**

- ➔ Provide built form transitions in its scale, massing and setbacks that reference the significant characteristics of the heritage place or precinct.
- ➔ Provide a scaled transition from the heritage place to the new development, from the smaller to the greater scale.
- ➔ Demonstrate a clear design link between the lower levels of the new development and the adjacent heritage place.
- ➔ Reference prevailing eave or parapet heights and siting arrangements to ensure new development responds to the heritage place or precinct.



## DESIGN GUIDELINES

### Microclimate

- The development should maximise solar orientation into habitable rooms through the orientation of the building on the lot, and strategic positioning of windows and living areas.
- The development should retain vegetation where possible to provide shade to private open space areas and add amenity to the development and the broader neighbourhood (see diagram below).



## Built Form



### 3. Built Form

A variety of housing types exist across the Moorabool municipality, each adding to a diverse residential character. Whilst this diversity is encouraged to continue it is important to ensure that the resulting built form appropriately engages with the street and respects neighbouring built form.

Whilst landscaping in the verge and front setback can unite streetscapes, built form provides the important backdrop and containment of the public realm. The design and quality of the built form can therefore enrich streetscapes, contribute to a sense of safety for the community and reinforce the landscape setting and character, whilst building heights and setbacks are influential in framing our streetscapes.

In the absence of a consistent dominant architectural style across the municipality, a contemporary approach to new development presents an opportunity to define a new era of built form, set a new standard of innovation, utilise contemporary materials, form and styles to respond to and enhance existing character and streetscapes.

#### Key Elements

- ⇒ Building facades and articulation
- ⇒ Building height and massing
- ⇒ Building styles, materials & colours
- ⇒ Advertising Signs





## DESIGN GUIDELINES

### Building facades and articulation

- ➔ Garages should be setback from the front façade and not present as a dominant element of a dwelling when viewed from the street.
- ➔ Where the opportunity exists, garages should be located and accessed from the rear or side of the lot. Garages should not dominate the frontage.
- ➔ At least one habitable room at the ground floor of a dwelling should be located fronting the street to encourage interaction with the public realm.
- ➔ For corner sites, the dwelling on a corner should be orientated to the primary frontage whilst also addressing the secondary street frontage through large windows or access (secondary), where appropriate
- ➔ Appropriately sized and consistent windows, should be positioned along the front façade of the dwelling at ground level (and any upper levels where appropriate) to promote passive surveillance.
- ➔ Dwellings should actively address and engage with the street promoting a strong relationship between the public and private realm, and passive surveillance of the street (see diagram below).
- ➔ Other architectural elements that promote interaction between the private and public realm such as porches, balconies, bay windows, pergolas, verandahs should be included in the design of the dwelling/s.
- ➔ Where appropriate, eaves should be incorporated into the design of dwelling/s to provide shade, articulation and visual interest to the dwelling/s.
- ➔ Front doors of a dwelling should be visible from the street, where possible, and include covered verandahs or porticos to highlight and provide shelter to the entry.
- ➔ Where front doors of a dwelling are positioned away from the street, they should have a clearly defined path from the street, particularly in multi dwelling developments.
- ➔ The second storey and upper levels of a dwelling should be setback or forward from the ground level to provide increased built form articulation.





## Built Form



## DESIGN GUIDELINES

**Building height and massing**

- ➔ The rhythm of built form and spacing between dwellings in the streetscape should be maintained.
- ➔ Dwellings should be visually present at a pedestrian scale and interact with the street and public realm regardless of the density, scale or height of the development.
- ➔ For multi-unit developments the building envelopes of each dwelling should be staggered, where possible, to reduce the appearance of bulk and add interest and dynamism to the street.
- ➔ Where a string of dwellings is proposed to front a street, a suite of architectural elements and materials should be used to reduce the appearance of bulk, differentiate individual dwellings whilst maintaining a consistent architectural thread throughout.
- ➔ Where multiple dwellings are proposed along a streetscape, the bulk of the built form should be managed through staggering of the facades, varying setbacks, articulation, setbacks of a second storey and gaps in the built form at regular intervals.
- ➔ The roof profile of a dwelling should be well-considered, particularly where the building will be taller than adjacent dwellings in the area.  
*Note: Contemporary roofs such as skillion are appropriate in contemporary architecture responses.*
- ➔ Contemporary roof lines should be in keeping with the style of the street.

**Building Style, Materials and Colours**

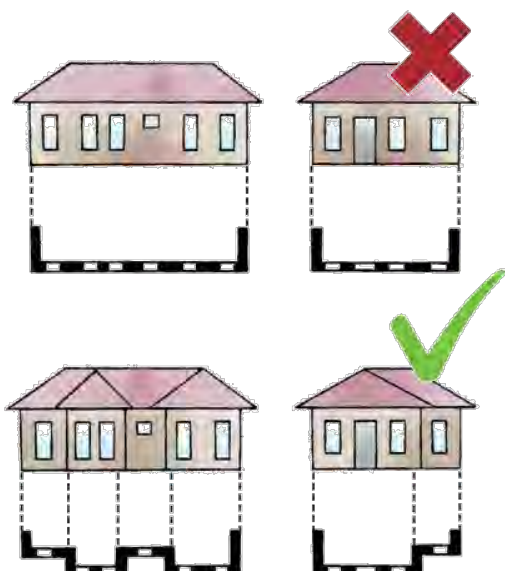
- ➔ In the absence of a distinct architectural style or building typology in the streetscape, contemporary buildings are encouraged that use contemporary materials and architectural forms, and where appropriate reference the materiality, architectural elements and proportions of any established or significant dwellings in the street.
- ➔ Contemporary architecture is encouraged and can define a new style for streetscapes that lack a defined character or architectural era. Dwellings that present exemplary high quality contemporary architectural design and respond to Section 1 and 2 of these guidelines should be assessed primarily on the contribution they make in terms of architectural quality, interest, innovation and sustainability.
- ➔ A natural pallet of materials such as stone, timber and weatherboard can be incorporated into key elements (such as of the dwelling facade and any the built form visible from the street).
- ➔ Where brick render is proposed, render should be in contrasting tones and large areas be broken with the introduction of feature element.



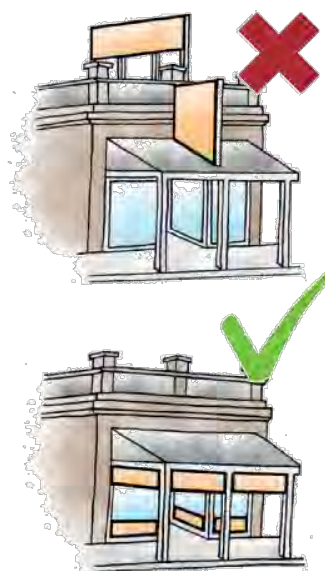
## DESIGN GUIDELINES

**Building Style, Materials and Colours  
(continued)**

- ➔ The façade should provide a diversity in materiality, in particular where masonry and brickwork is proposed within the front facade.
- ➔ Garage doors should be in tones that compliment the dwelling.
- ➔ All gutters, rain head overflows and down pipe profiles or treatments should be integrated into the design and materials of the dwelling.
- ➔ Articulation should be used on all visible sides of the dwelling/s to reduce the appearance of bulk from the streetscape (see diagram below).

**Advertising Signs**

- ➔ Signs for non-residential land uses should not dominate the street and be limited to one sign per site.
- ➔ Signs which are above verandah, illuminated or reflective should be avoided, especially where facing other residential areas.
- ➔ Signs within heritage buildings should adopt traditional locations, and ensure the original character of the building is maintained (see diagram below).
- ➔ Advertising signs on heritage places which are residential in style and form should generally be avoided. Where they are required, signs should be designed and placed carefully to ensure that they do not detract from or have a detrimental impact on the important heritage elements of the place or the precinct. On commercial heritage places, signs should be placed in traditional locations.
- ➔ Signs should not be located on walls which face existing residential areas.





## Sustainability



#### 4. Sustainability

Encouraging residential development to achieve sustainable development outcomes can reduce the development impact on the environment, but also can increase energy efficiency. Sustainable development can dramatically reduce energy and water costs over the long term while also contributing to creating a healthy residential environment.

Accordingly, the Guidelines encourage the incorporation of sustainable design features in residential development. Sustainable residential design results in benefits for the householder, the community and the environment, including:

- ⇒ reduced energy and water costs in the home;
- ⇒ greater natural comfort and amenity for residents of the home;
- ⇒ conservation of water supplies; and
- ⇒ reduced greenhouse gas emissions.

##### Key Elements

- ⇒ Site impacts
- ⇒ Dwelling design
- ⇒ Energy
- ⇒ Water



## DESIGN GUIDELINES

### Site Impacts

- ➔ Development should limit its impact on the natural environment including significant existing native vegetation, where possible, through a site responsive design.
- ➔ Development should maintain the natural ground level of the site and minimise the need for removal of existing fill.
- ➔ Alterations to watercourse and drainage patterns should be avoided, unless an agreement has been reached with relevant authorities and to the satisfaction of Council.

### Dwelling design

- ➔ Wide eaves should be used where appropriate as part of the design of a dwelling.
- ➔ Double glazed windows should be used strategically to reduce energy usage.
- ➔ Windows should be located to allow for a high level of cross ventilation.
- ➔ Dwellings and associated landscaping, should make use of recycled or sustainably sourced constructions materials.

### Water

- ➔ Re-use of non-potable sources such as stormwater, rainwater and recycled water is encouraged to minimise ongoing water consumption.
- ➔ The design of the lot should allow for installation of a water tank to collect from the dwelling/s. The water tank should match the colour of the dwelling and not be visible from the street and/or public spaces.

### Energy

- ➔ Solar panels which are located on roof planes should where possible, follow the roof pitch and should not be on separate elevated frames which create an undesirable visual outcome.
- ➔ Natural lighting is encouraged through multiple windows, sky-lights and doorways and should be provided for in more than one direction.
- ➔ The dwelling should be designed to ensure that no point within the house is further than 4 metres away from a source of daylight which is provided without solar glare issues, typically this would be a window, skylights or glass doorway.
- ➔ Dwellings should allow for a high level of ventilation of rising hot air through use of high ceiling heights.
- ➔ The design of the dwelling should efficiently use the landscape, through maximising the availability for outdoor living spaces and accommodating north facing daytime outdoor living spaces.
- ➔ Soft landscaping should be implemented to reduce soil degradation, sediment run-off and storm water run-off.
- ➔ Stormwater run-off should be reduced through materials used, permeable paving, pebble paths, infiltration trenches, lawn, garden areas, swales and the like.
- ➔ Landscaping is encouraged to use native plants to improve the efficiency of the garden to reduce the need for water.
- ➔ Planting that have low watering needs, little maintenance and are appropriate for the locality and its conditions are encouraged.

## PART C

### GREENFIELD DEVELOPMENT

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#### KEY ELEMENTS OF GREENFIELD SUBDIVISIONS

In residential greenfield development, the relationship the subdivision layout has with the context of the site and wider context will play a critical role later on in achieving increased diversity in streetscapes, housing and landscaping.

The character of streetscapes can be defined through view lines to prominent locality features in addition to the relationship with future housing. Varied street widths and allowance for landscaping, can enhance the character and experience of neighbourhoods, and each providing a unique experience whilst acknowledging subtle similarities throughout Moorabool.

For the purposes of the guidelines, greenfield development is considered to apply to new developments of 60 lots or more. As per the zone requirements relating to residential subdivision, neighbourhood character is not a consideration for development of 60 lots or greater. Where subdivision of land occurs with 60 lots or less, generally these developments will be required to respond to existing neighbourhood character.

#### Key Elements

- ⇒ Streetscape Character
- ⇒ Site Planning
- ⇒ Diversity and Amenity
- ⇒ Landscaping

## Greenfield



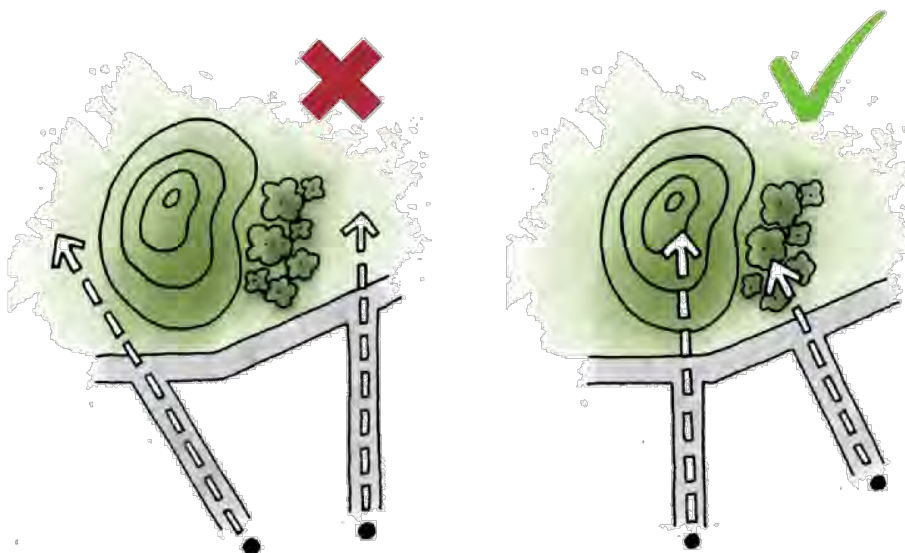
## DESIGN GUIDELINES

## Streetscape Character

- ➔ Encourage consolidation of vehicle crossovers where practical to reduce the amount of hard surfaces and ensure no more than one crossover per lot is provided.
- ➔ Ensure roads are orientated to take advantage of key view lines and provide visual and physical connectivity to key site features, such as open space, community infrastructure and natural environmental assets such as water bodies, hilltops etc. (see diagram below)
- ➔ Encourage roads to follow the topography of the land and lot sizes that are responsive to slope, in order to reduce cut and fill and reduce the need for retaining walls.

## Site Planning

- ➔ Ensure that across the development, the lot layout seeks to maximise the number of east-west orientated lots to give future dwellings good solar access, including within private open space.
- ➔ Wherever possible, ensure that pedestrian access is prioritised above vehicular movements.
- ➔ Avoiding the use of the irregular shaped lots, such as battle-axe lots, which can lead to a poor built form outcome.
- ➔ Avoid the use of culs-de-sacs, to increase movement and permeability across the development.



## Greenfield



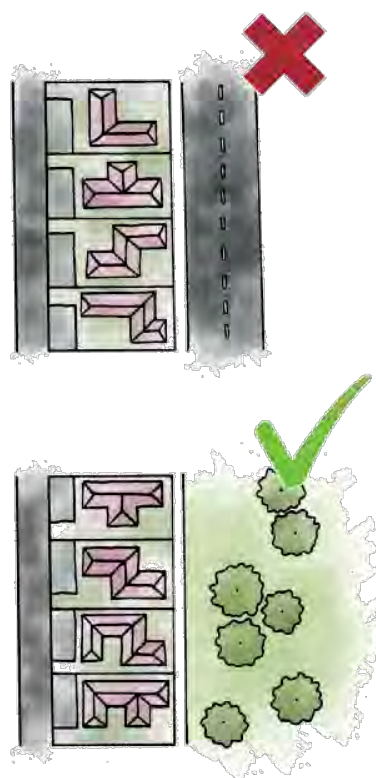
## DESIGN GUIDELINES

## Diversity and Amenity

- ➔ Encourage localised variation in local streets, including the number and type of street elements. Such as threshold paving, tree outstands, street furniture, car parking arrangements and alignments, in order to add visual interest and subtle changes from street to street.
- ➔ Support rear loaded housing and lot types, especially where lots have direct frontage to open space. Ensure side walls to open space are avoided (see diagram below).
- ➔ Encourage lot / housing diversity across developments, including lot widths / depths, reduced setbacks of medium density and townhouse development, and allowance for landscaping within street in lieu of front setbacks (with front setbacks being the preference).
- ➔ Align pedestrian connections to ensure travel paths are shortest possible, in consideration of the site topography.
- ➔ Sloping sites can utilise curved paths, which increase travel path distances, but ensure a more efficient outcome in relation to earthworks and retaining.
- ➔ Encourage the reduction in the scale of street blocks where possible through the introduction of pedestrian connections, including a well-connected road network.
- ➔ Encourage a single on street car park space per dwelling within reasonable walking distance to each lot / dwelling.
- ➔ Encourage variation in access arrangements to lots through the combination of side access for corner allotments and rear lanes for lots with narrow frontages.
- ➔ Subdivision design should be responsive to the features and slope of the site.
- ➔ Allow for the reservation of strategic sites for future medium density / integrated housing to support change over time.

## Landscaping

- ➔ Introduce street tree theming across the site which reinforces movement hierarchies and creates unique neighbourhoods.
- ➔ Encourage street trees to be provided on both sides of all streets (except laneways), at intervals appropriate to the tree size at maturity.
- ➔ Where practical, incorporate and retain existing mature trees which contribute to maintaining the landscape character of the area.
- ➔ Retain key landscape features within the site which is clear of development.
- ➔ Incorporate and celebrate key heritage features within the site, including indigenous and post-European settlement heritage.



# APPENDIX

## GLOSSARY

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### **Advanced Canopy Tree**

A semi-mature tree to be planted which provides a degree of shading and medium sized canopy from the outset.

### **Articulation**

Variety in the depth of the surface of a building facade or wall, such as columns, recessed windows, horizontal strips or decorative cornices.

### **Amenity**

The elements of the built environment which contribute to better lifestyle and experience, such as visual, noise, air and odour.

### **Contributory heritage place**

A place or building which contributes to the cultural significance of a precinct. They are not considered to be individually important, in the context of the heritage precinct play a key role in the overall cultural heritage significance of a precinct.

### **Dwelling**

A building used as a self-contained residence which must include:

- a) a kitchen sink;
- b) food preparation facilities;
- c) a bath or shower; and
- d) a closet pan and wash basin.

It includes out-buildings and works normal to a dwelling.

### **Front Facade**

The street facing wall of a building.

### **Front setback**

The distance between the front facade and the boundary of the site which adjoins the street.

### **Greenfield**

Land that is undeveloped in a growth area setting that is largely vacant and zoned for residential development. Typically for sites where more than 60 lots or more can occur.



**Heritage Place**

Is a place that has identified heritage value and could include a site, area, building, group of buildings, structure, archaeological site, tree, garden, geological formation, fossil site, habitat or other place of natural or cultural significance and its associated land.

**Infill**

Land within existing urban areas that are either undeveloped or warrant redevelopment. Typically, redevelopment would seek to increase the density of housing on the site.

**Internal Vistas**

A view of high amenity, typically towards a prominent grouping of vegetation or high quality architectural features.

**Landscape Nodes**

Tight grouping of landscape elements such as plants, small trees.

**Low density**

A low concentration of dwellings, and can be relative to the context of the wider region, city or settlement.

**Multi-unit**

A property that has two or more units divided that can be occupied independently but have shared areas.

**Primary frontage**

The road alignment at the front of a lot. If a lot abuts two or more roads, the one to which the building, or proposed building, faces.

**Rear loaded housing**

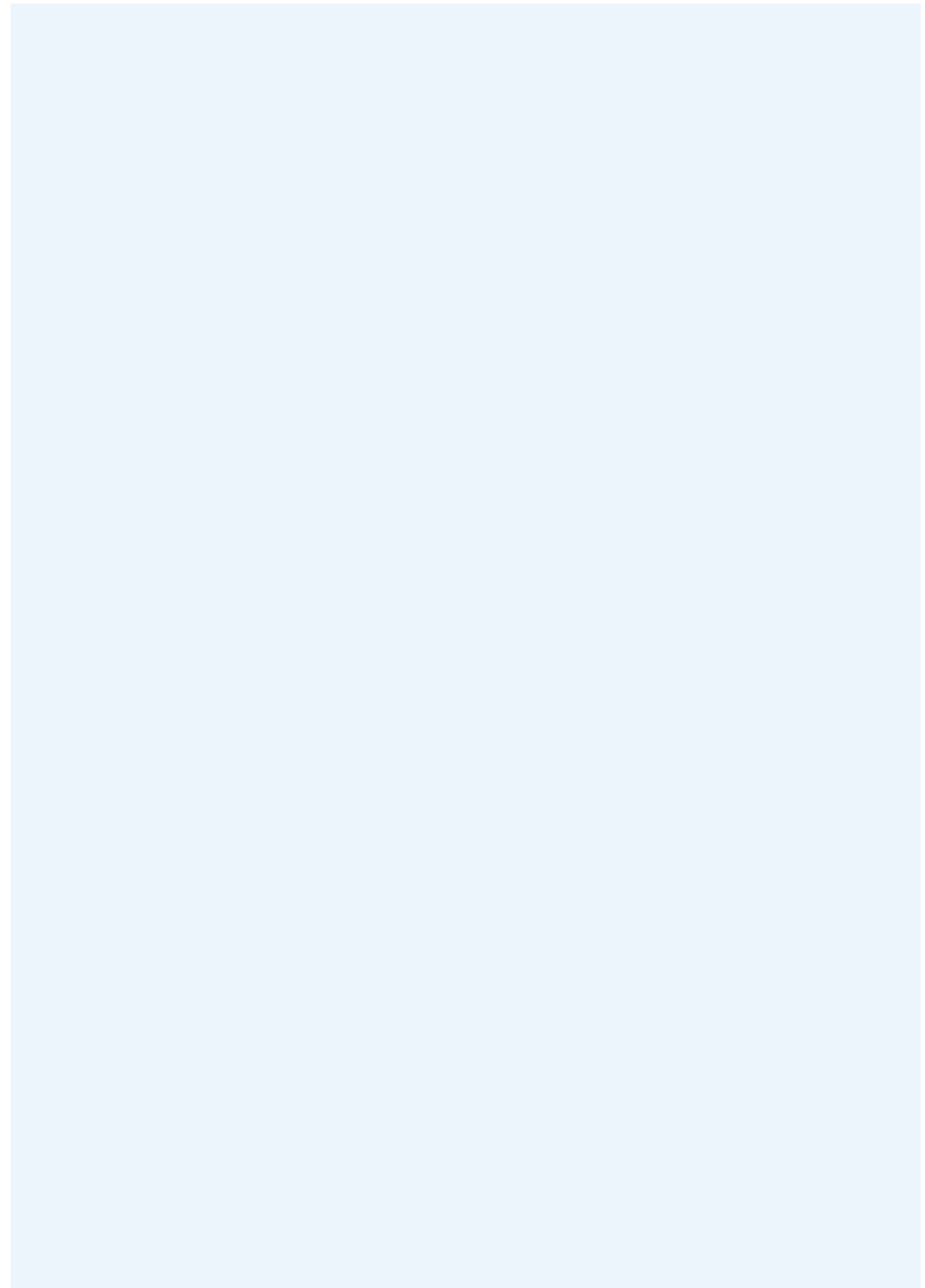
Residential lots which have vehicular access from a rear laneway. The primary frontage of the dwelling would typically face open space of large areas of landscaping.

**Secondary frontage**

The property boundary that has access or adjacent to more than one road or open space.

**Streetscape**

A collective appearance of all buildings, footpaths, gardens and landscaping along a street.







### 7.3 MADDINGLEY PLANNING STUDY - BACKGROUND REPORT CONSULTATION

**Author:** Rod Davison, Senior Strategic Planner

**Authoriser:** Henry Bezuidenhout, Executive Manager Community Planning & Economic Development

**Attachments:**

1. Background Report
2. Summary of Submissions
3. Consultation outcomes and emerging principles

#### PURPOSE

The purpose of this report is to inform Council of the outcome of recent community/stakeholder consultation on the *Background Report - Maddingley Planning Study* (March 2019).

#### EXECUTIVE SUMMARY

- The *Maddingley Planning Study* is an important strategic planning project, as it will provide direction for future planning decisions, by recommending an updated suite of planning controls for land within the study area and land within buffers (or separation distances) to industrial uses.
- The *Background Report - Maddingley Planning Study* was completed in March 2019 and extensive community/stakeholder consultation was undertaken during November – December 2019.
- Council received 32 written submissions, together with various verbal feedback, in relation to the *Background Report*.
- The next step involves the preparation of a draft *Maddingley Planning Study*, which will be informed by the *Background Report*, the outcomes of recent consultation, expert studies/technical input and further targeted consultation.
- It is anticipated that a report to Council will be tabled in the latter half of 2020, for Council to consider the draft *Maddingley Planning Study*, with a view to commencing public exhibition of the planning study.

#### RECOMMENDATION

**That Council:**

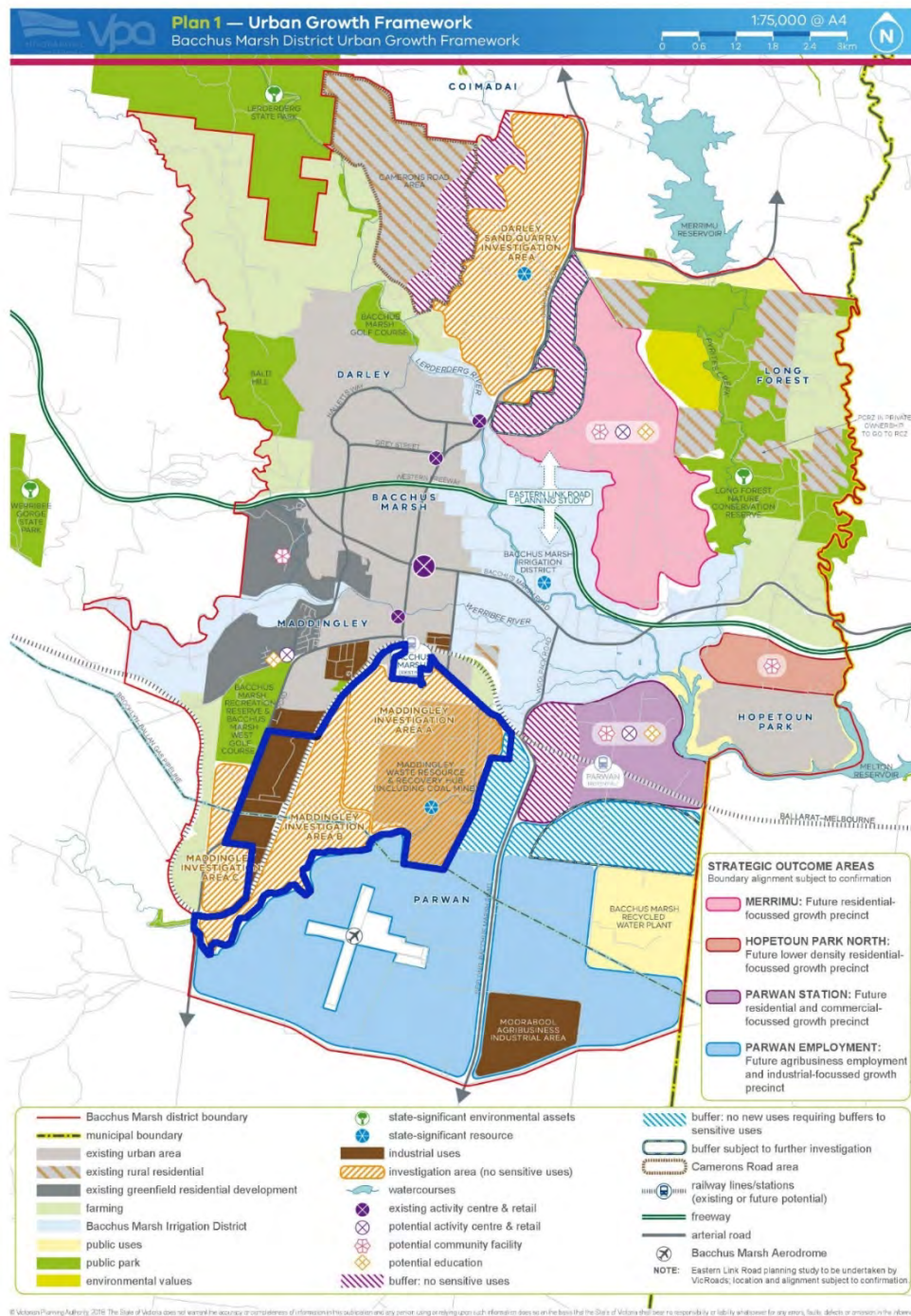
1. **Note the outcome of recent community/stakeholder consultation regarding the *Background Report - Maddingley Planning Study* (March 2019).**
2. **Progresses with the preparation of a draft *Maddingley Planning Study*.**

#### BACKGROUND

Aim of the Maddingley Planning Study:

The aim of the *Maddingley Planning Study* is to investigate options for future non-sensitive land uses within the study area (delineated in blue in Figure 1), determine appropriate zone and

overlay controls for the study area, and to identify existing infrastructure availability and future infrastructure requirements. Future sensitive land-uses which would not be considered, include any land uses which require a particular focus on protecting the beneficial uses of the air environment relating to human health and wellbeing, local amenity and aesthetic enjoyment; for example, residential premises, child care centres, pre-schools, education centres or informal outdoor recreation sites.



**Figure 1:** Bacchus Marsh Urban Growth Framework Plan – Showing the Maddingley Waste Resource and Recovery Hub (WRR Hub) (brown hatching) and Maddingley Investigation Areas A and B (orange hatching). The study area for the *Maddingley Planning Study* is delineated in dark blue.

It is important to note that existing sensitive uses has been considered in the *Background Report* and will be addressed in the *Maddingley Planning Study* having regard to Clause 63 of the Moorabool Planning Scheme. Any new industrial uses would need to provide adequate separation from existing sensitive uses (the 'agent of change' principle), in accordance with the relevant Environmental Protection Authority guidelines. The need for the *Maddingley Planning Study* is identified in the Bacchus Marsh Urban Growth Framework (UGF).

A key driver for the *Maddingley Planning Study* is the recognition that the Maddingley WRR Hub is currently within the Special Use Zone 1 - Coal Mining (SUZ1), with the current planning controls failing to acknowledge the role of the site as a State significant WRR hub. The SUZ1 also applies to land beyond the mining licence boundary, which is a cause of concern for affected landowners with no association with the WRR hub.

The Maddingley Planning Study will provide:

- Recommended changes to local planning policies, zones, overlays (including an amenity buffer for the Maddingley WRR Hub);
- A preliminary assessment of new or upgraded infrastructure required to service existing and future land uses and development within the study area; and
- Potential future non-sensitive land uses for Investigation Areas A and B.

A planning scheme amendment would be required to implement the outcomes of the study.

In December 2018, engaged a consultant to prepare a *Background Report*, undertake community/stakeholder consultation and then prepare the *Maddingley Planning Study*.

The project control group comprises of Council officers and representatives from the Metropolitan Waste and Resource Recovery Group (MWRRG) and the Grampians Central West Waste and Resource Recovery Group (GCWWRRG).

#### Background Report:

The *Background Report* (see Attachment 1) was completed in March 2019. It provides an overview of the planning history within the study area, reviews relevant strategies and policies, and identifies issues and opportunities.

It was subsequently decided to defer community/stakeholder consultation regarding the *Background Report*, until Council reached a decision on Maddingley Brown Coal's application to amend planning permit PA2011338 (i.e. to enable putrescible waste to be accepted at the Maddingley WRR Hub). The decision to defer community/stakeholder consultation was due to the strong community interest in the permit application, the potential for confusion between the two, and to ensure no perceived bias or influence in the statutory decision-making process.

In September 2019, Maddingley Brown Coal withdrew its application to amend planning permit PA2011338.

#### **PROPOSAL**

Extensive community/stakeholder consultation regarding the *Background Report* was undertaken by the project control group during November – December 2019, as summarised below under '*Communications and Consultation Strategy*'.

Council received 32 written submissions in relation to the *Background Report*. A summary of the submissions is included in Attachment 2.

Key issues raised in submissions can be broadly summarised as follows:

- Coal resources:
  - the extent of the resource;
  - the extent to which it should be protected; and
  - potential expansion of mining.
- Environment:
  - remnant native vegetation and fauna of endangered/threatened status;
  - the need to avoid, minimise and offset native vegetation removal;
  - Parwan Creek – water quality, erosion potential and the need to provide buffers.
- Transport and infrastructure:
  - roads within the study area are generally unsealed and of rural standard;
  - very limited existing utility services;
  - potential for methane from the WRR hub landfill to be used by industries in the area and within the Parwan Employment Precinct;
  - rail access for freight is important to industries;
  - the need for the Eastern Link Road; and
  - an Integrated Transport Management Plan may need to be prepared for the study area.
- Land use options:
  - waste hub related uses such as processing of recyclables, waste to energy, etc;
  - concerns about the current SUZ1 (coal mining) - its application to privately owned land and the restrictions it imposes;
  - a broad range of urban/rural land uses should be considered, such as residential, rural residential, light industry, bulky goods, commercial, agriculture/horticulture, solar farms; and
  - expansion of Bacchus Marsh Grammar.
- Buffers and amenity.

The above issues are acknowledged and will be considered in the preparation of the draft *Maddingley Planning Study*.

It is noted that some submitters also raised concern with planning study process, including the consultation process, the scope of the project, the boundaries of the study area, and the perceived potential for bias due to the project being part funded by the MWRRG.

In response to these concerns about process, officers advise that the planning study project methodology (including the consultation process) is thorough and sound.

The scope of the *Maddingley Planning Study* is identified in the Bacchus Marsh UGF (tables 1 and 3; actions 5 and 6). The study area boundary was based on UGF plans 1 and 8, but expanded as follows:

- land to the west of South Maddingley Road (opposite Bacchus Marsh Grammar) was included, due to the fact that it is currently within the Special Use Zone 1 - Coal Mining; and
- land within the Industrial 1 and 2 zones, to the west of the railway line and south of Kerrs Road was included, due to potential for land use synergies with the Maddingley WRR Hub.

In response to concerns about funding, officers advise that the MWRRG has contributed \$30,000 towards the planning study project (approximately 34% of total project cost), through the Local Government Buffer Support Program. The objectives of this program include to support and empower local government to respond to the land use planning challenges and opportunities set out in Plan Melbourne, the Statewide Waste and Resource Recovery Infrastructure Plan and the Metropolitan Waste and Resource Recovery Implementation Plan. While Council has sought input to the planning study project from the MWRRG and GCWWRRG, it is important to note that Council retains ultimate responsibility for project management and decisions relating to the project.

The *Maddingley Planning Study* project seeks to provide strategic direction for future planning controls, in response to a complex array of issues and competing interests. Attachment 3 contains a '*Consultation Outcomes and Emerging Principles*' report, which provides a valuable overview of the following six key emerging themes that will shape the future of the project:

- Future of coal
- Environment
- Transport and Infrastructure
- Land use options
- Buffers and amenity
- Emerging issues and principles.

The next step involves the preparation of a draft *Maddingley Planning Study*, using the same thorough and sound project methodology. The draft planning study will be informed by the *Background Report*, the outcomes of recent consultation, expert studies/technical input and further targeted consultation. It is anticipated that a report to Council will be tabled in the latter half of 2020, for Council to consider the draft *Maddingley Planning Study*, with a view to commencing public exhibition of the planning study.

## COUNCIL PLAN

The *Council Plan 2017-2021* provides as follows:

**Strategic Objective 3:** Stimulating Economic Development

**Context 3A:** Land Use Planning

The proposal to proceed with the *Maddingley Planning Study* project is consistent with the Council Plan 2017-2021, as it will provide important strategic direction for future planning controls and land use and development.

## FINANCIAL IMPLICATIONS

The *Maddingley Planning Study* project is included in the 2019-2020 budget.

**RISK & OCCUPATIONAL HEALTH & SAFETY ISSUES**

There is an identified risk associated with not progressing the *Maddingley Planning Study* project as the current planning controls are outdated.

**COMMUNICATIONS & CONSULTATION STRATEGY**

Community/stakeholder consultation regarding the *Background Report* was undertaken during November – December 2019, as follows:

- Three notices in Moorabool News.
- Letters to stakeholders (landowners and businesses within the study area, and relevant agencies), 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 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 32 written submissions in relation to the *Background Report*.

**VICTORIAN CHARTER OF HUMAN RIGHTS & RESPONSIBILITIES ACT 2006**

In developing this report to Council, the officer considered whether the subject matter raised any human rights issues. In particular, whether the scope of any human right established by the Victorian Charter of Human Rights and Responsibilities is in any way limited, restricted or interfered with by the recommendations contained in the report. It is considered that the subject matter does not raise any human rights issues.

**OFFICER'S DECLARATION OF CONFLICT OF INTERESTS**

Under section 80C of the *Local Government Act 1989* (as amended), officers providing advice to Council must disclose any interests, including the type of interest.

*Executive Manager – Henry Bezuidenhout*

In providing this advice to Council as the Executive Manager, I have no interests to disclose in this report.

*Author – Rod Davison*

In providing this advice to Council as the Author, I have no interests to disclose in this report.

**CONCLUSION**

The *Maddingley Planning Study* is an important strategic planning project, as it will provide direction for future statutory planning decisions, by recommending an updated suite of planning controls for land within the study area and land within buffers (or separation distances) to the Maddingley WRR Hub.



By completing this study, it is intended that the planning controls within the Moorabool Planning Scheme will better align with State Planning Policy and the growing strategic significance of the Maddingley WRR Hub to metropolitan Melbourne and the Grampians Region.

A future planning scheme amendment will be required to implement any updated suite of planning controls recommended by the *Maddingley Planning Study*.





Use of Report

This report has been prepared by Centrum Town Planning with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with the Client.

Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is confidential and for the exclusive use of Moorabool Shire Council and the Metropolitan Resource Recovery Group.

No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from Centrum Town Planning. Centrum Town Planning disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

References to planning permit applications, proposals, existing, or past or future land uses in this report, in no way represents any support or otherwise from Moorabool Shire Council.

Acknowledgements

Centrum Town Planning would like to thank the following people for their assistance with this project:

- Rod Davison, Senior Strategic Planner, Moorabool Shire Council
- Liam Prescott, Strategic Planner, Moorabool Shire Council
- Keith Jackson, Manager Operations, Grampians Central West Waste and Resource Recovery Group.
- Simon Cotterill, Project Manager Local Buffer Support Program, Metropolitan Waste and Resource Recovery Group

|               |   |
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| Version       | 8   |
| Date          | 28 June, 2019   |

Abbreviations

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

| Abbreviation       | Description   |
|--------------------|---|
| Council            | Moorabool Shire Council                             |
| DELWP              | Department of Environment, Land, Water and Planning |
| EAO                | Environmental Audit Overlay                         |
| EPA                | Environment Protection Authority (Victoria)         |
| ESQ                | Environmental Significance Overlay                  |
| GRZ                | General Residential Zone                            |
| IN12 / IN22 / IN12 | Industrial 1,2&3 Zones                              |
| MBC                | Maddingley Brown Coal Pty Ltd                       |
| MSS                | Municipal Strategic Statement                       |
| PEP                | Parwan Employment Precinct                          |
| PPF                | Planning Policy Framework                           |
| VPP                | Victoria Planning Provisions                        |
| WRR                | Waste and Resource Recovery                         |
| WRAG               | Waste and Resource Recovery Group                   |

Source: Centrum Town Planning, 2019

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  |   |
| Maddingley WRR Hub  | The land comprising MBC's operations as defined in the Bacchus Marsh Urban Growth Framework Plan   | MSS Clause 21.07  |
| Putrescible waste   | Readily decomposes and includes food and organic material from gardens.  | SWRRP   |
| Revere amenity      | Impact of sensitive uses affecting an industrial or similar activity in a way that limits their operations.  |   |
| Sensitive use       | Any land uses which require a particular focus on protecting the beneficial uses of the air environment relating to human health and wellbeing, local amenity and aesthetic enjoyment, for example residential premises, child care centres, pre-schools, primary schools, education centres or informal outdoor recreation sites. | EPA, 1518 <i>Note, definition varies across documents</i> |
| Solid inert waste   | Neither chemically nor biologically reactive and will not decompose. Includes glass, sand and concrete   | SWRRP   |
| Separation distance | Distance between land uses that require a buffer   |   |
| Threshold distance  | Point beyond which a planning permit or assessment is needed for a use   |   |
| 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   |
| Waste hub           | Facilities, or groups of facilities, that process or manage waste and material streams.  | SWRRP   |
| 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.   | SWRRP   |

Source: Centrum Town Planning, 2019; ERM, 2018, 3. Sustainability Victoria, 2018

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## Executive summary

This Background Report provides the context and analysis for the development of a Maddingley Planning Study for the Maddingley Waste and Resource Recovery Hub and Maddingley Investigation Areas A&B, referred to in this document as the 'Maddingley Planning Study'.

The purpose of the Maddingley 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 amenity buffers of the Maddingley WRR Hub and other industrial uses.

The study area is mainly located on an elevated plateau that extends to from the southern boundary of the Bacchus Marsh urban area to Parwan Creek (refer to Figure 1 and Map 1). Key features of the study area include:

- Approximately ten square kilometres in area.
- Approximately 26 landholdings, including Maddingley Brown Coal (MBC), which owns approximately 72% of the land in the study area.
- Predominantly rural character, with unmade roads and mostly cleared of vegetation.
- Brown coal is located underneath much of the northern part of the study area.
- Major land uses include Maddingley Brown Coal WRR Hub, landfill, composting and coal mine and the JBD Industrial Park in Rowsley Station Road, which includes Calix.
- Directly supports in the order of 170 full time equivalent jobs, with the majority in the waste management, manufacturing and mining sectors.
- Predominantly zoned Special Use Zone (SUZ1), with large areas of farming and industrial zoned land.

The report identifies the following planning issues that will require consideration in the Maddingley Planning Study:

- relatively low levels of recent development activity due a broad range of macro economic and local factors;
- the presence of residential zoned land within existing buffers but outside the study area;
- the presence of long-established dwellings within the study area;
- some history of amenity impacts from industry on existing sensitive uses within the study area;
- extensive areas of land covered by existing buffers to industry, yet no formal recognition of the buffers;
- uncertainty about the current status of the coal resource from a strategic perspective;

- low levels of infrastructure and unsealed roads across most of the study area;
- planning provisions that are outdated and do not appropriately respond to the current and emerging issues facing the precinct;
- lack of an approved Management and Development Plan under the Special Use Zone;
- recent subdivision activity for residential purposes in the Mixed Use Zone within recommended coal and composting buffers.

The report also identifies a range of opportunities for development, employment and the local economy:

- strategic location immediately to the south of the Bacchus Marsh urban area and close to proposed future commercial and industrial precincts including the Parwan Employment Precinct (PEP);
- presence of several large and well-established industries;
- large areas of vacant land with good separation distances to sensitive uses;
- an established and expanding material recycling sector;
- potential for the development of waste to energy uses and active interest in exploring this potential;
- a significant coal resource, with a wide range of potential applications;
- current interest from industry in developing new uses that capitalise on the coal resource;
- the potential to benefit significantly from the proposed Eastern Link Road connection with the Western Freeway (alignment yet to be identified).

The report concludes that the key challenges for the Maddingley Planning Study are considered to be:

- how to protect and plan for a waste hub of state significance at the local level;
- how to formally recognise existing buffers in the Planning Scheme, particularly the amalgamated MBC coal and composting buffer, including consideration of the BPDM to reduce buffer requirements;
- how to develop policies and provisions for the operation of buffers both within and outside the Planning Scheme;
- how to appropriately apply zones in conjunction with any other buffers tools;
- determining whether it may be possible to use the industrial zones more extensively;
- reviewing the provisions of the Special Use Zone (SUZ1);

- determining the type and level of infrastructure that might be required to attract industry and development activity;
- identifying a suitable framework for identifying and levying infrastructure costs that should be shared;
- gaining community and stakeholder support for the Maddingley Planning Study;
- how to balance competing objectives in the absence of a full evidence base to measure different social, economic and environmental outcomes.



# Introduction

## Background

In December, 2018, Moorabool Shire Council engaged Centrum Town Planning to prepare a planning study for the Maddingley Waste and Resource Recovery Hub and Maddingley Investigation Areas A&B (the 'Maddingley Planning Study'). The study areas are located in Maddingley, which is located approximately 1.5 kilometres from central Bacchus Marsh, as shown in Figure 1 and Map 1. The study is being sponsored by the Metropolitan and Grampians Central West Waste and Resource Recovery Groups.

The study area has an extensive planning history that extends back to the 1970s. The main issues have related to the tension between existing industrial uses, coal reserves and proposed residential expansion. The presence of the Maddingley WRR Hub in the study area is of particular importance. The WRR Hub comprises a landfill, resource recovery activities and coal mine. The WRR Hub is of growing significance as a waste and resource recovery hub for Victoria.

The Planning Study has been motivated by recent broad-scale strategic planning for the future urban form of Bacchus Marsh through the preparation of the Bacchus Marsh Urban Growth Framework, the subsequent approval of Moorabool Planning Scheme Amendment C81 and strategic planning carried out by the Waste and Resource Recovery Groups. These initiatives have found that the study area requires protection from new sensitive uses and that the existing planning framework is in need of review in order to secure the future potential of the area for a range of non-sensitive uses.

## Purpose

The purpose of the project is to provide the strategic foundation for potential changes to the Moorabool Planning Scheme that will better resolve the tension between industry and other uses. This framework will also allow appropriate new uses to establish and grow within a clear and robust planning framework.

The study represents an important step in implementing the findings of recent strategic planning work and balancing the various interests that exist in the study area. This background report will provide the context and analysis for the Maddingley Planning Study. It will assist in identifying constraints and opportunities and presenting the issues and options to Council. It will also assist in the engagement process with industry, landowners, the broader community and other stakeholders.

## Scope

The focus of the project is on land use considerations rather than the physical form of development, such as potential urban structure and built form. This study supports the revised strategic direction in the Moorabool MSS to manage off-site impacts and avoid conflict with sensitive uses for industrial and mineral resources. The study does not re-explore this issue, but will give consideration to how planning should deal with existing sensitive uses in the study area in the future.

## Objectives

The objectives of the Maddingley Planning Study are to:

- investigate options for future non-sensitive and compatible land uses within the study area;
- identify opportunities for uses that can leverage off the strategic relationship with activities at the Maddingley Waste and Resource Recovery Hub (Maddingley WRR Hub);
- critically review the existing planning controls that apply to Maddingley WRR Hub and surrounds;
- identify appropriate buffers to the Maddingley WRR Hub and other uses with adverse amenity potential;
- develop a planning vision for the precinct, and its various sub-areas;
- develop new planning provisions for the study area that will better align with State Planning Policy and the growing significance of the Maddingley WRR Hub to Metropolitan Melbourne.

## Report structure

This background report can be broadly divided into the following sections:

- Part A, which describes the study area in terms of its physical, environmental and land use context;
- Part B, which provides an overview of the planning history of the area and reviews the strategies and policies that are relevant to the study from a strategic land use and strategic waste context;
- Part C, which identifies and discusses issues and opportunities relating to key themes and identifies key questions for consideration and feedback.

Figure 1. Study area locality map



Source: Knightvision, 2019



# Methodology

## Project methodology

The Maddingley Planning Study will be delivered in two key stages comprising three steps each:

### Stage 1

- Inception
- Literature review and assessment of existing conditions and constraints *(current stage)*
- Consultation with key business owners and stakeholders

### Stage 2

- Synthesis & draft Maddingley Planning Study, including maps and new provisions
- Consultation
- Finalisation of draft Maddingley Planning Study and community and landowner consultation

Following Stage 2, Moorabool Shire Council will formally consider the Planning Study and how it should be implemented in the Moorabool Planning Scheme.

## General information sources

The Maddingley Planning Study has been prepared based on a range of primary and secondary data sources, as identified throughout the report, including:

- Existing and past strategic planning documents
- Planning panel and advisory committee reports;
- Planning permit applications received by Moorabool Shire Council;
- Planning permits issued by Moorabool Shire Council;
- VCAT cases.

## Map data sources

The maps in this report have been produced by KnightVision with input from Centrum Town Planning. A Geographic Information System (GIS) was utilised to overlay various layers of spatial data to create the maps and perform spatial analysis to provide the information needed for the planning assessment.

Existing GIS layers were collected from various sources including Moorabool Shire Council, Maddingley Brown Coal, and the Victorian State Government. These have been acknowledged in the Data Sources section on each map where applicable.

The maps in this study have been prepared using GIS data from GeoVic. The assessment of existing land uses was based on site inspections and a review of aerial photographs taken in January, 2019.

## Buffer methodology

For the buffer maps, a Land Use Activity Area was defined for each site that requires a buffer for surrounding sensitive land uses. The initial extent of these (and corresponding buffers) was provided by Moorabool 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. After inspecting these layers closely and gathering further information, some of these features had to be amended and new features were added.

To digitise the information accurately, KnightVision used GIS to geo-reference the source drawings and maps, then digitise the relevant information to create new layers.

The latest available aerial photography (from Nearmap Ltd, dated 13/01/2019) was examined to create a point for each visible building that appeared to be a dwelling or relevant land use. Each point was visually assessed on the aerial photograph, and classified. The results were not ground truthed or cross-referenced with Council rates data, but this method was considered to provide a suitable level of accuracy for the Maddingley Planning Study.



Part A | The Study Area

# Description of the study area

## Municipal context

Moorabool Shire is a fast-growing peri-urban municipality nestled between Melbourne, Geelong and Ballarat. The population of the municipality is approximately 34,000 (2018). More than half the population lives in Bacchus Marsh and surrounds (19,922). The Shire's second largest population can be found in and around Ballan (3,101).

Covering more than 2,110 square kilometres, Moorabool Shire is made up of 64 localities, hamlets and towns. More than 74% of the Shire comprises water catchments, state forests and national parks.

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

Moorabool Shire is positioned along the major road and rail transport corridors between Melbourne and Adelaide. The Shire straddles Victoria's Western Highway and the Ballarat Rail line.

With Bacchus Marsh and Ballan identified as growth towns in Plan Melbourne and the Central Highlands Regional Growth Plan, the municipality is set to undergo significant growth and change. The population of the Shire is estimated to increase by 57% between 2018 and 2041 to 53,270 (Moorabool Shire Council, 2018).

## Physical context

The town of Bacchus Marsh is located in the river valley of the Werribee and Lerdererg Rivers. The study area is mainly located on an elevated plateau that extends from the southern boundary of the Bacchus Marsh urban area to Parwan Creek. The study area is physically and visually separated from most of the urban area by an escarpment that forms the southern boundary of the urban area.

The western boundary of the study area is Bacchus Marsh-Balliang Road and the Melbourne to Ballarat Railway Line. The eastern boundary is the Geelong-Bacchus Marsh Road and Cummings Road. It has an area of approximately 1,087 hectares (10 square kilometres).

The topography of the study area varies. The south western part of the study area is gently undulating and elevated and has a height of around 150 metres AHD. The northern and eastern parts of the study area feature steeper slopes and offer distant views of the Lerdererg State Park to the north of Bacchus Marsh, as shown in Photographs 1 and 2. The study area is shown in Map 1.

## Settlement

The pattern of settlement generally reflects the rural history of the area. Most of the land is held in large rural lots, apart from a cluster of smaller lots in the northern part of the study area. The roads within the study area are located in a grid type pattern. The two roads that flank the study area (Bacchus Marsh-Balliang Road and Bacchus Marsh-Geelong Road) meander to accommodate the undulating landscape.

## Landscape and vegetation

Most of the study area has a distinctly rural feel, with unmade roads, rural fences and large expanses of cleared land, some of which is used for farming. The study area was historically used for agriculture and, as a result, 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 and Creekline Grassy Woodland vegetation. Scattered Plains Grassland and Plains Grassy Woodland vegetation also exists in patches throughout the study area. These areas as shown on Map 2. The Grassy Woodland vegetation types have a Bioregional Conservation Status of Endangered and form part of the Victorian Volcanic Plains Bioregion (<http://maps.biodiversity.vic.gov.au>).

During the preparation of the Bacchus Marsh Urban Growth Framework, Moorabool Shire Council commissioned an assessment of environmental values for land around Bacchus Marsh, which included the study area (Practical Ecology, 2016). This assessment did not assess all areas in detail, but found small areas of moderate and high environmental values in the western part of the study area to the north of the JBD Industrial Park and also on various parcels of land between East Maddingley Road and the Railway Line (Practical Ecology, 2016, 46&55).

Brown coal is located underneath much of the northern part of the study area, as shown on Map 2. There are several remnant open cut coal pits located in the vicinity of Cummings Road that are now used as dams. These are visible on Map 1. The largest pits at Maddingley Brown Coal are being filled with solid waste that has formed a large mound that is visible from most vantage points in the east of the study area.

Buildings and structures are not evident in most parts of the study area, apart from the northern part of the study area and the JBD Industrial Park in Rowsley Station Road.

## Waterways and catchments

Parwan Creek flows along the southern boundary of the study area. It has steep banks in some sections, as shown in Photograph 3. The 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. 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.

## Cultural heritage

There are areas of Aboriginal Cultural Heritage Sensitivity along Parwan Creek and south of Kems Road at the new Rowsley Crossing Loop Project, as shown on Map 2.

## Economy

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



Photograph 1. Looking north along Cummings Road across Maddingley WRR Hub

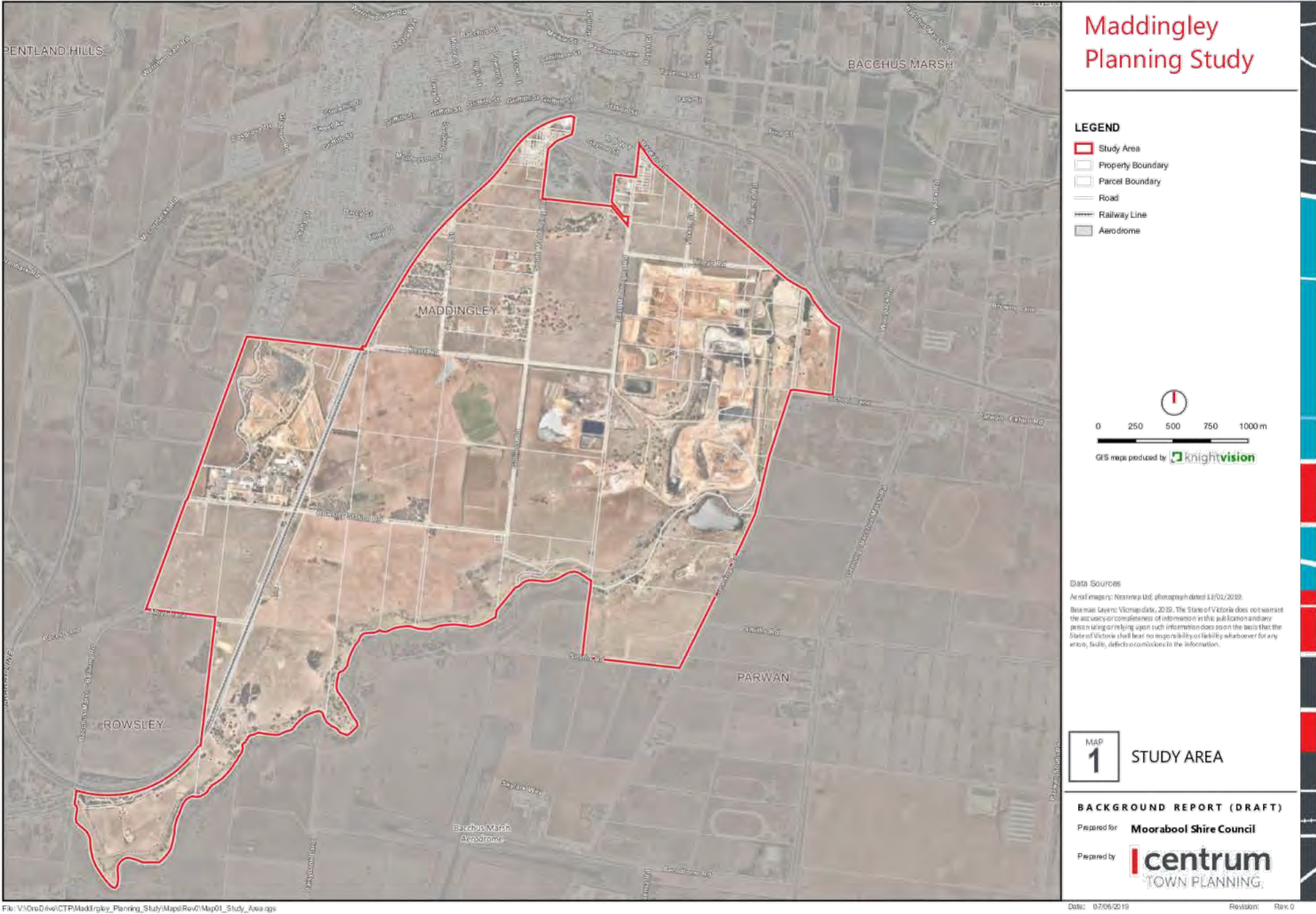


Photograph 2. Looking north from Maddingley East Road to Bacchus Marsh Railway Station

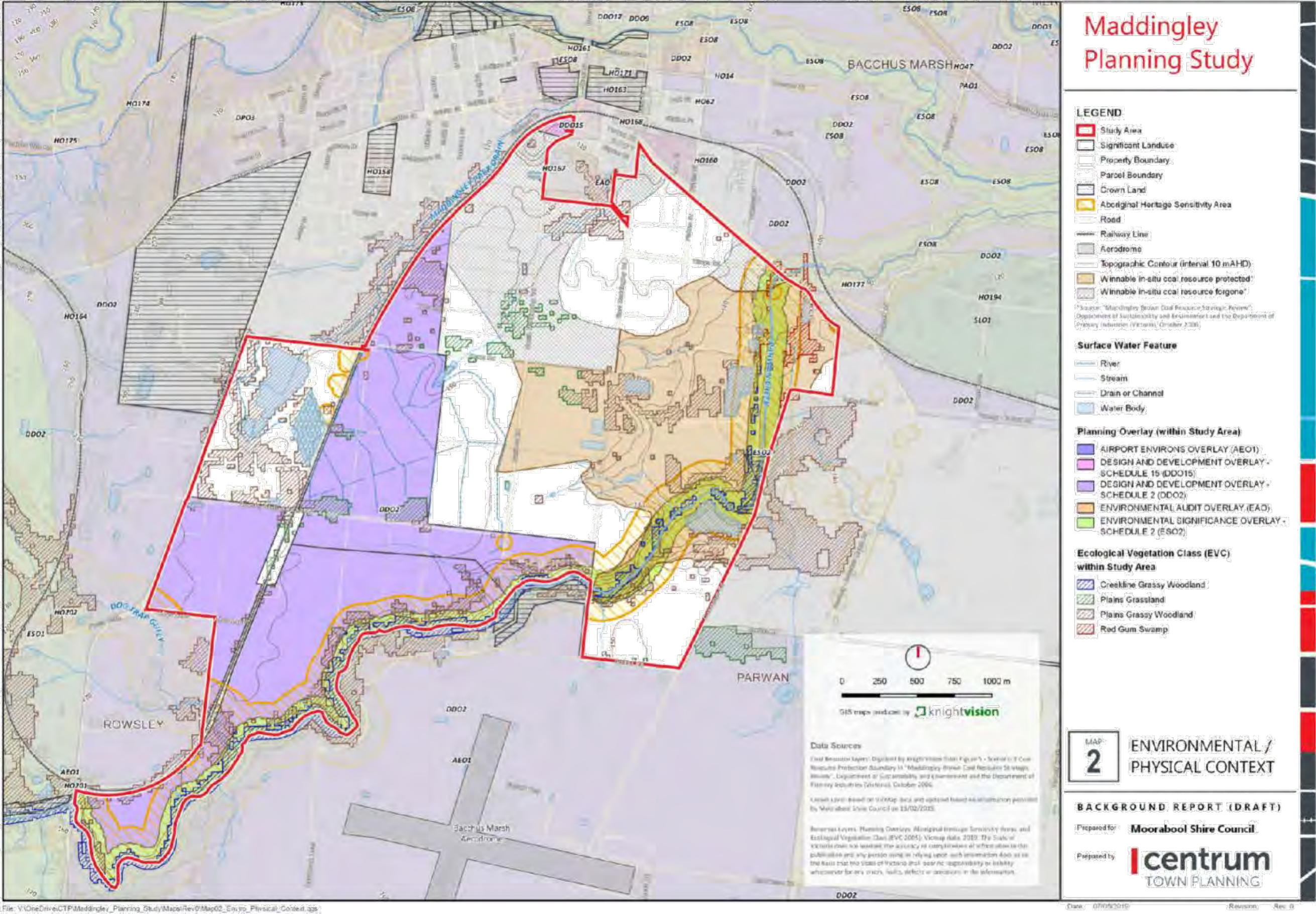


Photograph 3. Parwan Creek and railway bridge at southern boundary











## Land use profile

The type, location and extent of existing land uses in the study area is an important influence on the Maddingley Planning Study. This section of the report provides a summary of these land uses to provide the context for the study. These uses are also shown in Map 4.

Table 7 in Attachment A provides an inventory of all existing commercial land uses that have been identified in the study area, together with information about how the use is defined in the Moorabool Planning Scheme, the approvals or provisions under which each use operates, and other relevant information.

### Land area by zone

There are five zones that apply to the land in the study area, as shown in Table 1, below. The majority of the land (56%) is zoned Special Use (SUZ1). In total, there are 160 land parcels, the majority of which are also located in the Special Use Zone. The current application of zones across the study area is shown in Map 3.

The landholdings in the Farming Zone are relatively large; the Farming Zone affects 30% of the study area, but only 14% of its land parcels.

Table 1. Land area and lot sizes, by zone

| Zone                     | Area (ha)    | %           | Number of lots | %           |
|--------------------------|--------------|-------------|----------------|-------------|
| Special Use Zone (SUZ1)  | 604          | 56%         | 120            | 75%         |
| Farming Zone (FZ)        | 327          | 30%         | 23             | 14%         |
| Industrial 2 Zone (INZ2) | 81           | 7%          | 8              | 5%          |
| Industrial 1 Zone (INZ1) | 60           | 6%          | 5              | 3%          |
| Public Use Zone (PUZ4)   | 14           | 1%          | 4              | 3%          |
| <b>Total</b>             | <b>1,087</b> | <b>100%</b> | <b>160</b>     | <b>100%</b> |

Source: Centrum Town Planning and Knightvision, 2019.

### Land ownership

At February, 2019, there were a total of 26 landowners in the study area. These are shown on Map 4.

The ownership of land is dominated by Maddingley Brown Coal, which owns approximately 785 hectares or 72% of the land in the study area. The MBC landholding is identified in Map 4.

### Sensitive uses

There are approximately 17 dwellings in the study area. Most of the dwellings are clustered in the northern part of the study area in the vicinity of Osborne Street, South Maddingley Road and East Maddingley Road. A number of the dwellings are associated with adjoining commercial operations. At least one of the dwellings, at 13 East Road, has approval as a caretakers dwelling.

### Non-sensitive uses

Industry, mining and waste management are the predominant land uses in the study area, both in terms of the number of uses and area devoted to the use. There are approximately 10 industrial enterprises in the study area. Most of these are clustered in the JBD Industrial Park on the north side of Rowsley Station Road in the western part of the study area.

The Maddingley WRR Hub is the dominant use in the study area in terms of land area and visual presence. It occupies approximately 288 hectares (mining licence area) and is the largest commercial operation in terms of land area. Most of the land that is zoned Farming is used for grazing, cropping or no apparent use. The northern part of the study area that adjoins the urban area features a number of service related uses, including motor repairs and a hardware store.

Based on planning permit information, most of the uses in the study area have been established for at least 10 years, although some current planning permits have replaced or updated older planning permits. For example, Permit PA2008329, which was issued in 2008, provides a broad approval to use all buildings in the JBD Industrial Park for industrial use. MBC has a long history of planning approvals and processes that is discussed in the following section of the report.

In addition to current uses, there are physical reminders of a number of past uses in the study area. These include a cleaning and cement/sand washing operation to the south of Kerrs Road in the Industrial 2 Zone and former poultry sheds in the north of the study area on East Maddingley Road.

### External influences

There are a number of land uses located immediately adjacent to the study area that provide important context for the Maddingley Planning Study, as shown on Map 4. These include established residential areas zoned General Residential within 50 metres of the study area as follows:

- to the north west (Tilley Drive area)
- north (Gaynor Street area); and
- north east (Fisken Street area).

Other key land use influences outside the study area are:

- Bacchus Marsh Grammar School, at 37 South Maddingley Road to the north (zoned Special Use Zone – SUZ4);
- Vacant land and seven dwellings in Fisken Street to the north (zoned Mixed Use);
- Bacchus Marsh Aerodrome and Training School to the south (zoned Farming).



Photograph 4: Maddingley Brown Coal (MBC) active cell and Cell 2 under construction

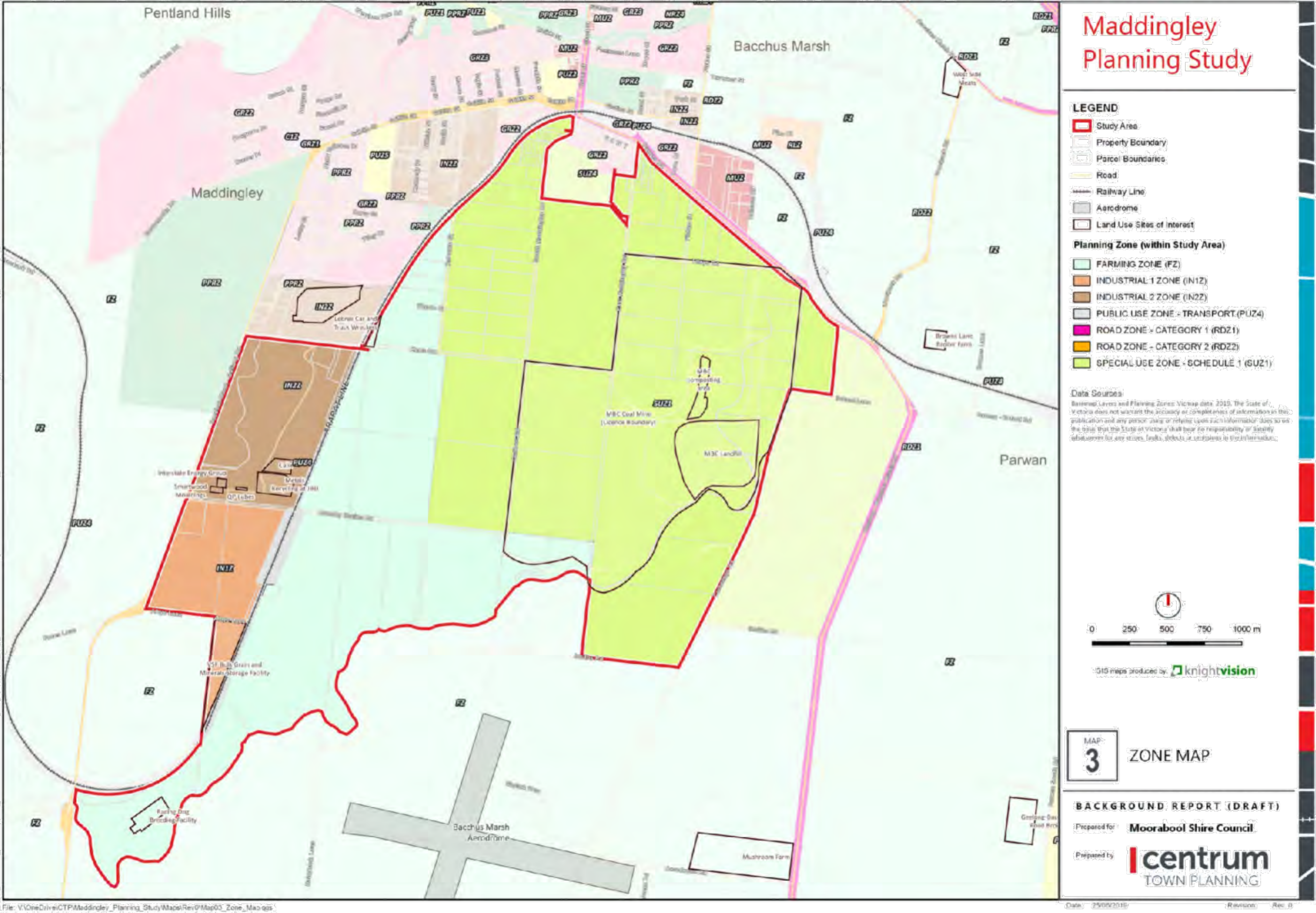


Photograph 5: JBD Industrial Park on Rowsley Station Road

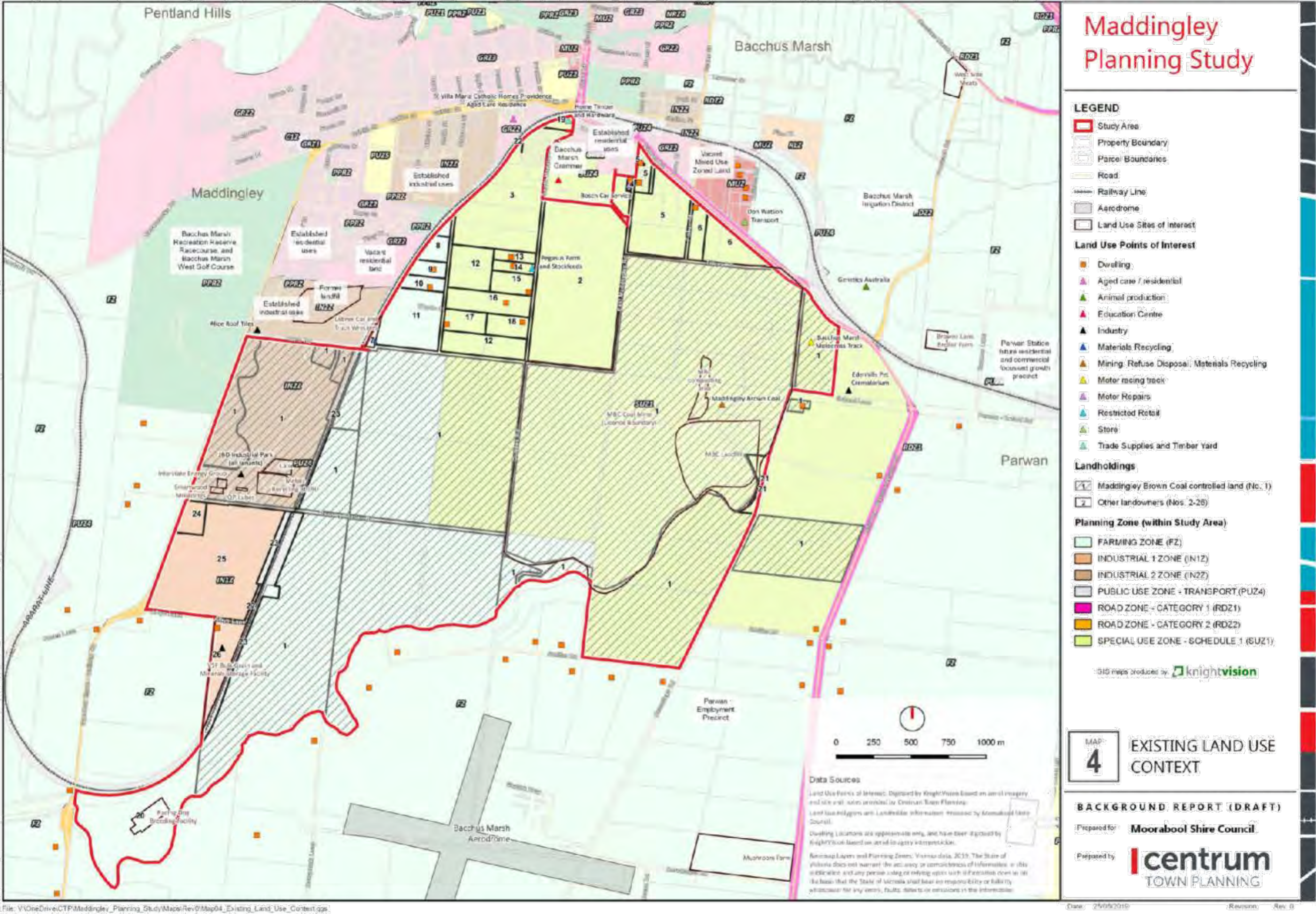


Photograph 6: Example of residential land uses in the study area











# Transport and infrastructure profile

The study area has varying levels of access to transport and infrastructure, including services. This section of the report provides an overview of existing transport and other infrastructure to provide the basis for feedback and discussion. Map 5 on the following page shows the existing road network and hierarchy and location of reticulated services in the study area.

The Maddingley Planning Study has not involved any detailed investigations into the capacity of this infrastructure to service new development, although these findings may form part of the Maddingley Planning Study recommendations. Issues and opportunities relating to transport and infrastructure are discussed later in the report.

## Road network

The study area is serviced by two main roads that flank its eastern and western boundaries: Bacchus Marsh-Geelong Road and Bacchus Marsh Balliang Road. These roads provide a single lane of traffic in each direction. They have speed limits of 80 and 60 kilometres an hour in the urban areas to the north and 100 kilometres per hour in the southern, more rural, parts of the study area.

Bacchus Marsh-Geelong Road is an arterial road managed by VicRoads that carries an estimated 2,500 vehicles in each direction per day between Woolpack Road and Exford Road, including 250 commercial vehicles (VicRoads, 2017). Bacchus Marsh Balliang Road is a local road that is managed by Council and is defined as an 'Access Level 1' road in the Moorabool Shire Council register of public roads. This type of road is a medium to low traffic volume road that provides access to local residents or secondary access to commercial areas. It is equivalent to an Access Street Level 1 and 2 in the Planning Scheme and Infrastructure Design Manual.

The only local roads that are sealed with bitumen other than Bacchus Marsh-Balliang Road are East Maddingley Road, Rowsley Station Road to the JBD Industrial Park, Cummings Road adjacent to the Maddingley WRR Hub and part of Osborne Street.

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.

## Public transport

There are no public transport services in the study area. Bacchus Marsh Railway Station is located 200 metres to the north of the study area at its closest point. The Melbourne-Ballarat Railway line provides regular services to Melbourne, Ballarat, Melton and Ballan. There is a bus route (433) that connects the Hillview Estate to the north west of the study area with central Bacchus Marsh.

The Melbourne-Ballarat Railway line traverses the western part of the study area and its alignment takes a loop near Parwan Creek to accommodate the steep topography to the west. 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.

## Gas and electricity

The Brooklyn-Ballan gas pipeline traverses the southern part of the study area. The JBD industrial estate has a pipeline from this main, which is used by Calix. There are no other gas services in the study area.

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

## Water and sewerage

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 Park.

The study area is not serviced with reticulated sewerage. The closest sewer is located in the Rutherford Court industrial estate that abuts the study area to the north west. Reticulated water and sewerage are the responsibility of Western Water.

Wastewater at JBD is treated by two on-site wastewater systems.

## Telecommunications

The NBN is available in most parts of the study area, apart from small areas including part of the JBD Industrial Park ([www.nbnco.com.au](http://www.nbnco.com.au)).

## Drainage

Most of the study area falls to Parwan Creek, although the northern part of the study area falls to the Werribee River. Parwan Creek has a catchment area of 36km<sup>2</sup>. Water flows overland in the study area and there is no formal drainage infrastructure to convey flows in the study area. Melbourne Water is the authority responsible for drainage of catchments larger than 60 hectares, while Council is responsible for local drainage infrastructure.



Photograph 7: Intersection of Tilley's Road and Bacchus Marsh-Geelong Road

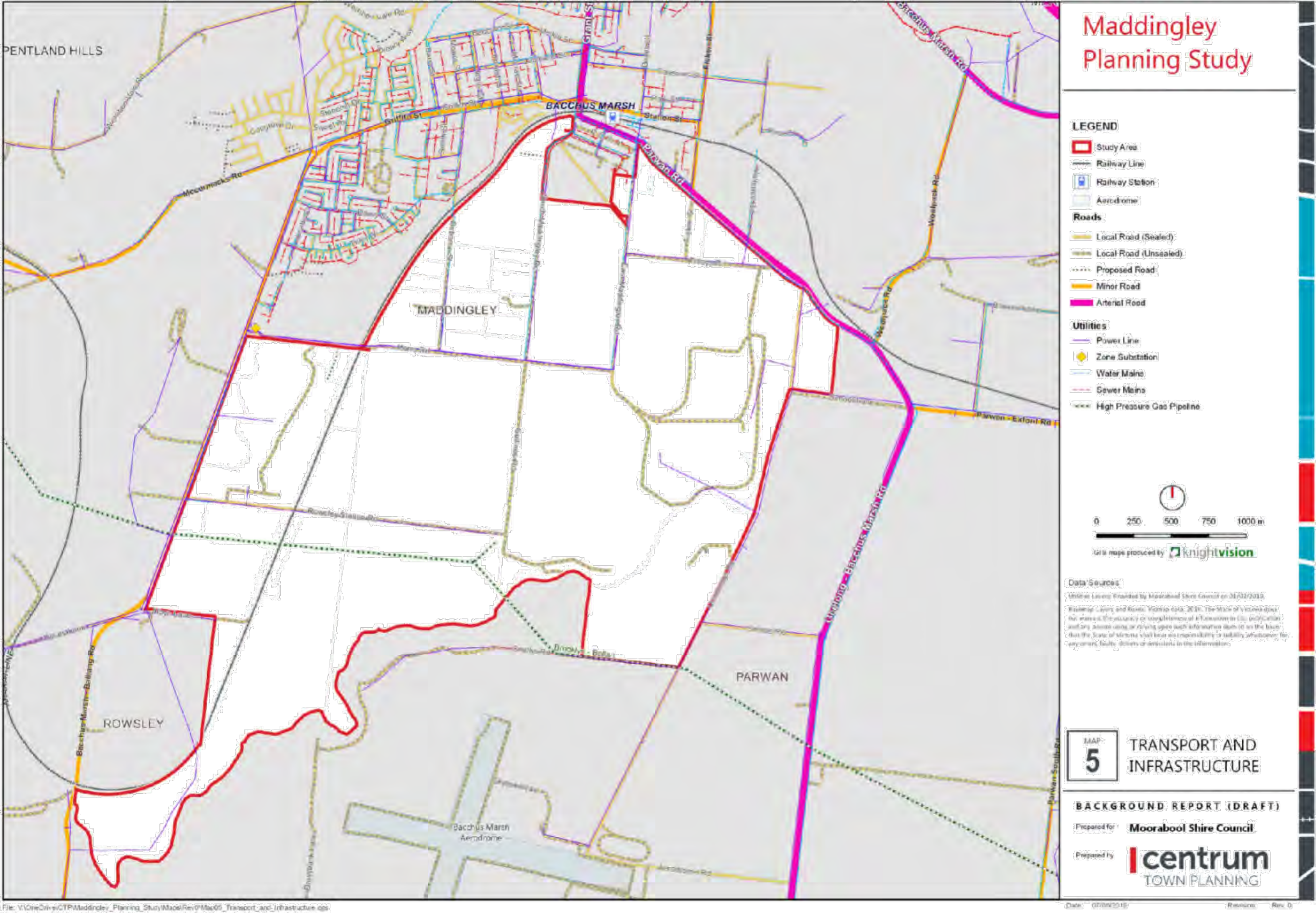


Photograph 8: Melbourne-Ballarat Railway Line at Albys Lane



Photograph 9: Brooklyn-Ballan gas pipeline at Rowsley Park Road







## Current planning provisions

This section provides a summary of the planning provisions that apply to land in the study area and their operation, with a focus on zones and overlays.

### Zones

The main role of zones in the Victoria Planning Provisions is to manage the use of land. Zones are therefore the main tool in the VPP for enabling the long-term vision for an area to be realised over time. As such, they are particularly relevant to issues relating to the management of buffer zones.

The zones that apply to the surrounding land are described in the previous section of the report and are shown in Map 3. Zones specify:

- Section 1 uses that can be carried out without planning approval
- Section 2 uses that require a planning permit, and
- Section 3 uses that are prohibited.

Zones also contain other permit triggers for the development of land, including for buildings and works and subdivision and control referral and notice requirements.

Table 2 provides a summary of the key attributes of the main zones that apply to land in the study area to enable comparisons to be made for the purposes of the Maddingley Planning Study. The Industrial 3 and Commercial 2 zones have also been included in the table as they allow for industrial land uses and are relevant for the discussion of issues and opportunities later in the report.

The Special Use Zone is a zone that can be customised to recognise or provide for particular land use and development outcomes. All of the zones shown in Table 2 have schedules that can be modified at the local level to control particular use or development outcomes that are relevant to the purposes of the zone.

### Overlays

There are three main overlays that apply to land in the study areas. The **Design and Development Overlay (Schedule 2)** applies to all of the land in the study area that is zoned Farming and Industrial 1. It aims to enhance visual amenity and building design. 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 **Environmental Significance Overlay (Schedule 2)** applies to all land approximately 100 metres from Parwan Creek. It aims to protect water catchments, water quality and vegetation. It requires a permit for most buildings and works and vegetation removal.

The **Airport Environs Overlay (Schedule 1)** applies to land on the north side of Parwan Creek near the Bacchus Marsh Aerodrome. It aims to protect airports and limit impacts on people from aircraft noise. The overlay requires buildings to be constructed with noise attenuation measures, use approvals and prohibits sensitive uses. It also triggers a Section 55 referral to the Airport owner.

Table 2 Summary of operation of existing and potential zones in the study area

| General Purpose                        | Special Use Zone 1  | Farming Zone  | Industrial Zone   | Commercial 2 Zone   | Residential 1 Zone  | Commercial 1 Zone  |
|--|---|---|---|---|---|--|
| <b>Purpose</b>                         | Coal mining and compatible uses<br>Mining and rehabilitation with regard to surrounding uses and environment<br>Consistency with endorsed Management and Development Plan (MP&DP) | Use of the land for agriculture<br>Retention of productive agricultural land<br>Prevent non-agricultural uses, particularly dwellings<br>Employment and population<br>Encourage sustainable land management | 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 | Same as IN12, with additional purpose to promote manufacturing industries and storage facilities that require a substantial threshold distance within the core of the zone and keep the core of the zone free for these uses. | Consider the nature and impacts of industrial uses as they affect surrounding communities<br>Provide a better environment for the P12 and P122 and local communities<br>To allow limited retail opportunities and provide diversity of primary uses | Encourage efficient, appropriate manufacturing and industrial buildings<br>Retain and enhance existing and commercial centres<br>To allow limited retail opportunities and provide diversity of primary uses |
| <b>Uses</b>                            |   |   |   |   |   |  |
| Accommodation *                        | Prohibited, excluding dwelling  | Generally prohibited. Dwelling as-of-right on land above 40ha.  | Prohibited  | Prohibited  | Prohibited  | Prohibited as-of-right on land above 40ha  |
| Agriculture                            | Permit required apart from some uses  | No permit required apart from more intensive forms  | Permit required, crop raising allowed, intensive agriculture prohibited   | Permit required, crop raising allowed, intensive agriculture prohibited   | Permit required, crop raising allowed, intensive agriculture prohibited   | Permit required, intensive agriculture prohibited  |
| Industry                               | No permit required subject to compliance with MP&DP   | Permit required. No permit required for small rural industry 100m from dwellings  | No permit required if 30m setbacks to sensitive uses are met and no Note 1 or 2 uses in S2.13.  | Permit required   | Permit required apart from small industry   | No permit required if 30m setbacks to sensitive uses are met and no Note 1 or 2 uses in S2.13  |
| Office use (other than medical centre) | Permit required   | Prohibited  | Permit required   | Permit required   | Permit required   | No permit required   |
| Retail                                 | Permit required   | Generally prohibited. Trade supplies, produce sales, subject to permit.   | Permit required, shop prohibited  | Permit required, shop prohibited  | Permit required, shop prohibited  | Generally permit required  |
| Restricted retail                      | Permit required   | Prohibited  | Permit required   | Permit required   | Permit required   | No permit required   |
| Warehouse                              | Must not be a purpose listed in the table to Clause 52.18.  | Permit required   | No permit required subject to conditions  | Permit required   | No permit required if 30m setbacks to sensitive uses are met and no Note 1 or 2 uses in S2.13   | No permit required if 30m setbacks to sensitive uses are met and no Note 1 or 2 uses in S2.13  |
| Buildings and works                    | All apart from approvals under the EP Act. Mandatory conditions for fencing, landscaping, screening, parking.   | Permit required if associated with Section 2 Use, except for minor works. Permit required if setbacks are not met.  | Permit required, with some exemptions for minor works   | Permit required, with some exemptions for minor works   | Permit required, with some exemptions for minor works   | Permit required, with some exemptions for minor works  |
| Subdivision                            | 40ha minimum  | 40ha minimum in VPP   | No minimum  | No minimum  | No minimum  | No minimum   |
| Notice and review                      | Buildings and works exempt if in accordance with approved MP & DP   | No exemptions   | Buildings and works and subdivision exempt if 30m setbacks to sensitive areas are met   | Buildings and works and subdivision exempt if 30m setbacks to sensitive areas are met   | Buildings and works and subdivision exempt if 30m setbacks to sensitive areas are met   | Buildings and works and subdivision exempt if 30m setbacks to sensitive areas are met  |
| Referrals                              | Secretary for MRDA Act >\$50,000. Section 55.   | -   | -   | -   | -   | -  |

Source: Centrum Town Planning, 2019, based on the Moorabool Planning Scheme and Victoria Planning Provisions at February, 2019

# Part B | Strategic and Policy Review



Planning history

The study area has a long history of strategic planning processes, applications, appeals and Ministerial involvement. This section provides a basic summary of the planning history of the Maddingley area to provide the context for the study, with an emphasis on events from the late 1990s onwards.

Maddingley area (pre 1999)

Coal was first found at Maddingley in 1883 and 1923. Mining had begun by the late 1920s but outputs increased significantly after 1943. Mining on the current MBC site was started by Australian Paper Manufacturers in 1948 (Vines, 2008, 45-46). The mine reached its peak production during the 1970s, by which time MBC (then MBCC) was the only operational mine. Key events between 1970 and 1990 included:

- 1978: MBCC gains approval to dispose of solid inert waste from APM only.
- 1979: MBCC gains approval for solid inert and domestic waste.
- 1982: New zones applied in Bacchus Marsh Planning Scheme to existing licensed areas (Mining Zone) and winnable areas (Rural – Reserved Mining).
- 1982: MBCC obtains for planning permit for solid industrial wastes only.
- 1989-1990: MBC site purchased by Oupan Resources and subsequently sold to MBCC.
- 1990: Oupan Resources obtains permit for a 9 lot subdivision of land bounded by Kerrs Road, East Maddingley Road and South Maddingley Road and MBC successfully appeals an application for five dwellings on the land given uncertainties around the mine buffer.

In the early 1990s, the former Bacchus Marsh Shire Council generally supported residential development in Maddingley South (Panel & Advisory Committee 1999, 98). Between 1992 and 1997, the Minister for Planning approved several planning scheme amendments to rezone land in the study area and manage pressures to accommodate expanding residential uses, MBC and the protection of future coal reserves (Amendments L25, L39 and L44). In the mid 1990s, Council adopted an Outline Development Plan to support residential development in South Maddingley. Source: (TBA Planners in DSE 2006, 57-62).

Moorabool New format Planning Scheme - Panel and Advisory Committee Report (1999)

This process brought together a broad range of strategic planning work, including settlement planning, into the new format VPP Planning Scheme. Key issues including settlement planning for the town and land use conflict in Maddingley South. The potential uses, location and viability of ‘winnable’ coal reserves were also considered in some detail in the report. The Panel made it clear that it considered all issues afresh, without being bound by past planning decisions (Panel & Advisory Committee 1999, 121). Council formally supported residential development in Maddingley South and its adopted ODP at the Panel. Key findings and recommendations of the Panel were:

- Maddingley South is not a good location for future residential growth for a range of reasons (page 124).
- The “true value of the brown coal at Bacchus Marsh is the stimulus it holds for the development of new technology” in terms of new coal technologies and its use in commercial products (page, 129).
- The land’s coal potential “outweighs” any other potential use (page 138).
- The Special Use Zone (SUZ1) should be maintained, with changes, together with new MSS provisions (page 138).

Bacchus Marsh Residential Growth Strategy (2003) & Amendment C34 (2008)

The Bacchus Marsh Residential Growth Strategy (BMRGS) sought to implement an accelerated residential growth scenario in the Planning Scheme. It identified two areas (Areas 28&2A) as ‘investigation areas’ for residential growth. These areas are within the current study area and are currently zoned Farming and SUZ1. They are highlighted in yellow in Figure 2, opposite. The Panel found that buffers significantly affect the study area, and that further risk assessments should occur prior to any sensitive uses. It recommended that further investigations occur into the range of appropriate uses, which should include both residential and other non-residential uses (Amendment C34 Panel Report, 72). It also recommended that the extent of the SUZ1 should be addressed through a separate planning scheme amendment (Amendment C34 Panel Report, 12). The panel’s recommendations were ultimately approved, and incorporated into the MSS at the time, as shown in Figure 3, opposite.

Maddingley Brown Coal Resource Strategic Review (2006)

This report was the result of an Interdepartmental Working Group convened by DSE. The report advised on potential conflict between the BMRGS and MBC. It 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 report supported a scenario that involved a 400 metre buffer from the MBC mining licence to protect approximately 103 million tonnes of coal. The report supported two areas for residential growth beyond this buffer (Areas 28&2A) and recommended that the final approval of the buffer to be subject to a separate planning scheme amendment process (DSE, 2006, 53)

VCAT appeals

Since the introduction of the new format Moorabool Planning Scheme in 2000, there have been only a small number of VCAT appeals in the study area. The most notable case was *Lincoln Valley Pty Ltd v Moorabool SC [2008] VCAT 997*. In this case, VCAT overturned Council’s refusal of a proposed large sheep abattoir on the IN2Z land south of Kerrs Road. At the hearing, Council and nearby residents argued that the proposal was inappropriate based on the exhibited Amendment C34 and future residential precincts 1&2A [Paragraph 16].

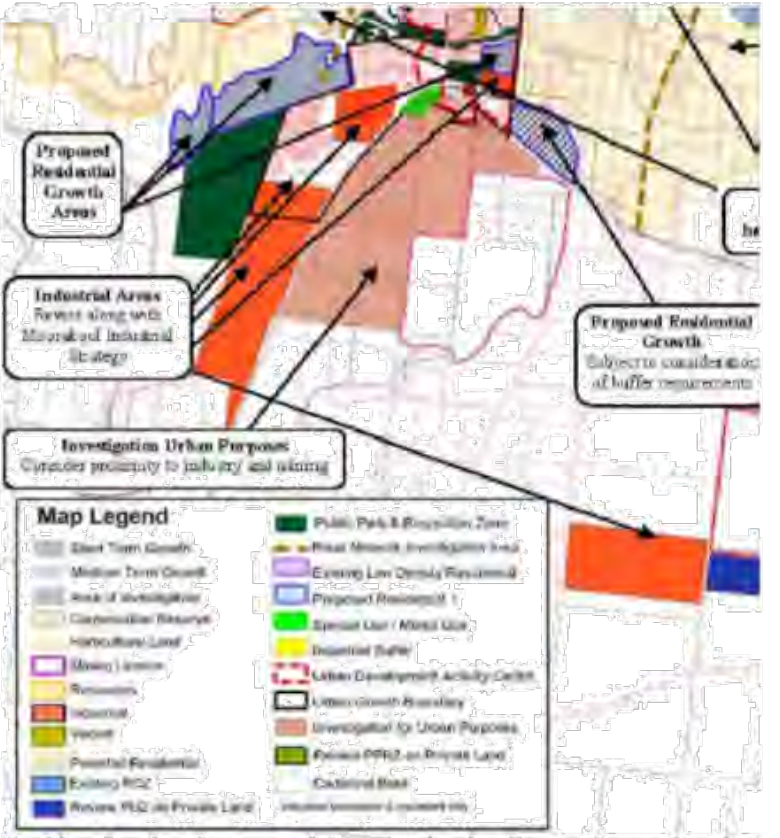
VCAT approved the application on the basis of the existing Industrial 2 zoning of the land, its good roads and services, and acceptable amenity impacts.

Figure 2 Scenario map from DSE Review of Maddingley Coal Resources, 2006



Source: DSE, 2006,

Figure 3 Excerpt from Pre-C81 Bacchus Marsh Framework Plan in Clause 21.07



Source: Moorabool Planning Scheme, Clause 21.07 (Pre Amendment C81)



# Moorabool Planning Scheme

This section provides an overview of the Moorabool Planning Scheme as it relates to industry and waste and resource recovery facilities with an emphasis on the planning vision for the study area and policies that guide decision making.

## Planning and Environment Act 1987

The Planning and Environment Act (‘the Act’) provides the legislative basis for the Victoria Planning Provisions, which assist in providing a consistent and coordinated framework for planning schemes. It also provides for planning schemes to regulate the use and development of land. The Act has a broad range of objectives that are set out in Section 4(L) of the 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 act relate to balancing current and future interests of Victorians and the need for decision making that integrates economic, social and environmental considerations.

The Act sets the legislative framework for all decision making that relates to planning applications and strategic planning, including planning scheme amendments. 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 Act.

## Planning Policy Framework

The Planning Policy Framework (PPF) provides state, regional and local level planning policies for each planning scheme. State Planning Policies contain significant support for, and protection of, areas for industry and waste and resource recovery facilities. The main clause relating to industry is Clause 17.03.

This clause aims to ensure the availability of land for industry in appropriate locations that have buffers from sensitive land uses. It also aims to avoid non-industrial uses in areas that have been identified for industrial use. The key strategies to achieve these policies include siting industrial activities that require large buffers at the core of industrial areas, and those requiring minimal buffers towards the perimeter. Offensive industries and quarries are specifically identified as industries with adverse amenity potential. The PPF states that local communities are also to be protected in decision-making for industry (Clause 17.03-2S).

The PPF aims to encourage the extraction of natural resources in accordance with ‘acceptable environmental standards’, with particular reference to maintaining buffers around mining activities (Clause 14.03-1S). The criteria that are to be applied to determine buffers include the use of technology to limit effects, the proposed use within the buffer and performance standards of relevant legislation (Clause 14.03-1S).

The PPF specifically aims to facilitate new energy supply infrastructure in appropriate locations, including clean coal processing and local energy generation (Clause 19.01-1S).

Clause 19.03-5S (Waste and resource recovery) contains specific objectives for landfills that aim to avoid, minimise and generate less waste to reduce damage to the environment. The strategies emphasise strategic planning that integrates with land use and transport planning and the identification and protection of buffers by planning authorities. The clause also places responsibilities on waste and resource recovery facilities to minimise impacts on the environment and the community (Clause 19.03-5S). The clause advocates for the clustering of waste and resource recovery facilities to share separation distances and make them more viable. It also advocates for the re-use of waste to produce energy and other products. The clause makes reference to a number of policy documents, including the state and regional waste and resource recovery implementation plans and various EPA regulations and guidelines.

Other key policies in the PPF that relate to the study area include policies for protecting water quality and waterways, airfields, freight and integrated land use and transport planning.

## Moorabool Municipal Strategic Statement

The Municipal Strategic Statement (MSS) sets out the strategic vision for planning at the local level and holds considerable weight in strategic decision making. The MSS recently underwent a major revision through Amendment C81. This Amendment implemented the findings of the Bacchus Marsh Urban Growth Framework and the Moorabool Industrial Areas Strategy in the Planning Scheme.

The MSS now recognises and aims to protect the Maddingley Waste and Resource Recovery Hub and coal mine for its importance to the Shire and the State of Victoria (Clause 21.04-4). The MSS also aims to provide for manufacturing and other heavy industries that require large separation distances to the south of Kerrs Road.

The MSS also recognises the need to avoid land use conflict in the Maddingley area (Clause 21.01-2 and Clause 21.04-1) as the Maddingley WRR Hub creates off-site impacts that need to be managed. It provides specific strategies to avoid sensitive land uses within recommended separation distances from the Maddingley WRR Hub (Clause 21.04-4). Other strategies aim to support best practice environmental management to reduce impacts both for economic development and amenity reasons. Putrescible waste landfills in open pits are specifically discouraged in Clause 21.04-4.

The MSS flags the need for further strategic work to investigate the potential rezoning of land to the north of Kerrs Road from Industrial 2 Zone to Industrial 3 Zone (Clause 21.04-7). This land abuts the study area to the north.

Clause 21.07 (Bacchus Marsh) identifies issues, objectives and strategies that are directly relevant to future settlement planning in Bacchus Marsh. It identifies the operations of Maddingley Brown Coal (coal mining, landfill, green waste and composting) as uses that are ‘inherently incompatible with residential development due to their off-site impacts’ (Clause 21.07-1). The Clause contains specific objectives to protect the Maddingley WRR Hub, including protection of the brown coal resource in the mining licence area and other existing or future activities at Maddingley Brown Coal, and application of EPA 1518 to determine separation distances from sensitive uses.

Clause 21.07-8 identifies the need for a Maddingley Planning Study to determine appropriate zone and overlay controls (Clause 21.07-8). The Bacchus Marsh Urban Growth Framework Plan is included in Clause 21.07-8 (Bacchus Marsh).

The MSS provides support for this study and makes it clear that sensitive uses should be avoided in the study area, however, it provides little guidance on balancing the different land use constraints and opportunities within the study area itself.

## Local Planning Policies

Clause 22 of the Moorabool Planning Scheme contains two local planning policies that are relevant to land in the study area:

- Clause 22.03 (Houses and House Lot Excisions in Rural Areas) applies to all land within the Farming Zone. It aims to discourage dwellings and subdivision in rural areas to protect existing agricultural uses.
- Clause 22.05 (Presentation of Industrial Areas) applies to all industrial development. It contains policies to manage the design and siting of new buildings and works to enhance the appearance of areas, particularly on main roads.

# Moorabool Planning Scheme

## Clause 53.10 (Uses with Adverse Amenity Potential)

This clause identifies industries that can cause adverse amenity impacts on residential areas and other sensitive uses. Table 3 provides a summary of the 'threshold distances' to provide the context for the study. The "threshold distances" are measured from the building or property boundary of the proposed use to the zone boundary of the sensitive use. When the threshold distances are variable the use is identified by a Note 1. When an assessment of risk to the safety of people nearby is required the use is identified by a Note 2. A number of the threshold distances are variable and depend on the volume of materials produced.

Clause 53.10 does not itself trigger the need for a permit. As discussed previously, the zones determine whether the threshold distance will make a use as-of-right, permit required, or prohibited. Table 3 shows that the threshold distances are mainly between 100 and 1,000 metres, with only a small number that exceed 1,000 metres. Buffers are discussed in more detail later in this report.

## Clause 63.01 (Existing use rights)

This clause establishes the framework for uses that have the right to continue to exist without planning approval. Most commonly this applies if the use was allowed under a previous planning scheme, or has existed for at least 15 years without intervention. The clause sets out strict criteria for changes to these uses, including planning approval for new works and amenity and other tests.

## Clause 66 Referrals

This clause requires a use or development that requires a works approval or licence to discharge waste under the Environment Protection Act to be referred to the EPA as a determining referral authority. This applies to MBC, which is a licensed facility. The clause also requires referral to the EPA for Note 1 uses where the threshold distance is not met and for hazardous Note 2 uses.

Table 3 Summary of Clause 53.10 threshold distances, by category

| Type of premises / use category         | Threshold distance | Notes                                     |
|---|--------------------|---|
| Basic Metal Products                    | 100 - 1,000 metres |   |
| Chemical, Petroleum & Coal Products     | 100 - 2,000 metres | Most uses are Note 2                      |
| Fabricated metal products               | 100 - 1,000 metres | Includes uses with a Note 1               |
| Food, beverages and tobacco             | 100 - 500 metres   |   |
| Miscellaneous Manufacturing             | 200 - 1,000 metres | Includes uses with a Note 2               |
| Non-metallic mineral products           | 300 - 1,000 metres |   |
| Other premises                          | 100 - 300 metres   | Includes panel beating and rural industry |
| Paper and paper products                | 100 - 5,000 metres | Includes uses with a Note 2               |
| Recreation, personal and other services | 100 metres         | Includes uses with a Note 2               |
| Recycling and resource recovery         | 100 metres +       | Most uses are Note 1                      |
| Textiles                                | 100 - 1,000 metres | Includes uses with Notes 1 and 2          |
| Transport and storage                   | 100 - 1,000 metres | Includes uses with Notes 1 and 2          |
| Wood, wood products and furniture       | 100 - 1,500 metres |   |

Source: Centrum Town Planning, 2019 based on Clause 53.10 of the Moorabool Planning Scheme.



# Strategies and plans

This section of the report provides an overview of strategies and plans that are relevant to the study area that have been prepared by Council or others. It provides a summary of the key findings of the document and identifies the key implications for this study.

## Amendment C6 (2013)

This Amendment proposed to apply a heritage overlay to the former CSR plant (now JBD Industrial Park) at 25 Rowsley Station Road. The Amendment C6 planning panel recommended that the heritage overlay be applied to the original building complex, however, Council resolved to not apply the overlay (Am.C6 Panel Report, 2013).

**Implications:** Council has formally resolved that the former CSR site is not worthy of heritage protection, which raises the potential for the site to be redeveloped.

## Central Highlands Regional Growth Plan (2014)

This Plan was prepared to provide a regional approach to land use planning in the Central Highlands Region, which covers five municipalities (DSE, 2014). It recognises the strong links Bacchus Marsh has to Melbourne and strengths in horticulture and extractive industries, including coal resources at Maddingley (State of Victoria, 2014, 27). It identifies Bacchus Marsh as a 'regional centre' where growth should be encouraged and recognises the restrictions that earth resources present for the expansion of the town (State of Victoria, 2014, 51). It recognises the general challenges associated with planning for the earth resources industry and makes the observation that the benefits of this industry tend to be localised rather than spread throughout the region (State of Victoria, 2014, 51).

**Implications:** The Central Highlands Regional Growth Plan provides limited guidance for the Maddingley Planning Study as it does not specifically identify the study area or Maddingley Brown Coal. Nevertheless, it is important because it is the only approved regional strategic land use plan and it informs the regional section of the Planning Policy Framework.

## Bacchus Marsh Integrated Transport Strategy (2015)

This document provides a strategic plan for the Shire's transport network. The document identifies the need for a new road link to the Western Freeway via Halletts Way as a short-term priority. It also 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). The document is a Reference Document in Clause 21.11 of the Moorabool Planning

**Implications:** This study demonstrates a commitment by Council to improve the condition of key routes within Bacchus Marsh. If constructed, the new roads that have been identified will facilitate freight movements into and out of the study area.

## Moorabool Industrial Areas Strategy (2015)

This report provided Council with a review of supply and demand for industrial land in the Shire and provides strategic directions for the future of these areas. It was adopted by Council December, 2015. The study offers the following profile of industrial land supply, demand and employment:

- there is an existing supply of 346 hectares of industrial land, although much of this land is constrained by residential encroachment and is therefore unsuitable for manufacturing industry (SGS, 2015, 5);
- there will be a need for an additional 42 hectares of land from 2015 to 2051;
- demand for industrial land is expected to grow the most for service industry (27 hectares), with lower demand from manufacturing (8 hectares) and freight and logistics (15 hectares) (SGS, 2015, 39);
- the Maddingley 4 precinct, which includes the JBD Industrial Park, has approximately 91 jobs, good land attributes (cost, zone, buffers) but lower locational and access attributes (SGS, 2015, 66-69);
- the extraction and processing of natural resources is one the Shire's strengths, including brown coal (MIAS, 2001 in SGS, 2015, 15);
- manufacturing services are attracted to Moorabool due to affordable large lots and accessibility to Melbourne (SGS, 2015, 19);
- business ownership patterns are stable and businesses are generally positive about the future.

The report concludes that existing industrial land in Moorabool will need to find alternative points of difference to compete with other industrial areas in the region. It found that accessibility to the road network is likely to become more important in the future.

The report recommends that existing industrial areas in Bacchus Marsh should be transitioned to service industry and other uses that do not require buffers, and that a new industrial precinct with large buffers and good infrastructure should be found. The report recommends that Council should "reposition" the Parwan area for a large new manufacturing and transport precinct, and recommends that a range of studies be undertaken (SGS, 2015, 6). In relation to the study area, it found that 'Maddingley 4' could improve as a precinct for transport and logistics if B-double truck access could be improved.

In relation to the Maddingley WRR Hub, the Strategy contained some discussion of future industrial development related to mining. The report opined that "there is minimal location relationship between mining and most regional/local industrial activities" (SBS, 2015, 17). It found that, in the long-term, there may be potential for the development of mining precincts and co-location between mining and industry (SGS, 2015, 16). It sets out criteria for siting mining industry, with the first preference being to locate on the mining site, if this is not possible, adjacent land, then elsewhere in the Shire if this is not possible. The document is a Reference Document in Clause 21.11 of the Moorabool Planning Scheme.

**Implications:** This Moorabool Industrial Areas Strategy contains valuable and recent strategic direction for industrial land in the Shire, however, it only contains specific assessment and direction for part of the study area (Maddingley 4), and does not directly consider the potential for industrial development elsewhere in the study area. Its recommendations about Parwan have been taken up in the Parwan Employment Precinct Planning Study and Amendment C76.

## Moorabool Shire Economic Development Strategy (2015)

This Strategy sets out how Council will assist in creating a strong local economy. Key issues identified in the Strategy are the need to create local employment as two-thirds of residents commute outside the Shire, and the decline in growth of agriculture and manufacturing, consistent with state trends (Geographia, 2015, 4).

The Strategy includes a plan for how to grow the economy and jobs. The initiatives identified include advocating for new infrastructure, developing design guidelines for new industrial areas and growing existing export oriented industries (Geographia, 2015, 5). The document is a Reference Document in Clause 21.11 of the Moorabool Planning Scheme.

**Implications:** The Moorabool Shire Economic Development Strategy describes high level issues and initiatives facing the economy. It is high level strategy and does not provide any specific direction for the study area, although it supports in-principle the idea of expanding existing export-oriented industries, which exist in the study area.

## Bacchus Marsh Strategic Bulky Goods Retail Assessment (2018)

This study builds upon an earlier retail assessment for the Shire and provides an assessment of the preferred locations of for bulky goods development in the Shire. It found that 3.5 to 4.0 hectares of land for this use will be required by 2031 (Essential Economics, 2018, i). The study analysed the particular needs of the bulky goods sector in terms of size and location. It considered three sites in the study area, two on the south side of Bacchus Marsh-Geelong Road near Fiskin Street and one on the north west corner of School Lane.

The study concluded that these sites are not ideal for bulky goods development because of their lack of exposure to an arterial road that carries sufficient levels of traffic (5,000 vehicles per day on Geelong-Bacchus Marsh Road is relatively low). The SUZL and proximity of the Maddingley WRR Hub was also considered to be a potential constraint on these sites. In the long-term, the report concluded that the future development of the Merrimu and Parwan precincts to the east will be beneficial for potential bulky goods uses on these sites. This document has not yet been considered or adopted by Council, so has limited weight in decision making.

**Implications:** This assessment suggests that bulky goods retailing in the study area is unlikely in the foreseeable future, however, potential sites should be preserved. Feedback should be sought from MBC on compatibility with their operations.



Strategies and plans

Plan Melbourne (2017)

This document provides a comprehensive planning strategy for future growth and change within Metropolitan Melbourne (DELWP, 2017). Bacchus Marsh is located outside the Metropolitan area that is the main subject of the Plan. It identifies Bacchus Marsh as a peri-urban town or regional centre where growth should be supported, subject to the protection of character, agriculture and amenity (DELWP, 2017, 131). The Plan recognises the need to protect state and regionally significant landfills and their buffers and integrate their planning with land use planning (DELWP, 2017, 90, 124-125). Waste and resource recovery, waste to energy and facility co-location are specifically encouraged in the policy statements in the Plan (DELWP, 2017, 124-125). The Plan is a policy document in Clause 11.01-1S of the Planning Policy Framework and is referred to throughout the Moorabool MSS.

**Implications:** Plan Melbourne contains no specific guidance for the study area, but re-inforces the need for integrated planning for waste-hubs in growing peri-urban towns such as Bacchus Marsh.

Bacchus Marsh Urban Growth Framework & Amendment C81 (2018)

The Bacchus Marsh Urban Growth Framework (UGF) was originally prepared in 2017 by the Victorian Planning Authority, with the support of Moorabool Shire Council. The plan provides a high level, long-term framework for urban growth in Bacchus Marsh, in response to strong population growth, particularly for residential and employment land (VPA, 2018, 7). The plan recognises the role of the Maddingley WRR Hub at the state level, both for coal generation for industry and the role of the landfill as a waste and resource recovery hub (VP, 2018, 38). It also recognises that the Maddingley WRR Hub and other industrial uses around Bacchus Marsh that require buffers are a constraint on urban development. In relation to industrial use, the UGF recognises that the land south of Kerrs Road is generally unconstrained by sensitive land uses (VPA, 2014, 37).

Key elements of the UGF in relation to the study area are:

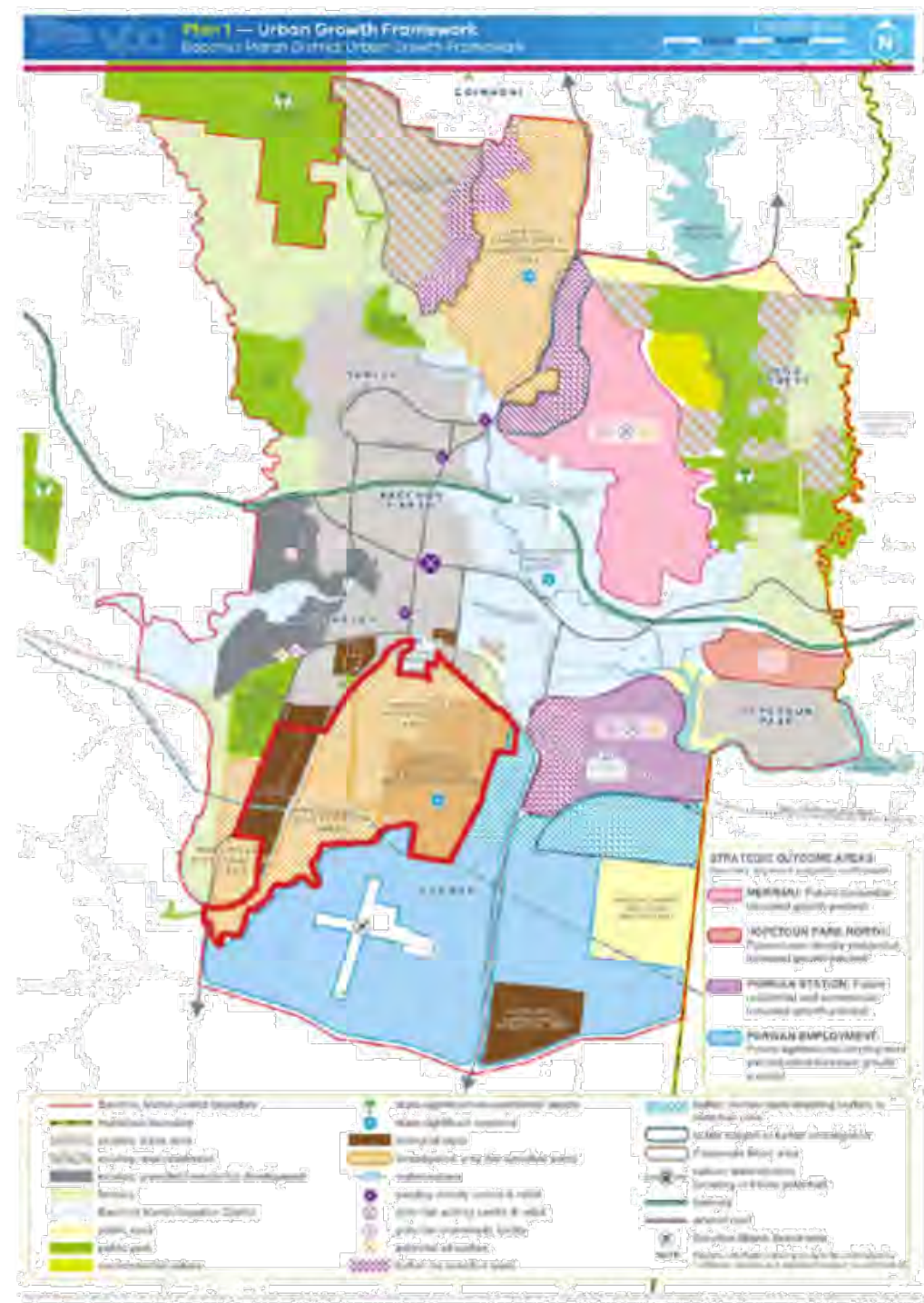
- a future residential and commercial precinct at Parwan Station to the east;
- the Parwan agribusiness and employment Precinct to the south and east;
- future residential focused growth precincts at Merrimu and Hopetoun Park near the Western Freeway.

These directions are shown in the UGF Framework Plan Figure 3, opposite. The UGF recommends that a Maddingley Planning Study be undertaken for the 'Maddingley Waste and Resource Recovery Hub' and other land in Investigation Areas A and B in the short term to determine appropriate zone, overlay and buffer controls. (VPA, 2014, 37). The UGF and the Framework Plan identify the study area as an 'investigation area' where sensitive uses should be prohibited unless buffers can be reduced by on-site management practices (VPA, 2018, 39).

Council implemented the findings of the UGF through Amendment C81. The presence of buffer distances around existing industrial land uses was a key planning issue at the Panel Hearing. Submissions to the Amendment were made from MBC and the Metropolitan and Grampians Central West Waste and Resource Recovery Groups. At the panel, it was found that a 2,000 metre composting buffer around the existing composting site should apply to land on the east side of the Maddingley WRR Hub and that this should remain unchanged for future composting. It was also found that this buffer should be amalgamated with the 1,000 metre coal mining buffer (Amendment C81 Panel Report, 2018, 28), although other submitters contested the extent of the buffers.

**Implications:** The UGF and Amendment C81 establish buffer distances and key principles for the future planning of the study area. The UGF and its findings have been the subject of a high level of debate and scrutiny through the Amendment C81 process. Its vision, which includes the protection of the Maddingley WRR Hub, has been accepted by Council and other key stakeholders through this process. It therefore provides a strong foundation upon which to base the Maddingley Planning Study.

Figure 4 The Bacchus Marsh Urban Growth Framework Plan (2018)



Victorian Planning Authority, 2018, 10, with study area boundary shown.



Strategies and plans

Parwan Employment Precinct Planning Study (2018)

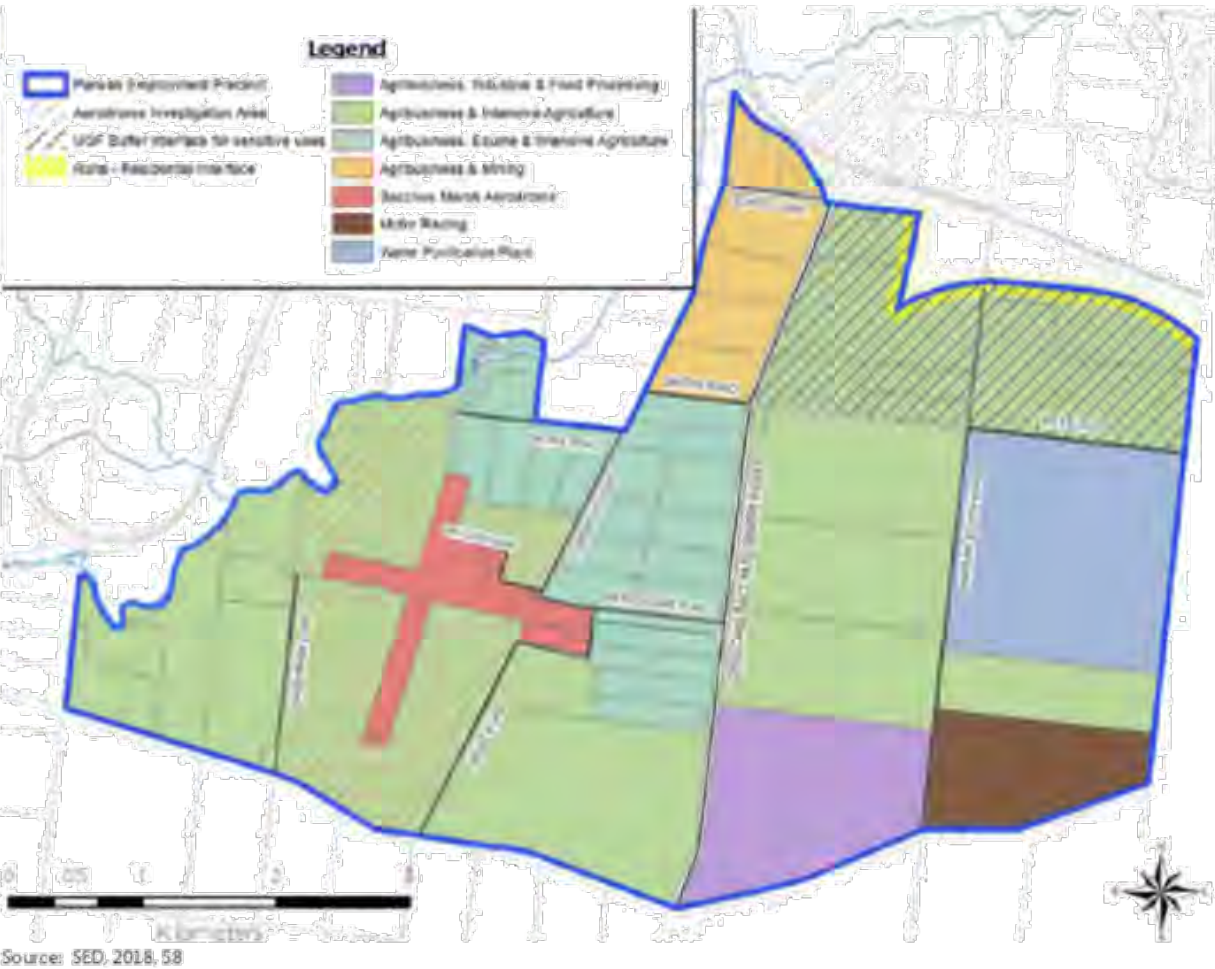
The Parwan Employment Precinct Planning Study (PEPPS) was prepared following a business case for the Parwan Employment Precinct (SED, 2018). The precinct has an area of around 2,880 hectares and currently supports agribusiness, including mushroom and poultry farms. It includes the Bacchus Marsh Aerodrome and the Western Wastewater Treatment Plant.

The PEPPS found that the Parwan precinct to the south and east of the study area, are well located, for the development of value adding and export-led business and up to 1,500 jobs. Key benefits of the precinct and current zoning (Farming and Industrial) and low levels of land fragmentation. The PEPPS found that infrastructure and access improvements will be crucial to realising the success of the precinct. Specifically, the provision of improved access to the Western Freeway and gas and water supplies.

The PEPPS recognises that Maddingley WRR Hub is an important land use in the broader area, and that amenity buffers are needed for the facility (SED, 2018, xiii). The PEPPS re-inforces the need for a Precinct Structure Plan to be prepared for the Precinct. It identifies seven potential use precincts, together with a new planning framework for each precinct, potentially include the use of the Special Use Zone (SED, 2018, xiii). Precinct 1(a), on the east side of Geelong-Ballarat Road is identified as having the greatest short-term potential for development. The precincts adjoining the Maddingley study area have been identified for agribusiness and mining, and agribusiness and intensive agriculture, as shown in Figure 5, opposite.

**Implications:** The PEPPS reveals that a substantial amount of high level strategic planning has taken place into future agribusiness uses in the precinct to the south east. It suggests that, from a planning perspective, agribusinesses will be encouraged to locate in this area as opposed to other industrial areas. The study also suggests that Parwan will be the focus of any new major road, gas and water investments, which may affect future servicing in the western part of the study area. The study area has the potential to leverage off any new investments in gas and water, particularly upgrades to the Bacchus Marsh-Geelong Road. Gathering more information about the current status of these initiatives is likely to be important for the Maddingley Planning Study.

Figure 5 Conceptual land use framework from the Parwan EP Planning Study (2018)





# Strategic waste context

This section provides an overview of strategic plans for the waste and resource recovery sector at the state and regional levels to provide an understanding about these key strategic influences on this study.

## What is a waste and resource recovery hub?

The term 'waste and resource recovery hub' (WRR Hub) is used throughout the organisations involved in the waste sector to describe a facility or group of facilities that recover or manage material streams or waste. They may also include other non-waste uses. According to the Statewide Waste and Resource Recovery Infrastructure Plan (SWRRIP), hubs form a network that enables integrated decision making by all stakeholders, including operators, land use planners and others (Sustainability Victoria, 2018, 62). According to the SWRRIP, their use and activities may change over time due to a range of internal and external influences, including market shifts, the price of materials, technology and strategic planning (Sustainability Victoria, 2018, 62).

Hubs are recognised as being of state importance if they manage or process a significant proportion of one or more waste streams for the state, if the waste stream is of high value to the economy and markets, or if the hub has major potential to grow (Sustainability Victoria, 2018, 155).

**Implications:** It is appropriate to define the Maddingley Brown Coal precinct as a WRR Hub from a land use planning perspective given its high level of recognition in approved waste plans mainly due to its role as the only landfill in Victoria permitted to receive shredder floc. The features of the hub in terms of activities and investments needs to be identified through the consultation process for the Maddingley Planning Study.

## Victorian Waste and Resource Recovery Infrastructure Planning Framework

The Environment Protection Act 1970 (EP Act) establishes the Victorian Waste and Resource Recovery Infrastructure Planning Framework (the Framework). The Framework provides the structure for strategic planning for waste and resource recovery that integrates state, regional and local planning. It requires the preparation, integration and implementation of the Statewide Waste and Resource Recovery Infrastructure Plan (SWRRIP) and seven Regional Waste and Resource Recovery Implementation Plans. The Statewide Waste and Resource Recovery Infrastructure Plan and the Metropolitan and Grampians Central West WRR implementation plans provide important strategic context for the Maddingley Brown Coal Waste and Resource Recovery Hub.

## Statewide Waste and Resource Recovery Infrastructure Plan (2018)

The SWRRIP provides a 30 year framework for the integrated management of the statewide resource and recovery system. The emphasis of the plan is on establishing infrastructure to maximise resource recovery and diverting materials away from landfill (Sustainability Victoria, 2018, 10-11). Its legislative status is provided under the Environment Protection Act.

The SWRRIP identifies 22 sites across the state that are waste hubs of state importance and require protection through the land use planning system. Maddingley Brown Coal is identified as one of these hubs for its strategic location near Melbourne and the fact that it accepts large amounts of solid inert waste and shredder floc. The Plan notes that the Maddingley WRR Hub is the only landfill that is licensed to accept shredder floc and identifies this situation as a potential risk to industry (Sustainability Victoria, 2018, 73, 113).

Maddingley Brown Coal was identified as a hub of state significance in the first Victorian Statewide Waste and Resource Recovery Infrastructure Plan approved in 2015.

The Plan is a Policy document in Clause 19.03-55 of all Victorian Planning Schemes.

**Implications:** The Plan identifies the high level of importance of MBC to the State from a waste perspective. This role should be reflected in the purpose, function and status of any new buffer provisions that are developed for the study area.

## Metropolitan Waste and Resource Recovery Implementation Plan (2016)

The MWRRIIP provides the framework for waste and resource recovery in the greater Melbourne region over the next 10 years. Like the SWRRIP, the emphasis of the plan is on establishing infrastructure to maximise resource recovery and diverting materials away from landfill. It notes the importance of MBC to the Metropolitan area for shredder floc and solid inert waste (Metropolitan WRRG, 2016, 8). The Plan is a Policy document in Clause 19.03-55 of all Victorian Planning Schemes.

**Implications:** The Plan identifies the high level of importance of the Maddingley WRR Hub to Melbourne from a waste perspective. This role will need to be reflected in the purpose, function and status of any new buffer provisions that are developed for the study area.

## Grampians Central West WRR Implementation Plan (2017)

The GCWRRIP provides the framework for waste and resource recovery in the Grampians Central West region over the next 10 years (Grampians Central West WRRG, 2017). The regional implementation plan must be aligned and integrated with the regional implementation plans prepared by the other waste and resource recovery groups across the state, as well as the Statewide Waste and Resource Recovery Infrastructure Plan.

The GCWRRIP notes that the region's population is expected to grow by 16% over the next 10 years. The largest increases are forecast for the City of Ballarat, which will attract approximately 57% of the region's growth, and in the eastern part of the region near Melbourne, which includes Moorabool and Golden Plains Shires. In relation to waste generation, the Plan notes that waste generation will increase by more than 36 per cent to approximately 768,000 tonnes by 2046 under a business as usual approach. It states that there is no demonstrated need for additional landfill airspace for the region at this point in time (Grampians Central West WRRG, 2017, 1-26).

The GCWRRIP notes that the Maddingley WRR Hub is not only a significant destination for waste from other regions, particularly Melbourne, it is also important for the Grampians Central West Waste Region. The plan recognises that the Maddingley WRR Hub has long-term potential of at least 20 years as a landfill and in accepting putrescible waste and additional composting activities (Grampians Central West WRRG, 2017, 64). The GCWRRIP is a Policy guideline in Clause 19.03-55 in the Moorabool Planning Scheme.

**Implications:** The Plan identifies the potential for putrescible waste at MBC. This is essential for this type of waste to be considered for approval.

## Grampians Central West Waste and Resource Recovery Land Use Project (2018)

This report provides recommendations to improve the identification and protection of 58 waste and resource recovery facilities in the planning schemes that apply across the Grampians Central West Waste and Resource Recovery region (Centrum Town Planning, 2018). The report was prepared for the Grampians Central West Waste and Resource Recovery Group in consultation with the twelve member councils in the region, including Moorabool Shire Council.

The report found that MBC's waste and resource recovery functions are currently subject to a high level of encroachment based on the 2,000m buffer to its composting activities (Centrum Town Planning, 2018, 96). It also found that the site is subject to high levels of future encroachment, mainly relating to the potential for new residential uses in the Parwan Station precinct to the east as part of Amendment C81. The Project identified a number of specific issues relating to SUZL, including its purpose for coal mining, and the fact that a Management Plan and Development Plan has not been approved under the provisions of the zone.

The Project recommends a number of initiatives, including:

- further engagement with Council to review the SUZL
- more detailed consideration of the application of an Environmental Significance Overlay to apply to an amenity buffer;
- need for submissions to Amendment C81 to address sensitive uses in the Parwan Precinct;
- further work to gain approval for the MBC Management Plan and Development Plan; and
- need for an appropriate strategic process to identify the potential for MBC to accept putrescible waste (Centrum Town Planning, 2018, 96).

The issues relating to Amendment C81 and the Parwan Precinct have since been resolved through the Amendment C81 panel process.

**Implications:** This report confirms the status of MBC as a priority site for further planning work at the regional level. The report provides a broad framework for actions that are consistent with the objectives of the Maddingley Planning Study.



## Statutory waste context

This section of the report provides a summary of the key pieces of legislation that provide the statutory framework for the waste sector. Most of the statutory regulations that apply to waste are administered by the Environment Protection Authority Victoria (EPA), although they work together with the Planning & Environment Act and Planning Schemes to regulate particular forms of land use and development.

### Environment Protection Act 1970

This is the overriding piece of legislation for pollution control in Victoria. This Act regulates the discharge or emission of waste to water, land or air by a system of works approvals and licences. The Act also specifically controls the emission of noise and the transport and disposal of waste (EPA 788.3, 7). Consideration of land use planning is one of the requirements of the Environment Protection Act 1970. The acceptable environmental quality standards and conditions for discharging waste to landfill are specified in the relevant State Environment Protection Policies (SEPPs) and waste management policies (WMPs).

### Landfill Best Practice Environmental Management (EPA 788.3)

The Best Practice Environmental Management – Siting, Design, Operation and Rehabilitation of Landfills (Landfill BPEM) provides guidance to landfill operators and planning authorities about environmental risks, mitigation measures and how to avoid or minimise environmental impacts. It applies to municipal and non-hazardous waste that is deposited at landfills. The document provides best practice siting considerations for new landfills and sets out appropriate buffer distances to protect sensitive receptors from a failure of landfill design or management, or abnormal weather. The main risks that buffers aim to address are odour and landfill gas impacts (EPA 788.3, 2015). The BPEM specifies the following buffers:

- 100 metres from surface waters;
- 200-500 metres from buildings or structures;
- 1,500 metres from an aerodrome for piston-engine propeller-driven aircraft;
- 3,000 metres from an aerodrome for jet aircraft (EPA 788.3, 2015, 13).

The BPEM allows reduced buffer distances if it can be demonstrated that the amenity of sensitive areas will not be adversely affected. It states that that responsible authorities need to be satisfied that development will not be adversely impacted through a Section 53V audit under the Environment Protection Act, having regard to previous assessments. It also recommends that for landfills with an anticipated lifespan of 10 years, analysis of land use change should be carried out.

### Recommended separation distances for industrial residual air emissions (EPA, 1518)

This document 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, and new or expanded industrial uses from affecting sensitive land uses (EPA 1518, 2013). 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.

The document contains a comprehensive list of industry types under broad sub-headings such as 'agriculture' and 'basic metal products'. These uses and categories correspond closely with the uses listed in Clause 53.10 of the Planning Scheme, with some key differences. For example, Clause 53.10 does not contain a separate category for 'agriculture' and 'mining and extractive industry'. Some of the separation distances also vary between the two documents. The document describes different methods for measuring separation distances, including activity boundary to property boundary (for urban or township areas) and activity boundary to activity boundary (for rural areas).

The document provides a framework for how to consider variations to the separation distances, including consideration of the 'agent of change' cumulative impacts and land uses that may be appropriate to be located within a separation distance (EPA 1518, 2013).

The document lists 'interface' uses that may be appropriate to be located in buffers. These include:

- **To be encouraged:** Agriculture, car parks, cinema-based entertainment facilities, emergency services facilities, natural systems, offices, research centres, service stations and veterinary clinics.
- **To be considered (subject to assessment):** Light industry with no adverse amenity potential and utilities (except for sewage works).
- **To be prevented:** Sensitive land uses and industrial land uses that require separation distances as listed in the Index.

### Designing, constructing and operating composting facilities (EPA 1588)

This document provides guidance to the EPA, planning authorities and operators on how to meet with legislative requirements for composting facilities. The document addresses a broad range of siting, design and operational matters. In relation to the location and siting of facilities, it recommends that:

- composting facilities should not be situated on flood-affected land and should be at least 100 metres from surface waters;
- separation distances be applied between the activity and sensitive uses, although they are not a substitute from preventing odour emissions;

- separation distances should be calculated based on the separation distance between property boundaries, if possible;
- separation distances should be calculated based on the type of feedstock, the technology that is used (e.g. enclosed or open air composting) and size of the plant;
- separation distances should measure from 300 metres to 2,000 metres depending on the above factors, and other considerations such as topography and weather conditions.

Source: (EPA 1588, 2015)

### Assessing planning proposals near landfills (EPA 1642, October, 2017)

This is a 'guideline' document that has been prepared primarily to guide planning and responsible authorities in their decision making on applications and planning scheme amendments near active or closed landfills. It provides advice on the level of assessment required and recommends a "staged, risk based approach" (EPA 1642, 2017, 2).

Most of the document is highly relevant for planning decision makers. Key elements of the document are that it:

- provides a definition of 'sensitive use' that includes any building (for landfill gas risk) and any land use that relates to amenity and well-being (for odour issues);
- re-inforces the recommended buffer distances of 500 metres for putrescible waste and 200 metres for solid inert waste as set out under the Landfill BPEM;
- states that, for operating landfills, gas and odour impacts should be assessed, but for closed landfills, only landfill gas impacts need to be assessed;
- provides a formula for determining the appropriate level of assessment that depends on the type of proposal (alterations, above and below ground structures), landfill size, landfill type and age;
- recommends a level of assessment based on the application of the above formula that includes requiring gas mitigation measures (for low scores), landfill gas risk assessment (for medium scores) and a Section 53V audit (for high scores);
- provides sample permit conditions to require mitigation measures to be employed or landfill risk assessments to be carried out, if these have not been provided.

Source: (EPA 1642, 2017).

Existing buffers

This section provides an overview of the role of buffers and description of existing land uses in the study area that require buffers.

Role of buffers

Buffers are used to separate uses with potential for adverse amenity impacts from sensitive uses to minimise their impact. 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. Ideally, buffers should be entirely located on the land where the land use that requires the buffer is located, however, this is not always possible due to land ownership patterns or past planning decision.

Existing land uses with buffer needs

There are a large number of existing uses in the study area that require buffers under the Moorabool Planning Scheme or EPA 1518. These uses are shown on Map 6 on the following page and in Table 4. Table 5 shows potential or proposed buffers and is relevant to the 'issues and opportunities' section of the report. Tables 4 and 5 show the number of properties that are affected by the buffer in 'sensitive' zones and as a total number, irrespective of zone. Residential zones are defined as land in the General Residential, Neighbourhood Residential, Mixed Use, Low Density Residential or Township zones. There are also uses outside the study area that require buffers, particularly to the east and south east. These are also shown on Map 6 and have been included to provide context and continuity with the debate on buffers that occurred as part of the Amendment C81 panel process.

It is important to note that the Amendment C81 Panel found that the 2,000 metre composting buffer for the Maddingley WRR Hub should remain in its current position when the composting area is relocated to the north east. At this panel, it was also agreed by Council and the panel that the area to the south west of the Maddingley WRR Hub where the 1,000 metre coal buffer extends beyond the 2,000 metre composting buffer should be amalgamated to form a single buffer (Amendment C81 Panel Report, 2018, 31). This "amalgamated buffer" has not been shown on Map 6 to allow each individual buffer to be identified. The amalgamated buffer is shown on Map 7 later in the report.

Table 4 shows that the composting buffer for Maddingley Brown Coal has the largest buffer distance and affects the most properties, both in sensitive zones and in total (391 properties). Map 6 shows that:

- almost the entire study area, with the exception of two small areas of Farming zoned land in the south western and western parts of the study area are affected by an existing buffer;
- some parts of the study area, particularly in the vicinity of the JBD Industrial Park, are affected by multiple buffers;
- there are a number of existing uses whose separation distance is unknown as it is subject to a site specific assessment under relevant EPA guidelines or Clause 53.10, and this assessment has not been undertaken.

Table 4 Existing buffer distances in the study area

| Business Name                                | Activity / Description   | Buffer              | Separation Distance                        | Properties affected |       |
|--|--|---------------------|--|---------------------|-------|
|  |  |                     |  | Residential         | Total |
| Maddingley Brown Coal                        | Composting   | 2,000 metres        | EPA 1518                                   | 153                 | 391   |
| Maddingley Brown Coal                        | Coal mine  | 1,000 metres        | EPA 1518 & Amendment C81 Panel Report      | 121                 | 269   |
| Interstate Energy Group                      | Manufacturer of soil conditioner and fertiliser products, uses coal from MEC       | 1,000 metres        | EPA 1518 & Amendment C81 Panel Report      | 0                   | 27    |
| Maddingley Brown Coal                        | Landfill & Category C soils  | 500 metres          | Landfill EPEM & Amendment C81 Panel Report | 0                   | 9     |
| Calix  | Manufacturer of magnesium oxide products   | 500 metres          | EPA 1518 & Amendment C81 Panel Report      | 0                   | 15    |
| QP Lubex                                     | Storage, mixing and packaging of high performance mechanical lubricants            | 500 metres          | EPA 1518 & Amendment C81 Panel Report      | 0                   | 14    |
| VSF Bulk Grain and Minerals Storage Facility | Bulk grain and minerals storage  | 250m- 300m          | Clause 53.10 & EPA 1518                    | 0                   | 10    |
| Smartwood Mouldings                          | Joinery  | 100 metres          | Clause 53.10                               | 0                   | 4     |
| Simsmetal                                    | Shredder/floc processing   | Unknown             | -  | -                   | -     |
| Environmental Clean Technologies             | Research and development facility for brown coal densification, uses coal from MEC | Unknown             | -  | -                   | -     |
| Industrial Environmental                     | Environmental remediation contracting services *                                   | Unknown             | -  | -                   | -     |
| Labroc Car and Truck Wreckers                | Metal recycling  | Assessment required | Clause 53.10 & EPA 1518                    | -                   | -     |

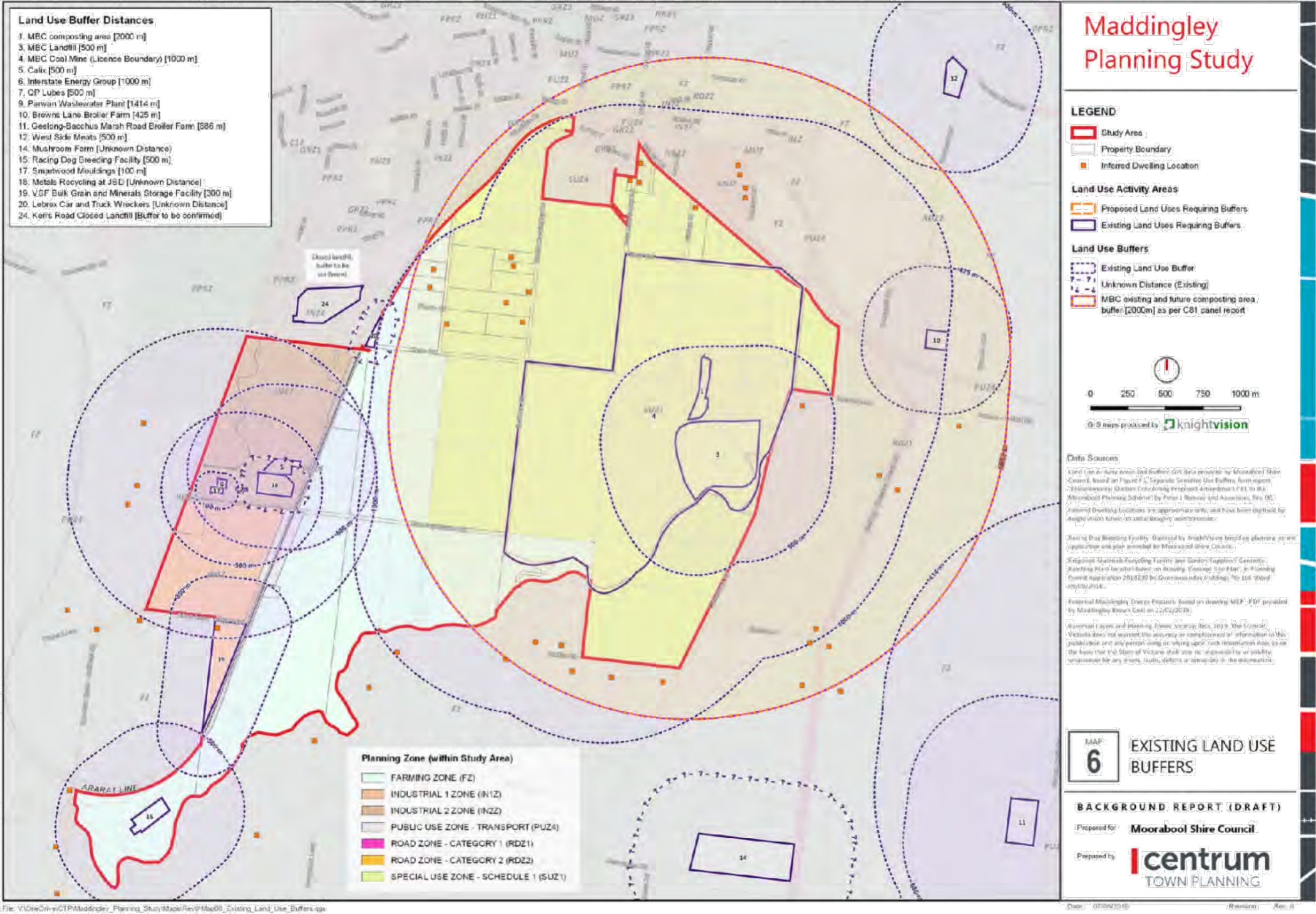
Source: Centrum Town Planning, 2019; Moorabool Amendment C81 Panel Report, EPA, 2013; EPA, 2015

Table 5 Potential or proposed buffer distances in the study area

| Business Name         | Activity / Description  | Buffer              | Separation Distance                   | Properties affected |       |
|-----------------------|---|---------------------|---------------------------------------|---------------------|-------|
|                       |   |                     |                                       | Residential         | Total |
| Latrobe Fertilisers   | Urea production facility  | 1,000 metres        | EPA 1518 & Amendment C81 Panel Report | 0                   | 43    |
| Maddingley Brown Coal | Putrescible waste cells   | 500 metres          | Landfill EPEM                         | 0                   | 8     |
| Greyhound keeping     | Keeping and racing 50 greyhounds                                    | 500 metres          | Clause 22.04                          | 0                   | 19    |
| Transfer station      | Recycling of timber, green waste, cardboard, metals inside building | Assessment required | Clause 53.10 & EPA 1518               | -                   | -     |

Source: Centrum Town Planning, 2019; Moorabool Amendment C81 Panel Report, EPA, 2015







# Buffer options and tools

This section of the report describes the options that are available to Council or others to identify and manage buffers both through the planning system and in other ways. The section is intended to provide a general overview of the options or approaches without reference to any particular site or issue. A discussion of the merits of the options as they relate to the study area is provided in the 'Issues and Opportunities' sections later in the report.

## Operation of buffers

Under the current planning framework, the buffers described in the previous section of the report have no specific status until a planning permit application for a new or amended industrial use is made in a zone that allows for the use, as described in Table 2. In situations where new residential uses are proposed and require planning approval within a buffer, there is an expectation under EPA 1518 that the 'agent of change' would need to demonstrate why a variation to the recommended buffer distance is appropriate.

It is worth noting, however, that most of the buffers outlined in Table 4 now have some status from a strategic planning perspective, as they have informed the Bacchus Marsh Framework Plan that forms part of Clause 21.07 of the MSS. Some consideration therefore needs to be given to them in all forms of decision making, particularly planning scheme amendments that may be affected by the buffers.

## General options for identifying and protecting buffers

There are four broad ways that Council can actively identify and protect buffers, as follows:

**Option one (direct land ownership)** would require the operator to purchase or acquire land. This option has already been adopted by MBC. It owns approximately one third of the land that is within the amalgamated coal and composting buffer.

**Option two (general publicity)** involves offering general information to all landowners within the landfill buffer, warning them of the presence of the industrial uses and outlining how Council would consider any future use and development of land within the buffer in the context of EPA guidelines. This option could include mailouts and information on Council's website and possible the adoption of informal policies outside the planning system. This option presents issues relating to consistency, transparency accuracy as it would occur outside of a statutory document such as a planning scheme, and outside of a statutory process. This option has therefore not been further discussed in this report.

**Option 3( Land information certificates)** involves Council using Section 229 of the Local Government Act to include any information on a certificate that is included in Section 32 Vendors Statements, whenever land is sold.

**Option 4 (Moorabool Planning Scheme)** has a number of sub-options, as summarised in Table 6 on this page. Table 8 in Attachment B and Table 9 in Attachment C at the end of this report provide more details about the key attributes of the main overlay provisions that could be used to identify buffers, together with examples of where they have been applied to protect buffers in Victoria.

## Overlays

Overlays in the planning scheme warrant particular consideration in the Maddingley 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. 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 protect a facility and impose conditions;
- can trigger referrals to authorities or other groups;
- 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 apply them and to subsequently amend them;
- they often require a significant amount of time and resources to implement in the planning scheme;
- they usually cannot prohibit uses (if this is desired), only trigger the need for planning approval.

In practice, overlays are therefore usually of most benefit when applied to buffers in greenfield or rural areas that are under threat of urban expansion or sensitive uses. Overlays that apply to existing urban areas require a considerable degree of technical and policy support and there are few examples of overlays that have been used to control amenity impacts in urban areas (refer also to the following page).

Table 6 Summary of options for buffers

| Option                          | Development opportunities |             |             | Implementation |           |
|---------------------------------|---------------------------|-------------|-------------|----------------|-----------|
|                                 | Protection                | Exposure    | Flexibility | Cost           | Timeframe |
| 1. Direct ownership             | Very high                 | Low         | Low         | Very high      | Variable  |
| 2. General information          | Very low                  | Variable    | High        | Low            | Short     |
| 3. Land information certificate | Low                       | High        | High        | Low            | Short     |
| 4. Planning Scheme              |                           |             |             |                |           |
| MSS                             | Low                       | Average     | Average     | Average        | Medium    |
| Local Planning Policy           | Average                   | Average     | High        | High           | Long      |
| Zones                           | High                      | High        | High        | High           | Long      |
| Zone schedules                  | Average                   | High        | Average     | High           | Long      |
| Overlays                        | High                      | High        | High        | High           | Long      |
| Incorporated document           | High                      | Medium-High | High        | High           | Long      |
| Section 173 Agreement           | High                      | High        | High        | Low            | Short     |

Source: Centrum Town Planning, 2019

## Summary of options

Each of the options has advantages and disadvantages. In order to give a general understanding of the merits of each of the four options, each has been rated in Table 6, below. Key considerations relating to the effectiveness of the tools are:

- **Protection:** the ability of the option to adequately 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 issue that needs to be addressed.

The ability for Council to successfully implement an option is also important. There are considered to be two aspects of the implementation phase that can be rated:

- **Cost:** the level of funds required to prepare and apply the option to give it proper effect
- **Timeframe:** the amount of time it would take to formally apply or introduce the option, with 'short' representing a fast process and 'long' representing a slow process.

Any change to the Moorabool Planning Scheme would require a planning scheme amendment. This is usually a significant undertaking as complex planning scheme amendments typically take 12-24 months from the early stages of preparation to a decision by the Minister for Planning. Ultimately, the preferred option requires further feedback from stakeholders, and consideration of other factors, including cost and timing. Furthermore, it is possible that a combination of options may be the most effective way of addressing certain issues or sites.



## Buffer case studies

This section of the report describes buffers that have been formally recognised around waste and resource recovery facilities in two other Victorian planning schemes. The facilities have been chosen as they are State significant waste hubs or have similar attributes to the existing or future potential of the Maddingley WRR Hub. They provide an insight into some of the tools that could be used to protect buffers and reveal some of the issues that may need to be considered when including them in the planning scheme.

### Melton Planning Scheme Amendment C162 (Mt Atkinson and Tarnet Plains Precinct Structure Plan)

Amendment C162 led to the introduction of various planning mechanisms in the Melton Planning Scheme to manage potential impacts associated with the Melbourne Regional Landfill and Ravenhall Quarry on new urban development to the west of Melbourne. These mechanisms included:

- future industrial zones to restrict uses that are likely to be affected by amenity impacts from the Landfill;
- the use of a Schedule to the Urban Growth Zone to prevent child care uses in the future Industrial 1 Zone near the Landfill and other land use restrictions to protect the Quarry;
- application of a Design and Development Overlay (DDO4) to future industrial land within 500 metres of the proposed landfill cells to avoid potential adverse impacts caused by landfill gas migration from putrescible landfilling (as shown in Figure 6, opposite), with consideration of comments from the EPA.

This Amendment is relevant for the Maddingley WRR Hub because it supports a cautious approach to decision making for potential future encroachment upon a State significant landfill. It also reveals how the Urban Growth Zone and Design and Development Overlay can be used in conjunction with other controls to address amenity and safety issues by managing land use and development. The purpose and integrated operation of these tools was also discussed in some detail in a recent VCAT case relating to a Works Approval for the Landfill (Melton CC v Landfill Operations Pty Ltd (Red Dot) [2019] VCAT 882).

The Panel Report (December, 2016) provides a useful discussion of the complexities involved in allowing land uses within a likely future landfill buffer. The Panel supported a one kilometre wide strategic 'landfill odour and amenity buffer' around the nearest proposed landfill cell, a finding that was reflected in their recommendations for the new planning provisions.

### Environmental Significance Overlay (ESO3) in the Latrobe Planning Scheme

This overlay is of interest to the Maddingley Planning Study for a number of reasons. Firstly, the purpose of the overlay is to prevent the encroachment of sensitive uses. Secondly, the facility has a major recycling and waste to energy component. Thirdly, the process that led to its introduction is instructive in revealing the challenges associated with applying a buffer overlay to private land. The overlay applies to the Australian Paper Mill in Maryvale, as shown in Figure 7, opposite. This facility lies in the Industrial 2 Zone between Traralgon and Morwell. The facility is the largest private sector employer in the Latrobe Valley. The facility manufactures high performance packaging supplies and office paper, however it is an important facility for waste and resource recovery because it has the capacity to recycle 80,000 tonnes of recovered paper per annum. It is also a large producer of energy from waste, approximately half of which is used on site (Gippsland Waste and Resource Recovery Group, 2017).

The ESO3 identifies the presence of potential amenity impacts, provides guidance on the development of land associated with sensitive land uses that may be incompatible with factory operations, and, where practical, requires consideration of design measures for new development to minimise amenity impacts. The overlay has no impact on existing buildings and works.

The ESO3 was introduced in the Latrobe Planning Scheme through Amendment C104 in December, 2018. The Amendment was approved by the Minister for Planning without notice under Section 20(4) of the Planning & Environment Act. The overlay was first anticipated through a strategic planning project that was subject to a planning scheme amendment, full public exhibition and a planning panel. The strategic buffer was subsequently included in the Planning Scheme, although, following negotiation by Council, the final ESO3 was only applied to rural land (Minister for Planning, 2018).

Figure 6 Design and Development Overlay (DDO4) in the Melton Planning Scheme



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

Figure 7 Environmental Significance Overlay (ESO3) in the Latrobe Planning Scheme



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





# Part C | Issues and Opportunities

## Role and vision

This section of the report presents a summary of key issues and opportunities that have emerged from the review of existing information and analysis provided in the previous sections of the report. Reference should be made to Map 7 for a visual representation of the key issues and opportunities. The section also raises key questions for consideration and feedback.

### Development activity

The research carried out a part of this project indicates that there has been relatively little new physical development in the form of buildings or infrastructure in the study area over the past 20 years. The factors causing this situation are likely to be many and varied and include:

- macro-economic factors such as the general decline in manufacturing industry;
- uncertainty about the future vision for urban development in the northern part of the study area;
- existing planning provisions that facilitate coal mining;
- lack of infrastructure in many areas, such as made roads and sewer;
- existence of an exploration licence for coal mining.

For example, the Lincoln Valley abattoir cited global economic conditions and difficulties in the subdivision of the land south of Kerrs Road as reasons for not proceeding with its approved development to the south of Kerrs Road (Planned FX, 2013, 2010).

Subdivision activity is often a good indicator of development activity. There have been few subdivisions approved in the study area in the last 20 years. Two permits have been issued for the subdivision of the IN2 zoned land on the south side of Kerrs Road within the MBC landholding, as shown on Map 7, and a four lot subdivision has been completed in this area.

According to information provided by the applicant, a 25 lot industrial subdivision approved under Planning Permit PA 2006241 did not proceed due to high infrastructure costs, particularly for sewer extensions and road construction (Dawson, 2010).

#### Key questions:

What are the constraints that are restricting further development in the study area?

### Vision for the precinct

A vision for the precinct is important, as it assists the community and stakeholders in understanding Council's land use vision, and assists planning practitioners in formulating appropriate tools to achieve these objectives.

The Moorabool Industrial Land Strategy (2015) does not provide a vision for the industrial zones in the study area, but notes that that the western part of the study area (Maddingley 4 Precinct) has reasonable buffers and that it may be appropriate for logistics and warehouse uses if accessibility could be improved.

In particular, the development of the Eastern Link Road could significantly influence the attractiveness of the precinct for different types of development as it will facilitate access from the Western Freeway and the Melbourne Metropolitan Area.

It may be most appropriate for separate vision statements to be developed for different parts of the study area, depending on their buffer and other characteristics, as described in this report.

#### Key questions:

What should the land use and development vision be for different parts of the study area?

### Relationship with adjacent precincts

Council's planning for the adjacent precincts are for residential and commercial uses around Parwan Station to the east and a major agribusiness, intensive animal and employment precinct in Parwan to the south and south east. These precincts are in the early planning stages and further detailed structure planning is needed.

Consideration needs to be given to how the study area will be promoted in the context of these uses. For example, will intensive animal or horticultural industries be discouraged from locating in the study area? Alternatively, should uses that have a waste, energy or materials recycling focus be discouraged from locating elsewhere?

#### Key questions:

Should particular uses be encouraged and discouraged in the study area?

### Clustering and co-location

It is well recognised that, in many industries, similar businesses often benefit from being close to one another. This enables them to benefit from common marketing, infrastructure, collaboration and sources of labour and supply chains. These principles are already recognised in Council's Parwan Employment Precinct Planning Study (2018), Bacchus Marsh Urban Growth Framework (2018) and Moorabool Economic Development Strategy (2015).

Already, there is some evidence of this occurring in the study area, where MBC supplies two businesses with coal. MBC also supplies a mushroom farm in Parwan with compost. It is notable too, that the emerging uses, which are described on the following page, are involved in industry sectors that already feature in the study area, or which will use a product that is produced in the study area. These include materials recycling, the use of methane from landfill and the diversion of wastes to create energy.

#### Key questions:

What synergies and efficiencies can be gained through co-location in the study area?

### Emerging guidelines and policies

The State Government has opened up discussion about potential new waste to energy facilities in Victoria. The discussion paper *Turning waste into energy Join the discussion (DELWP, 2017)*, identifies the potential for waste to energy facilities to reduce greenhouse gases and reliance on landfills. It identifies the opportunities and risks associated with waste to energy, which are relatively new in Victoria.

The discussion paper notes that planning and EPA licenses and works approvals are required for the waste to energy uses, and emphasises the importance of a 'social licence' from the community to operate these types of facilities (DELWP, 2017, 28). The Victorian Government is developing a circular economy policy and action plan, which will be finalised by 2020 ([www.environment.vic.gov.au](http://www.environment.vic.gov.au)).

#### Key questions:

What infrastructure is required in the study area to make waste to energy viable?



Emerging uses

Notwithstanding the constraints identified above, there has been ongoing interest from various uses seeking to establish in the study area to take advantage of its strategic location, infrastructure and proximity to a coal resource. Known proposals that are at the concept or approvals stage are summarised below and opposite. Many of these uses are likely to require buffer distances, as shown in Map 7, although the separation distances for some uses will depend on volumes, technology and other matters.

There is also at least one emerging use outside the study area but within existing buffer distances that raises questions about land use conflict with the Maddingley WRR Hub, and is described in this section of the report. The planning implications of these proposals are discussed in more detail in the later sections of the report.

Maddingley Brown Coal

MBC is actively exploring a number of new developments within its landholding, which includes relationships with other companies. These are summarised below based on information that has previously been made public.

**MBC putrescible waste application:** MBC proposes to accept up to 150,000 tonnes of putrescible waste per annum to support a planned anaerobic digester. A planning application was lodged in August, 2018. The application is at advertising stage and a significant number of objections have been received by Council.

**MBC Star Dam filling and rehabilitation:** Council received an application in November, 2018, from MBC to fill a former coal pit and now dam to the south of the landfill (Star Dam) with Potentially Acid Sulphate Soil (PASS). The dam has the capacity to provide storage for soil removed as part of major infrastructure projects in Victoria.

**MBC and Intelligas waste to energy for vehicles:** these companies are in the process of extracting methane from the landfill and compress the gas for use in trucks and transport vehicles.

**MBC and Intelligas waste to energy facility (the Maddingley Energy Precinct):** the two companies plan to use solid recovered fuel (SRF) to generate electricity at the JBD Industrial Park. It would involve construction of a Materials Recycling Facility and combustion unit at JBD and the diversion of approximately 140,000 tonnes of timber, cardboard and soft plastics. Approximately 10 megawatts of electricity would be fed back to the grid, although significant upgrades to existing powerlines could be required. The initiative is at the testing and approvals stage.

The proposal has received a \$500,000 State Government grant through the Resource Recovery Infrastructure Fund, managed by Sustainability Victoria. According to Sustainability Victoria, the project has an estimated cost of approximately \$80 million ([www.sustainability.vic.gov.au](http://www.sustainability.vic.gov.au)).

**MBC and Intelligas waste to energy anaerobic digester:** an additional stage of MBC's waste to energy proposal is to install a municipal alternative waste treatment facility at the JBD Industrial Park that would separate the SRF for diversion into the waste to energy combustion unit and organic waste stream and recyclable material for further offsite processing.

The organic waste stream will be processed by either an anaerobic digester to produce methane within a closed vessel for additional energy generation or composted at MBC to produce agricultural products. According to MBC, this proposal is conditional upon the approval of the application for putrescible waste at MBC to allow for contingency and seasonality factors.

These emerging activities demonstrate significant commitments by MBC to diversifying its activities, although the waste to energy potential of the site is still in the early stages. Council is developing a renewable energy policy that could inform, and be informed by, emerging waste to energy uses in the Maddingley WRR Hub.

**Key questions:**

What planning framework is needed to properly identify and manage the Maddingley WRR Hub?

What specific policies are needed for renewable energy?

Latrobe Fertilisers

Latrobe Fertilisers is investigating the potential to develop a major urea production facility in the study area that would meet a significant demand from the agricultural sector in Australia for this product. The facility would occupy approximately 74 hectares of Farming zoned land in the central part of the study area on Rowsley Station Road.

According to the company, technical studies are underway. No planning application has yet been lodged, however, the company has provided general details of its intentions through submissions to Amendment C81. The investment could be up to \$1billion and 160 direct jobs, with up to 1,000 during construction (Latrobe Fertilisers, 2018 and 2019).

Exergen Pty Ltd

This company proposes to utilise brown coal from the study area to produce a range of environmentally friendly agricultural products including fertilisers and soil amendments. The coal is also a rich source of carbon that can be used to increase depleted soil carbon levels and potentially permanently sequester atmospheric CO2 in farm soil.

According to the company, the type of brown coal at Bacchus Marsh is a resource of national and worldwide significance due to its properties. There are large potential domestic and export markets for Bacchus Marsh coal-based agricultural products. The company's proposal is at product development and field trial stage. Coal mining is discussed in more detail later in this report.

Multi-purpose facility

Council has received an application for a materials recycling facility, concrete batching plant and landscape supplies at 8 Rowsley Station Road. The proposal includes a large shed for the material recycling component of the use. A planning permit application has been lodged with Council (PA2018239).

Bacchus Marsh Grammar School expansion:

Bacchus Marsh Grammar School recently made a submission to the Amendment C81 Panel hearing that reveals interest from this Prep to Year 12 school in developing land in the study area for school facilities such as ovals or outdoor education, with less intensive activities such as ovals providing a buffer between residential areas and the School and employment activities (Bacchus Marsh Grammar School submission to Amendment C81, 2017).

**Key questions:**

Are there any other emerging new uses in the study area?

What are their needs in terms of location, services and infrastructure and buffers?

53 Lot Residential Subdivision, Fisken Street, Maddingley

Council has recently issued a planning permit for a 53 lot residential subdivision at 30 Fisken Street, Maddingley (Planning Permit PA2018067). This site is zoned Mixed Use and is shown on Map 7. It is located outside the study area but lies entirely within the 1,000 metre coal mining buffer and the 2,000 metre composting buffers at the Maddingley WRR Hub, as shown on Map 6.

The initial application was for 81 lot residential subdivision. Council officers did not support this application due to the intensity of the residential use proposed and its location within the Maddingley WRR Hub's recommended buffers (Agenda for Development Assessment Committee 17 April, 2019).

The developer prepared an environmental assessment that calculated the current volume of composting at the Maddingley WRR Hub at up to 14,000 tonnes per annum, which would require a 1.1 kilometre buffer from the composting area under the relevant EPA guidelines (EPA 1588). It is noted that MBC's planning permit allows composting with inputs of up to 50,000 tonnes per annum (Planning Permit PA2011338-1). The developer subsequently amended the application to exclude residential lots from the buffer.

Council has supported the revised application and imposed conditions on the Planning Permit that require all future owners of the land to acknowledge the presence of nearby industrial uses and a state significant landfill (Agenda for Development Assessment Committee 17 April, 2019). It is understood that MBC is appealing Council's issue of the permit to VCAT on grounds relating to notice and buffers.

The application raises key questions about recommended buffers can be reduced, what needs to be considered, and whether any assumptions are reasonable in the context of existing uses or approvals in the study area.

**Key questions:**

How should applications for sensitive uses within recommended buffer distances be treated?



# Infrastructure

This Maddingley Planning Study will not provide a detailed structure plan for the future physical layout of development of in study area, however, it is important to consider these matters in a general and spatial way order to understand how these might constrain or facilitate the future development of the area.

## Services

Currently, most of the study area contains few of the services required to readily facilitate any form of urban development. This has been a factor in confining many of the new uses that have established in the precinct to the JBD Industrial Park, where power, sealed roads and on-site wastewater treatment systems exist.

Typically, Council requires developers to provide all urban services to new developments as a condition of their planning permits. In the case of the study area, it may be possible to consider different standards in some situations, although this requires detailed discussions with various authorities. For example, some new uses are likely to give serious consideration to the on-site production of electricity rather than connect to the grid. Similarly some uses may wish to treat their own waste on-site. There may also be opportunities for electricity generated in the precinct from waste to be used by industries in the precinct, reducing cost and reliance on other forms of power such as gas.

One of the issues that Council has raised relates to the trigger points for the extension of services for existing uses. For example, there is no clear point at which it may be reasonable to require reticulated sewerage to be extended to the JBD Industrial Park, which currently relies upon an old septic system. According to Council, reticulated sewerage has recently been extended to the Racecourse Reserve on the western side of Bacchus Marsh-Balliang Road, which may make this more viable.

### Key questions:

- What level of services should be required for new land use and development?
- What opportunities exist for the use of electricity or gas generated in the precinct?

## Arterial roads

All of the recent strategic planning and transport studies undertaken for the area recognise the major importance of a new 'eastern link road' in opening up the Parwan Employment Precinct and Parwan Station precinct. This road would assist at the local level in providing an important north-south connection through the town to the Western Freeway, and would also provide much improved inter-regional links to northern Victoria and Geelong. 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).

The Eastern Link Road project is being managed by VicRoads but has no funding. As a result, construction timeframes are unclear. An Eastern Link Road Planning Study has been funded and is currently underway. This road has the potential to make the land in the study area more attractive for a range of uses, particularly from uses that rely heavily on road transport.

### Key questions:

- What should be the incentives around the timing and construction of the Eastern Link Road? (from the Maddingley Planning Study)
- What new opportunities would an Eastern Link Road bring to the study area?

## Local roads

The roads in the study area are currently constructed to a rural standard that is not suitable for many forms of new development, including most forms of subdivision. Several existing planning permits, including MBC's, limit or prevent truck movements through central Bacchus Marsh and require movements to the Western Freeway on Woolpack Road. MBC's permit also requires trucks to avoid the use of East Maddingley Road. These conditions effectively confine large truck movements to the Bacchus Marsh-Balliang Road and Bacchus Marsh-Geelong Road and protect the amenity of urban uses in the northern part of the study area. These conditions would appear to be appropriate given the current rural standard of most of the local roads in the study area.

Council has not indicated that there is any intention to construct any roads in the study area in the near future. The upgrading of roads is likely to be a major issue in any new development proposals on greenfield sites in the study area. Until the roads are constructed to a higher standard, the costs associated with upgrading roads is likely to act as a major incentive for uses to locate in the vicinity of the JBD Industrial Park or in the northern parts of the study area.

The condition of local roads is also likely to become an issue if applications are made for major new developments in the vicinity of the JBD Industrial Park that rely on coal or any direct provision of materials from the Maddingley WRR Hub in the west. These developments would be likely to place greater reliance on unmade roads such as Rowsley Station, Kerrs Road and Gullines Roads.

An immediate issue is the condition of the intersection of Tilley's Road and Geelong-Bacchus Marsh Road, which is in poor condition and has been the subject of past discussions between Council and MBC. This intersection is the responsibility of VicRoads and reconstruction of this intersection will be subject to their conditions.

### Key questions:

- What role does each of the roads in the study area play?
- Under what circumstances should developers contribute to the upgrading of local roads?

## Development contributions

Most planning strategies require some consideration of who will pay for infrastructure and how this will be done. Development contributions are payments or works-in-kind towards the provision of infrastructure made by a developer. There are three ways that that development contributions can be collected under the Planning and Environment Act 1987

- Planning permit conditions
- Voluntary agreements (Section 173 Agreements)
- Development Contributions Plans

Each of these approaches has different strengths and weaknesses. To date, Council has used Section 173 Agreements and imposed conditions on planning permits in the study area requiring developers to directly provide new infrastructure to service new developments, as appropriate.

This approach is likely to be suitable in areas that are experiencing low levels of development activity, close to existing urban infrastructure. Other approaches may, however, be more suitable if major infrastructure upgrades are needed or many landowners may benefit from this infrastructure. This can help to create certainty for new investors, but attempting to predict infrastructure needs could be challenging for this precinct as new industries could have very different needs.

It is noted that a development contributions report was prepared for the Moorabool Agribusiness Industrial Area in Parwan. This report identified the need for a range of infrastructure, including road intersection and drainage upgrades (Urban Design and Management, 2016). In the short term, the upgrades in Parwan are to be implemented through a section 173 agreement. In the longer term they are proposed to be integrated with a Precinct Structure Plan (PSP).

### Key questions:

- What level of services should be required for new land use and development?
- What infrastructure should developers be expected to fund and how?



# Environment

## Native vegetation

Most of the native vegetation on land in the study area has inherent protection under the Moorabool Planning Scheme. Individual planning applications would need to assess vegetation, avoid its removal and provide offsets on a case-by-case basis. The assessment of native vegetation did not form part of the scope of this project, but may be a relevant consideration for the Maddingley Planning Study.

As described in Part A of this report, the assessment of environmental values that was carried out for the Bacchus Marsh Urban Growth Framework found small areas of moderate and high environmental values in the western part of the study area to the north of the JBD Industrial Park and also on various parcels of land between East Maddingley Road and the Railway Line (Practical Ecology, 2016, 46&55). Further incorporation of these results into the Maddingley Planning Study may be needed prior to the finalisation of the Maddingley Planning Study.

The presence of native grasslands has also been relevant to some planning applications in the Farming Zone, particularly in relation to past cropping activities. Further investigation and feedback may be required to determine the extent of this vegetation.

**Key questions:**

Has any work been done to ascertain the extent and significance of vegetation in the study area?

## Parwan Creek

The Parwan Creek appears to be the area with the highest level of environmental sensitivity in the study area, and is currently well recognised in the Planning Scheme and protected through the Environmental Significance Overlay. Issues relating to biodiversity, water and other environmental values have not featured heavily in past planning processes reviewed as part of the research undertaken for this project.

Parwan Creek is located predominantly on private land, although there is some crown land to the south west of the Maddingley WRR Hub. The future role and treatment of the creek from an environmental and ownership perspective in new development is unclear. The subdivision of land is often the trigger for land along waterway reserves to be reserved for public purposes, if needed.

Rehabilitation works are planned at one of the MBC dams, which will begin to address some of the significant past effects of coal mining in the eastern part of the study area.

**Key questions:**

How should Parwan Creek be treated in any new development proposals?

Are there any areas of environmental significance that are not currently recognised in the Planning Scheme?

## Amenity issues

Apart from the significant strategic planning issues in the study area, there is also some evidence of ongoing issues between residents within and outside the study area and industrial uses in the study area. These issues have historically related to the activities of MBC and some past activities within the JBD Industrial Park, although no register or list of complaints has been reviewed to date as part of the Planning Study so the scale or distribution of impacts is unclear.

Litter has been an issue in the past at the Maddingley WRR Hub, however, this has been successfully addressed through the construction of a major litter control fence on the site's eastern boundary. The Maddingley WRR Hub has also been subject to odour complaints, however, determining the source of odours has been a problem as odours have been found to originate from other sources as well as the landfill. MBC convenes an Environmental Review Committee for its operations, which plays an important role in addressing amenity related issues.

Industrial uses have also been active in objecting to proposed new sensitive uses. For example, MBC and Sustainability Victoria recently objected to an application for an 81 (later 53) lot subdivision on land zoned Mixed Use in Fiskin Street, Maddingley. This land lies outside the study area but within the MBC composting and coal mining buffer. This development is discussed later in the 'Emerging uses' section of the report.

MBC also recently objected to a proposed new dwelling in Osborne Street, as shown on Map 7. (PA2018289) The now Department of Jobs, Precincts and Regions (DJPR) has also objected to the dwelling on the basis that it has not provided a site assessment of amenity impacts from the 1,000 metre coal mining buffer to the satisfaction of the EPA (DETJR letter to Moorabool Shire, 4/12/2018).

These examples demonstrate that land use conflicts continue to present difficulties in the study area, despite the long-standing nature of some uses. Active attempts to address specific amenity impacts such as litter appear to be more successful.

**Key questions:**

Are there any ongoing amenity impacts in the study area?

Is there any pattern to the amenity impacts that should be considered through the Maddingley Planning Study?

## Cultural heritage

There are no areas of cultural heritage sensitivity under the Aboriginal Heritage Act 2006 in the parts of the study area that are most likely to come under pressure for development. The areas of cultural heritage sensitivity are confined mainly to the Parwan Creek environs. It is noted that MBC has recently prepared a Cultural Heritage Management Plan as part of its proposal to fill and rehabilitate the Star Dam.

Whilst all aboriginal cultural heritage is protected, it would appear that cultural heritage is therefore not a significant constraint to development across much of the study area.

**Key questions:**

Is there potential for future works in the vicinity of Parwan Creek that may be affected by the Aboriginal Heritage Act 2006?



# Coal

## State Government policies

The State Government has released a *Statement on Future Uses of Brown Coal* and associated guidelines, which aim to set a greenhouse emissions standard for new coal projects, whilst supporting opportunities that use brown coal. It is mainly aimed at the Latrobe Valley coal resource, but applies to other major coal using proposals of 27,000 tonnes or more per annum (State of Victoria, 2018).

## Status of coal resources

Coal resources are located beneath most of the land in the northern part of the study area that abuts the Bacchus Marsh urban area. The future status and protection of these coal resources is a key issue for the study as any form of urban development at any density is likely to compromise the future capacity to extract these resources as they require open cut mining.

The Maddingley Brown Coal Resource Strategic Review (2006) found that significant areas of the coal resource have potential for future urban development. The report supported a scenario that involved a 400 metre "coal resource protection boundary" from the MBC limit of approved mining, as shown on Map 7. This finding was not the subject of major disagreement during the Amendment C34 Panel process.

It is understood that the State Government has not undertaken any detailed review of the future of the coal resource at Maddingley since 2006. Unless significant new information arises during the consultation phase, the recommendations of the 2006 study in relation to the coal resource would appear to be a sound basis on which to prepare the Maddingley Planning Study.

The scenario that was supported by the State Government in 2006 would protect approximately 103 million tonnes of the total 129 tonnes of 'winnable' coal (DSE, 2006, 42). According to Maddingley Brown Coal, there is approximately 45 million tonnes of brown coal located beneath the area cover by the Mining Licence (Golder Associates, 2016, 7). Based on previous work carried out by Moorabool Shire, it is understood that between 10,000 and 20,000 tonnes per year of brown coal is mined at Maddingley per annum (GHD, 2005, 7). Based on current usage rates, there is therefore many hundreds of years of winnable coal supply in the ground for this purpose.

There is an exploration licence for coal that applies to most of the study area (Exploration Licence EL5294). This licence covers a much broader area than the study area, although has been reduced in size over time. The company that owns the licence, Mantle Mining and Exergen Pty Ltd, applied to extend the licence in 2016, however no decision has yet been made by the State Government.

### Key questions:

What types of land use and development can take place on a coal resource without compromising its future potential?

## Future use of coal resources

Coal has a declining future as a source of energy in Australia, however, it has other important applications and uses that could escalate its use considerably and which should be considered by the Maddingley Planning Study. The 2006 DSE review found that the winnable coal resource at Maddingley, whilst relatively small, has a large value and is not insignificant as a source of coal for new technologies (DSE, 2006, 19). These technologies including dried coal, carbon capture and storage and for fertilisers. This potential was the subject of extensive discussion in the 1999 Panel and Advisory Committee Report when the Special Use Zone was introduced.

At least one of the proposals for new coal technologies has proceeded to planning permit stage in the JBD Industrial Park (Environmental Clean Technologies). In addition, two existing businesses in the JBD Industrial Park use coal from the Maddingley WRR Hub in their products (Calix and Interstate Energy Group).

The proposal by Latrobe Fertilisers for a urea production facility could use up to 1.5 million tonnes of coal over 50 years, although this proposal has not proceeded to planning application stage. Latrobe Fertilisers has advised that the type and size of the coal resource is attractive for the use, including for natural gas production, which is needed for their manufacturing process. According to Latrobe Fertilisers, the proposal would create up to 160 ongoing jobs), which indicates the economic potential of the resource to the Shire (Latrobe Fertilisers' submission to Amendment C81, 3).

Mantle Mining and Exergen Pty Ltd have undertaken test drilling in the area. Following renewal of EL5294, Exergen intends to do some further exploratory drilling and analysis followed by an application for a Retention Licence. If a large-scale commercial project can be established, Exergen intends to apply for a Mining Licence and then commence mining operations, supported by production, storage and logistics facilities. This will require an extensive approvals process under the Environment Protection Act and Planning and Environment Act 1987 and Mineral Resources (Sustainable Development) Act 1990.

Whilst the future use of the coal resource as a driver of new land use and development in the study area has not yet led to the construction of major new industries in recent times, it is clear that some interest does exist from two companies to utilise the resource. Its future potential is ultimately very difficult to estimate due to the range of non-planning related factors that may affect investment decisions, but there is likely to be a need to continue to recognise the coal resource in some way through the planning framework.

### Key questions:

What is the future potential for coal in the study area in terms of timeframe, jobs and infrastructure development?

## Protection of coal resources

In Victoria, coal resources are generally protected through a number of planning mechanisms, which have been applied mainly in the Latrobe Valley. In the Latrobe Planning Scheme, the following provisions manage and protect the coal resource:

- **Special Use Zone (SUZ1)**, which identifies the extent of the coal resource and aims to allow for interim and non-urban uses which protect brown coal resources and to discourage the use or development of land incompatible with future brown coal mining and industry.
- **Environmental Significance Overlay (ESO1)** acts as an urban buffer around townships and provides mutual protection between urban development and coal mining. It is only triggered by certain commercial and large-scale accommodation developments and not dwellings.
- **State Resource Overlay (SRO)**, which applies to medium and long-term future coal resources. Like the ESO1, the overlay is only triggered by small lot subdivisions and certain commercial and large-scale accommodation developments and not applications for dwellings (Latrobe Planning Scheme).

The Special Use Zone (SUZ1) in the Moorabool Planning Scheme has a similar purpose to SUZ1 in the Latrobe Planning Scheme in relation to providing for coal mining, although the Moorabool SUZ1 is different in a number of key areas. For example, the Moorabool SUZ1 aims to minimise impacts on the environment and nearby land and ties approvals to an endorsed Management Plan and Development Plan. By comparison, the Latrobe SUZ1 specifically aims to provide for "interim and non-urban uses".

The Department of Jobs, Precincts and Regions (DJPR) has advised that they are currently reviewing the planning provisions that apply to coal resources in the Latrobe Valley and that the review may be extended to Maddingley.

### Key questions:

What planning provisions should apply to the coal resource that is worthy of protection?



Buffers

Emerging guidelines and policies

The State Government is in the process of reviewing buffers and their treatment through the planning system in response to the Major Hazard Facilities Advisory Committee Report (2016) and Independent Inquiry into the EPA (2016).

The government has released a technical report by ERM (2018), which critically assesses land use buffers and separation distances through the planning system. The ERM report identifies a large number of issues with the operation, application and interpretation of Clause 52.10 (now Clause 53.10), particularly in the context of how it relates to other clauses in the Planning Scheme and Recommended Separation Distances for Industrial Residual Air Emissions (EPA 1518, 2013). The report contains a summary of other review work and case studies.

This work will need to be closely monitored by the Maddingley Planning Study. Whilst the implementation of any review is likely to take considerable time, uncertainty and emerging policy changes could affect the implementation of the Maddingley Planning Study.

**Key questions:**

How might the review of buffers and separation distances affect the Maddingley Planning Study?

What uses are appropriate within buffers?

A large amount of land in the study area is subject to existing buffers. Guidance provided by EPA 1518 suggests that low intensity uses such as agriculture, car parks and other similar uses are to be encouraged in buffer and that light industry may also be appropriate if there is not potential for adverse amenity impacts. Currently, light industry exists to the north of the study area in very close proximity to existing residential zoned land.

There is potential for light industry and commercial uses such as bulky goods retailing to establish in the northern part of the study area. Further feedback is required from operators within the study area to understand whether existing industries may be affected by these uses and avoid inter-industry conflict. Feedback is also required from residents in the residential zones to understand whether these areas are appropriate for these types of uses and under what conditions.

It is understood that the State Government is in the process of developing more specific guidance on land uses that may be appropriate to locate within buffers.

**Key questions:**

What uses are appropriate for buffer areas and under what conditions?

Buffer for the Maddingley Waste and Resource Recovery Hub

One of the key objectives of this project is to implement an appropriate buffer for the Maddingley WRR hub. At present, the Farming Zone acts as separation between the industrial zones in the west of the study area and the Maddingley WRR Hub.

The separation distance that has been most recently accepted through the Amendment C81 process is for the amalgamated coal and composting buffer and is shown on Map 7. At this point in time, the status and role of this buffer relates mainly to strategic planning considerations such as the rezoning of land and future structure plans. It is not a 'statutory' buffer in the form of an overlay or other provision that can trigger the need for planning permits and other policy considerations, although this potential has been flagged in the Bacchus Marsh Urban Growth Framework and other strategic planning work carried out for the GCWWRRG. Furthermore, as noted earlier in this report, the separation distances are not rigid in that they can be amended to reflect a variety of circumstances, to Council and the EPA's satisfaction. Council's decision to approve the 53 lot subdivision in Fiske Street is an example where Council accepted a modified buffer based on an environmental assessment.

If the amalgamated coal and composting buffer becomes a statutory buffer in its current form, the amalgamated buffer would affect approximately 380 properties, including 163 properties in residential zones to the north of the study area. The properties in the residential zones are long-established. Few vacant lots exist in the Gaynor Street area, although there is land on the east and west sides of Fiske Street zoned General Residential and Mixed Use that has potential for more intensive residential development, as shown on Map 7. The options for identifying and protecting this buffer are discussed earlier in this report. In most cases, the ideal planning response would be to use zones to manage or prohibit sensitive land use in these areas, however, this may not be achievable or equitable given the long-standing zoning and residential use of these areas.

In the event that changes to zones are not possible, the strongest and most transparent form of buffer would be an overlay in the Planning Scheme. This could provide a reasonably high degree of protection for the WRR hub from sensitive uses, however, determining the application and operation of the control will require resolution of a range of challenging considerations. Key questions include:

- What land should be affected?
- Can the overlay be applied to zones in which sensitive uses are as-of-right?
- Should density or subdivision controls be considered?
- Should discretion be exercised in making decisions or are mandatory controls or conditions necessary?
- Should standard conditions apply to sensitive uses?

An alternative approach would be to undertake further technical work to determine whether there is an acceptable way of determining actual levels of cumulative impacts within the identified buffer.

This work would be used as the basis for new provisions, however, significant investigations into buffers have already taken place so this may achieve little.

Another solution may be to pursue an overlay control that is more limited in its application, but which affects fewer landowners, in direct consultation with stakeholders. Other options could involve taking different approaches to planning controls within different parts of the buffer. Again, this approach will require negotiation with stakeholders. What seems clear is that the amalgamated coal and mining buffer for the Maddingley WRR Hub as shown on Map 7 should represent the outer most limit of what is considered as a buffer around the Maddingley WRR hub at this point in time.

**Key questions:**

What is the most appropriate form of planning control for the WRR Hub buffer?

How should sensitive uses be dealt with within the buffer?

What separation distance should the buffer be based upon?

Coal buffer

An open cut coal mine has a buffer of 1,000 metres under EPA 1518. Under EPA 1518, manufacturing of other products that use coal such as briquettes have buffer distances of between 250 and 500 metres. The northern part of the coal resource comprises land that is within 100 metres of land that is zoned General Residential, so new coal related uses are likely to be inappropriate for these areas.

The 400 metre "coal resource protection boundary" is shown on Map 7. It affects approximately half of a major landholding to the north of Kerrs Road zoned SU21 and a number of small properties in the vicinity of Osborne Road and South Maddingley Road zoned SU21. It also affects some of the land that Council has investigated for potential bulky goods retailing. If confirmed, this boundary should ideally be reflected in the planning scheme.

**Key questions:**

Is the 400 metre coal protection boundary appropriate?

Other buffers

Maps 6&7 show a number of existing buffers to potential or proposed future land uses. None of these buffers extend into land in a sensitive zone, however, most of the buffers extend into Farming Zoned land outside the study area. The concentration of buffers in this area, and the emergence of waste to energy and materials recycling uses suggest that these buffers need to be recognised in some way. These buffers particularly affect Farming Zoned land to the west of Bacchus Marsh-Bailiang Road, although all of these lots have already been developed with dwellings, so a statutory buffer in the form of zone or overlay may not be needed.

**Key questions:** Are formal buffers in the vicinity of the JBD Industrial Park needed?



# Zones

As discussed previously, zones are the main tool for controlling land use in the planning system. This section provides a discussion about uses that may be appropriate in different parts of the study area and how this relates to existing and potential future zones.

## Special Use Zone

There are three main issues with the existing SUZ1 that applies to over half of the land in the study area: its content, its operation and its coverage. At the time of its introduction in 2000, the Special Use Zone was applied to respond to the Ministerial Direction on the Form and Content of Planning Schemes, which required that this zone be applied to areas identified for coal mining. It is noted that there is no longer a requirement in the Ministerial Direction on the Form and Content of Planning Schemes for the Special Use Zone to apply to areas for coal mining. Issues relating to coverage are discussed in the previous sections of this report relating to buffers and coal.

In relation to the content and operation of the SUZ1, the 2006 DSE Review of the Maddingley Coal Resource identified a number of issues with the way in which the provision operates. Key issues raised in this review include:

- there is no trigger in the SUZ1 that requires the Management Plan and Development Plan to be prepared;
- 'mining' is a section 1 use if it meets the requirements of Clause 52.08 if it is in accordance with the Management Plan and Development Plan, however, this is overridden by the permit trigger in Clause 52.08 particular provision;
- no agreement has been reached between Council and MRC on the approval of the Management Plan and Development Plan.

In August 2016, MRC lodged a Management Plan and Development Plan with Moorabool Shire Council for approval (Golder Associates, 2016). This plan has not yet been approved by Council.

Recent planning work carried out for the Grampians Central West WRRG also identified the lack of an approved MP&DP as an issue as well as a number of additional issues with the Special Use Zone, as follows:

- lack of integrity with purpose of the zone, which refers to the need for development to occur in accordance with the endorsed MP&DP;
- need to notify neighbours of applications if there is no endorsed MP&DP;
- divergence between operations of the Maddingley WRR Hub, which are focused on landfill and materials recycling, with the purpose and content of the zone, which is for coal mining;
- lack of relevance of the decision guidelines to current activities (Centrum Town Planning, 2018, 94-95).

It therefore appears that a substantial review of SUZ1 is needed as a part of the Maddingley Planning Study. If the zone schedule is retained, key questions relate to:

- What should the zone purpose provide for?
- What uses should be as-of-right, require a permit and be prohibited?
- What information requirements and decision guidelines should be applied to land use, subdivision and buildings and works?
- Should any forms of development be exempt from third party notice and review rights?
- Should the zone trigger any referrals to government agencies or departments?

### Key questions:

Is the Special Use Zone an appropriate zone to apply in the study area?  
What should the purpose of the Special Use Zone be and how should it operate?  
To what land should the SUZ1 be applied?

## Farming Zone

The Farming Zone currently acts as a separation between industrial zones and the Special Use Zone. It aims to provide mainly for agriculture. Most of the Farming zoned land is owned by MRC and is used for grazing and cropping. There are several dwellings in the Farming Zone on the west side of Osborne Street that do not appear to carry out any form of agriculture on the land. Farming zoned land in the south of the study area has recently been developed for greyhound keeping.

Past submissions to planning processes from landowners have suggested that land in the land in the northern part of the study area has limited agricultural potential, although this may be due mainly to the small size of the lots. It is understood that no detailed assessment of the agricultural productivity of the land has been carried out by Council to date, nevertheless, the Farming Zone may continue to be relevant for some parts of the study area to reflect existing uses, larger landholdings, or as means of discouraging intensive land uses that should be located in other zones.

The Farming Zone allows for dwellings subject to permit on lots of less than 40 hectares and above 40 hectares as-of-right. However, it may be possible to use this zone in conjunction with overlays, as discussed in the 'buffer' section of this report.

### Key questions:

What is the agricultural potential of land within the study area?  
Does the Farming Zone have a future role to play in the study area?

## Industrial zones

The industrial zones are a key consideration of this study. They are the main tool for identifying and facilitating industrial development. These uses are well established in the western part of the study area and there is ongoing interest from new uses in establishing in or near these areas.

The application of the Industrial 2 Zone in the study area requires careful consideration in the Maddingley Planning Study. This zone aims to promote heavy industry that requires buffers, and specifically aims to locate the uses with the greatest amenity impacts in the heart of the zone, which the zone specifies as 1,500 metres from residential areas. It appears to have been applied to reflect the historical use of the JBD Industrial Park as a CSR factory.

The issue in the study area is that the Industrial 2 Zone is located between 400 and 1500 metres from land zoned General Residential, meaning that it cannot by definition operate in the way in which it is intended. Furthermore, all forms of industry, irrespective of their buffer distance, require a use approval under the zone. This is likely to create some uncertainty for industrial, as they may need to prepare significant levels of information to demonstrate that amenity impacts are acceptable.

At present, there are uses in the JBD Industrial Park that require buffers of 500 and 1,000 metres, which suggests that an Industrial 1 zone may be more appropriate.

The Industrial 3 Zone has not been applied in the Moorabool Planning Scheme, although Clause 21.04-7 of the MSS flags the potential for it to be applied to land to the north of Kems Road. It may present an appropriate tool to apply to areas which are located in close proximity to residential areas as it requires specific consideration of amenity impacts.

From an implementation perspective, one of the key issues with new industrial zones is that, in theory, there is at least 40 years' supply of industrial land in the Shire (SGS, 2015). This could make the rezoning of land to any industrial zone problematic as Council would need to justify that this amount of land is appropriate. There are, however, uncertainties as to whether all of the land that is theoretically available for development can reasonably be developed. Potentially, different demand based scenarios may be needed. Further feedback is required from DELWP on this matter.

### Key questions:

Should the Industrial 2 Zone be retained in the western part of the study area?  
What strategic justification is required to rezone additional land to industrial?

## Sensitive uses

There are at least 17 dwellings in the study area and the theoretical potential for additional dwellings to be approved in the Farming and Special Use Zones. This section considers key issues relating to the way in which the Maddingley Planning Study responds to these uses.

### Future of sensitive uses

The dwellings in the study area exist under a mix of existing use rights and permits. The planning system recognises that all existing uses have the right to continue in perpetuity. As stated by the Planning Panel in the Panel Report for Amendment C34:

*The planning system is predicated on preserving the rights of properties that are established under an existing planning framework, as well as protecting existing and future residents from adverse amenity impacts. Changes in the planning framework are not generally intended to change the basis for operating lawfully established businesses. (Amendment C34 Panel Report, 2006, 54).*

At present, most of the land in the Farming and Special Use Zones that is not owned by MBC has no further subdivision potential under the provisions of these zones. However, the owners of existing dwellings may wish to extend houses and construct sheds.

The Maddingley Planning Study needs consider how to respect and recognise these uses and the intentions of their owners, whilst recognising that alternative and more appropriate uses should be encouraged, over time.

### Key questions:

What issues relating to existing dwellings need to be considered by the Maddingley Planning Study?

### Application of zones

Nearly all of the land in the study area is affected by an existing buffer. First principles and the findings of the Amendment C81 panel suggest that any zone that allows for a sensitive use should not be considered for land within the study area that is subject to a buffer. Candidate zones that prohibit most sensitive uses include:

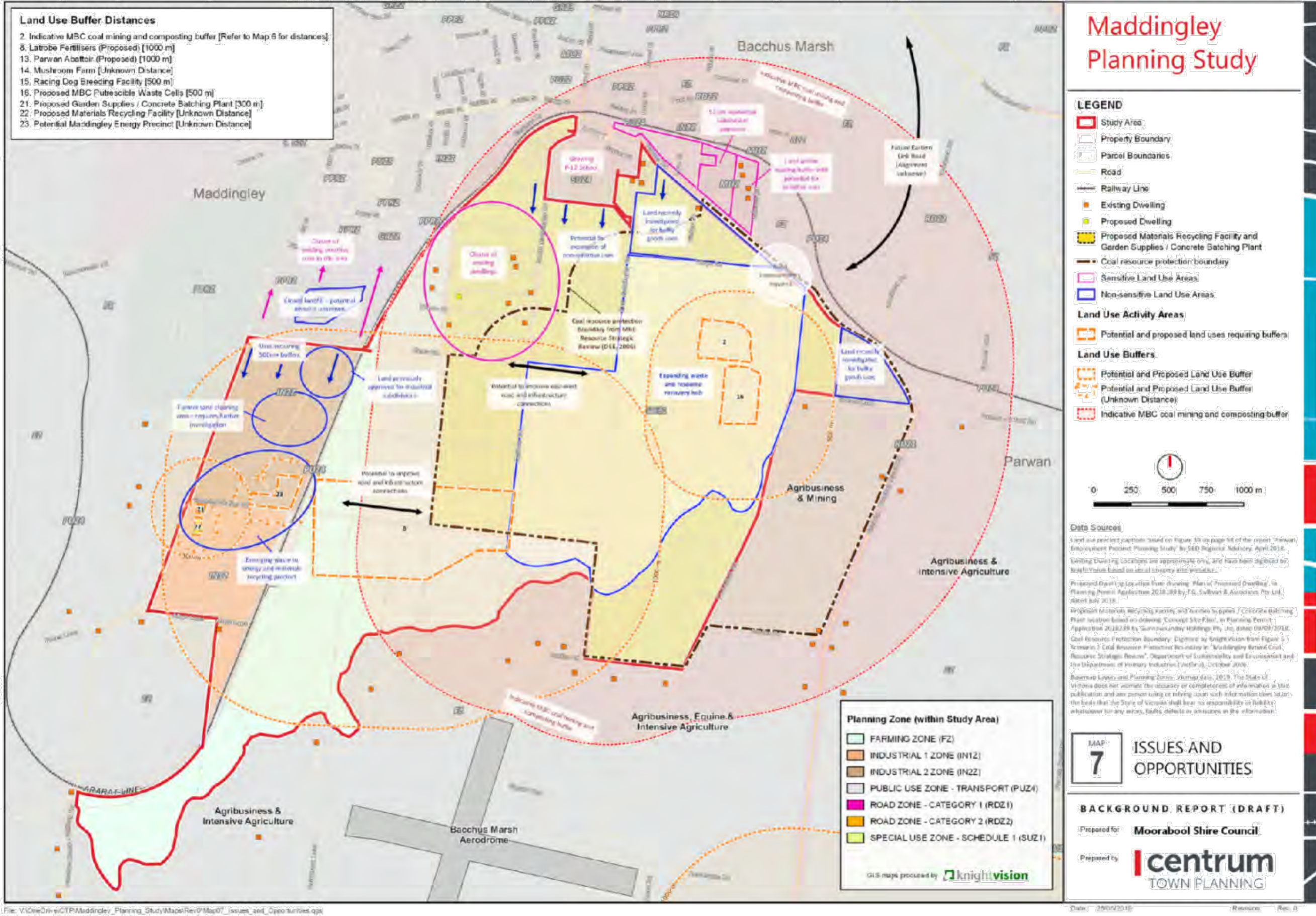
- Industrial 1 Zone
- Industrial 2 Zone
- Industrial 3 Zone
- Commercial 2 Zone
- Special Use Zone, tailored to suit.

The ultimate application of zones will depend on a range of factors, including the need to protect industry and residents, and infrastructure, as discussed throughout this report.

### Key questions:

What zones should be considered for the application of zones to areas within and outside existing buffers?







## Conclusion

The study area presents a range of planning issues that will require consideration in the Maddingley Planning Study. These include:

- relatively low levels of recent development activity due a broad range of macro economic and local factors;
- the presence of residential zoned land within existing buffers but outside the study area;
- the presence of long-established dwellings within the study area;
- some history of amenity impacts from industry on existing sensitive uses within the study area;
- extensive areas of land covered by existing buffers to industry, yet no formal recognition of the buffers;
- uncertainty about the current status of the coal resource from a strategic perspective;
- low levels of infrastructure and unconstructed roads across most of the study area;
- planning provisions that are outdated and do not appropriately respond to the current and emerging issues facing the precinct;
- lack of an approved MBC Management and Development Plan under the Special Use Zone;
- recent subdivision activity for residential purposes in the Mixed Use Zone within recommended coal and composting buffers.

Many of these issues are inter-related and it is suggested that the development of as strong and clear vision for different areas within the study area will be needed in order to resolve how to respond to each issue. Furthermore, there are a number of factors, which are likely to make the resolution of these issues more challenging. These include:

- a significant history of conflicting aspirations for the future use of land in the northern part of the study area;
- ongoing interest from the private sector in using coal resources, yet uncertainty about the status of the exploration licence;
- lack of information to enable appropriate separation distances to be determined for some existing and potential future uses such as materials recycling;
- presence of uses that rely upon existing use rights in the study area, which makes it more difficult to plan strategically for these uses;
- relatively low levels of understanding of the environmental and agricultural resources and features within the study area;
- large theoretical supplies of industrial land elsewhere in the Shire, some of which is compromised for development;

- a recent application to receive putrescible waste at the Maddingley WRR Hub, which has received strong community resistance.

Notwithstanding the above issues, the study area presents a range of opportunities for land use, development, employment and the local economy:

- strategic location immediately to the south of the Bacchus Marsh urban area and close to proposed future commercial and industrial precincts;
- presence of several large and well-established industries;
- large areas of vacant land with good separation distances to sensitive uses;
- an established and expanding material recycling sector;
- potential for the development of waste to energy uses and active interest in exploring this potential;
- a significant coal resource, with a wide range of potential applications;
- current interest from industry in developing new uses that capitalise on the coal resource;
- the potential to benefit significantly from the proposed new Eastern Link Road connection with the Western Freeway.

Key challenges for the Maddingley Planning Study are considered to be:

- how to protect and plan for a waste hub of state significance at the local level;
- how to formally recognise existing buffers in the Planning Scheme, particularly the amalgamated MBC coal and composting buffer and consideration of BPDM implementation to reduce these buffers;
- how to develop policies and provisions for the operation of buffers both within and outside the Planning Scheme;
- how to appropriately apply zones in conjunction with any other buffers tools;
- determining whether it may be possible to use the industrial zones more extensively;
- reviewing the provisions of the Special Use Zone (SUZ1);
- determining the type and level of infrastructure that might be required to attract industry and development activity;
- identifying a suitable framework for identifying and levying infrastructure costs that should be shared;
- gaining community and stakeholder support for the Maddingley Planning Study;
- how to balance competing objectives in the absence of a full evidence base to measure different social, economic and environmental outcomes.

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## Map information sources

Aerial imagery: Nearmap Ltd, photograph dated 13/01/2019.

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.

Land use precinct captions based on Figure 39 on page 58 of the report 'Parwan Employment Precinct Planning Study' by SED Regional Advisory, April 2018.

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.

Attachments

## Attachment A – Existing businesses in the study area

Table 7 Inventory of existing businesses and uses in the study area at January, 2019

| Business Name                                | Address                                       | Land Use (LUP)  | Industry Description  | Date | Planning approval  | Construction        |
|--|---|---|---|------|--|---------------------|
| Calix  | 25 Rowsley Station Road (JBD Industrial Park) | Industry  | Manufacturer of magnesium oxide products  | INZZ | PA2009163, issued 24 August 2012   | Early 2010 *        |
| Interstate Energy Group                      | 25 Rowsley Station Road (JBD Industrial Park) | Industry  | Manufacturer of soil conditioner and fertiliser products; uses coal from MSC  | INZZ | PA2002-306   | 2002                |
| QP Lubes                                     | 25 Rowsley Station Road (JBD Industrial Park) | Industry  | Storage, mixing and packaging of high performance mechanical lubricants   | INZZ | PA022/00   | 2000                |
| Environmental Clean Technologies             | 25 Rowsley Station Road (JBD Industrial Park) | Industry  | Research and development facility for brown coal densification; uses coal from MSC  | INZZ | Planning Permit  | Unknown             |
| Smartwood Mouldings                          | 25 Rowsley Station Road (JBD Industrial Park) | Industry  | Joinery   | INZZ | PA2008329  | Pre-2009            |
| Industrial Environmental                     | 25 Rowsley Station Road (JBD Industrial Park) | Industry  | Environmental remediation contracting services *  | INZZ | Unknown  | Post-2009           |
| Sinmetal                                     | 25 Rowsley Station Road (JBD Industrial Park) | Industry  | Shredder flac processing  | INZZ | PA2018006  | Unknown             |
| VSF Bulk Grain and Minerals Storage Facility | 52 Albys Lane                                 | Industry (rural)  | Bulk grain and minerals storage   | INZZ | Unknown / possible Section 1 Use   | Post 2010, Pre 2014 |
| Lebrex Car and Truck Wreckers                | 89 Koro Road                                  | Industry (materials recycling)                                      | Metal recycling   | FUZ  | Unknown / pre 2000   | Unknown             |
| Bosch Car Service                            | 13 East Road                                  | Industry (motor repair)   | Automotive repairs  | SUZ1 | Unknown / existing use rights or pre 2000 permit   |                     |
| Maddingley Brown Coal                        | 11 Tilley's Road                              | Mineral extraction, Industry (Refuse Disposal, Materials Recycling) | Coal mining, landfill (non-putrescible), materials recycling, manufacture of soils and soil products including composting | SUZ1 | Coal mine – existing use rights (1948)<br>All other uses PA2013336, issued 7 November 2014 | Various             |
| Bacchus Marsh Motocross Track                | 55 Cummings Road                              | Leisure and recreation (Motor racing track)                         | Motorcycle racing   | SUZ1 | Permit pre-2000  | Permit pre-2000     |
| Pegasus Farm and Stockfeeds                  | 108 South Road                                | Restricted Retail   | Retail farm and stockfeed supplies  | SUZ1 | PA2015196, issued 15 December, 2015  | Post 2015           |
| Home Timber and Hardware                     | 1 South Road                                  | Trade Supplies and Timber Yard                                      | Retail hardware and trade supplies  | SUZ1 | PA2010174  | 2010                |
| Melbourne-Ballarat Railway Line              |   | Transport   | Railway Line  | FUZ4 | N/A  | 1887                |

Source: Centrum Town Planning, 2019, information derived from site visits and planning permits provide by Moorabool Shire Council, 2019

\*Denotes information obtained from company websites (listed in References).



## Attachment B – Buffer options

Table B General options for identifying and protecting buffers

| Option  | How it will promote  | Advantages  | Disadvantages   |
|---|--|---|---|
| <b>Land Information certificates under Section 229 of the Local Government Act 1989</b> | Section 229 of the Local Government Act provides that a person may apply to a Council for a certificate specifying the prescribed information in relation to matters affecting any land in the municipal district. Councils do not need to provide planning information on these certificates, but the option exists.  | Included in Section 32 Vendors Statement, whenever land is sold.<br>Council may include any information it wishes to include and is not liable for information provided.<br>Cost effective way to inform public.  | Only becomes clear when a land information certificate has been purchased, usually as part of Section 32 Vendors Statement.<br><br>Certificate is not available through maps or other free media.   |
| <b>Municipal Strategic Statement</b>  | The Municipal Strategic Statement (MSS) is a concise statement of the key strategic planning, land use and development objectives for the municipality and the strategies and actions for achieving the objectives. It furthers the objectives of planning in Victoria to the extent that the State Planning Policy Framework is applicable to the municipality and local issues. It provides the strategic basis for the application of the zones, overlays and particular provisions in the planning scheme and decision making by the responsible authority (VPP, Clause 23.02).  | Ability to include policy guidelines allows MSS to actively guide decision making.<br>Potential to include a buffer plan in the Local Areas Section as a 'soft buffer' tool.<br>Relies on other permit triggers.  | Main purpose is to set strategic directions and visions for local areas.<br>Not shown on planning maps and in planning certificates in Section 32 Statements.   |
| <b>Local Planning Policy</b>  | Local Planning Policies are tools used to implement the objectives and strategies of the Municipal Strategic Statement. A Local Planning Policy is a policy statement of intent or expectation. It states what the responsible authority will do in specified circumstances or the responsible authority's expectation of what should happen. The consistent application of policy over time should achieve a desired outcome (VPP, Clause 23.03).   | Key tool to guide decision making on particular issues, and is relatively flexible in terms of content and application.<br>Potential to include a buffer plan.<br>Relies on other permit triggers.  | Not shown on planning maps and in planning certificates in Section 32 Statements.<br>Policy statements are usually not binding, and simply state what would normally be expected by Council.  |
| <b>Zones</b>  | The main role of zones in the Victoria Planning Provisions is to manage the use of land. Zones specify uses that can be carried out as-of-right (no planning approval needed), uses that require a planning permit, and uses that are prohibited. Zones also specify other permit triggers for the development of land, including buildings and works and subdivision. "Back-zoning" land involves converting land to a zone that prevents or limits urban development (e.g. Farming / Industrial / Special Use Zone).   | Zones are the preferred tool for managing land use.<br>Zones are shown on planning maps and in planning certificates in Section 32 Vendors Statements.<br>The Special Use Zone can be tailored to address the specific issues that relate to the site, including use, buildings and works and subdivision triggers.   | Will likely result in significant areas of non-conforming uses, creating complexity and confusion.<br>Back-zoning will not affect uses with existing use rights.  |
| <b>Zone schedules</b>   | Many zones contain schedules that can be varied by planning authorities to address local issues and achieve local planning objectives.   | Schedule to the GRZ allows a permit trigger for lots of 300-500m <sup>2</sup> , and can control density through varied site coverage requirements.  | Flexibility in triggering planning permits can be limited.<br>No schedule is available for the industrial zones.<br>Cannot control the use of land.   |
| <b>Overlays</b>   | Overlays are used to identify and manage particular planning issues, including environment and landscape, built form and heritage and land management issues. They trigger the need for planning approval for particular forms of development or change and can introduce referral requirements to government authorities or departments. Like local planning policies, their application over time should achieve a desired outcome.  | Preferred tool for managing specific development issues and can trigger planning permits.<br>Overlays are shown on planning maps and in planning certificates in Section 32 Statements.<br>Overlay schedules can be generally be tailored to suit specific planning issues.<br>Development Plan Overlay and Incorporated Plan Overlay can control land use.<br>Overlays can trigger referrals to authorities such as the EPA. | No planning overlay that is intended specifically for waste buffers, which could limit their usefulness / application.<br>Most overlays cannot control the use of land.   |
| <b>Incorporated document</b>  | The Planning and Environment Act 1987 allows certain documents to be incorporated in a planning scheme by reference, rather than by including them in the scheme itself. Incorporated documents are included in the list in the Table to Clause 72.04 (statewide); or the Schedule to Clause 72.04 (local) of the planning scheme.<br><br>Generally, where reference to a document is specifically required because the document affects the operation of the planning scheme, the document, or relevant part of the document, should be incorporated and read as part of the scheme ( <a href="http://www.planning.vic.gov.au">www.planning.vic.gov.au</a> ). | Flexible in its content and purpose.<br>Is able to prohibit uses and developments that might otherwise be allowed.<br>Has the same status as the Planning Scheme in decision making.<br>Requires a planning scheme amendment to introduce and amend, which maximizes opportunity for community involvement and scrutiny.  | Needs to be carefully applied as it can create confusion and complexity.<br>Does not physically form part of the Planning Scheme.<br>Requires a planning scheme amendment to introduce and amend, which can be time consuming and costly for minor changes.   |
| <b>Section 173 Agreement</b>  | Section 173 of the Planning and Environment Act allows a responsible authority to enter into an agreement with an owner of land in the area covered by a planning scheme for which it is a responsible authority.<br><br>The Agreement is a legal agreement that is registered on title.   | Registered on title to land, so would be revealed to purchasers of land.<br>Requirement to enter into Agreement can be imposed by permit condition.<br>Agreements can contain any requirement or condition that is reasonable, but not financial contributions for infrastructure.<br>Can be amended or cancelled relatively simply through a planning permit process.<br>Relatively cost effective to prepare.               | Can only be entered into voluntarily or via a planning permit condition following a planning permit application.<br>Existence of the Agreement can only be known through a title search.<br>Requires legal expertise to prepare.<br>Usually the cost of preparing and lodging the agreement is borne by individual property owners. |

Source: Centrum Town Planning, 2019, based on the Victoria Planning Provisions at February, 2019

## Attachment C – Buffer tools

Table 9 Summary of overlays that have potential to identify and protect buffers

|   | Design and Development Overlay   | Development Plan Overlay  | Environmental Significance Overlay  | Environmental Sensitive Overlay   | Special Use Overlay   |
|---|--|---|---|---|---|
| <b>Overview</b>   | The Design and Development Overlay can be used as a mechanism for controlling built form outcomes for waste and resource recovery facilities, as well as development within their buffer areas.  | The DPO can provide a masterplanned outcome for waste and resource recovery facilities, as well as their buffer areas. The DPO can be applied to the facility itself to facilitate its growth and development in accordance with a Development Plan. The DPO can also be applied to the buffer area of a facility to regulate land use and development and/or set parameters under which certain land use and development may be permitted. The application of this Overlay to buffer areas is appropriate only in circumstances where a comprehensive future development is proposed within the buffers. It should not be applied broadly to areas that have already been developed or limited new development is expected to occur. | The Environmental Significance Overlay is often identified as the 'control of best fit' for protecting buffer areas around uses with adverse amenity potential, such as waste and resource recovery facilities.<br><br>The Overlay can be applied to the buffer areas of facilities to manage development associated with sensitive land uses.<br><br>The Environmental Significance Overlay should generally not be applied to regulate activities within the facility itself. The Development Plan Overlay or Design and Development Overlay should be used if guidance is needed for the facility. | The purpose of the overlay is to ensure that potentially contaminated land is suitable for a use which could be significantly adversely affected by any contamination. The EAO requires either a certificate of environmental audit or a statement from an environmental auditor under Part 3D of the Environment Protection Act prior to the commencement of a sensitive use.<br><br>The overlay is generally only applied to land when there is known to be contaminated. | Used to apply specific controls designed to achieve a particular land use and development outcome in extraordinary circumstances  |
| <b>Strengths of this tool</b>   | The Overlay is able to set parameters that development either should or must meet, in order to mitigate the impacts of a facility on certain land use and development. Equally, it can restrict development to densities which reduce the numbers of people exposed to the facility. | Requires a Development Plan to be prepared, which can set out the overarching vision for a facility and/or its buffer.<br><br>Prohibits land use and development that is not 'generally in accordance' with the Development Plan.   | Can provide an extra level of statutory protection for a facility and its buffer.<br><br>Can use permit triggers to limit development associated with sensitive land uses.<br><br>Can provide formal referral or notice provisions for applications to be referred to the Environment Protection Authority.   | Very strong control over sensitive land uses. The significant time and cost associated with the audit process means that it effectively prevents small scale sensitive uses.<br><br>It requires a full environmental audit, which must be approved by the EPA. Therefore, it is a very effective way of ensuring that an acceptable risk to future residents or the community.  | Can manage land use by allowing or prohibiting certain use or development, despite the provisions of the zone that applies.   |
| <b>Limitations of this tool</b>   | Can provide an extra level of statutory protection for a facility and its buffer.  | Does not trigger a permit.<br><br>Development Plan preparation and amendment can be onerous.  | Cannot trigger a permit for land uses. Control is provided over new development for sensitive uses only.<br><br>Cannot contain specific design advice.  | Does not trigger an audit or any other requirement for non-sensitive uses. It is therefore only applied to land in zones that allow for sensitive uses.   | This is a new VPP overlay. It is understood that it has not been used or applied to date.<br><br>Unclear what "extraordinary circumstances" means in the purpose of the overlay.<br><br>Requires an incorporated document to manage the operation of the overlay. |
| <b>Can it be applied to protect and guide the current and future operation of a facility?</b>               | Can use permit triggers to limit development associated with sensitive land uses.  | ✓   | ✗   | ✗   | ✓   |
| <b>Can it be applied to protect the buffer area of a facility?</b>  | Can set discretionary or mandatory design requirements to be met in new development.   | ✓   | ✓   | ✓   | ✓   |
| <b>Provides a spatial representation of a facility and its buffer area</b>                                  | Can provide formal referral or notice provisions for applications to be referred to the Environment Protection Authority.  | ✓   | ✓   | ✓   | ✓   |
| <b>Is a permit required to use land for sensitive land uses that should be avoided within buffer areas?</b> | Cannot trigger a permit for land uses. Control is provided over new development for sensitive uses only.   | No permit trigger under this overlay. However, a permit cannot be granted under any provision within the Scheme unless it is generally in accordance with an approved Development Plan.   | ✗   | Environmental audit is required, but for sensitive uses only.   | ✓   |
| <b>Is a permit required for buildings and works?</b>  | ✓  | No permit trigger under this overlay. However, a permit cannot be granted under any provision within the Scheme unless it is generally in accordance with an approved Development Plan.   | ✓   | Environmental audit is required, but only for works associated with sensitive use.  | ✓   |
| <b>Can it specify mandatory requirements that development must meet?</b>                                    | ✓  | ✓   | ✗   | ✓   | ✓   |

## Attachment C – Buffer tools

|  | Development/Development/Overlay    | Development/Plan Overlay  | Development/Significance Overlay   | Development/Reserve Overlay                                   | Special Use Overlay  |
|--|------------------------------------|---|--|---|----------------------|
| Is a permit required for subdivision?  | ✓                                  | No permit trigger under this overlay. However, a permit cannot be granted under any provision within the Scheme unless it is generally in accordance with an approved Development Plan                                | ✓  | ✗   | ✓                    |
| Is a permit required to remove, destroy or lop vegetation?   | ✗                                  | No permit trigger under this overlay. However, a permit cannot be granted under any provision within the Scheme unless it is generally in accordance with an approved Development Plan                                | ✓  | ✗   | ✓                    |
| Can specify information that should be provided with any application?  | ✓                                  | ✓   | ✓  | Environmental audit is required, but for sensitive uses only. | ✓                    |
| Can specify specific decision guidelines that decision-makers must consider in assessing whether to grant a permit within the buffer area? | ✓                                  | ✓   | ✓  | Environmental audit is required, but for sensitive uses only. | ✓                    |
| Examples   | DDO4 in the Melton Planning Scheme | Development Plan Overlay (DPO) in the Casey Planning Scheme has been used to manage buffers through the preparation of a Development Plan, although the schedule is brief and does not specifically refer to buffers. | ES07 in the Wellington Planning Scheme (Kilmany Landfill)<br>ES02 in the Campaspe Planning Scheme (Schuca District Livestock Exchange, Pound, Transfer station).<br>ES04 in the Kingston Planning Scheme<br>Various wastewater treatment plants in Victoria, including Benalla, West Wodonga, Horsham. | Lakes Entrance landfill environ.                              | Not applied to date. |

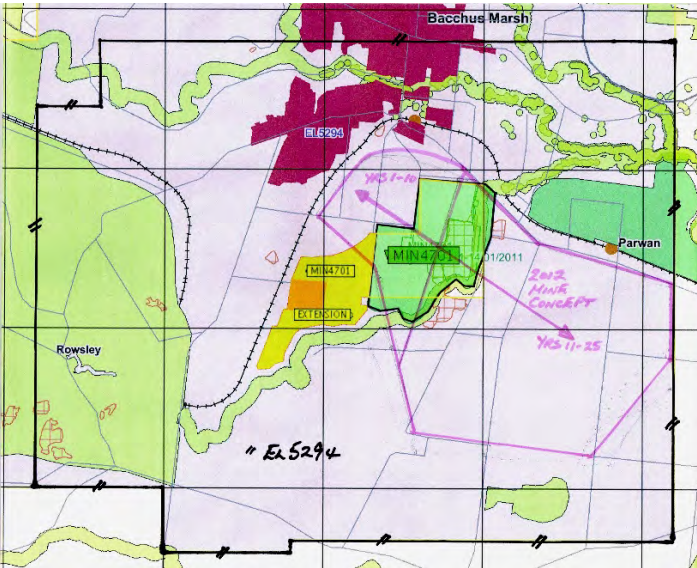
Source: Metropolitan Waste and Resource Recovery Group, 2018, adapted and expanded upon by Centrum Town Planning, 2019.



## Maddingley Planning Study – Background Report

### Summary of Submissions

| Submission Number | Affected Property/ Agency | Submission Summary   |
|-------------------|---------------------------|--|
| 1                 | First Nations             | <p>The submission seeks to ensure compliance with the procedural and notification requirements of the Native Title Act 1993 (Cth), in the event that:</p> <ul style="list-style-type: none"> <li>• Mining activities are extended or new licences are proposed to be issued; or</li> <li>• There may be a change in status in the zoning or usage of Crown land, where it is assessed that native title is not extinguished; or</li> <li>• Any Crown land is proposed to be sold as part of the planning review.</li> </ul> <p>The submission also seeks:</p> <ul style="list-style-type: none"> <li>• Compliance with State policy regarding any sale of Crown land, including consulting and seeking the views from traditional owners.</li> <li>• To ensure that proponents comply with the requirements of the Aboriginal Heritage Act 2006 (Vic) and its associated regulations and ensures that it consults and engages with the appropriate stakeholders when undertaking its activities.</li> </ul>  |
| 2                 | Melbourne Water           | <p>The submission provides the following high-level advice/comments:</p> <ul style="list-style-type: none"> <li>• Parwan Creek forms the southern boundary of much of the study area, and large parts of the study area drain to this creek. Parwan Creek has significant environmental values, which should be appropriately protected from development in the wider catchment. Parwan Creek has deep banks, and any future drainage connections into the creek should be minimised (flow rate and quantity) to mitigate the risk of further erosion.</li> <li>• Parwan Creek is the main waterway feature within the study area and is identified as a 4<sup>th</sup> order stream (Strahler System). Without further assessment of the waterway form and biodiversity values along this creek, Parwan Creek would require a minimum setback of 50 metres, which is measured from the top of bank. Noting that historical erosion has been identified, further assessment of erosion potential and impacts of development will be required. Mitigation actions are likely to prescribe a greater setback and rehabilitation works.</li> <li>• A large part of the study area drains towards the Werribee River through the Maddingley Park Creek and another tributary the western boundary. There are existing large dams on the upstream end of the latter tributary. If development occurs in this area, waterway reserves will be required to protect these waterways. Urban development would increase runoff and stormwater flows and downstream flooding would need to be controlled, particularly as these tributaries flow through existing developed areas particularly around Gaynor Street and the Grant Street roundabout.</li> <li>• Maddingley Park Drain catchment has been piped through Maddingley township. Existing pipelines appear to not have enough capacity to convey the 1% AEP flow. Retardation will be required and potential upsizing of existing drainage assets.</li> <li>• Melbourne Water is yet to commence investigation of a Development Services Scheme/Strategy to service this area, and no formal request for such has been received from Council. Development of this catchment would require land to be allocated for flood protection and stormwater water quality treatment.</li> </ul> |

| Submission Number | Affected Property/ Agency  | Submission Summary  |
|-------------------|--|---|
| 3                 | Exergen<br><br>Land affected by Exploration Licence 5294 (EL 5294) | <p>The submitter is the holder of a coal exploration licence EL5294 that overlays the study area and contains approximately 1.6 billion tonnes of high-quality coal or lignite. At the completion of the first 5-year licence term in 2016, the submitter applied to extend EL5294 for a further 5 years. Ministerial consideration of this extension application is still current. Since 2016, the submitter has continued to research potential commercial applications for the coal, submit annual reports and maintain the licence in good financial standing.</p> <p>In 2019, the submitter entered into a commercial arrangement with Latrobe Fertilisers Pty Ltd, to excise a small part of EL 5294 (4 graticules, containing approximately 40 million tonnes of the coal resource) and incorporate that area into the existing Maddingley Brown Coal (MBC) mining licence (MIN 4701) (see Figure 1). The purpose of this agreement was to facilitate progress of Latrobe Fertilisers' coal-to-urea project. It is expected that, over the coming years, this project will consume most of the coal within MIN 4701 (including the coal transferred from EL 5294).</p>  <p>Figure 1: Existing MBC mining licence MIN 4701 (shaded green) and proposed extension (shaded yellow).</p> <p>The submitter has identified that the coal in EL 5294 is of a particular type (one of the world's most important deposits of 'leonardite' type coal) that makes it a valuable input for the production of fertilisers and soil conditioners. Research is also underway to establish its value in permanently sequestering atmospheric CO<sub>2</sub> as soil carbon. Subject to further research and commercialisation, the submitter believes that the future market for this coal in (net zero or negative emissions) agricultural applications could create an annual mining demand ranging from 500,000 to 50 million tonnes.</p> <p>With the submission to COAG on 22 November 2019 of the National Hydrogen Strategy, there is now an acceptance of the importance that</p> |

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|                   |                           | <p>brown coal could play in the production of hydrogen. Such developments would only be possible if technology allows for the capture of CO<sub>2</sub> and suitable sequestration sites are available for its permanent storage. Coal in EL 5294 may be suitable for gasification and the production of hydrogen, given there are potential CO<sub>2</sub> sequestration sites available in the Otway Basin.</p> <p>The submitter calls on Council to recognise the huge economic and social benefits that could flow to the region from environmentally responsible utilisation of the valuable coal resources within EL 5294. The Maddingley Planning Study should not result in diminishment of access to coal resources or restriction of future mining activities in the EL 5294 area, over and above legislative and good practice buffer requirements.</p> <p>The submitter has developed a range of agricultural products (called 'Verde'), including fertilisers and soil conditioners using brown coal mined at Maddingley. The use of Verde brown coal-based products can substantially reduce the use of chemical fertilisers such as urea, whilst maintaining or improving crop yields. This enables farmers to reduce farm input costs, reduce greenhouse gas emissions, reduce harmful nutrient runoff into waterways and improve soil carbon levels. The submitter has established a small Verde manufacturing capability that will supply product for further, larger, farm trials and early commercialisation and market development.</p> <p>The submitter is also working with Melbourne University to demonstrate that Maddingley brown coal can be used to increase crop biomass which, in conjunction with no-till farming methods, could result in atmospheric CO<sub>2</sub> being permanently sequestered as soil carbon. Associated with carbon credits, this would create market demand and substantially increase the future utilisation of Maddingley brown coal and mining activity in the EL 5294 area.</p> <p><u>Possible mining area:</u></p> <p>In 2012, the submitter developed a conceptual mine plan based on mining up to an average of 25 million tonnes of coal per annum from the EL 5294 area. The conceptual mine was based on winning the most economic coal first and assumed mining would proceed as an expansion of MIN 4701.</p> <p>Emanating from the existing mine, years 1 to 10 would see mining progress to the north-west and years 11 to 25 would see mining progress to the south-east. The map in Figure 1 shows the post 2018 relinquishment extent of MIN 4701 to meet Latrobe Fertilisers current needs and the 2012 mine concept. This is not to scale and provides a very rough approximation.</p> |
| 4                 | APA Group                 | <p>APA Group is Australia's largest natural gas infrastructure business and has direct management and operational control over its assets and investments. APA's high pressure gas transmission pipelines span across Australia, delivering approximately half of the nation's gas usage. APA is the Pipeline Licensee for the Brooklyn-Ballan gas transmission pipeline.</p> <p>APA does not object to the proposal subject to the following conditions being included within any approval issued:</p> <ol style="list-style-type: none"> <li>1. A Safety Management Study (SMS) will be required to be completed prior to the approval of any rezoning or final precinct structure plan (PSP) for the area. The recommendations/actions of the SMS are to be included as part of any approved PSP or proposed planning controls (as necessary).</li> <li>2. APA would expect that future planning controls for the area will identify the gas transmission pipeline and limit sensitive land uses from locating within the measurement length (210m each side of the pipe) or within a distance recommended in the SMS. Any proposal to do so should include a requirement to consult APA as the pipeline owner/operator.</li> </ol>  |



| Submission Number | Affected Property/ Agency  | Submission Summary   |
|-------------------|--|--|
|                   |  | <p>3. The layout of any proposed subdivision needs to take into account the gas pipeline and easement. As outlined above APA will not accept roads to be constructed over the easement other than perpendicular crossings. APA's preferred outcome is that the easement is included within linear open space. Where the option is not possible APA may consider locating the easement within the frontage of industrial lots. APA will not accept the pipeline easement to be located in the rear of industrial lots.</p> <p>4. With regard to future gas supply, Council will need to contact AusNet Services as the gas distributor in the area. Current data indicates that there is sufficient supply in the Brooklyn-Ballan pipeline to supply the area, however this may change if the proposed industrial uses in both Maddingley and Parwan areas are very large gas users.</p>  |
| 5                 | 134 South Maddingley Road, Maddingley  | <p>The submitter's land is currently zoned (SUZ1 – Coal Mining). This has affected the submitter's attempt to sell the property (loan refused to potential purchaser due to SUZ1). Also, the Department of Resources objected to a proposed dwelling being constructed at the perimeter of the SUZ1. Both of these plans were intended to secure the submitter's retirement, but have led to a need for personal counselling due to the stress involved.</p> <p>The possibility of rezoning this area would be welcomed and would indeed seem more equitable as the zoning of Bacchus Marsh Grammar land (SUZ4 - Bacchus Marsh Grammar) is different to the zoning of other land in the area (SUZ1). The SUZ4 allows the school massive building developments, but nearby residents are hamstrung by the SUZ1. As the Maddingley Planning Study Background Report recommends no new sensitive uses due to buffers, the submitter suggests rezoning to either Light Industrial or Farming. This would at least allow a bit more freedom for owners to sell their properties.</p>  |
| 6                 | <p>Property No. 533200 (Land bounded by South Maddingley Road, Kerrs Road, East Maddingley Road and Bacchus Marsh Grammar.)</p> <p>Plus, unspecified land to the west of Bacchus Marsh Grammar</p> | <p>The Background Report is a comprehensive summary of the history and context of the area, and a useful discussion of the issues that need to be addressed and resolved for the area. The northern part of the study area is in close proximity to established parts of Bacchus Marsh, particularly nearby facilities and services. Its accessibility presents significant opportunities. The submitter acknowledges the recent work regarding buffers, but the following important points need to be considered in reaching a planning position on the matter:</p> <ul style="list-style-type: none"> <li>• The MBC buffer is just "indicative".</li> <li>• A range of recent buffer assessments have been undertaken, not just the Ramsay study upon which this is based. Others include work in the mediation of VCAT case for the amendment of MBC permit P2011338 (VCAT324/2014) which dealt with real world conditions relevant to coal mining, composting and landfill.</li> <li>• The Pacific Environment report (22 Aug 2017, commissioned by Council) is not referenced in the Background report. This report contains evidence-based discussion around key aspects such as wind direction, conceptual dispersion modelling and historical complaints.</li> <li>• Flexibility is required in any planning control which allows the BPEM principles for risk assessed land use outcomes (refer Bacchus Marsh Grammar expansion under Amendment C40).</li> </ul> <p>A future planning framework could include:</p> <ul style="list-style-type: none"> <li>• A SUZ specifically tailored to the land use opportunities in this area which has the potential to accommodate a range of uses that require large, well located sites, potentially creating valuable jobs; e.g. Bacchus Marsh Grammar have indicated a desire to expand further into the study area (Amendment C81 submission).</li> <li>• A number of sub precincts, in response to the distinctly different characteristics that exist in different parts of the large study area.</li> <li>• Planning controls that either directly or indirectly reference/establish evidence-based buffer areas, with the ability to apply 'best practice environmental management' (BPEM) principles in varying buffers and assessing land uses that may be considered to have an element of 'sensitivity' to upset conditions from adjacent land uses.</li> </ul> |

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| 7                 | 124 South Maddingley Road, Maddingley | <p>The submitter's land is currently zoned (SUZ1 – Coal Mining). This has caused much stress and disadvantage, and a lack of investment in surrounding land. The SUZ1 is draconian in its approach to the private landholders within it. If it was genuinely there to protect a valuable coal resource, then maybe one could understand its reason. Sections of the SUZ1 persist over a coal resource that is not considered economically viable to extract.</p> <p>The second time that coal in the submitter's neighbourhood was deemed nonviable for mining was after Mantle Mining came into the area (maybe 5 years ago) and put down new test bores to determine the true outline, nature and depth of this coal deposit. The tests determined that the submitter's neighbourhood contains the thinnest part of the coal seam and the coal contains the highest level of sulphur in the whole deposit. The SUZ1 and associated restrictions still remain for most properties except for Bacchus Marsh Grammar's special treatment (SUZ4).</p> <p>Now in 2019, the mine is a small component of the Calleja Group's turnover, making the original and sole purpose of this SUZ1 redundant. If there should be any zone in place to protect this important deposit, then it should be over the areas determined by the recent scientific bore hole samples worth protecting. Funnily enough, those areas are now full of development plans, and applications, south and east of the SUZ1.</p> <p>The submitter was unsuccessful in attempting to realign a boundary between two properties that they owned, and that was the final reason in their decision to sell their seed sprouting business, with the loss of 15 local jobs. When it comes to building permits, just about the same applies, and MBC has used the SUZ1 as a tool to stop all that it can when it comes to more people moving in and building. With 2,500-3,000 people attending the school already, would 60 or so more people residing on 5 acre blocks in this area cause so much more trouble for the operators of the rubbish hole (not coal mine)? There are already 10 and 5 acre blocks existing in this section of the SUZ1; surely a few more will not tip the scales against MBC and its operations. All the undeveloped land in the area does nothing for the amenity of the town, with weeds, pest animals and rubbish dumping.</p> <p>The SUZ1 should be limited to Maddingley Brown Coal's landholdings, if it is kept at all. If Calleja Group wants to control all the properties currently contained in the SUZ1, then they should acquire them, at ten percent above market value. Otherwise just push it back to their property line. The buffers over the town (fair or not) are already in place. Complaints are limited in their impact, and that is that as far as their business is concerned.</p> <p>Future planning should consider rural lifestyle or perhaps industrial. A paved road would help reduce dust which has increased due to the grammar school and other recent developments to the south and west, especially the new BMX park and recycling business.</p> <p>Without SUZ1, future land uses could include things like secure storage, vineyard, olive plantation, small solar collection areas (very few trees and flat area), small wind turbine, small or large factories (power, natural gas and water all in place), intensive farming i.e. feed lots (like at 108 South Maddingley Rd), aged-care homes, accommodation for the homeless, riding schools, further education businesses like the grammar (an education hub in the country), and of course rural Lifestyle blocks like found in Hopeton Park (2-5 acres).</p> |
| 8                 | 124 South Maddingley Road, Maddingley | <p>Council is to be congratulated for turning its efforts to resolving lifestyle and amenity issues for the residents in the Special Use Zone that was imposed upon the residents in 1999. The inequitable arrangements that protect a useless never to be developed resource limit those residents in the area in numerous ways that have been presented in a variety of formats for the last 20 years.</p> <p>Properties in the area are affected by multiple buffers, that allegedly protect future residents from amenity impacts. Yet, exposure to these</p>   |

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|                   |  | <p>risks is deemed acceptable for over 2,000 students at Bacchus Marsh Grammar, as well as existing houses.</p> <p>Recent coal exploration results (published in Oct 2015 by Mantle Mining) indicates that the coal resource is much more viable to the east of the Maddingley Brown Coal (MBC) site. The vein is thicker and has less overburden. Given the steadily downward trend of the value of coal, and considering the poor overall quality of this deposit, it would be interesting to commission an independent analysis to determine if this undersized sample actually merited protection, weighed against the loss of commercial value to the community from other potential land use.</p> <p>MBC does not own the land west of the mine site, so it is really unrelated third parties that have been limited and disadvantaged. The market price of the land does not reflect the potential value of such land in close proximity to town. If the SUZ1 was reduced or removed entirely, people who wish to sell their properties may not be subjected to adverse financial services and prohibitive finance arrangements. There are opportunities for MBC to change their practices, such as moving their composting production to indoors, thus removing the need for such an extensive and restrictive buffer.</p> <p>Changes should be made to permitted uses to enable landholders to put up buildings, or other structures related to their own personal or business use, therefore not limiting their own opportunities. Additional changes could support intensive agricultural uses. Greater infrastructure would be required to realise this opportunity. Yet these industries are promoted in the area to the east of the mine, where the coal resource is greater. Allow subdivision to 5 acre lots, with a view to adding a limited amount of residents, or at the least to enable transfer of ownership for non-residential uses.</p> <p>Change the zoning to permit greater industrial use, similar to adjacent areas. Presumably the areas would not be residential so that any release of unacceptable levels of noise or odour would not be affecting residents in their homes. Alternatively, support the residents to install protective fencing and guarding to protect greater planting of native vegetation, providing habitats and wildlife corridors. MBC has used native plantings as buffers and screens to cover stockpiled materials on their land,</p> <p>It would be useful for residents to have the roads paved to control some of the dust and noise with increased heavy truck use. Our main concern is that we are being controlled or limited on the basis of protection of a resource that is not accurate, and never likely to be realised.</p> |
| 9a                | Bacchus Marsh Grammar;<br><br>37 South Maddingley Road, Maddingley | <p>The submitter wishes to register its objection to being consulted so late in the process. The school should have been consulted at the initial stages with regards to commissioning, content and findings of the background report. Particularly as the school is a key land user within the buffer zones of the investigation areas of the study, and a key contributor to the economic objectives of the shire.</p> <p>The lack of transparency and consultation by Council at this critical point in time with regard to the funding and scope of the background report, has led to the production of a report that is inherently flawed and biased towards waste recovery and industry-based interests of the parties funding the report. It is unfair to expect land user groups within the buffer zones of the investigation areas of the study, to expend time, energy and resources to seek corrections to a report that has overlooked key data and is significantly inconsistent with strategic planning information; e.g. the Bacchus Marsh Urban Growth Framework (UGF).</p> <p>The submitter objects to Council receiving funding for the report from parties with vested interests in the outcome; namely the Metropolitan and Grampians Central West Waste and Resource Recovery Groups, without offering that same opportunity to other affected land users.</p>   |



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|                   |                           | <p><u>Concerns regarding the background report:</u></p> <p>The boundaries of the study area have been artificially restricted and are inadequate for the purpose of the study. At a minimum, the boundaries of the study area must be broadened to include all land affected within the land use buffer distances of the study area (as outlined in map 6 of the background report), thereby enabling a full mix of activities that occur in the area to be considered in the discussion of future planning and buffer zones.</p> <p>The background report appears deficient in a number of ways with regard to the interests and activities of key land users within the land use buffer distances of the study area (map 6). The report minimises the crucial role of “education” within the shire. The report ignores the ‘Maddingley Integrated College Precinct’ which was previously recognised and delineated in the UGF. The background report must be rewritten to adequately address the needs and opportunities of key land uses within the buffer zones of the study area, including the Maddingley Integrated College Precinct. At a minimum this should entail comprehensive consideration of the needs and opportunities presented by location of the schools in the Maddingley Integrated College Precinct independent of the benefits of waste management.</p> <p>The funding of the background report by parties with a vested interest in the protection of waste recovery and industry uses has led to a biased report that inadequately represents all the various opportunities for use of land within the study area. It is important that the Maddingley Planning Study is seen to be considering all potential developments for the study area, rather than a narrow focus on potential uses for waste and industry purposes. Therefore, the background report must be broadened to comprehensively consider all other opportunities in the study area and buffer zones, including residential and educational opportunities.</p> <p><u>School's plans for development:</u></p> <p>The school has a current enrolment of over 2,500 students, spread across the Maddingley campus (approx. 2,000) and the Woodlea campus at Rockbank (approx. 680). Current capacity at the school is 3,238 students, including 2,246 students at Maddingley campus and 992 students at Woodlea campus. The school has approximately 350 employees, many of which reside in the shire.</p> <p>The school's development plans at the Maddingley campus are based on the following factors:</p> <ul style="list-style-type: none"> <li>• The current building density on the existing site is reaching capacity.</li> <li>• The school cannot run effectively if it is to be surrounded by waste, recycling and industrial uses without appropriate transition zones. These zones need to be traditional environmental buffers but also aesthetic buffers.</li> <li>• The degree to which Council and other stakeholders are serious about the development of the Maddingley Integrated College Precinct. In particular, the degree to which Council is willing to approve the development of additional facilities in the Maddingley Integrated College Precinct as recommended in the UGF.</li> </ul> <p>Currently the school proposes the following general developments:</p> <ul style="list-style-type: none"> <li>• Purchase of future land and infrastructure. The school is finalising the purchase of a portion (approx. 14 acres) of the Maddingley Integrated College Precinct, situated south of the railway line. The school proposes the development of this land for a mix of school buildings (classrooms and specialist facilities), open space/ovals and car parking. The preferred positioning of the building envelope would be to the south, on relatively undisturbed land. Any buildings in this space would be further away from the MBC operations than any of the current facilities.</li> </ul> |

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|                   |   | <ul style="list-style-type: none"> <li>The development of this land in conjunction with the area that the school already owns, would enable the school to continue its natural growth on the Maddingley site and partially solve the issue of density on the current site.</li> <li>With the pending purchase of additional land in the Maddingley Integrated College Precinct, the school favours a gradual transition of urban density and restrictions on sensitive uses across the study area, from north to south for the existing site, and from west to east on the existing site. This would be the case as the school gradually migrates infrastructure and buildings across to the north-west corner of the combined and existing sites, resulting in more urban development closer to the railway station and the development of a series of natural buffers to the south and east. If the school was able to purchase additional land to the south and east, it would be looking to develop ovals and open space close to the existing site and then create a wooded area/urban forest to provide protection for the school from any potential small to medium scale industrial development further to the south. This plan aligns with the view of this area described as a “future investigation/transition precinct” in the UGF (plan 8; page 88).</li> </ul> <p>If the Maddingley Planning Study area is to be heavily developed for waste, recycling and industry, the school will need to consider relocating; at considerable cost.</p>  |
| 9b                | <p>Bacchus Marsh Grammar;</p> <p>37 South Maddingley Road, Maddingley</p> | <p>The submission provides background to the value of the brown coal resource and the application of the SUZ1 to protect this resource; with references to the Report of the Panel and Advisory Committee for the Moorabool New Format Planning Scheme (dated 7 April 1999).</p> <p>The submission refers to the Maddingley Brown Coal Resource Strategic Review (2006) and notes that the report supported a scenario that involved a 400 metre buffer from the MBC mining licence to protect approximately 103 million tonnes of coal.</p> <p>The submission notes that the background report has been prepared for Council and the Metropolitan Waste and Resource Recovery Group and gives the impression of bias toward the goals of the waste recovery groups, rather than a holistic view of the potential for the study area and surrounding land uses. The submission suggests that one of the foci of the study is to support the waste management bodies’ goals to promote the acceptance of putrescible waste at the site, which has been disguised within the term Waste and Resource Recovery.</p> <p>For unexplained reasons, the study area has been expanded beyond the investigation area identified in Plan 1 of the UGF; to include industrial zoned land to the west of the railway line.</p> <p>The submission expresses concern that the study area limits the identification of sensitive uses that lie outside the study area but within the buffer distances for existing and proposed land uses at the MBC site. These sensitive uses include dwellings and also the primary school component of Bacchus Marsh Grammar.</p> <p>The submission suggests that the current MSS seeks to protect the operation of the WRR hub and the coal resource, but fails to recognise that the landowner has effectively abandoned coal mining and focusses on the landfill use. As there appears to no longer be any need for the SUZ1 to be applied across large swathes of land to protect the brown coal resource, it should be contracted to the small area of land that is actually being mined for that purpose. The SUZ should be applied only to existing voids (from previous coal mining) for the purpose of landfill. Council should seek the view of the relevant State government department to revoke the mining licence from large swathes of land that are unlikely to be mined for brown coal in the next 20 years, so that appropriate development is not constrained.</p> <p>The acceptance of putrescible waste is not appropriate as an option for this facility, as such landfills have been traditionally located much</p> |

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|                   |   | <p>further from urban areas than is evident at Maddingley.</p> <p>Undue weight has been given to the documents adopted by the various waste organisations mentioned in the study. None of these documents have been incorporated into the planning scheme, nor are they reference documents in the scheme.</p> <p>The submission notes that the background report (on page 24) lists various buffers from <i>Landfill Best Practice Environmental Management</i> (EPA 788.3), but makes no mention of setbacks from sensitive uses such as dwellings or primary schools. Is this a deliberate omission or does the EPA not recommend buffers from sensitive uses?</p> <p>Bacchus Marsh Grammar school is an existing use on land within the buffer of the composting facility at MBC and should be protected from further encroachment by activities of MBC. A buffer should be placed around the school land that equals the worst-case scenario of land uses that may be occurring at MBC and land within those buffers should be rezoned out of SUZ1 and not be zoned to allow for any use that would encroach within the buffer so established.</p> <p>Council should take steps to either rectify the apparent inappropriate location of the composting facilities or liaise with MBC to revise their work practices to allow for the reduction of the buffer distance based on scientific analysis and a rigorous testing/inspection regime. A reduction of the SUZ1 area would have a simultaneous reduction in the buffer distances required and may lead to greater conformity with stated norms.</p> <p>It is apparent that the study seeks to abandon the use of land for coal mining and focus on the landfill as the major ongoing operation.</p> <p>Given this, it is apparent that the SUZ1 is no longer an appropriate zone for the area that was formerly used for mining of coal. Some other schedule should be developed and applied to the area of MBC that contains the voids from previous mining. The new SUZ schedule should be applied for Waste Resource Recovery (not putrescible waste) and the schedule should include provisions that prevent the mounding of waste above the natural (pre-development) ground level.</p> <p>The SUZ1 should be removed from the current coal resource area and be rezoned to appropriate zones. The Industrial 3 Zone would create an excellent transition between the uses at MBC that require buffers and the sensitive uses that surround the study area. Council is well aware that the existing Industrial 2 Zone land to the west of the railway line is underdeveloped and contains many years of land supply.</p> <p>Where are the comments for the mining industry in respect to the potential of the coal resource in this area?</p> <p>We look forward to the study being revised to expand on our concerns and the concerns of others in the community who are no doubt disappointed in the study being biased and only allowing for limited public comment. The school fears that this biased study will become Council's justification for a putrescible landfill at the MBC site.</p> |
| 10                | Osborne Street,<br>Maddingley;<br><br>Property<br>No. 515170 (Lot 4 | The submitter owns 15 hectares of vacant land, located to west of Osborne Street, north of Kerrs Road and east of the railway line. The land is currently within the Farming Zone (FZ), with the Design and Development Overlay Schedule 2 (Visual amenity and building design) applying to the land. Given the zoning, the land current has no subdivision potential, and as the site is less than 40 hectares, a planning permit is required for a dwelling.  |



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|                   | on PS 345500)                                | <p>With industrial land immediately to the west of the site (including the closed landfill), and Maddingley Brown Coal (MBC) controlling all of the land to the south, SUZ1 land immediately east, as well as the impacts of buffers on potential land use, the current zoning of the land provides little option for use and development on the land appropriate to its surrounding context.</p> <p>The small land parcels in the Osborne Street area, and the limited agricultural activities that are currently occurring on the land indicate that there are better land uses that could occur within the buffers to MBC, with more appropriate land use zoning controls. The FZ is acting as a holding zone, limiting potential for landowners in this area to pursue opportunities on their land to deliver more innovative and sustainable industrial land uses that fit within the buffer criteria of MBC and its associated activities.</p> <p>Industrial 3 Zone (IN3Z) could be a suitable alternative, providing the opportunity for industrial uses that also are sensitive to a transition between heavier industry and more sensitive uses. One of the purposes of the IN3Z is <i>“To provide for industries and associated uses in specific areas where special consideration of the nature and impacts of industrial uses is required or to avoid inter-industry conflict”</i>.</p> <p>In relation the MBC and buffers, we encourage the study to provide certainty for landowners in the area in relation to potential use of their land into the future and impacts from MBC and its various functions. Whilst there will always need to be some flexibility to consider innovative proposals, we support the study looking at the right mechanism to clearly identify the buffers so that future development within the buffers can be appropriately considered and assessed.</p> |
| 11                | Not specified                                | <p>The submitter seeks Council support to develop a tiny homes village within the study area. The concept involves development of affordable and sustainable housing within close proximity to town services. This will result in more people living in Bacchus Marsh, spending more locally supporting local businesses. Promote the town as a clean place to live and tiny home friendly; not an unhealthy tip of a town.</p>  |
| 12                | A business operating outside the study area. | <p>Development potential in the study area is being limited by:</p> <ul style="list-style-type: none"> <li>• the proximity of industrial uses to sensitive uses such as the school;</li> <li>• policy shifts by state/federal governments away from landfill operations; and</li> <li>• poor road infrastructure.</li> </ul> <p>Existing amenity impacts within the study area include traffic congestion, traffic safety concerns, dust and odour.</p> <p>Industrial land uses are appropriate for the buffer areas. Land uses that should be discouraged in the study area include uses that will not assist in a transition to emission reductions, and uses that will prevent the achievement of state sustainable development goals. Efficiencies can be gained through co-location of land uses in the study area; industrial symbiosis to improve competitive advantage for businesses within the municipality.</p> <p>Electricity and gas generated in the study area would assist in servicing future tenants. An Eastern Link Road (connecting Geelong-Bacchus Marsh Road to the Western Freeway) would assist in providing better freight connectivity and safer roads for residents of Bacchus Marsh. Developers should contribute to the upgrading of local roads when local, state or federal governments will not contribute, but the upgrades are deemed necessary to unlock land uses. Developers should only be expected to fund infrastructure internal to the developer's land.</p>  |

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| 13                | A business operating inside the study area.   | <p>Industrial uses should be discouraged within the study area. The Farming Zone has a future role to play in the study area. The existing Industrial 2 Zone is okay, but it should not be extended.</p> <p>An Eastern Link Road (connecting Geelong-Bacchus Marsh Road to the Western Freeway) would assist in easing traffic congestion. Developers definitely should contribute to the upgrading of local roads.</p> <p>Parwan Creek should be revegetated and protected from runoff and waste contamination.</p> <p>The planning study should consider the impact of noise, smell and dust pollution on existing dwellings.</p>  |
| 14                | <p>Rowsley Station Road, Maddingley;</p> <p>Part property Nos. 524550, 524600 and 470550.</p> | <p>The submitter (Latrobe Fertilisers) proposes to develop a urea production facility (the urea project) on MBC owned land, located to the north and south of Rowsley Station Road, and to the east of the railway line.</p> <p>The submitter supports the intent of the Maddingley Planning Study project, and fully supports all representations made in the background report regarding the urea project.</p> <p>A key interest and requirement of the urea project is the protection of the coal asset within the study area, not for traditional power generation uses, but for alternate uses as referred to on different occasions in the background report. These 'alternate uses' can deliver local jobs and create long term sustainable social and economic benefits for the community with an environmental outcome that has no adverse impact to the community. In the submitter's case, this latter component will obviously be the subject of assessment by the EPA and the Department of Environment, in their consideration of the urea project Works Approval application.</p> <p>The submitter's key area of geographic interest is in the MBC area which comprises 72% of the <i>Planning Study</i> area. This extends from the current coal mine area in a westerly direction across to the planned urea fertiliser manufacturing area which is in close proximity to the rail line. This rail access is of significant logistics benefit to the urea project, in both the distribution to Victoria's agricultural hinterland and to export through the port of Geelong if ever needed. In addition, the location is virtually adjacent to the Parwan Employment Precinct (agribusiness) to the south, to which significant co-industry benefits can flow from the urea project and the WRR Hub.</p> <p>The submitter has a 50 year operational agreement in place with MBC, and is thus very supportive of the need for adequate buffer zones to be in place with long term planning safeguards, not only as this is essential to give long term certainty to the \$1.25 billion urea project with its substantial job creation capacity for the immediate region, but also for downstream additional new project attributes.</p> <p>We are also aware of the strategic importance of the Maddingley WRR Hub to the Shire and the State of Victoria, and the potential for additional job creation from other operational activities that the owners of the WRR Hub can introduce based on world best technology outcomes now in operation elsewhere in the world.</p> <p>Coal can be used in new technological applications; for example:</p> <ul style="list-style-type: none"> <li>- The MBC coal is officially designated as organic.</li> <li>- It has one of the highest contents of humic acid of any coal in the world.</li> <li>- Humic acid (fulvic acid) is a plant growth stimulant and one of the best natural organic fertilisers in the world.</li> <li>- The coal is currently used as a soil enhancement fertiliser and as a compost blend for mushroom production.</li> <li>- Usage in the above will be continued.</li> </ul> |

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|                   |                           | <p>- It has other uses, application and derivatives.</p> <p>It is the intent of Latrobe Fertilisers Limited to convert the coal to gas in lieu of using natural gas which is too expensive and not globally economic in eastern Australia, to become the feedstock to make urea or nitrogenous fertiliser. Victorian agriculture is the largest and most intensive user of urea in Australia and it is all imported. Australian agriculture as a whole consumes 2 million tonnes per annum (TPA) and domestic production is only 200,000 TPA from a single plant located near Brisbane. Urea production is the highest value add that can be attributed to the coal and the largest job creator.</p> <p>The <i>Maddingley Brown Coal Resource Strategic Review</i> (2006) recommended protecting 103 million tonnes of coal resource, but with a buffer of only 400 metres. The submitter supports this recommendation, but as that tonnage does not exist within the MBC mining licence 4701, the facilitation of the 103 million tonnes can be readily achieved as the coal resource is contiguous to the west of the boundary of ML 4701 towards the designated urea production site. This will require necessary approvals. However, the suggested buffer of 400 metres is too little due to the other activities that occur within the geographic area of ML 4701 such as the landfill activities. The urea project forecasts a mining rate of approximately 1.5 million tonnes/annum which is an increase from that evidently envisioned by the State in 2006. The submitter fully supports planning mechanisms such as the SUZI with appropriate buffer zones to give long term certainty to the existing and near future industries that are essential to fulfil the Shire's overall strategic aim and to protect the longer term strategic interests of Victoria.</p> <p>The submitter's intent is that observers from outside the buffer zones of ML 4701 will not be aware that coal mining is occurring. The mining of the coal will also be planned in such a way as to support the landfill activities of the WRR Hub so that this strategic activity is assisted with a strong emphasis on environmental rehabilitation. Thus "acceptable environmental standards" and "social visual outcomes" will be to world's best practice and not just "acceptable".</p> <p>The planned co-location of the urea project with MBC operations is close to rail infrastructure and the Parwan Employment Precinct (agribusiness), thus reducing impacts on the road network. The urea project can assist in supporting an intensive glasshouse agricultural industry and there are overseas examples of this (e.g. The Netherlands).</p> <p>The submitter respects that somewhat differing land uses may benefit from separate vision statements. However, such vision statements must be very synergistic and harmonious with adjacent, clustered, and/or co-located land uses. Buffer zones will be a key enabler to allow clustering, if any, and certainly adjacent land needs. However, of paramount importance to the submitter is that adjacent, clustered, or co-located land uses must not prevent the full exploration and extraction of the strategic coal resource located within the existing coal licences in and adjacent to the study area.</p> <p>Appropriate buffer zones lead to long term planning security for industry which leads to local jobs which leads to the need for "appropriately located residential developments" to service the people who fill those jobs. The submitter endorses the background report's designation of 1,000 metre buffer zones for coal operations, and is positioning the planned urea manufacturing plant at a minimum of 1,000 metres from currently known sensitive uses.</p> <p>However, a small number of 'others' existing structures, do unfortunately fall inside such a 1000 metre buffer area near the northern boundaries of the coal license areas and applying this new 1,000 metre standard within that area would sterilize some important and needed coal reserves. We surmise that such structures were allowed by the Shire in the past due to the 400 metre buffer referenced in the</p> |



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|                   |                                  | <p>aforementioned 2006 <i>Maddingley Brown Coal Resource Strategic Review</i> and, as such, the submitter looks forward to working with the Shire to cooperatively develop a forward path that will accommodate the full exploration and extraction of these strategic coal resources while also accommodating the needs of the owners of these existing structures of others. Respectfully, the submitter believes that similar matters of this type can be prevented going forward if a 1,000 metre buffer zone from the boundaries of the coal licence areas be utilized by planning when assessing all future land use applications from others.</p> <p>In summary:</p> <ul style="list-style-type: none"> <li>• The submitter supports the need for planning processes that enable both residential growth and industrial growth that can best underpin a community where the residents can live, work, and play to the fullest. Thus, we support the geographical sectoring of residential growth areas and industrial growth areas, with needed buffers, that allow both needed growth areas to flourish.</li> <li>• The submitter believes that natural resources, such as the study area's brown coal reserves, should be developed for the community's economic and social benefits if such development clearly meets and/or exceeds all regulatory requirements.</li> <li>• The submitter respects that the Maddingley Waste and Resource Recovery Hub, a site of State significance, needs to be effectively and tactically developed and, thus, believes that the urea project's coal extraction and use plans are best suited to synergise with the ongoing development of that Hub by MBC.</li> <li>• The submitter is currently having discussions with a well-known technology provider to explore ways to best participate with the renewable energy sector.</li> <li>• The submitter is committed to be viewed by others as a clear and key asset to the community and an active participant within the community.</li> <li>• The submitter believes they are environmentally focused industrialists.</li> <li>• The submitter believes that some agricultural or other to-be-determined activities can co-exist on their planned land use areas for some temporary periods but, respectfully, any activities that sterilise the coal for future use must be prohibited.</li> <li>• As such the protection of existing buffer zones, the creation of new buffer zones where needed, and the long term planning to protect them is critical.</li> </ul> |
| 15                | A resident within the study area | <ul style="list-style-type: none"> <li>• Is there any point in MSC doing this work given the overbearing and intertwining State government policies and strategies?</li> <li>• It is inappropriate for the study area to not include the full extent of land affected by amenity buffers, both existing and future.</li> <li>• MBC and its buffers are limiting development in the study area, as well as State Government policies that have identified it as a waste hub.</li> <li>• The vision for north of the study area should include urban development including housing, shops and recreational facilities due to being close to the train station.</li> <li>• There seems to be an opportunity for a bulky goods precinct on the south side of Parwan Rd/Fisken St intersection.</li> <li>• Within the study area depicted, residential development should be discouraged, and commercial development encouraged.</li> <li>• Intensive horticulture use should be considered and promoted within the study area, e.g. glasshouse lettuce and cabbage production complementary to activities conducted in the BMID.</li> <li>• Parwan Creek should be carefully considered, particularly risk from waste pollution, given its role as a tributary to the water supply system flowing into Exford Reservoir.</li> <li>• Brown coal has limited uses apart from soil conditioning at this point in history.</li> </ul>   |

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| 16                | A resident of Parwan or Maddingley outside the study area | <ul style="list-style-type: none"> <li>Submitted an objection to the putrescible waste permit application, and these same objections apply.</li> <li>It is highly unethical to slip this one through quietly as so many objections were lodged to the putrescible permit application.</li> <li>Do not object to the expansion of Bacchus Marsh Grammar.</li> <li>School children and nearby residents have a right to a decent lifestyle which is already being ruined by train station works and pest issue.</li> <li>The expansion of the Bacchus Marsh Grammar is a better vision than tips, rubbish, traffic pollution and increased problems.</li> <li>Road upgrades should be contributed to by the demand generator.</li> <li>If anything involving fertiliser or tips is approved by council the businesses should pay for surrounding residents to 'pest proof' their properties.</li> <li>Parwan Creek should be left alone and no development allowed on it.</li> <li>The 400m coal protection boundary needs to be increased.</li> <li>No land uses are appropriate in buffer areas. The health and wellbeing of surrounding areas has the highest priority.</li> </ul>   |
| 17                | A resident within the study area                          | <ul style="list-style-type: none"> <li>The Coal mine/landfill is not supported. It does not support growth or amenity in Bacchus Marsh, and does not contribute to the economy or community.</li> <li>The background report develops buffer zones from the MBC operations. These should be instead be reverse amenity buffers applied from the existing residences and sensitive uses.</li> <li>Integrity of the report is questioned due to the bias shown towards MBC.</li> <li>If Council values community growth over profits, it will not support further coal mining or landfill.</li> <li>The SUZ1 and coal mine/landfill limit development in the study area and southern Bacchus Marsh.</li> <li>Nearby residential and school uses should be prioritised.</li> <li>The northern part of the study area should be considered as a separate precinct and used for residential purposes.</li> <li>JBD and its immediate surrounds (land further from Bacchus Marsh) is vastly different to the northern study area. Low intensity commercial buffers could be applied from this land to enable continuing operation.</li> <li>Land in the study area should be used for residential and agriculture.</li> <li>A 1km reverse amenity buffer should be applied from all sensitive uses to MBC activities, as recommended in Melton.</li> <li>Bacchus Marsh Grammar is an emerging use that should be supported.</li> <li>Use of brown coal for electricity in the study area is not viable/supportable for a range of reasons, including economic, social and environmental. Electricity produced in the study area would not be of any benefit due to the low volume. Development of a waste-to-energy facility will not be cost-effective nor environmentally friendly. Moorabool Shire is well serviced by renewable energy (wind farms) and the cost of renewable technologies is decreasing.</li> <li>Deterioration and damage to local roads should be recovered from users such as developers. A suitable rate would be 1-2% of total investment value.</li> <li>Parwan Creek and its catchment area should be protected due to its cultural heritage and irrigation value.</li> <li>The landfill operations have a considerable ongoing amenity impact in the area, including dust and odour impacts, as well as visual impact on the town gateway, and impact on quiet enjoyment of residents, and property values. This could open Council to damages claims from affected residents.</li> <li>If Council applies a buffer zone from MBC across residential areas there may be damages claims from affected properties.</li> </ul> |

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|                   |   | <ul style="list-style-type: none"> <li>Coal has no future in the study area, and removal of coal is to allow landfill to be brought in. If the MBC operations ceased then Bacchus Marsh could expand further south, leading to a more vibrant town.</li> <li>A 1,000m buffer should be applied from the boundary of any residential properties, as per the EPA regulations.</li> <li>Council should ban further coal mining and close the landfill.</li> <li>The SUZ1 should be changed to a lower-grade industrial zone that has tighter controls and reduces/closes the landfill and coal mine uses.</li> <li>Farming should be preserved and encouraged in the study area.</li> <li>The IN2Z should be changed to a DDO to encourage commercial or residential development in the area</li> </ul>  |
| 18                | A resident of Parwan or Maddingley outside the study area | Same as submission #17  |
| 19                | 43 Vallence Road, Maddingley                              | Same as submission #17  |
| 20                | 47 Vallence Road, Maddingley                              | Same as submission #17  |
| 21                | 49 Vallence Road, Maddingley (MUZ)                        | Same as submission #17  |
| 22                | Vallence Road (MUZ)                                       | <ul style="list-style-type: none"> <li>The study must restrict future development within the study area so that there is no impact on surrounding existing zones and uses allowed within those zones, either through buffer impacts or amenity impacts.</li> <li>Application of industrial buffers to prevent new residential development in areas which would be impacted by amenity impacts is understood, however the effects of applying a buffer over existing communities needs to be understood.</li> <li>Recent DELWP engagement relating to Buffer distances has found strong support for the concept of 'reverse amenity buffers'.</li> <li>Reverse amenity buffer should be applied from the MUZ/Vallence Rd.</li> <li>The Study should consider the current buffer affected residents and their quality of life, residents should be given the same consideration that any future resident would be given.</li> </ul> |



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| 23                | Not specified                            | <ul style="list-style-type: none"> <li>Major concern for existing residents of land zoned SUZ1 who 'have lost everything'.</li> <li>The report appears focussed to support expansion of the SUZ1, and to turn the area into a location for receiving all kinds of waste, including putrescible waste, and contaminated waste such as the tunnelling project waste.</li> <li>The project is a setup and the Minister for Planning will call the project in without listening to the residents.</li> </ul>   |
| 24                | 10 & 11 East Maddingley Road, Maddingley | <ul style="list-style-type: none"> <li>These properties (10 &amp; 11 East Maddingley Rd) are best suited to a residential development due to their large size, and proximity to Bacchus Marsh and its services.</li> <li>Residential development would form an attractive gateway to the town which is more appealing than a bulky goods proposal, and be a continuation of the existing residential area.</li> <li>The properties have access to utilities, have no acoustic issues and the coal resource beneath has been considered foregone.</li> <li>The pre-existing subdivision lots need to be further considered regarding suitability of size.</li> <li>The future zoning should take into consideration the decrease in manufacturing and the undesirable effects of mining and burning coal on the environment.</li> </ul>   |
| 25                | 118 Osborne Street, Maddingley           | Bacchus Marsh Cemetery is near capacity and a location for expansion will be required to be found. Land on the eastern side of Osborne Road would be suitable.   |
| 26                | 106 South Maddingley Rd, Bacchus Marsh   | <ul style="list-style-type: none"> <li>Requests that the SUZ1 be altered.</li> <li>Initial zoning on property purchase in 1991 was reserved General Industrial provision, which later became Urban Development Zone in 1992 and then SUZ1 in 2000.</li> <li>Current SUZ1 is unfair given initial zoning on purchase, and results in an undervaluation of several hundred thousand dollars.</li> <li>SUZ1 imposes unfair restrictions on owners, reducing property values, limiting subdivision opportunities and making properties impossible to sell at true value.</li> <li>The likelihood of coal being extracted beyond the MBC licence area is extremely unlikely.</li> </ul>   |
| 27                | Western Water                            | <p>There is limited water and sewer infrastructure in the study area.</p> <p><u>Water</u></p> <ul style="list-style-type: none"> <li>Existing water infrastructure will not be sufficient for additional demand.</li> <li>Closest tank to support future developments is on McCormacks Road.</li> <li>Water main under the railway line requires a major capacity upgrade to service the area.</li> <li>Existing water supply to the area comes from the north and runs through Bacchus Marsh. This may need to be upgraded if a significant demand arises.</li> <li>Parwan Employment Precinct may exhaust all existing capacity.</li> <li>A future connection via Merrimu and Parwan Station PSP's may be able to service the study area as well.</li> </ul> <p><u>Sewerage</u></p> <ul style="list-style-type: none"> <li>There are no sewer assets within the study area. The services just outside the study area will not be able to support further development within the study area.</li> </ul> |

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|                   |   | <ul style="list-style-type: none"> <li>Bacchus Marsh Recycled Water Plant is in close proximity.</li> <li>Upgrades to nearby infrastructure may allow an interim solution prior to a longer term solution being developed. These include:               <ul style="list-style-type: none"> <li>Upgrade the Grant St pump station</li> <li>Capacity upgrade to the Recycled Water Plant, including an assessment of potential flows from the Parwan Employment Precinct.</li> </ul> </li> <li>Future work will be needed to scope sewer requirements. There is a proposed sewer rising main along the northern boundary of the study area. There may be scope to utilise this alignment for a future sewer servicing plan. The exact size and timing will be dependent on the proposed land uses and the options for getting the sewer flows to the RWP on Parwan South Road.</li> </ul> <p><u>Bacchus Marsh Recycled Water Plant (RWP)</u></p> <ul style="list-style-type: none"> <li>The RWP currently has a capacity of 4.7ML/day and this is anticipated to grow to 10ML/day ultimately as the new growth areas are being developed.</li> <li>If there are significant additional flows from the Maddingley area, this may impact on long term plans for the RWP.</li> <li>Western Water is investigating options for wastewater reuse on the RWP site. This will include recycled water demand, gas generation and potentially power generation. There may be opportunities for collaboration with businesses in the area.</li> <li>The RWP has a 1.4 km buffer to protect the plant from encroachment of sensitive uses. Whilst the buffer does not extend into the Maddingley Planning Study area, there could be businesses that impact upon the size and extent of the buffer. This may impact upon the upgrades required at the RWP. Residential development is likely to be built up to the buffer in the proposed Parwan Station Precinct and so any impact from either the Maddingley Planning Study area or the Parwan Employment Precinct could affect this.</li> <li>The RWP produces Class C recycled water, which may be available to potential customers in the Maddingley Planning Study area if it can be used for irrigation. Due to the limited water availability, there may be scope for a recycled water scheme if there is enough demand. Western Water would like to see an indication of demand for recycled water (class A and C) as well as drinking water to get an appreciation for the scale of infrastructure necessary to support future developments.</li> </ul> <p>It is hoped that the Maddingley Planning Study will be able to assist in providing an understanding of the water supply and sewer network required. From this, a network plan can be developed to service the individual properties as well as an assessment of the total water demand/sewer flows for the area.</p> <p>The Parwan Employment Precinct and Maddingley Planning Study area will be considered together holistically.</p> |
| 28                | <p>Maddingley Brown Coal (MBC);</p> <p>11 Tilley's Road, Maddingley</p> | <p>The Calleja Group has owned and operated the Maddingley Brown Coal mine since 1990. The site is currently used for coal mining, landfill and materials recycling.</p> <p>In March 2019, MBC applied to Moorabool Shire Council to amend its planning permit to accept putrescible waste in order to facilitate investment in alternative waste technologies. Specifically, Calleja proposed to construct and operate an anaerobic digester to convert municipal waste into biogas. In September 2019, Calleja withdrew the application to amend the planning permit. Since that time, MBC has considered a range of strategic uses for its site and these are currently under assessment.</p> <p>MBC supports the Maddingley Planning Study and is committed to being an active and engaged participant. Due to the ongoing commercial and strategic considerations being given to a range of potential uses for the MBC site, we are simply not in a position to discuss them in detail at this time.</p>   |

| Submission Number | Affected Property/ Agency              | Submission Summary   |
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|                   |  |  |
| 29                | Environment Protection Authority (EPA) | <ul style="list-style-type: none"> <li>In the Victorian context, EPA advocates for separation distances to avoid or minimise adverse impacts on the health and amenity of people as a result of residual air emissions (odour and dust) and noise from industrial operations, and from landfill gas migration</li> <li>Importantly, separation distances as referenced within EPA Publication 1518 recognise that even with “best practice” pollution control technology and procedures, there may still be unintended emissions which must be anticipated and allowed for. Equipment failure, accidents and abnormal weather conditions are among the causes that can lead to emissions affecting sensitive land uses being experienced beyond the boundary of the source premises.</li> <li>Whilst traditionally separation distances have been used to mitigate against upset conditions, it is now acknowledged that some significant industries, even when operating at best practice, may generate offsite human health and amenity impacts even under routine conditions. Where possible, these impacts should be acknowledged and accounted for within the planning system.</li> <li>On this basis, EPA supports the intent of the project to identify tools which can protect industrial uses from further residential encroachment and protect residential uses from further amenity impacts.</li> <li>EPA’s submission to Moorabool C81: Bacchus Marsh Urban Growth Framework Plan recommended a 2000m separation distance be applied to the Bacchus Marsh Recycled Water Plant in the absence of any confirmed treatment plant upgrades due to the direct link between the future requirements and the implemented outcome of the Plan. However it is noted that the Background Report shows a buffer 1414m associated with the plant which appears to be in accordance with the C81 Panel Report. EPA also understands Western Water are currently undergoing the process of determining a site specific buffer for a number of their wastewater treatment plants, including Bacchus Marsh. EPA is currently in discussions with Western Water regarding this process and can feed any further information into the planning work as it comes to hand.</li> <li>EPA notes Bacchus Marsh Grammar is located outside of the study area but within the buffer area of the Maddingley Brown Coal composting operation and the Maddingley Brown Coal Coal Mine. Any expansion of this sensitive use would also be within the buffer areas of these industrial uses. As the ‘agent of change’ in this situation, Bacchus Marsh Grammar is required to provide evidence to the planning authorities or other responsible authorities that a variation from the recommended separation distances is appropriate in accordance with EPA Publication 1518, <i>Recommended Separation Distances for Industrial Residual Air Emissions</i>, 2013. This principal also applies to the rural living dwellings consideration below. Given both uses are already established, it is ultimately Council’s decision to support further intensification of sensitive uses where there is a potential for amenity impacts. The requirement for an Environment Audit is based on the identification of the land having a high potential for contamination based on historical activities on site. It is currently unclear if this land has a high potential for contamination. Ministerial Direction Number 1 and the <i>General Practice Note for Potentially Contaminated Land</i> (PPN. 30, DSE, 2005) provides advice for these situations.</li> <li>The advice above regarding Bacchus Marsh Grammar also applies to future dwelling proposals within the amenity buffers</li> <li>Separation Distances for waste to energy ( WTE) facilities vary substantially depending on the processes proposed. EPA Publication 1559.1, <i>Guideline: Energy from waste</i>, 2017, provides guidance for the required approvals for these facilities and indicates the information</li> </ul> |



| Submission Number | Affected Property/ Agency    | Submission Summary  |
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|                   |                              | that needs to be provided to the Responsible Authority and to EPA to guide decision making.   |
| 30                | Sustainability Victoria (SV) | <ul style="list-style-type: none"> <li>SV is responsible for preparing the Statewide Waste and Resource Recovery Plan (SWRRIP).</li> <li>The SWRRIP lists Maddingley Brown Coal (MBC) as a waste and resource recovery hub of state importance.</li> <li>SV's main considerations with the planning study, is to ensure the ongoing operation of the hub as valued and needed infrastructure; and to further establish the area as an important site for waste and resource recovery management.</li> <li>The impact of a reduced export market and the complexities in developing viable end markets for recycled materials has shown that Victoria has insufficient infrastructure to manage recycling locally. SV would therefore be supportive of planning mechanisms aimed to encourage industrial uses that process recyclables, in particular: plastics, glass, paper and cardboard within the study area.</li> <li>SV's initial research has indicated that additional hazardous waste infrastructure will be required in order to ensure the state has adequate capacity to manage these materials. For this reason, SV has been investigating the management of hazardous waste in Victoria, with the aim to prepare a Hazardous Waste Management Infrastructure Plan.</li> <li>The SWRRIP and many of the Regional Waste and Resource Recovery Implementation Plans (including the Grampians Central West Plan the region relevant to the MBC site), list organics as a priority material for greater recovery. SV is of the view that additional industrial infrastructure will be needed</li> <li>keeping e-waste out of landfill. There is a need for industrial infrastructure to align with the ban and ensure that there are adequate facilities to sort and process these materials. Part of ensuring the appropriate management of e-waste is to provide appropriately zoned land with buffers.</li> <li>SV provides further funding to facilitate resource recovery through the Resource Recovery Infrastructure Fund (RRIF) and the Research, Development and Demonstration Grants (RD&amp;DG). SV considers that there may be an option to link possible future development of the site with information about available funding to enable waste and resource recovery development.</li> <li>Research and development is also a component of EPA works approvals, and SV queries whether there is an opportunity to cater for this type of development within one of the 'sub-areas', as a research area.</li> <li>SV considers that land uses that are able to process emerging waste streams should be encouraged. These uses would benefit from existing buffers and utilise existing operations of the WRR hub.</li> <li>From SV's research, the availability of appropriately zoned sites with buffers is one of the main hurdles for waste and resource recovery operators. SV acknowledges that only eight percent of the study area is allocated towards either Industry 1 or 2 zones; and that in order to further facilitate development of the area this quota may need to be increased.</li> <li>given the majority of sensitive uses are within the northern part of the study area, any uses that may result in amenity impacts, such as WRR processing, should be located furthest from these types of uses.</li> <li>Bacchus Marsh Grammar School is also located to the north and its location should be considered when planning for industrial uses within the study area.</li> <li>Circular economy principles can be encouraged through policy and can also be achieved by working with industry groups and associations, or by reviewing relevant Waste and Resource Recovery Group Implementation Plans, which list waste and resource recovery processors in the relevant region. For example, Dandenong East in Melbourne's eastern suburbs, is becoming a precinct for plastics, with materials recycling facilities, plastics processing and manufacturing all being located in the vicinity.</li> <li>Policy that encourages and facilitates industrial synergies could be further explored. This could be explored through specific</li> </ul> |

| Submission Number | Affected Property/ Agency                                   | Submission Summary   |
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|                   |   | <p>schedules, zoning or overlays. Please note that the Department of Environment Land Water and Planning (DELWP) have recently consulted on the Circular Economy Issues Paper 2019 and the outcome of this consultation is expected into 2020.</p> <ul style="list-style-type: none"> <li>• there is an opportunity to align the planning study with the circular economy principles where appropriate. the study also refers to issues and opportunities for 'clustering and co-location' and SV considers this is positive and is also linked with the circular economy principles. Further focussing on waste and resource recovery for the area would also aim to service the nearby Parwan Employment Precinct earmarked for further development</li> <li>• Maddingley Brown Coal is partnering with IntelliGas to establish a Waste to Energy (WtE) Facility and Material Recovery Facility (MRF) at the Bacchus Marsh site. SV is funding the project under to the tune of \$500K under RRIF round 2 via an agreement with iGas Operations Pty Ltd. The project is expected to divert and additional 100,000 tonnes of residual waste from landfill per year and will provide approximately 15 new FTE.</li> <li>• the benefits from WtE are best realised when the feedstock is a material stream or waste that cannot viably be recovered for higher order recovery, that is, for reuse or recycling. SV notes however, that WtE represents a better alternative than sending residual waste to landfill</li> <li>• The MRF will sort the commercial and industrial (C&amp;I) waste prior to being used to generate energy in the biomass boiler and steam generator. Material to be diverted includes timber (excluding native timber), flexible plastics from C&amp;I and hydro pulp from commercial paper manufacturers</li> <li>• Energy generated on-site can be sold on to the adjacent industrial park and has the potential to be exported to the grid</li> <li>• Through the next SWRRIP amendments, we will be updating the hubs descriptions and aligning the document with any other state government policies. SV will also aim to ensure the amendments align with the recommendations / findings of the planning study, where appropriate. SV will aim to further consult with Council to seek your views during the amendment process.</li> <li>• SV agree existing use rights apply for established uses that may inadvertently be located within a buffer. To minimise any further risks, it is recommended that these uses be restricted from further intensification or subdivision. This would also aim to protect the waste and resource recovery hub operations.</li> <li>• MBC and surrounds provides an excellent opportunity to further establish the area as a valued waste and resource recovery hub. As highlighted above, it is evident that there is a need for the management of specific material streams. SV would be supportive of the planning study to facilitate WRR development where appropriate.</li> <li>• The Maddingly Brown Coal Landfill 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). The hub also supports organic composting and mulching, concrete and aggregate crushing and soil screening.</li> <li>• If this hub is to continue over the long term, its functionality should be managed by preserving adequate buffers and planning to ensure the establishment of compatible activities conducted in a manner that does not impact on the community, environment and public health of surrounding land users.</li> <li>• Consultation and engagement with the surrounding communities is required to communicate the potential benefits of this site remaining available for resource recovery activities, and to reassure the community that activities will have minimal impact on local amenity.</li> </ul> |
| 31                | Department of Environment, Land, Water and Planning (DELWP) | <p>The objective of Clause 12.01-2S of the Moorabool Planning Scheme is to ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation. The protection of native vegetation is regulated through the <i>Guidelines for the removal, destruction or lopping of native vegetation 2017</i> (the Guidelines). The three-step approach of avoid, minimise and offset is the key policy in the Guidelines to achieve no net loss to biodiversity.</p>  |

| Submission Number   | Affected Property/ Agency                        | Submission Summary  |             |                 |                  |             |             |                     |                           |            |     |            |                  |                              |                 |     |  |             |                            |            |     |  |                     |                            |  |     |  |                 |                         |                 |  |  |                    |                                     |              |  |  |                 |  |              |  |  |                   |                            |      |  |  |          |                         |            |  |  |
|---------------------|--|---|-------------|-----------------|------------------|-------------|-------------|---------------------|---------------------------|------------|-----|------------|------------------|------------------------------|-----------------|-----|--|-------------|----------------------------|------------|-----|--|---------------------|----------------------------|--|-----|--|-----------------|-------------------------|-----------------|--|--|--------------------|-------------------------------------|--------------|--|--|-----------------|--|--------------|--|--|-------------------|----------------------------|------|--|--|----------|-------------------------|------------|--|--|
|                     |  | <p>All of the ecological vegetation classes (EVCs) that are mapped in the Background Report have a conservation status of ‘endangered’. Zone controls are the strongest protection for vegetation. Given the significance of EVCs in the study area, their remnants should receive extra protection beyond that provided by Clause 52.17 (native vegetation) of the Moorabool Planning Scheme. This can be achieved through application of an Environmental Significance Overlay and appropriate zoning that includes protection of the environment in its purpose and provides for a non-intense land use.</p> <p>The Guidelines state that native vegetation has an important role in land and water protection, especially within 30 metres of a waterway, and require that the impacts on land and water are considered when native vegetation removal is proposed. The Parwan Creek catchment is a proclaimed water supply catchment, so avoiding and minimising impacts on native vegetation within 30 metres of the waterway is a priority. DELWP prefers that land use change and development that could impact on native vegetation be restricted and controlled within at least a 30 metre buffer either side of Parwan Creek.</p> <p>The Background Report does not address biodiversity values within the study area such as rare or threatened species. The following rare and threatened species have been recorded within the study area:</p> <table><tr><th>Common Name</th><th>Scientific Name</th><th>Victorian status</th><th>FFG-listed?</th><th>EPBC status</th></tr><tr><td>Growling Grass Frog</td><td><i>Litoria raniformis</i></td><td>Endangered</td><td>Yes</td><td>Vulnerable</td></tr><tr><td>Diamond Firetail</td><td><i>Stagonopleura guttata</i></td><td>Near threatened</td><td>Yes</td><td></td></tr><tr><td>Hairy Tails</td><td><i>Ptilopus erubescens</i></td><td>Vulnerable</td><td>Yes</td><td></td></tr><tr><td>Cut-leaf Burr-daisy</td><td><i>Calotis anthemoides</i></td><td></td><td>Yes</td><td></td></tr><tr><td>Spotted Harrier</td><td><i>Circus assimilis</i></td><td>Near threatened</td><td></td><td></td></tr><tr><td>Native Peppercross</td><td><i>Lepidium pseudohyssopifolium</i></td><td>Poorly known</td><td></td><td></td></tr><tr><td>Black Roly-poly</td><td><i>Sclerolaena muricata</i> var. <i>muricata</i></td><td>Poorly known</td><td></td><td></td></tr><tr><td>Fragrant Saltbush</td><td><i>Rhagodia parabolica</i></td><td>Rare</td><td></td><td></td></tr><tr><td>Hardhead</td><td><i>Aythya australis</i></td><td>Vulnerable</td><td></td><td></td></tr></table> <p>Other threatened species, including Striped Legless Lizard <i>Delma impar</i> (endangered and listed as threatened under the <i>Flora and Fauna Guarantee Act 1988</i> [FFG Act] and Vulnerable under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> [EPBC Act]) and Golden Sun Moth <i>Synemon plana</i> (critically endangered in Victoria and listed under the FFG Act and Critically Endangered under the EPBC Act), have been recorded adjacent to the study area and might be present within the study area.</p> <p>Communities within the study area that are listed as threatened under the FFG and EPBC Acts should also be identified in the background report. These include Grassy Eucalypt Woodland of the Victorian Volcanic Plain and Natural Temperate Grassland of the Victorian</p> | Common Name | Scientific Name | Victorian status | FFG-listed? | EPBC status | Growling Grass Frog | <i>Litoria raniformis</i> | Endangered | Yes | Vulnerable | Diamond Firetail | <i>Stagonopleura guttata</i> | Near threatened | Yes |  | Hairy Tails | <i>Ptilopus erubescens</i> | Vulnerable | Yes |  | Cut-leaf Burr-daisy | <i>Calotis anthemoides</i> |  | Yes |  | Spotted Harrier | <i>Circus assimilis</i> | Near threatened |  |  | Native Peppercross | <i>Lepidium pseudohyssopifolium</i> | Poorly known |  |  | Black Roly-poly | <i>Sclerolaena muricata</i> var. <i>muricata</i> | Poorly known |  |  | Fragrant Saltbush | <i>Rhagodia parabolica</i> | Rare |  |  | Hardhead | <i>Aythya australis</i> | Vulnerable |  |  |
| Common Name         | Scientific Name                                  | Victorian status  | FFG-listed? | EPBC status     |                  |             |             |                     |                           |            |     |            |                  |                              |                 |     |  |             |                            |            |     |  |                     |                            |  |     |  |                 |                         |                 |  |  |                    |                                     |              |  |  |                 |  |              |  |  |                   |                            |      |  |  |          |                         |            |  |  |
| Growling Grass Frog | <i>Litoria raniformis</i>                        | Endangered  | Yes         | Vulnerable      |                  |             |             |                     |                           |            |     |            |                  |                              |                 |     |  |             |                            |            |     |  |                     |                            |  |     |  |                 |                         |                 |  |  |                    |                                     |              |  |  |                 |  |              |  |  |                   |                            |      |  |  |          |                         |            |  |  |
| Diamond Firetail    | <i>Stagonopleura guttata</i>                     | Near threatened   | Yes         |                 |                  |             |             |                     |                           |            |     |            |                  |                              |                 |     |  |             |                            |            |     |  |                     |                            |  |     |  |                 |                         |                 |  |  |                    |                                     |              |  |  |                 |  |              |  |  |                   |                            |      |  |  |          |                         |            |  |  |
| Hairy Tails         | <i>Ptilopus erubescens</i>                       | Vulnerable  | Yes         |                 |                  |             |             |                     |                           |            |     |            |                  |                              |                 |     |  |             |                            |            |     |  |                     |                            |  |     |  |                 |                         |                 |  |  |                    |                                     |              |  |  |                 |  |              |  |  |                   |                            |      |  |  |          |                         |            |  |  |
| Cut-leaf Burr-daisy | <i>Calotis anthemoides</i>                       |   | Yes         |                 |                  |             |             |                     |                           |            |     |            |                  |                              |                 |     |  |             |                            |            |     |  |                     |                            |  |     |  |                 |                         |                 |  |  |                    |                                     |              |  |  |                 |  |              |  |  |                   |                            |      |  |  |          |                         |            |  |  |
| Spotted Harrier     | <i>Circus assimilis</i>                          | Near threatened   |             |                 |                  |             |             |                     |                           |            |     |            |                  |                              |                 |     |  |             |                            |            |     |  |                     |                            |  |     |  |                 |                         |                 |  |  |                    |                                     |              |  |  |                 |  |              |  |  |                   |                            |      |  |  |          |                         |            |  |  |
| Native Peppercross  | <i>Lepidium pseudohyssopifolium</i>              | Poorly known  |             |                 |                  |             |             |                     |                           |            |     |            |                  |                              |                 |     |  |             |                            |            |     |  |                     |                            |  |     |  |                 |                         |                 |  |  |                    |                                     |              |  |  |                 |  |              |  |  |                   |                            |      |  |  |          |                         |            |  |  |
| Black Roly-poly     | <i>Sclerolaena muricata</i> var. <i>muricata</i> | Poorly known  |             |                 |                  |             |             |                     |                           |            |     |            |                  |                              |                 |     |  |             |                            |            |     |  |                     |                            |  |     |  |                 |                         |                 |  |  |                    |                                     |              |  |  |                 |  |              |  |  |                   |                            |      |  |  |          |                         |            |  |  |
| Fragrant Saltbush   | <i>Rhagodia parabolica</i>                       | Rare  |             |                 |                  |             |             |                     |                           |            |     |            |                  |                              |                 |     |  |             |                            |            |     |  |                     |                            |  |     |  |                 |                         |                 |  |  |                    |                                     |              |  |  |                 |  |              |  |  |                   |                            |      |  |  |          |                         |            |  |  |
| Hardhead            | <i>Aythya australis</i>                          | Vulnerable  |             |                 |                  |             |             |                     |                           |            |     |            |                  |                              |                 |     |  |             |                            |            |     |  |                     |                            |  |     |  |                 |                         |                 |  |  |                    |                                     |              |  |  |                 |  |              |  |  |                   |                            |      |  |  |          |                         |            |  |  |



| Submission Number | Affected Property/ Agency                | Submission Summary  |
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|                   |  | Volcanic Plain communities which are both listed as Critically Endangered under the EPBC Act and their corresponding communities listed as threatened under the FFG Act: Western Basalt Plains (River Red Gum) Grassy Woodland and Western (Basalt) Plains Grasslands Community.  |
| 32                | Department of Jobs Precincts and Regions | <p>The Maddingley coal resource is correctly described in the Background Report as being in a complex planning environment, close to sensitive uses and part of a waste and resource recovery hub of state significance. The state government's policy position on brown coal is set out in the 2017 <i>Statement of future uses of brown coal</i>. The statement recognises strong investor interest in using the state's valuable coal resources to make alternative high value, low emission products for domestic and international markets. These products could provide new economic development and trade opportunities, bringing high-skilled jobs and investment to regions. Several coal industry proponents have long-standing active commercial interests in the study area, including licences held under the <i>Mineral Resources (Sustainable Development) Act 1990</i>. Their advice should be given serious consideration as part of this study.</p> <p>Any effective reduction in buffer distances between current or proposed coal mining activities and urban land uses (even industrial) is of concern. Experience elsewhere has proven that such urban encroachment can lead to significant land use conflicts that are difficult to resolve.</p> |

CONSULTATION OUTCOMES &  
EMERGING PRINCIPLES

# Maddingley Planning Study

January, 2020

Prepared for

**Moorabool Shire Council**

Prepared by



## Introduction

This report summarises the outcomes of the consultation that was undertaken by Moorabool Shire Council ('Council') during the first phase of the preparation of the Maddingley Planning Study ('the Planning Study').

### Report objectives

The objectives of the report are to:

- synthesise the feedback into common themes;
- identify key areas of agreement and disagreement;
- identify emerging directions and principles;
- identify the options for the development of planning provisions;
- identify key outstanding information or actions.

The report will be used to guide the next phase of decision making on the project, which will lead to the preparation of the draft Planning Study

### Consultation

The consultation was undertaken to obtain feedback from a range of groups with an interest in the study area, including:

- owners and occupiers of industrial land;
- owners and occupiers of non-industrial land;
- the Calleja Group, which includes Maddingley Brown Coal (MBC);

- holders of coal mining and coal exploration licenses in the study area (MBC and Exergen);
- Bacchus Marsh Grammar School;
- key government departments and agencies including:
  - Department of Environment, Land, Water & Planning (DELWP)
  - Environment Protection Authority Victoria (EPA)
  - Department of Jobs, Precincts and Regions - Earth Resources (DJPR)
  - Sustainability Victoria (SV)
  - Victorian Planning Authority (VPA);
- servicing authorities, including
  - Western Water
  - Melbourne Water
  - Regional Roads Victoria
  - APA Group
  - Powercor
  - Ausnet
  - VicTrack.
- Latrobe Fertilisers, which is planning to develop a major urea plant in the study area; and

- the wider community.

The consultation events were held from November to December, 2019. They involved face to face meetings with most stakeholders and two 'drop-in' sessions for the wider community.

The events were attended by the Project Control Group, which comprises Council strategic planning officers, Centrum Town Planning, and representatives of the Metropolitan and Grampians Central West Waste and Resource Recovery Groups.

Attendees were also encouraged to prepare written submissions to expand upon their verbal advice and clarify their views. In addition, Council advertised and maintained a 'Have your Say' web page, which included the option to complete a survey, or submit a letter, as well as view the Background Report and presentation. During the consultation period there were 457 page views and 88 downloads of the Background Report.

At the time of preparing this report, Council had received approximately 30 written submissions in relation to the project.

This report summarises both written and verbal feedback, and identifies the broad issues raised.



# Introduction

## Report structure

The report has been divided into six key emerging themes that will shape the future of the project:

- Future of coal
- Environment
- Transport and infrastructure
- Land use options
- Buffers and amenity
- Emerging issues and principles.

## Background Report

The Maddingley Planning Study Background Report was used to stimulate discussion for the consultation events. The Background Report contains a description of the study area from a land, planning, environmental and infrastructure perspective. It also describes the strategic and policy context for the study and raises issues and opportunities.

The Background Report contains seven maps that provide an important visual representation of the study area and key planning themes. This report does not repeat most of the contextual information in the Background Report. In order to gain a full understanding of the discussion, this report should be read with close reference to the Background Report.

## Future of coal resources

The consultation process has revealed more information about the extent and nature of the coal resource in the study area. This includes information about the regulatory framework that protects and manages it, potential uses of the resource, the level of interest in extracting it and the environmental and infrastructure implications of extracting the coal resource. The key findings are presented below:

### What is the legislative framework for resources?

The purpose of the Mineral Resources (Sustainable Development) Act 1990 (MRSD Act) is to "encourage mineral 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. This framework allows access to land for exploration, and a process for rehabilitation and compensation.

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 and bonds. The Planning Policy Framework at Clause 14.03-1S has similar aims and contains an objective and strategies to provide for the protection of natural resources in Victoria over the long-term.

### What are existing industries saying?

Existing industries in the study area have not yet addressed issues relating to the coal resource directly in their submissions. For example, MBC has not discussed its current or future use of the coal resource in its written submission, although they indicated at the consultation workshop that they would not be willing to give up the coal resource within their landholding.

### What are prospective industries saying?

Prospective industries that use coal are highly optimistic about the future use of the coal in the study area.

**Exergen Pty Ltd ('Exergen')** is the holder of a coal exploration licence (ELS294) that extends around the southern part of Bacchus Marsh and includes the study area. The licence area is estimated to contain approximately 1.6 billion tonnes of coal. Exergen is researching commercial and environmentally viable applications for the brown coal and the research is ongoing. According to their submission, the brown coal in Maddingley is one of the world's important deposits of 'leonardite', a type of coal that is valuable for the production of fertilisers and soil conditioners and has potential for use in carbon sequestration and hydrogen production. They believe that the future market for the coal in agricultural applications is 0.5 million to 50 million tonnes per annum.

Exergen plans to establish a soil conditioner production plant that could employ up to 400 people in mining related activities. The location of the plant would depend upon infrastructure costs and other considerations and may not be in Bacchus Marsh. In 2012, Exergen developed a conceptual mine plan that assumed an expansion of mining in the north west of the study area in years 1 to 10 and mining to the south east of the study area in years 10 to 25. Whilst this area is in the Parwan Employment Precinct and Parwan Station PSP areas, the future development of coal resources in these areas was not considered in any detail in the Bacchus Marsh Urban Growth Framework (2018) or Parwan Employment Precinct Planning Study (2018).

Exergen believe that the Planning Study should not diminish access to coal resources or restrict future mining activities in any way over and above legislative and good practice buffer requirements.

**Latrobe Fertilisers** has advised that it is progressing with its plans to construct a urea manufacturing facility on the MBC owned land to the west of the existing mining licence, as described in the Background Report. They forecast that the facility would involve an investment of \$1 billion and lead to 160-200 full time jobs and 1,000 temporary construction jobs.

The facility would use up to 1.5 million tonnes of coal per annum. They have signed a 25 year agreement for the sale of 100 per cent of the urea that will be produced and have also secured a 50 year agreement for the supply of coal from MBC.

## Future of coal resources

Latrobe Fertilisers seek to protect the expected full tonnage of 'winnable' coal in the study area, which was calculated as 103 million tonnes in 2006. They note that this amount does not exist in the MBC's Mining Licence area, and that this will require mining to the west of the existing licence area.

MBC and Exergen are in the process of making changes to exploration and mining licence boundaries to facilitate the needs of the Latrobe Fertilisers project. Latrobe Fertilisers is hoping to start joint works approval and planning processes in 2020.

### What is the mine regulator saying?

**Earth Resources (DJPR)** has offered the following preliminary advice to the project to date:

- The Maddingley coal seam is a relatively thin seam of coal down to 40 metres that is mostly covered in basalt, apart from within the study area, where it is exposed.
- A 2016 application to extend Exergen's exploration licence is yet to be decided and is currently with the Minister for Resources. There is no statutory period for deciding mining extension applications.
- The 400 metres 'coal resource protection boundary' recommended in Scenario 2 by the Maddingley Brown Coal Resource Strategic Review (2006) is still a starting point to define the resource boundary but this needs further investigation.

- The exploratory work by Mantle Mining indicates that this 'coal resource protection boundary' (Scenario 2) is no longer justifiable and that the larger coal resource is winnable and should be protected (as in Scenario 5 - no change).
- Since the Maddingley Brown Coal Resource Strategic Review (2006), a licensee (Exergen) has expressed an interest in mining outside the Scenario 2 area. Earth Resources has to consider this project as valid with no judgement on the viability of the project.

It is expected that Earth Resources will formalise its position on these matters in due course following further consideration of the issues.

### What is the process for obtaining exploration and mining licences?

In order to mine outside the current mining licence area, the applicant would need to apply for an expansion of the mining licence. Under this process, the MRSD Act 1990 can operate in conflict with Planning & Environment Act 1987 as they consider different matters.

In order to expand the coal mining licence area, Exergen would have to consult with landowners and Council as part of the application process. An application to expand the coal mining licence would be decided upon by the Minister for Resources. If a licence is granted, a work plan would then need to be approved by DJPR.

As part of the licence application process, consideration does not need to be given to proximity of the urban area and buffer issues. These matters are considered at the work plan stage. These considerations may trigger the requirement for an Environment Effects Statement (EES).

If an EES is not required, a planning permit application would need to be prepared and lodged with Council.

### Would an Environment Effects Statement be required for new mining?

If there were determined to be significant environmental or health impacts arising from a mining proposal, DELWP would consider whether an Environment Effects Statement (EES) would be required under the Environment Effects Act 1978.

The Minister for Planning is responsible for administering the Environmental Effects Act 1978. Council 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 and the Minister's assessment must be considered by decision makers such as planning and responsible authorities (Councils).

## Future of coal resources

### What are landowners saying?

The landowners in the study area that have submitted to the project are strongly opposed to the idea of more coal mining in or near the study area. Most of their objections are expressed in relation to the current restrictive controls of the SUZ1 and the need to make the controls more flexible to accommodate a range of land uses. Other views expressed by landowners in relation to the coal resource included:

- doubts about the viability of removing coal from land outside the current mining licence area;
- doubts about the quality of the coal resource;
- a view that coal is a resource 'of the past' and should not be extracted.

There is a perception from some submitters that the coal in the study area will be used for traditional thermal coal uses or energy production. For these reasons, one submitter has called for an independent assessment of the viability of the coal resource and a cost-benefit analysis against other land uses.

Bacchus Marsh Grammar and other submitters located outside the study area have not directly addressed issues relating to the coal resource in their submissions.

### What key issues and options are emerging?

Strong views are emerging from both prospective industries and from non industrial landowners and members of the broader community in relation to the extraction of the coal resource. These views are generally in conflict with one another: one sees the resource as highly valuable with strong commercial application and the others see coal as a resource that should no longer be used, or an activity that should not occur in such close proximity to an urban area.

Any future expansion of coal extraction in the study area would involve open cut mining that would effectively prevent urban development of the land. Whilst coal mining would be subject to a rehabilitation plan, there are only a limited range of potential future uses of former coal pits.

The key overriding issue to be resolved at this point in time, is the extent of coal resource that should be protected for the future. This is a position for the State Government to take through the Earth Resources unit of DJPR.

Until firm advice is received from DJPR regarding the coal resource, it will be difficult to finalise a Planning Study with confidence unless certain assumptions about the coal resource are adopted. Preliminary advice from Earth Resources is that the 2006 Strategic Review work may no longer be relevant, although this is yet to be confirmed formally.

At this stage, Scenario 2 from the Maddingley Brown Coal Strategic Review (2006) therefore continues to represent a reasonable boundary to adopt in order to progress the Planning Study.

A question that may form part of DJPR's consideration of the coal resource is the extent to which sensitive uses should influence the separation distance between coal mining and sensitive uses (the 'reverse amenity' concept). At present, the SUZ1 that broadly reflects the extent of the coal resource is located within 20 metres of land zoned General Residential. This is likely to severely restrict the capacity for these resources to be extracted on the basis that the agent of change (i.e. a mining proponent) would need to demonstrate acceptable amenity impacts. Buffer distances and amenity issues are discussed later in this report under 'buffers'.



## Environment

As part of the consultation process, authorities and agencies with responsibility for managing biodiversity and catchments have offered comments on the background report and other advice to the project. The key findings are presented below:

### What are authorities and agencies saying?

**DELWP** has offered the following preliminary advice for the project:

- All of the ecological vegetation classes (EVCs) that are mapped in the Background Report have a conservation status of 'endangered'.
- There is likely to be a mix of native and exotic vegetation in the study area: native vegetation, including native grassland, could be a major constraint to development.
- The objective of Clause 12.01-2S of the Moorabool Planning Scheme is to ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation.
- The protection of native vegetation is regulated through the *Guidelines for the removal, destruction or lopping of native vegetation 2017* (the Guidelines). The three-step approach of avoid, minimise and offset is the key policy in the Guidelines to achieve no net loss to biodiversity.

- 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 and has a status of vulnerable under the Federal Environment Protection and Biodiversity Conservation Act 1999.
- 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.
- There is a need to conduct further vegetation surveys as part of any planning scheme amendment process.
- Given the significance of EVCs in the study area, their remnants should receive extra protection beyond that provided by Clause 52.17 (native vegetation) of the Moorabool Planning Scheme. This can be achieved through application of an Environmental Significance Overlay and appropriate zoning that includes protection of the environment in its purpose and provides for a non-intense land use.

- The Guidelines state that native vegetation has an important role in land and water protection, especially within 30 metres of a waterway, and require that the impacts on land and water are considered when native vegetation removal is proposed. The Parwan Creek catchment is a proclaimed water supply catchment, so avoiding and minimising impacts on native vegetation within 30 metres of the waterway is a priority. DELWP prefers that land use change and development that could impact on native vegetation be restricted and controlled within at least a 30 metre buffer either side of Parwan Creek
- There may be an opportunity to utilise some of the surrounding surveys being conducted for the Precinct Structure Plans and the Parwan Employment Precinct in order to identify endangered species in the area.

**Melbourne Water** has provided a high level submission that emphasises the important environmental values of the waterways in the area, particularly the Parwan Creek in the south of the study area. They note that erosion issues exist along the Creek and warn of the potential for land use change and urban development to affect the quantity and quality of drainage flows in the area. They have advised that, without further assessment of the waterway form and biodiversity values along Parwan Creek, any development should be setback a minimum of 50 metres from the top of bank.

## Environment

### What are existing industries saying?

Existing industries have not made any specific comments about environmental issues in the study area.

### What are prospective industries saying?

**Exergen Pty Ltd** has not made any specific comments on environmental features or issues within the study area, although it has made a number of statements relating to the environmental benefits of its products and adherence to best practice standards for its operations.

**Latrobe Fertilisers** has made several general statements about its awareness of environmental issues in the study area, mostly relating to amenity. It has also made several statements about the environmental benefits of its products.

### What are landowners saying?

Landowners have raised general environmental issues associated with the use of coal for energy production, and the expansion of waste uses. Water quality in the Parwan Creek was also a concern for submitters. Some landowners have expressed concerns about land management issues in the north west of the study area, including weed management and vermin. One submitter requested support for installing protective fencing and guarding to protect greater planting of native vegetation, providing habitats and wildlife corridors.

### What key issues and options are emerging?

The consultation process has highlighted that additional work needs to be done to incorporate existing information on native flora and fauna into the Planning Study, and that further work will need to be done by Council or proponents if they propose to rezone land.

The range of environmental considerations and the process for approval will vary depending on the nature of the proposal. Parwan Creek is an important environmental asset that will need to be considered.

## Transport and infrastructure

The consultation process revealed a broad range of additional information about transport and infrastructure matters in the study area. The key findings are presented below:

### What are authorities and agencies saying?

**Moorabool Shire Council's** engineering staff have advised that the road and drainage infrastructure in the study area is of a rural standard. They have identified two specific road infrastructure issues: the Tilleys / Geelong-Bacchus Marsh Road intersection, which requires major work, and the South Maddingley Road/Parwan Road intersection, which is a choke point due to the location of the rail crossing. The proposed Eastern Link Road would reduce pressure at this point.

They have expressed concerns about major increases in truck movements at MBC if their activities expand and believe that a more integrated plan for traffic movements in the precinct is needed. They have called for the preparation of an Integrated Transport Management Plan that could tie into a review of the Bacchus Marsh Integrated Transport Strategy (2015).

**Rural Roads Victoria (RRV)** has advised that Geelong-Bacchus Marsh Road is in the top 20 high risk roads in Victoria and that safety improvements on this road are underway.

RRV is preparing an Eastern Link Road Corridor Study that will investigate route options, although this project has been delayed. One of the drivers for this project is that there is only one north-south road through Bacchus Marsh at present.

There is 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. RRV support the suggestion of an Integrated Transport Management Plan for the area, which they believe is also needed to assess the future role and function of Geelong-Bacchus Marsh Road.

**APA Group (APA)** is the owner and operator of the major Brooklyn-Ballan high pressure gas pipeline that traverses the study area. They have provided a range of advice on safety, access and risk matters, as well as setback distances and uses that should not be located within approximately 200 metres of the pipeline. These mostly include sensitive uses, but also include retail premises and uses that are difficult to evacuate in an emergency including hospitals, aged care facilities and prisons. They support the use of planning overlays to identify and protect pipelines.

**Western Water** have 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 Park and increased pipe capacity for the limited sewer infrastructure to the west of the Railway Line. A new large pressure sewer would be needed to support major industry.

The small existing reticulated water network would also need to be upgraded. They have identified an opportunity to provide Class C recycled water from the nearby Bacchus Marsh Recycled Wastewater Treatment Plant (wastewater treatment plant) for new horticultural or other industries.

**Melbourne Water** is the statutory drainage authority for catchments larger than 60 hectares. Melbourne Water is yet to commence investigation of a Development Services Scheme/Strategy to service this area. Development of this catchment would require land to be allocated for flood protection and stormwater quality treatment.

### What are existing industries saying?

Existing industries have not yet made detailed comments on transport or infrastructure issues. **MBC** has identified potential for the methane produced at its landfill to be used for industries in the area and in the Parwan Employment Precinct to the south east.

## Transport and infrastructure

### What are prospective industries saying?

**Latrobe Fertilisers** has advised that rail access is of significant importance to their proposal to distribute urea to Victoria's agricultural areas and also to the Port of Geelong if needed.

**Exergen** has advised that they would require gas and electricity at an industrial scale. Rail access is also important to them although they would use road transport in the short-term.

The consultation process has confirmed that servicing authorities are not planning for major new urban development in the precinct. This means that the responsibility for local road infrastructure, water and sewer upgrades will fall largely on developers in response to the needs of specific development proposals.

### What are landowners saying?

Landowners are concerned about dust and the unsealed condition of roads. Some submissions express the firm view that industry should directly contribute to road construction and maintenance. Landowners are supportive of a proposed Eastern Link Road to ease traffic congestion.

Owners of vacant industrial land in the precinct are actively investigating opportunities to subdivide their land, although the cost of extending sewer, drainage and other services has been a major barrier in the past.

### What key issues and options are emerging?

The consultation has revealed the need to monitor the progress of the Eastern Link Road study and further investigate the need for an Integrated Transport Management Plan to be prepared for the precinct.



## Land use options

Stakeholders were asked throughout the consultation process to consider what land uses might be appropriate for different parts of the study area, having regard to a broad range of planning, economic, environmental and transport and infrastructure considerations. The influence of separation distances on land uses is discussed separately in the following section of the report. The key findings are presented below:

### What are authorities and agencies saying?

**EPA** has given advice on land use in the context of separation distances and amenity issues, as discussed in the following sections of this report.

**Sustainability Victoria (SV)** has emphasised the importance of MBC as a waste hub of state importance that will evolve over time. Their submission identifies the opportunity for new industrial uses in the study area that process recyclables, in particular, glass, plastics, paper, cardboard, e-waste and organics. SV has also highlighted the potential for land use synergies to reduce transport costs and opportunities for waste to energy proposals.

The **Metropolitan Waste and Resource Recovery Group** has explained that there are no boundaries that define waste hubs in the Statewide Waste and Resource Recovery Infrastructure Plan and that waste hubs may contain a number of different sub-precincts and may change over time. In time, they believe that hubs may be identified in the Victoria Planning Provisions.

### What are existing industries saying?

There has been limited feedback from existing industries on potential future uses in the precinct.

**MBC** has re-affirmed its commitment to investigating waste to energy opportunities on its landholding and at the JBD industrial park, as per the information in the Background Report. It has also made comment about changing the location of its composting operations and possibly moving them 'in-vessel', although no firm details have been provided.

**MBC** has also indicated that it is actively considering different uses for its site in a strategic way and will provide Council with a more detailed briefing during the course of the Planning Study. They have advised that the State Government through Invest Victoria is involved in the development of their plans.

Owners of industrial land in the study area have noted that recent new waste and resource recovery uses in the vicinity of JBD Industrial Park have re-inforced the use of the area as a waste hub and may stimulate the further development of the area.

### What are prospective industries saying?

**Latrobe Fertilisers** and **Exergen** are of the view that the entire coal resource should be protected and that land uses should be discouraged if they jeopardise the future use or extraction of the coal.

**MBC** has indicated that they would prefer that the entire Calleja landholding should be defined as a 'waste hub', including the JBD Industrial Park.

### What are non-industrial landowners saying?

Non-industrial landowners in the study area are generally not supportive of the current operations of MBC, or the potential for the waste and resource recovery uses, including landfill, to be expanded on or near the site. They believe that restrictions within the Special Use Zone Schedule 1 (SUZ1) on new dwellings, outbuildings and structures for private business use should be removed in the study area.

Non-industrial landowners are generally of the view that a broad range of urban uses should be investigated in the north of the study area to capitalise on the location in relation to the Railway Station and services.

There is also a desire from at least one long-standing landowner for the application of a residential zone to their land that would allow residential development.

Some existing landowners in the study area have thought more broadly about non-residential uses that may be worthy of investigation for their land. These include:

- agriculture;
- horticulture;
- rural residential or hobby farm uses;

## Land use options

- light industry;
- bulky goods;
- solar farms;
- 'commercial' development.

One submission identified the opportunity for land in the north west of the study area to be used as a cemetery as the Bacchus Marsh cemetery is nearing capacity.

The consultation process has also revealed that vacant industrial land in the study area is being actively investigated for further subdivision for a mix of large and small lot sizes.

### What is Bacchus Marsh Grammar School saying?

**Bacchus Marsh Grammar School (BMG)** is also opposed to waste and resource recovery uses in the study area. It believes that the Planning Study should put greater emphasis on education uses and include the school site, which is zoned Special Use Zone (Schedule 4) in the study area. They note that the school is one of the largest in the State with 2,500 students and is growing quickly.

BMG draws attention to the lack of recognition in the Background Report of the 'Integrated College Precinct'. This precinct was identified in the Bacchus Marsh Urban Growth Framework (2018) and includes land zoned SUZ1 contained within the study area on South Maddingley Road. The school is in the process of purchasing this land with a view to using it for a mix of school activities, including open space, ovals and buildings including classrooms and car parking. It sees the natural buffers to the east and south as a benefit to the school's use of this land.

BMG is also interested in expanding the school to the south and east if it can purchase land. This land would be developed for open space and ovals, with the potential for a vegetated buffer to industrial uses.

### What key issues and options are emerging?

The complexity of land use issues in the study area has been reinforced during the consultation process and by the submissions made to the Background Report.

The most challenging issues are associated with the northern parts of the study area that are currently zoned SUZ1 and Farming Zone and are outside the MBC landholding. The Planning Study will need to consider whether additional dwellings are appropriate on existing lots, and whether light industry or commercial development should occur in certain areas.

Developing clear guidance for which uses can occur and under what circumstances will be particularly important for the Bacchus Marsh Grammar School, which is actively investigating expansion options in the study area both away from, and towards, the Waste and Resource Recovery Hub.

Defining the extent of this hub may be important for the Planning Study, to provide confidence for the range of waste and resource recovery uses that are emerging. However, as noted by the MWRRG, it may also be important to retain sufficient flexibility for the hub to change and evolve over time, in response to market and other forces.

There have been a number of uses suggested during the consultation process that have particular needs or issues associated with them. These include solar farms, cemetery uses, and restricted retail uses. Each of these uses has particular locational and other needs that should be given some consideration in the Planning Study.

In a broader sense, there is also a need to consider the role of the study area in the context of the Parwan Employment Precinct nearby. For example, the Parwan Employment Precinct may offer greater separation distances for some uses but it may not offer the same level of synergies with coal resources or waste and resource recovery uses.

## Buffers and amenity

Issues surrounding buffers and separation distances were some of the most challenging topics that were discussed during the consultation process. They generated a range of feedback in verbal and written submissions. Key findings are presented below:

### What are authorities and agencies saying?

**EPA** has emphasised that, in considering new land uses, the 'agent of change' should be responsible for demonstrating that a variation in the recommended buffer distances in EPA Publication 1518 is appropriate. In a situation where existing land uses conflict with one another, the EPA has emphasised that it is Council's decision as to whether to support new uses or not.

In relation to waste to energy facilities, the EPA has noted that separation distances for these facilities can vary greatly depending on the processes that are used and has referred Council's attention to EPA Publication 1559.1, *Guideline: Energy from Waste, 2017*. This guideline states that the EPA will assess separation distances for facilities on a case-by-case basis, using site-specific scientific evidence from air, noise, odour and dust modelling as it becomes relevant. EPA has committed to providing Council with some information about amenity related complaints in the study area.

In terms of planning responses, the EPA has indicated that it supports the use of planning scheme tools such as overlays to identify buffers as this is the most transparent method.

The EPA has flagged future changes to a number of regulations that affect buffers and licensing arrangements. These include:

- a review of EPA Publication 1518, which will include a preferred methodology for variations to buffer distances and more emphasis on cumulative impacts;
- new EPA requirements for composting;
- the introduction of the new Environment Protection Act, which will include new licensing arrangements and a new 'general environmental duty', which will place the onus on operators to identify and mitigate environmental risks.

**DELWP's** preliminary advice, which was offered at the consultation workshop, is that they are in the process of making changes to Clause 53.10 (Uses with adverse amenity potential) to make the clause more effective.

Draft documents released by DELWP indicate that these changes strengthen policy relating to amenity impacts and more clearly articulate the concept of reverse amenity impacts.

The **Victorian Planning Authority (VPA)** has advised that they will be closely examining the buffers that exist around the Bacchus Marsh Recycled Water Plant in order to determine the extent of uses at the Parwan Station precinct. This will include new technical work on odour.

### What is the mining regulator saying?

**Earth Resources** agrees that the current Special Use Zone (Schedule 1) should be reviewed and that the zone as it applies to MBC is outdated. They have suggested that Council should consider the provisions of the Special Use Zone that applies to the Latrobe Valley, which is more refined and includes a different minimum subdivision size (25 hectares rather than 40 hectares).

In terms of buffers to coal mining operations, they believe that a 1,000 metre buffer to coal mining operations recommended in EPA 1518 may not be required at Maddingley due to the relatively shallow nature of the resource and likely methods of extraction.

Earth Resources has indicated that they would consult with licence holders to obtain advice on any proposed changes to planning provisions that apply to the coal resource.

### What are existing industries saying?

**MBC** has not made any formal submissions in relation to buffers as part of the project, however, the preliminary advice that they offered at the workshop is that they would be willing to consider changes to the Special Use Zone (SUZ1) to allow non-residential uses within the buffers of their operations. MBC believes that amendment C81 adequately identified appropriate buffers around their site.

## Buffers and amenity

### What are prospective industries saying?

**Exergen Pty Ltd** believe that a 500 metre buffer to sensitive uses would be appropriate in the study area given modern mining techniques and high operational standards.

**Latrobe Fertilisers** believes that a 1,000 metre buffer to dwellings is necessary for its future operations and have proposed this separation distance when planning for their development. They acknowledge that there are a number of existing sensitive uses and structures within their proposed buffer.

### What are non-industrial landowners saying?

Most non-industrial landowners have not expressed a specific view as to how large the buffer distances should be in the study area. Most landowners are seeking more flexible zoning arrangements that will allow a broad range of uses.

Some written submissions raise various general issues relating to the presence of the MBC landfill, including noise, dust, odour, unattractiveness and other negative amenity impacts. Bacchus Marsh Grammar shares these concerns about the waste and resource recovery hub.

Some written submissions call for a buffer of at least 1,000 metres between dwellings and coal mining operations.

One submission is of the view that the buffers around MBC that affect land in the Mixed Use Zone to the north of the study area should not prevent the development of residential uses in these areas.

At least one submitter believes that MBC should be encouraged to move its composting to in-vessel composting to reduce buffer distances.

### What key issues and options are emerging?

Issues around amenity impacts and buffers generated some of the strongest views expressed in the submissions. Naturally, there is a view from most submitters that their preferred use should take precedence over others, although some submitters have more actively acknowledged competing views and offer a more pragmatic view of the situation.

The point at which separation distances for coal mining are measured is an emerging issue that needs to be resolved. There is some suggestion from stakeholders that the 1,000 metre buffer set out in EPA 1518 should be measured from the activity areas.

This suggests that it might be reasonable to measure the distance from the works approval boundary at MBC and not the mining licence boundary, as supported through the Amendment C81 process.

The implications of this approach and level of support from stakeholders requires more investigation and consultation.

Further investigation is also needed on the types of land uses that may not be appropriate within buffers. Uses that are likely to require particular investigation and further consultation are uses that do not always neatly fall within the common definition of a 'sensitive use', such as:

- offices;
- some forms of leisure, including indoor recreation facilities and informal outdoor recreation;
- forms of outdoor leisure associated with education centres.

Further investigation is also required into other broad categories of uses that contain some uses that may be appropriate to locate within buffers and some that may not be appropriate. These include:

- some forms of office;
- retail premises; and
- transport uses.

Resolution of these questions will inform changes to zones and other planning provisions in the Planning Study.



## Summary of emerging issues

This report has revealed some additional information that needs to be considered in the preparation of the Planning Study. It has also established clear differences of opinion between stakeholders on some key issues, and a range of matters that require further investigation, as discussed below.

### What are the key emerging areas of agreement?

Key emerging areas of agreement between most stakeholders include:

- the strategic location of the study area in relation to the Bacchus Marsh urban area;
- the need to review the provisions of the Special Use Zone (Schedule 1);
- the need for a buffer between sensitive uses and the Waste and Resource Recovery Hub / coal mining;
- the relatively low standard of road and servicing infrastructure in most parts of the study area;
- acknowledgement of road related issues in certain locations, including the condition of some intersections and truck traffic.
- the need for an 'Integrated Traffic Management Plan' to guide any major land use changes in the study area;
- the use of the planning scheme to identify buffers.

### What are the key emerging areas of disagreement?

Key emerging areas of agreement between stakeholders include:

- the extent of the coal resource that should be protected;
- how the value of coal in terms of investment and jobs is balanced against social and environmental outcomes;
- whether it is appropriate to allow additional dwellings within the recommended buffer distances adopted in Amendment C81 and in the Background Report for this Study;
- the separation distances that should apply to coal mining and composting;
- whether the waste and resource recovery role of the area should be expanded in the future.

### What issues require further investigation?

The preparation of the Planning Study would benefit from further advice from key authorities or agencies in relation to:

- the position of the State Government in relation to the coal resource that should be permanently protected;
- the position of the State Government in relation to the coal exploration licence extension sought by Exergen Pty Ltd;

- the likely separation distances needed between sensitive uses and modern coal mining operations;
- whether separation distances should be measured from the activity area or licence area;
- whether offices, parks, school ovals, and particular types of retail premises and transport uses are appropriate within buffers;
- EPA advice regarding past amenity complaints;
- new EPA and VPP regulations and policies regarding buffers including cumulative impacts.

The following key issues also require further investigation during the preparation of the Planning Study:

- MBC's future vision for activities within their site, and any expansion or new uses;
- the extent of current works approval for mining at MBC;
- the future of the Eastern Link Road Corridor Study;
- further analysis of the planning tools used to regulate coal resources in the Latrobe Valley.

## Emerging principles

### What planning principles are emerging?

Based on the research and consultation work carried out to date, it is appropriate to consider planning principles that could be adopted to inform the preparation of the Planning Study and any new planning provisions. These principles have been prepared to facilitate further discussion with stakeholders and have been drafted for various emerging sub-precincts in the study area.

For the existing MBC site:

- encourage MBC to convert open air composting to in-vessel composting; and/or
- relocate composting operations to the south and south west, further away from the existing and future urban area;
- amend the Special Use Zone (Schedule 1) to allow mainly for waste and resource recovery operations, with ancillary coal mining;
- maintain vegetated buffers.

For the remaining Calleja landholding:

- encourage uses that can utilise the existing competitive strengths of the area, including the coal resource and waste and resource recovery uses subject to providing appropriate separation distances to residential zones;
- encourage uses that require large tracts of land.

For industrial zone land:

- encourage industries that can develop synergies with other industrial uses;
- encourage a mix of small to medium lot sizes;
- encourage uses that can utilise the existing competitive strengths of the area, including the coal resource and waste and resource recovery uses subject to providing appropriate separation distances to residential zones.

For land generally west of South Maddingley Road and north of Kerrs Road:

- consider education uses on land identified as the 'Maddingley Integrated College Precinct' in the Bacchus Marsh Urban Growth Framework 2018.
- respect the existing use rights of existing dwellings;
- facilitate opportunities for use and development compatible with existing nearby industrial and sensitive uses (e.g. small scale enterprises, light industry, agriculture/horticulture);
- discourage expansion of coal mining and the Waste and Resource Recovery Hub.

For land generally between South Maddingley Road and East Maddingley Road:

- facilitate opportunities for uses and development compatible with existing nearby industrial and sensitive uses (e.g. small scale enterprises, light industry, agriculture/horticulture);
- investigate potential for some expansion of Bacchus Marsh Grammar to the south and east of the existing school site, for the purpose of open space and landscaping;
- provide vegetated or other buffer areas to MBC;
- discourage sensitive uses other than potential expansion of open space associated with Bacchus Marsh Grammar;
- discourage expansion of coal mining and the Waste and Resource Recovery Hub.

For land generally between East Maddingley Road, Tilley's Road and Geelong-Bacchus Marsh Road:

- further investigate the potential for land to be used for restricted retail (bulky goods) development or light industry;
- provide vegetated or other buffer areas to MBC;
- discourage new sensitive uses;
- consider road transport and safety issues along Geelong-Bacchus Marsh Road;
- discourage expansion of coal mining and the Waste and Resource Recovery Hub.

- 8        UPDATE ON TRENDS, ISSUES AND OTHER MATTERS**
- 9        PROCESS FORWARD AND WORK PROGRAM**
- 10      UPDATE ON VCAT DECISIONS**
- 11      OTHER BUSINESS**
- 12      DATE OF NEXT MEETING**

**13 CLOSED SESSION OF THE MEETING TO THE PUBLIC****RECOMMENDATION**

That Council considers the confidential report(s) listed below in a meeting closed to the public in accordance with Section 89(2) of the *Local Government Act 1989*:

**13.1 Ballan Active Open Space Land Acquisition**

This matter is considered to be confidential under Section 89(2) - (e) of the *Local Government Act 1989*, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with proposed developments.

**13.2 Bacchus Marsh Strategic Growth Area Update**

This matter is considered to be confidential under Section 89(2) - (e) of the *Local Government Act 1989*, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with proposed developments.

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**14 MEETING CLOSE**