COCKATOO
Township Strategy

Adopted at the General Council Meeting
17 March 2008

CARDINIA

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1.   INTRODUCTION

Cockatoo is located at the foothills of the Dandenong Ranges in a picturesque valley of the Cockatoo Creek. It is approximately 50 kilometres east of Melbourne, 6.5 kilometres east of Emerald and 18 kilometres north of Pakenham. Dominant activities within the Strategy Area include residential and rural residential development, open space and recreation.

1.1   Purpose of the Strategy

The Shire of Cardinia comprises of 19 townships and a number of rural localities, each with a distinct identity, character and role. Both the Council Plan and the Municipal Strategic Statement (MSS) recognise the need for the preparation and implementation of a township strategy for each of the shires townships. The township strategies provide a strategic policy framework for the future development of each township. Each strategy provides clear direction in keys areas of:

- residential development
- economic development
- community development
- open space
- traffic and transport
- physical infrastructure
- environment
- town centre design guidelines

This strategy sets out the key issues facing the Cockatoo Township and explains why they are important. The strategy then sets out objectives (what we are trying to achieve) and policies and actions (how the objectives will be achieved). Council, with the assistance of residents, local community groups and other government agencies will play a critical role in implementing the policies and actions set out in this strategy.

1.2   Strategy Area

The area included in the Cockatoo Township Strategy is generally bounded to the north by Rainy Hill Road, to the west by Cockatoo Creek, Wright Forest and Bailey Road, to the south by Paternoster Road and Brisbane Road and to the east by the boundary of the existing residential areas. The strategy area is shown in Figure 1.

Map labels:

BELGRAVE
GEMBROOK
COCKATOO CREEK
ROAD
Woori Yallock Creek Gully Reserve
MOUNTAIN
WOORI YALLOCK ROAD
Cockatoo Sports Complex
ROAD
WRIGHT
Wright Forest
Baker Street Reserve
Mountain Road Reserve
BAILEY ROAD
Bailey Road Reserve
Hall Road Reserve
BELGRAVE
GEMBROOK ROAD
Cockatoo Creek Reserve
COCKATOO CREEK
PAKENHAM ROAD
PATERNOSTER ROAD
VIEW HILL ROAD
Josie Bysouth Reserve

LEGEND

- Township Boundary
- Arterial road
- Local arterial road
- Local collector road

0 50 100 200m
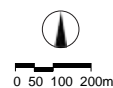
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CARDINIA

FIGURE 1: STRATEGY AREA

2. SNAPSHOT OF COCKATOO

2.1 History

Cockatoo, originally listed as timber town, became a notable resort town after the 1890s with the construction of the single-gauge railway. Work on the line commenced in 1898 and it was opened in December 1900. The line ran from Upper Ferntree Gully, through Belgrave, Menzies Creek, Clematis, Emerald, Cockatoo and Gembrook. Local producers used the narrow gauge line to transport their produce mainly potatoes and timber. But as well as offering transport of goods up and down the line, the steam train also allowed easy access to the hills at a time when Victorians were becoming passionate about tourism and day trips. Cockatoo's heyday as a resort town was in the post-1900 period and particularly during the inter-War period and later. A 1928 Tourist Map of the Dandenong Ranges produced by the Ferntree Gully and Gembrook District Tourist Resorts Committee described Cockatoo as 'a popular resort of one-day trippers'. It told how a 'tourist track had been cut along the course of the Cockatoo Creek, and there is a picnicking ground close to the station'. Holiday campers were invited to 'pitch their tents' along the river banks. There has been significant population growth in the area since the 1970s as a result of the expansion of metropolitan area and infrastructure provision.

Source: Cardinia Shire Heritage Study, Volume 2, Environmental History (1998)

In 1983, Cockatoo was devastated by the Ash Wednesday bushfires, suffering the loss of 6 lives and over 300 homes. The fires burned around 1,800 hectares in this area.

2.2 Population

In 2006, Cockatoo had a population of approximately 4,300 residents and 1,500 households representing about 7.7% of Cardinia's population. Historical census data reflects a strong growth period between 1981 and 1991 with a slight decline between 1991 and 1996. This area experienced significant population growth between 1996 and 2001, as a result of an increase of new dwellings and households being added to the area and a relatively stable average number of persons living in each dwelling. Over the last 10 years, the enumerated population (excluding overseas visitors), has increased by 10.3% from 3,903 in 1996 to 4,303 in 2006. By 2021, the population is projected to increase to about 5,000. The population forecasts predict a stabilising population growth as a result of decline in natural growth and stable net migration due to limited development opportunities and an ageing population. The average household size of 2.9 persons is slightly larger than Cardinia (2.8 persons).

Table 1: Population and household forecast

Summary data	Forecast year				
	2001	**2006**	**2011**	**2016**	**2021**
Total population	4,441	4,570	↗4,737	↗4,868	↗4,970
Households	1,449	1,529	↗1,616	↗1,683	↗1,732
Dwellings	1,501	1,583	↗1,673	↗1,743	↗1,793
Average household size	3.04	2.96	↘2.91	↘2.87	↘2.85

≈ stable* from previous year ↗ increase from previous year ↘ decrease from previous year
* stable refers to between +/- 0.5% change

Source: Cardinia Community and Household Forecasts; www.id.com.au

The age structure of Cockatoo/Nangana in 2006 was represented by large numbers of persons in both young and more mature family age groups, with 73% of the population aged 0-17 and 25-49. In comparison with Cardinia, Cockatoo's population has an even younger population, with the median age of residents being 30 years old and 42% of residents under the age of 24 years. Only 7% of Cockatoo's population is aged over 60 years compared to 13.8% for Cardinia Shire.

Table 2: Age structure in 2006

Age structure	2006	
Service age group (years)	**number**	**%**
0 to 4	393	8.6
5 to 11	598	13.1
12 to 17	517	11.3
18 to 24	394	8.6
25 to 34	650	14.2
35 to 49	1179	25.8
50 to 59	515	11.3
60 to 69	199	4.4
70 to 84	116	2.5
85 and over	4	0.1

Source: Cardinia Community and Household Forecasts; www.id.com.au

The most significant changes in age structure expected in this area between 2006 and 2011 are in the age groups 50-59 year olds (+108) and 60-69 year olds (+84) and 35-49 year olds (-50). The forecast age structure indicates that the slight drop in 35-49 year age group will continue but the overall working age-group (18-59) will still constitute a significant portion of the overall population (around 60%). A sharp increase is expected in the 60-69 year old age group which may be a reflection of ageing in place.

Figure 2: Anticipated change age structure (2006–2021)
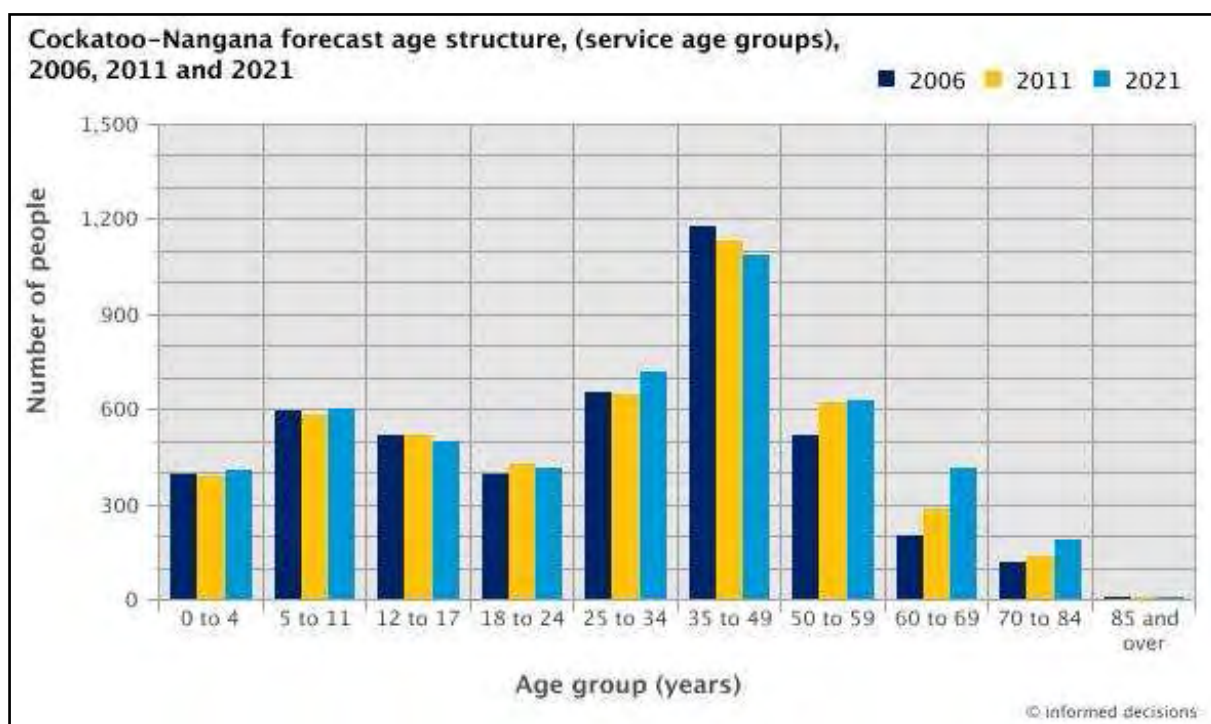
Source: Cardinia Community and Household Forecasts; www.id.com.au

The predominant household and family type is couples with dependent children (52%) and couples without children (24%) and this trend is likely to continue into the future though some changes are likely as children grow up and leave the family home.

Table 3: Change in household types in Cockatoo 2006–2021

Household types	Forecast year					
Households (occupied private dwellings)	2006		2011		2021	
	number	%	number	%	number	%
Couple families with dependents	711	46.5	721	44.6	745	43.0
Couples without dependents	316	20.7	362	22.4	406	23.4
Lone parent families with dependents	213	13.9	221	13.7	235	13.6
Other families	19	1.2	22	1.4	23	1.3
Lone person households	235	15.4	252	15.6	283	16.3
Group households	35	2.3	38	2.4	40	2.3
Total households	1,529	100.0	1,616	100.0	1,732	100.0

Source: Cardinia Community and Household Forecasts; www.id.com.au

2.3   Policy context

Both the Council Plan and the Municipal Strategic Statement (MSS) recognise the need for the preparation and implementation of a township strategy for each of the shires townships. The MSS recognises that the pattern of settlement in the Cardinia Shire is primarily focused in townships ranging from large rural townships to rural localities. Cockatoo has been identified as being a large rural township. The MSS also recognises that each township has a distinct character which should be maintained and enhanced. Strategic directions relevant to Cockatoo to achieve the objective for townships in the MSS are:

- Limit residential development, including rural residential subdivision, in the hills towns unless provided for by the strategy plan for the township or the development results in significant environmental or community benefits.

- Maintain the current diverse range of lot sizes in the hills towns as an intrinsic part of their character.

The State Government released 'Melbourne 2030 – Planning for Sustainable Growth' in October 2002. Melbourne 2030 is a strategic plan developed to manage growth across metropolitan Melbourne and the surrounding region. In an attempt to conserve rural activities and significant natural features outside the growth areas of metropolitan Melbourne, the State Government has identified 12 green wedges (Figure 3). The green wedges in metropolitan Melbourne contain elements that are of social, economic and environmental significance. The green wedge legislation seeks to protect the green wedges from inappropriate development. Cockatoo is located within the Yarra Valley- Dandenong Ranges green wedge.

The significant elements in this green wedge include:

- Areas of environmental and landscape qualities

- National parks, such as Yarra Ranges, Dandenong Ranges

- Native vegetation, fauna habitat

- Areas of productive agricultural potential

Figure 3: Metropolitan Green Wedges

Figure 1. Green wedges

☐ Green wedge   ▨ Existing urban area   ▨ Growth area

Source: Melbourne 2030

3. STRATEGIC OBJECTIVES AND FRAMEWORK PLAN

3.1 Vision

The desired vision for Cockatoo Township for the next 10–15 years can be summarised as:

> A rural country community with contained residential development in a natural landscape setting, adequate social and physical infrastructure to service the community, extensive open space and recreation opportunities and a strong sense of community.

3.2 Strategic Objectives

The key objectives for the Cockatoo Township to achieve the desired vision are:

- To limit further residential development while protecting and enhancing the rural country character of the township.
- To enhance the existing town centre precinct and create local employment opportunities.
- To provide appropriate, accessible and quality community services while maintaining the existing community precincts.
- To provide open space to meet the active and passive recreational needs of the community.
- To ensure a safe, functional and inter-connected transportation network.
- To provide or upgrade utility services to improve the health and amenity of residents and to minimise environmental impacts.
- To protect and improve the natural environment and heritage.
- To reduce the risk of wildfire impacting on the Cockatoo community.

The future development of the Cockatoo Township is shown in the Cockatoo Framework Plan (Figure 4). The Framework Plan sets out the general pattern for the use and development of land in the township. The purpose of the plan is to provide a strategy for guiding redevelopment opportunities, encouraging a better mix of retail uses, creating a sense of place, and preserving the existing assets. To that end, the policy recommendations are organised under eight primary themes: residential development, economic development, community development, open space, traffic & transport, physical infrastructure, environment and town centre design guidelines.

BELGRAVE

GEMBROOK ROAD

COCKATOO CREEK

WRIGHT

Wright
Forest

Baker
Street
Reserve

COCKATOO CREEK

Woori Yallock
Creek Gully
Reserve

WOORI YALLOCK ROAD

MOUNTAIN

7

4

ROAD

Cockatoo
Sports
Complex

Mountain Road
Reserve

2

Bailey Road
Reserve

ROAD

BAILEY

5

1

COCKATOO

THIRD

Alma
Treloar
Reserve

Hall
Road
Reserve

Cockatoo
Creek
Reserve

2

2

BELGRAVE - GEMBROOK ROAD

3

1

PATERNOSTER ROAD

AVENUE

VIEW HILL ROAD

PAKENHAM ROAD

7

6

Josie
Bysouth
Reserve

FIELDER

5

4

4

4

LEGEND

- Township Boundary
- Community Facility
- Schools
- Commercial/Town Centre
- Contours (10m interval)
- Buy - Back Areas
- Fire Break

MOVEMENT NETWORK

- Arterial road
- Local arterial road
- Local collector road
- Limited access road
- Puffing Billy Railway line
- Railway station
- Key gateways
- Proposed intersection upgrades

OPEN SPACE NETWORK

- Passive Open Space
- Active Open Space
- Natural drainage (creeks)
- Emerald to Gembrook trail (phase 1)
- Proposed Emerald to Gembrook trail (phase 2)
- Third Avenue potential residential development

PRECINCTS

- Precinct 1 - Inner Residential Areas
- Precinct 2 - Outer Residential Areas
- Precinct 3 - Garden Estate
- Precinct 4 - Hills Residential
- Precinct 5 - Hills Landscape / Rural Residential
- Precinct 6 - Environmental Residential
- Precinct 7 - Creek Interface

0 50 100 200m

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FIGURE 4: COCKATOO FRAMEWORK PLAN

CARDINIA

4.   RESIDENTIAL DEVELOPMENT

4.1   Overview

Residential development in Cockatoo generally extends to the north and south of the town centre, along the main roads including Pakenham Road, Woori Yallock Road and Bailey Road. Much of Cockatoo was subdivided in the early 1900s. Many of the subdivisions are old and inappropriate given their environmental context and lack of infrastructure services. The diversity of lot sizes, ranging from urban residential and rural residential to rural lots, significantly contributes towards the character of the township. There is a mix of older and more contemporary dwellings in Cockatoo.

4.2   Land Capability

The soils of the area are dominated by soils of Silurian Metamorphic and Silurian Sedimentary origin, both with moderate permeability, found on rolling hills and hill slopes which are moderately to well drained. The land capability for residential activities is largely regarded as being poor to very poor, with risks of erosion hazards and engineering difficulties due to existing steep slopes.

4.3   Restructure and buy-back

Given the nature of the topography, vegetation cover and lack of physical infrastructure some areas are subject to a Restructure Overlay that requires two or more lots to be consolidated prior to development. As part of the program to restructure titles, there were also some subdivided areas in Cockatoo that were not considered suitable for development at all, as they were excessively steep, traversed by drainage lines or had significant conservation value. These lots were identified as 'buyback' as shown in the Framework Plan (Figure 4). Substantial progress has been made in relation to the restructure program, with about 86% of lots in the hills being restructured and about 84% of lots for public acquisition in buyback areas being acquired.

In 2001, council undertook a review of the Restructure Overlay and recommend that the Overlay be removed from land where restructuring had been completed. The review also recommended that council seek to complete the public acquisition of land in the buyback areas with a high priority being given to lots in Fourth Avenue, Fifth Avenue and Sixth Avenue. Given the high environmental value of most of the buyback areas, the development of this land is not considered to be sustainable and so these areas will be retained as environmental reserves. A program is expected be devised in collaboration with Department of Sustainability and Environment in relation to the management arrangements for this area following the completion of the buyback scheme. The transfer of land to the public authority is expected to lead to subsequent rezoning of this area to Public Conservation and Resource Zone (PCRZ) to ensure its retention as an environmental reserve.

The development of Third Avenue into 50 lots with an area of 2,000 square metres each was also proposed in 2001 as part of the restructure plans. However, in light of improved understanding of issues related wildfire management, native vegetation and infrastructure servicing means that this option needs to be revisited.

4.4   Trends in Residential Development

There is a significant concentration of separate houses in Cockatoo / Nangana, which is consistent with a greater degree of similarity in residential land uses. The greater share of separate houses means that this area is more likely to appeal to families. In 2006, the percentage of separate houses in Cockatoo / Nangana was higher (93.6%) than the Shire of Cardinia (87.1%). There was a gain in the number of separate houses in Cockatoo / Nangana between 2001 and 2006 (+73), maintaining the dominance of this form of dwelling in the area.

The housing tenure indicates that the predominant categories are being purchased (63.6%), fully owned (19.3%) and rented (12.1%). Compared to Cardinia as a whole, the percentage of dwellings being purchased is significantly higher which may indicate a continued demand in the residential market. Between 2001 and 2006, there were few major changes in tenure in Cockatoo/Nangana. The most noteworthy of these was the share of homeowners, which decreased during the period, and an increase in the number being purchased.

A comparison of development approvals and planning permits from 2000-2007 can provide an indication of the level of investment in Cockatoo. The main proposals for use and development in the area relate to houses, outbuildings works and vegetation removal. Council's building data shows that on an average, about 25 building permit applications were received per annum between 2000 and 2007.

Table 4:   Building permit applications for Cockatoo 2000–07
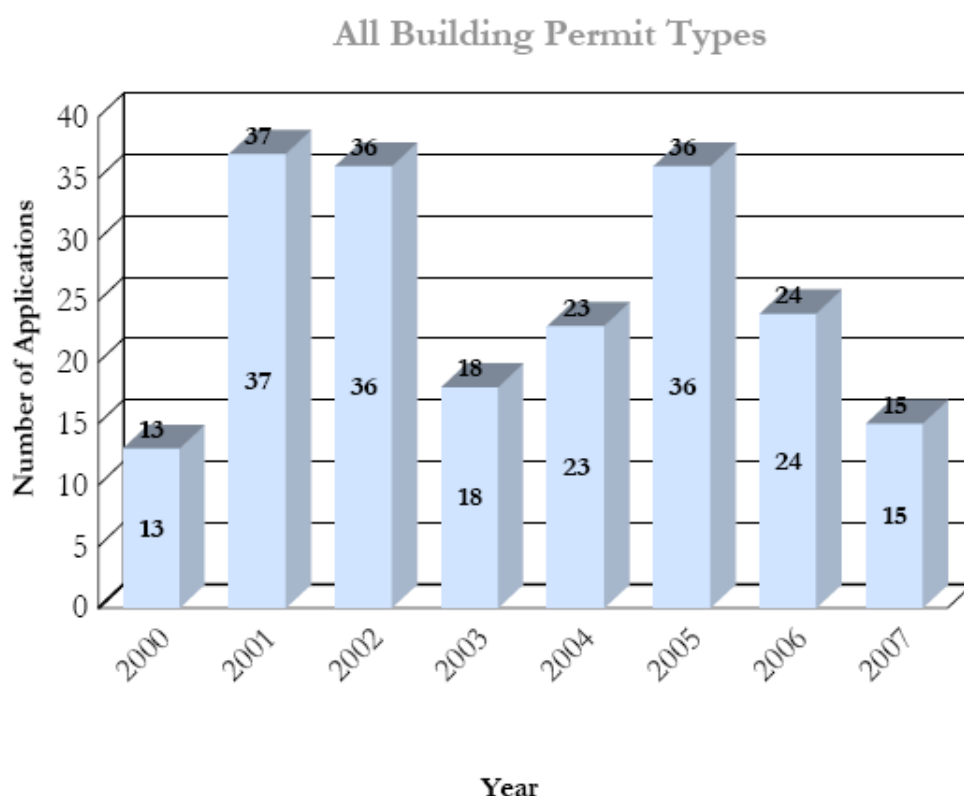
Source: Cardinia Shire Council, 2008

4.5   Strategic Direction

Whilst some growth in building activity is evident, land availability and suitability for residential activities is diminishing significantly. There are two predominant residential zones within the township, being Residential 1 Zone and the Low Density Residential Zone. There are approximately 530 lots within the Residential 1 Zone, and approximately 650 lots zoned Low Density Residential Zone. Most remaining vacant lots are scattered in and amongst these existing residential areas and there are only in the order of 50 to 100 lots appropriate for residential development. The proposed development of Third Avenue may yield another 50 residential lots.

There is a possibility of increased development pressure as additional areas are connected to reticulated sewerage by Yarra Valley Water. Currently only the Residential 1 zoned land east of Cockatoo Creek has reticulated sewerage. Another constraint for residential development is that majority of properties currently gain access from unsealed roads with limited roadside drainage.

These facts combined with the enactment of the green wedge legislation, contribute to a situation where the demand for residential development is expected to be constrained by land availability.

4.6 Township Character

It is important that any further subdivision of land in Cockatoo occurs in a controlled environment and has minimal impact on the existing vegetation, landscape vistas without placing additional pressure on the environment and potentially altering the character of the township. An assessment of the township character has reinforced the bushland setting of this rural country with dwellings being wholly or partly screened by vegetation. Other significant characteristics of the township can be defined as diversity of lot sizes and dwelling types, undulating topography and Cockatoo Creek as the green corridor bisecting the town. The main threats to the township character include loss of vegetation, degradation of Cockatoo Creek, loss of vistas and view lines, prominent built form and extensive earthworks. The assessment has identified 7 distinct residential precincts with notable character elements within the township. Character guidelines for these residential precincts, as outlined in Table 5, will guide future development that complements the intrinsic character of the township. The Style Guide for Cockatoo Residential Areas (See Appendix D) provides further clarification on the key preferred character outcomes for the residential areas in Cockatoo.

4.7 Key Issues

The key issues can be summarised as:

- Limited capacity for further residential development
- Possible development pressure from additional areas to be connected to reticulated sewerage by Yarra Valley Water
- Existence of old and inappropriate subdivisions
- Protection of the rural country character

4.8 Objectives

- To limit further residential development.
- To facilitate the restructuring of old and inappropriate subdivisions.
- To protect and enhance the 'rural country' character of the township.

4.9 Policy

- Ensure any proposed residential development is in accordance with the Cockatoo Framework Plan.
- Restrict residential development where the land has a slope greater than 20% or is designated "very poor" in the land capacity study.
- Incorporate built form, environment and landscape principles in any proposed development within the areas covered by Significant Landscape Overlay (Schedule 1 and Schedule 5).
- Maintain and enhance the 'rural country' character of Cockatoo through the consolidation of existing lots in accordance with the restructure plans in Cardinia Planning Scheme, the retention of larger residential lots, the retention of existing remnant vegetation (particularly canopy trees) and the use of building materials and colours which complement the natural environment of the area.
- Undertake residential development in accordance with the precinct character guidelines set out in Table 5: Precinct Character Guidelines.

4.10 Actions

- Continue to purchase the properties identified in restructure plans as buy-back with high priority being lots in Fourth, Fifth and Sixth Avenue.

- Review the option of further development of Third Avenue into 50 lots of 2,000 square metres each having regard to infrastructure requirements, environmental impacts and wildfire protection.

- Review the residential zones and the Design and Development Overlay applying to land within the Cockatoo township boundary to reflect the above policies on township character.

Table 5:   Precinct Character Guidelines

Precinct	Description of key characteristics	Preferred character statement and character guidelines
PRECINCT 1 INNER RESIDENTIAL AREAS close to the town centre	**Key characteristics:** 1. Sense of openness and visual containment created by low creek corridor surrounded by vegetated areas 2. Small, compact allotments (700 square metres to 1,000 square metres) interspersed with a few elongated lots 3. Small timber or brick dwellings, one or two storeys 4. Consistent setbacks 5. Established gardens with low or permeable fences 6. the dominant features include the Cockatoo Creek and Pakenham Road which follows the creek 7. Within the Puffing Billy visual corridor; 8. Sloping terrain towards the creek 9. Moderate to dense vegetation along creek and roadside, particularly, Pakenham Road entry from the south 10. Long range views to the west (Wright Forest) and south-west (Paternoster ridge).	**Preferred character statement:** The accessibility to the town centre to be maintained and enhanced by better linkages. Proximity to Cockatoo creek will continue to be a dominant visual feature. The roadside vegetation will form strong entry statements to the town. Private residential allotments will retain the vegetation cover. Low or permeable fences will allow gardens and nature strips to merge. Views will be maintained. **Character guidelines:** 1. Maintain a diverse range of lot sizes with a minimum lot size of 1,000 square metres 2. Encourage dwellings to be unobtrusive in a compact layout and well articulated 3. Encourage building material, colour and finish to complement the 'rural country' character and the surrounding natural landscape 4. Maintain consistent setbacks from the Puffing Billy Railway corridor 5. Limit site coverage to 40% to allow for screen planting, vegetation retention and revegetation to screen built form from key roads and the Puffing Billy Railway while ensuring effective wildfire management 6. Encourage open front gardens with low or permeable fences to allow gardens and nature strips to merge 7. Retain vegetation along Cockatoo Creek and roadsides, particularly, Pakenham Road entry from the south 8. Maintain long range views to the west (Wright Forest) and south-west (Paternoster ridge).
PRECINCT 2 OUTER RESIDENTIAL AREAS on highly undulating land with extensive vegetation east of the township	**Key characteristics:** 1. Intimate small scale land unit with lot sizes ranging from 1,000 square metres to 4,000 square metres and above 2. Elongated lots with significant vegetation cover 3. Small timber or brick dwellings, one or two storeys 4. Simple gardens with low or permeable fences 5. Extensive vegetation cover characterised by tall eucalypts	**Preferred character statement:** The extensive tree cover will continue to act as a township backdrop to the east. The sense of connection to the surrounding landscape will be strengthened. **Character guidelines:** 1. Maintain a minimum lot size of 4,000 square metres 2. Retain elongated lots with significant vegetation cover 3. Site coverage will not exceed 40% to allow for vegetation retention and revegetation

Precinct	Description of key characteristics	Preferred character statement and character guidelines
	and a diverse understorey 6. Undulating terrain 7. Filtered views in all directions 8. Unformed and irregular road layout.	4. Encourage permeable fences to enhance the bushland setting 5. Retain tall canopy trees, particularly native vegetation, to act as a backdrop to the east while ensuring effective wildfire management 6. Retain vegetation along key roads, particularly Amphlett Avenue 7. Limit further development along steep roads.
PRECINCT 3 GARDEN ESTATE Residential areas west of the township	**Key characteristics:** 1. Diverse lot sizes ranging from 700 square metres to 4,000 square metres and above 2. Unobtrusive built form 3. A mixture of larger, one or two storey dwellings of recent construction and smaller houses 4. A mixture of simple and established gardens 5. Tall canopy trees and understorey particularly along road reserves and site boundary 6. Steep to moderate slope 7. Parallel/ grid road layout 8. Filtered views from the north-eastern edge of the site, towards the township.	**Preferred character statement:** The semi-treed, compact character of the settlement and the diversity of the lot sizes will be maintained. The layout and design of dwellings will maximise retention of vegetation. The built form will be unobtrusive so as to appear as a forested hillside from the town centre. There will be gardens with primarily native vegetation. A network of paths will connect the different areas of this precinct. **Character guidelines:** 1. Maintain a range of lot sizes with a minimum lot size of 2,000 square metres 2. Building material and finishes will complement the bushland setting 3. Encourage open front gardens with low or permeable fences to allow gardens and nature strips to merge 4. Maintain consistent setbacks and height 5. Site coverage will not exceed 40% to allow for vegetation retention and revegetation 6. Retain tall canopy trees, particularly native vegetation, while ensuring effective wildfire management 7. Retain roadside vegetation and ensure sufficient vegetation along First and Second Avenue to screen the built form being visible from the town centre.
PRECINCT 4 HILLS RESIDENTIAL areas north-east and south-east of the township	**Key characteristics:** 1. Diverse lot sizes ranging from 700 square metres to 4,000 square metres and above with the balance in favour of larger lots 2. A mixture of larger, one or two storey dwellings of recent construction and smaller houses	**Preferred character statement:** The bushland setting of the precinct will be maintained. The mix of lot sizes with the informal layout of the lots and dwellings retained. The dwellings will be set back to maintain an unobtrusive built form. The front fences will be low or permeable to allow the built form to merge with the surrounding landscape. The building material and finishes will complement the bushland setting. The tall

Precinct	Description of key characteristics	Preferred character statement and character guidelines
	3. Building material is mainly timber or brick 4. Gardens in a bushland setting 5. Permeable fences 6. Steep slope in parts 7. Significant vegetation with tall canopy trees and scattered understorey including ferns 8. Sense of enclosure created by vegetation cover 9. Mix of grid and irregular road pattern 10. Steep, unsealed roads.	canopy trees will be retained. **Character guidelines:** 1. Maintain a range of lot sizes with a minimum lot size of 4,000 square metres 2. Maintain the informal layout of the lots and diversity of dwellings 3. Encourage building material and finishes that complement the bushland setting; 4. Maintain consistent setbacks and height 5. Encourage permeable fences to enhance the bushland setting 6. Restrict development particularly along steep roads 7. Locate building and driveway to avoid and minimise excessive earthwork 8. Retain tall canopy trees and scattered understorey, particularly an understorey of ferns, while ensuring effective wildfire management.
PRECINCT 5 HILLS LANDSCAPE/ RURAL RESIDENTIAL areas south of the township and area north of the township near Wright Forest	**Key characteristics:** 1. Large, irregular allotments mostly above 4,000 square metres in size 2. Large, one or two storey dwellings in timber and brick 3. Built form obscured from roads by vegetation within the creek corridor and along roadsides 4. Patches of vegetation interspersed with cleared farm land in the southern area 5. The northern area is heavily vegetated and acts as an interface to Wright Forest 6. Gently undulating in the southern area while the northern area is moderately steep in parts 7. Filtered views towards the township from the north 8. Extensive roadside vegetation 9. Steep, unsealed roads in parts.	**Preferred character statement:** The bushland setting of the two areas within this precinct will be retained. The built form will be unobtrusive, complementing the setting. Further development will be restricted particularly along steep roads. The views to and from the two precinct areas will be retained. Patches of remnant vegetation will be retained while allowing some farming activities within large allotments in the southern area. **Character guidelines:** 1. Maintain a minimum lot size of 4,000 square metres 2. Encourage building material and finishes that complement the bushland setting 3. Maintain unobtrusive built form 4. Maintain sufficient setback from front boundary 5. Encourage permeable fences to enhance the bushland setting 6. Retain vegetation along key roads 7. Retain vegetation cover, particularly in the Wright Forest interface area, while ensuring effective wildfire management.
PRECINCT 6 ENVIRONMENTAL RESIDENTIAL areas south west of the township	**Key characteristics:** 1. Diverse lot sizes ranging from 700 square metres to over 4,000 square metres with the balance in favour of larger lots	**Preferred character statement:** Maintain the low density character of the precinct with extensive vegetation cover. Retain the diversity of lot sizes while limiting further development in areas on steep slope.

Precinct	Description of key characteristics	Preferred character statement and character guidelines
	2. Undulating topography 3. A mixture of larger, one or two storey dwellings of recent construction and smaller houses 4. Patches of moderate to dense vegetation with dominant understorey 5. Vegetated backdrop to the south 6. Sense of enclosure created by vegetation cover 7. Undulating terrain; 8. Unformed and irregular road layout 9. Steep, unsealed roads.	**Character guidelines:** 1. Maintain a minimum lot size of 4,000 square metres 2. Encourage building material and finishes that complement the bushland setting 3. Maintain unobtrusive built form 4. Maintain sufficient setback from front boundary 5. Encourage permeable fences to enhance the bushland setting 6. Retain tall canopy trees and shrub understorey, particularly native vegetation, to act as a backdrop to the south while ensuring effective wildfire management 7. Limit further development along steep roads 8. Locate building and driveway to avoid and minimise excessive earthwork.
PRECINCT 7 CREEK INTERFACE Bush lots along Cockatoo Creek	**Key characteristics:** 1. Large lots of 4,000 square metres and above 2. Large dwellings obscured by vegetation 3. Moderate to dense vegetation characterised by tall eucalypts and scattered understorey dominated by tree-ferns 4. Mostly within creek reserve 5. Steep slope in parts 6. Filtered views to this area from other parts of the township.	**Preferred character statement:** Maintain the unobtrusive built form of the dwellings in these large properties. The setting of dense vegetation along the Cockatoo Creek and its tributaries will be enhanced by retaining vegetation, particularly tall canopy trees and scattered understorey. Excessive earthworks will be discouraged. **Character guidelines:** 1. Retain large lots 2. Restrict development 3. Encourage building material and finishes that complement the bushland setting 4. Encourage permeable fences to enhance the bushland setting 5. Locate building and driveway to avoid and minimise excessive earthwork 6. Retain tall canopy trees, particularly tall eucalypts and scattered understorey, within the Cockatoo Creek corridor and its tributaries while ensuring effective wildfire management.

5. ECONOMIC DEVELOPMENT

5.1 Overview

The nature of Cockatoo and its hinterland means that the traditional forms of economic growth, which rely on a supply of "green field" sites for economic development, are not possible in this area. Further, given the environmental sensitivity of the area, the sorts of economic activity that can be carried out are limited, both practically and legislatively. Council is obliged to ensure that all development, including that of the local economy, is ecologically sustainable. As a result of these constraints, different approaches to economic development are required in Cockatoo.

Cockatoo's town centre precinct is the economic hub of the township and serves a small local role being situated to the east of the main road network along McBride Street. McBride Street works well as a focused shopping environment with its concentrated core of commercial activity. There is a mix of retail and commercial premises that meet the day to day needs of the community. These uses provide strong daytime activity but limited after hours and weekend use. There is also an isolated commercial site on Bailey Road opposite Neville Street. Cockatoo's commercial centre is generally used by residents for convenience purchases with larger shopping requirements being met by facilities at Emerald or further afield. The community has identified the need to provide suitable land for light industrial or service uses within the Cockatoo Township.

Cockatoo's commercial centre is traversed by the Puffing Billy Railway line, a tourist railway that connects Gembrook and Belgrave. Over the last three decades Puffing Billy has arguably been the most visible symbol of tourism in the Dandenong Ranges. Cockatoo's other tourism attractions include two key events each year, including the plant market and the rodeo. Cockatoo also has many key recreational and environmental assets such as the Alma Treloar Reserve which runs along the Cockatoo Creek and Wright Forest.

5.2 Labour Force

Cockatoo is primarily a dormitory town with most of the workforce commuting everyday to workplaces in the nearby employment centres as the township has limited employment opportunities. It is anticipated that the township will continue its role as a dormitory town.

Cockatoo's has a skilled and educated workforce with the most significant being those with vocational qualifications which has shown an increase between 2001 and 2006.

Table 6: Qualification of workforce 2006

Highest qualification achieved (persons aged 15 years and over)	Number	%	Cardinia Shire %
Bachelor or higher degree	279	8.8	9.6
Advanced Diploma or Diploma	211	6.7	6.6
Vocational	722	22.8	21.5
No qualifications	1,544	48.7	51.1
Not Stated	416	13.1	11.2
Total	3,174	100	100

Source: Cardinia Community Profile; www.id.com.au

The unemployment rate is has decreased substantially between 2001 and 2006.

The industry structure of Cockatoo/Nangana was strongly concentrated in manufacturing. This indicates that industrial enterprises are key employers for the population of this area.

Figure 5:   Employment by Industry 2006
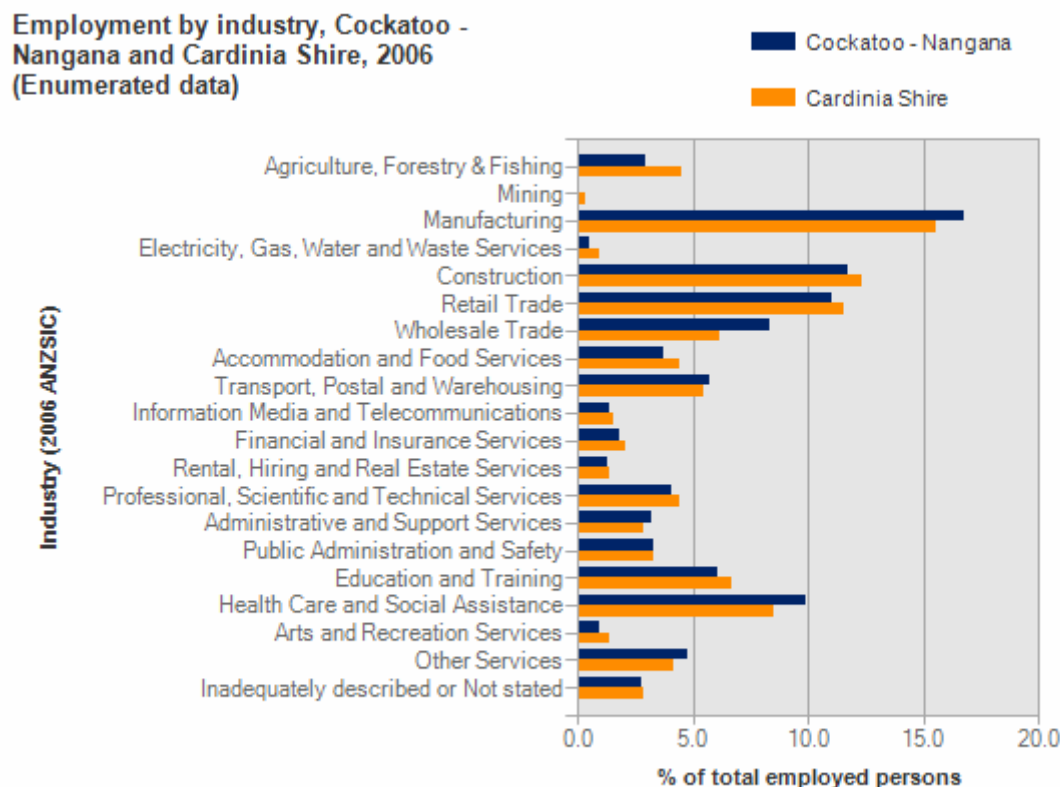
Source: Cardinia Community Profile; www.id.com.au

5.3   Strategic Direction

The Cockatoo Town Centre Urban Design Framework 2007 identifies development opportunities to provide a mix of uses within the town centre and ensure commercial, retail uses and car parking occur in appropriate locations. There is also a need to attract key anchors to the town centre, e.g. a supermarket, to revitalise and strengthen its role as the commercial hub. The opening of the Bendigo Community Bank is a key step in achieving this outcome.

5.4   Service Industry/Business Precinct

It has been identified that there is no specific area for service industry/business uses within the town. The Cockatoo Town Centre Urban Design Framework 2007 identifies a site on Fairbridge Lane within the existing Business 1 Zone and part of Residential 1 Zone, for service industry uses.

The key determinants for considering the location for a service industry/business use precinct are:

- Available infrastructure and servicing, particularly drainage and sewerage
- Access potentially for service and heavy vehicles
- Ability to preserve the amenity of adjoining uses, particularly residential

- Potential for consolidation of the town centre
- Using topography to protect view corridors and environmental values
- Potential impacts of the form and scale of development
- Immediate demand and future expansion

5.5   Town Centre Consolidation

The Cockatoo Town Centre Urban Design Framework 2007 recommends that the core area of McBride Street, between Pakenham Road and Belgrave-Gembrook Road, be preserved as the focus for retail and commercial activity in the town centre. Uses in McBride Street should be active, and continue to support existing commercial activity. Uses that promote evening and weekend activity, such as cafes and restaurants are desirable. Other preferred uses include commercial office, professional suites and retail shops.

5.6   Council-owned Land

Development of the site at the corner of McBride Street, Fairbridge Lane and Boronia Crescent will provide a valuable gateway element to the town centre and make a major contribution to the commercial core. The site also has potential to be increased in size to include the section of Boronia Crescent proposed to be truncated in the Framework.

The preferred uses for the two sites on Fairbridge Lane is the development of a central car park, in order to relocate the current informal parking from the Boronia Crescent/McBride Street corner site and from private vacant land behind the Post Office.

5.7   Private Land

The site next to the Bendigo Community Bank provides a very good opportunity for creating a link between the proposed new public car park on Fairbridge Lane and McBride Street. A small commercial development could be developed along one edge, with active edges facing the open space link and McBride Street.

Some community members have expressed a desire to see the site at the north east corner of McBride Street redeveloped. However in current planning, it is not considered an immediate priority for development, particularly as it is not vacant.

5.8   Puffing Billy Station Environs

There is potential to reinvigorate the commercial hub through local initiatives and promotion of a tourism role that incorporates the Puffing Billy Railway. There are opportunities for the Framework proposals and the railway station proposals to be integrated to ensure the best possible outcomes, ensuring strong connections between the town centre and the railway station. Puffing Billy Railway has indicated an interest in collaborating through the Puffing Billy Station Master on all matters involving Cockatoo. They recognise the need to work together with the Cockatoo Township Committee on overall design issues to ensure that any proposed development is consistent with the vision and design standards for Cockatoo.

5.9   Key Issues

The key issues can be summarised as:
- Strengthen the role of the current town centre
- Provision of opportunities for service industry
- Visual amenity of the proposed service industry area
- Potential to capitalise on the tourist market

- Support for the business community including home-based businesses

5.10 Objectives

- To strengthen the role of the Cockatoo town centre in meeting the needs of the local community.
- To encourage local employment opportunities.
- To facilitate the development of a small service industry precinct within the Cockatoo town centre.
- To support the development of home based businesses.

5.11 Policy

- Implement the strategies outlined in the Cockatoo Town Centre Urban Design Framework 2007 (See Figure 8) in regards to land use, built form and movement.
- Ensure that the proposed development of the vacant land on Fairbridge Lane enhances the visual amenity of McBride Street and considers important adjoining uses and environment.
- Provide opportunity for people to work from home where the activity undertaken does not adversely impact on the amenity of the local area.
- Facilitate uses in McBride Street that promote evening and weekend activity.

5.12 Actions

- Continue to support the Cockatoo Business Group, including home based businesses, in developing and promoting business opportunities by implementing the actions identified in this strategy and the Cockatoo Town Centre Urban Design Framework 2007.
- Restructure land holdings in Cockatoo Town Centre to facilitate the development opportunities as outlined in the Cockatoo Town Centre Urban Design framework 2007.
- Facilitate the establishment of a larger supermarket within the Cockatoo Town Centre.
- Provide support in the management and assist in the promotion of local events and marketing key recreational and environmental assets.
- Support the ongoing development of the Puffing Billy Railway and associated facilities.

6.   COMMUNITY DEVELOPMENT

6.1   Overview

The community of Cockatoo is well serviced with a range of local community services and facilities.

Public transport, however, is extremely limited which limits the mobility of local residents with respect to accessing regional facilities and services.

6.2   Community services and facilities

The services and facilities available in Cockatoo include the following.

Table 7:   Community services in Cockatoo, 2006

Service Type	Community Services
Education	• Community based childcare centre (1) • Kindergarten (1) • Primary school (1) • Montessori school (1)
Health	• Cardinia Casey Health Services • Cockatoo Centre (Maternal & Child Health Services)
Youth	• Cockatoo Township Committee runs youth group at old fire refuge building
Aged	• Senior Citizens Centre
General	• Community Centre • Neighbourhood House • Scout facility and Fire Brigade

Source: Cardinia Shire Council

The fire refuge building located in the Alma Treloar Reserve used to be a shared facility between the Scouts group and the neighbourhood house. To address the conflicting requirements of the two users of the fire refuge building, the Neighbourhood House has been relocated to the Bailey Road kindergarten premises. The Scouts group will continue to share the fire refuge building with other youth groups.

Besides the various community activities, the Neighbourhood House also hosts the public internet access program, which provides the much needed connectivity to the vulnerable user groups including the elderly and the unemployed.

In regards to the primary education, the current facilities are considered to be adequate as the school has capacity to cater for future enrolments. But secondary school aged children have to travel to nearby townships to access education facilities as the existing population base is not sufficient to support a secondary school. The nearest secondary college is Emerald Secondary College located approximately 6.5 kilometres to the east of Cockatoo.

Youth specific facilities and services in Cockatoo are fairly limited. The Cardinia Casey Health Services currently has a youth counsellor. Council's initiatives include appointing a youth outreach officer to ensure that the youth services are accessible to all young people. Council also

supports the provision of a skate park in Cockatoo so that skate/BMX Competitions and workshops can be held locally.

The Cardinia Shire Youth Policy and Strategy 2007-2011 adopts a 'whole of council and community' approach to meeting the needs of young people. The strategic actions support partnership opportunities with various community organisations and specialist services. The key deliverables of the Youth Strategy are:

- A youth specific facility;

- Increased range of youth specific / targeted recreational opportunities;

- Increased number of youth workers;

- A youth bus outreaching to young people in rural townships; and

- Funding opportunities from the State and Federal governments, and philanthropic foundations to support the implementation of the Youth Strategy.

The senior age-group is well catered for in terms of community services and facilities. But as the population ages in place, it is expected that in 15-20 years time there will be an increased need for suitable residential accommodation for the elderly. Currently, the only facilities available are the 'Cockatoo Cottages' and the aged persons accommodation within the Emerald Township.

Other gaps in the provision of community services are a lack of family support services and the need for a general practitioner. Limited health services are provided by the Community Health Service Centre at McBride Street and the Maternal and Child Health Centre also operates three times a week from this site. The nearest doctor is located at Emerald but even there, no bulk-billing services are available. Attracting a general practitioner is difficult as no subsidies are available owing to Cockatoo's metropolitan status.

6.3   Physical Accessibility

Public transport is limited which restricts the mobility of local residents with respect to accessing regional facilities and services, especially for older people who no longer drive, residents with a disability and residents with no private transport. Large numbers of young people and adults hitchhike to work or entertainment, particularly on weekends and before and after business hours. Work related bus transportation improvement is also a felt need considering that the majority of the working population commutes daily to the regional employment centres for work. Physical accessibility within Cockatoo and between Cockatoo and the nearest employment/entertainment hubs (Pakenham, Belgrave, Fountain Gate) need further improvement.

There is potential to better utilise the potential of existing transport services e.g. the community bus and school buses. Improved coordination between community bus service providers and other public/private bus operators could address some gaps in accessibility, particularly a bus service to Pakenham.

6.4   Volunteerism

The strong sense volunteerism displayed by the residents need to be encouraged and the role of the Cockatoo Township Committee as a strong advocate representing the views of the community at various forums and as a conduit for information between key stakeholders and the community needs continued support. The Cockatoo Township Committee distributes a regular community newsletter which provides valuable information on current events.

6.5 Community Strengthening

Council gained funding from Department of Human Services (DHS) to undertake the community strengthening initiative with a view to develop a partnership approach to community safety and identify short term actions and long term strategies involving community members and service deliverers. The first forum was developed in Cockatoo during 2001 with the Whole Systems event being held in 2002. The Whole System Event identified actions in the areas of drugs, recreation, economic development, environment (Puffing Billy, beautification and dogs), health and welfare, police, sense of belonging and communication, transport and road safety and youth. Some of the strategic actions that continue to be relevant have been incorporated into this strategy. The working groups which were established to work on the 'action projects' continue to be involved in volunteer activities through a number of community groups including the Cockatoo Township Committee and Friends groups.

It is an ongoing council (corporate) responsibility to encourage community engagement in the activities/initiatives council undertakes and to build community capacity to carry forward/implement the outcomes from these initiatives. To achieve the above, council is moving towards a 'Place Management' type approach to address issues facing the rural townships and localities. Council will also be looking at exploring these issues further as part of the development of the Community Engagement Policy.

6.6 Community Safety

Another key concern is to ensure a safe environment for all residents. There is concern in relation to the consumption of alcohol and subsequent behavioural issues. The community has also voiced the desire for increased police presence which is substantiated by an increase in reported crime. The Cockatoo Field Work Report on Contemporary Crime Prevention (2001) identifies that effective crime prevention programs must involve a mixture of social and situational initiatives and concludes that a combination of responses is required to reduce criminal behaviour, including addressing youth issues. Council in partnership with the Pakenham Police had introduced a Caution Program which was a direct result of the criminal damage which took place in Cockatoo. Council will continue to promote a more collaborative approach involving Police and the community (including youth) to address safety concerns.

The need for safe and well designed public spaces and buildings is currently addressed in council's suite of Access documents; the Disability, Access and Inclusion Policy, Action Plan and Access Design Guidelines. Council's Assets and Engineering staff oversee the implementation of the Access Design Guidelines. In addition, Safety Audits of existing facilities are also undertaken subject to identified need.

6.7 Key Issues

The key issues can be summarised as:

- Community involvement in activities and events
- Regular maintenance and effective management of community facilities
- Inadequate health facilities – no general practitioner in town
- Ageing in place and opportunities for older persons accommodation
- Need for a safe and accessible footpath network linking the community facilities
- Community safety concerns for both crime and injury
- Need for proactive youth initiatives

6.8 Objectives

- To support and foster a partnership approach towards achieving a strong, healthy and integrated community.
- To provide appropriate, accessible and quality facilities and services.
- To ensure efficient management of existing community services and facilities.
- To create a safe environment for the Cockatoo community.

6.9 Policies

- Establish community facilities in the most accessible location having regard to their service catchment.

6.10 Actions

- Provide assistance to the Cockatoo Township Committee and other committees of management in maintaining and upgrading community/recreational facilities.
- Assist volunteer committees and working groups in undertaking a broad range of initiatives.
- Continue support for the community newsletter.
- Facilitate coordinated programs for young people and ensure they have access to programs conducted by council and other service providers.
- Continue to liaise with Casey-Cardinia Southern Health to provide outreach services including public health care, support groups, welfare and counselling support.
- Support the establishment of a general practitioner service within Cockatoo Township.
- Liaise with community transport service providers to promote the patronage of current services and linking them to existing and future bus services.
- Liaise with Victoria Police in regards to community safety and crime issues and facilitate a partnership approach between the community, council and the police in addressing these issues.
- Provide a youth bus outreaching to young people in rural townships.
- Investigate additional opportunities for the provision of older persons accommodation or retirement village in Cockatoo.

7. OPEN SPACE

7.1 Overview

Passive and active recreational opportunities are seen by the Cockatoo community as a high priority as they provide local residents with the opportunity to participate in a variety of different recreational, sporting and cultural activities and help to create social cohesion and wellbeing. The community is well serviced with a range of local and regional open space and recreation opportunities.

7.2 Recreation Facilities

The Wright Forest, Bailey Road Reserve and the Cockatoo Creek are the key passive open spaces in the township. These areas are environmentally significant and have high bio-diversity values. There is a need for efficient management of these assets to balance conservation needs and recreational activities. Wright Forest is managed by Parks Victoria. Volunteer groups like Friends of Wright Forest play an important role in providing support to Parks Victoria in regular maintenance activities. There is potential to locate limited recreational activities (like a BMX track) within the Bailey Road Reserve subject to their compatibility with the environmental significance associated with this reserve. This initiative has council's in-principle support and is envisaged to be a 'community project' to be developed by Cockatoo community with the support from relevant agencies.

There are three active recreation areas within the study area: the Alma Treloar Reserve, the Mountain Road Reserve and the Josie Bysouth Reserve. All three are owned by council and diverse sporting facilities are available at each of the reserves. The following table lists the facilities available at the three key active recreation areas:

Table 8: Facilities available within recreation areas in Cockatoo

Reserves	Facilities available
Alma Treloar Reserve (Location: Pakenham Road, south of McBride Street; Area – 5.24 ha approximately)	2 Clubrooms/Pavilions 4 Tennis courts Bowling green Community centre Playground Skate bowl Fire refuge
Mountain Road Reserve (Location: Mountain Road; Area – 21.85 ha)	Playing field Athletics track 4 Netball courts Clubroom/Pavilion Single court indoor stadium Bowling club
Josie Bysouth reserve (Location: Corner of Pakenham Road and Hillside Road; Area – 3.76 ha)	2 riding arenas, cross-country course and holding area Clubrooms/pavilions

Source: Cardinia Shire Council

Mountain Road Reserve will continue to be a focus for sporting activities. The playing surface of Mountain Road and the bowling club has been upgraded. The community has voiced the need for formalised car parking at Mountain Road Reserve and improved access from the surrounding residential areas, particularly the link from Colin Avenue. The Recreational Open Space Strategy 2000 had also recommended a link from the area around Joffre Parade to Mountain Road Reserve. The other significant sporting reserve is the Josie Bysouth Reserve which has been opened for purposes other than equestrian activities.

The Alma Treloar Reserve provides much of Cockatoo's community and recreational needs. The Alma Treloar Reserve Master Plan 2003 recommends the upgrading of the playground, enhancing the picnic, barbeque and public toilet facilities, modifying parking and vehicle access, providing a hard surface area near the skate facility to provide a variety of youth activities including skateboarding, roller blading, BMX pursuits and parkland for sporting pursuits and passive recreation. The Master Plan also proposes creating wetlands and sedimentation ponds which will improve the drainage of the reserve and filter storm water whereby improving its quality before it enters Cockatoo Creek. Other proposals include construction of additional planting beds and path network linking the facilities while maintaining open spaces to the south of the reserve. Works associated with the wetlands and upgrade of mobile library car park are now complete. Other works will be completed in stages as funding (both internal and external) is made available.

Alma Treloar Reserve

In addition to the formal recreation facilities, Cockatoo has a number of reserves located within the residential development. The ongoing acquisition of the buyback areas will also provide the much needed passive open space within residential precincts.

Overall, open space is generally well provided in Cockatoo but it needs to be investigated whether there is a need for additional open space in the form of local parks, particularly in the southern section of the township near Jeanne Street (Recreational Open Space Strategy 2000).

7.3   Paths and Trails

The Pedestrian and Bicycle Strategy 2003 identifies a series of trails for multi purpose use, bicycle routes for proposed on-road cycling and paths for pedestrian use within each of the towns in the municipality. There are already 3.7 km of paths within the town and 5 km of on-road route. A

further 5 km of paths have been identified in the Pedestrian and Bicycle Strategy. Throughout Wright Forest there are many walking tracks, some of which provide pedestrian access to Emerald Lake Park and Emerald Township.

The Emerald to Gembrook multi-purpose trail provides a significant link between the townships as well as within the township. The construction of the first phase of the trail between Emerald and Cockatoo has been completed. The second phase of this trail between Cockatoo and Gembrook is a long term priority and will be undertaken as funding becomes available.

A strategic review of the public rights of way in the township was undertaken in 2002 which identified 19 rights of way to be kept open to form a network of strategic walkways and access ways for the Cockatoo township (See Appendix C). These will require upgrading to a satisfactory level and a program will be prepared for consideration in the future works program.

7.4   Management of Recreation Reserves

Josie Bysouth and Mountain Road Reserves have Committees of Management who are responsible for the ongoing maintenance and development of the reserves, including ground and building maintenance (with the exception of the maintenance of the bushland component of the Mountain Road Reserve which is a council responsibility). Council provides support to the committees in the form of maintenance and capital development grants, ancillary maintenance like garbage collection, maintenance of surrounds, etc. Council is also responsible for the maintenance of the Alma Treloar Reserve while the Cockatoo Township Committee guides the operation of the reserve.

7.5   Key Issues

The key issues can be summarised as:
- Quality of existing active and passive recreation facilities
- Protection of reserves with environmental and conservation values
- Provision of additional youth activities in the Alma Treloar Reserve
- Continuity of walking/ bicycle track to Gembrook
- Long term management of buyback areas as reserves

7.6   Objectives

- To provide open space to meet the active and passive recreational needs of the community.
- To ensure the long term management of the environmental and conservation values of open space reserves.
- To provide a legible and permeable interlinked open space network.

7.7   Policy

- Balance the recreational, environmental and wildfire management objectives of open space reserves.
- Recognise and protect the significance of open space reserves to the natural setting and character of Cockatoo.
- Develop and maintain a network of pedestrian, bicycle and equestrian trails.
- Facilitate co-location of community and recreation facilities and joint management of these facilities.
- Use and manage open space reserves for the purposes set out in Table 9.

Table 9: Open Space Reserves and their functions

Reserves	Purpose/Function
Wright Forest	District environmental reserve (passive recreation)
Mountain Road Reserve	District sporting reserve (indoor and outdoor sports)
Josie Bysouth Reserve	District sporting reserve (equestrian and other sports)
Bailey Road Reserve/Baker Street Reserve	Local environmental reserve (passive recreation, limited sport in Bailey Road Reserve)
Alma Treloar Reserve	Local recreational reserve (sport, play, community facilities, passive recreation)
Cockatoo Creek Reserve	Local environmental reserve (passive recreation)
Woori Yallock Creek Reserve	Local environmental reserve (passive recreation)
Hall Road Reserve	Local environmental reserve (passive recreation, local park)
Garden City Estate Reserve (Fourth Avenue, Fifth Avenue and Sixth Avenue)	Local environmental reserve (passive recreation)
Pershing/Hague/Tymon Reserve	Local environmental reserve (passive recreation)
Other buy-back areas (small)	Local environmental reserve (passive recreation)

Source: Cardinia Shire Council

7.8 Actions

- Progressively implement the Cockatoo Community Reserve (Alma Treloar) Master Plan 2003.
- Continue to develop Cockatoo Creek as a passive open space by enhancing and developing track and path system along Cockatoo creek with signage, seating and multi-point access.
- Progressively undertake improvements to Mountain Road Reserve as the focus for active recreational and sporting activities including improved access and car parking.
- Investigate the need to provide additional open space in the form of local parks, particularly within buyback areas.
- Support limited recreational uses to be located within Bailey Road Reserve in areas least constrained by environmental considerations.
- Develop a program with Department of Sustainability and Environment in relation to the management arrangements for the buyback reserves including consolidated ownership of land, road closures, planning zoning and a management plan.
- Implement Stage 2 of the Emerald to Gembrook trail as funding becomes available.
- Develop a safe off-road and on-road multi-use network of linkages around the Cockatoo Township by:

- Developing a program to upgrade identified rights-of-way identified in the lane way closure scheme.

- Creating trails along Mountain Road, Nangana Street and sections of Cockatoo Creek.

- Creating on-road path along a section of Belgrave-Gembrook Road.

- Encourage and support the involvement of the community in the management of open space reserves.

- Investigate feasibility of developing the potential linkages in the long term as shown in Figure 6: Open Space and Linkages in the longer term.

BELGRAVE

GEMBROOK

COCKATOO   CREEK   ROAD

Woori Yallock
Creek Gully
Reserve

WOORI YALLOCK ROAD   MOUNTAIN

ROAD

WRIGHT

Wright
Forest

Baker
Street
Reserve

Cockatoo
Sports
Complex

Mountain Road
Reserve

COCKATOO CREEK

COCKATOO

ROAD

BAILEY

Bailey Road
Reserve

THIRD

Hall
Road
Reserve

Alma
Treloar
Reserve

Cockatoo
Primary
School

BELGRAVE

Cockatoo Creek
Reserve

GEMBROOK ROAD

PATERNOSTER

AVENUE

VIEW HILL ROAD

PAKENHAM ROAD

Josie
Bysouth
Reserve

FIELDER

ROAD

LEGEND

- Township Boundary
- Contours (10m interval)
- Buy-back areas (to be retained as reserve)
- Natural Drainage (Creeks)
- Puffing Billy Railway Line
- Railway Station

LINKAGES

- Existing Trails
- Proposed Trails
- Proposed On Road trails
- Right of Way (to be retained & upgraded)
- Existing Footpaths
- Proposed Footpaths
- Potential Linkages

OPEN SPACE NETWORK

- District Sporting Reserve
- District Recreational Reserve
- Local Recreational Reserve

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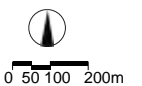
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FIGURE 6: OPEN SPACE AND LINKAGES

CARDINIA

8.   TRAFFIC AND TRANSPORT

8.1   Overview

A high proportion of Cockatoo residents are dependent on motor vehicles for transport (92% in 2001) due to the rural nature of the township and limited public transport services available. In addition to identifying opportunities to address traffic and public transport issues, this Strategy also identifies actions to improve the pedestrian and bicycle connectivity within the area.

8.2   Public Transport

US Bus Lines provides the only public transport to the town centre. The service runs between Belgrave and Gembrook and includes the Belgrave Station which links to the metropolitan train system. The service also stops at Avonsleigh, Emerald, Clematis, Menzies Creek and Selby. The bus service operates Monday to Friday between 5:35 am to 8:45 pm at a frequency of about 60 to 90 minutes. There is no service on Sunday. On Tuesdays there is an extended service, which runs to the Dandenong Market. On Fridays and Saturdays there is a service which runs to the Fountain Gate Shopping Centre. There has been interest expressed by the community to extend a bus service to Pakenham.

8.3   Road Network

The two main roads which traverse the Cockatoo Township are Belgrave-Gembrook Road and Pakenham Road. Belgrave-Gembrook Road provides access to Melbourne, and Pakenham Road (also known as the Healesville-Koo Wee Rup Road) provides access to Pakenham and further south to the South Gippsland Highway. Other significant roads within the township are Paternoster Road (link to Beaconsfield-Emerald Road) and Bailey Road. Of all the roads in Cockatoo, only nine are sealed and approximately 23 linear km of road surface is unsealed. This presents many problems to residents such as dust in summer and mud in winter and spring. Stormwater drainage is via open drains on the sides of the roads.

The local community have indicated a desire to have the local roads sealed to a standard in rural towns which could include drains and unformed road edges. A number of roads in the township have been sealed through special charge schemes in recent years. The option exists to continue this program of progressively sealing roads through special charge schemes. However, there is a strong interest in an option of adopting a whole of township approach which will achieve the completion of the sealing of roads in Cockatoo in a shorter timeframe and achieve economies of scale to reduce the overall cost of the works.

The Cockatoo Town Centre Urban Design Framework also recommends increasing the width of Fairbridge Lane to allow for two way vehicle access. Fairbridge Lane is proposed to provide access to car parks and service areas, as well as providing a separated pedestrian zone.

8.4   Pedestrian and Bicycle Network

Currently there is an ad hoc bicycle and pedestrian system throughout the town, with several key links missing. To improve connectivity within the town centre, the Cockatoo Town Centre Urban Design Framework 2004 nominates opportunities for new path connections to create a complete path system:

- Fairbridge Lane
- Pakenham Road – eastern side, western side along Puffing Billy site
- Belgrave-Gembrook Road, western side
- Boronia Crescent
- Extended McBride Street intersections

8.5   Traffic Movement

The McBride Street intersections with Pakenham Road and Belgrave-Gembrook Road are the key entries into the main commercial core of the town. Issues include sightlines and traffic speed. Pakenham Road intersection is made even more difficult as the railway line runs through it and Bailey Road meets the intersection at an awkward alignment.

The Cockatoo Town centre Urban Design Framework 2007 recommends a number of actions to address traffic movement issues. This includes the following:

- Investigating the feasibility of a roundabout at the McBride Street and Pakenham Road intersection to overcome the existing site line and safety issues. VicRoads has agreed in principle to the proposal for this intersection. However, this is subject to further traffic analysis and detailed design.

- Investigating the feasibility of truncating and re-routing Boronia Crescent with a new intersection, to overcome the existing safety and conflicting route issues.

- Sealing of the Fairbridge Lane and upgrading the drainage to provide a service road.

- Provide additional public off street parking in the two identified locations on Fairbridge Lane (Figure 8).

- A signalised pedestrian crossing on Pakenham Road as an upgrade to the current school crossing. It will provide a safe connection and a key link between the community reserve and the town centre. Informal crossings on Pakenham Road are proposed as part of the future intersection upgrades at the McBride street intersection.

8.6   Key Issues

The key issues can be summarised as:

- Need for better public transport services
- Sealing of existing unsealed roads
- Maintenance of unsealed roads
- Fragmented network of paths for pedestrians and cyclists
- Need for safe pedestrian crossings
- Safety concerns – Improvements to the road intersections
- Need for formalised off-street car parking in the town centre

8.7   Objectives

- To progressively upgrade local roads in Cockatoo to a sealed standard.
- To improve pedestrian accessibility and safety in Cockatoo through the upgrading and extension of the footpath network.
- To improve traffic circulation and provide adequate and accessible public parking in the Cockatoo town centre.
- To improve public transport services to and from Cockatoo.

8.8   Policy

- Provide a safe, functional and well maintained local road network.
- Advocate for a safe, functional and well maintained declared main road network.

8.9   Actions

- Progressively upgrade local roads to a sealed road standard through the implementation of Special Charge Schemes in accordance with council's Special Charge Scheme Program.

- Investigate sealing and construction of local roads in Cockatoo through a whole of town scheme.

- Upgrade Fairbridge Lane including a sealed pavement, car parking and prioritised pedestrian movement.

- Upgrade and extend the footpath network with priority given to:
  - Pakenham Road – eastern side (to proposed signalised pedestrian crossing) and western side (along Puffing Billy site to the north of McBride Street)
  - Belgrave–Gembrook Road – western side (back of existing shops and Community Health site)
  - Boronia Crescent - Caroline Avenue (to the primary school)
  - Link to Bailey Road Neighbourhood House
  - Extended McBride Street intersections

- Provide a controlled pedestrian crossing on Pakenham Road, between the Alma Treloar reserve and the town centre at the school crossing location.

- Investigate and implement traffic management initiatives at the following two McBride Street intersections:
  - Boronia Crescent, Belgrave–Gembrook Road and Fairbridge Lane intersection; and
  - McBride Street and Pakenham Road intersection.

- Provide for additional off-street parking in the town centre.

- Advocate for a safe, functional and well maintained declared arterial road network including Pakenham Road, Belgrave-Gembrook Road and Woori-Yallock Road.

- Pursue a north-south public transport connection from the hills towns (including Cockatoo) to Pakenham and seek upgraded services (both frequency and duration) between Belgrave/ Gembrook/ Fountain Gate.

9. PHYSICAL INFRASTRUCTURE

9.1 Overview

Much of Cockatoo has been developed without the usual physical infrastructure that is general expected for residential areas, such as sealed roads, underground drainage and sewer. This lack of physical infrastructure is seen as a significant issue by both the community and council alike and through a collaborative approach with key stake holders it is intended that the issue of infrastructure will be addressed.

9.2 Sewerage Network

Yarra Valley Water intends to sewer approximately 2,200 lots by 2008-2009 in those areas identified as backlog areas under the Backlog Sewerage Program (See Appendix B). The first stage of a reticulated sewerage system has been completed and will see 103 properties given the opportunity to switch from their current septic tanks to the new environmentally friendly sewerage system. The second stage will incorporate another 635 properties in the area enclosed by Pakenham Road, Viewhill Road, Paternoster Road and Bailey Road. The connection of households to reticulated sewerage and the provision of adequate drainage methods is a high priority for the Cockatoo Township and will assist in reducing the impact of the existing septic systems on the environment.

9.3 Drainage

Drainage has been identified as a significant issue by the community and provision of adequate drainage has been highlighted as a priority for all steep local roads. There is currently no formal drainage system in the area. Underground drainage is only available in Devon Avenue, Bell Street, Ivy Street, Belgrave-Gembrook Road and McBride Street. There are a number of catchments areas in the township that all drain to the Cockatoo Creek. Some of the catchment areas have steep slopes and contain locations with specific drainage problems particularly the area around Harold Street, Nokia Close, Hillcrest Court and Waratah Way in the north-eastern end of the township. The drainage issues in this area should be addressed as a priority. Management of road drainage, erosion and stormwater runoff from steep, unsealed roads potentially impacting on the quality of water flowing into the Cockatoo Creek is also an issue. Investigation needs to be carried out in consultation with Melbourne Water, the regional drainage and waterway manager, to find an appropriate stormwater treatment system for all the catchment areas, possibly incorporating Water Sensitive Urban Design principles and practices.

9.4 Water Supply

Most properties in the Cockatoo Township are connected to the water supply network, which is managed by Yarra Valley Water. There are only two areas that are not connected. The first includes Third Avenue, Fourth Avenue, Fifth Avenue, Sixth Avenue, and Aspect Avenue, near the intersection of Bailey Road and Paternoster Road. The second area includes Pershing Parade and Hague Crescent to the east of Pakenham Road. These areas generally form part of the buyback program and will not be developed for residential purposes.

9.5 Other Services

Gas is managed by Multinet and the telecommunications network is managed by Telstra. Electricity is provided by ESV. The coverage of these services is virtually identical to the coverage of the water supply network. These facilities can be extended to cater for further development.

9.6   Key issues

The key issues can be summarised as:

- Provision of reticulated sewerage
- Sediment run-off from steep, unsealed roads affecting drainage
- Provision of adequate drainage
- Efficient management of physical services

9.7   Objectives

- To provide or upgrade utility services to improve the health and amenity of residents and to minimise environmental impacts.

9.8   Policy

- Support the connection of all occupied properties within a sewered area to connect to reticulated sewer systems as soon as practicable following the provision of this service and generally within 5 years.
- Include water conservation measures (including water tanks) in all new dwellings to reduce water use and stormwater runoff.

9.9   Actions

- Continue to liaise with Yarra Valley Water to ensure the timely provision of the sewer network connections to the balance of the township identified as backlog areas.
- Collaborate with Melbourne Water in preparing a drainage strategy for Cockatoo and implement the strategy based on priority actions identified.
- Provide drainage along local roads sealed as part of the Special Charges Scheme Priority Program.
- Ensure any development or works adjacent to a waterway or drainage path does not impede the passage of stormwater or floodwater to the detriment of other properties.

10. ENVIRONMENT

10.1 Overview

Cockatoo has significant environmental and landscape qualities. Wright Forest is a predominant feature located to the north-west of the town, recognised as being of Regional Significance with high bio-diversity values. Similarly, the Cockatoo Creek landscape contains significant remnant vegetation. Cockatoo Creek, Wattle Creek, Gembrook Creek and other informal waterways, extensive natural vegetation and topography, all contribute to form a strong natural setting for the township. These features are highly valued by the local community. Protection of the environmental and landscape features of this area is a key component of various planning scheme controls, as is appropriate management of properties to address fire management issues.

10.2 Creeks And Water Courses

A significant environmental feature of Cockatoo is the Cockatoo Creek which covers approximately 21 hectares. The Cockatoo Creek is a tributary of Woori-Yallock Creek within the Yarra catchment which is considered to be of high significance as described in the Port Phillip and Westernport Regional River Health Strategy. The Strategy states that the Woori-Yallock Creek supports a range of threatened flora and fauna, platypus and several native fish and frog species and sections of Cockatoo Creek are ecologically healthy. The Index of Stream Condition (ISC; DSE 2004) developed as part of State government's River Health Program rates Cockatoo Creek through this reach as moderate due to altered hydrology as a result of high flow stress, degraded streamside vegetation and associated weed invasion and infestation.

There is the need to improve the management of erosion and drainage to reduce sediment-laden runoff from steep, unsealed roads into the creeks. Household wastewater and septic tanks also contribute to the deterioration of water quality of the Cockatoo Creek. To some extent this issue has and will continue to be progressively addressed through sewering of the area. Other actions to improve water quality include fencing along the creek, revegetation and weed removal. Council is undertaking revegetation and weed control along Cockatoo Creek within the Baker Street Reserve and Alma Treloar Reserve. Volunteer groups like Friends of Cockatoo Creek also carry out regular maintenance along the creek corridor and play an important role in the management of water courses.

Cockatoo Creek

10.3 Parks and Reserves

Wright Forest is the predominant feature of Cockatoo forming the north-western boundary to the study area. The forest is recognised as being of Regional Botanical Significance and is high in bio-diversity values. Management issues include weed invasion, intensive use, conflicting users and impacts from fuel reduction burning.

The buyback areas in Fourth Avenue, Fifth Avenue and Sixth Avenue will be retained as reserves and a program will be devised in collaboration with Department of Sustainability and Environment in relation to the management arrangements for this area including consolidated ownership, road closures, planning zoning and a management plan. Other smaller buy-back areas will also be retained as reserves.

10.4 Native Vegetation

The Cockatoo creek valley and adjoining slopes contain remnant vegetation consisting of tall open forest of Mountain Ash and dense understorey of shrubs and ferns. The small remnant forest has a diversity of native plant species and provides habitat for a variety of birds and wildlife corridors. The vegetation generally falls into the Ecological Vegetation Classes (EVCs) Lowland Forest, Wet Forest, Shrubby Foothill Forest and Damp Forest. All these Classes are considered to be locally common and so of least concern as they have been subject to little or no degradation over a majority of the area. The structural dominants of these forests are Messmate/Brown Stringybark, Mountain/Silvertop Ash, Narrow/Broad Leaf Peppermint, Eurabbie and Mountain Grey Gum. Understorey vegetation is typically composed of a rich variety of shrubs, groundcovers and ferns. Other Ecological Vegetation Classes which occur to a lesser extent include Riparian Scrub Complex (considered to be vulnerable), Riparian Forest, Swamp Riparian Woodland (considered to be depleted) and Swamp Riparian Complex (considered to be endangered).

Of particular environmental concern is the removal and degradation of indigenous vegetation, especially as a result of land subdivision. Council encourages private land holders to protect remnant native vegetation on their land using a range of incentive programs and supports schemes such as Landcare and Land for Wildlife. State government initiatives such as BushBroker (a native vegetation credit registration and trading system) and BushTender (auction-based approach to improving the management of native vegetation on private land) also seek to encourage private land owners to protect native vegetation on their land.

10.5 Weeds

At present, council's prime focus on weed management has been guided by the existing Weed Management Strategy of 2001. Council will commence a rolling program with annual reviews over a three year period that addresses weed control and management priorities across the Shire, including Cockatoo. During the 2007/08 year, an initial pilot will target Ragwort, Blackberry and Sweet Pittosporum on roadsides in an integrated fashion with adjoining landholders, communities and public land managers. There is support for the initiation of a 'first-year' pilot program of weed control that would produce a 'lead by example' to the community and other public land managers such as VicRoads, VicTrack, Parks Victoria, Puffing Billy, Melbourne Water and other agencies. This concept of a 'blitz' would be further boosted by the engagement of private landholders through education, involvement, incentive and regulation.

Locally severe Willow infestations and other woody weed infestations (including Ash and Blackberry) also occur in the area, particularly at the confluence of Wattle Creek and Cockatoo Creek at the northern end of the town and confluence of the Gembrook Creek and Cockatoo Creek at the southern end of the town. These infestations are to be removed in stages and native vegetation is to be planted in their place with the help of local volunteer groups. Revegetation

works throughout the creek corridor should use the range of native species appropriate to the location.

10.6 Wildfire

Cockatoo is prone to wildfire due to its extensive vegetation cover and topography. Under the Building Regulations 1994 construction must be undertaken in accordance with the Australian Standard for Houses in Bushfire Prone Areas (AS3959). Council also has in place a Municipal Wildfire Preparedness Plan (MWPP) 2005, which is actively implemented during the fire season along with plans for various reserves. The aim of the MWPP is to increase the ability of the communities to withstand the impact of wildfire, and to help with practical risk reduction, taking into account the frequency and severity of wildfire occurrences. The MWPP is targeted specifically at physical works designed to minimise the risk of, and damage caused by, wildfire. Council also supports community education programs undertaken by the Country Fire Authority.

The Plan has identified 7 priority areas for protection in Cockatoo, based on expected fire attack on vulnerable communities. Each area identified was geographically defined and ranked in order of risk as either High (8-10), Medium (5-7) or Low (1-4) as indicated below:

Table 10: Priority Areas for bushfire protection

Priority Area	Fire Risk Rating
Seaview Road	9
Bailey Road	8
Devon Road	7
Mountain Road	7
Viewhill Road	7
Lisheen road	6
Hillside Road	6

Source: Municipal Wildfire Preparedness Plan 2005

A Wildfire Management Overlay has been implemented into the Cardinia Planning Scheme which will trigger the need for a planning permit in bush prone to wildfire and is in line with the current building controls. A risk based approach will prevent development on those parcels of land previously subdivided, that are considered as being not appropriate for development under the Wildfire Management Overlay.

10.7 Heritage

The Cardinia Shire Heritage Study 1996 identified four sites of heritage significance in Cockatoo and three of them have been incorporated into the Cardinia Planning Scheme. The Providence House and Mount View are associated with Cockatoo's tourist era which began at the turn of the century with the arrival of Puffing Billy. The Cash & Co on McBride Street is an example of a shop, early post office and residence associated with the development of the Cockatoo Township in the first decades of this century. All the three sites are considered to be of regional significance.

A Cardinia Local Heritage Study Review 2007 has been undertaken by council to identify, assess and document places of post-contact cultural significance for the entire municipality. Some of

these places have been identified and assessed by previous heritage studies and incorporated into the Cardinia Planning Scheme. But there were about 250 places identified by previous heritage studies which have not yet been considered for inclusion in the Heritage Overlay. Two of these places, Avenue of Honour (McBride Street) and Cockatoo War Memorial, are within the Cockatoo Township and have been identified as high priority individual places. Evaluation and assessment needs to be undertaken for each of these places to determine their heritage value and whether they should be protected through inclusion in the Heritage Overlay.

10.8 Key Issues

The key issues can be summarised as:

- Vegetation removal and loss of biodiversity
- Discharge of effluent from residential septic systems into the creek system
- Weed infestation
- Bushfire risk
- Places of heritage significance

10.9 Objectives

- To protect existing remnant indigenous vegetation given its environmental significance and its contribution to the natural landscape setting of Cockatoo.
- To improve the water quality of watercourses including Cockatoo Creek, its tributaries and Woori Yallock Creek.
- To control the spread of weeds.
- To minimise the risk of, and damage caused by, wildfire.
- To identify and protect places of heritage significance.

10.10 Policy

- Ensure that the siting and design of new buildings and works avoids or minimises the removal or fragmentation of indigenous vegetation.
- Maximise opportunities for habitat corridors and open space along creeks, waterways and reserves.
- Prevent and minimise weed infestation.
- Prevent soil and waterway degradation resulting from incompatible development.
- Incorporate wildfire protection measures in new buildings (particularly dwellings) as set out in the Wildfire Management Overlay provisions in relation to building, siting and design, access, water supply and vegetation management.

10.11 Actions

- Continue to support Friends of Cockatoo Creek and the Cockatoo Township Committee in undertaking regular maintenance of the creek corridor and reserves.
- Collaborate with Parks Victoria and local volunteer groups like Friends of Wright Forest in undertaking management and preservation practices, particularly along the Emerald to Gembrook Trail (Phase 1).
- Support a revegetation and weed control program along 20 metres each side of Cockatoo Creek, particularly within Alma Treloar Reserve and Baker Street Reserve.

- Following the completion of the buyback program, devise a program in collaboration with Department of Sustainability and Environment in relation to the management arrangements for the areas in Fourth Avenue, Fifth Avenue and Sixth Avenue.

- Commence a rolling program with annual reviews over a three year period that addresses weed control and management priorities targeting ragwort, blackberry and sweet pittosporum on roadsides.

- With Melbourne Water as the lead agency, instil an education program to encourage residents living near and using the creek corridor to use native plants in their gardens and not to dump garden waste near the creek.

- Implement the treatments set out for the seven priority areas in Cockatoo as outlined in the Municipal Wildfire Preparedness Plan (2005) including fire management plans for bushland reserves, fire breaks, buffer zones, water points and community fire programs.

- Document and assess the heritage values associated with the Avenue of Honour (McBride Street) and Cockatoo War memorial as part of implementation of Stage B of the Cardinia Local Heritage Study Review 2007.
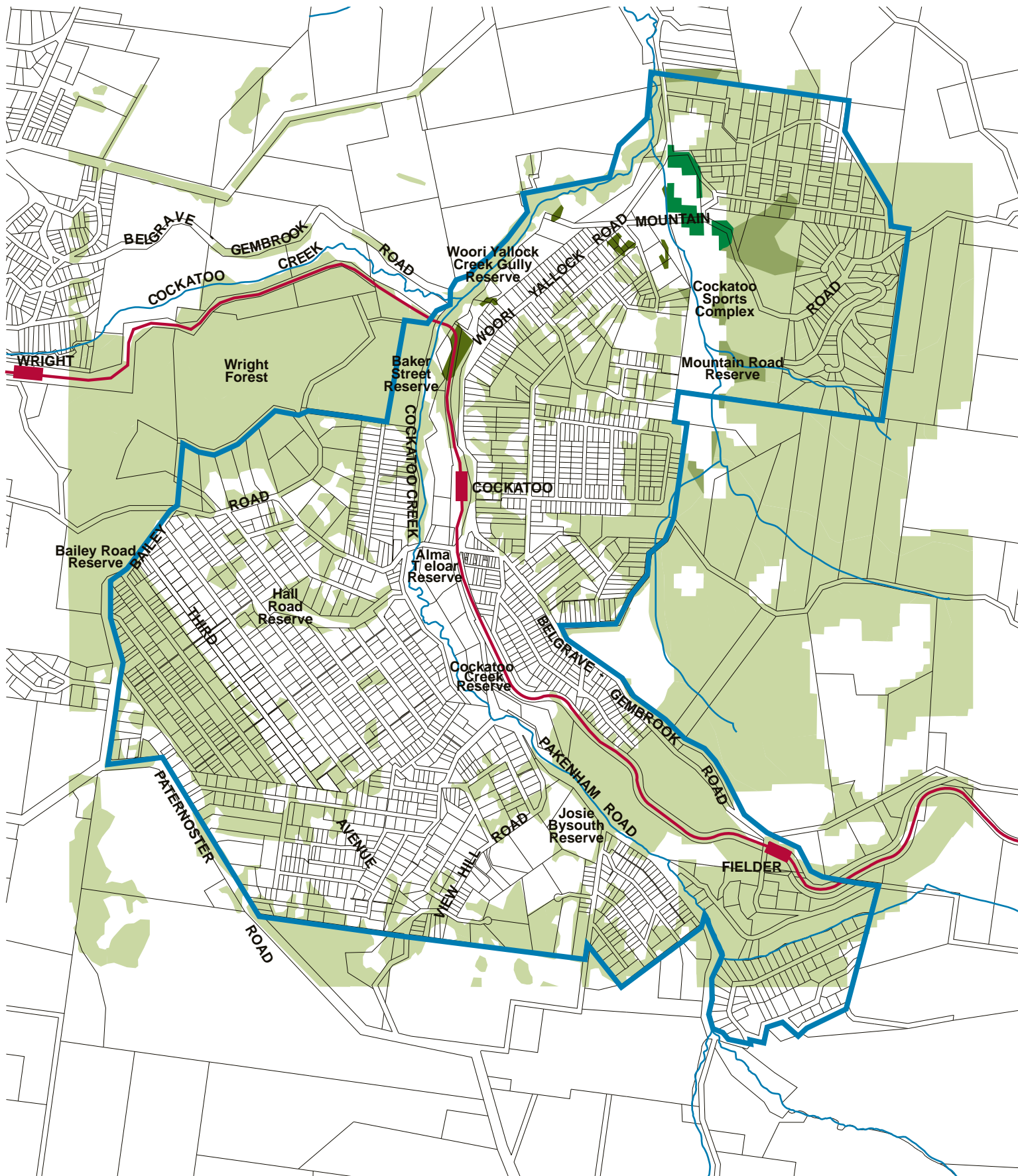
LEGEND

- Township Boundary
- Contours (10m interval)
- Puffing Billy Railway line
- Railway station

VEGETATION

- Locally Common *(Lowland Forest, Riparian Forest, Damp Forest, West Forest, Shrubby Wet Forest EVCs)*
- Depleted *(Swamp Riparian Woodland)*
- Endangered *(Swamp Riparian Complex)*
- Vulnerable *(Riparian Scrub Complex)*

0 50 100 200m

Ref.: 106008/V
Date: Nov 2007
Rev.: C
Drawn: MW/MMc

FIGURE 7: VEGETATION

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11. TOWN CENTRE DESIGN GUIDELINES

11.1 Overview

The Cockatoo Town Centre is a small strip shopping centre located on McBride Street which slopes on an east-westerly direction providing sweeping views of the Paternoster ridge towards the south-west and Wright Forest to the west. The built form follows the topography and is characterised by shops of one or two storey height with verandahs. The presentation of the town centre is a critical factor in creating an attractive and amenable environment, particularly to capture passing traffic. The Strategy identifies opportunities to strengthen the role of the town centre and also to establish entry statements along the key gateways to the township.

11.2 Cockatoo Town Centre Urban Design Framework

The Cockatoo Town Centre Urban Design Framework was initially developed in 2004 with the vision to achieve 'an active, highly amenable town centre that responds to the needs of the Cockatoo community and a town centre that retains its hillside character'. The Framework has since been revised to reflect recent developments, particularly the proposed supermarket and the outcomes of the review of the Cockatoo Township Strategy.

In the Framework, the presentation of the town centre is identified as a critical factor in creating an attractive and amenable environment. The main objectives for the built form and design principles are to:

- Capitalise on the existing qualities of the town centre, particularly its natural setting
- Maintain the compact nature of the town centre
- Increase the amenity and safety of the town centre
- Improve permeability and 'walkability' in the town centre
- Achieve high standards in any new development.

McBride Street

The Framework outlines the built form and design principles to achieve the preferred form of new development in the Cockatoo town centre. Development in the town centre, in general, will require consideration of the following built form and design guidelines:

- Respond to the requirements of the Significant Landscape Overlay (SLO1)
- Provide a continuous built edge, with zero setback

- Avoid front setback for car parking
- Provide one to two storey buildings as the preferred height immediate to McBride Street. Second storeys will not be visually intrusive, and would not interrupt view lines from Belgrave-Gembrook Road or Pakenham Road elevations. Building articulation, setbacks can be employed to enhance rather than interrupt view lines
- Address both street frontages on corner blocks
- Use local and recycled building materials that are energy efficient and sustainable
- Use verandahs or similar shade and weather protection device.

The Framework also outlines site specific guidelines for specific sites in the town centre.

11.3 Safety Design

In reaction to safety and vandalism concerns, many shopkeepers have installed rolling doors to the frontages of their shops to the detriment of the ambient character of the town. An ideal resolution is to discourage the further use of roller shutters and promote their removal, or substitution, with alternate measures and less intrusive deterrents including lighting, subtle window mesh/bars, bollards, etc.

The Framework also recommends a range of other built form and design principles that will ensure a sense of safety and security including natural surveillance, lighting, good site planning, clear sightlines and active edges.

11.4 Streetscape Initiatives

Linkages

The recommendations of the Framework promote the development of a good path network and permeability through the town centre. Five key pedestrian links are proposed (Figure 8):

- On the north side of McBride Street, connecting to Belgrave-Gembrook Road
- Three on the south side of McBride Street, connecting to Fairbridge Lane
- The extent of Fairbridge Lane, connecting to the existing rail crossing and the pedestrian crossing at Pakenham Road.

Landscape and Streetscape

It is essential to consider the importance of vegetation within the streetscape of the town centre, as the context of this place is its natural setting. Following recent street upgrades, there are limited opportunities for additional street trees in McBride Street. However, the Framework has identified a number of other opportunities to strengthen the landscape character in the town centre particularly tree planting along Fairbridge Lane, the rail corridor and within new developments.

Streetscape elements

Recent upgrade works in the town square and on McBride Street specified a range of standard streetscape elements and materials. These furniture items have been agreed by the community, and should now form the standard for all furniture elements used throughout the town centre to ensure a consistent streetscape.

Underground Power

Placing powerlines underground is a long term option to improve the amenity of the town centre and consideration should be given to focal areas such as McBride Street as well as along the approaches to the town centre.

Signage Principles

Currently signage in the town centre is relatively well controlled and of a modest scale. The Framework recommends principles for advertising signs that aim to ensure a consistent and sensitive approach, so that signage remains controlled and sympathetic to the surrounding environment. Principles include design and scale of signs, appropriate/inappropriate positioning of signs, illumination, contextual relevance.

All the above built form and design guidelines will be incorporated into a Design and Development Overlay for the Cockatoo town centre. This would provide the necessary statutory controls for protecting its particular character.

11.5 Entries and Approaches

On the approach roads to the town, entry points should be established which will increase awareness of arrival into the town, essentially slow traffic and allow for driver recognition that a town environment is being entered. This may help overcome perceptions that people drive right past the town, without realising where it can be entered. Entry statements should be established at the following gateways (Figure 4: Cockatoo Framework Plan):

- Belgrave-Gembrook Road, south of Cockatoo Primary School
- Pakenham Road, opposite Alexander Road
- Corner of Woori-Yallock Road and Belgrave-Gembrook Road

The Cockatoo Community has already undertaken some beautification works at the Corner of Woori-Yallock Road and Belgrave-Gembrook Road incorporating a local park.

11.6 Key Issues

The key design and built form issues can be summarised as:

- Key undeveloped and underutilised sites in the town centre
- Use of roller shutters on shops
- Fragmented network of paths for pedestrians and cyclists
- Undefined gateways to township
- Maintenance of properties by absentee owners.

11.7 Objectives

- To create an active, highly amenable town centre that responds to the need of the community and retains its hillside character.
- To form a memorable entry experience to town along key roads and open space linkages.

11.8 Policy

- Encourage a built form and design which creates a strong character and identity for the area, provides for a functional built environment, and promotes community and personal safety.
- Incorporate built form, environment and landscape principles in any proposed development within the areas covered by Significant Landscape Overlay (Schedule 1: Puffing Billy Tourist Railway Scenic Corridor and Schedule 5: Cockatoo Creek).

11.9 Actions

- Introduce a Design and Development Overlay for the Cockatoo town centre which incorporates the built form and design guidelines outlined in the Cockatoo Town Centre Urban Design Framework 2007.

- Allocate funds in the budget for town centre design and landscape improvements.

- Investigate funding opportunities to carry out design and landscape improvements, including progressive implementation of underground powerlines in the town centre.

- Promote the maintenance and upkeep of the commercial premises (i.e. replacement of roller shutters, repainting, refurbishment, etc.).

- Promote the redevelopment of the old petrol station site based on the guidelines outlined in the Framework.

Option to consolidate Telstra substation and allow for the realignment of Boronia Crescent

Pedestrian connection to Cockatoo primary school

Improved Traffic Arrangement (subject to further design and doc. Refer traffic engineers detail)

Long term potential for consolidation with Telstra site (B1Z zoning)

BELGRAVE - GEMBROOK ROAD

BORONIA CRES

Telstra Substation

Pedestrian Plaza (8 existing car spaces)

B.

Rear carparking

Pedestrian Connection to Cockatoo primary school

Bus Stop

12 car spaces south side

D.

C

Public car park 25 spaces

G. Potential service / business use

MCBRIDE STREET

FAIRBRIDGE LANE

ROUEN ROAD

Pedestrian Crossing

E.

F. Proposed Supermarket Development.

Opportunity to consolidate land at rear of existing commercial properties

A.

9 car spaces north side

Opportunity to consolidate land at rear of existing commercial properties

Potential Fairbridge Lane width increase on Southern side in council land and service use zone

Supermarket car park

Pedestrian Connection

Pedestrian Crossing

Pedestrian Crossing

Town Square

Up to Proposed Pedestrian Crossing

PAKENHAM ROAD

PUFFING BILLY RAILWAY STATION

Improved Traffic Arrangement (subject to further design and doc. Refer traffic engineers detail)

Signalised Pedestrian Crossing

Kindergarten

Senior Citizens & Community Centre

Alma Treloar Reserve (refer Master Plan for further detail)

Child care centre

Public Toilets

Pedestrian Crossing

Bowling

Tennis

Tennis

COCKATOO CREEK

BAILEY ROAD

Bridge

LEGEND

- — Puffing Billy Rail line
- Existing Residential
- Existing Commercial
- Proposed service/Business zone
- Proposed Pedestrian network
- ←→ Proposed Pedestrian Linkages

POTENTIAL DEVELOPMENT SITES

Site A
Preferred uses include community facilities. Building area approx. 2000-3000m²

Site B
Long term redevelopment opportunity. Important gateway site. Preferred uses include commercial/retail. Building area approx. 1500-2000m²

Site C
Long term redevelopment opportunity. Important gateway site. Preferred uses include commercial / retail. Building area approx. 300-500m²

Site D
Potential infill development site. Preferred uses include commercial/retail. Building area approx. 600-750m²

Site E
Potential infill development site. Preferred uses include commercial/retail. Building area approx. 100-200m²

Site F
Potential development site. Preferred uses include a super market.

Site G
Long term re-development opportunity. Preferred uses include service industry, business.

Scale as shown
Ref.: 106008
Date: Nov 2007
Rev.: D
Drawn: HW

0 50 100 200m

CARDINIA

FIGURE 8: COCKATOO TOWN CENTRE FRAMEWORK PLAN

12. IMPLEMENTATION AND REVIEW

Implementation of the Cockatoo Township Strategy 2007 will be undertaken as outlined in an implementation plan. The implementation plan will identify responsibilities as well as set priority for actions. Some of actions are to be entirely funded and implemented by council, others by other levels of government and some by the Cockatoo community and developers. The priority of the actions will be identified as short term (1-5 years), medium term (5-10 years) or long term (10-15 years). The implementation plan will be reviewed annually in relation to actions completed and future priorities.

This is the first review undertaken since the preparation and adoption of the Cockatoo Township Strategy in 2001. This review has given an opportunity to council to update the Strategy in light of new and emerging issues. The key directions to address these issues have been informed by the feedback received during the community consultation process (See Appendix A). To ensure that the Strategy is relevant in light of any changes in the assumptions for development, it is recommended that a full review of the Strategy should be undertaken in 5 years.

13. APPENDICES

APPENDIX A: FEEDBACK FROM COMMUNITY CONSULTATION

A community forum was held in Cockatoo in May 2005 to have input into the drafting of the Strategy. The key objective was to identify issues that the Cockatoo community considered as important now and into the future.
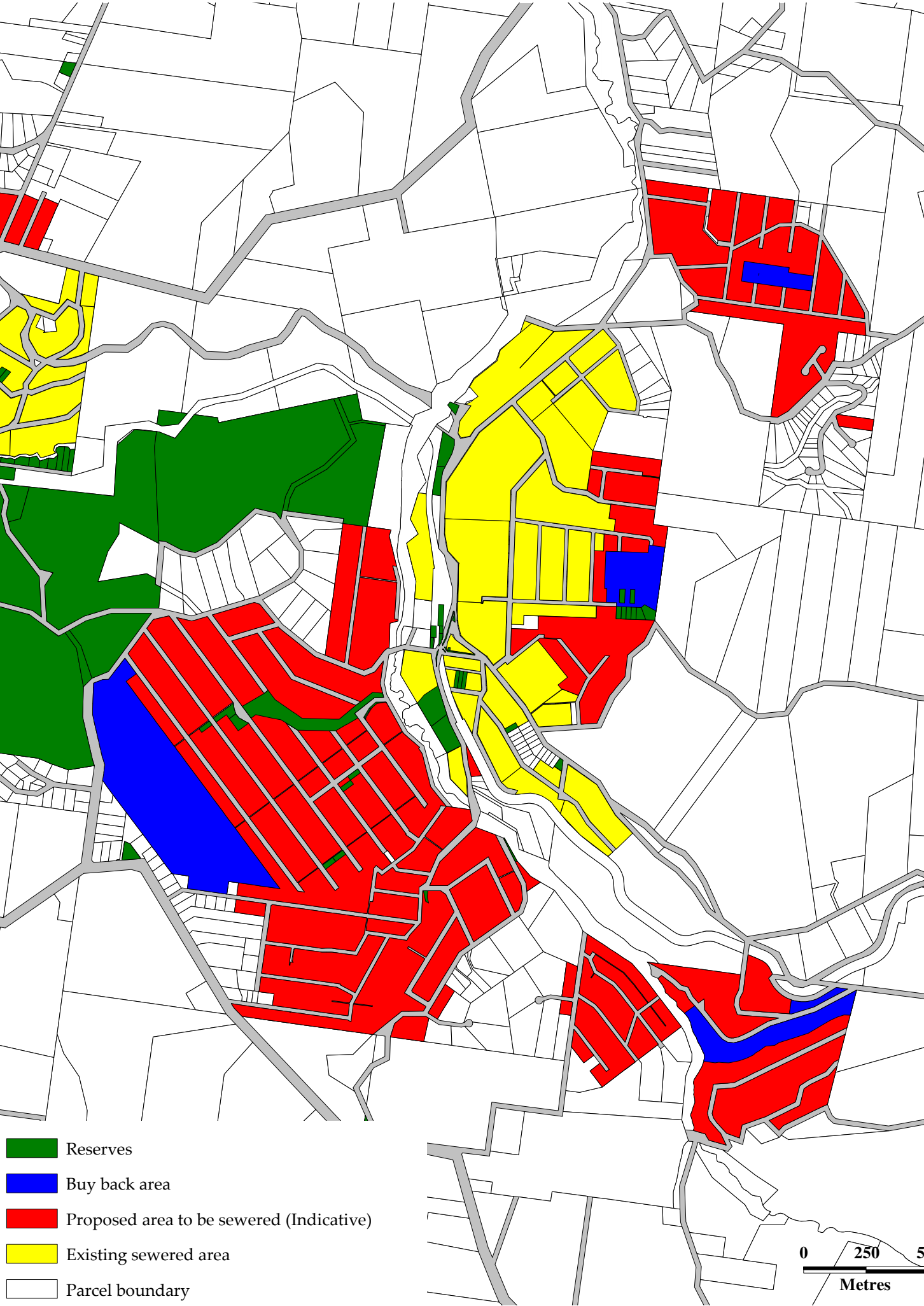
The following table provides an outline of the issues and their priorities.

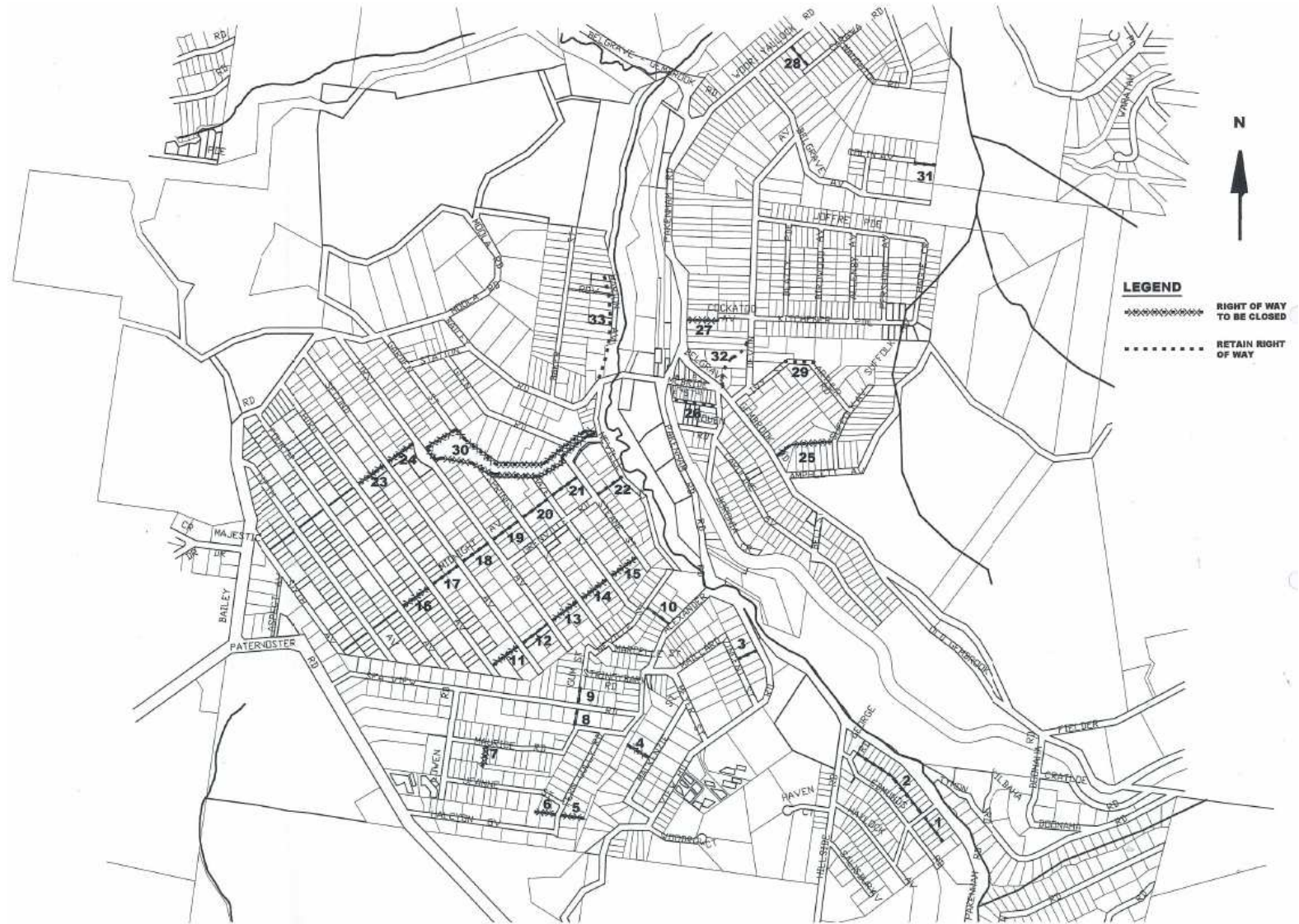| S.No.	ISSUE
	RESIDENTIAL DEVELOPMENT
•	Definitely no 'dual occupations'; no subdivision of existing residential blocks
•	No unit development except where land and aspect allows e.g. Cockatoo senior cottages
•	Mail Delivery wanted. Concern regarding the affect it will have on post office agents. Not everyone wants a mail delivery
•	Control architecture to maintain aesthetics of Mountain Road; rural look
•	Limitation of double storey houses; multi storey housing must be near transport
	ECONOMIC DEVELOPMENT
•	No heavy industry; maintain current business centre
•	Cockatoo station needed on McBride St near village square
•	Tourism attraction required; nothing in town as is
•	Improve commercial centre architecture to reflect 'olde town' look
•	Hardware/ Paintshop/ Service station
•	Trash & Treasure market; monthly
•	Outdoor cafes at bakery, general store
•	Hotel or tavern (tourism)
•	Light industrial area (show rooms etc.) "ATTRACTIVE"
•	No prefab concrete structures
•	Beechworth Bakery at shire site (corner McBride Street and Boronia Crescent)
	COMMUNITY DEVELOPMENT
•	To continue and enhance all recreational areas especially Mountain Road reserve and Mountain Bike track – look into soccer field
•	Maintain existing buildings/assets to allow for volunteers to put in more time into people activities
•	BMX track (not concrete but kids able to add and move dirt, humps, etc.), playground, barbeque area
•	Stage 2 Emerald/ Cockatoo/ Gembrook trail

S.No.	ISSUE

- Footpaths up Bailey Road and Pakenham Road to Lisheen Road

- Finish Stage 1 of Emerald/ Cockatoo trail

- Keep Cockatoo as a Recreation area (Emerald- commercial; Gembrook – tourism)

- Mountain Road Reserve as venue for musical festivals

- Kids- dirt bike area

- Skate area included - concrete

TRAFFIC AND TRANSPORT

- Sealing of roads – to be able to pay in advance for road making with guarantee that money and interest will only be used for road making in Cockatoo

- Intersection of McBride Street and Belgrave Gembrook Road – it has people speeding up McBride Street and rushing into Belgrave-Gembrook Road. It is dangerous. (Maybe a six month trial of road closed to see if it affects traders) – one way street

- Bus service that is more regular and connects with other public service (bus, trams, etc.) and is available on weekends

- Unable to buy tickets off bus - STILL

- Kerb and channel on VicRoads roads to improve safety and control water run off

- Bus service to Pakenham

INFRASTRUCTURE

- Better maintenance of dirt roads by using dirt and drainage issues where water runs off properties and breaks down roads

- Better bus service

- Buyback – Fourth Avenue, Fifth Avenue and Sixth Avenue be put into government hands to ensure it stays forest and can never be built on

- Footpaths
  - Bailey Road top to bottom
  - Pakenham Road
  - Caroline Avenue (behind school) through to shops
  - Fairbridge Lane (Behind shops)
  - McBride Street to Belgrave Gembrook Road

- Formalised off street parking
  - McBride Street
  - Alma Treloar Reserve
  - Mountain Road

- Footpath upgrade along Woori-Yallock Road

- Soccer pitch incorporated into little athletics facilities implemented in 5 years

- Any new Special Charge Schemes scoped, planned by community and implemented within 1 year of start (no delays)

- Assistance for Town Committee in completing last 4 town entrances

S.No.	ISSUE
•	Improved maintenance regime along road reserve between Bailey Road & Woori-Yallock Road (Belgrave/Gembrook Road)
•	To keep existing made roads maintained and stop water from side roads running down edge of road and undermining road and water not using the drain
•	Implement all phases of Alma Treloar Plan in 5 years
•	Incorporate Cockatoo Township Committee 'Right of way report' into township strategy and 'buyback plan' and implement in 5 years
•	Complete planning and implement Phase 2 of Emerald/ Cockatoo / Gembrook regional trail in 5 years
•	Complete link into Mountain Road Reserve from Colin Avenue within 5 years
•	Kerb and channel on all VicRoads roads to prevent pavement degradation and control water flows within 5 years
•	Fairbridge lane sealed plus drainage

	ENVIRONMENT
•	Can State move boundary to west of Cockatoo Creek as drainage along Woori-Yallock Road affects Creek in lower area and to east.
•	'No net loss of vegetation' is not enough- need positive steps to restore indigenous vegetation
•	Drainage in open reserves – Proceed with walking tracks, boardwalks etc. at Alma Treloar Reserve
•	Kerb and channel on VicRoads roads to control run off
•	Green waste/ mulching service to encourage less use of fire to clean up bush blocks (not just laws)
•	Steep local roads to have better drainage control and minimise erosion

|	URBAN DESIGN
•	Construct Fairbridge Lane to more adequately allow flow of two way traffic

•	Footpaths
	  • Back of school to shops
	  • Pakenham Road
	  • Bailey road
	  • All

•	Car parking – off street and formalised
•	Continuation of walking/bicycle path through to Gembrook
•	Maintenance of existing footpaths e.g. Township to Woori Yallock Road
•	Formalised car park at Alma Treloar Reserve
•	Formalised car park at Mountain Road to allow for football and netball activities to happen at the same time and have people in reserve

APPENDIX B: SEWER BACKLOG AREAS

Legend:
- Reserves (green)
- Buy back area (blue)
- Proposed area to be sewered (Indicative) (red)
- Existing sewered area (yellow)
- Parcel boundary (white)

0   250   500

Metres

**APPENDIX C: RIGHTS-OF-WAY IDENTIFIED IN THE LANEWAY CLOSURE SCHEME 2002**

APPENDIX D: STYLE GUIDE FOR COCKATOO RESIDENTIAL AREAS

Dwelling style

- The scale of buildings will be unobtrusive and will blend with the 'bushland' setting. Dwellings will be well articulated with elements like verandahs and porches.
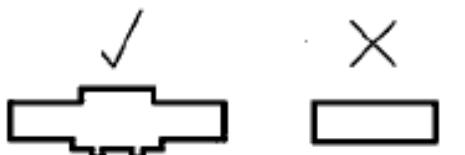
- The style of dwellings will be diverse – from simple 'cottage style' to large 'ranch style' and will respond to site conditions like topography, vegetation, etc.

- Dwellings will mostly have pitched roofs in tile, Colorbond or other material. Roof colours will be subdued and non-reflective. Eaves will provide shade and articulation.

- The colours will complement the natural colours of the surrounding environment and will be in a range of 'natural and earth colours'. (The Puffing Billy Corridor Landscape Evaluation Study 1992 lists the colours recommended as visually harmonious with the scenic corridor.)

- Building materials may be diverse – brick, cement sheet cladding, weatherboard, coloured light weight cladding, etc. But building materials that complement the 'natural' landscape will be given preference.
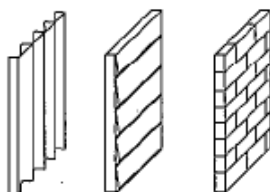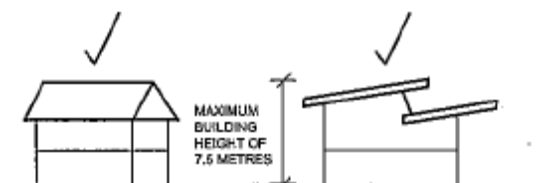
Siting

- The building would be orientated to maximise retention of remnant vegetation and large trees or established gardens. The layout will be compact and in a clustered layout.

- Dwellings will be located below ridge lines.
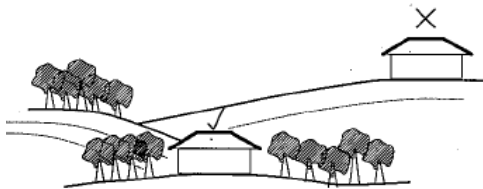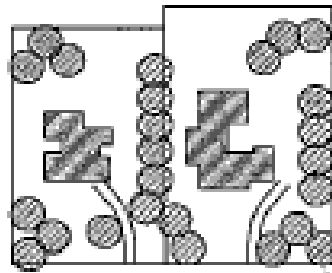
- In larger lots (of size 1,000 square metres and above) dwellings will be setback at least 10 metres from the front boundary and 7 metres from side boundaries to ensure that the built form is unobtrusive.

- The site coverage will not exceed 40% in smaller lots (1,000 square metres and below).

- Structures will be sited parallel to contours of the site to reduce cut and fill, retaining walls and visually intrusive built form.

- On sloping sites greater than 1:9, dwellings will be constructed on split levels to minimise visual massing, reduce erosion and minimise damage to vegetation. Decks will cantilever above the fall of the land.

- Significant views from key routes will be retained by ensuring that new development is low scale and appropriately sited.
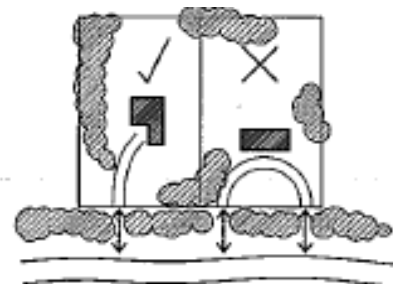
Gardens

- Smaller lots (1,000 square metres and below) in the inner residential areas will be encouraged to have gardens with a mix of indigenous and exotic plants.

- Larger lots (of size 1,000 square metres and above) will be encouraged to have gardens in a 'bushland' setting, with predominantly native vegetation. The vegetation will be maintained to ensure effective wildfire management.

- Gardens will be designed using native and local indigenous plants.

- Plants will be selected to assist with on-site storm water and drainage absorption. Environmental weeds will be avoided.

- Hard, impervious surfaces surrounding the dwelling will be kept to a minimum.

- Recycled materials will be used wherever possible for garden edges and features.

- Appropriate household waste will be composted to create garden mulch and reduce burning off.

Driveways

- Access to a site will be provided by preferably a single driveway.

- Driveways will preferably be constructed of permeable/semi-permeable materials (e.g. pervious paving) while taking measures to avoid increased sediment runoff.

- Driveways will be integrated with landscape elements like groundcover.

- Driveway alignment will follow the natural contours.

Fences

- Open front garden spaces with low or permeable fences will be encouraged to allow gardens and nature strips to merge.

-
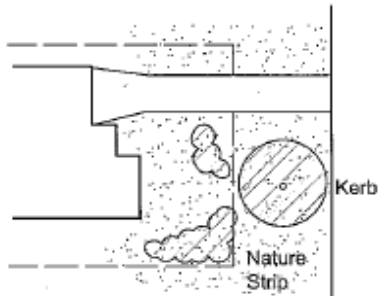
- Low hedges and soft planted edges wherever possible will be used in lieu of fences to maintain a sense of openness.

- High fences, where necessary, will be permeable (e.g. post and wire fence) or screening plants will be used.

Streetscape

- Street tree planting along key entrances to the town will be retained.

- Indigenous vegetation will be retained on road reserves while retaining pedestrian and vehicle sight lines.

- Where piped drainage is not possible, drainage of streets will be achieved through stormwater management systems like vegetated swales, buffer strips, etc.
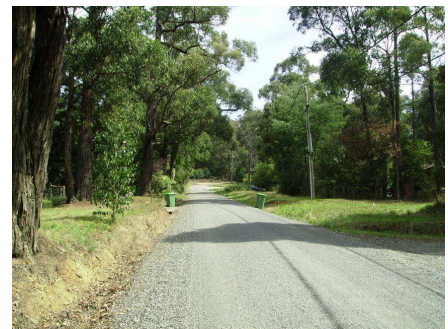
Energy efficiency

- Environmental sustainability of dwellings will be maximised through on-site stormwater/roof water collection, solar orientation and wind control ventilation.

- Main living spaces will be orientated to the north for solar access.

- Deciduous trees on northern side will provide solar access in winter and shade in winter.

- Windows to the north will be maximised with sufficient overhang to control summer sun and allow winter light penetration.
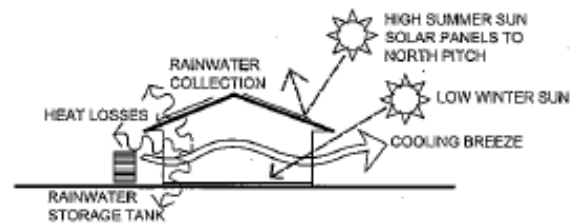
Vegetation

- On sites with significant remnant native and indigenous vegetation, stump footings or post and beam construction would be preferred to a concrete slab thereby reducing root damage and alteration to soil moisture levels.

- For sites that do not have vegetation cover, it will be encouraged to plant trees prior to commencement of earthworks and construction.

- Alignment of drains and services will minimise loss or damage to existing trees.

- Fuel reduction will be carried out in an environmentally sensitive manner.

- Vegetation will be retained on slopes greater than 20% and within the creek reserve.