

# EAST BAIRNSDALE/LUCKNOW

PRECINCT STRUCTURE PLAN - NOVEMBER 2013



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# 1 INTRODUCTION

This Structure Plan applies to land referred to as the East Bairnsdale/Lucknow Precinct, which is located east of the Great Alpine Road, at the eastern entrance to Bairnsdale. The precinct is 210 hectares and is bound by Lanes Road to the north, the East Gippsland Rail Trail to the south and Phillips Lane to the east. The Princes Hwy provides major access to the precinct, including the existing residential and employment areas.

The Bairnsdale Growth Strategy (2009) prepared by East Gippsland Shire Council, designates areas where urban growth, including residential, commercial and employment use should be encouraged. The Growth Strategy provides the strategic basis for managing future residential and employment growth in East Bairnsdale to ensure it will support the economic role of Bairnsdale City Centre and its important role in the greater region. The East Bairnsdale/Lucknow area is identified in that Strategy as an area suitable for residential and employment development.

This report provides analysis of the local context, key issues and opportunities for the precinct as well as design and implementation principles to guide the staged development of the precinct for future development.

## 1.1 BACKGROUND

The Precinct forms the eastern edge of the Bairnsdale township and contains a variety of land uses, including farming land, industrial/commercial premises, residential and active recreation. The Precinct has the benefit of proximity to the town centres and has direct access to a large recreation area and opportunities for connected green spaces. The precinct can provide additional housing choice and diversity within East Bairnsdale, with housing that interfaces with recreation areas, waterways and a rural outlook to the east.

The Council in collaboration with state government have commissioned a consulting team to prepare this Structure Plan for the East Bairnsdale and Lucknow Precinct. The precinct was identified in the Growth Strategy as a future growth area in terms of both housing and employment growth. The Lucknow/East Bairnsdale Structure Plan guide future development and the delivery of housing diversity and employment of Bairnsdale.

The Lucknow/East Bairnsdale Structure Plan:

- Enables the transition of non-urban land to urban land.
- Sets out the vision for how objectives are to be achieved and how land should be developed.
- Provides guidance for developers, investors and communities about how future development within the precinct will unfold.
- Outlines urban design treatments and how sensitive interfaces are to be managed.
- Provides Council with a basis for assessing future development proposals and includes recommendations regarding appropriate zones and other planning controls to facilitate development.
- Identifies preferred land uses and development types, community infrastructure requirements and preferred location of community/recreation nodes to support population growth
- Outlines the overall layout of future land uses and development
- Outlines infrastructure projects required to ensure future residents, employees and visitors within the Precinct can be provided with access to amenity and transport to support a high standard of living.
- Provides guidance as to how development can be incrementally delivered over time based on staging principles.

The East Bairnsdale/Lucknow Precinct Structure Plan is informed by:

- Bairnsdale Growth Strategy (2009) – prepared by the East Gippsland Shire and CPG Consultants.
- The State and Local Planning Policy Framework of the East Gippsland Planning Scheme, including local policies and strategies.

The preparation of this Structure Plan has been prepared with an understanding of other relevant projects commissioned by the East Gippsland Council, as follows:

**East Bairnsdale Drainage Project** – this project has been undertaken by the East Gippsland Shire Council in collaboration with State Agencies and landowners. This project covers some of the land within the Precinct area (ie: land north of Princes Hwy) as well as adjoining land to the east. The East Bairnsdale Drainage Project seeks to improve the drainage in this part of the town. The project addresses the existing drainage issues related to the existing businesses and land holdings in the area as well as how drainage can be delivered with new development across the precinct.

Stage 1 of the project requires construction of wetlands and pipelines on land owned by Patties Foods Ltd, JC Dahlsen Pty Ltd and Broadlands Estate Pty Ltd. East Gippsland Shire Council will implement a management plan for maintenance of the constructed wetlands which will include a schedule for regular maintenance. The drainage principles were prepared as part of the East Bairnsdale Drainage Strategy, by Neil Craigie and Crossco and peer reviewed by Water Tech. These have been relied on in the preparation of this Structure Plan. Further follow up work was undertaken by Crossco which addresses some localised issues and in particular examines drainage issues in the area south of the Princes Highway.

**Bairnsdale CBD Improvement Project** – this project is a master plan for the Bairnsdale CBD and details changes to Main Street and Nicholson Street Mall. This will see improvements to the public realm, creating a more pleasant pedestrian environment, with an emphasis on improving safety, reducing barrier created by cars within the CBD and improving public gardens and community spaces.

FIG 1a STUDY AREA



## 2 APPROACH

### 2.1 STAGES OF PROJECT

This Structure Plan has been developed over a 10 month process of collaboration between Council, State agencies, businesses and landowners. The process has included technical investigations, workshops and consultations to identify issues and opportunities for the Precinct. The key stages of the project and associated engagement strategy is shown in Figure 2a and 2b.

FIG 2a PROJECT STAGING

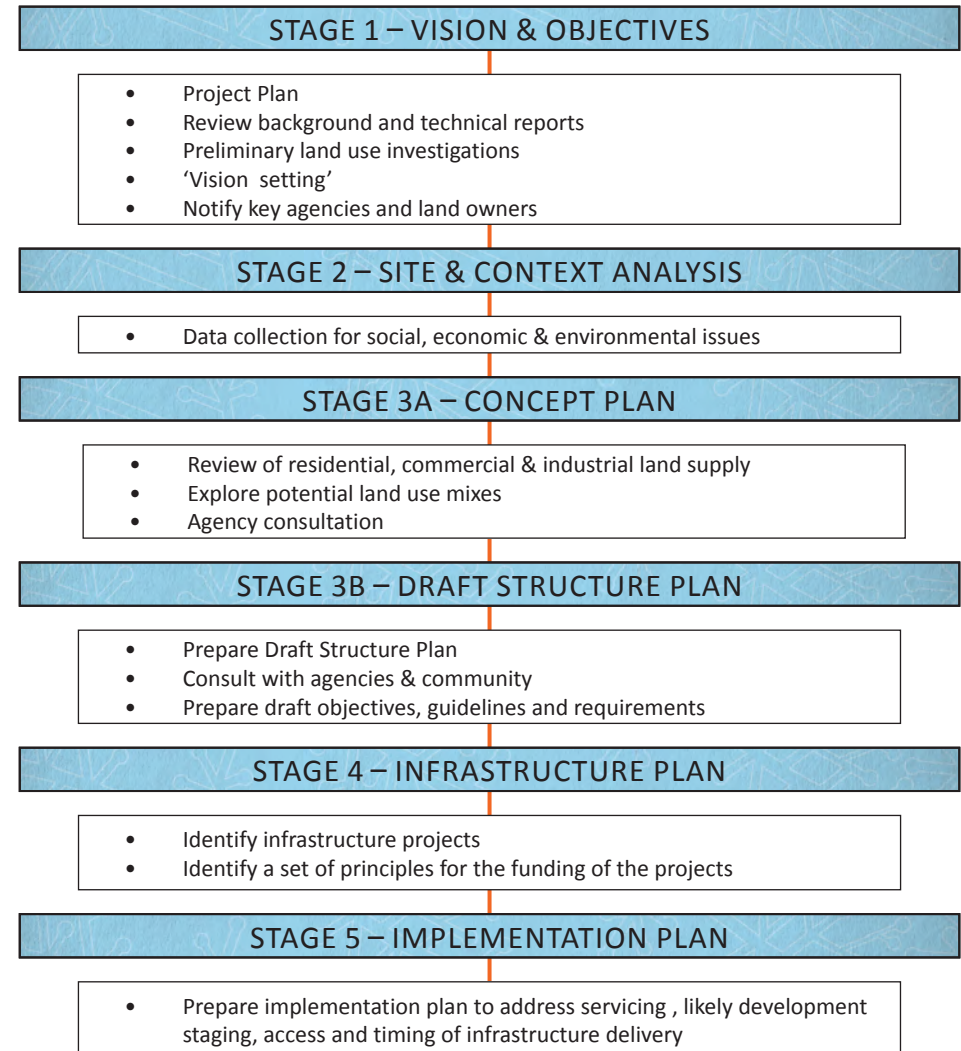
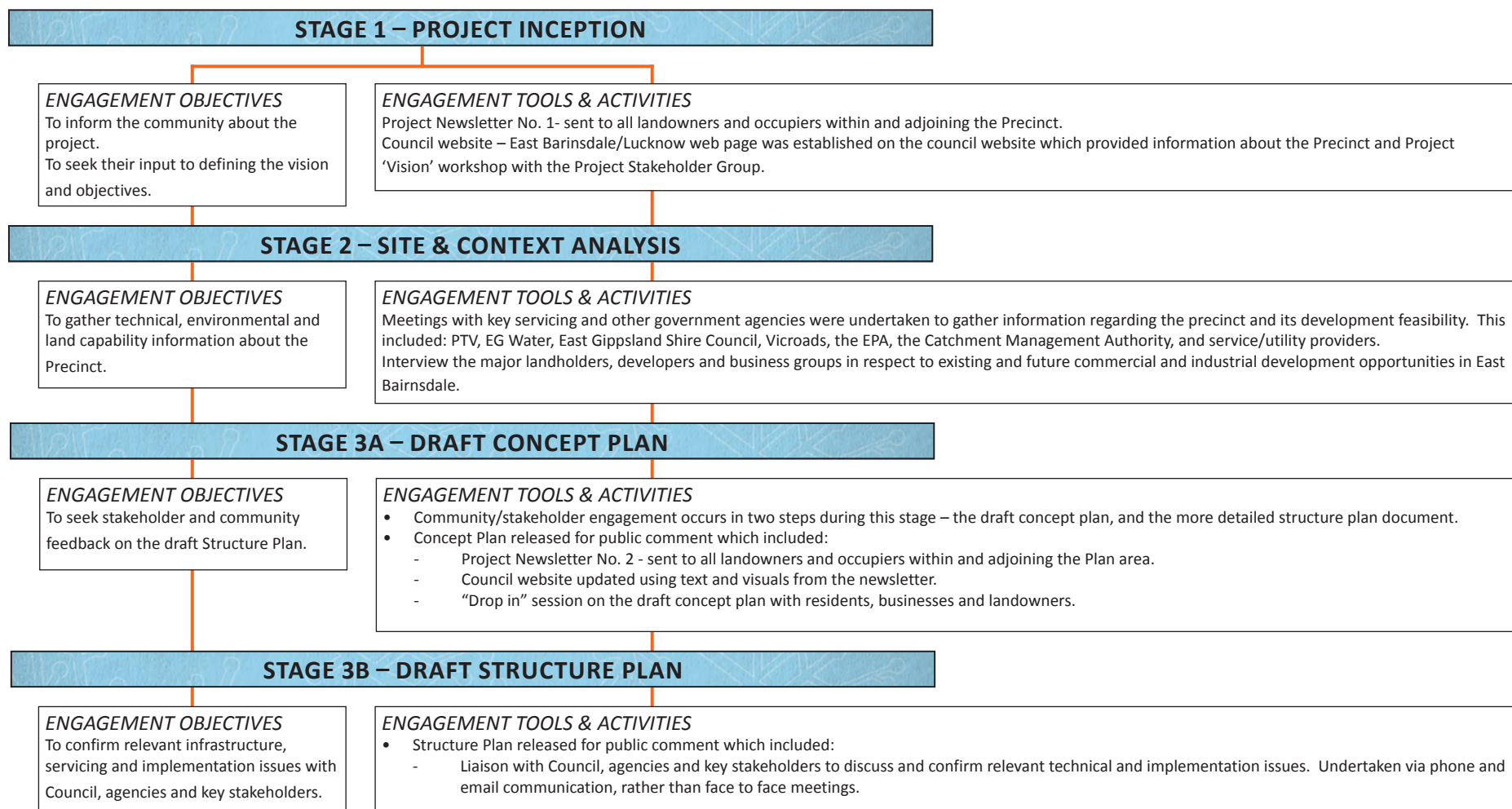


FIG 2b ENGAGEMENT PROCESS



## 2.2 PROJECT TEAM AND BACKGROUND REPORTS

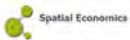
The following project team was established to prepare the Precinct Structure Plan:



**Urban Planning**  
Echelon Planning Pty Ltd



**Urban Design**  
Warren Lee Urban Design Pty Ltd & Echelon Planning



**Land Economics**  
Spatial Economics Pty Ltd



**Civil/Transport/infrastructure**  
Cardno Pty Ltd



**Environmental**  
Ecolink Consulting Pty Ltd



**Hydrology/Drainage**  
Crossco Consulting Pty Ltd

The PSP is supported by a range of technical reports and informing documents, as follows:

- East Bairnsdale Development Plan, Traffic Engineering Background Investigation (2012) – prepared by Cardno Pty Ltd
- Issues, Opportunities and Objectives Summary Paper (2012) – prepared by Echelon Planning Pty Ltd
- Social Impact Comment, Brief Report (2013) – prepared by Echelon Planning Pty Ltd with input from East Gippsland Council

- East Bairnsdale Drainage Strategy Summary (2011) – prepared by Crossco Consulting Pty Ltd.
- East Bairnsdale Drainage Strategy Project, RORB model Review (2012) prepared by Water Technology for Crossco Consulting Pty Ltd.
- Surface Water Management Strategy (2010) – prepared by Neil M Craigie Pty Ltd.
- East Bairnsdale/ Lucknow Drainage Improvement Report (2013) – prepared by Crossco Consulting Pty Ltd.

The following Agencies have contributed to the process and preparation of the Structure Plan:

- Department of Transport
- Public Transport Victoria
- APA Group
- East Gippsland Catchment Management Authority
- East Gippsland Water
- VicRoads
- EPA (Environmental Protection Authority)
- East Gippsland Business and Tourism Association
- Chamber of Commerce

A summary of consultation with agencies is provided in Appendix 1.



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### 3 STRATEGIC CONTEXT

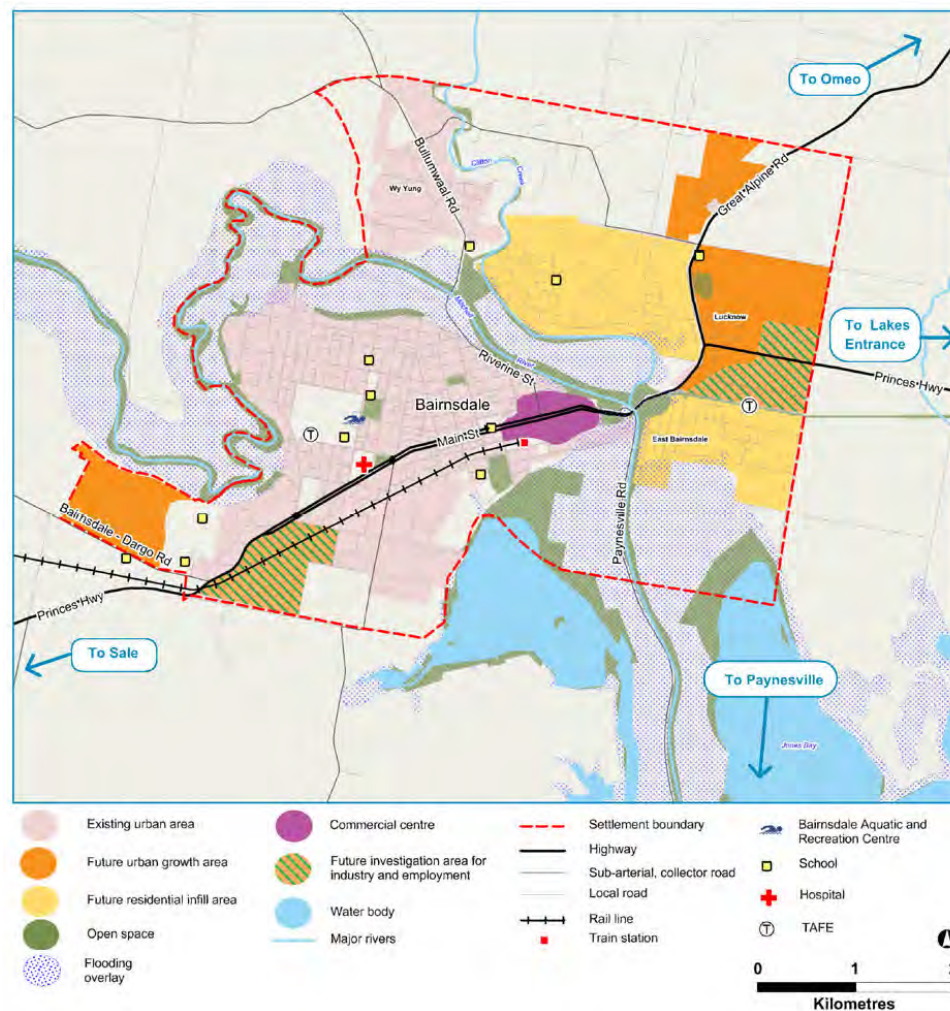
The Gippsland Regional Growth Plan (draft June 2013) identifies a number of towns within the Gippsland region as regional cities which are well serviced by education, health, and community infrastructure utilities. The Growth Plan seeks to implement a network of regional cities which are the focus for employment, education, community activity and residential growth which are supported by a range of smaller towns and settlements which will experience incremental growth.

The regional settlement framework directs population growth to six defined growth nodes, or regional cities. Bairnsdale is identified as one of the six identified regional cities which are to encourage and facilitate major scale growth and development. This includes facilitating business investment, diversifying employment and providing local and regional facilities to support the growing population. Regional Cities are also charged with delivering greater housing diversity and the cultural and recreational opportunities to attract population growth.

The broader aims in the draft Gippsland Regional Growth Plan echo the growth principles established in the Bairnsdale Growth Strategy (2009) developed by the Council. This Strategy identifies areas which are to accommodate population growth to 2031 and establishes a township boundary to manage the direction of growth in Bairnsdale. It seeks to concentrate growth to identified areas which are connected to the existing urban area and retaining other areas for rural values and agricultural production. Consolidating growth into identified seeks to make efficient use of existing infrastructure and enable prioritisation of new infrastructure projects.

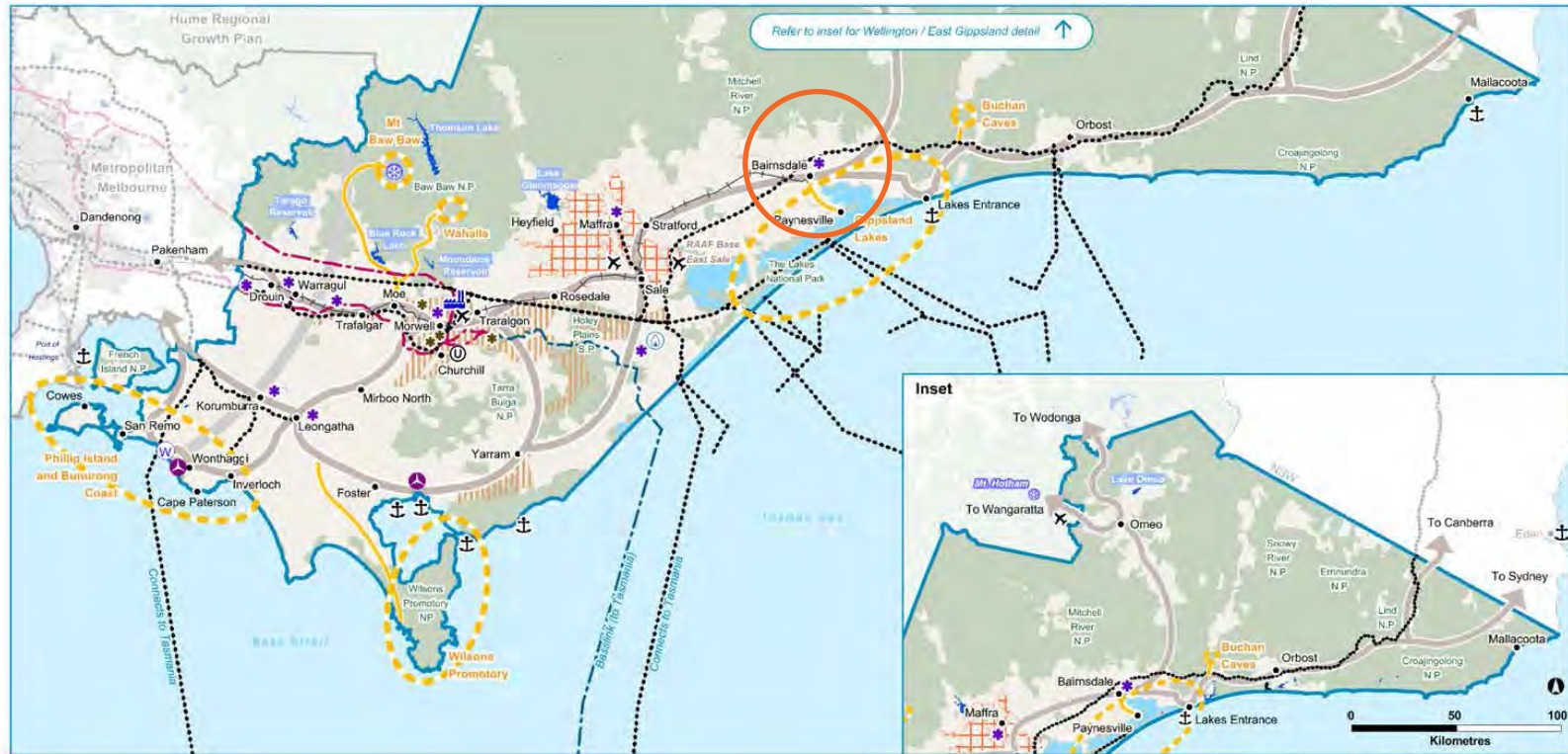
Currently new residential development in urban centres across Gippsland is occurring at an average of 10 lots per developable hectare. In comparison with other regional cities and centres, this is considered low, with regional cities such as Ballarat providing a lot density for new areas of 15 lots per hectare. These higher densities in regional cities are providing housing diversity and responding to changing household compositions and are encouraged across the region.

FIG 3a REGIONAL GROWTH PLAN



Extract: Draft Regional Growth Plan Gippsland (page 43)

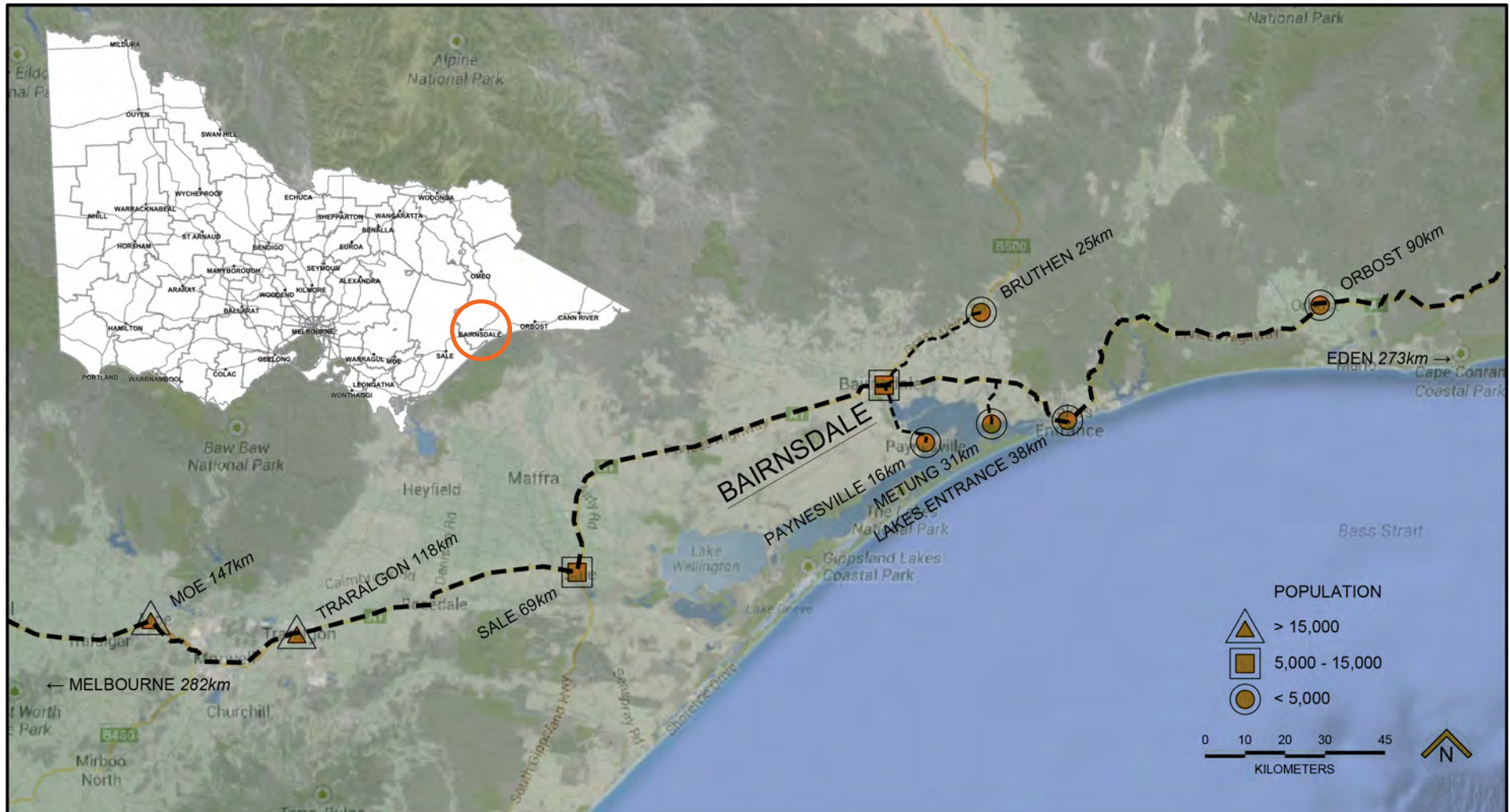
FIG 3b REGIONAL CONTEXT PLAN - STRATEGIC ASSETS



- |  |                                  |                                 |                     |                               |  |
|--|----------------------------------|---------------------------------|---------------------|-------------------------------|--|
| * Power station                          | * Food manufacturing hub         | ⊙ Operational windfarm          | Ⓜ University        | Ⓜ Victoria Desalination Plant | ● Settlement                               |
| Ⓜ Longford gas plant                     | Ⓜ Australian Paper Maryvale      | Ⓜ Alpine resort                 | ✈ Airport           | ● Designated water supply     | ● Melbourne's urban area                   |
| — Electricity transmission line (500 kV) | Ⓜ Macalister Irrigation District | Ⓜ Significant tourism asset     | Ⓜ Port              | ● Lake                        | ● Areas within 100 km of central Melbourne |
| — Basslink (500 kV)                      | Ⓜ Coal reserve                   | — Linkages to key tourism areas | → Key road corridor | ● Public land                 |  |
| Ⓜ Gas / Oil pipeline                     |                                  |                                 | → Key rail corridor |                               |  |

Extract: Draft Regional Growth Plan Gippsland (page 9)

FIG 3c REGIONAL CONTEXT PLAN



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### 3.1 BAIRNSDALE TOWNSHIP

Bairnsdale is the commercial and administrative centre of the East Gippsland region, providing a number of facilities and services for the region including retail, commercial, educational and recreational facilities. Within the wider Gippsland region, the centres of Traralgon, Morwell and Sale also provide employment and services to the region and need to be considered when planning for the future role of Bairnsdale. The city provides employment and services for residents from these surrounding areas and as such, the centres both compliment and compete with one another. Smaller satellite towns including Paynesville, Metung, Lakes Entrance, Bruthen and Orbost also rely on the services, facilities and employment opportunities available in Bairnsdale.

One of the key policies of the East Gippsland Council is to encourage the development of service industries and ensure that Bairnsdale continues to play this role in the provision of higher order services, including health and educational facilities, for the region into the future. Bairnsdale contains a TAFE, secondary schools, and adult and special need educational services as well as a number of important health services for the region including emergency hospital services, nursing homes and mental health services, which are expected to augment in line with growth.

Bairnsdale operates as a public transport hub for the region, connecting Bairnsdale to other major centres including Sale and Traralgon. The Princes Freeway and Great Alpine Road provide major access to Bairnsdale as well as creating boundaries within the town, separating a number of residential neighbourhoods. The Mitchell River, Blackwater River and drainage areas also create natural boundaries within the town.

The Mitchell River has been classified as a heritage river with a number of environmental, social and botanical values, it is also an important recreational asset for Bairnsdale. The river flows through Bairnsdale before entering the Gippsland Lakes. The Gippsland Lakes are also a crucial natural resource of the region, playing a valuable role in attracting tourism to the area as well as being of environmental and social importance.



### **3.1.1 BAIRNSDALE PROFILE**

The population of Bairnsdale, including Lucknow and East Bairnsdale is approximately 13,095.<sup>1</sup> There are considerable differences in the population profiles of neighbourhoods within Bairnsdale, in particular, employment, age and family composition. This is largely due to growth in the township and changes over time, with East Bairnsdale, Lucknow, North and older parts of the town displaying substantially different profiles.

The housing composition across the neighbourhoods of Bairnsdale also display differences. Within the Wy Yung, Lucknow and East Bairnsdale area, 29% of households are made up of couples with children in comparison with 20% of households within the established parts of Bairnsdale.<sup>2</sup> In addition, 17 % of the households within the Wy Yung, Lucknow and East Bairnsdale area are made up of families with young children aged under 15 years compared to 12% households in the established part of Bairnsdale.<sup>3</sup> The current demographic in Lucknow is one that caters for families as well as couples and singles.

The average household size in Bairnsdale is 2.3 people, with East Bairnsdale having a slightly average higher household size of 2.5 people.

The population of Bairnsdale township is aging, although this differs across the neighbourhoods. In Lucknow 14.7% of the population is made up of people aged 65 years and older, whilst in East Bairnsdale it is 18.9%. The proportion of people 65 and over is the highest in central Bairnsdale of 23.9% which indicates a higher proportion of the aging population is housed in the established parts of Bairnsdale rather than in new development estates.



### **3.1.2 COMMUNITY FACILITIES AND OPEN SPACE**

Bairnsdale has a number of educational facilities, including kindergartens, government primary and high schools, non-government schools and the East Gippsland TAFE and Technical College. Many of these educational facilities serve a catchment beyond the Bairnsdale Township, including satellite towns such as Paynesville, Metung, Lakes Entrance, Bruthen and Orbost. A number of these facilities are currently undergoing expansion in line with the anticipated increase in demand as a result of population growth.

Primary and Secondary education facilities located within Bairnsdale include:

- Greenvale School
- St.Mary's Catholic Primary School
- Lucknow Primary School
- Bairnsdale Primary School
- Bairnsdale Secondary College
- Bairnsdale Specialist School
- Bairnsdale West Primary School
- Bairnsdale Christian Community School
- Nagle College Bairnsdale
- Gippsland Grammar (Junior School)

Most community services such as health facilities, library and nursing homes are available in the Bairnsdale CBD. Bairnsdale also has a mixture of recreational facilities which are located across the town with district sports facilities and ovals, two aquatic facilities with regional sporting competitions held in Bairnsdale.

Higher order uses such as cultural art facilities/centres are located in the larger city centres such as Sale, which is more centrally located within the Gippsland Region and therefore serves a wider catchment.





FIG 3d COMMUNITY FACILITIES PLAN

- |   |  |
|---|--|
| ① BAIRNSDALE SECONDARY COLLAGE                            | ⑮ SOCIAL CLUB / EGM FACILITY             |
| ② BAIRNSDALE AQUATIC CENTRE                               | ⑯ INDEPENDENT SCHOOL                     |
| ③ WEST BAIRNSDALE PRIMARY SCHOOL                          | ⑰ LUCKNOW OVAL / KEENAGERS               |
| ④ BAIRNSDALE COMMUNITY HEALTH CENTRE                      | ⑱ FUEL STATION / CONVENIENCE STORE       |
| ⑤ BAIRNSDALE REGIONAL HEALTH SERVICE                      | ⑲ CHURCH                                 |
| ⑥ BAIRNSDALE 754 PRIMARY SCHOOL                           | ⑳ PROPOSED NON GOVERNMENT PRIMARY SCHOOL |
| ⑦ BAIRNSDALE NEIGHBOURHOOD HOUSE                          | ㉑ LUCKNOW PRIMARY SCHOOL                 |
| ⑧ CHURCH  | ㉒ CHILDCARE/ KINDERGARTEN                |
| ⑨ ADVANCE TAFE  | ㉓ GIPPSLAND GRAMMAR-PRIMARY              |
| ⑩ SPORTING OVALS  | ㉔ KINDERGARTEN                           |
| ⑪ EAST BAIRNSDALE NEIGHBOURHOOD HOUSE                     | ㉕ KINDERGARTEN                           |
| ⑫ STEINER KINDERGARTEN                                    | ㉖ CHILDCARE                              |
| ⑬ BROOKFIELDS LAKE PROPOSED ACTIVITY CENTRE AND CHILDCARE |  |
| ⑭ CHILDCARE   |  |



### 3.1.3 EMPLOYMENT

Bairnsdale plays a substantial role in providing employment for the broader region. Bairnsdale provides around 6800 jobs<sup>4</sup> (as of 2009), with employment in service, health, education, manufacturing, construction and retail sectors.

Food manufacturing plays an important role in Bairnsdale, providing significant employment, with companies Vegco and Patties being major employers for the town. Recent studies have indicated that the labour force of Bairnsdale is growing, with younger people remaining in Bairnsdale and providing a pool of labour that can support economic growth into the future.<sup>5</sup> Bairnsdale is well placed to attract a range of retail, commercial and community service enterprises. It has a range of existing and planned industrial, retail and community service precincts, including:

- The **Bairnsdale CBD**, which is a large, attractive and well established centre, with potential for growth and diversification in the range of retail, commercial, community and housing within and adjoining it. Major retail and commercial developments are expected to be located within the Bairnsdale CBD. Bairnsdale has a broad range of retail services with discount department stores, bulky goods, major supermarkets, service stations and other key retail services.
- A specialist **community, health and education** services hub is proposed along McKean Street. It is anchored by the Bairnsdale Secondary College, regional aquatic centre and Bairnsdale regional health service. The precinct provides opportunities for consolidation and expansion of community, health and education services for the city and region.
- A large **industrial estate** in South Bairnsdale which is partially developed but still comprises a significant number of vacant zoned industrial sites. This precinct is expected to continue to attract industrial business - particularly those with the potential to generate off-site amenity impacts – given that it is relatively well removed from the urban residential areas within the township.
- A strip of **highway commercial** activities along the western approach to the Bairnsdale CBD. The northern side of the strip is zoned 'mixed use', and is the preferred location for light industrial, take away food premises, motels, medical centres, small offices. The south side is zoned 'industrial', and is the preferred location transport businesses and light industry. Land in this strip is largely developed with a mix of service industry,

trade supplies, commercial and bulky goods activities. There are few vacant sites within this strip.

- A large **industrial precinct** in East Bairnsdale, comprising Patties manufacturing and a range of other bulky goods, service industry and general industrial activities. This precinct contains a number of undeveloped sites, including the site of a proposed major Homemaker centre – comprising a mix of trade supplies and bulky goods activities, with an overall floorspace of circa 15,000 sqm. The homemaker centre was approved in 2008 but has not yet commenced development. This precinct has been identified as a specialised employment centre for the city and region, with a focus on food manufacturing, service industry and bulky goods. This precinct is the subject of the current study.
- A new local town centre has been constructed in **Eastwood Village**, comprising of a large format IGA supermarket, specialty retailing, community and commercial facilities. It has approval for 3,190 sqm of retail floorspace.
- A new local town centre has been approved for **Brookfield Lakes**, along the Great Alpine Road. This centre has not yet been constructed and its approval provides for 2500sqm of retail floorspace, comprising an anchor supermarket tenant, plus associated specialist retail and commercial activities.
- A small **commercial centre** is proposed for the north-east intersection of Phillips Lane and the Princes Highway. This has not yet been approved, but the current proposal provides for commercial uses. Whilst no retail floor space limit has been decided upon, the building footprint on the site can be up to 12,600sqm under the relevant planning controls. This concept forms part of a planning scheme amendment associated with the existing Tourism Park in East Bairnsdale.
- A large regional **intermodal freight terminal** has been proposed at the Hillside rail siding on the western side of Bairnsdale. If constructed, this will be the preferred location for larger-scale freight and logistics such as the storage and distribution of timber, stone and minerals, and agricultural produce.

FIG 3e EMPLOYMENT AND ACTIVITY CENTRE PLAN



### **3.1.4 FUTURE RESIDENTIAL GROWTH OF BAIRNSDALE**

Bairnsdale, including Lucknow and East Bairnsdale has a population of around 13,095, according to most recent ABS data. Population forecasts indicate that the town will continue to grow over the coming decades and that the community will continue to age consistent with national trends.

The Bairnsdale Growth Strategy forecast that Bairnsdale will grow to around 15,000 people by 2031, equating to an additional 1905 people by 2031 (i.e. 40-42 new households per annum).

The Draft Gippsland Regional Growth Plan projects that Bairnsdale will accommodate circa 2,950 new houses by 2041 (105.35 houses per annum). This equates to an additional 7,375 people up to 2041. Most recent ABS data indicates that the average household size for the Bairnsdale is 2.3<sup>6</sup>.

A review of recent lot release in Bairnsdale shows that there is a growth trend of circa 115 lots per annum which is generally consistent with the projections in the Regional Growth Plan and indicates that the township could be close to 20,000 people by 2031. Growth is likely to be dispersed on different development fronts based on existing and planned development precincts, each with different amenity and facilities. The Bairnsdale Growth Strategy (2009) identifying four new greenfield residential growth areas for the township, being:

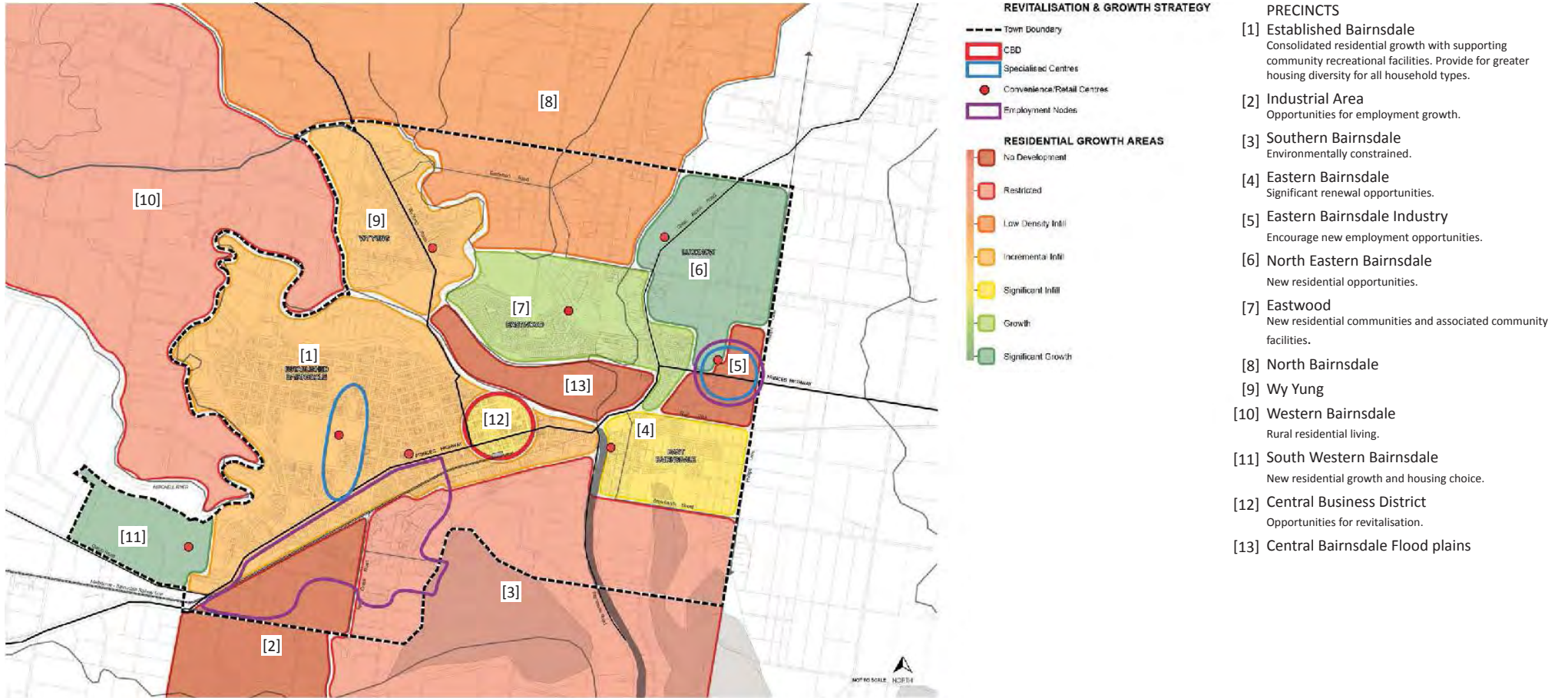
- Eastwood - Zoned Residential 1 (via Amendment C72) and currently well under development. The masterplan provides for development of 1500 lots, with 750 lots already constructed. It is assumed that as a mature and established project, this will continue to take up the majority of demand for greenfield lots until it approaches completion.
- Shannon Waters - Zoned Residential 1 (Amendment C64) – provides for 750 lots. Development has yet to commence on this site but it is assumed that it will commence over the next 5 years, with demand to increase as Eastwood is built out. This area has been identified as suitable for significant growth within the Growth Strategy.

- Brookfield Lakes – Located in northern Bairnsdale this area was zoned to Residential 1 in 2009 and is expected to accommodate circa 450 lots. This has not yet commenced development. It is assumed that development will commence over the next 5 years, with demand to increase as Eastwood is built out.
- Lucknow Structure Plan Area - Partially zoned residential/rural living with development not yet commenced. It is assumed that permits may be granted for residential development in part of the precinct within the next 5 years, with rezoning of other parts of the precinct over the subsequent 15 or so years.

In addition to the greenfield areas specifically identified in the Growth Strategy, the following areas could also accommodate residential growth:

- ‘Eastern Bairnsdale’ is identified for future residential infill in the Strategy. There is limited evidence of development currently occurring in this locality. It is expected that there would be relatively slow, incremental growth over time.
- The Bairnsdale CBD is identified for infill development in the strategy which is expected to occur over time.
- Incremental infill across the established parts of the township.

FIG 3f REVITALISATION AND GROWTH STRATEGY PLAN



**NOTE**  
General  
Improve connectivity and integration to

Extract: Bairnsdale Growth Strategy - CPG (page 10)

## 3.2 LOCAL CONTEXT

### 3.2.1 THE SITE

The Structure Plan applies to approximately 210 ha of land as illustrated in Figure 1a (East Bairnsdale/Lucknow Precinct Area). The precinct includes the land bound by Great Alpine Road to the west, Lanes Road to the north, Philips Lane to the east and the East Gippsland Rail Trail to the south. The precinct comprises of a range of uses including:

- Farming Land located in the northern section of the precinct.
- Existing residential subdivision along Great Alpine Road, Industrial and employment land along Princes Highway and McMillan St.
- Recreation land area in the north western portion of the precinct.
- An independent School located in the north western portion, along Great Alpine Road.

This mix of land uses is reflected in the existing zoning in the precinct which includes:

- Residential 1 Zone in the west, covering existing residential dwellings.
- A Public Park and Recreation Zone in the western portion of the precinct.
- Schedule 3 to the Rural Living Zone in the north eastern portions.
- Business 4 Zone in the eastern portion of the precinct.
- Industrial 1 Zone in the south east.
- Schedule 1 to the farming zone in the north east.

A summary of the relevant state and local planning policy is provided in Appendix 2

The precinct is made up of a fragmented landownership pattern, with several large parcels in the northern section of the precinct and smaller parcels along Great Alpine Rd and Prince Highway.

FIG 3g ZONING PLAN

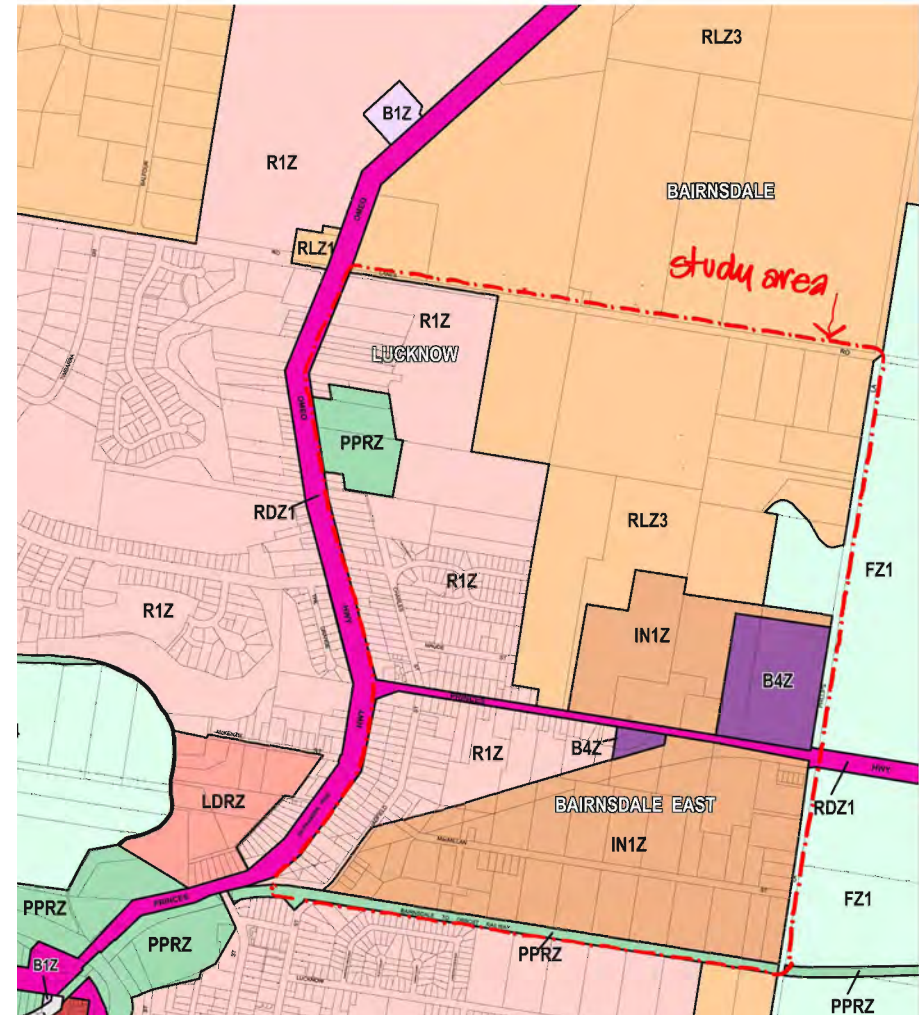
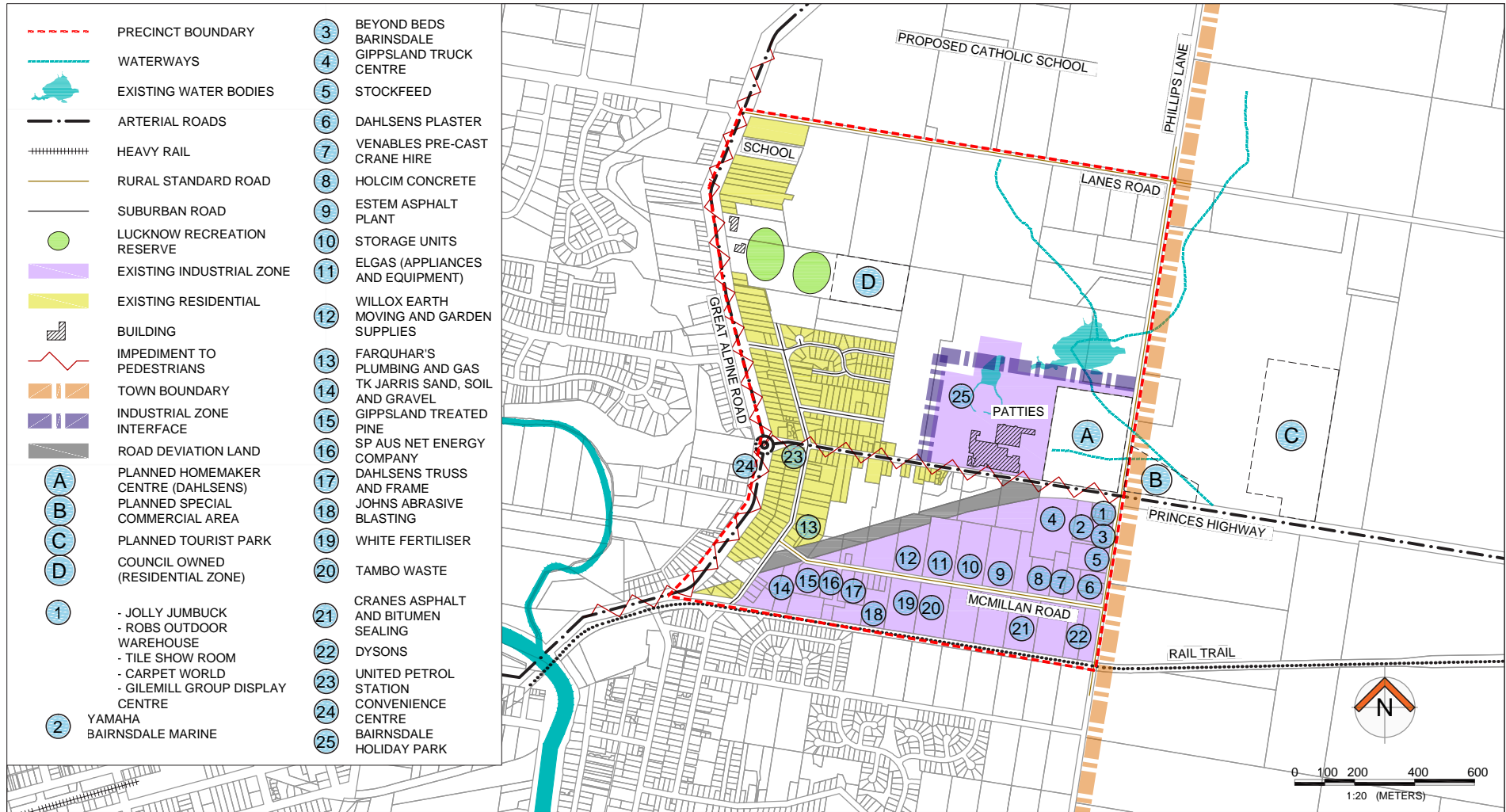


FIG 3h EXISTING CONDITIONS PLAN



### **3.2.2 EXISTING LAND USE**

The East Bairnsdale employment precinct includes land north and south of the Princes Hwy within the precinct area. Land to the north is occupied by Patties Manufacturing Facility, a major employer in Bairnsdale, which has approval for future expansion.

Land adjacent to Patties is zoned Commercial 2 (shown on Business 4 on the Planning Scheme Maps) and is owned by Dahlsens. The land is currently vacant but has approval for trade supplies incorporating a timber yard (approximately 3,200 sqm), restricted retail premises (approximately 15,200 square meters) and industry (approximately 4,400 square meters). The site is proposed to be accessed via Princes Highway and Phillips Lane.

Other industrial/commercial uses within the precinct are located south of Princes Highway and include a number of service industries and restricted retail premises along Princes Highway and industrial uses along McMillan Street. These include a Bitumen plant, a sand and soil company, hardware supplier, Dysons Bus Company and a fertiliser company. (Refer to Fig 3h).

Existing dwellings within the Precinct are located along the Great Alpine Road and in a more recent subdivision (Callistemon Court, Banksia Court and Clematis Court) which is accessed via Princes Hwy. This subdivision has been designed so as to enable some integration with future development in the precinct, namely through the provision of road stubs (rather than cul-de-sac) which allows some connection to the precinct. There is also housing along the south side of the Princes Highway which gain access via separate crossovers. These houses sit opposite the Patties Facility and adjoining the commercial uses on Princes Highway.

The Bairnsdale Holiday Park is located at 139 Princes Hwy, within the Patties landholding. However the long term vision for this area is for it to accommodate the expansion of Patties facility.

Rural living properties are located across the precinct but predominately along Phillips Lane and Lanes Road.

A Baptist Church is located on Princes Highway within the Precinct area. It is located on a large block with the building located centrally within the block and parking provide on the western side of the church. The church gains access via two crossovers on the Princes Highway.

The Lucknow Recreation Reserve is located within the precinct and is access via a service road from Great Alpine Road. It contains two ovals (not AFL size), a club house and indoor squash centre with associated parking. The remainder of the land owned by Council is area leased for a dog training facility. Tennis courts adjoin the club rooms. An existing independent school is located in the north western corner of the precinct.



### **3.2.3 PRECINCT INTERFACES**

The site is located on the eastern edge of the township and the identified town boundary. It contains both developed residential subdivision and farming land. It also sits in a changing context with land to the north of Lanes Road identified in the Growth Strategy for future residential development.

Land adjoining the precinct to the north is currently zoned Rural Living Zone, but has been identified within the Growth Strategy as an area for future residential development.

The precinct is bound by the rail trail to the south which extends from Bairnsdale town centre to Orbost. Land south of the rail trail is predominately residential and contains a number of large vacant blocks. This land is identified for significant residential infill within the Growth Strategy.

Phillips Lane bounds the precinct to the east. Land east of Phillips Lane (outside of Structure Plan area) is proposed (via a site specific amendment) for a Tourist Park and a commercial area on the corner of Princes Highway and Phillips Lane. The proposed Tourist Park includes a combination of mobile home sites, multi-use powered sites, tourist cabins and camping sites, with access from Phillips Lane and Princes Highway.

The Great Alpine Road bounds the precinct to the west and operates with a single carriageway catering for two-way traffic and has a two-way service road on its eastern side providing access to abutting residential properties.

Within the precinct itself, the interface between the existing industrial/commercial areas and the existing rural living areas must be considered. The transition of land form rural living to conventional residential must consider this interface to ensure that existing businesses can continue to operate at their capacity without compromise. These interface treatments could include land buffers, open space/landscaping and the location of other compatible uses.

### 3.2.4 ENVIRONMENTAL FEATURES

The precinct is located on low lying land and is generally flat. A fairly narrow waterway channel runs diagonally north western parts of the precinct. This is a designated waterway as defined by the East Gippsland Catchment Management Authority and it carries water that will eventually reach the Gippsland Lakes which are Ramsar Wetlands and as such are internationally significant. A wetland exists just west of Phillips Lane which is contained within a Farming Zone. The wetland is large and ephemeral and contains a number of large trees. These trees were in poor health when inspected on site visits and some trees were senescing, probably due to altered hydrology within the study area.

The East Bairnsdale/Lucknow Precinct falls within the Gippsland Plain bioregion of Victoria (DSE 2012a). DSE has identified that the study area is likely to have comprised two EVCs (Ecological Vegetation Class) prior to European settlement:

- EVC 55: Plains Grassy Woodland would have covered the majority of the study area; and
- EVC 259: Plains Grassy Woodland/Gilgai Wetland Mosaic2 along the eastern boundary of the study area.

A preliminary flora and fauna assessment of the precinct was completed by Ecolink in November 2012. This assessment completed a desktop review of existing flora and fauna databases, and a field assessment of the precinct comprising visual assessment of properties from the roadside. The purpose of this assessment was to determine what the native vegetation and/or threatened species habitat might exist within the precinct, and whether it might warrant retention as part of the future urban development within the precinct.

The site assessment confirmed that the study area is generally highly degraded, and that agricultural land practices such as grazing and cropping occur within the majority of the study area. Such activities extend into the majority of the drainage lines, dams and waterways. As such, only small and isolated stands of trees occur within the study area. Samples of Gippsland Red Gum Eucalyptus (*Eucalyptus tereticornis* subsp. *mediana*) were collected, and it appeared other trees observed were the same species.

No patches of remnant native vegetation were identified as being of such significance as to warrant retention in the precinct structure plan. However, the plan does provide for the retention of the existing waterbodies and associated vegetation within the proposed drainage reserve, and opportunities also exist to retain existing native vegetation along the drainage corridor.

Note however that no targeted threatened species surveys have been undertaken in the precinct to date. The two large dams within the precinct may provide habitat for frogs, which may include threatened species: Green and Golden Bell Frog, Growling Grass Frog, Martin's Toadlet and Tyler's Toadlet. It is unlikely that any other threatened fauna species rely on the precinct for habitat. However further investigations into threatened species may need to be undertaken at subdivision and development stage. Any proposal to clear native vegetation within the precinct will need to satisfy the requirements of clause 52.17 of the East Gippsland Planning Scheme.



FIG 3i ENVIRONMENTAL FEATURES PLAN



### **3.2.5 TRANSPORT NETWORKS**

The precinct is located in the eastern side of the township and it is physically separated from the Bairnsdale CBD by the Princes Highway and the Great Alpine Road. The following roads are within or adjoining the precinct:

- The Princes Highway is a two lane, Declared Main Road (A1) running east-west through the precinct with a speed limit of 80 kilometre per hour and reducing to 60 kilometre per hour approaching Bairnsdale.
- The Great Alpine Road is a Declared Main Road, with a single carriageway catering for two-way traffic flow and has two-way service road on its eastern side providing access to the residential properties. The Great Alpine Road extends northeast from Princes Highway and has a speed limit of 60 kilometre per hour within the precinct.
- Phillips Lane is a rural standard road, providing an alternative north south connection to Great Alpine Road for the precinct, which would allow vehicles to bypass the precinct town centre.
- McMillan Street runs east to south through the industrial area and Lanes Road bounds the precinct to the north. Both roads are rural standard roads.

A controlled intersection has been proposed at the intersection of Princes Highway and Phillips Lane to support a proposed development east of Phillips Lane. This intersection was has been designed as a roundabout but the treatment is ultimately the decision of Vicroads noting that Princes Hwy is a declared road.

Land has been set aside for a deviation of the Princes Highway by Vicroads for many years. This runs diagonally through the industrial/residential area south of the Princes Highway and is approximately 47m wide. The land is owned by Vicroads but there are no immediate plans to construct the deviation.

East Bairnsdale is historically auto dependant, being serviced by limited public transport. The south western portion of the precinct is serviced by the bus route 2, providing service between Bairnsdale and East Bairnsdale via Lucknow with 4- 5 services per day. The pedestrian connections between the precinct and adjacent are including the CBD are also limited, with no footpaths along the Princes Highway.

The existing rail trail along the southern boundary of the site is part of the East Gippsland Rail Trail connecting Bairnsdale to Orbost. Access to the rail trail is limited to the Princes Highway intersection and the Phillips Lane intersection. There is also an additional off-road bike path along the western side of the Great Alpine Road.

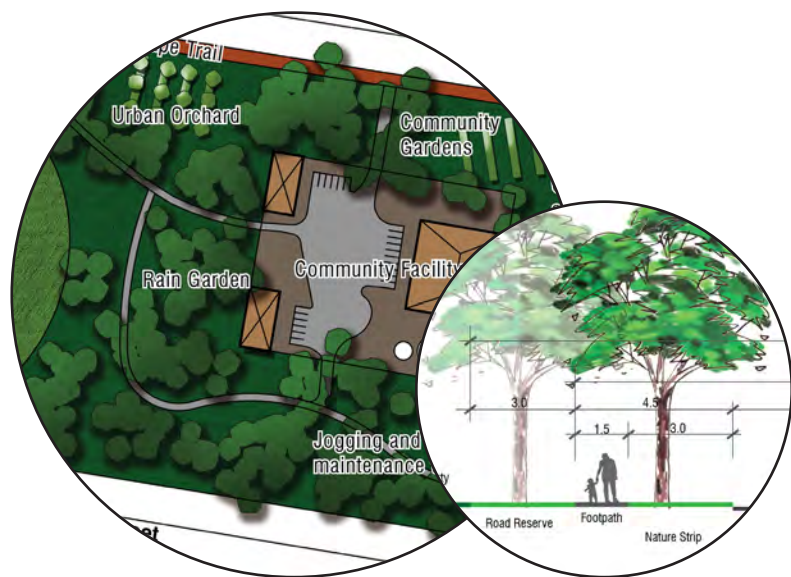
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## 4 PRECINCT VISION AND OPPORTUNITIES

### 4.1 VISION

The Project Team established a vision for the East Bairnsdale/Lucknow precinct, early in the process to define key priorities and how the precinct could develop over time. The Precinct Structure Plan creates a framework for staged development to ensure that developments meet the overall objectives of the precinct. This will involve identifying major infrastructure requirements and opportunities for recreation/community improvements as well as identifying urban design treatments to address the interfaces between employment and residential areas.



The following vision was established for the precinct:

*The East Bairnsdale/Lucknow area will grow over time as vibrant new residential neighbourhood, as well as an important industrial and employment node for Bairnsdale and the wider region. It will have a high standard of local amenity, with quality landscape and design treatments along the Princes Highway and Great Alpine Road, and the interface between residents and businesses will be managed sensitively.*

*The residential precinct will build on and enhance the established character and identity of Lucknow and will provide housing diversity to cater for young adults, families and seniors to allow people to be accommodated through their life cycle. It will have an attractive natural setting, based on retained patches of native vegetation, new wetlands and landscaped recreational links. Residents will enjoy an outlook to well landscaped open spaces and trails, as well as rural vistas to the east. Residences will be well connected to a hub of recreational and community facilities in the western section of the Precinct, as well as to facilities west of the Great Alpine Road and the rail trail to the south.*

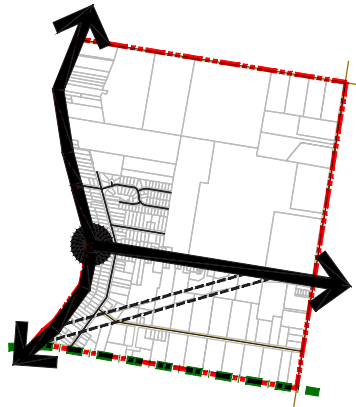
*The business precinct will be an attractive gateway for the town, and will comprise businesses which compliment business activities located within the Bairnsdale CBD. Infrastructure, access and amenity within the employment precinct will be enhanced so that it becomes a sought-after location for a range of business types, not just traditional industrial activities. The Patties Foods operation will continue to grow its operations within the precinct, and activities around it will be complimentary to its operations. Over time, the precinct will become a location which is attractive for businesses that generate more intensive employment levels than typical industrial activities, such as bulky goods retailing, advanced manufacturing and other commercial activities.*

### 4.1.1 ORGANISING ELEMENTS

The key organising elements which have influenced the planning of the precinct are:

#### Transport Connections

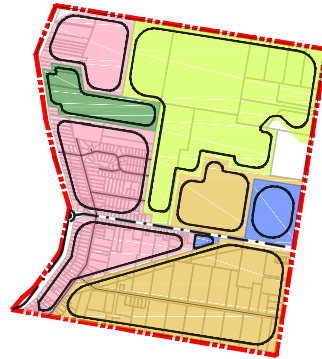
Site bound by arterial road (Great Alpine Road) to the east and separated by the Princes Highway.



- ARTERIAL ROADS
- RAIL TRAIL
- PROPOSED REALIGNMENT

#### Existing Land Uses and Businesses

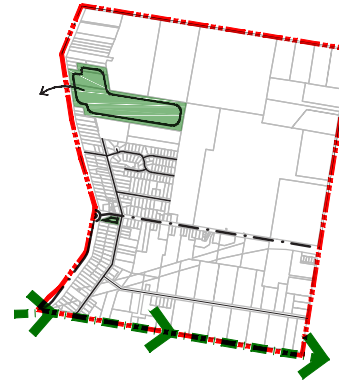
A Mix of existing residential and employment uses exist in the precinct.



- IN1Z
- R1Z
- RLZ3
- B4Z

#### Recreation/Community Facilities

Existing facilities such as Lucknow Recreation reserve to be incorporated into plan.



- PPRZ/COUNCIL OWNED
- RAIL TRAIL

#### Natural Constraints

Existing natural features and requirements for improved water treatment.



- TREES
- WATERWAYS
- VEGETATION
- WATER BODIES

## 4.2 ISSUES AND OPPORTUNITIES

The precinct presents a number of opportunities to improve the local environment, provide diversity in employment and housing and improved integration and access to central Bairnsdale and adjoining areas. The key issues and opportunities for the precinct are outlined below and on the following pages in a series of themes.

FIG 4a ISSUES PLAN

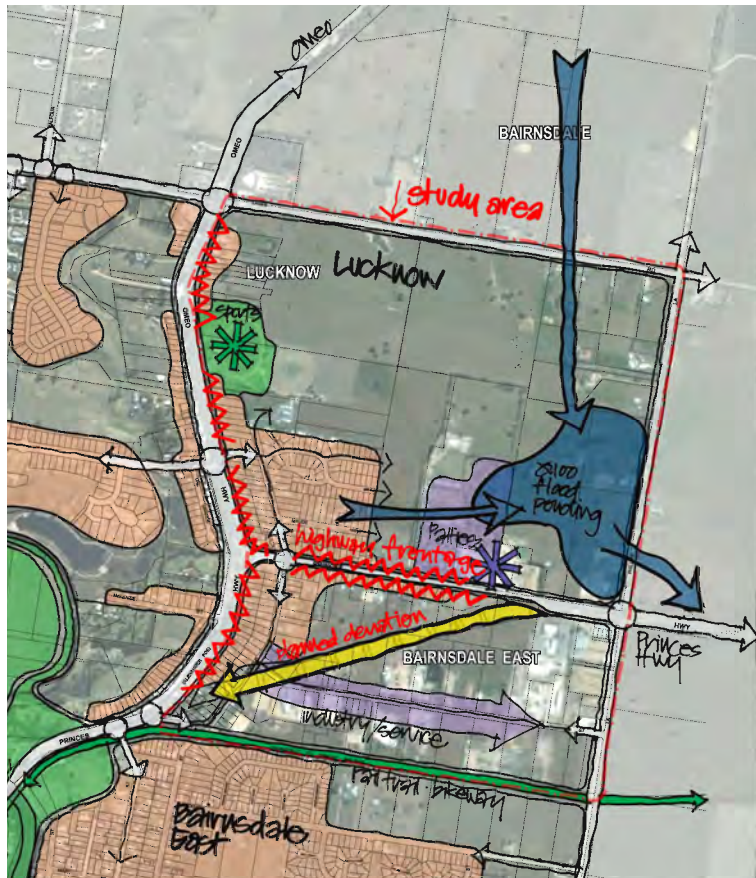
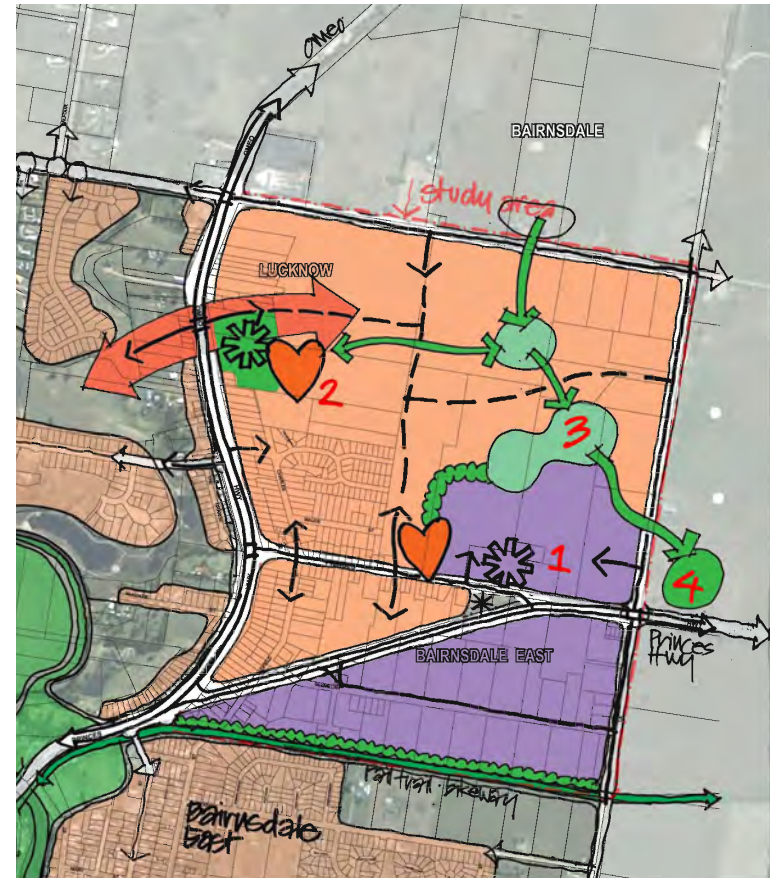


FIG 4b OPPORTUNITIES PLAN





### 4.3.1 AMENITY AND CHARACTER

#### Issues:

##### RESIDENTIAL

- Existing dwellings along Great Alpine Road turn their back on the precinct with back fences and cul-de-sac forms. This limits integration and vehicle/pedestrian connections into the precinct from the west.
- The industrial interface with the future residential land to the north may be unattractive and will need to be treated by way of buffers and landscaping.
- There is no vehicle or dedicated pedestrian connection from the residential precinct to the north and south of Princes Hwy.

##### INDUSTRIAL/EMPLOYMENT

- There is no consistent street setback along Princes Hwy or McMillan Street which makes it difficult to provide a consistent landscaped frontage.
- Industrial buildings back onto the rail trail with no landscaped edge. The rear of these sites commonly contain storage, waste and parking areas with little built form or passive surveillance of the rail trail.
- Parking and access is not shared along Princes Highway with individual access points and parking. Limiting ability for large landscaped areas.
- Built form is of low design quality.

#### Opportunities:

##### RESIDENTIAL

- The precinct has access to significant existing open space (two ovals, club house and squash centre). There is an opportunity to integrate new development with the existing recreation node and augment with new facilities if there is demand.
- The precinct includes native vegetation features such as wetlands and trees as which be connected via green links and function as part of the open space network.
- The Lucknow area has a strong community identity which the precinct and future developments can build on.
- There are a number of existing properties along the GAR which are candidates for renewal. This provides the opportunity to investigate new land uses and the potential for a road/pedestrian link from the west into the precinct.

##### INDUSTRIAL/EMPLOYMENT

- New businesses and light industry uses within the precinct will enable improvement to streetscape over time.
- There is the opportunity to apply precinct wide landscape and urban design principles.
- Given the siting of most of the buildings towards street frontages, opportunities exist to provide landscaped edges along rear of blocks to interfaces with rail trail can be explored. Delivery of this through programs should be explored.

### 4.2.3 ACCESS AND CONNECTIVITY

#### Issues:

- Princes Highway is a significant barrier to pedestrian movement given its existing traffic volumes and limited pedestrian connection points and no footpaths along the Hwy.
- Poor vehicle connectivity exists between the industrial land north and south of Princes Hwy.
- Numerous and direct access to houses and business along the Princes Hwy creates safety issues.
- Increased traffic volumes (in AM peak) and poor capacity of Great Alpine Road (GAR) /Princes Hwy intersection results in traffic congestion and commuters 'rat running' through local streets to access GAR.
- Uncertainty regarding the need for the Princes Hwy deviation or the timing as to when a decision may be made on the requirement for it.
- Court bowls along the Great Alpine Road limit linkages east to west to with the structure plan area.
- No dedicated pedestrian access across Great Alpine Road.

#### Opportunities:

- Utilise the Princes Hwy deviation reserve as a short term/interim access to provide an alternative to the intersection of GAR. Investigate with Vicroads.
- Investigate ability for mid-block access to the rail trail to improve its tourism and local movement functions.
- Rationalise vehicle access to the Princes Hwy through the delivery of improved road network and access within the new development sites.
- Provide for an east-west connection through the Lucknow precinct to the GAR for vehicles and pedestrians.
- Provide for a pedestrian connection across the GAR to improve access to the existing recreation node and connection to walking trails to the west.
- Provide a direct and efficient road network which caters for bus services and provides east-west pedestrian connections from Phillips Lane through to GAR and north south from Princes Highway to Lanes Road. Pedestrian connections can include on and off road paths.

#### 4.2.4 LAND USE

##### Issues:

###### RESIDENTIAL

- Multiple development fronts within Bairnsdale will place pressure on timing of delivering essential services and Council Community infrastructure.
- Limited opportunities to provide a local activity centre within the study area, given the pattern of existing and approved centre across the township.

###### INDUSTRIAL/EMPLOYMENT

- The existing industrial precinct south of the Princes Highway consists of relatively low employment generating uses. The Structure Plan can nominate new employment activities within the industrial area but challenges arise in implementing this employment vision, depending on market conditions.
- Land parcels are generally small, limiting types of industrial/employment uses suitable for the precinct.
- The mix of residential with varying industrial uses creates potential conflicts and issues such as odour, noise and air quality. These land use conflicts restrict the range of industries which can locate in this precinct.
- Demand is limited for additional small scale industrial uses in Bairnsdale to fill the current stock of industrial zoned land.
- Heavy industries are expected to transition out of the precinct to accommodate more light industrial uses over time, but limited locations are available elsewhere in Bairnsdale for heavy industry.
- Limited services such as gas, sewer, water and power currently available for existing industrial precinct and no drainage systems in place, which affects existing operations and new business establishment.

##### Opportunities:

- The land nominated for residential is attractive for development given it has access to major roads, existing recreation facilities, is largely flat and devoid of significant topographical or environmental constraints.
- Vacant parcels within the industrial precinct provide opportunities for immediate development of new businesses.
- Some consolidation of titles enables larger businesses to more easily establish.
- Most vacant industrial sites have access from McMillan Street, reducing reliance on Princes Hwy for direct access. The development of the roundabout on Phillips Lane and Princes Hwy (as proposed) will improve access into the precinct.
- The industrial area is anchored by Patties which as a major employer in Bairnsdale may provide opportunities for ancillary business to locate in this precinct.

#### 4.2.5 ENVIRONMENT, OPEN SPACE & SUSTAINABILITY

##### Issues:

- Land is low lying and will require retarding basins to accommodate stormwater flows within the Precinct and limit impacts on the Princes Highway and downstream properties.
- Cultural Heritage values have not been assessed as part of structure planning process and therefore the plan cannot identify or respond to any cultural heritage elements. This will need to be dealt with at planning application stage.
- There are number of scattered trees within the precinct which may need to be retained and the road alignments and land uses will need to respond to this.

##### Opportunities:

- Drainage basins/wetlands can be utilised as part of the open space network and connected via a green link. The retarding basins will become Council assets and as such there is greater flexibility in how they are delivered and their dual role for drainage and open space.
- A series of new passive open spaces can be provided within the precinct for local use and these can be linked with existing active recreation facilities.
- The location of the drainage basin for the Patties site creates a natural buffer between industrial and residential uses and provides opportunity for landscaped edge to the Patties site.
- Opportunity exist to investigate whether the employment area could become an energy hub for cogeneration.
- Potential to create a sustainable residential neighborhood with walkability, passive solar design and reuse of water as its features.

#### 4.2.7 INFRASTRUCTURE & STAGING

##### Issues:

- Essential services such as sewer, gas and power has been delivered in the precinct on an 'as needed' basis, depending on the requirements of individual sites and developments.
- East Gippsland Water has not undertaken service planning for this area as part of their current water plan and as such needs, timing and funding for services to this area are unknown. Service provision and costs to developments will impact the viability of this land for development and therefore how quickly it is likely to be developed.
- Most existing industrial businesses south of the highway are not sewered. Taking account of the land value of industrial sites, service provision and 'bring forward' costs for landowners may impact development timing.
- There are a number of development fronts within municipality and the release of this land may result in competition for service and local infrastructure provision.
- Staging of the development of residential area will depend on service delivery and access to existing roads. The structure plan will need to make some assumptions about the likely staging of the area based on direct access to roads, land ownership patterns and size and ability to bring services to the site independent of surrounding land.

##### Opportunities:

- Structure planning provides the opportunity to look at planning and delivery of services at a precinct level rather than site by site basis which creates efficiencies in its provision.
- A Precinct wide approach to service provision will enable funding mechanisms to be explored including; Development Contribution Plans for drainage, shared infrastructure funding for essential services and 'bring forward costs' for developers.
- Structure Planning of the area will identify areas which are more readily developed. Equally, the plan can provide principles in which to assess planning applications and their staging particularly in terms of access, services and local infrastructure delivery.

## 5 THE PRECINCT STRUCTURE PLAN

The previous chapter established the vision for the precinct and outlined the key issues and opportunities for the plan to address. This chapter sets out the objectives and planning guidelines and requirements for the following elements:

- Amenity and Character
- Housing
- Employment and Activity Areas
- Access and Connectivity
- Community and Recreation Facilities
- Environment, Open Space & Sustainability
- Infrastructure and Staging

These are the key elements which drive the achievement of the vision established in Section 4. Each element includes a summary of its role in the achievement of the vision and includes:

**Objectives** which describe the desired outcome to be achieved by future development. All objectives must be met.

**Design** Requirements which must be met by future development.

**Planning** Guidelines which outline how the objectives should be achieved.

**Plans** which provide a spatial representation of how the objectives are best met.

All future planning permit applications must provide an assessment of how the development meets the objectives and requirements and responds to the planning guidelines and plans in this Structure Plan Report. It is expected that the planning guidelines in this report would be met unless the Responsible Authority is satisfied that an alternative design or plan meets the objective. In this case, an alternative can be considered by the Responsible Authority.

FIG 5a PRECINCT STRUCTURE PLAN



## 5.1 AMENITY AND CHARACTER

The precinct has the benefit of reasonable proximity to the Eastwood and Bairnsdale town centre and has direct access to a large recreation area and opportunities for connected green spaces. The precinct can provide additional housing choice and diversity within East Bairnsdale with housing that interfaces with recreation areas, waterways and a rural outlook to the east. Development of the precinct as envisaged in this Structure Plan will improve the entrance into the town through improved access arrangements, new built form and open space/landscape treatments.

Growth in residential development is partly due to the unique characteristics and attributes of individual towns and their surrounds which contribute to the liveability of a town. As such the East Bairnsdale/Lucknow precinct must contribute to the overall amenity of Bairnsdale and also develop its own neighbourhood character.

### Objectives

- Utilise existing native vegetation (including wetlands and trees) as features to create natural amenity, where possible.
- Utilise drainage lines and retarding basins as part of the open space network, to create passive parks and green links.
- Improve the interface to and use of the Lucknow recreation reserve by improving connection to the recreation node and creating facilities to be provided on Council land.
- Improve presentation of buildings and streetscapes along Great Alpine Road and Princes Highway.
- Establish a street network that provides for the safe and efficient operation of buses and support the early provision of bus services, walking and cycling links through the logical sequencing of development.



## Requirements

- A road must front the designated waterway, passive open space areas and the Lucknow recreation reserve to ensure houses front these areas. Back fences must not address these public spaces.
- Housing is to front or otherwise address the arterial road network to the satisfaction of the Responsible Authority. Fences must not front arterial roads.
- Side fences forward of the building line must not be more than 1.2m in height.
- Street trees must be provided on both sides of connector streets in accordance the cross-sections in this PSP.
- Indigenous tree species must be used where a street adjoins the waterway.
- Land shown as 'commercial' adjoining the Patties site to the west must not be developed for residential purposes as it is in 100 metres buffer of the existing and future expanded industrial use. This ensures that the amenity of future residential dwellings will be of a high standard and the existing food manufacturing operations can continue without compromise.

## Guidelines

- Dwelling design should add to precinct character by providing an attractive street address which provides passive surveillance of public areas.
- The siting and design of built form should provide a sensitive interface along the waterway and adjacent to the wetlands. This can be achieved through architectural treatments such as muted colour tones, low scale front fencing and indigenous landscaping within the front setback.
- Front fences, particularly abutting open space areas and the drainage corridor should generally be low (no greater than 1.2m in height) and party transparent.
- Street trees should form continuous canopy, frame view corridors and provide shade to streetscape and public areas.
- Landscape adjoining Princes Highway as part of new development proposals should contribute to its role as a 'gateway' to the town.

## 5.2 ACCESS AND CONNECTIVITY

The Structure Plan aims to create a neighbourhood that provides an attractive, safe and continuous network of pedestrian and cycle routes which connect to the local destinations including the Lucknow recreation reserve, future community facility and local convenience centre as well as improving access to areas outside of the precinct.

The internal road connections have been sited to ensure that a conventional grid of lots can be readily developed in each part of the precinct. The network also provides flexibility for the staged development of different properties, so that any given lot can obtain access to the external road network. In particular the road network responds to the low density residential area in the north-east of the precinct ensuring that if the rural residential lots in the north-east corner are retained in-situ, it does not impact on the development of the remaining areas.

The street network comprises:

*North South Connector Street* – This is the key north south link through the precinct which will connect the Princes Highway and Lanes Road to the north. Its alignment:

- Is central to the precinct and allows for connection to the north for future development. It has been located so as to enable connection with a future private school to the north of Lanes Road
- Allows for the continuation of Clematis and Callistemon courts to connect into the road network.
- Provides access into the future Convenience Centre at the Princes Highway.
- Provides opportunity for improved access into the Patties site through the establishment of a formal entrance (crossing outside of Patties title).
- Provides an appropriate depth (where the development area is narrow, near Patties) to allow for a row of lots in the west fronting either the connector street or the extension of Clematis and Callistemon courts. To the east the road alignment allows for commercial lots fronting the connector street.

- Provides a street edge and frontage for the active recreation/community hub. The connector street will accommodate traffic volumes to service the hub and can provide on street parking.
- Provides a central spine to accommodate bus services through the precinct (25m cross section). This could be either directly from Princes Highway or a connection from Clematis and Callistemon courts where the bus currently services.

*East-West Local Access Street* - Connects Phillips lane through to the Great Alpine Road. It has been sited to provide flexibility for its staged delivery, depending on the timing of development. It follows the open Lucknow reserve boundary along its western length, and is sited a 'block depth' off the larger 'north-south' lot boundaries and the title boundary of the lots adjoining the existing wetlands.

Land is set aside by Vicroads for a future deviation of the Princes Highway which cuts diagonally through the residential and industrial area south of the Highway. The land set aside for the deviation is 47m wide, with 35m required for the deviation road cross section (indicative only). This has allowed part of the local access street in the north to be located within the 47m of deviation land set aside. This is shown in the cross-section at Figure 5c.

If the deviation is not ultimately required, further consideration of the long term use of the land within the reservation will be required.

A number of principal walking/cycling connections are created as follows:

- Along the northern edge of the recreation area, this connects to the west via a pedestrian link across the Great Alpine Road to the existing trails within the Eastwood estate and along the Nicholson River.
- Along the diagonal waterway and drainage reserve connecting to Lanes Road.
- A circular route track around the large wetland which will connect through the passive park and along a trail to the recreation area.

The plan creates off road east-west connections through the precinct and to the recreation area by connecting open spaces and establishing a trail network.

## Objectives

- Improve connectivity by providing vehicle access options for the residential area and improve the pedestrian environment along Princes Highway.
- Create a street network that integrates with existing neighbourhoods, businesses and recreation facilities.
- Create a street network that can manage short- long term changes dependent on the long Princes Highway alignment.
- Create a street network which provides flexibility for the staging of development over time.
- Rationalise vehicle access into Princes Highway to improve safety.
- Provide a neighbourhood design which features off road pedestrian and cycle path networks to support healthier lifestyles and more sustainable travel methods. These links will connect with the Principal Public Transport Network and recreation areas.
- Provide a variety of landscape character themes across the Precinct with land scaping to be complementary with natural areas along the waterway and hardscape areas as part of the commercial areas.

## Requirements

- Street layouts of individual subdivisions must integrate to ensure that a coherent movement network can be established across the precinct and ensure equal access to open space and facilities is provided.
- Staging of subdivisions must provide for timely connection of road links between properties and to the connector and arterial road network as well as the off-road pedestrian and bicycle network, to the satisfaction of the Responsible Authority.

- In each development stage roads must be constructed to property boundaries where inter-parcel connections are indicated in the structure plan.
- Conversion of the low density area in the north- west corner of the precinct to conventional residential densities. However it must be designed so that it can connect to the adjoining residential area.
- Pedestrian paths must be provided on both sides of the connector in accordance with the cross-section in this PSP.
- Bicycle parking facilities are to be provided by development proponents in convenient locations such as local parks.

## Guidelines

- Street blocks should not exceed 200 metres in length. Intervals between blocks may take the form of either a trafficable street or pedestrian trail.
- Use of cul-de-sacs should not detract from convenient pedestrian and vehicular connections and must ensure that they do not conflict with the requirements above regarding street layout.
- Road and stress cross sections should be consistent with the cross sections within the PSP. An alternative to cross sections for roads may be considered by the Responsible Authority subject to the design satisfying the relevant requirements in the PSP.
- Cycle connections should be designed to allow for the safe and convenient transition between on-road and off-road networks.

FIG 5b ROAD NETWORK PLAN



FIG 5c DEVIATION WITH SERVICE ROAD (35m & 47m)

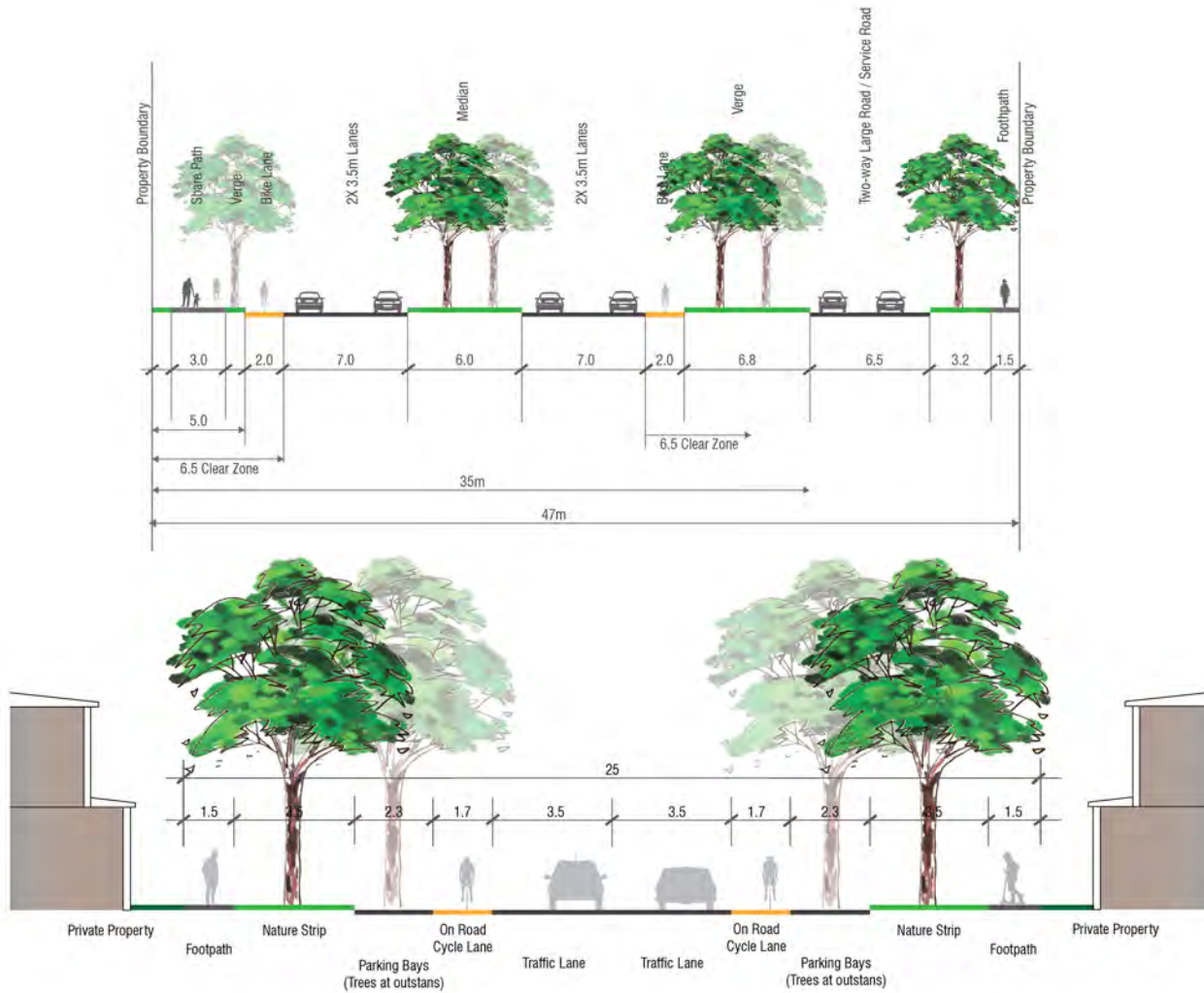


FIG 5d CONNECTOR STREET (25m)

FIG 5e LOCAL STREET (16m WITH 5m LANDSCAPE TRAIL, 21m TOTAL)

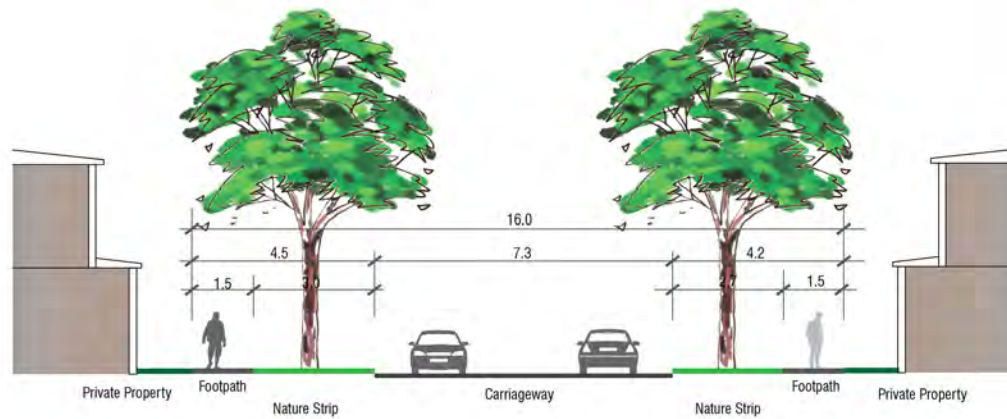
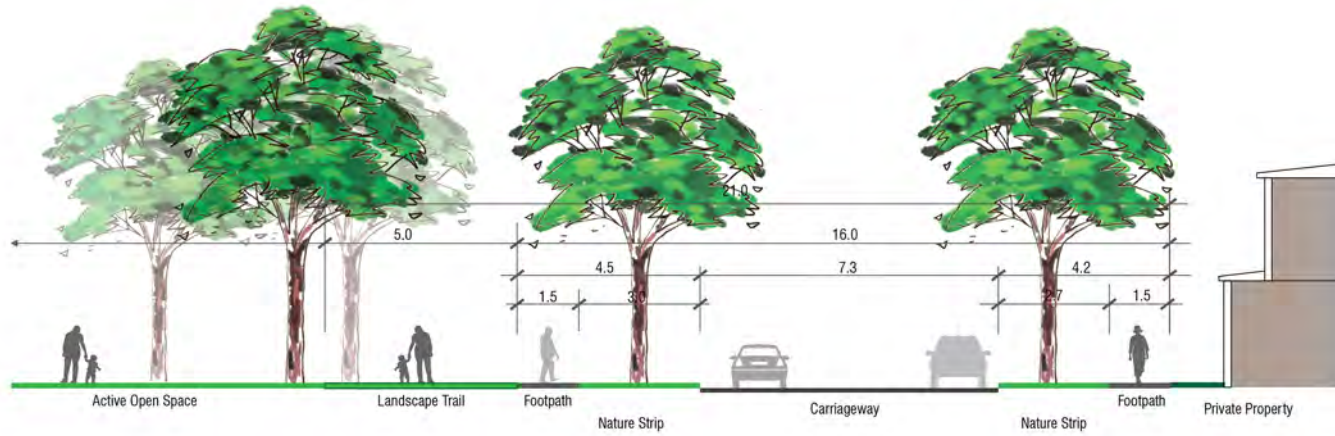
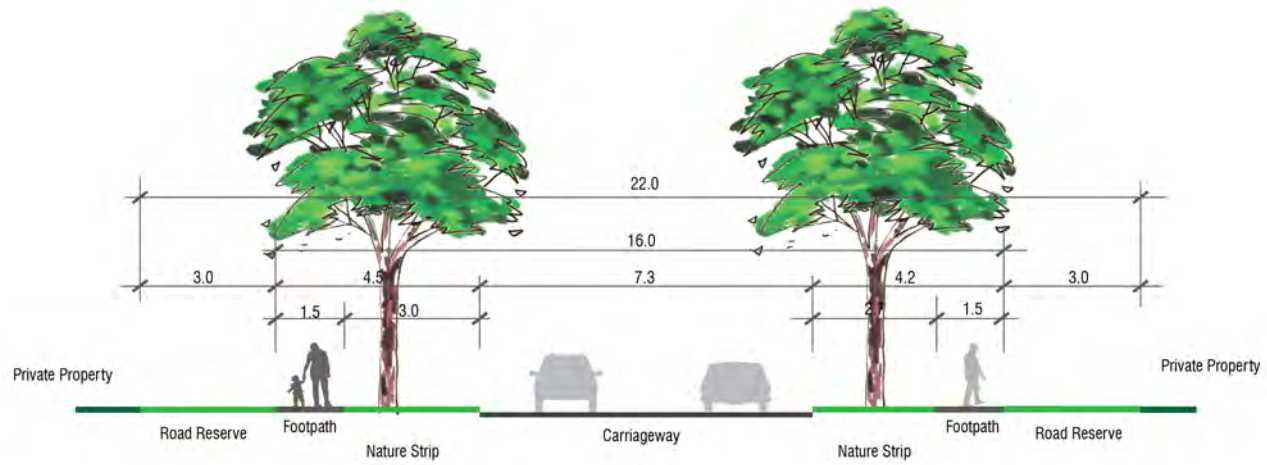


FIG 5f LOCAL ACCESS STREET (16m)

FIG 5g LOCAL STREET (22M INDUSTRIAL)



## 5.3 HOUSING

The residential layout has sought to maximise access to high amenity areas, including the waterway, recreation/community hub and the created wetlands. The design also seeks to support the establishment of a sustainable, vibrant and healthy new community.

New developments within Bairnsdale should contribute to wider objectives in relation to housing choice and diversity. The average lot size in newly constructed development in within the Bairnsdale township is 900sqm, which equates to approximately 10 dwellings per net hectare. The single storey, detached housing is the most common housing type found in Bairnsdale and will continue to be an important part of the housing market for Bairnsdale. Notwithstanding, there is opportunity for smaller lots and housing types such as townhouses, villas, town cottages and units to cater for a changing demographic within the city.

This projected dwelling for the precinct is 650 dwellings which is based on the minimum density targets set out below. However, should the precinct accommodate a higher density (ie: above 10 dwellings per net developable hectare), this figure could be higher. This could be achieved via an increase in density for areas identified for 'conventional residential' and by allowing the area identified for low density area to be developed for conventional density in the future. A density target is provided for the whole precinct (which includes the low density area) and targets the individual parcels.

### Objectives

- Ensure there is sufficient land supply for residential development in Bairnsdale and with different character and lot types.
- Offer choice in housing types to suit different household needs.
- Encourage housing renewal opportunities along Great Alpine Road.
- Ensure future development is compatible with existing manufacturing and industrial businesses such as Patties as well as existing and future residential areas.

### Requirements

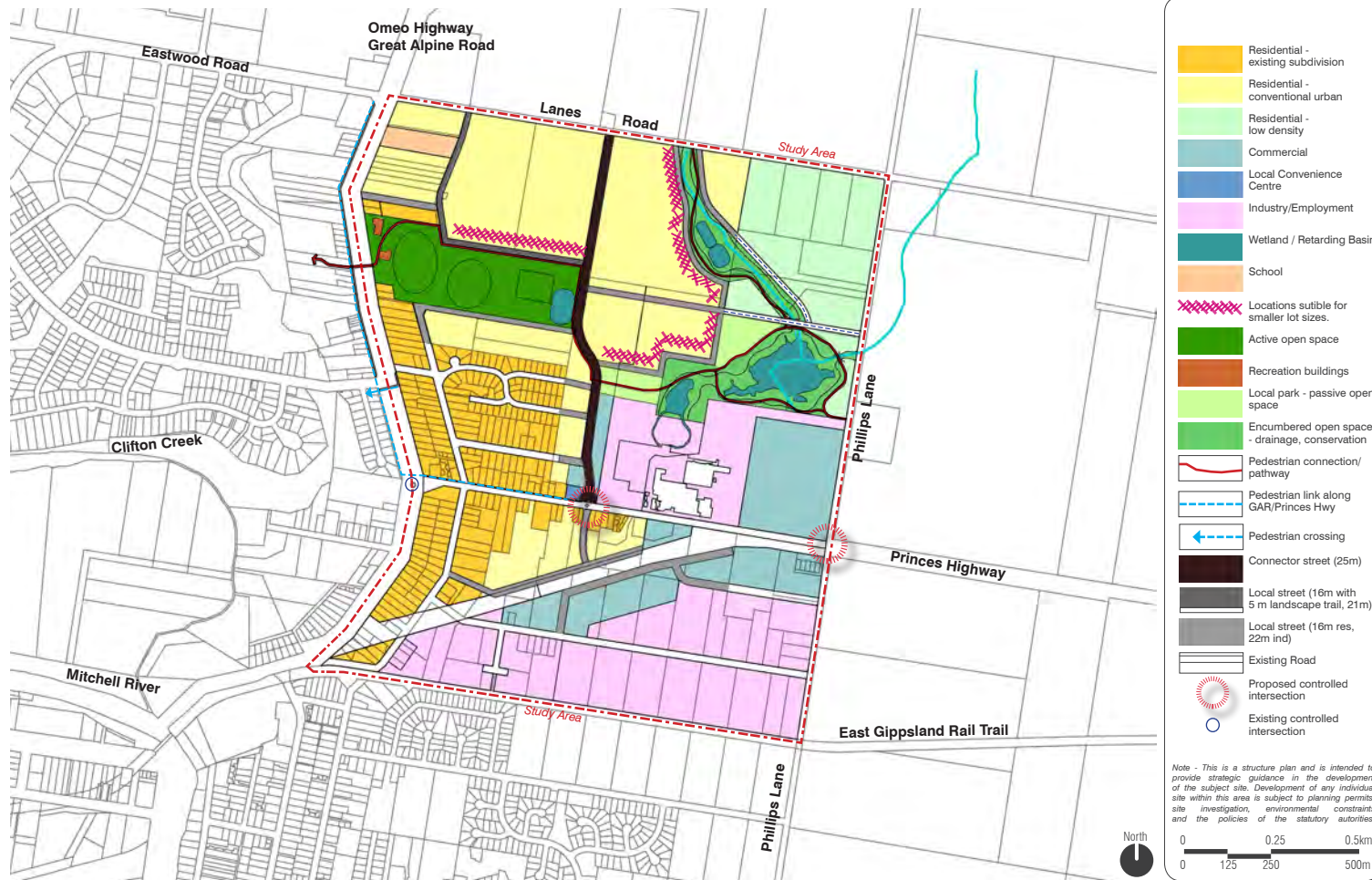
- Land shown as commercial adjoining the Patties site to the west must not be developed for residential purposes as it is in 100 metres buffer of the existing and future industrial use. See figure 5i and 5j.
- Provide a road between the lots fronting GAR and the residential zone land fronting Lanes Road to provide access to these narrow lots and enable urban development/residential infill.
- Provide a diversity of lot sizes and housing types to satisfy the needs and aspirations of the new and evolving community.

### Guidelines

- Consider the character of existing residences be retained within future developments.
- The precinct should deliver a broad range of dwelling typologies, which may include:
  - Terrace housing
  - Attached housing
  - Semi-detached housing
  - Detached housing
- Areas shown in Figure 5x are opportunities for smaller lot sizes and should provide a mix of dwelling types as listed above. These locations are most suited for smaller lots given they have interface with open space.
- Achieve an average minimum of 8 dwellings (per net developable hectare) across the precinct. Achieve a minimum density of 10 dwellings per net developable hectare for each development parcel identified for conventional residential.



FIG 5x HOUSING PLAN



## 5.4 EMPLOYMENT AND ACTIVITY AREAS

### Employment

The East Bairnsdale employment node will complement the role of other employment nodes across the township, including the Bairnsdale CBD, the specialist community services precinct, southern industrial area, freight terminal and local neighbourhood activity centres.

Broadly, the East Bairnsdale employment node will comprise a mixture of food manufacturing, bulky goods, service and light industrial activities. The Precinct Structure Plan will facilitate the following:

- Enhancement of the public domain, so as to make the precinct an attractive and functional location for a wider range of businesses. This will include rationalisation of vehicle access to the Princes Highway, landscape plantings along the Princes Highway road reserve and service roads across the precinct, and building design guidelines to ensure a consistent standard of building presentation and amenity.
- The ongoing operation and expansion of the existing Patties food manufacturing operations.
- The construction of a major trade supplier and Homemaker centre.
- The renewal and expansion of the existing bulky goods centre on the south side of the Princes Highway
- Creation of a small (<1000 m<sup>2</sup>) convenience retail centre on the north side of the Princes Highway, to meet the daily retail needs of both workers and residents within the precinct.
- Creation of a range of light and service industry businesses within the existing industrial zoned areas south of the Princes Highway. This area will be upgraded through improved drainage and road solutions, a more attractive public domain (through landscaping)

- An attractive location for a range of potential industry sectors including food manufacturing, packaging and trade supplies.
- The upgrade of urban infrastructure within this precinct (roads, drainage, sewerage, water supply, etc.) to support new business investment.

It is expected that existing businesses with the potential to generate amenity impacts will relocate over time to either the south-west Bairnsdale industrial precinct or the proposed Bairnsdale intermodal freight terminal

### Activity Centres

As outlined in Section 3.1.3, the precinct is located proximate to the newly development Eastwood Neighborhood Activity Centre and the future Local Centre at Brookfield. Both of these centres will include anchor tenants (supermarkets) and will meet much of the existing and future demand for retail within the locality. The East Bairnsdale/Lucknow precinct is included within the identified trade catchment for the Brookfield Local Town Centre and as such there is limited demand for neighbourhood scale retail within the East Bairnsdale/Lucknow precinct.

A small convenience centre (up to 1000m<sup>2</sup>) is proposed within the precinct to provide for daily needs of the local community as well as the workers in the precinct and could include a general store/convenience shop and take away premises/café. It will also be sited to take advantage of passing trade along Princes Hwy and has relationship with commercial uses on the eastern side of the connector road.

The location of the convenience centre is consistent with the Bairnsdale Growth Strategy which identified that the opportunity for a local convenience centre should be investigated for this area to support the employment precinct and future commercial tenancies.

## Objectives

- Encourage industries with potential to generate amenity impacts to relocate to alternative industrial precincts. Promote the Precinct as the preferred location for more intense employment forms which take advantage of the exposure and access to Princes Highway and GAR.
- Create an industrial/commercial precinct which accommodates a mixture of non-sensitive land uses that provide employment opportunities supporting the precinct and Bairnsdale Township.
- Ensure that the types of commercial activity in the precinct contribute to the economic vitality of the town and region, and are complimentary to the Bairnsdale City Centre.
- Protect existing businesses from encroachment from residential development. This includes locating non-sensitive uses along the edges of the existing businesses
- Protect Patties as a major employer for Bairnsdale and the greater area.
- Encouraging access and building improvements of the Patties site as part of any future expansion by:
  - Creating a new front entry via the use of a new road and car park treatment.
  - Rationalise crossings onto the Princes Highway.
  - Separate visitor/worker traffic from freight traffic.
  - Provide landscaping across the street frontages.
- Site buildings in industrial areas where they will reduce either buffer requirements or assist in minimizing noise or other amenity outcomes.
- Improve the interface of the industrial area with the rail trail.

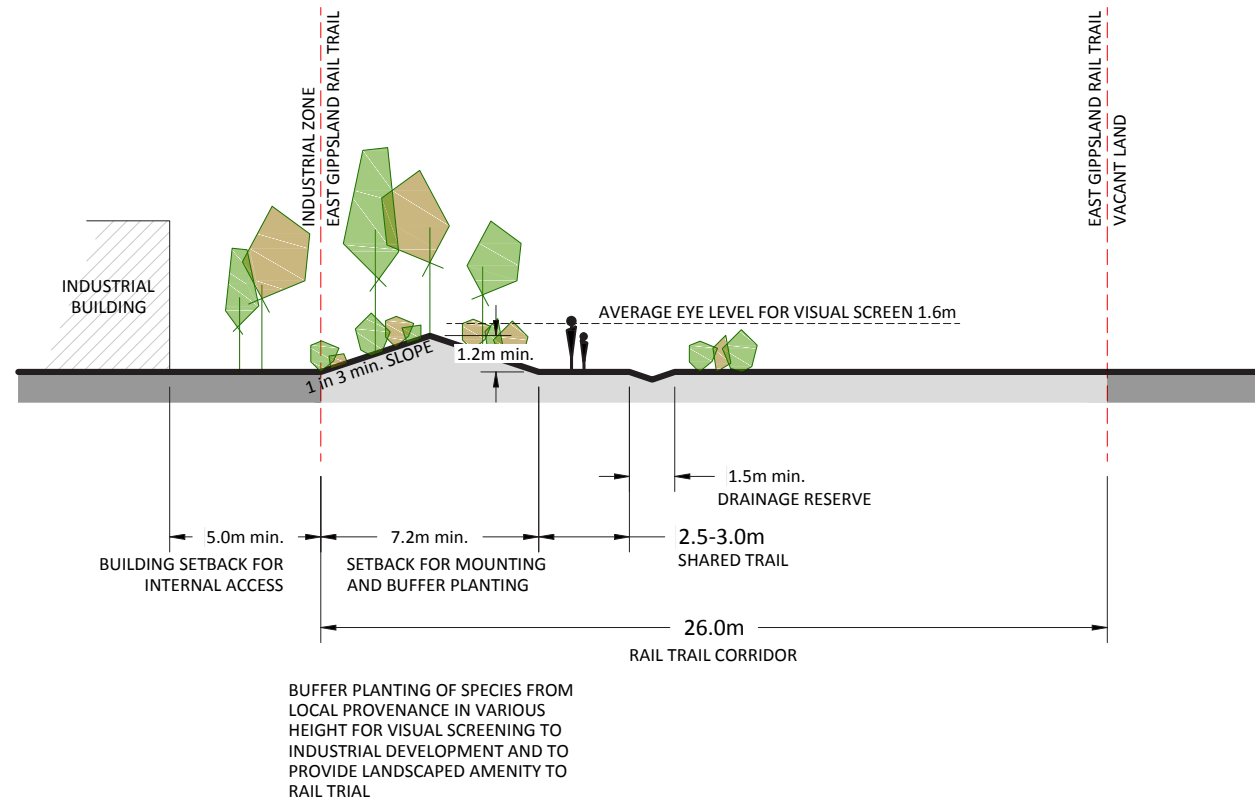
## Requirements

- The siting and design of new developments must consider their presentation to nearby residential areas. This can be achieved by locating main activities centrally within the site and providing amenities, car parking and landscaping along site boundaries.
- New development and expansion should result in no net addition to the existing number of access points onto Princes Highway.
- No sensitive land uses are permitted within the industrial/commercial area.
- Existing industrial uses which do not meet threshold distances to the existing residential areas should not extend their businesses in a way which would exacerbate amenity impacts on existing residential zoned land. This includes expansion of industrial activities in such a way that would require additional buffers than those established in this PSP.
- Restricted retail uses must address the Princes Highway and provide built form treatments which significantly improve the eastern entry to the town. This can be achieved by providing landscape building setbacks and articulating the facades at buildings. Blanks walls and unarticulated facades which present to the east will not be supported.
- Other uses permitted under the Business 4/Commercial 2 zone may also be acceptable so long as they do not cause conflict with the existing industrial or existing/planned residential land.
- Access to the Local Convenience Centre must be provided from the north-south connector street and not directly from Princes Highway.

## Guidelines

- New developments which have interface with the rail trail should locate buildings at least 5 metres from the southern site boundary to minimize blank walls and large buildings. Landscaping should be contemplated within this setback to screen activities to the rail trail. See Proposed Cross section art Figure 5b.
- Construction of landscaped mound within the rail trail reserve as shown in Figure 5b to screen this area from view should be considered by public land manager.
- Service areas for retail and commercial uses should be screened from public realm.
- Car parking should be located to enable passive surveillance and ensure there is adequate lighting for public safety.
- The erection of fencing along the boundary between the commercial/industrial area and the local park should be undertaken in a way which does not detract from the amenity of the park. To assist, the design of the adjoining local park should include landscaping along the site boundary to screen industrial/commercial activities that may detract from the character of the park.

FIG 5h RAIL TRAIL CROSS SECTION CONCEPT



## 5.5 INDUSTRIAL INTERFACE/SEPARATION RESPONSE

The precinct contains existing residential and community uses as well as a number of businesses, including Patties who hold a large site on the north side of Princes Highway. Other industrial/commercial uses within the precinct are located south of Princes Highway and include a number of service industries and restricted retail premises along Princes Highway and industrial uses along McMillan Street. These include a Bitumen plant, a sand and soil company, recycling depot, Dysons Bus Company, timber frame manufacturing and a fertiliser company.

The treatment of interfaces and buffers differs for existing conditions and planned future conditions as outlined below.

### Existing Conditions

A range of existing businesses operate in the area proximate to existing dwellings and residential 1 zone land. This is particularly relevant to the south of Princes Highway. In this area where there are existing industrial and residential zones sitting side by side, the provisions and threshold distances of Clause 52.10 apply to permit applications. Given there are existing industrial and residential uses, this PSP encourages the transition from 'heavy' industries to lighter industries and warehousing. However, given the zoning of the land, permits can be applied for many heavy industries and the Council and EPA (in some circumstances) must consider these applications against the provisions within clause 52.10 as well as other clauses within the SPPF which relate to land use conflicts.

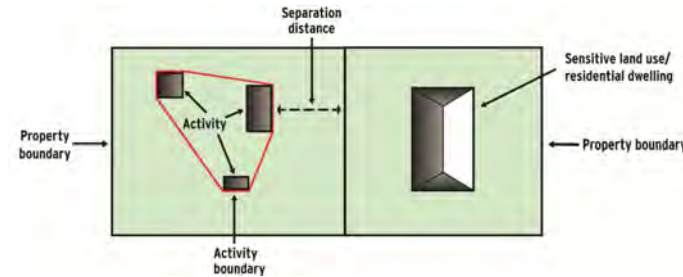
### Future Conditions

In making strategic land use and planning decisions, the EPA Guidelines titled 'Recommended Separation Distances for Industrial Residual Air Emissions' (March 2013) are to be considered. The Guidelines seek to ensure that strategic planning takes into the account the potential impact the proposed development may have on its surroundings and the potential impacts that the surroundings may have on the proposed development, with respect to air emissions. The Guidelines provide clear direction on which industrial land uses require separation from sensitive uses and provides the method by which to measure appropriate separation. It also recommends what uses can be contemplated

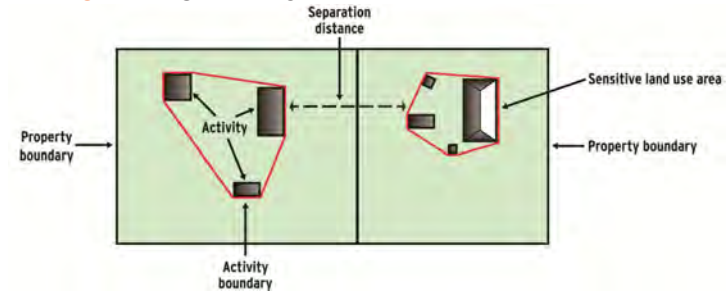
within the separation area to provide a transition from industrial to a sensitive (usually residential) use.

The Guideline states that separation distances should be determined by measuring from the 'activity boundary' of the industrial activity to the sensitive use. This can either be to the boundary of the sensitive use or to the building itself. The PSP has adopted method 1 which measures from the activity point of the industrial area to the boundary of the sensitive use. This is appropriate given that it is proposed to be developed for urban purposes.

### METHOD 1 - APPLICABLE TO THE PRECINCT



### METHOD 2 - NOT APPLICABLE



*Extract: Recommended separation distances for industrial residual air emissions - EPA Victoria (page 12-13)*

Patties is a major employer within Bairnsdale and the wider region. Ensuring that the business can continue to operate as planned, as well as protecting future growth opportunities, has been an important objective in planning this precinct. Within the EPA Guidelines, the Patties Operations is considered a 'Food , beverages and manufacturing use (bakeries)' which has a recommended separation distance of 100m. The PSP provides for the following to meet the EPA Guidelines and 'future-proof' the Patties Business:

- A minimum 100m separation to the west to an existing or planned sensitive use. The 100m is measured from the edge of the approved building line (activity area) on the Patties site to the edge of a sensitive use (ie: method 1 as outlined above). The building line on the Patties site is as per the approved Development Plan 2009 which contemplates landscaping and car parking along the western edge of the industrial zone area.
- Commercial uses and a road are provided within this separation area. These are nonsensitive uses and are contemplated as appropriate interface uses within the EPA Guidelines.

A more conservative approach has been proposed in the north, to enable a potential future expansion of the Patties operations. Whilst there are no existing approvals over the northern part of the Patties land holding (beyond the Development Plan 2009) the ability for the Patties operation to expand to the north is important and as such has been considered in the planning of this precinct. The PSP:

- » Provides a 100m separation distance from the edge of the Industrial 1 zone to the north.
- » Provides passive open space within the separation area. The majority of the land shown for a passive park is within Patties ownership and as such the additional buffers are essentially within their own land title. The other section of the land within the park is within a private landholding which is proposed for a mix of residential and commercial uses. The park could therefore form part of the open space provision required as part of a future subdivision.

The location of the park as shown in the PSP is logical as it is located centrally within the precinct and provides a transition from industrial area to residential and allows for landscaping and screening along the edge.

Figure 5i and 5j show how the two areas have been treated.

FIG 5i INDUSTRIAL BUFFER ZONE - NORTH AND WEST

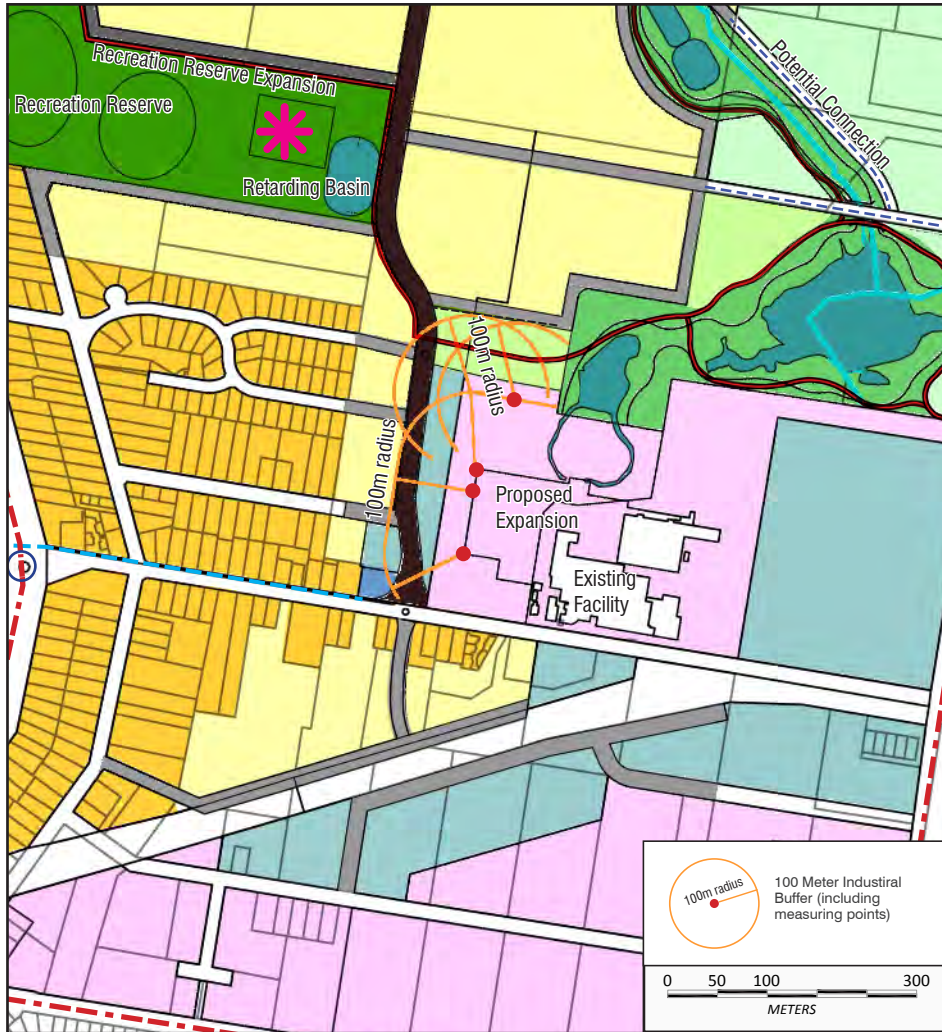
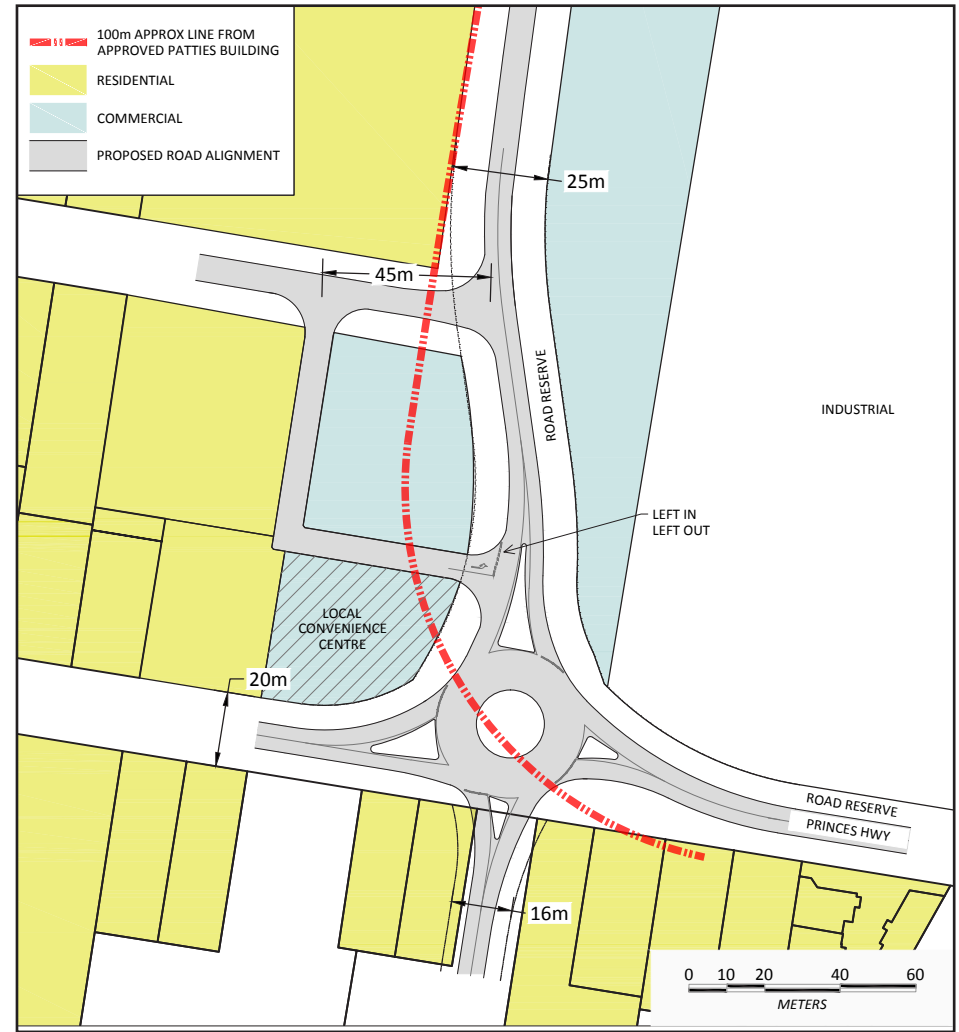


FIG 5j BLOW UP - INDUSTRIAL BUFFER AND COMMERCIAL AREA



## 5.6 COMMUNITY FACILITIES & OPEN SPACE

### 5.6.1 COMMUNITY FACILITIES

Community infrastructure includes the direct provision of services as well as the infrastructure which supports healthy lifestyle such as walking and cycling paths and spaces for social interaction and play.

Based on the above factors and the planned growth of Bairnsdale, the catchment for community facilities established includes the Lucknow Precinct, the growth area north of Lanes Road, Brookfield Lakes and Eastwood. This catchment represents the majority of land east and north of the Mitchell River which provides physical separation from the Bairnsdale CBD.

There is over 210 hectares of land within the precinct which is already within Council ownership. This provides two ovals (cricket/football) as well as the Clubrooms and an Indoor Sports Centre. This existing recreation areas provides excellent access to active open space for the future population within the East Bairnsdale/Lucknow precinct. The remainder of the council owned land (eastern extent) is currently occupied by a dog training facility. The existence of excess Council owned land within the precinct provides an excellent opportunity for plan for the establishment of community facility over time.

A community facilities benchmarking assessment (based on community facility benchmarks prepare ASR Research for Metropolitan Melbourne growth areas) was undertaken for the precinct taking into account the wider catchment as outlined above. A set of population benchmarks for recreation and community facilities were used to assess demand within the precinct, having regard to the existing and planned facilities within the catchment. Refer to appendix 3 for the indicative guide to the broad catchment sizes for infrastructure forms.

The assessment indicated that the population required to support new facilities is well beyond what is expected in the Lucknow/East Bairnsdale precinct. However, within the wider catchment, the assessment indicated that there is demand for:

- One Multi-purpose centre
- One Youth space
- One preschool

- Two Playgroups
- One government primary school
- Active Open Space

Some of these facilities including the school, childcare centres and active open space are already provided for within Eastwood and Lucknow. These services meet the expected demand within the catchment based on the benchmarks used and population anticipated.

The analysis indicates that there is demand for one community facility, a youth space and a pre-school within the catchment. These facilities could be provided for within Brookfield, the northern growth areas or the Lucknow Precinct as part of the Structure Plan. There are benefits in locating the community facility within the East Bairnsdale/Lucknow Precinct on the basis that:

- There is existing Council land which may be able to be used for this purpose.
- There is existing Council owned open space which would enable co-location of facilities.
- Efficiencies could be gained through shared car parking etc.
- It will create a local community hub and heart for the new neighborhood.
- It could be easily accessed from within the precinct as well as adjoining precinct through its location on the north-south spine.
- There is nexus between the development of the precinct and the delivery of a community centre which would enable the collection of development contributions. This would be based on the demand created by residential growth within the precinct.

Given the land is already within the council ownership, there is flexibility in the type of facility that can be provided (ie, its size and configuration) given that an area does not need to be locked in for acquisition purposes. Moreover, the timing of delivery of the facility is not reliant on land acquisition or in fitting in with other private estate planning and development.

Again, the demand and type of facility is being explored by council but there is a great opportunity to co-locate a new community facility with the existing recreation facilities.



### 5.6.2 OPEN SPACE

The PSP proposes a series of new and enhanced open space areas as follows:

**Green Trails** – The PSP proposes two open space corridors which provide green linkages through the Precinct to connect to Lanes Road in the north and the Great Alpine Road to the west. These spaces connect the new residential neighbourhood to the existing residential areas and the surrounding open space network. They also provide productive use of encumbered land, responding to onsite constraints of the waterway and need for retarding basins. The following green trails are proposed:

- Along the northern edge of the recreation area, this connects to the west via a pedestrian link across the Great Alpine Road to the existing trails within the Eastwood estate and along the Mitchell River.
- Along the diagonal waterway and drainage reserve connecting to Lanes Road.
- A circular route track around the large wetland which will connect through the passive park and along a trail to the recreation area.

**Passive Parks** – Two new passive parks are proposed within the Precinct. Both of these are located east of the connector road so as to adjoin the retarding basins and waterway and also act as a transition from commercial uses to residential. The provision of parks on the eastern side of the precinct seek to balance open space across the precinct noting the large recreation in the western section.

**Expanded sporting facilities** - There are a range of opportunities for upgrading and expanding sporting facilities at the Lucknow reserve. Reconfiguring the reserve boundary along the northern edge would create a greater depth to allow oval size to be increased and enable a walking track to be established along the edge of the sporting fields. Figure 5k demonstrates how this could be achieved by directing the required 5% open space contribution from the future residential parcels to the north into the recreation area.

There are also opportunities to improve the amenity of the Lucknow reserve by creating a dedicated passive park adjoining the Community Facility and proposed retarding basin. This could include play equipment and picnic facilities.

### Objectives:

- To locate active open space areas with other community facilities and as part of the wider open space network to encourage sharing of infrastructure and improved accessibility to uses.
- To provide an accessible and connected network of open spaces which are suitable for passive and active recreation uses for a variety of users.
- To foster community interaction and promote multi-purpose trips by co-locating community, local sports facilities with education facilities.
- To provide community facilities in line with population growth.
- To plan for community facilities which have safe and convenient access by walking, cycling, public transport and vehicles
- To encourage a variety of landscape and built form interface treatments to the rail trail.
- To allow for the timely development of community facilities such as parks, multi-purpose community centres as population thresholds are reached and funding is available.
- All public landscaped areas must be designed for low maintenance to the satisfaction of the Responsible Authority.
- Deliver a trail network including along the waterway and connected open space areas.
- Development abutting open space must be designed to provide passive surveillance from the street, through the appropriate siting of windows, balconies and pedestrian access points.

## Requirements:

- Community facilities must be integrated with other facilities such as schools, recreation facilities, local parks and playgrounds. This will be a central 'place making' element of the plan.
- Community Facilities which will include children's services (such as MCH, kindergarten or playgroup) must be located so that they are easily accessible on foot and public transport and must be located on connector level streets to enable safe and convenient pick up and drop off areas.
- Community Facilities must not be located on arterial roads (ie: GAR, Princes Hwy).
- Land designated for active and passive recreation reserves must be constructed and maintained to a suitable standard, prior to the transfer of land, to the satisfaction of the Responsible Authority.

## Guidelines

- Community facilities should be planned and designed to have the flexibility and capacity to meet the changing needs of the community and provide for a range of community uses.
- Utilise existing native vegetation (including wetlands and scattered trees) as features to create natural amenity.
- Retain large scattered trees as part of the structure land and future development applications wherever possible.

FIG 5k COMMUNITY FACILITY AND RECREATION CONCEPT



FIG 5I OPEN SPACE PLAN



## 5.7 DRAINAGE AND WATERWAYS

The Gippsland Lakes are the eventual receiving water bodies for the entire development precinct. The land is generally flat, with a grade of only 1% across the precinct. The catchments for this area is shown in Figure 5m.

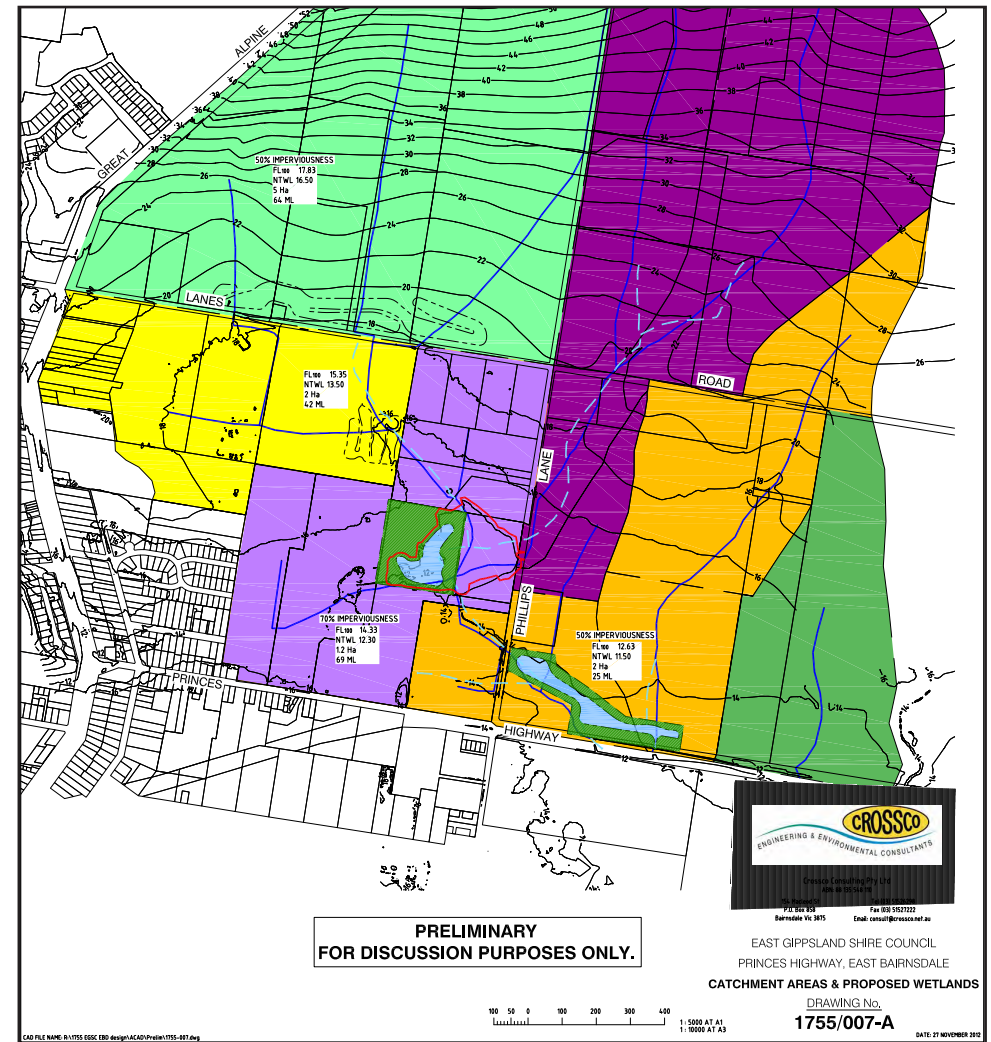
The Precinct is 210 hectares in area, which includes the existing designated waterway, the large drainage basins to be constructed on the Patties land as well as the proposed basins along the waterway and within the recreation area. A Water Management Plan (shown in Figure 5m) has been prepared to guide the stormwater quantity and quality controls required to service future development. This plan has been prepared by Crossco (in collaboration with Neil M Craigie Pty Ltd) as part of the drainage project work commissioned by Council. The plan details proposed areas for detention of stormwater runoff, retention of the designated waterway and pipes to accommodate low flows.

The Water Management Plan has been designed in to create complimentary open space, recreation and ecological benefit. This is achieved through the co-location of retarding basins and open space, and by retaining natural drainage and creek lines wherever possible. This not only provides for the drainage needs of the urban area but creates focal points for communities and adjacent development and attractive recreation areas.

The structure plan aims to retain and maximize use of both the existing features and the planned infrastructure of the precinct, to result in better and more efficient use of land. As such, the plan provide for passive parks surrounding the main water basin north of Patties business which provides for a buffer around the retarding basin and an amenity for the park. Similarly the designated waterway which is generally contained within a 60m cross section includes walking/cycle trails which are located outside of the waterway itself.

Water discharging into existing waterways is required to meet the Best Practice Environmental Guideline Targets for Stormwater Treatment. This is achieved through the use of water sensitive urban design techniques such as wetlands and biofilters or rain gardens.

FIG 5m CATCHMENT PLAN



EXTRACT: 'LUCKNOW and EAST BAIRNSDALE DRAINAGE IMPROVEMENT REPORT' prepared by Crossco

A potential drainage system has been planned for the southern area of the precinct which currently contains substandard drainage infrastructure . This has been prepared by Crossco and proposes the following:

- An open drain along the majority of Phillips lane and redirection of water to McMilan Street
- Full construction (kerb and channel) of McMilan Street
- Construction of drainage pits and pipes.

This concept is shown in Figure 5n.

### Objectives:

- To minimise damage to properties and inconvenience to residents from urban run-off.
- To provide stormwater detention to the satisfaction of the responsible authority by looking holistically at the stormwater requirements for the precinct rather than a site by site basis.
- To ensure that local streets operate adequately during major storm events and provides for public safety.
- To minimise increases in stormwater run-off and protect the environmental values and physical characteristics of receiving waters from degradation by urban run-off.
- Implement water management systems which maximises synergies between individual water systems (i.e: potable, stormwater and wastewater) in order to provide an integrated outcome. This will deliver on objectives of water conservation, water reuse and river health.

To restore and enhance the existing waterway so that it becomes part of the 'green' structure of the precinct.

## Requirements:

Requirements in relation to integrated water management are set out in State Planning Policy (clause 14) and the residential subdivision provisions (clause 56) of all Victorian planning schemes. The planning scheme requires the following standards to be achieved (amongst other matters):

- Retain natural drainage corridors with vegetated buffer zones at least 30m wide along each side of a waterway to maintain the natural drainage function, stream habitat and wildlife corridors and landscape values, to minimise erosion of stream banks and verges and to reduce polluted surface runoff from adjacent land uses.
- Urban stormwater systems must be designed to ensure that flows downstream of the subdivision site are restricted to pre-development levels unless increased flows are approved by the relevant drainage authority and there are no detrimental downstream impacts.
- Urban stormwater systems must be designed to meet the current best practice performance objectives for stormwater quality as contained in the Urban Stormwater – Best Practice Environmental Management Guidelines (Victorian Stormwater Committee 1999) as amended.

In addition to these and other specified standard statewide water management requirements, the following requirements apply:

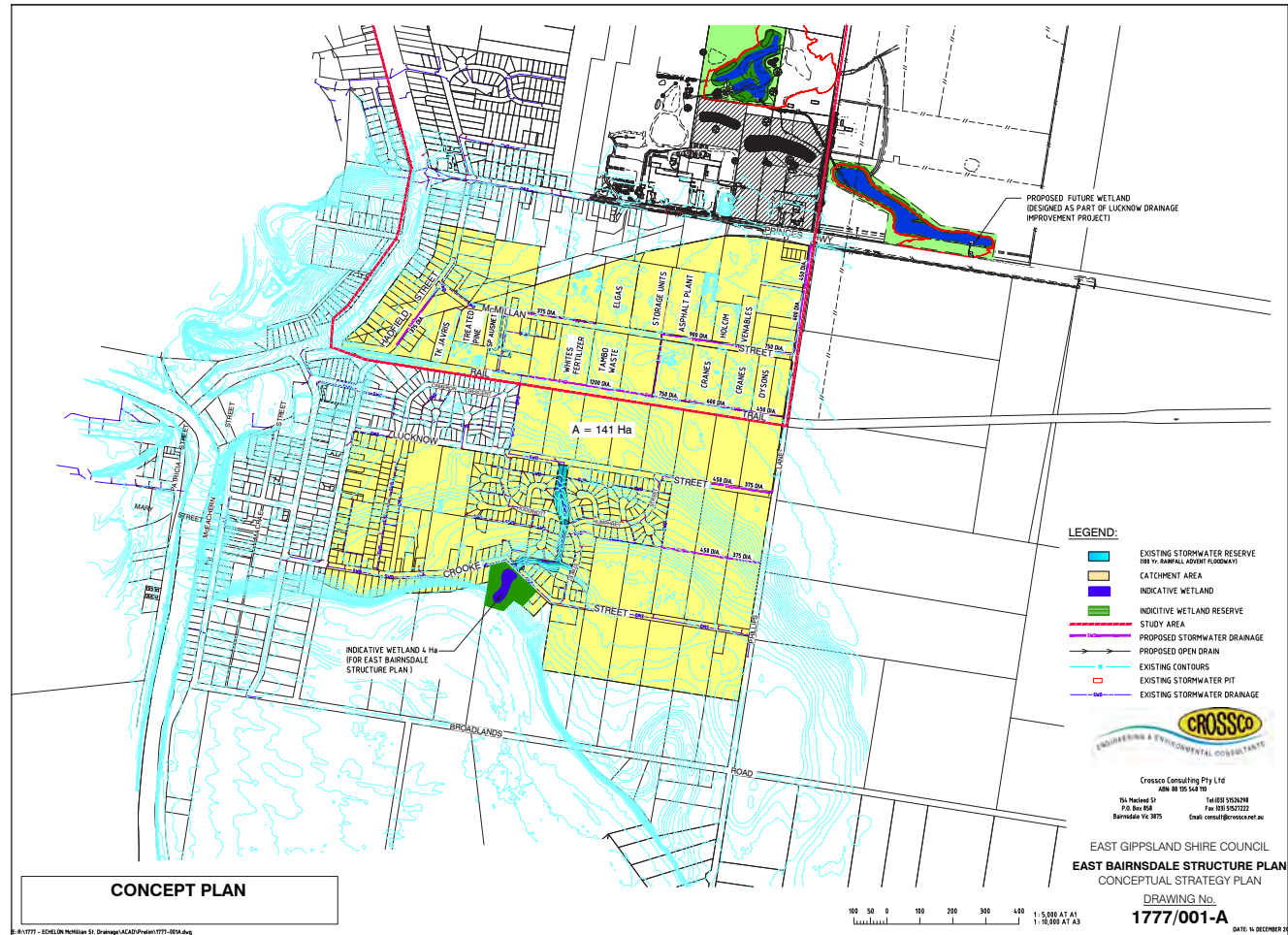
- The layout and design of the constructed retarding basins must be generally consistent with the Crossco plan reproduced in Figures 5n & 5o unless it can be designed in an alternative configuration to meet the storage and water quality requirements outlined in the Neil Craigg and Crossco drainage reports.
- Drainage reserves must abut a road unless otherwise addressed by an active frontage. This does not apply to the industrial/commercial interface with the passive open space, where fencing may be contemplated along the site boundary.

All drainage and waterway reserves must be designed to cater for 1:100 year floods events and be generally in accordance with the location of the basins shown in Figure 5o . Subject to storage capacity being met, an alternative design may be considered.

## Guidelines:

- If new development brings forward the need for new drainage infrastructure or works, the developer should ensure that drainage requirements are managed without adversely affecting the financial capacity of the drainage authority to fund infrastructure using development contributions levies. Out of sequence development should be avoided unless infrastructure requirements can be funded or financed by developers.
- Opportunities for stormwater harvesting and re-use in public open space should be pursued wherever possible.
- Design of drainage infrastructure must provide a high degree of visual amenity to adjacent residential areas and provide for passive enjoyment of the space where possible.
- Passive park areas interfacing with the waterway should be designed to enhance its natural attributes through appropriate planting.
- A shared trail of at least three metres in width must be provided along the waterway.
- Maximise the public use and enjoyment of the waterway and wetlands as an important visual, ecological and recreation resource. This can be achieved via the establishment of passive parks, linear trails and plantings.

FIG 5n DRAINAGE INFRASTRUCTURE CONCEPT - SOUTH



EXTRACT: 'LUCKNOW and EAST BAIRNSDALE DRAINAGE IMPROVEMENT REPORT' prepared by Crossco

FIG 5o DRAINAGE INFRASTRUCTURE CONCEPT - NORTH



EXTRACT: 'LUCKNOW and EAST BAIRNSDALE DRAINAGE IMPROVEMENT REPORT' prepared by Crossco



## 5.8 BUSHFIRE

The East Bairnsdale/Lucknow PSP area is located within a broader landscape that is designated as being bushfire prone under Victorian building regulations (known as the Bushfire Building Regulations 2011).

Under these regulations, all new residential buildings located within a designated Bushfire Prone Area (BPA) must be constructed to a minimum Bushfire Attack Level (BAL 12.5). A Bushfire Attack Level or BAL is a means of measuring the severity of a building's potential exposure to ember attack, radiant heat and direct flame contact.

The requirements to build new residential buildings to specified BAL ratings is administered through the Victorian building approvals system.

In addition to these requirements, the management of bushfire risk in the East Bairnsdale/Lucknow PSP area can be improved by implementing a number of 'bushfire fire smart' design and development measures, including managed fire breaks, provision of emergency vehicle access and permanent water supplies for fire fighting purposes.

### Requirements:

- Subdivision layouts must allow for emergency vehicle access, safe egress routes away from fire hazards, fire hydrants, and static water supplies where required by the CFA.

### Guidelines:

- Subdivision and development should be designed to ensure that:
  - The ongoing transition of land from 'rural' to 'urban' provides for a managed fire break between rural and urban areas during high fire danger periods.
  - There is an appropriate risk treatment of the interface between urban areas and permanent bushfire hazards (such as on the edge of the town boundary along Phillips lane, and along the declared waterway). This will typically provide an area of defensible space between urban development and bushfire hazards, in addition to ensuring that residential buildings are constructed to a prescribed Bushfire Attack Level (at least BAL 12.5 under the Victorian Building Regulations). Defensible space areas will typically comprise a road reserve and managed vegetation on public (and sometimes private) land.

## 6 INFRASTRUCTURE & IMPLEMENTATION FRAMEWORK

This chapter outlines the likely infrastructure required to service the Precinct and options for infrastructure delivery.

### 6.1 DRAINAGE

The requirements of Clause 56 of the East Gippsland planning scheme must be considered in the assessment of subdivision proposals. Clause 56 requires that drinking water, recycled water, waste water and urban runoff systems are designed in accordance with the requirements and to the satisfaction of the relevant authority. Responsibility for management of waterways, drainage areas and water supply are East Gippsland Council, East Gippsland CMA and East Gippsland Water noting:

- Council is responsible for the management of drainage within the Bairnsdale township boundary.
- The East Gippsland Catchment Management Authority provides guidance on decisions where works are proposed within a designated waterway or an overlay area.
- East Gippsland Water is responsible for the supply of potable water, waster water and recycled water systems.
- Council, the CMA (recommending referral authority) and East Gippsland Water are responsible for ensuring that appropriate conditions relating to drainage and water infrastructure are placed on planning approvals.

East Gippsland Water set the relevant infrastructure design standards and apply 'per lot' connection charges, and (where relevant) charges/ infrastructure delivery requirements for bringing forward the delivery of reticulated water and sewerage infrastructure. These standards and charges are based on the servicing strategies and charging policies of the relevant authority, as agreed with the Essential Services Commission.

Council can prepare and adopt drainage schemes either in the form of a drainage schemes prepared as a Special Charges Scheme (SCS) under the Local Government Act 1989, or a Development Contributions Plan (DCP) prepared under the Planning and Environment Act 1987. Under either arrangement, Councils can charge developers for the funding of works contained within the SCS or DCP. Council and land owners can agree to deliver works in lieu of paying the drainage fees under the SCS or DCP.

The drainage scheme or DCP allows landowners and developers to pay a charge for the construction of drainage which is calculated as a proportion of developable land. To implement this, a detailed wetland design and costing of basins, land and any pipes would form the basis scheme and the fees to be provided across the precinct.

If no Drainage Scheme or DCP exists then individual developers would be required to negotiate the delivery of required storm water and treatment works in accordance with this PSP and clause 56.

The Structure Plan provides for the staged delivery of drainage infrastructure based on the likely staging of the precinct. In particular, the basins have been located so as to allow the early development of the Residential 1 zone land (if the north-west section of the precinct) without the need to acquire land in other parts of the precinct. The location of the basin on the Council land is sized to cater for the flows from the R1Z land (and the adjoining parcel). This enables Council to manage staged delivery of basins through the entire site by implementing the SCS or via developer works, but in a way which forms part of the overall framework/plan for the drainage within the precinct.

## 6.2 SERVICING

### 6.2.1 SEWER

#### Residential

East Gippsland Water is the water authority responsible for provision of wastewater and potable water infrastructure across East Gippsland, which includes the East Bairnsdale/Lucknow Precinct.

East Gippsland Water have identified the existing infrastructure assets which service the locality including the existing sewer pump station, pipelines and rising mains. These are shown at Figure 6a.

The Sewage Pump Station located within the Precinct (on the Patties site) currently serves Patties Foods Ltd only and is sized to meet their current manufacturing operations. The current pump capacity is 20 litres/second and the downstream sewer is at capacity. As such, further development of Patties, increased manufacturing demand or further development elsewhere in the Precinct which increase flow from within this precinct would require improvements to the sewer infrastructure. This might comprise be a new rising main (discharging to a different sewer) or an increase in the capacity of the current downstream sewer.

A Capital Works Plan was prepared by East Gippsland Water (completed in 2012) which outline infrastructure priorities within Bairnsdale over a 10 year period. The Capital Work Plan includes two projects which relate to the East Bairnsdale/Lucknow locality. These include:

- Increase in pumping capacity and upgraded rising main at the Flinns Road Sewage Pump Station.
- New rising main at the Bridge Sewage Pump Station.

The above projects were identified by EG Water for construction following consultation with East Gippsland Shire and other stakeholders. These projects cater for the projected growth of Eastwood and the development now known as Brookfield Lakes. Whilst growth within the East Bairnsdale/Lucknow structure plan area was not specifically catered for in the

capital works plan, the capacity created by the delivery of these assets would be available for new residential development and is not specifically allocated to any developments. East Gippsland Water are currently working on the Bairnsdale sewerage masterplan which will consider the impact of the Structure Plan and other planning/development changes since 2012.

If new development brings forward the need for infrastructure or works not provided for within the existing Capital Works Plan, there may be bring forward costs associated with the delivery of infrastructure to service the development.

*Extract: Customer Contribution Guide*

## Industrial/Commercial

The current industrial precinct south of the Princes Highway is serviced by a private sewer system. This system has limited capacity to accommodate additional sewer loads and a precinct wide reticulated sewage system is preferred. The Capital Works Plan does not include any infrastructure to accommodate the industrial area to the south. There are two approaches to implementing a sewer service for the area to the south which could be implemented as follows:

- Landholders forming an agreement and requesting East Gippsland Water (EGW) to create a voluntary sewerage scheme in this area.
- East Gippsland Shire or the EPA requests that a sewerage scheme be mandated in this area created thus creating a compulsory sewerage scheme.

In each case the landholders would bear some or all of the cost of the scheme, depending on whether external and / or East Gippsland Water funding is available. In both cases, East Gippsland Water would implement the scheme, take ownership of the assets and have responsibility for its ongoing operation and maintenance.

East Gippsland Water have previously implemented sewerage schemes at the request of the Shire based on the “East Gippsland and Wellington Shires – Domestic Wastewater Management Plan”. That guiding document provides an indication of the legal requirements surrounding sewerage schemes and states that:

*“Where a town is identified for connection to reticulated sewer, councils must discuss sewerage provision options with their local water authority. Water authorities are unable to identify the need for sewerage, as their role is restricted to service provision only. They can provide support to councils and the EPA, but they cannot require communities to connect to and pay for schemes that they may commercially benefit from.”*

## 6.2.2 WATER

East Gippsland Water have calculated the capacity of the existing water mains that would likely serve the precinct area. Based on WSAA requirements, East Gippsland Water have indicated that the existing Flinns Rd main would not be able to meet the peak demands of the whole structure plan area.

Based on the water supply demand assumptions for the existing flows, the maximum additional demand able to be accommodated currently would be around 14L/s, or the equivalent of around 230 residential lots. This maximum additional demand could include development in the Precinct as well as other developments in the area such as the Brookfield Estate. East Gippsland Water have noted that this is a preliminary estimate for strategic planning purposes.

To provide more detailed information including the extent of upgrades required to service the remainder of the precinct, detailed modelling would be required to be undertaken. Given the precinct is expected to develop over several years, the modelling work for the delivery of lots (beyond 230 lots) could be undertaken in train with the next 10 year Capital Works Plan and infrastructure to service the remainder of the precinct could be captured in this Plan.

### **6.2.3 POWER**

SP Ausnet is the franchised authority responsible for the electrical supply to Bairnsdale. Figure 6a identifies the existing assets within the Precinct and adjoining areas.

SP Ausnet confirmed that there are approved works in place for the augmentation of the Bairnsdale Zone Substation. This will provide increased security and capacity for the existing industrial area and the anticipated lots on the in the East Bairnsdale/Lucknow precinct. This augmentation is expected to be completed in 2016.

SP Ausnet anticipated that the initial stages of development within the precinct could be connected without feeder upgrade works. It is expected that distribution feeder augmentation will be necessary to support the final stages of the development.

### **6.2.4 GAS**

APA/Envestra is the gas supplier for most of the Gippsland district (except South Gippsland). The existing infrastructure is shown on Figure 6a.

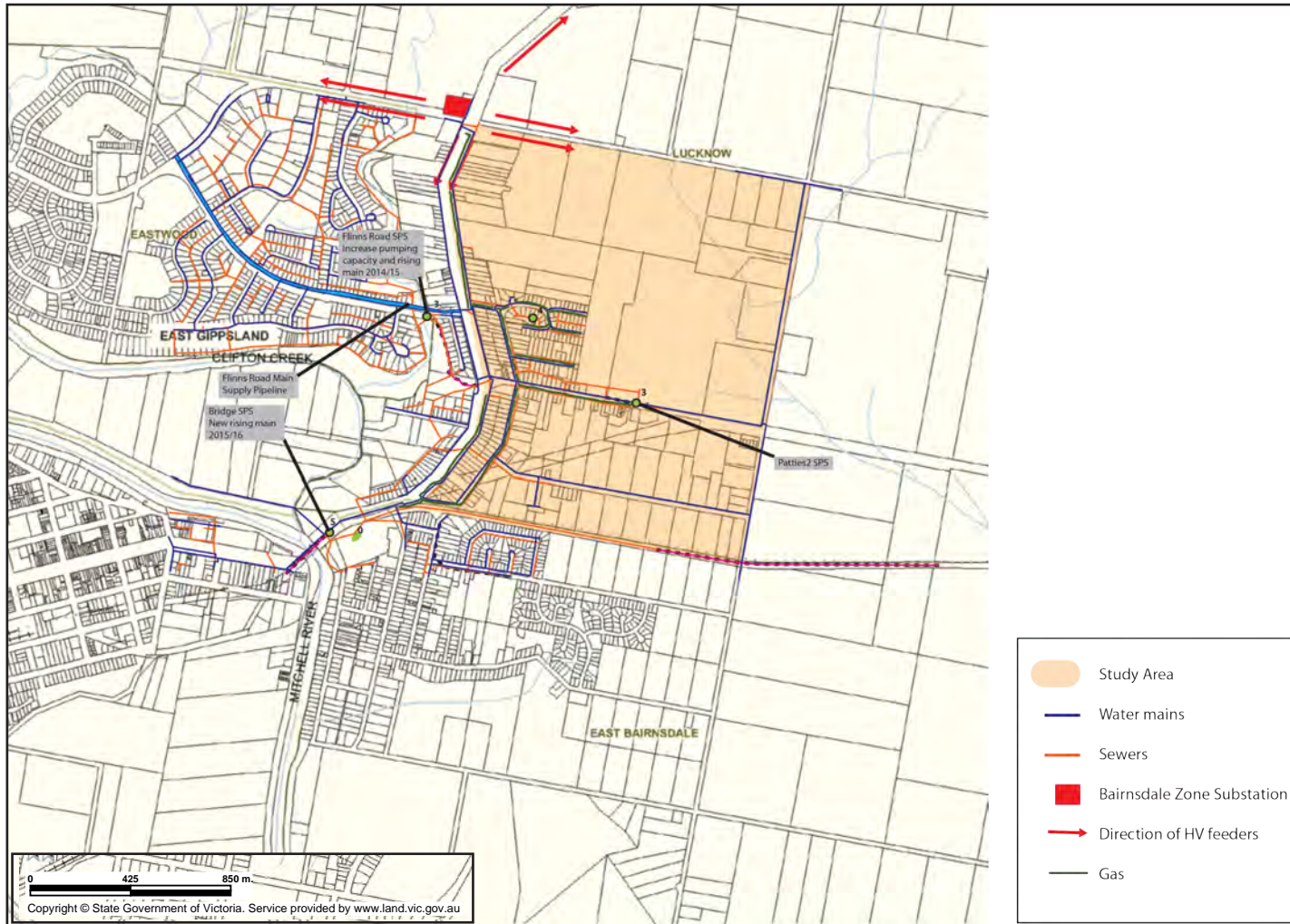
There are also plans to extend the existing pipe along the Great Alpine Road which can accommodate new developments. This infrastructure item was planned in anticipation of the development of the Brookfield Estate.

APA have indicated that, as a whole, Bairnsdale does not have service capacity issues. However given the prospect of future growth on northern suburbs and the flooding nature of the Mitchell River, mean that in the longer term it may be prudent to augment the supply to the north/east Bairnsdale area.

APA indicated that residential demand and requirements are estimated relatively simply (and reassessed regularly) using the average demand profile of a typical home within the boundaries of the current reticulation network. For forecasting purposes, consideration of projected demand is taken into account to ensure the existing infrastructure is suitable to deliver projected demand. Any extension beyond the current reticulation boundary is assessed when application is made for connection to gas to determine if any economic shortfall cost is required. Generally for domestic developments immediately adjacent existing reticulation assets do not require any financial contribution and as such there should be no issues in servicing the precinct area.

The situation differs for gas requirements for industrial development. Gas loads differ depending on specific business operations and as such network suitability for industrial development cannot be predicted and has to be assessed on a case by case basis. As such, businesses must facilitate the delivery of gas to their site by applying to the APA to enable the APA to determine what economic shortfall cost may be involved in connecting to the natural gas network.

FIG 6a EXISTING SERVICES PLAN



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## 6.3 PRECINCT STAGING & INFRASTRUCTURE

### 6.3.1 DEVELOPMENT STAGING

It is important to plan for the sequencing of urban development to enable the orderly provision of infrastructure and services. Development staging can help ensure that urban infrastructure can be delivered in a cost effective manner, and is available when needed to meet local demand for housing, commercial and industrial services.

In line with the policies set out in clause 11 of State Planning Policy, priority will be given to facilitating urban development in areas that:

- Form logical and contiguous extensions of existing urban areas, where existing infrastructure capacity can either be utilised or enhanced as needed
- Facilitate the staged extension of urban infrastructure in an orderly manner, where the real cost of providing new infrastructure is minimised
- Are not subject to major physical constraints or uncertainties that could either delay or substantially increase the cost of providing infrastructure.

Where appropriate, departure from these staging principles may be justified either on the basis that it is necessary to facilitate development to maintain sufficient levels of competition in the local housing market and because land owners in an area that would not ordinarily warrant a high priority for infrastructure provision are willing and able to fund the cost of bringing forward the provision of infrastructure required to enable development.

#### **Residential development:**

Residential development is expected to commence within the precinct over the next 5 years, initially on the land already zoned for residential purposes along Lanes road. This land adjoins the existing residential area with frontage to the Great Alpine Road, and it is proximate to infrastructure services along Great Alpine Road.

The central part of the precinct is expected to develop in the medium term (5-10 years) as development extends from the existing residential areas south of the Lucknow Reserve.

The urban redevelopment of the existing rural living lots in the north-east part of the precinct are expected to occur over the longer term (10+ years), depending on demand and landowner intentions.

Incremental redevelopment of residential properties along the Great Alpine Road and other residential areas is also anticipated. Such redevelopment will create opportunities to diversify housing choices with a mixture of townhouses and units in the neighbourhood.

#### **Commercial and industrial development:**

The Plan provides for the ongoing future expansion of the Patties food manufacturing operations. Likewise, the plan seeks to facilitate the re/development of land already zoned for industry south of the Princes Highway with a range of light and service industry. The infrastructure (roads, drainage, sewerage, water supply, etc.) and landscaping in this area should be improved to support new business investment in this area. These will be upgraded so as to make this area a more attractive location for a range of potential industry sectors including food manufacturing, packaging and trade supplies. It is expected that development within this precinct will occur incrementally over the next 15 or more years, and that existing businesses with the potential to generate amenity impacts might relocate over time to either the south-west Bairnsdale industrial precinct of the proposed Bairnsdale intermodal freight terminal.

There are opportunities for the creation of bulky goods and trade supplies facilities in East Bairnsdale in the longer term. The Plan supports the construction of the (already approved) Homemaker and trades supplies centre on the intersection of Phillips Lane and the Princes Highway. Depending on market conditions, this development might occur within the next 5 years.

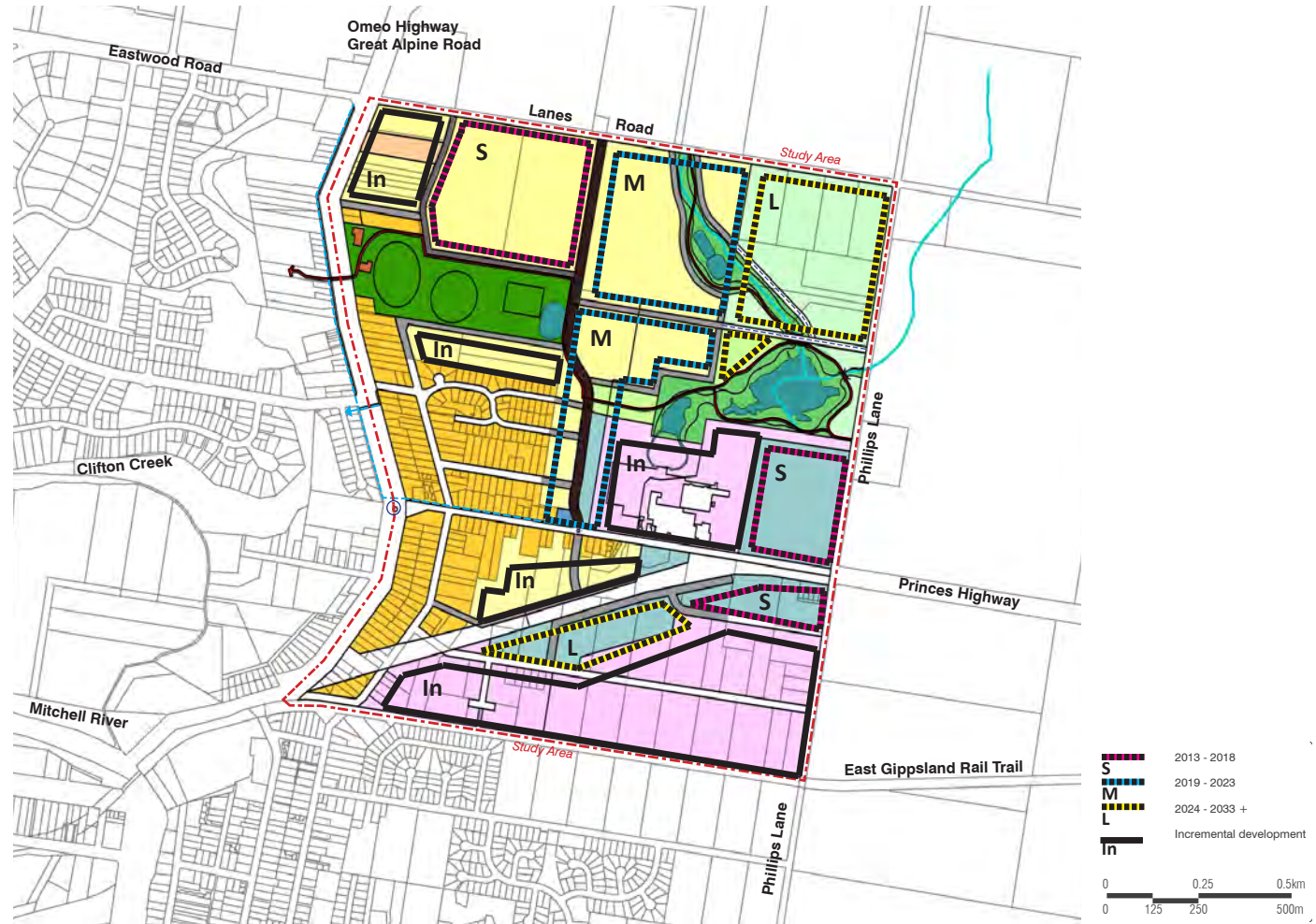
Enhancement of the public domain along the Princes Highway frontage is encouraged, so as to make the precinct an attractive and functional location for a wider range of businesses. This will include rationalisation of vehicle access to the Princes Highway, landscape plantings along the Princes Highway road reserve and service roads across the precinct, and building design guidelines to ensure a consistent standard of building presentation and amenity.



The renewal and expansion of the existing bulky goods centre on the south side of the Princes Highway is expected to occur in the medium term (5-10 years) depending on demand for such activities. Further redevelopment of land along the Princes Highway deviation reservation for commercial purposes is provided for, although this is expected to occur in the longer term, potentially in association with the ultimate construction of the diversion (although this activity is not dependent upon the diversion being constructed)

Ultimately, the timing of residential, industrial and commercial development in the precinct will be influenced by the availability of infrastructure, as well as the timing of commencement (and rate of development of) other similar developments elsewhere in the town, and market preferences for these developments.

FIG 6b STAGING PLAN



### 6.3.2 PRECINCT INFRASTRUCTURE

The Precinct Infrastructure Plan at Figure 6c and corresponding table in Figure 6d sets out the infrastructure required to facilitate development within the precinct. There are also items which are not exclusively required to facilitate development in the precinct but could improve the local area of East Bairnsdale/Lucknow and should therefore be pursued.

There are items which are to be delivered by the private industry as part of development as well as improvement projects to be undertaken by the East Gippsland Shire Council and the state agencies.

The infrastructure items are to be delivered through a number of mechanisms which could include:

- Subdivision works by developers.
- Utility service provider requirements.
- A future developer contributions scheme or 173 Agreement
- Capital works projects by Council and state government agencies

FIG 6c PRECINCT INFRASTRUCTURE PLAN

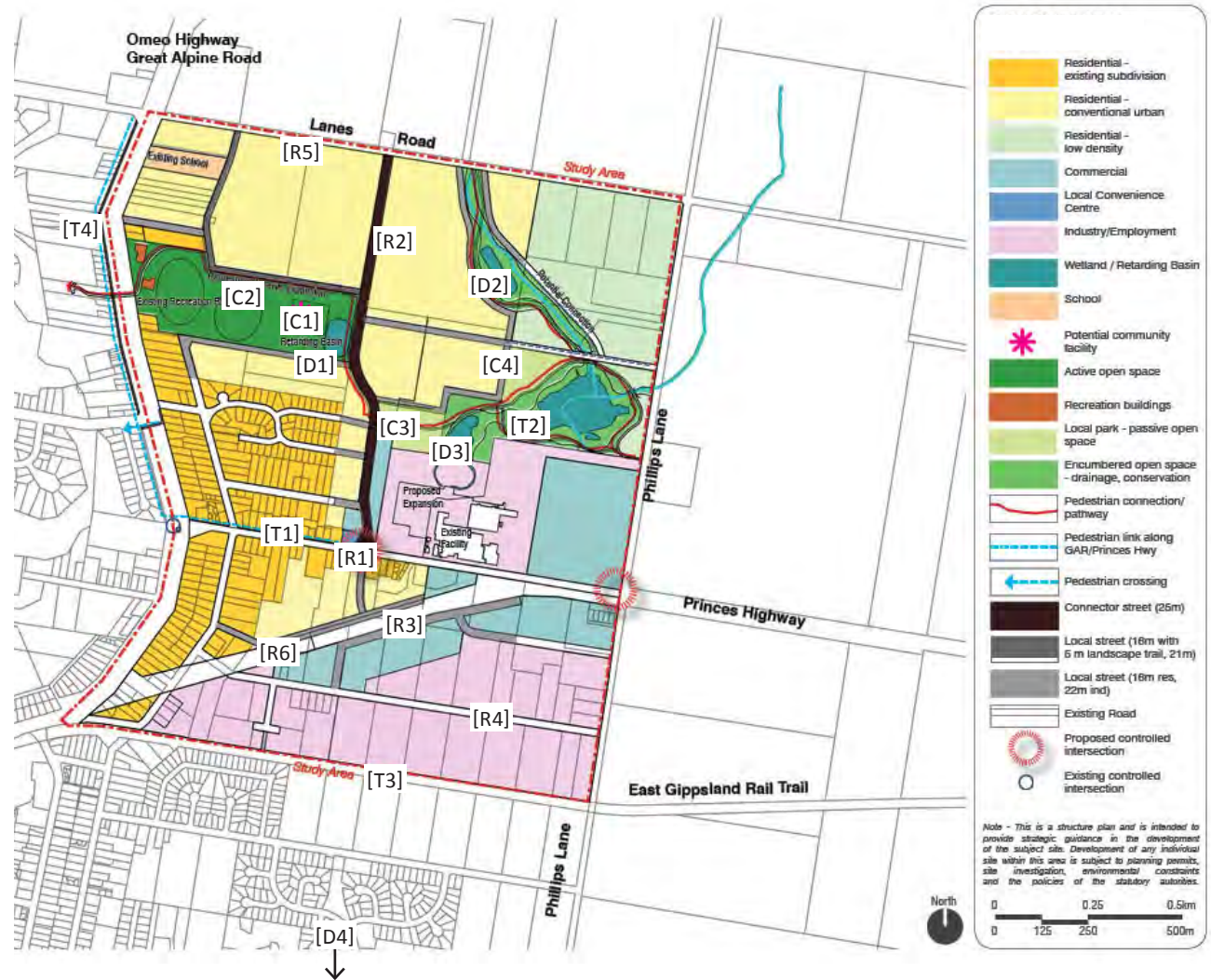


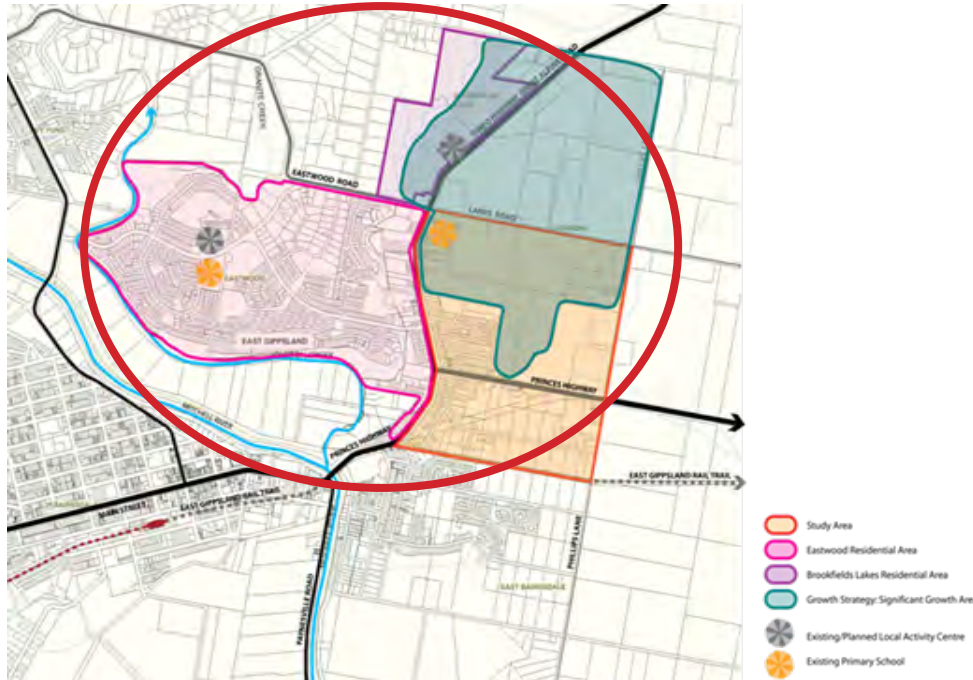
FIG 6d INFRASTRUCTURE TABLE

PROJECT	TITLE	DESCRIPTION	RESPONSIBLE AUTHORITY	POTENTIAL DELIVERY MECHANISM
Roundabout on Princes Hwy	[R1]	Land and construction of single land, four legged roundabout on Princes Hwy to provide access to the precinct.	Vicroads	Development Contributions Plan.
North south Connector Road	[R2]	Land and construction of North South connector between Princes Hwy to Lane Road as per Cross section at Figure 5d.	EG Council	Development Contributions Plan.
Service Road	[R3]	Service road along south side of Princes Hwy (south side of deviation land)	EG Council	Development Contributions or developer works for access. Dependent on timing of deviation works.
Upgrades to McMillan Street	[R4]	Upgrades to McMillan Street with kerb and channel and required drainage infrastructure as per Crossco design.	EG Council	Special Services Scheme
Upgrades to Lanes Road	[R5]	Upgrade southern side of Lanes Road to kerb and channel	EG Council	Development Contributions or developer works for access.
Princes Hwy deviation	[R6]	Deviation of the Princes Hwy to extend existing axis.	Vicroads	
Footpath	[T1]	Construction of footpath along the north side of Princes Highway.	EG Council in consultation with Vicroads.	Development Contributions Plan.
Footpath/trail	[T2]	Construction of pedestrian/cycle trail along the waterway and through passive parks.	EG Council	Development works as part of Open Space Contribution.
Upgrades to rail trail	[T3]	Mounding and landscaping upgrades along the northern rail trail edge in accordance with the cross section shown at Figure 5h.	VicTrack & DTPLI	Capital Works Program.
Walking/cycling trail along GAR	[T4]	Shared pathway along western side of Great Alpine Road	EG Council	Capital Works Program.
Community Facility	[C1]	Construction of Multi-purpose Community Facility.	EG Council	Development Contributions Plans (including apportionment to area outside of precinct).
Expansion of Recreation Area	[C2]	Land for expansion of recreation area as per Figure 5k	EG Council	Utilise 5% open space contributions from two adjoining land parcels to the north.
Passive Park	[C3]	Land for passive park.	EG Council	Land provided as 5% open space contribution including relevant embellishments. Gifted to EG Council.
Passive Park	[C4]	Land for passive park	EG Council	Land Gifted to Council
Wetlands/retarding basin	[D1]	Land and construction of retarding basin to accommodate stormwater retention and treatment from two adjoining properties to the north.	EG Council	Developer Agreement or via Precinct Drainage Scheme.
Wetlands/retarding basin	[D2]	Land (outside of the 60m waterway) and construction of retarding basin to accommodate stormwater retention and treatment	EG Council	Developer Agreement or via Development Contributions Plans, Special Services Scheme
Wetlands/retarding basin	[D3]	Construction of two retarding basins.	EG Council	Already planned and jointly funded via state/local government and businesses.
Basin outside of precinct	[D4]	Land and construction of basin	EG Council	Special Services Scheme

## 7 APPENDICES

### 7.1 COMMUNITY FACILITY BENCHMARKS AND CATCHMENT

#### Plan - Catchment for Community Facilities



**Table 1 - Community Facility Benchmarks (Community Planning Consultants ASR research benchmarks for growth areas)**

COMMUNITY FACILITY	INDICATIVE PROVISION PER POPULATION
Multi purpose centre (approx. 1200m2 building– can include; occasional care, MCH, kindergarten/s, mtg space)	1 per 8000
Youth Space	1 per 8000
Pre-school	1 per 10,000
Playgroup	1 per 5,000
Primary School	1 per 9000
District Open Space (8 hectares)	1 per 9000
Child care centre	1 per 9000

**Table 2 - Indicative Provisions for Catchment**

		IDENTIFIED GROWTH AREA			Total Population
		Brookfield Lakes	Lucknow/East Bairnsdale Precinct	Growth area north of Lanes Rd	
Population Estimates		1000	2000*	2000	5000
Community Facility	Indicative Provision per population	Indicative provision for precinct (rounded)	Indicative provision for precinct (rounded)	Indicative provision for precinct (rounded)	Total Demand for catchment
Multi-purpose centre	1 per 8000	.13	.25	.25	.63
Youth Space	1 per 8000	.13	.25	.25	.63
Pre-school	1 per 10,000	.1	.2	.2	.5
Playgroup	1 per 5000	.2	.4	.4	1
Primary School	1 per 9000	.11	.22	.22	.56
District Open Space (8 hectares)	1 per 9000	.11	.22	.22	.56
Child care centre	1 per 9000	.11	.22	.22	.56

\* Based on 800 dwellings (upper range of projected dwellings for precinct).

## 7.2 AGENCY CONSULTATION SUMMARY

AGENCY/STAKEHOLDER	MATTERS DISCUSSED/ ADVICE PROVIDED
CMA	<ul style="list-style-type: none"> <li>• Noted CMA their authority in the Precinct given the Middle creek tributary is a designated waterway.</li> <li>• CMA preference is for a 60m wide waterway in accordance with clause 14 of Planning Scheme.</li> <li>• Agreed that this is the starting position and there may be room to ‘pinch’ the creek and widen where it makes sense.</li> <li>• Noted that there is no designated waterway in southern section of precinct so CMA has no direct authority. However CMA noted that this area does eventually drain into the Gippsland Lakes and as such improvements to the drainage system would be welcome.</li> </ul>
EPA	<ul style="list-style-type: none"> <li>• Discussed application of new buffer guidelines prepared by the EPA.</li> <li>• EPA acknowledged issues of residential/industrial conflict in the precinct.</li> <li>• Noted that stricter conditions on permits for industrial use can assist in minimising conflicts.</li> <li>• Noted that the EPA is not required to provide comment on planning strategies unless they are a referral authority.</li> </ul>
DoT PTV	<ul style="list-style-type: none"> <li>• Provided information on existing public transport in Bairnsdale.</li> <li>• Provided advice on the previous process of reviewing the Vicroads deviation and the decision to retain it.</li> <li>• Provided with written advice regarding cross sections to accommodate bus routes. This is as per the GAA cross sections (25m wide) with on-road bike lanes, footpaths and parking.</li> </ul>
Vicroads	<ul style="list-style-type: none"> <li>• Advised that there is no particular trigger related to the construction of the deviation.</li> <li>• Vicroads will retain the land as a “future proofing” measure to ensure that traffic into the town along Princes Highway can be managed.</li> </ul>
Council Community Planner	<ul style="list-style-type: none"> <li>• Advised that there are capacity issues with existing community infrastructure within Bairnsdale.</li> <li>• Advised of process for new development and requirements for SIA.</li> <li>• Acknowledged that the population in this precinct together with Eastwood, Brookfields and precinct to the north could generate demand for additional services.</li> <li>• Echelon advised that it would be undertake a desktop Assessment based on infrastructure benchmarks which would highlight needs over time.</li> <li>• Concept Plan can show opportunity for a community facility as part of the recreation hub and undertake exercise to show this could be accommodated on the council land.</li> </ul>

Council Recreation Planner	<ul style="list-style-type: none"> <li>• Noted that are demands for alternative sports in Bairnsdale but these likely directed to the larger complexes closer to town.</li> <li>• Open space could be better utilised if access and infrastructure improved.</li> <li>• Lucknow not a location for large new facilities.</li> </ul>
EG Water	<ul style="list-style-type: none"> <li>• Noted that they have not included this precinct as part of their Water Plan completed in 2010.</li> <li>• Noted inefficiencies with existing services operating solely for individual properties and a precinct wide approach is preferred.</li> </ul>
EG Business and Tourism Association President and Exec Officer.	<ul style="list-style-type: none"> <li>• Noted that there are space issues in the CBD to accommodate larger homemaker facilities.</li> <li>• Supported freeway diversion and opportunities this could bring.</li> <li>• Keen to ensure new development didn't take investment out of CBD.</li> <li>• Noted may be potential for town to have a wider offering of bulky goods services to minimise travel to other towns (escape expenditure).</li> </ul>

## 7.3 RELEVANT PLANNING POLICY AND PROVISIONS

### SUMMARY OF RELEVANT STATE AND LOCAL PLANNING POLICIES

A summary of the planning provisions and strategies which are relevant in the planning and development of this precinct are summarised over the following pages:

#### **9.2.1 STATE PLANNING POLICY FRAMEWORK**

The following clauses of the state Planning Policy Framework are relevant in the planning and future development of this precinct:

- Clause 11 – Settlement
- Clause 12 – Environmental and Landscape Values
- Clause 14 – Natural Resource management
- Clause 15 – Built Environment and Heritage
- Clause 16 – Housing
- Clause 17 – Economic Development
- Clause 18 – Transport
- Clause 19 – Infrastructure

#### **9.2.2 LOCAL PLANNING POLICY FRAMEWORK**

The following clauses of the East Gippsland Municipal Strategic Statement are relevant to the Precinct Structure Plan:

##### *Clause 21.03 – Settlement*

This clause provides guidance for growth areas and coastal areas. For growth areas the following strategies and objectives are relevant and summarised below:

- Ensure housing diversity is provided in new residential areas, by offering a range of lot size and different types of dwellings.
- Encourage infill or incremental development within existing towns as opposed to the dispersed development.
- Ensure that adequate pedestrian and cycle path networks are provided in new

residential areas and where possible integrate these networks with wildlife corridors.

- Build and support the urban centres so they remain commercially viable and a focal point for services to residents, both within the town and the wider region.

##### *Clause 21.04 – Environmental and Landscape Values*

This clause seeks to protect the environmental and landscape character of the area and ensure that development contributes to the character of the area. The relevant objectives and strategies are summarised below:

- Encourage land use and development to be carried out in ways that mitigate the risk of flood.
- Maintain, conserve and enhance the Biodiversity of East Gippsland.
- Identify and protect sites which have ecological, cultural, Aboriginal or geological values.

##### *Clause 21.05 – Environmental Risk*

This clause sets out objectives and strategies to minimise environment risks for new developments. The relevant objectives and strategies are summarised below:

- Ensure the threat of erosion is considered when planning the land use and development of an area, including evaluating proposals using geotechnical risk assessments.
- Discourage high impact development in areas that are deemed to be high erosion hazard areas.
- Ensure that land use and development is directed in locations that minimising the vulnerability of people and property to bushfire.

##### *Clause 21.07 – Built Environment and Heritage*

This clause envisions high standards of built form and design across the shire to ensure that development responds to the natural landscape. The relevant objectives and strategies are summarised below:

- Ensure that future development and character of the region and each town.
- Encourage development of a high design standard, that is in keeping with landscape and existing town character.



#### *Clause 21.08 – Housing*

This clause identifies the need for the region to cater for a range of housing types, in a manner that responds to the changing demographics of East Gippsland and promotes quality housing design outcomes. The relevant objectives and strategies are summarised below:

- Provide suitable housing options that caters for the changing needs and preferences of the community.
- Support the regions development as a location for retirement.
- Ensure that future rural living is located in well accessed locations and on land that can be readily serviced.
- Discourage commercial or industrial uses within Rural Living Zone.
- Permit low density rural house lots (0.4 to 2 hectares) when located around fully serviced towns and townships and on land that can be readily serviced.

#### *Clause 21.09 – Economic Development*

This clause seeks to retain profitable and competitive commercial industries. This means facilitating expansion of existing industries and promoting East Gippsland as a major tourist destination. The relevant objectives and strategies are summarised below:

- Encourage 'lifestyle' industries and other niche market opportunities that cater for the needs of retirees.
- Encourage the development of service industries and ensure that Bairnsdale continues to play a large role for the region, in the provision of higher order services, including health and educational facilities into the future.
- Provide opportunities for the development of a range of industries in areas that are considered appropriate or adjacent to major urban centres.
- Ensure adequate buffers around industry uses to ensure that air, noise emissions and other amenity concerns do not impact negatively on surrounding sensitive uses.
- Ensure that land used for industry does not detract from the appearance and amenity of surrounding areas, rather provides an attractive and efficient location for businesses.

#### *Clause 21.10 – Transport*

This clause seeks to maintain the efficiency of major highways and roads and ensure that

major development improves links between towns. The relevant objectives and strategies are summarised below:

- Ensure that the efficiency and capacity of major roadways are maintained and ensure that the land along road corridors provides an attractive presentation.
- Minimise crossovers and access points directly onto highways, to improve efficiency of major roads.
- Take into account the potential impacts of new developments in regards to the safety and efficiency of the surrounding road network.

#### *Clause 21.11 – Infrastructure*

This clause advocates for improvements to a range of infrastructure to support the needs and preferences of the community. This involves expanding the range of leisure, educational and recreational facilities and ensuring that new developments contribute to the provision of new infrastructure. The relevant objectives and strategies are summarised below:

- Encourage a range of education options that will benefit the wider region. This can be achieved by supporting the existing TAFE facilities, supporting the development of additional education facilities and identifying new sites that are suitable for education provision.
- Encourage the provision of upgrade leisure facilities to meet the recreational and cultural needs of the residents and visitors of Gippsland.
- Ensure that new developments include high quality public spaces.
- Require developers of new residential estates to provide services that cater for the needs of the development; this may include developers contributing to the upgrading of existing infrastructure.

### *Clause 21.12 – Strategies for Sub-regions, Towns and Localities*

This clause identifies strategies for each of the regions and key towns of East Gippsland. Bairnsdale is the largest town in East Gippsland and is continuing to grow. The relevant objectives and strategies are summarised below:

- Support Bairnsdale’s existing role as the main centre for the East Gippsland sub-region in terms of retail and commercial facilities, health and community services, sporting and recreation facilities, educational, service industries and food processing plants.
- Reinforce Bairnsdale’s position as one of the two preferred locations for heavy industry within the region, by supporting requests for rezoning of land for major industrial initiatives where appropriate.
- Enhance the landscape treatment along the western and eastern approaches to the town as Bairnsdale plays a vital role in determining visitors’ impression of not only the town also the greater region.

### **9.2.3 STRATEGIC DOCUMENTS**

A number of key strategic documents have informed this precinct structure plan as follows:

#### *The Bairnsdale Growth Strategy (2009)*

The Bairnsdale Growth Strategy was a report commissioned by the East Gippsland Council and designates areas where growth should be directed. It identifies locations for urban growth, infill and medium density development as well as areas where employment, commercial and retail centres should be encouraged. The Growth Strategy provides the strategic basis for managing future residential and employment growth in East Bairnsdale to ensure it will support the economic role of Bairnsdale City Centre and its role in the greater region.

This is a strategic document which Council can use to inform decisions regarding development and rezoning over time. Whilst it is an informing document it is not a incorporated or reference document within the Planning Scheme.

The Bairnsdale Growth Strategy establishes a town boundary in order to manage growth and focus development. The following areas have been identified for significant growth:

- Eastwood – Located west of the Great Alpine Road. Identified for ‘growth’ in the Strategy.
- North eastern Bairnsdale – This includes land on both sides of Great Alpine and north and south of Lanes Road. Located in northern Bairnsdale on the west side of Great Alpine Road. All of this land (which includes the Precinct) is identified for ‘significant growth’ in the Strategy.
- South-western Bairnsdale – Located in the south of the town and is identified for ‘significant growth’.

East Bairnsdale/Lucknow area is identified in that Strategy as an area suitable for both residential and employment development, with the precinct located on the eastern edge of the town boundary.

The Growth Strategy identifies the Eastern Bairnsdale industrial precinct (anchored by Patties) and identifies land adjacent to Patties as a location for a future employment node and specialised centre, anchored by planned Dahlsens homemakers centre and other bulky goods uses. It is proposed that the specialised centre would be supported by future residential and employees of the precinct.

#### *Bairnsdale CBD Improvement Project (2013)*

The Bairnsdale CBD Master Plan, ‘Re-imagining Bairnsdale’, was formally adopted by Council at the Council meeting in May 2013. This project aims to produce a master plan for the Bairnsdale CBD detailing changes to Main Street gardens and Nicholson Street Mall. This will see improvements to the public realm, creating a more pleasant pedestrian environment, with an emphasis on improving safety, reducing barrier created by cars within the CBD and improving public gardens and community spaces.

## 9.2.4 ZONES

The following zones are located within the precinct:

### *Clause 32.01 – Residential 1 Zone*

This zone applies to the existing residential area in the precinct, as well as a large lot in the north west corner of the precinct. The key purpose of this zone is to provide a diversity of housing options at a range of densities that respect neighbourhood character. The zone makes allowances for educational, recreational, religious, community and other uses that serve local community needs to be permitted within the zone where appropriate.

Dwellings within this zone do not require permits, but permits for subdivision are required.

### *Clause 33.01 – Industrial 1 Zone*

This zone applies to the land in the south east of the precinct along Princes Highway and McMillan Street and includes the Patties site north of the Princes Highway. The key purpose of this zone is to encourage manufacturing industry and the storage and distribution of goods, this is to be done in a way which ensures that these uses do not negatively impact on the amenity and safety of neighbouring local communities.

### *Clause 34.02 – Commercial 2 Zone*

Shown on the Planning Scheme Map as B3Z, B4Z or C2Z. This zone applies to the land on both sides of the Princes Highway including the land currently owned by Dahlsens. This zone seeks to encourage commercial uses including offices, manufacturing, industries, bulky goods retailing and other retail uses, so long as the safety and amenity of surrounding uses are not adversely affected.

### *Clause 35.03 – Rural Living Zone*

The zone applies to the majority of the precinct to the north of the Princes Highway. This zone seeks to protect and enhance the natural resources, biodiversity, landscape and heritage values of the area whilst allowing rural living. The zone also provides for agricultural land uses, which do not negatively affect the amenity of surrounding uses. This area is subject to schedule 3 Within the Schedule 3 to the Rural Living Zone, a minimum subdivision area of 8 ha.

### *Clause 35.07 – Farming Zone*

This zone applies to a small portion of the precinct in the north east, where there is an existing water body and therefore constrained. Schedule 1 to the Farming Zone specifies, minimum subdivision areas is 40 ha.

### *Clause 36.02 – Public Park and Recreation Zone*

This zone applies to the council owned land in the western portion of the precinct, including the Lucknow Reservation Reserve, ovals, club house and indoor squash centre. The key purpose of this zone is to recognise space that can be used for open space and public recreation and protecting and conserving areas of significance.

### *Clause 36.04 – Road Zone*

The Road Zone 1 applies to Category 1 roads which applies to the Princes Highway and the Great Alpine Road. The key purpose of this zone is to identify significant existing roads and identify land which has been acquired for a significant proposed road.

### **9.2.5 OVERLAYS**

The following overlays apply to land within the precinct:

#### *Clause 43.01 – Heritage Overlay*

The heritage overlay applies to three sites within the precinct including the school in the north western corner of the precinct (HO127), a site in the west of the precinct on the Great Alpine Road (HO126) and a small site on the Princes Highway (HO144). This overlay seeks to protect place of particular heritage value and ensure that development does not negatively impact on significant heritage places. The Schedule to the Overlay specifies whether specific controls apply to particular heritage sites.

#### *Clause 43.04 – Development Plan Overlay*

This overlay seeks to identify areas where the form and conditions of future use and development are to be shown on a development plan prior to a permit being granted to use or develop the land. Schedule 5 to the Development Plan Overlay applies to the land owned and occupied by Patties. This schedule outlines what will be required as part of the development plan including a site analysis, minimum setbacks, internal road and pedestrian network, proposed drainage, Landscape Concept plan, proposed signage and staging of the development.

#### *Clause 44.01 – Erosion Management Overlay*

This overlay applies to land along a large section of the western section of the precinct. This overlay seeks to minimise land disturbance and inappropriate development in areas that are prone to erosion and other land degradation processes. Within this overlay a permit is required to construct a building or carry out works.

#### *Clause 45.01 – Public Acquisition Overlay*

The purpose of this overlay is to identify land which is proposed to be acquired by an authority and reserve land for public purposes. This overlays seeks to ensure that any changes to use or development do not prejudice the purpose for which the land is to be acquired in the future. Schedule 1 to the Public Acquisition Overlay applies to the land which has been set aside for the Princes Highway deviation and runs diagonally through the southern portion of the precinct.

VicRoads is the Acquisition Authority for the road acquisition.

### **9.2.6 PARTICULAR PROVISIONS**

The following particular provisions are relevant to the precinct:

#### *Clause 52.01 – Public Open Space Contribution and Subdivision*

The purpose of this provision is to provide for a contribution to the council for public open space in accordance with the schedule to this clause. This will be a percentage amount of the land intended to be used for residential, industrial or commercial purposes, or a percentage of the site value of such land. It could also be a combination of both land and financial contribution. Exemptions to the public open space requirements are also listed within the provision.

#### *Clause 52.10 – Uses with Adverse Amenity Potential*

The key purpose of this provision is to outline the types of industrial uses and may have unacceptable risk to the amenity and safety of neighbouring sensitive uses. The provision sets out the threshold distance that the different types of production, industrial uses or storage can be located from more sensitive uses (residential, hospital, educational etc.) This is relevant in the assessment of permits in the existing industrial area south of the highway where there is also existing residential zoned land.

#### *Clause 52.17 – Native Vegetation*

The purpose of this provision is to protect and conserve native vegetation and reduce the impact of land and water degradation and provide habitat for plants and animals. This is to be achieved by a number of objectives including minimising the removal of native vegetation. When the removal of native vegetation cannot be avoided, it should be appropriately offset and planned and designed in a way that will minimise the loss of native vegetation.

*Clause 52.29 – Land Adjacent to a Road Zone, Category 1, or a Public Acquisition Overlays for a Category 1 Road*

The purpose of this provision is to ensure appropriate access is provided to identified roads and ensure land adjacent to identified roads is appropriately planned. A permit is required to create or alter access to the Road Zone (Category 1) or any land in a Public Acquisition Overlay that is to be acquired for use as a Category 1 Road. This particular provision also requires for a permit for subdivision of land adjacent to the Road Zone or land in a Public Acquisition overlay if the land is to be acquired for the purpose of a Category 1 Road.

This applies to a significant amount of land that has an interface with the Great Alpine Road, Princes Highway and the planned deviation of the Princes Highway in terms of access and future subdivision.

*Clause 55 – Two or more dwellings on a lot and residential buildings*

The key purpose of this clause is to achieve new residential development that respect and contribute to the existing neighbourhood character and provide reasonable amenity outcomes for existing and new residents. Within Clause 55, a number of subclauses exist that detail preferred design responses, neighbourhood character, setback requirements, site layout and building massing and amenity considerations.

A number of general provisions will be also be relevant to the development of land within the precinct.

## 8 GLOSSARY OF TERMS

### 8.1 ACRONYMS

ABS.....	Australian Bureau of Statistics
AFL.....	Australian Football League
CBD.....	Central Business District
CMA.....	Catchment Management Authority
DoT.....	Department of Transport
EPA.....	Environmental Protection Authority
GDA.....	Gross Developable Area
GAR.....	Great Alpine Road
Ha.....	Hectare
MCH.....	Maternal & Child Health
MSS.....	Municipal Strategic Statement
NDA.....	Net Developable Area
PIP.....	Precinct Infrastructure Plan
PPTN.....	Principle Public Transport Network
PSP.....	Precinct Structure Plan
PTV.....	Public Transport Victoria
Sq m.....	Square Metres
TAFE.....	Technical and further education
WSUD.....	Water Sensitive Urban Design

### 8.2 GLOSSARY

#### **Active Open Space**

Land set aside for the specific purpose of formal organised/club based sports.

#### **Activity Centre**

Provide the focus for services, commercial and retail based employment and social interaction. Activity Centres are where the local people shop, work, meet, relax and live. They are well-served by public transport, they range in size and intensity of use.

#### **Affordable Housing**

Well-located housing, appropriate to the needs of a given household, where the cost (whether mortgage repayment or rent) is no more than 30 per cent of that household's income.

#### **Arterial Road**

A higher order road providing for moderate to high volumes at relatively high speeds typically used for inter-suburban journeys and linking to freeways, and identified under the Road Management Act 2004. All arterials are managed by the State Government.

#### **Co-location**

Adjoining land uses to enable complementary programs, activities and services and shared use of resources and facilities. For example, the co-location of schools and active open space.

#### **Commercial centre**

The area comprising the core commercial, civic and community functions of a town.

#### **Community Facilities**

Infrastructure provided by government or non-government organisations for accommodating a range of community support services, programs and activities. This includes facilities for education and learning (e.g. government and non-government schools, universities, adult learning centres); early years (e.g. preschool, maternal and child health, childcare); health and community services (e.g. hospitals, aged care, doctors, dentists, family and youth services, specialist health services); community (e.g. civic centres, libraries, neighbourhood houses); arts and culture (e.g. galleries, museums, performance space); sport, recreation and leisure (e.g. swimming pools); justice (e.g. law courts); voluntary and faith (e.g. places of worship) and emergency services (e.g. police, fire and ambulance stations).

#### **Connector Street**

A lower order street providing for low to moderate volumes and moderate speeds linking local streets to the arterial network. Managed by the relevant local council, (see Table C1 in clause 56).

#### **Conventional Density Housing**

Housing with an average density of 10 to 15 dwellings per net developable hectare.

#### **Development Contributions Plan**

Document that sets out the contributions expected from each individual landowner to fund infrastructure and services. Refer to Part 3B of the Planning and Environment Act 1987.

**Encumbered Land**

Land that is constrained for development purposes. Includes easements for power/transmission lines, sewers, gas, waterways/drainage; retarding basins/wetlands; landfill; conservation and heritage areas. This land may be used for a range of activities (e.g. walking trails, sports fields).

**Environmental asset**

A tangible bio-physical element of the environment, such as terrestrial habitat, waterways, significant landscapes and soils.

**Environmental value**

The attributes of an environmental asset that make it valuable or important based on environmental, social or economic values.

**Freight and logistics precincts**

Places where large volumes of freight are received, stored and despatched. These precincts may support port, airport or rail and road intermodal terminals and may include manufacturing activity, warehouses and distribution centres within the broader precinct of complementary freight and freight-related activities.

**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.

**Gross Developable Area**

The total precinct area excluding encumbered land, arterial roads and other roads with four or more lanes.

**High Density Housing**

Housing with an average density of more than 30 dwellings per net developable hectare.

**Higher order services**

Services that are only provided in a limited number of locations and have a large catchment area, such as a university or an arts and culture centre.

**Housing Density (Net)**

The number of houses divided by net developable area.

**Housing diversity**

The provision of a range of different housing types to suit different ages, lifestyles and incomes.

**Infill development**

The development of additional dwellings in established urban areas.

**Linear Open Space Network**

Corridors of open space, mainly along waterways that link together, forming a network.

**Land Budget Table**

A table setting out the total precinct area, net developable area and constituent land uses proposed within the precinct.

**Labour Force Participation Rate (LFPR)**

The percentage of working-age persons in an economy who are employed or who are unemployed but looking for a job.

**Local Centre**

An activity centre smaller than a neighbourhood activity centre with a catchment radius of about 400 metres and may include a small supermarket or convenience store of 500 square metres to 1,500 square metres.

**Lot**

A part (consisting of one or more pieces) of any land (except a road, a reserve, or common property) shown on a plan, which can be disposed of separately and includes a unit or accessory unit on a registered plan of strata subdivision and a lot or accessory lot on a registered cluster plan.

**Lower Density Housing**

Housing with an average density of less than 8 dwellings per net developable hectare. This equates to an average block size of 1500m<sup>2</sup>.

**Conventional Density Housing**

Housing with an average density of 10 dwellings per net developable hectare. This equates to an average block size of 900m<sup>2</sup>.

**Medium Density Housing**

Housing with an average density of 16 to 30 dwellings per net developable hectare.

**Native Vegetation**

Plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses

**Neighbourhood Activity Centre**

Centres that are an important community focal point and have a mix of uses to meet local needs. Accessible to a viable user population by walking, cycling and by local bus services and public transport links to one or more principal or major activity centres.

**Net Developable Area**

Total amount of land within the precinct that is made available for development of housing and employment buildings, including lots, local and connector streets. Total precinct area minus community facilities, schools and educational facilities and open space, arterial roads and encumbered land. Small local parks defined at subdivision stage are included in net developable area. Net Developable Area may be expressed in terms of hectare units (i.e. Net Developable Hectare ("NDHa")).

**Passive Open Space**

Open space that is set aside for parks, gardens, linear corridors, conservation bushlands, nature reserves, public squares and community gardens that are made available for passive recreation, play and unstructured physical activity including walking, cycling, hiking, revitalisation, contemplation and enjoying nature.

**Precinct Infrastructure Plan**

Section within the precinct structure plan that defines the priority regional and local infrastructure requirements for future planning and investment by council and government agencies.

**Principal Public Transport Network**

A high-quality public transport network.

**Public Open Space**

Land that is set aside in the precinct structure plan for public recreation or public resort; or as parklands; or for similar purposes. Incorporates active and passive open space.

**Social Infrastructure**

Community facilities plus public open space.

**Town centre**

The area comprising the core commercial, civic and community functions of a town.

**Water Sensitive Urban Design**

A sustainable water management approach that aims to provide water-quality treatment, flood management to reduce the pollution carried to our waterways and more sustainable urban landscapes. Key principles include minimising water resistant areas; recharging natural groundwater aquifers (where appropriate) by increasing the amount of rain absorbed into the ground; encouraging onsite reuse of rain; encouraging onsite treatment to improve water quality and remove pollution, and using temporary rainfall storage (retarding basins/wetlands) to reduce the load on drains and improve landscape viability.



## 9 REFERENCES

- <sup>1</sup> Australian Bureau of Statistics (2011). Quick Stats.
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- Department of Planning and Community Development (2013) Draft Regional Growth Plan
- Neil M Craigie Pty Ltd (2010) Bairnsdale East Surface Water Management Strategy, second report.
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éche|on  
planning

e [info@echelonplanning.com.au](mailto:info@echelonplanning.com.au)  
a 420 Victoria St, Brunswick  
p PO Box 298, Brunswick, VIC 3056  
t 03 9940 1566