



# **Axedale Township Structure Plan**

**20 March 2009**

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Planning & Development Directorate**

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## Acknowledgements

### Project Team:

This report has been prepared by the Greater Bendigo City Council, Planning and Development Directorate in association with City Strategy:

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Project Funding	Greater Bendigo City Council

### Acknowledgements:

Nancy Vaughan	Community Plan Coordinator, Bendigo +25, Community Visioning Project.
Axedale Our Town Our Future Inc.	
Photographs	<i>Accent on Axedale</i> , Centenary & Back To Axedale Committee, Freelance Press 1970

### Report Status:

This report has been prepared by Greater Bendigo City Council's, Planning and Development Directorate.

Date	Status	Authorisation
1 August 2007	Internal referral	Dale Sampson
1 Sept. 2007	Referral to Axedale Our Town Our Future Inc.	Dale Sampson
21 May 2008	Approved for exhibition	Council
29 May 2008	Include Appendix 3 - Vegetation Assessment.	Dale Sampson
9 July 2008	Review by DPCD	Dale Sampson
20 March 2009	Amended to accord with DSE submission	Dale Sampson

## Executive Summary

Council has prepared this Township Structure Plan for Axedale, to provide direction for future land uses, developments and subdivision and to assist the provision of future services (community and engineering).

The Axedale urban centre is currently zoned Township (TZ) in the *Greater Bendigo Planning Scheme*, which is a zone intended “to apply to small towns where there is no specific structure of commercial, residential and industrial land use”<sup>1</sup>. However, the township is quite compact and self sufficient with a small commercial precinct, primary school, churches, public hall and other well established community assets.

The periphery of the urban centre is zoned Low Density Residential (LDRZ), intended “for areas which are shown to be appropriate for subdivision into lots that are both large enough, in the absence of reticulated sewerage, to contain all wastewater on-site and small enough to be maintained without the need for agricultural techniques or equipment”<sup>2</sup>. The purpose of the zone is similarly defined and also refers to unsewered allotments, however, the township was provided with reticulated services in 2004.

The *Axedale Township Structure Plan* proposes to remove the broad-brush Township zoning and replace it with prescriptive zonings that clearly articulate the extent of urban settlement, its makeup and desirable future land uses, developments and subdivision. Defining the location of existing and future land uses will provide certainty and transparency for residents, reduce future land use conflicts and provide proper planning of community and engineering infrastructure.

The outcomes of the Structure Plan include:

- A strategic planning context for the Township; and
- A township structure plan with recommendations for specific zones to control uses and overlays to guide development.

The Structure Plan is supported by the *Axedale and District +25 Community Plan*, 2007, which lists as a priority to “foster and promote land development in keeping with a semi-rural lifestyle”<sup>3</sup>.

The outcome of the project will be a planning scheme amendment to include the *Axedale Township Structure Plan*, 2008 as a Reference Document and the *Axedale Township strategic framework plan* within the Municipal Strategic Statement (MSS) of the *Greater Bendigo Planning Scheme*.

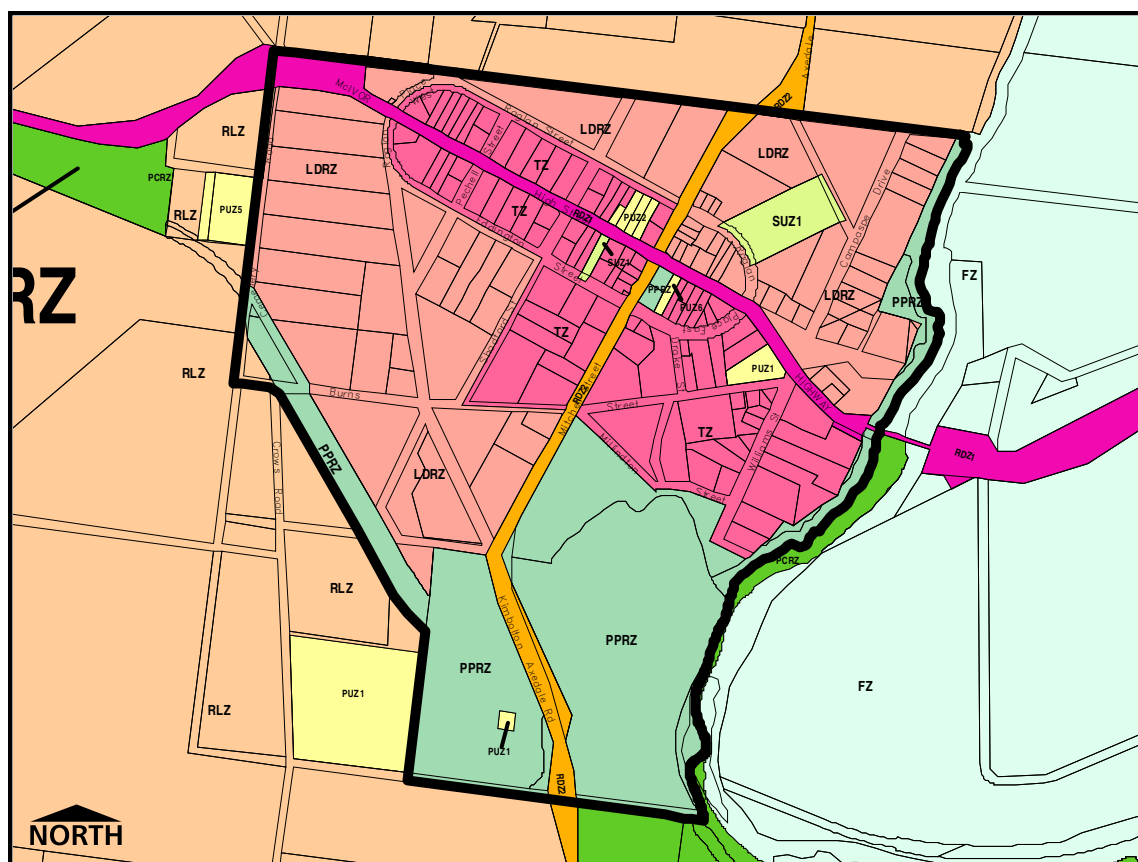
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<sup>1</sup> *The VPP in Detail*, page 39

<sup>2</sup> *The VPP in Detail*, page 39

<sup>3</sup> *Axedale and District +25 Community Plan*, 2007, page 5

## Structure Plan Boundary



— Structure Plan Boundary

Current land use zonings under the *Greater Bendigo Planning Scheme*.

### Township Area:

TZ Township Zone  
 LDRZ Low Density Residential Zone  
 SUZ Special Use Zone  
 PPRZ Public Park & Recreation Reserve Zone  
 PUZ Public Use Zone

### Surrounding Area:

RLZ Rural Living Zone  
 FZ Farming Zone

### Overlays:

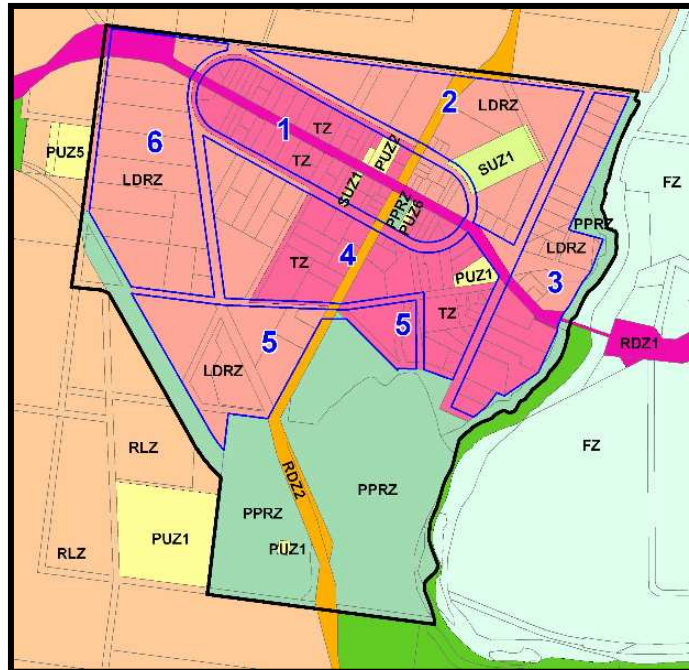
ESO1 Environmental Significance  
 WMO Wildfire Management Overlay  
 DPO4 Density Management Areas  
 DPO4 Townships



## Precinct Plan

For planning purposes and management of native vegetation, the township has been divided into 6 precincts with similar settlement and physical characteristics. The Structure Plan proposes adoption of desirable minimum lot sizes for each precinct (see Table 8).

Precinct boundaries



### Precinct Descriptions:

1. High Street - Inner township core proposed to be rezoned to Residential (R1Z) with no minimum lot size, and Business (B1Z) around the existing retail centre.
2. Raglan Street North - Cleared, grassland periphery proposed to be rezoned to Residential (R1Z) with a minimum lot size of 1,500 sqm.
3. Williams Street/Campaspe Drive - Cleared land overlooking the Campaspe River valley with high natural heritage value, proposed to be rezoned Low Density Residential (LDRZ) with a minimum lot size of 2 hectares and a Significant Landscape Overlay (SLO).
4. Shadforth Street/Mitchell Street - Township periphery consisting of mixed urban development with remnant native vegetation proposed to be rezoned to Residential (R1Z) with a minimum lot size of 1,500 sqm.
5. Burns Street - Outer periphery containing quality native vegetation proposed to be rezoned to Low Density Residential (LDRZ) with a minimum lot size of 2 hectares with a Vegetation Protection Overlay (VPO2).
6. Cemetery Road - Outer periphery opposite historic cemeteries, consisting of highly modified pasture with remnant mature native trees along Hargreaves Creek, proposed to remain Low Density Residential with a minimum lot size of 2 hectares.

## **1. Introduction**

### **1.1 Scope of the Structure Plan**

The *Axedale Township Structure Plan* indicates future land uses, developments and subdivision by proposing zones and overlays for incorporation into the *Greater Bendigo Planning Scheme*, and includes:

- Plans of environment attributes to be protected and enhanced including vegetation, waterways and significant landscapes;
- A desirable settlement pattern showing neighbourhood precincts with subdivision potential by defining desirable minimum lot sizes and preferred development precincts;
- An access and movement plan demonstrating connectivity between neighbourhood precincts for pedestrians and cyclists with open space, recreation areas, the primary school, commercial precinct and other movement generators;
- A local roads network plan and principles for water sensitive urban design (WSUD) and alternative options for roadside treatments that preserve native vegetation; and
- Recommendations for a landscape plan based upon theme planting of native vegetation of local provenance with particular attention to the McIvor Highway and other township entrances.

### **1.2 Structure Plan Objectives**

The Structure Plan provides recommendations to the community and Council for specific zonings and township growth for Axedale that includes, but is not limited to the following:

- Identification of neighbourhood precincts and subdivision potential.
- Identification of and securing the long-term development form, lot layout, open space and road hierarchy for the township having regard to the position and status of the McIvor Highway.
- Identification of environmental, development and servicing constraints that may inhibit growth and development.
- Identification of key physical features including the Campaspe River, native vegetation, heritage buildings and Crown land; and
- Encouraging growth in designated areas that is respectful of the township and neighbourhood character.

## 1.3 Consultation

### 6.3.1 The Vision for Axedale:

The vision for the *Axedale Township Structure Plan* is to:

*Foster and promote land development in keeping with a semi-rural lifestyle<sup>4</sup>.*

The vision is supported by the following key planning principles:

- To maintain the unique identity, conservation and heritage of Axedale as a township within a rural environment with a strong sense of community;
- To maintain the existing neighbourhood character and streetscape of larger allotments with mature native vegetation, particularly along road reserves; and
- To adopt engineering solutions for future roadworks that include grassed, swale verges and copses of native vegetation with understorey.

### 1.3.2 Community Consultation:

The consultation program was undertaken as part of the *Community Visioning Project* commenced by Nancy Vaughan (Community Plan Coordination – Bendigo +25 Project) with the establishment of a community steering committee. A public workshop and community visioning session was conducted on the 27 February 2007 and a community survey distributed to all residents and businesses. A snap-shot of the survey returns, indicates the following top responses<sup>5</sup>:

What is perceived as the township main assets/strengths:

- Lifestyle, country living and distance from Bendigo;
- The Campaspe River and proximity to Lake Eppalock; and
- The people.

What the majority of respondents indicated that they want for the future:

- No change, large lots, open space and preserving the quiet, rural environment;
- Improved social and sporting activities;
- Public transport or a regular community bus between Axedale and Bendigo;
- Upgrading of the Axedale-Goorong and Axedale-Kimbolton Roads;
- Upgrading the highway, sealed roads and footpaths; and
- Improved shopping and new public toilets.

The community engagement resulted in the visioning and planning of the township and formulation of the *Axedale and District +25 Community Plan, 2007* and the *Axedale Township Structure Plan, 2007*. A draft copy of the structure plan was presented to Axedale Our Town Our Future Inc. on the 18 September 2007, with positive feedback.

Additional exhibition is proposed as part of any planning scheme amendment to give effect to the Structure Plan.

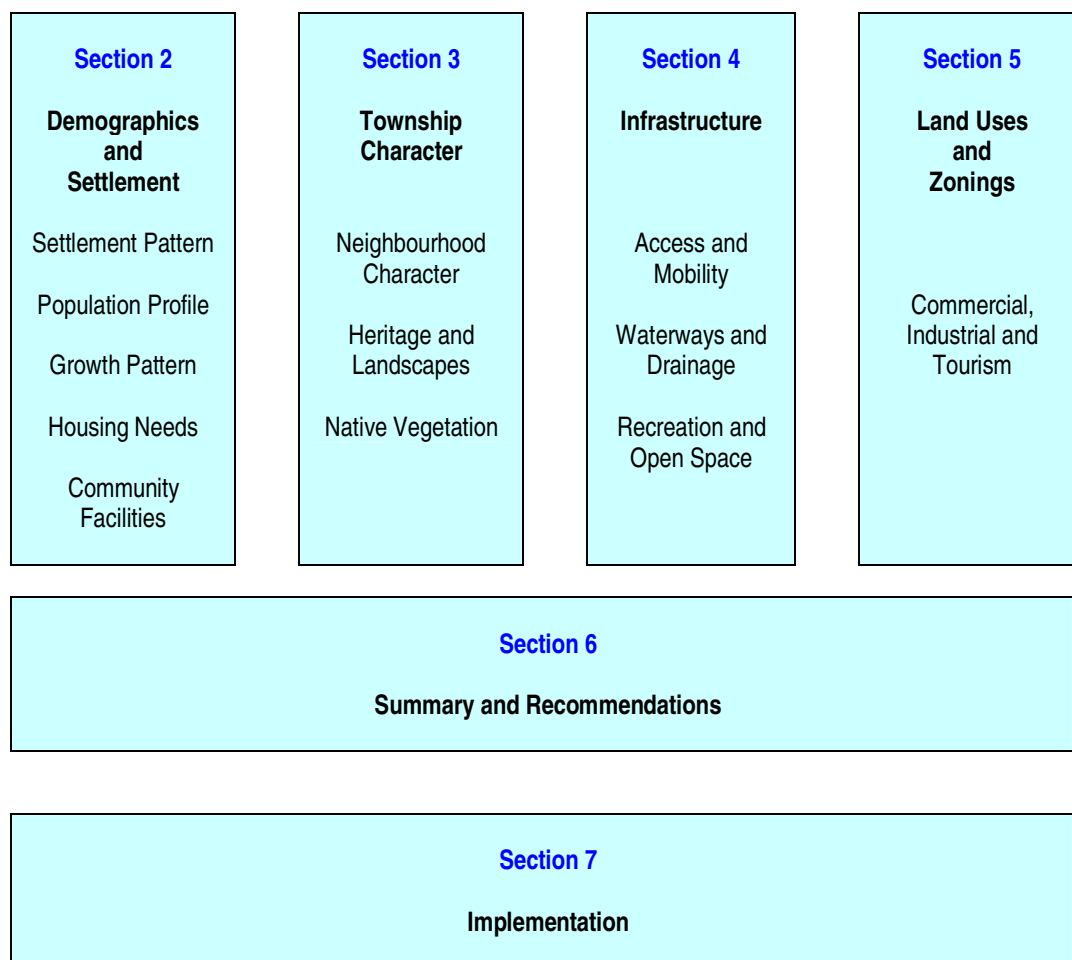
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<sup>4</sup> *Axedale and District +25 Community Plan, 2007*, page 5, Project 1.

<sup>5</sup> *Axedale and District +25 Community Plan, 2007*, Appendix 1.

## 1.4 Format of the Structure Plan

The Structure Plan has been prepared in the following format:



The 4 key themes have been divided into sub-themes, which are discussed and recommendations provided in the Summary and Implementation sections.

## 2. Demographics and Settlement

### 2.1 Settlement Pattern

Major Mitchell first explored the district and named the Campaspe River in 1836. Two years later, Captain Charles Hutton established the Campaspe Plains Run of 114,900 acres, which was divided into the “Axedale” Station of 67,000 acres and licensed to A. Jennings and G. Payne in 1840. The *Victorian Gazette* of 1865 describes Axedale as “a postal township in the electoral district of Mandurang under the control of the Strathfieldsaye Road Board”. There was a steam driven flour mill (Doak’s) and a coach service to Sandhurst (Bendigo). There were 7 hotels although only 3 located within the township. The town plan of 1856 was established after the Crimean War and Raglan Street and the Raglan Hotel were named after Lord Raglan<sup>6</sup>.



**Figure 1: Axedale Township Plan (c1856)**

The street and lot layout is based on the town plan as surveyed in the 1860's, consisting of a core of half and one acre allotments spreading out to 5 acre (average) blocks. The current ownership pattern is still based upon this old township layout with single and multiple parcels of old Crown allotments. The township received a reticulated water supply in 1964 and was sewered in 2004, thus providing opportunities for lot sizes in some areas to be reviewed, parcels re-configured and possibly re-subdivided into smaller allotments with reduced environmental constraints and impact.

Because of the compact nature of the township with distinct areas already committed to commercial, residential, education, religious and recreation purposes, spatial allocations for current and future uses is possible. Given steady, predictable growth and the need for certainty and transparency for residents, it is considered that the old township and low density zonings are out-dated and that clearly designated areas and land uses can now be defined.

<sup>6</sup> *Accent on Axedale*, Centenary and Back to Axedale Committee, Freelance Press 1970

## 2.2 Population Profile

The Township of Axedale is situated on the McIvor Highway, 20 km east of Bendigo, which is a significant Regional Urban Centre. The district was founded as a consequence of the alluvial plains of the Campaspe River, which are still an important area for quality cropping and viticulture. However, the discovery of gold, bluestone and white clay consolidated Axedale as a small community and service centre to the district and these resources continue to be the major influence.

According to the *Gazetter*, the Axedale of 1865 had a population of 500, although it does not indicate if all lived within the township boundary. The current population is 230 (2006 census) which is an annual growth rate of 3.2% compared with 1.4% for the Greater Bendigo municipality and a State average of 1.1%. At the current rate, Axedale's population will be 314 in 10 years and 429 in 20 years or 461 by 2030, however, because of the low numbers, it is difficult to draw conclusions.

The Axedale pre-school currently has 15 children and the primary school has an enrolment of 51 pupils drawn from the township and nearby farming and rural residential settlements at Longlea, Toolleen, Knowsley and Eppalock.

The size and location of Axedale means it functions as a small, dormitory township, providing daily convenience shopping only, relying on the regional centre of Bendigo for weekly shopping, employment, banking and other services. The township has a distinct commercial hub consisting of the Axedale Tavern, Bluestone Stables Art Gallery and the general store. However, it has a limited range of employment opportunities with most persons commuting to Bendigo or employed in agriculture or the local mining and extractive industry.



School before alterations — 1904 — Teachers T. F. Bissett and Annie Cummins.

**Figure 2: Common School No. 1008, Axedale (1904)**

## 2.3 Population Figures and Projections

**Table 1: Population of Axedale Township**

	1986	1991	1996	2001	2006
Total Population	179	213	196	198	230
% of LGA's population	0.3	0.3	0.2	0.2	0.2
Rank by population size	316	303	312	341	-

(Source: Towns in Time, 2001 – DSE Know your area – [www.doi.vic.gov.au/DOI/knowyour.nsf](http://www.doi.vic.gov.au/DOI/knowyour.nsf))

**Table 2: Population Comparison**

Total Population	1986	1991	1996	2001	2006
Axedale	179	213	196	198	230
Goornong	249	303	265	261	754
Marong	-	-	-	269	393
Elmore	698	749	662	665	881
Heathcote	1364	1507	1565	1555	2686

(Source: Towns in Time, 2001 – DSE Know your area – [www.doi.vic.gov.au/DOI/knowyour.nsf](http://www.doi.vic.gov.au/DOI/knowyour.nsf))

**Table 3: Population Growth of Axedale Township by 2030 (estimated)**

Percentage Growth at 3.2% pa	2001	2006	2016	2026	2030
Total Population	198	230	314	429	461

(Source: City of Greater Bendigo estimate – August 2006)

**Table 4: Population Composition for Axedale Township**

Age group (2006)	Municipality		Axedale	
	No.	%	No.	%
0-4 years	5,780	6.2%	7	3.0%
5-14 years	13,294	14.3%	39	17.0%
15-24 years	13,462	14.4%	26	11.3%
25-54 years	36,527	39.2%	97	42.2%
55-64 years	10,355	11.1%	42	18.3%
65 years and over	13,835	14.8%	19	8.3%
Median age of persons	37		44	

(Source: 2006 ABS Census - Released on 27 June 2007)

**Table 5: Axedale Primary School Composition (2006-07)**

	Number		Av. age	% 2006	% 2007	% change
	2006	2007				
Grade Prep.	11	4	5	22	8	-64
Grade 1	10	9	6	20	18	-10
Grade 2	4	9	7	8	18	+55
Grade 3	8	4	8	16	8	-50
Grade 4	7	11	9	14	21	+33
Grade 5	6	8	10	12	16	+25
Grade 6	4	6	11	8	11	+27
<b>Total</b>	<b>50</b>	<b>51</b>		<b>100</b>	<b>100</b>	

(Source: Axedale Primary School August 2006 and March 2007)

## 7.4 Bendigo Residential Development Strategy (BRDS)

The BRDS was adopted by Council in March 2004, and provides the long-term strategy (to 2030) for residential growth throughout the municipality. With respect to Axedale, the strategy makes the following comments:

“Axedale should be mentioned as an alternative area for satellite development, given the recent installation of sewage services. A number of limitations should, however, be considered with respect to geographical isolation from Bendigo, location of the river corridor and demand for residential development” (page 37).

“Subject to further investigation, further expansion could take place at Axedale, located east of the Bendigo CBD. Additional growth could also be accommodated in rural townships such as Lockwood, Elmore and Heathcote” (Table 3.6, page 39).

## 2.5 Generators of Growth

The generators of growth in Axedale are employment and lifestyle, however, even at a growth rate of 3.3%, the population will still be below 500 by 2030.

Current development pressures and activities include the following:

- A 14 lot subdivision in Shadforth Street for 4,000 sqm lots, with a development overlay indicating a possible yield of about 50 lot at 1,000 sqm (1217/2005);
- A 4 lot subdivision in Raglan Street for 4,000 sqm lots, with an overlay for 16 future lots at 1,000 sq m (1025/2005);
- A 34 lot medium density subdivision in High Street, west of the Presbyterian Church, consisting of 240 sqm lots with units (983/2006);
- Proposed extensions to the general store to include a small supermarket and trade supply (347/2005 & 653/2004);
- A rezoning request for hard waste disposal at Axedale Sands & Gravel on the Axedale-Tooleen Road; and
- Construction of a decline for underground mining at the Perseverance Gold Project at Fosterville.

Employment in the local mining and extractive industry is expected to continue in competition with traditional and boutique agricultural uses, including vineyards and olive groves.

Areas surrounding Axedale to the west of the Campaspe River are zoned Rural Living (RLZ) and continue to experience demand for farmlet lifestyle opportunities. Significant subdivisions have occurred at Axedale North<sup>7</sup> and subdivisions are proposed for the area to the south off Sugarloaf Road<sup>8</sup>. Interest is also strong in the township as evidenced by recent planning applications for residential subdivisions and unit development. Such activity indicates a growing level of interest and pressure on Axedale and the need to consider options for its future growth.

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<sup>7</sup> Pinpandoor Estate with 30 lots (18/1996)

<sup>8</sup> Estate of FR & ML Ham with 13 lots (613/2006)



## 2.6 Impetus for Growth

The recent extension of reticulated sewerage to the township has allowed consideration of smaller subdivision allotments and redevelopment of existing lots to higher densities and hence, the need for a Township Structure Plan to establish land use patterns and principles.

Opportunities for growth include:

- In the short to medium term, allow the township to consolidate at its own rate without nomination for satellite development;
- Provide for housing diversity with smaller lots in the centre core (precinct 1) and consider larger lots of 1,500 sqm around the periphery, consistent with existing neighborhood character (precincts 2 & 4); and
- Maintain the Rural Living hinterland for those wishing to experience a rural lifestyle, in proximity to a small service centre.

Accelerated growth through satellite development will be considered as part of the 3-yearly review of the *Bendigo Residential Development Strategy* and *Municipal Strategic Statement* (MSS) and will be subject to community consultation.

## 2.7 Housing Needs

The major employment sector in the district is mining and extractive industries with up to 300 employees and numerous contractors. The 2006 ABS figures (Table 4) indicate a diverse community with 20% of the population under 15 contrasted with 25% over 55. The strategy for small towns in the Municipal Strategic Statement is to:

- Concentrate urban design initiatives on key elements that contribute to the identity of small towns; and
- Encourage greater choice in small towns<sup>9</sup>.

Since 1986, the township population has fluctuated around 200, but has risen by 16% over the last census period and is expected to rise to 429 in the next 20 years (Table 3). However, interest in Axedale is expected to be tempered by distance from Bendigo, fuel prices, lack of job diversity and restricted access to regional facilities. Limited demand is expected to continue for:

- Lifestyle opportunities;
- Short to medium term housing for fluctuations at the Fosterville mine site; and
- Persons seeking medium density housing (ABS figures for Greater Bendigo predict a rapid rise in the 50+ age groups and a trend to smaller house-hold sizes<sup>10</sup>).

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<sup>9</sup> Greater Bendigo Planning Scheme, Clause 21.05-3, page 3

<sup>10</sup> City of Greater Bendigo, *Housing Audit 2000-2002*, page 16

## 2.8. Community Facilities

The *Axedale Township Structure Plan* is a land use planning tool aimed at expanding upon the existing elements that contribute to the nature and character of the existing township. It is expected that in the short to medium term, the existing urban area will consolidate with natural growth that respects the existing township qualities and streetscape, consistent with a village in a bushland setting. The long-term goal is for Axedale to remain sustainable by promoting community led initiatives and to this end, the Community Plan articulates the community's vision for the township and provides key priorities and an action plan.

The Community Plan has been prepared by the residents of Axedale as a living document, where the community has their say about local projects and the document is revised and updated accordingly. In this manner, the plan remains sustainable, because the residents assume ownership of the townships future, and identify the facilities and community infrastructure necessary to function successfully in the long-term.

## 2.9 Matters to consider – Demographics and Settlement

- Reviewing Axedale growth options as part of the small towns 3-yearly review of the Municipal Strategic Statement and the Bendigo Residential Development Strategy.
- Concentrating urban design initiatives on those key elements that contribute to the identity of Axedale; and
- Encouraging greater diversity of housing choice.



**Figure 3: Community gathering, Axedale (1923)**

## 3. Township Character

### 3.1 Neighbourhood Character

What is Neighbourhood Character?

“Neighbourhood character can be defined as the qualitative interplay of built form, vegetation and topographic characteristics, in both the private and public domains that make one place different from another”<sup>11</sup> (page 22).

The principles for managing neighbourhood character include:

1. Community values:  
“Community values are a key justification for the protection of neighbourhood character”<sup>12</sup>.
2. Physical focus:  
Character not only includes the built form, but also the environmental, social and economic factors contributing to the well-being of a community.
3. Special qualities of an area:  
Character should not be confined to the public street space, but also include an appreciation and evaluation of the precinct and the whole area.
4. Neighbourhood character and other planning policies:  
State and local policies should provide the rationale for decisions about whether to protect, change or improve the character of an area

The *Bendigo Residential Development Strategy*, 2004 (BRDS), provides little guidance on the future form and content of Axedale, stating only that “expansion might be possible, subject to further investigation” (page 37). However, the community has indicated that it wishes to “foster and promote land development in keeping with a semi-rural lifestyle”.



**Figure 4: Raglan Hotel (c1900) now a gallery and artists studio.**

<sup>11</sup> *Residential Character Study*, 2001, City of Greater Bendigo, planisphere with John Curtis Pty Ltd

<sup>12</sup> *Neighbourhood Character Study*, page 24

## 3.2 Context Description

The pattern of development is dictated by the old township layout consisting of 4,000 sqm allotments in the core, surrounded by larger 2 ha blocks opening out to broad-acres. The generous allotments have been preserved and mostly contain only one residence or are vacant and treed.

The built-form varies from substantial bluestone churches to modest timber dwellings, however, lacking the grand private and civic buildings and architecture of Bendigo. Buildings of interest include the Primary School, Axedale Tavern, the Bluestone Stables Gallery and homestead and a rough mud hut opposite in Raglan Place East.

Architectural styles range from simple, single storey weather-boards with corrugated iron roofs (1920's), to unsophisticated project homes of brick veneer and tile (1980's). There are no industrial buildings within the township, although there are a few larger sheds, however, the township remains visually pleasing. Allotments have generally been left natural and contain examples of remnant box-ironbark forest with intact understorey and some very old mature trees. Other notable features of the township include the cemeteries, Campaspe River, gently undulating land and winding, tree-lined boulevards.

Apart from the highway and main roads, carriageways are generally graveled and the public street space consists of narrow roads within wide reserves with quality roadside vegetation. At present, road infrastructure remains basic, however, consistent with the character of a rural village.

## 3.3 Heritage and Landscapes

### 3.3.1 Heritage

In September 2002, Stage 1 of a *Heritage Study* for the Heathcote-Strathfieldsaye region was completed, which included the township of Axedale. The study provides an historical background for the post-contact settlement of the district and identifies places of potential cultural significance. Stage 2 of the study has commenced, which is a detailed appraisal of the conservation and management of the nominated places and is expected to be completed soon.

The study will culminate in a planning scheme amendment in 2009, to include a Heritage Overlay within the township.

Examples of landscape and built heritage include:

#### Natural heritage:

- The Campaspe River valley and Sugarloaf range, which contain evidence of indigenous culture<sup>13</sup>; and
- Remnant native vegetation throughout the township including individual examples of very old, mature trees.

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<sup>13</sup> See Fosterville Gold Project EES 1990 & 1996, and Department of Victorian Communities (AAV), Local Area Plan - Greater Bendigo City 2007.

### **Built heritage:**

The township has several notable building and works, in particular 3 stone churches and 2 adjoining cemeteries. The original Roman Catholic Church was designed by Vahland and Getzschmann in 1862, but essentially rebuilt in locally quarried bluestone in 1902. The Presbyterian and Anglican Churches were opened in 1869 and 1913 respectively and are also constructed from local stone. The same quarry provided dressed kerbing and flagstones for Melbourne buildings and Bendigo streets and line the Bendigo Creek.

The Common School was constructed in 1871 and extensively remodeled and extended in 1915. The Axedale store and post office are undated, but records indicate it was operating in 1870.

Noteable buildings include the following:

- Catholic cemetery wall, High Street
- Presbyterian Church, High Street
- Roman Catholic Church, Raglan Place East
- Common School No.1008, High Street
- Church of England, Drake Street
- Axedale Tavern and general store, High Street
- Bluestone Stable Gallery and homestead, Raglan Place East
- Dry-stone wall, Ingham Road (old highway entrance from east).
- Mud brick building, 37 Raglan Place East.



**Figure 5: St. Mary's Roman Catholic Church, Raglan Place East, Axedale**

### **3.3.2 Landscapes:**

The landscape of Axedale is dominated by several key features, including:

#### **The natural environment:**

- The river corridor with its deep valley, mature tree-lines and rock outcrops.
- The canopy of trees, particularly along golf fairways and roadsides in the south with pockets of remnant vegetation throughout the township.
- The basalt plains and rock outcrops to the north dispersed with red clays.

**The built environment:**

- The township layout as provided by the original survey.
- The Mclvor Highway spine through the township.
- The main township entries with:
  - the historic cemeteries at the western township entrance; and
  - the curvilinear, valley approach from the east over the river.

### **3.4 Native Vegetation**

#### **3.4.1 Native Vegetation Management Plan:**

Native vegetation is integral to the identity and character of Axedale and provides important habitat and a vegetated connection to the Campaspe River. A precursor to the Structure Plan and precinct boundaries has been the preparation of vegetation assessment plans for the township<sup>14</sup>.

The plans divide the township into 6 distinct precincts with similar vegetation and landscape features, which are tabulated to show their conservation significance. The precincts are the same as the precincts adopted for planning purposes, which have been used to guide decisions for future settlement patterns and lot sizes with respect to preserving native vegetation in the structure plan.

A set of standard planning permit conditions for subdivisions and development applications is also attached.

#### **3.4.2 Conservation Significance of Vegetation:**

Vegetation in Axedale varies from low conservation value for the highly modified, cleared areas of pasture grass to the north, to areas of medium to high quality vegetation along waterways, some road-side reserves and unused roads, and undisturbed, remnant pockets within the urban area. These significant patches are proposed to be protected by Vegetation Protection Overlays (see Table 8).

#### **3.4.3 Avoid, Minimize or Offset:**

The requirements of *Victoria's Native Vegetation Management Framework* ("the Framework") and clauses 15.09 and 52.17 of the *Greater Bendigo Planning Scheme* are to avoid, where possible, the need to clear native vegetation. This is the main approach adopted for the *Township Structure Plan*, including use of a strategic framework plan to define desirable minimum lot sizes and overlays to recognise significant landscapes and protect areas of remnant bush-land. The emphasis of the structure plan is upon adopting an integrated approach to streetscape character and native vegetation management for the township.

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<sup>14</sup> See Appendices 2 & 3 herein

#### **3.4.4 Implications for the Township Structure Plan:**

The main implication of the structure plan is that future uses within the precincts will be controlled by zones and all development will be guided by overlays and a strategic framework plan, particularly with respect to lots sizes. To preserve the nature and “feel” of the township, lot sizes are proposed that limit subdivision to a natural growth pattern, without adopting normal urban densities. For example, many lots are still in original configurations with 2 road frontages that have never been subdivided – it is expected that over time, these will have the house excised leaving the rear for development. The structure plan and strategic framework plan recommend that no minimum lot size be applied to the centre core and that it develop naturally into its final form, subject to consideration of neighbourhood character. However, the larger peripheral lots of 2 ha should be limited to 1,500 sqm lot sizes with sewerage, similar to Maiden Gully, to preserve the “rural township” and encourage land use conservation. The strategic framework plan is proposed to achieve the desired continuance of a low intensive settlement in a rural environment that preserves native vegetation.

### **3.5 Matters to consider – Township Character**

- Preparation of landscape plans for High Street with improved entry statements to the township.
- Preserving roadside vegetation where possible by using engineering solutions and limited access (e.g., joint use driveways, internal access).
- For road construction, adopting curvilinear alignments that avoid or minimize the removal of native vegetation and leave unused roads closed.
- High quality remnant vegetation on private land to be covered by a Significant Vegetation Overlay (VPO2) with clearing limited to the minimum extent to provide for a building envelope by the use of 173 Agreements or restrictions on the plan of subdivision.
- Important roadside vegetation to be protected by a Roadside Remnant Vegetation Overlay (VPO3).

## 4. Infrastructure

### 4.1 Access and Mobility

#### 4.1.1 Arterial Road Network:

The township is bisected east-west by the McIvor Highway (High Street) with a traffic count of about 4,000 vpd<sup>15</sup> – Vic Roads advises that:

- "Any road improvements in the foreseeable future can be accommodated within the existing highway reserve;
- Accident statistics are below average;
- There are no high priority improvements proposed for the next 15 years; and
- There are no plans for a bypass of Axedale"<sup>16</sup>.

The township is also bisected north-south by main roads, being the Axedale-Goornong Road (596 vpd September 2005) and the Axedale-Kimbolton Road (Mitchell Street 331 vpd February 1991). Perseverance Mining advises that the Axedale-Goornong Road is used as a truck-route for the delivery of consumable goods delivered to the mine, which includes regular (weekly) deliveries of lime and cement (used in the agglomeration process) and chemicals used in the gold recovery process. The 2005 traffic count confirms that 10.4% of traffic on the Axedale-Goornong Road was commercial vehicles. The mine also employs up to 200 persons, many commuting from Bendigo and Strathfieldsaye via Axedale, which would account for part of the higher volume travelling north.

Other significant traffic generators include Waterfall Quarries Pty Ltd (Hansons), which has about 120 truck movements per day on High Street through Axedale.

The primary school is located to the north of the highway, however, the main residential areas are located to the south. The highway has a speed limit of 60 kph and 40 kph opposite the school at specified times. Other movement generators located on the north side of the highway include the general store and tavern. With the majority of pedestrian destinations located on the north side of the highway and the main population source to the south, potential conflicts exist along High Street, which needs to be assessed and managed. Project 8 in the Community Plan calls for the "installation of flashing lights at the school crossing", however, community feedback suggests that Axedale's strategic location on a highway is more of an asset than a liability in maintaining the township's viability.

#### 4.1.2 Township Entry Statements:

Axedale has very distinct and obvious entries, which announce arrival in the township:

- From Bendigo, the entry consists of a sweeping, tree-lined bend past the cemeteries with historic stone, boundary walls; and
- From Heathcote, the entry descends into the river valley with another distinctive sweeping curve up.

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<sup>15</sup> vpd: vehicle per day - 24 hour count

<sup>16</sup> VicRoads letter dated 22 August 2006.



- Entry from the south is past the golf course, which is well maintained with grassed greens and a tree-lined vistas to the river; while
- Entry from the north is over open plains with rock outcrops and ridges.

All township entries are unmarred by urban sprawl or ribbon development and provide clear demarcation from their rural surrounds, however, improved avenue planting and landscaping is recommended along High Street to heighten the sense of arrival and township distinction.

#### **4.1.3 Road Hierarchy:**

Historically, Axedale consisted of a village layout as shown on the old 1856 township map, with a “High” street abutted by smaller allotments for mixed use with front and rear access, expanding to larger allotments capable of stabling a horse with a rural hinterland. Road reserves are the old chain and a half (30 metre) width capable of turning a horse and dray and still comprise rural profile carriageways of compacted gravel with open table drains. Road verges contain important remnant vegetation as examples of the original indigenous bush and the wide road reserves provide opportunities to combine access function with conservation.

The Bendigo to Heathcote railway line was constructed by Andrew O’Keefe & Co. opening in 1888, however, due to declining patronage, closed in 1958. The disused line has since been converted to a rail-trail between Bendigo and Axedale, named the “O’Keefe Trail”. Project 4 in the Community Plan proposes to “maintain and extend the O’Keefe Trail” into the township, with a longer term vision to extend it to Heathcote.

The current road hierarchy consists of the following:

##### **Arterial Roads:**

- **Highway:**  
The McIvor Highway provides an essential function connecting rural and regional centres with capital cities; and
- **Main Roads:**  
The Axedale-Goornong Road and Axedale-Kimbolton Road provide important connections between settlements and access to rural properties.

##### **Local Roads:**

- **Access Streets:**  
Urban streets provide local residential access where traffic is subservient, speed and volume are low and pedestrian and bicycle movements are facilitated<sup>17</sup>.

#### **4.1.4 Design Standard:**

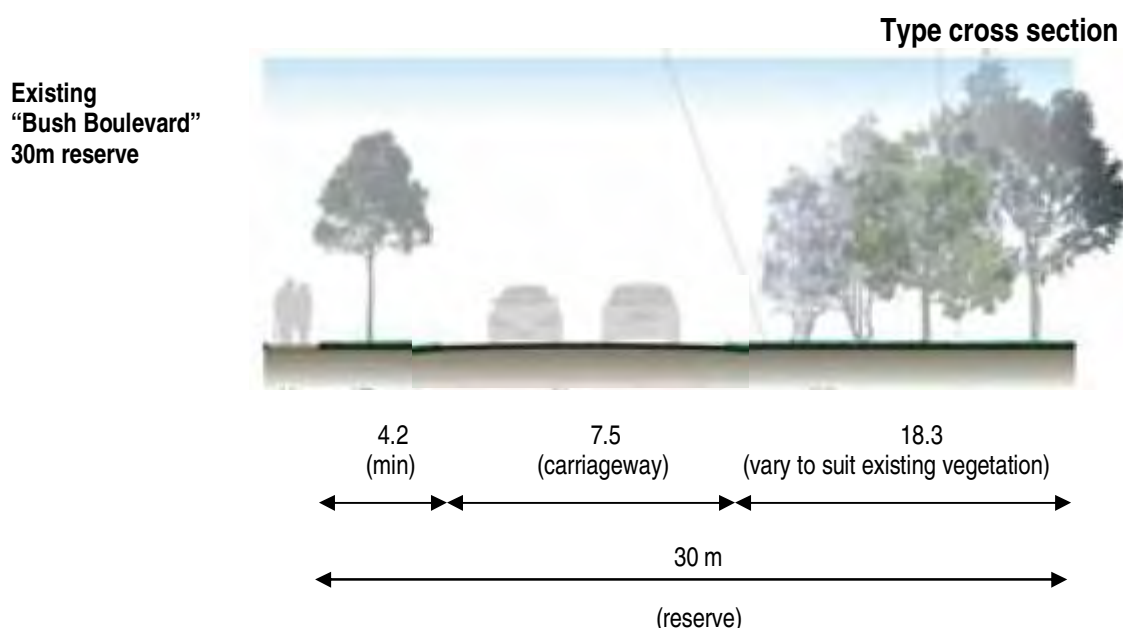
It is proposed that the function of the existing township road system be expanded to include aesthetics and conservation considerations and that the streets be termed “bush boulevards” to highlight their existing qualities, retention of existing streetscapes and the proposed use of alternative engineering options to preserve native vegetation. Further, that the road reserve function include pedestrian and cycle movements.

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<sup>17</sup> *Greater Bendigo Planning Scheme* clause 56.06-8

Recommended specifications for an existing “bush boulevard” are to:

- Retain the 30 metre wide road reserves for existing streets with 7.5 metre sealed pavements.
- Use rural profiles with open swale drains to ensure an open, informal road pattern consistent with a semi-bush setting.
- Adopt curvilinear alignments and offset centre-lines to preserve existing stands of native vegetation and provide for additional planting of native vegetation.
- Use 2 coat grit seals to maintain rural image.
- Provide pedestrian and cycle links using compacted, local gravels that blend with the natural environment.
- Standard footpath width to be 1.5m with shared path and bike width 2.5m.

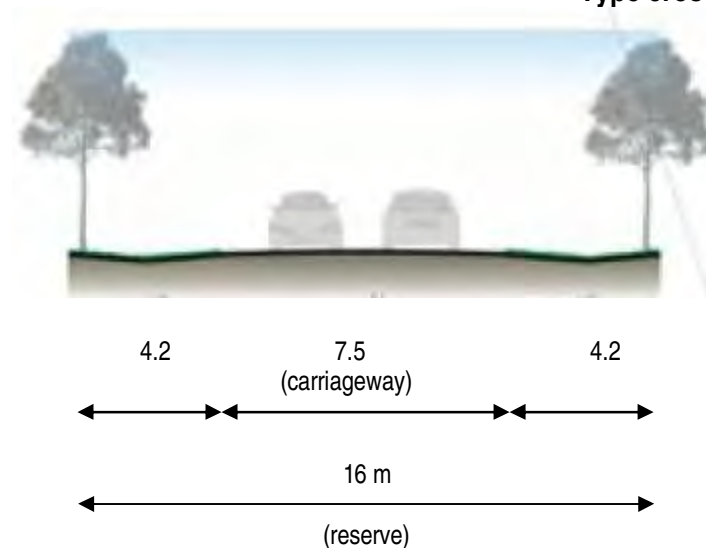


Recommended specifications for a new subdivision “bush boulevard”:

- Provide 16 metre wide road reserve with 7.5 metre sealed pavements.
- Use rural profiles with open swale drains to ensure an open informal image consistent with the image of a bush setting.
- Use 2 coat grit seals to maintain rural image.
- Provide on-site stormwater detention, where practical.
- Provide landscaping using indigenous, native planting in copses including understorey, in accordance with plans approved by Council.
- Road grid pattern to be maintained with cul-de-sacs avoided.
- Developers must demonstrate that subdivision layouts and engineering designs incorporate and enhance the natural bush landscape.
- Adopt best practice Environmentally Sustainable Design and Water Sensitive Urban Design.

New (subdivision)  
"Bush Boulevard"  
16m reserve

Type cross section



#### 4.1.5 Shared Pathways:

Axedale is fortunate to have wide road reserves capable of accommodating off-road pathways within a treed environment. Major movement generators include the primary school, general store and tavern to the north and public hall, pre-school, tennis courts and golf course to the south. Improved access to the river and linkages to the O'Keefe Trail have been identified by the community as desirable projects.

Shared use pedestrian and cycle tracks (2.5m wide), constructed from local gravel with curvilinear alignments as part of a landscape plan to preserve native vegetation are recommended in strategic locations i.e.,:

- East-west linkage between the end of the O'Keefe Trail, tavern and Campaspe River; and
- North-south linkage between the school and tennis courts.

## 4.2 Recreation and Open Space

The Parish plan provided expansive open space, shown as a "Racecourse and Recreation Reserve" of 74 acres (30 hectares) now an 18 hole golf course, and a "Recreation Reserve Extension" of 17 acres (7 hectares) covering 5 synthetic tennis courts. The Axedale & District Golf Club was founded in 1937 and has developed a quality course with grassed greens supported by a water-right and is well maintained and popular as a regional facility. The clubhouse is of high quality, providing a venue for social gatherings and the golf club now dominates the reserve.

The Axedale Football Club played its last game in 1947 and the cricket club ceased in 1961, but was later revitalized and played on again until 1985.



*Football Team 1946 —*

*Back — M. Hartney, J. Murdoch, C. Weston, L. Neyton, G. Wicks,  
P. McKenzie, W. Lienhop, J. Pell, K. Evans, J. O'Connor,  
D. McKenzie.  
Front — N. Oldfield, N. Shand, R. Brenton, R. Langham, J. Mulvihill,  
J. Langham, E. O'Dwyer, M. Langham, W. Moore,  
T. McKenzie.*

**Figure 6: Axedale Football Club (1946)**

Other areas of open space include a 150 links (30m) wide strip of permanently reserved Crown land along the Campaspe River and two river reserves have been set aside for public access, providing attractive river frontages adjacent to the north side of the McIvor Highway and at the southern end of William Street.

The O'Keefe Trail uses part of the old railway line, but currently terminates at the cemeteries and needs to be extended through the township to access the commercial precinct and river. The community is keen to improve access to the river and an east-west linkage across the town is recommended. Project 7 in the Community Plan recommends "development of the Campaspe River Reserve".

Council owns a 5.5 hectares parcel of land at 37-45 Cemetery Road through to Minter Lane. The land was purchased by the Shire of Strathfieldsaye in December 1993 as compensation to the community for the Golf Club being granted sole tenancy and management of the recreation reserve. Half of the land has been subsequently sold, however, the balance remains with the City of Greater Bendigo and could be used to extend the O'Keefe Trail into the township.

The Council land is not strategically located for easy access and is remote from the town centre. Following community consultation<sup>18</sup>, it was recommended that the land be sold and the proceeds used to purchase land to the rear of the Axedale Primary School, subject to a strip of land remaining to extend the O'Keefe Trail.

### 4.3 Waterways and Drainage

One of the main assets of Axedale are its waterways with the Campaspe River corridor and Native Gully Creek abutting the south-east and eastern sides of the township providing a significant area of natural beauty and interest. To the west of the township is Hargreaves Creek, which has a tree-line of mature trees providing an attractive backdrop to the cemeteries.

<sup>18</sup> Axedale Our Town Our Future Inc. letter dated 1<sup>st</sup> December 2007

The Township Structure Plan provides an opportunity for additional statements of intent and protection for these important waterways by recognition of their environmental and visual qualities. Currently, they are covered by an Environmental Significance Overlay – Waterway (ESO1), being a 100m wide corridor. The purpose of the overlay is primarily to protect water quality, however, other objectives include the protection and enhancement of vegetation and habitat and to ensure that development does not occur on flood-prone land or result in the clearing of native vegetation and works do not result in scouring or siltation.

It is proposed to retain the existing ESO1 along waterways and add a Significant Landscape Overlay (SLO) over the Campaspe River Valley environs.

#### **4.4 Reticulated Water and Sewerage**

The township is provided with reticulated sewerage, which gravitates to a pressure system back to Bendigo, however, water supply difficulties and poor pressure is expected for higher areas of Precinct 2, behind St. Mary's Roman Catholic Church. It is proposed that the area be rezoned to Residential (R1Z) with lot sizes of at least 1,500 sqm.

#### **4.5 Matters to consider - Infrastructure**

##### **Access and Mobility:**

- Options to improve pedestrian/bicycle safety across the highway such as kerb extensions and pedestrian refuge midway (Project 8 in the Community Plan).
- Maintaining the existing rural profile road network, particularly the retention of existing vegetation.
- Preparing a landscape plan for Axedale, to include the township entrances, High Street and landscape guidelines for streets in subdivisions.
- Preparing guidelines for WSUD for future subdivisions in Axedale.
- All new subdivisions and development to include landscape plans that enhance native vegetation and preserve neighborhood character.
- Adopting design road cross sections that maintain wider roads with vegetated road side verges.
- Providing shared pedestrian and bicyclist paths and ensure that such paths are given safe off-road access and priority over cars:
  - Create a 16m wide carriageway reserve along the northern boundary of Council owned land in Cemetery Road to continue the O'Keefe Trail; and
  - Create a strip of public open space with any subdivision west of the Presbyterian Church land in High Street for use as a shared pedestrian and cycle path.

##### **Recreation and Open Space:**

- Extending the O'Keefe Trail into the township to provide access to facilities and the Campaspe River<sup>19</sup>.
- Preparing a management and landscape master plan for the Campaspe River with recommendations for improved access and use for passive recreation.

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<sup>19</sup> Projects 4 & 7 in the *Community Plan*

- Creating a 16m carriageway reserve along the north boundary of land owned by Council in Cemetery Road to extend the O'Keefe Trail into the township and commence landscape planting and dispose of the balance of the land; and
- Selling the balance of the Council owned land and use the proceeds to purchase more strategically located land at the rear of the Axedale Primary School in Raglan Street.

**Waterways and Drainage:**

- Leaving land in Cemetery Road, adjacent to Hargreaves Creek, as Low Density Residential (LDRZ) with a 2 hectare minimum, to protect Hargreaves Creek from inappropriate development until planning can re-assess the land for future long-term residential development.
- Drainage systems to include open swales, on-site detention using wetlands and drainage detention basins like farm dams, consistent with a rural township.
- In conjunction with various stakeholders including, landowners, DSE, NCCMA, Coliban Water and the City of Greater Bendigo, that the Axedale Our Town Our Future Inc. establish of a Landcare Group to prioritise work on the Campaspe River, Native Gully Creek and Hargreaves Creek, to include:
  - Preparing of a Management Plan for each waterway.
  - Removal of non-indigenous vegetation and planting of locally indigenous species.
  - Fencing of Hargreaves Creek to prevent stock access and encourage regeneration of riparian under-growth.

**Reticulated Water and Sewerage:**

- Precincts 2 & 4 to have a desirable minimum lot size of 1,500 sqm.
- All residential development must be serviced with reticulated water and sewerage. Where reticulated water is not proposed, an alternative supply must be provided to the satisfaction of the responsible authority.

## 5. Land Use and Zonings

### 5.1 Commercial, Industrial and Tourism

The hierarchy of commercial activity within the municipality is characterised by local retailing within townships with higher order retailing, commerce and finance located within the Bendigo CBD or sub-regional centres. Axedale is defined as a “local retail centre” in the *Greater Bendigo Planning Scheme*, providing a range of daily convenience shopping and services to the township and district.

The Structure Plan provides recognition of the importance of daily, convenience retailing in Axedale and proposes to reinforce these uses by an appropriate business zoning.

#### 5.1.1 Commercial:

The township has a small commercial precinct centred on the Axedale Tavern, general store with petrol outlet and post office, and art gallery on High Street at the easterly township entrance. Both the tavern and store have adequate land available for short to medium term expansion and should be zoned Business 1 (B1Z) – this is the main zone to be applied in most commercial areas and allows for a wide range of commercial activities<sup>20</sup>. Land to the west of the store should be reserved for future expansion of the commercial precinct.

Business activity in the district includes several boutique wineries, olive groves, an experimental solar station and a turf farm.



**Figure 7: Campaspe Hotel, Axedale (undated) now the Axedale Tavern**

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<sup>20</sup> The VPP in detail

### 5.1.2 Industrial:

Small local businesses include several trades-persons and cartage contractors, whilst major enterprises in the area are based on horticulture (vineyards and olives), mining (gold) and quarry product (white clay, washed sand, gravel and basalt).

The Fosterville Gold Project is located 8 km to the north of the township, off the Axedale-Goornong Road. The mine currently employs about 200 with numerous contractors and has operated from the site since 1989 by open-cut and currently has a known reserve of 20 years to be exploited by underground methods.

The Department of Primary Industry confirms that:

- "The area is covered by exploration licence EL3539 (Perseverance Exploration Pty Ltd), however, the approved work plan does not include the Structure Plan boundary; and
- There are no mining licences or extractive industry authorities within the Structure Plan boundary"<sup>21</sup>.

Perseverance Corporation Limited has confirmed the above information and advised that the Axedale-Goornong Road is a truck route for consumables delivered to the mine<sup>22</sup> (letter dated 22 August 2006).

Axedale Sand and Gravel Pty Ltd., is located 3 kms to the east on the Axedale-Toolleen Road with 20 employees producing and carting washed sands and gravel for local and Melbourne markets. An extensive gravel resource follows the old course of the Campaspe River and was recently granted a permit for a further 15 years. The area is recognized in the *Greater Bendigo Planning Scheme* as a "key gravel reserve"<sup>23</sup> and identified as an *Extractive Industry Interest Area* (DPI) for the municipality.

A request for a planning scheme amendment has been received to rezone land in the Axedale Toolleen Road for inert waste disposal. The extent of the area proposed could be expanded to include a light industrial zone for future use, however, the Axedale community believe that a site within the more immediate township ought to be considered<sup>24</sup>.

Waterfall Quarries Pty Ltd (Hansons) is located opposite on Axedale Quarry Road and with 15 employees, produces bluestone and crushed rock for the building industry and road-making and sealing aggregates for the construction industry. At present, Hansons is producing and carting A-grade pavement material for the Calder Freeway extension (Harcourt by-pass).

With various contractors, the Axedale area employs about 300 people in the mining and extractive industry, although most live and commute from Bendigo.

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<sup>21</sup> DPI letter dated 27 August 2006

<sup>22</sup> Perseverance letter dated 22 August 2006

<sup>23</sup> *Greater Bendigo Planning Scheme*, Municipal Strategic Statement, page 12

<sup>24</sup> Axedale Our Town Our Future Inc. letter dated 1<sup>st</sup> December 2007.



### 5.1.3 Tourism:

Axedale is an attractive township on the banks of the Campaspe River with small wineries and points of interest in the surrounding area. It is strategically located between the Heathcote and Mandurang Valley wine regions, but lacks the promotion of either.

Lake Eppalock is only 8 km to the south and provides for regional and state aquatic activities and is a significant tourist destination, however, is poorly delineated. There is a lack of directional signage and a map type notice-board is required adjacent to a designated tourist stop with public conveniences. Project 6 in the Community Plan recommends the "development of public toilets" more accessible to the McIvor Highway.

Accommodation includes a bed & breakfast in William Street and group youth accommodation at the "Rotary Camp Getaway" on the Axedale-Kimbolton Road, which has recently been upgraded. "Arakoon Resort" to the west of the township has 27 hectares set aside for caravan and tourist facilities, but is currently closed.

## 5.2 Zonings and overlays

"The guiding principle in the development of the Victoria Planning Provisions (VPP's) has been that zones control use and overlays control development (page 16). It is by means of overlays and schedules that a planning scheme will be tailored to identify and respond to the local characteristics of an area (or township) and assume a local flavour"<sup>25</sup> (page 18 & 19).

As identified in the Structure Plan, Axedale has several unique characteristics that deserve preserving, including its low intensive nature as a village with rural profile roads and treed verges. The township is distinguished by its natural and built environment, which is proposed to be acknowledged within the MSS<sup>26</sup>. Therefore, the objective of the Structure Plan is to provide recommendations for prescriptive land use zonings, a *Township strategic framework plan* and environmental overlays.

## 5.3 Matters to consider – Land Use and Zonings

- Providing a Business 1 zone (B1Z) to encompass the hotel, art gallery and general store being:

Axedale Tavern	105 High Street
Art Gallery	106 High Street
General Store	101 High Street
- Including the property at 97 High Street in the commercial precinct and rezone to Business 1 (B1Z), so that it may be promoted as professional offices.
- Including a *Township strategic framework plan* into the planning scheme, to describe preferred lot sizes and future growth areas.

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<sup>25</sup> *Report of the Advisory Committee on the VPP's*, August 1997, Clause 2.6

<sup>26</sup> Municipal Strategic Statement of the *Greater Bendigo Planning Scheme*

- Applying the VPO to remnant, native vegetation, ESO to protect waterways and SLO to the Campaspe River Valley environs.
- Providing improved signage and a tourist stop with map notice-board within Axedale and investigate the location of future public toilets with off-road parking.



**Figure 8: Bluestone quarry, Axedale (c1905)**

## 6. Summary

The following are recommended zones, overlays and minimum lot sizes for the township:

**Table 6: Proposed Zones:**

Precinct	Location	Description		Zoning
1, 2 & 4			R1Z	Residential
3, 5 & 6			LDRZ	Low Density Residential
1	High Street	Commercial precinct	B1Z	Business
1 2 4	<ul style="list-style-type: none"> <li>High Street</li> <li>Raglan Place East</li> <li>Drake Street</li> </ul>	<ul style="list-style-type: none"> <li>Presbyterian Church</li> <li>Catholic Church</li> <li>Church of England</li> </ul>	SUZ1	Special Use – Religious Institutions
4	Burns Street	Water supply reservoir	PUZ1	Public Use – Services & Utility
1	High Street	Primary school	PUZ2	Public Use - Education
1	High Street	Public hall and IWC	PUZ6	Local Government
1	High Street	Police station	PUZ7	Public Use - Other
1	Cnr High and Mitchell Streets	Public park	PPRZ	Public Park and Recreation

**Table 7: Proposed Overlays:**

Precinct	Location	Conservation Significance		Overlay
1, 4 & 5	Raglan Street West Rear of the Uniting Church Burns Street	High	VPO2	Vegetation Protection Overlay – Significant Vegetation
3	Williams Street / Campaspe Drive	Low to high	SLO2	Significant Landscape Overlay - Campaspe River Valley Environs.
6	Hargreaves Creek and Native Gully Creek	Medium to high	ESO1	Environmental Management Overlay – Watercourse Protection – 100m corridor (50m either side)
	Various roadside reserves	High	VPO3	Vegetation Protection Overlay – Roadside Remnant Vegetation

**Table 8: Proposed Lot Sizes:**

Precinct	Settlement pattern	Conservation significance <sup>27</sup>	Minimum lot size (desirable)
1. High Street	Urban with mixed use, including school, church, public hall, hotel, general store, art gallery	Low (developed lots) to high (roadsides and some unused Government roads e.g., Petchell Street)	No minimum
2. Raglan Street North	Broad acres, cleared grazing, Catholic church.	Low	1,500 sqm
3. Williams Street / Campaspe Drive	Broad acres, steep slopes backing onto Campaspe River.	Low (cleared land) to high (along the waterway).	2 hectares
4. Shadforth Street / Mitchell Street	Low density residential with pockets on native vegetation and roadside vegetation	Low (on cleared and developed lots) to high	1,500 sqm
5. Burns Street	Low density residential with large areas of native vegetation	High	2 hectares
6. Cemetery Road	Broad acres, cleared grazing bisected by Hargreaves Creek, 5.5 hectare parcel owned by Council.	Low (cleared land) to high (along the waterway).	2 hectares

<sup>27</sup> See Appendix 1: Native Vegetation Precinct Plan – Township of Axedale

## 7. Implementation

**Table 9: Implementation**

Description	Action	Responsible Officer	By	Estimated cost
Short to medium term (2007-2015): Natural growth and evolution e.g., - Excision of existing houses with 2 road frontages to provide one or two additional allotments (av. 1,000 sq m) at the rear, in the centre core (precinct 1); and - Subdivision of allotments on the periphery of the centre core (precincts 2 & 4) into minimum 1,500 sq m.	1. Planning scheme amendment: - Include the <i>Axedale Township Structure Plan</i> as a Reference Document in clause 21.10 under "Settlement and housing". - Include the <i>Axedale Township Strategic Framework Plan</i> within the MSS in clause 21.05 "Settlement". - Provide prescriptive zonings and overlays for the township. - Include a statement of intent in the MSS under "small towns", to include the community vision for Axedale.	Statutory Planning	Dec. 2008	\$10,000
	2. Landscaping: - Prepare thematic landscape plans for Axedale. - Prepare landscape plans for High Street and entry statements. - Prepare a landscape and management plan for the Campaspe River frontage. - Establish a LandCare Group to manage the Campaspe River frontage.	Presentation and Assets	May 2009	\$10,000 \$20,000
	3. Infrastructure: - Adopt alternative design standards ("bush boulevards") and WSUD principles for urban development that preserves native vegetation. - Review the highway / pedestrian crossing/s.	Presentation and Asset	Dec 2008	
	4. Pathways: - Construct north-south pathway between the school and tennis courts. - Construct east-west pathway between the cemeteries and river (O'Keefe Trail extension).	Presentation and Assets	2012 2009	\$40,000 \$60,000
	5. Recreation: - Provide a 16m carriageway between Cemetery Road and Minter Lane for O'Keefe Trail extension. - Sell the balance of the Council owned land in Minter Lane - Utilise proceeds from Minter land sale to purchase more strategically located land at the rear of the Axedale Primary School in Raglan Street (see Council Meeting 21 May 2008)	Property	Dec 2008 Dec 2008	(\$290,000) \$250,000
	6. Tourism: - Provide improved signage and a tourist stop with map notice-board within Axedale. - Investigate the location of future public toilets with off-road parking.	Presentation and Asset	Dec 2008	
Medium to long term (2015-2030): Growth by township consolidation.	Review the Structure Plan: - Consider rezoning of precinct 6 to R1Z with minimum lot size of 1500 sqm east of Hargreaves Creek. - Consider creation of an Industrial Estate on the Axedale-Tooleen Road near Axedale Quarry	Strategy	2015	
Beyond 2030: Review the township UGB	Review the Structure Plan: - Review the township boundary - Any buffer requirements for mining. - Consider highway bypass.	Strategy  DPI VicRoads	2030	

## Reference Documents

*Axedale & District +25 Community Plan, 2007*

City of Greater Bendigo, *Bendigo Residential Development Strategy*, March 2004, Parsons Brinkerhoff

City of Greater Bendigo, *Residential Character Study, 2001*, planisphere with John Curtis Pty Ltd.

## Appendix 1: Town Planning and Physical Features Plans

### Abbreviations:

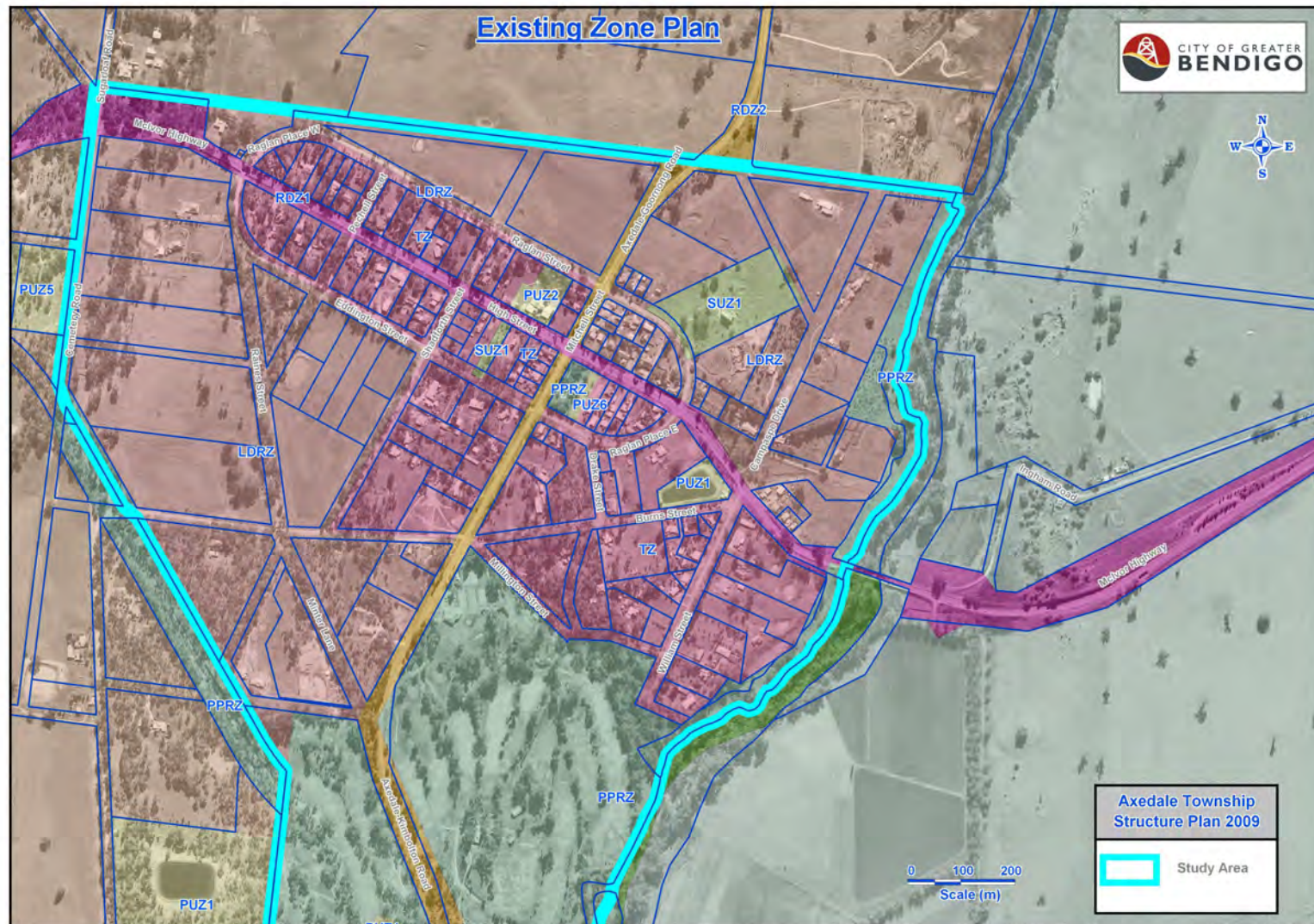
#### Zones:

<b>TZ</b>	Township Zone
<b>R1Z</b>	Residential 1 Zone
<b>B1Z</b>	Business 1 Zone
<b>LDRZ</b>	Low Density Residential Zone
<b>PPRZ</b>	Public Park and Recreation Zone
<b>PUZ1</b>	Public Use Zone (Service & Utility)
<b>PUZ2</b>	Public Use Zone (Education)
<b>PUZ6</b>	Public Use Zone (Local Government)
<b>SUZ1</b>	Special Use Zone 1 (Religious Institution)

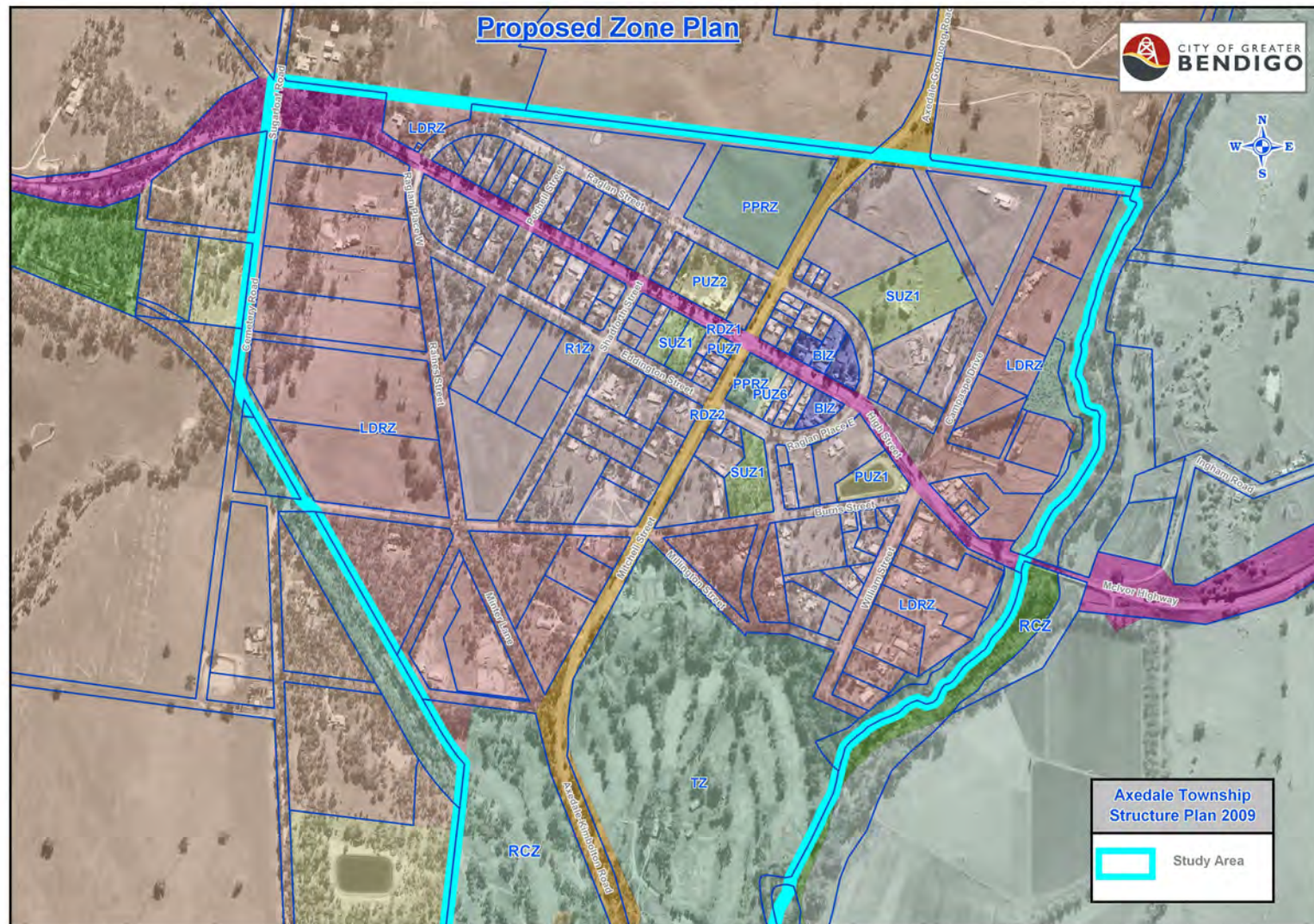
#### Overlays:

<b>DPO3</b>	Development Plan Overlay (1500 sq m min. lot size)
<b>DPO4</b>	Development Plan Overlay (2 ha min. lot size)
<b>VPO2</b>	Vegetation Protection Overlay (Significant Vegetation)
<b>VPO3</b>	Vegetation Protection Overlay (Roadside Remnant Vegetation)
<b>ES01</b>	Environmental Significance Overlay (Watercourse Protection)

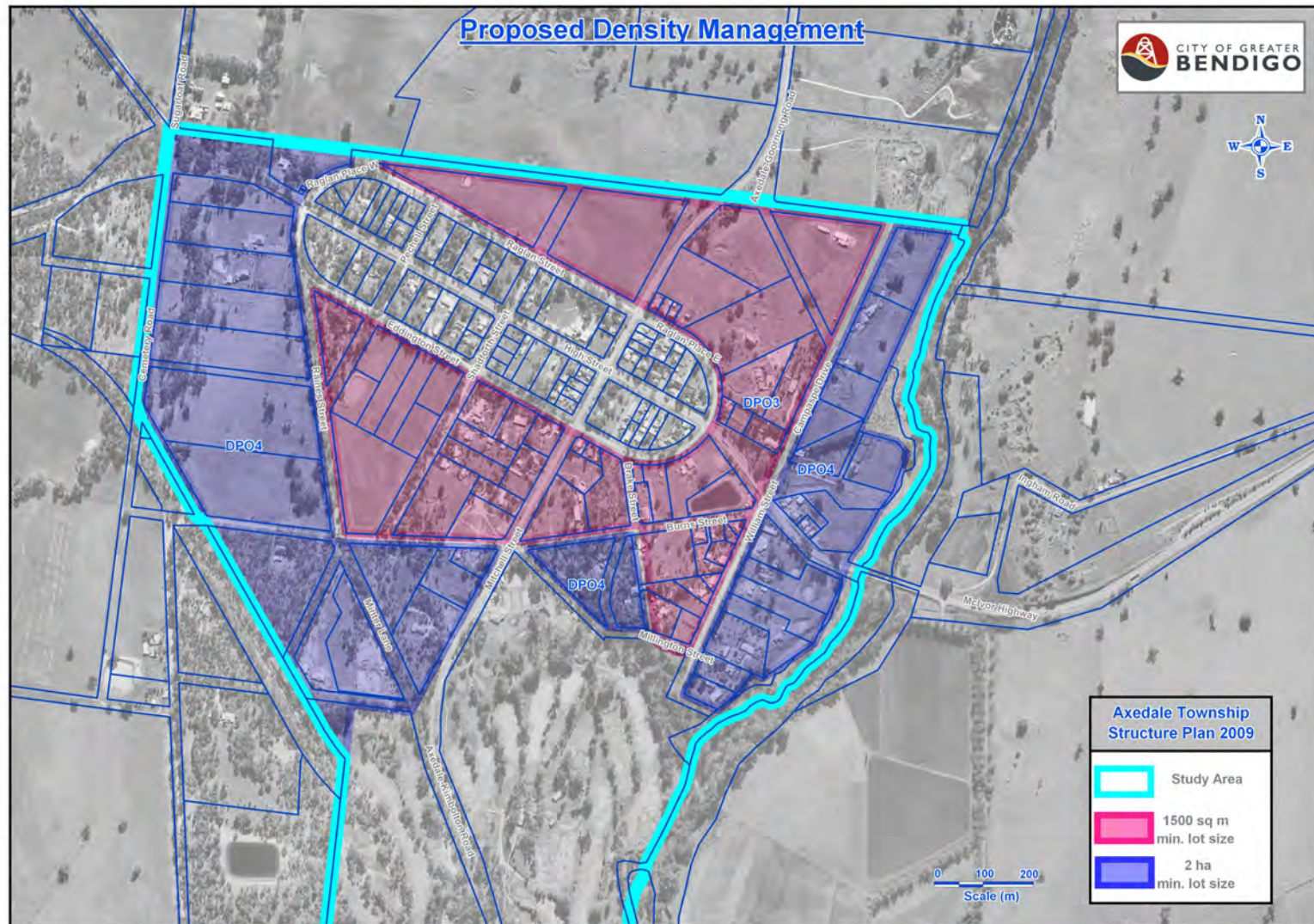




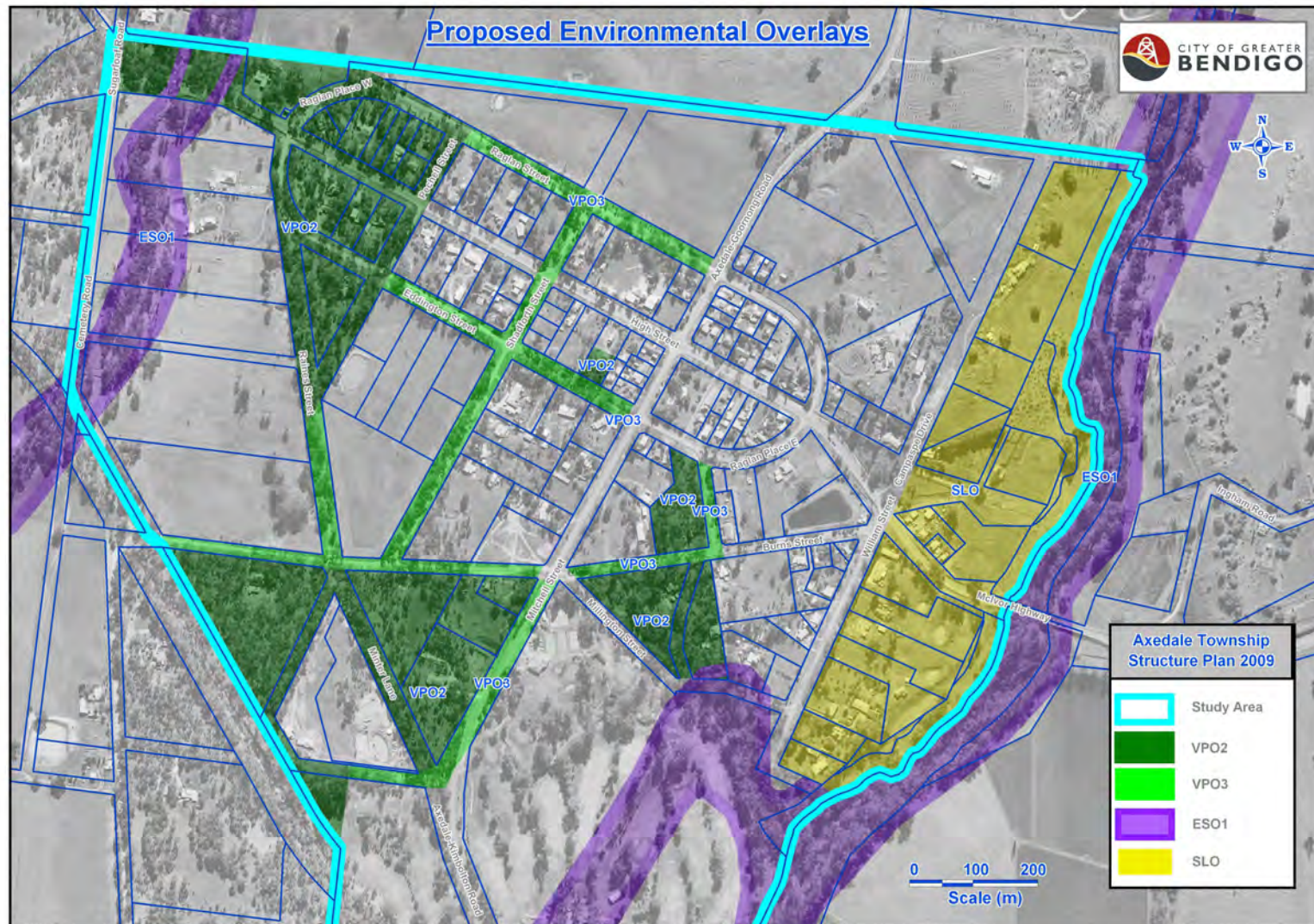




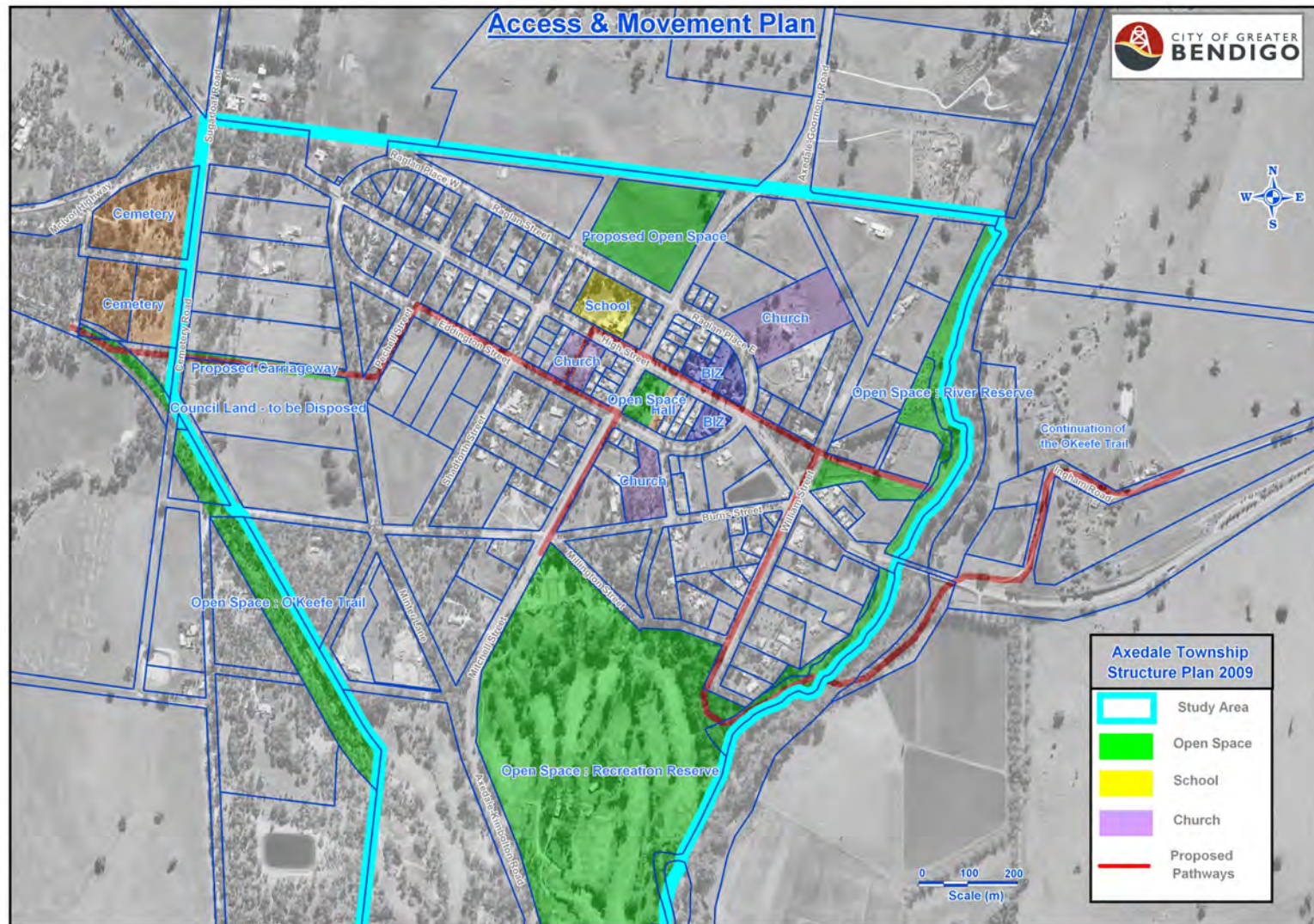






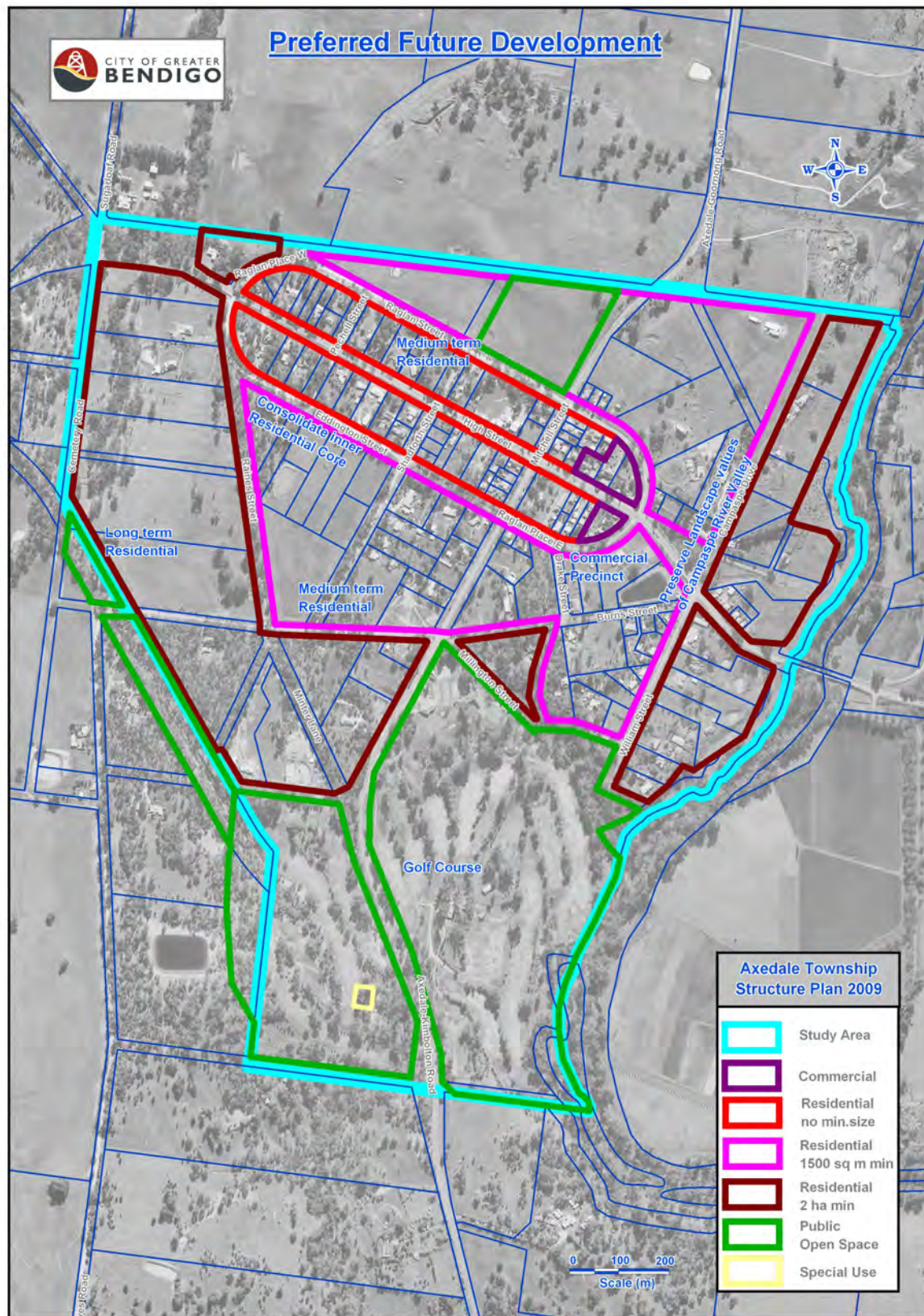








## Appendix 2: Axedale Township strategic framework plan



## Appendix 3: Vegetation Assessment Plan



Central & Northern Victoria's  
Indigenous Nursery & Wildflower Farm  
Land Rehabilitation  
& Environmental Consultants

### Introduction

The City of Greater Bendigo has prepared an Axedale Township Structure Plan. This includes Vegetation Protection Overlays placed on roadside vegetation (VPO3) and areas of the township with significant indigenous vegetation areas (VPO2). These proposed VPOs require ground proofing and Dale Sampson Planning Consultant for City of Bendigo has requested Marilyn Sprague – Goldfields Revegetation P/L to visit the township and report on the appropriateness of these overlays in Axedale.

### Vegetation – General and Zoning

Axedale township has significant remnant vegetation remaining on residential land and on the broad boulevard style streetscapes. This vegetation gives the town an attractive rural atmosphere, linking the urban development with the Australian bush, thereby providing a 'theme' which is very appealing to the residents of the town and future residents.

Biodiversity Mapping by DSE (see EVC and Bioregion Conservation Status maps appended) has assessed vegetation types in Victoria and identified Ecological Vegetation Classes – EVC's. Each EVC has been assigned a Bioregional Conservation Status, based on broader research. This mapping provides a useful tool to verify the significance of the remnant vegetation in Axedale. All areas of remnant vegetation in the Axedale township and its immediate surrounds have a Bioregional Conservation Status of *Vulnerable* or *Endangered*.

The majority of the township lies on sedimentary soils on a slightly higher elevation with Grassy Woodland EVC175 having a Bioregional Conservation Status of *Vulnerable*. The northwest corner of the town lies on sedimentary soils with Plains Woodland - EVC803 vegetation which has a Bioregional Conservation Status of *Endangered*.

The northeast corner of the township is situated on basalt with vegetation Plains Grassy Woodland EVC 55 having a Bioregional Conservation Status of *Endangered*.

The Campaspe River borders Axedale to the east and its natural vegetation is Floodplain Riparian Woodland EVC 56 and it has a Bioregional Conservation Status of *Endangered*.

City of Greater Bendigo Planning Scheme has two Vegetation Protection Zones relevant to protection of indigenous vegetation in Axedale and they are VPO2 and VPO3. VPO2 is designed to protect areas of remnant vegetation and habitat, promote linkages between existing remnant vegetation and maintain Axedale's scenic and recreational landscape assets. VPO3 is designed to protect and preserve indigenous vegetation and rare and endangered flora and fauna species on linear reserves to achieve high quality landscape quality on roadsides and protect trees creating habitat corridors and with those with hollows.

The floodplains of the Campaspe River and its tributary Native Gully Creek and Hargreaves Creek have been zoned ESO1

**Evaluation Vegetation for VPO overlays (see plan attached)**

All streetscapes were visually assessed. Native species were noted, together with weeds, where these are prominent. Some streets are highly modified, with conventional nature strips, grass and exotic species. Streets with indigenous vegetation dominating were attributed VPO3. In addition to the streets, details of which are presented below in

Table 1, there are five more extensive areas of native vegetation (VPO2) namely:

- NW, mainly between Raglan Place West and Pechell Streets.
- SW, mainly between Burns, Mitchell and unnamed Streets.
- SE, mainly between Burns and Millington Streets.
- Behind the Uniting Church in High Street.
- Golf course

NW, mainly between Raglan Place West and Pechell Streets. This area is Plains Woodland EVC and extensive remnants of this EVC remain, including the canopy of large trees, mainly Yellow and Grey Box and Yellow Gum retained on private residential blocks. Understorey has been retained in some properties and modified in others.

The area is zoned as VPO2 which is an appropriate zoning.

SW, mainly between Burns, Mitchell and unnamed Streets.

This large area is Grassy Woodland EVC175 and has a continuous canopy of Yellow Gum and Grey Box with exceptions for golf freeways in the eastern section of the golf course. This area connects via indigenous tree canopy and understorey to both Hargreaves Creek and Native Gully Creek River. It is zoned as VPO2 and this is an appropriate zoning.

SE, mainly between Burns and Millington Streets.

This area abuts Native Gully Creek to the south and this lower, riverine area carries River Red Gums. The land rises northwards and the vegetation changes to EVC 175 Grassy Woodland, which is well preserved in the Anglican Church grounds next to Drake Street. Tree canopy is continuous and understorey is diverse.

The area is zoned as VPO2 which is an appropriate zoning.

Behind the Uniting Church in Eddington Street.

The southern section of The Uniting Church block abutting Eddington Street has significant Yellow Gums and a continuous understorey of Gold Dust Wattle. The Wattle has been maintained by annual slashing which has been beneficial by promoting suckering. The church block is connected via the mature Yellow Gum trees on Eddington Street to all other areas of remnant vegetation already zoned VPO2.

This area has not been zoned in the draft report, but zoning as VPO2 is recommended.

Golf Course

The Golf Course has retained many significant large old Yellow Box trees and whilst the course has golfing greens, in recent years all planting efforts between the greens and along Native Gully Creek have involved the planting of indigenous species. Valuable habitat has been created and the natural environment enhanced by this revegetation work.

This area has not been zoned in the draft report, but zoning as VPO2 is recommended.





Photo of Axedale Golf Course from near the Club rooms. Significant remnant vegetation remains on this property and the committee is enhancing the course using indigenous vegetation.

Goldfields Revegetation Pty Ltd, ABN 40 007 333 226,  
230 Tannery Lane, Mandurang, Victoria 3551  
Telephone 03 5439 5384  
Facsimile 03 5439 3618  
Email [goldrevg@netcon.net.au](mailto:goldrevg@netcon.net.au)

Open 7 days a week 9am to 5pm or look us up at [www.goldfieldsrevegetation.com.au](http://www.goldfieldsrevegetation.com.au)

**Table 10: Street Vegetation Assessment for VPO3**

<b>STREET</b>	<b>EVC</b>	<b>TREES</b>	<b>UNDERSTOREY</b>	<b>WEEDS/ INTRODUCED</b>	<b>RECOM'D ZONING</b>
Raglan Place West – north side,	EVC803 EVC175	<i>Eucalyptus melliodora</i> – Yellow Box in lower area <i>E. leucoxylon</i> -Yellow Gum <i>E. microcarpa</i> - Grey Box	<i>Austrodanthonia</i> sp. <i>Austrostipa scabra</i> <i>Pimelia humilis</i> <i>Vittadinia</i>	Gazania starting to dominate understorey	VPO3
Raglan Street to Axedale-Goornong Road intersection	EVC175	<i>E. leucoxylon</i> -Yellow Gum <i>E. microcarpa</i> - Grey Box	<i>Austrodanthonia</i> sp; <i>Austrostipa scabra</i> ; <i>Pimelia humilis</i> ; <i>Vittadinia</i>		VPO3
Raglan Place East	EVC55	Highly modified - basalt	Highly modified	Conventional nature-strips	
Campaspe Drive	EVC55	Highly modified - basalt	Highly modified	Conventional nature-strips	
William Street	EVC56	Highly modified	Highly modified	Conventional nature-strips	
Eddington Street west from Mitchell Street	EVC175	<i>E. microcarpa</i> –including large old tree. <i>E. leucoxylon</i> -Yellow Gum	<i>Acacia retinodes</i> <i>Austrodanthonia</i> sp. <i>Austrostipa scabra</i> Leaf litter covering ground		VPO3
Raglan Place West – south side to Burns Street	EVC803 EVC175	<i>E. melliodora</i> <i>E. microcarpa</i> <i>Allocasuarina verticillata</i>	<i>Austrodanthonia</i> sp. x 3 <i>Austrostipa scabra</i> <i>Lomandra filiformis</i> <i>Xerochrysum viscosum</i> <i>Arthropodium strictum</i> <i>Dianella tarda</i> RARE <i>Lomandra micrantha</i> <i>Einadia nutans</i> <i>Vittadinia cuneata</i> <i>Cassia arcuata</i> <i>Convolvulus angustissima</i> <i>Acacia acinacea</i> <i>Pimelia humilis</i> <i>Einadia nutans</i> <i>Chloris trunca</i>	Gazania <i>Acacia floribunda</i> Horehound at southern end	VPO3 VPO2



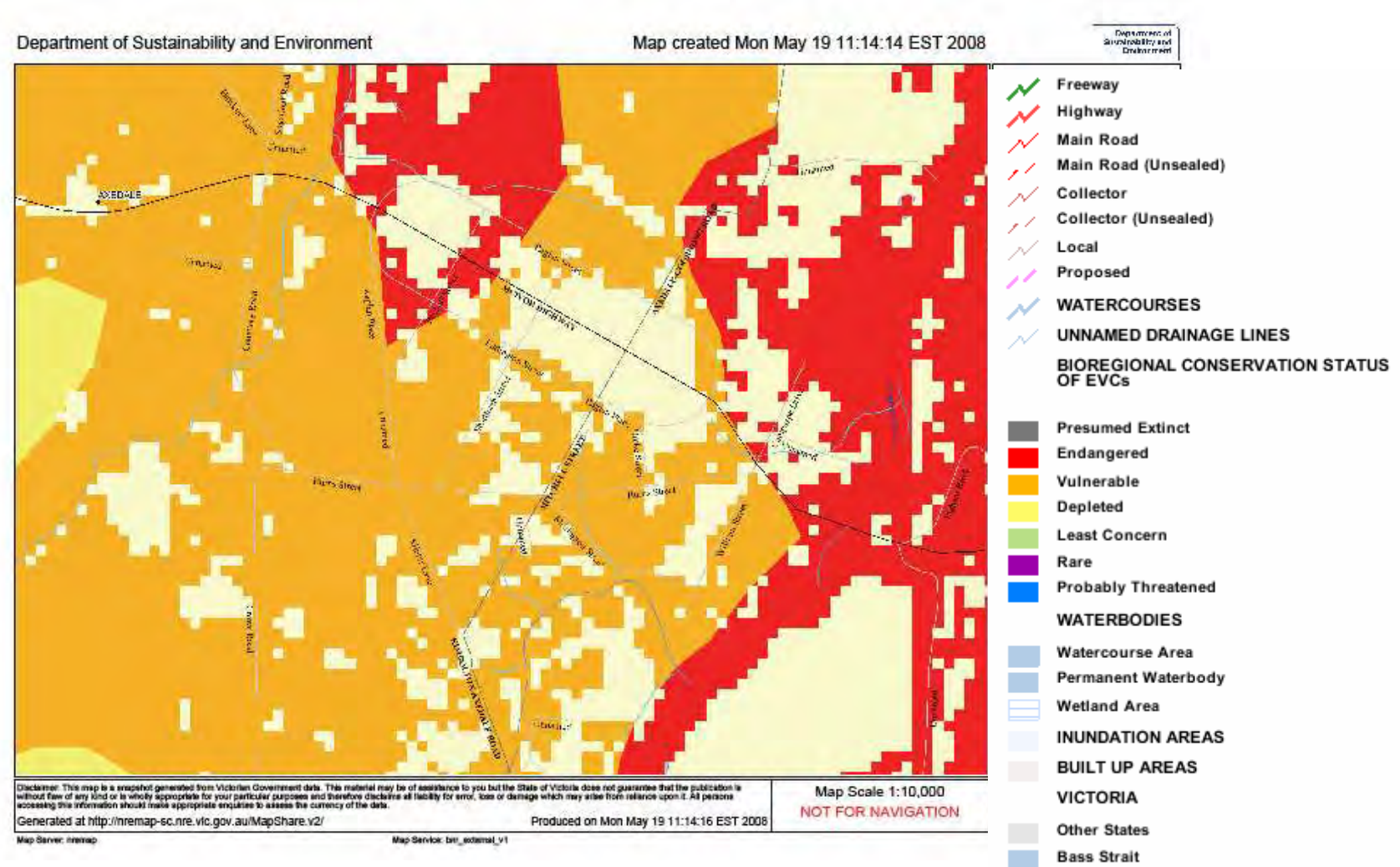
			<i>Aechanea</i> Significant leaf litter		
Pechell Street – all sections	EVC175	<i>E. microcarpa</i> <i>E. leucoxylon</i>	<i>Acacia acinacea</i> <i>Austrodanthonia sp. x 2</i> <i>Austrostipa scabra</i>	Gazania	VPO3 VPO2
Shadforth Street – <b>all sections</b> (North of Raglan Street is unmade)	EVC175	<i>E. microcarpa</i> <i>E. leucoxylon</i>	<i>Austrodanthonia sp. x 2</i> <i>Austrostipa scabra</i> <i>Lomandra filiformis</i>		VPO3
Burns Street – all sections to Drake Street	EVC803 EVC175 EVC56	<i>E. melliodora</i> at west end near Cemetary Road <i>E. microcarpa</i> <i>E. leucoxylon</i> <i>E. camaldulensis</i> – River Red Gum at west end of road	<i>Austrodanthonia sp. x 2</i> <i>Austrostipa scabra</i> <i>Dianella admixta</i> <i>Lomandra filiformis</i>	Briar Rose	VPO3
Burns Street between Drake Street and William Street	EVC56	Highly modified	Highly modified	Conventional nature-strips	
Drake Street – adjoins a church block to the west	EVC175	<i>E. leucoxylon</i> <i>E. microcarpa</i>	<i>Austrodanthonia sp. x 2</i> <i>Austrostipa scabra</i> <i>Dianella admixta</i> <i>Lomandra filiformis</i>		VPO3
Minter Lane  Highly significant habitat in this street	EVC175	<i>E. microcarpa</i> <i>E. leucoxylon</i> – very significant old trees with hollows plus natural regeneration <i>Eucalyptus albens</i> – White Box	<i>Dianella admixta</i> <i>Lomandra filiformis</i> <i>Lomandra micrantha</i> <i>Xerochrysum viscosum</i> <i>Elymus scaber</i> <i>Austrodanthonia sp. x 2</i> <i>Austrostipa sp</i> Leaf litter covers most of the roadside	No weeds	VPO3

Mitchell Street, south end, from Minter Lane to Burns Street (entrance to the Town from the south and road frontage to the Golf Course)	EVC175	<i>E. microcarpa</i> <i>E. leucoxylon</i> <i>E. albens</i>	<i>Dianella admixta</i>	Minor grassy weeds	VPO3
Mitchell Street from Burns Street to Raglan Street		Highly modified	Highly modified	Conventional nature-strips	
Millington Street The NW section is unmade and adjoins the Golf Course. The SE end is formed	EVC175 EVC56	<i>E. microcarpa</i> <i>E. leucoxylon</i> <i>E. camaldulensis</i>	<i>Dianella admixta</i> <i>Lomandra filiformis</i> <i>Austrodanthonia sp. x 2</i> <i>Austrostipa scabra</i>		VPO3 VPO2
High Street –west end (from Pechell Street to Sugarloaf Road)	EVC175 EVC56	The main street has introduced trees planted in the streetscape, but immediately either side the Yellow Gums provide the dominant vegetation on the residential properties			VPO2
High Street – east end (from Pechell Street east to the bridge)	EVC175 EVC56	Highly modified	Highly modified	Very little remnant vegetation	

Axedale Township Structure Plan  
March 2009



## Bioregional Conservation Status of vegetation in the Axedale area - DSE





### Conclusions and Recommendations

The VPOs proposed in the draft report are generally appropriate, with the following additions:

- Golf Course –zone as VPO2
- Rear of Uniting Church zone as VPO2
- Shadforth Street, between Eddington and Raglan Streets as VPO3
- Millington Street as VPO3
- Drake Street as VPO3
- Southern end of Mitchell Street from Burns Street intersection to Minter Lane as VPO3

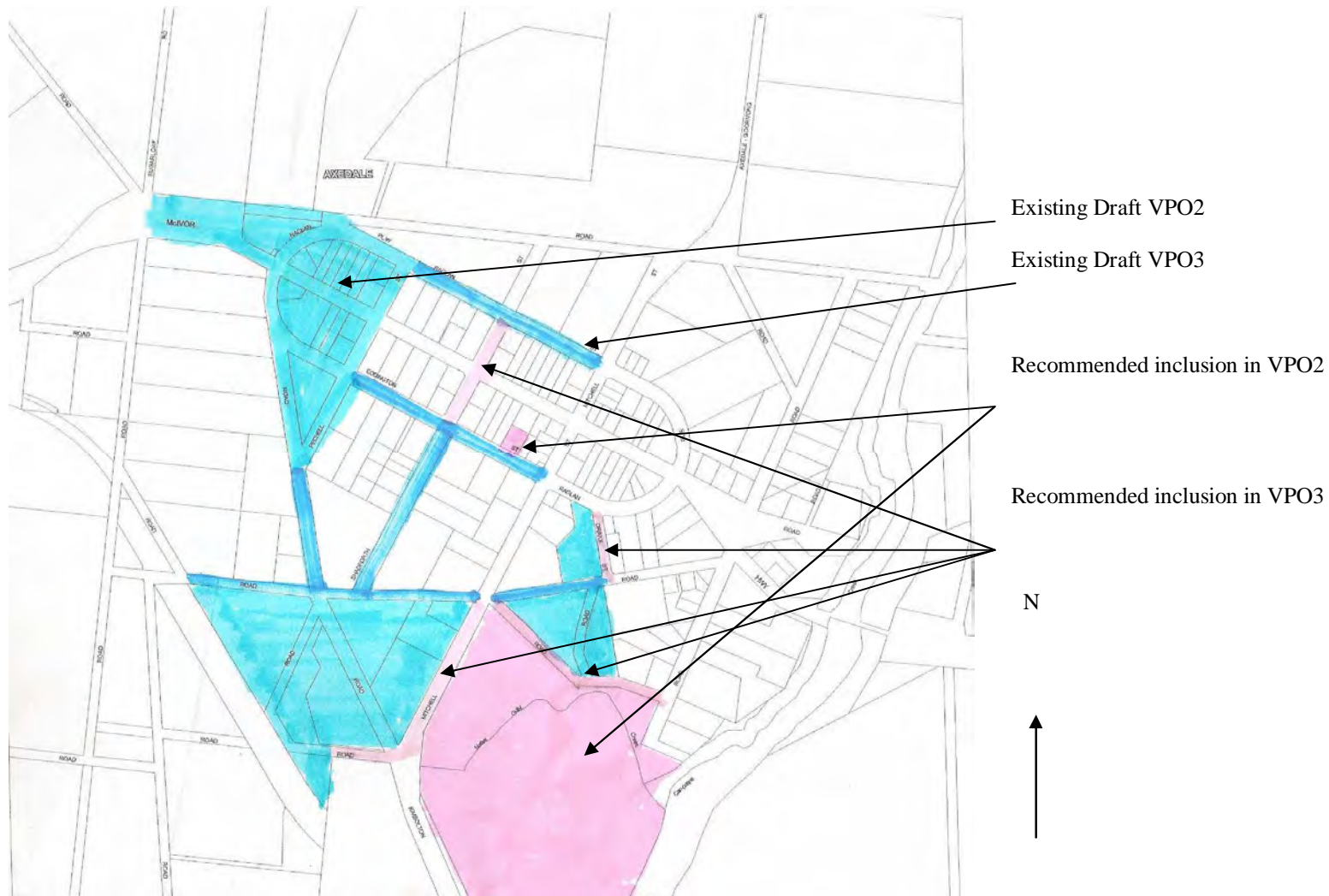
**Marilyn Sprague**  
**Goldfields Revegetation P/L**  
**28.5.2008**



Large Old Grey Box on  
Eddington Street



Minter Lane has significant roadside vegetation



Town Plan showing existing Draft VPO2 and 3 and recommendations.

## Appendix 4: Conservation Significance Plan

### 1. The purpose of the plan

The Township of Axedale is an urban village on the banks of the Campaspe River. The township has inherited a legacy of remnant, native vegetation of low to high conservation value with significant pockets on private property, along road-sides and waterways. The vegetation provides important habitat and corridors for wildlife as well as providing natural beauty and interest for the township. The presentation and village "feel" provided by native vegetation is considered important by the local community who would like to see it protected and enhanced.

The purpose of this plan is to provide a means for determining the location of Vegetation Protection Overlays and whether a particular development or subdivision proposal is in accordance with the objectives of the overlay. However, where the adverse impacts of removal cannot be avoided or minimized through appropriate planning and design, offset options will be considered for any planning permit in accordance with the document, *Victoria's Native Vegetation Management – A Framework for Action* (the "Framework")<sup>28</sup>.

### 2. Definitions

**Native vegetation** plants that are indigenous to Victoria, including trees, shrubs, herbs and grasses<sup>29</sup>.

**Net gain** is where, over a specified precinct and period of time, losses of native vegetation and habitat, as measured by a combined quality-quantity measure (habitat hectare), are reduced, minimized and more than offset by commensurate gains (page 57 of "*the Framework*").

The goal is a reversal, across the entire landscape, on the long-term decline in the extent and quality of native vegetation, leading to a net gain.

**Offset** a native vegetation offset is any works or other actions to make reparation for the loss of native vegetation arising from the removal of native vegetation (VPP Practice Note<sup>30</sup>).

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<sup>28</sup> *Victoria's Native Vegetation Management – A Framework for Action*, Department of Sustainability and Environment, undated ([www.dse.vic.gov.au/nativevegetation](http://www.dse.vic.gov.au/nativevegetation)).

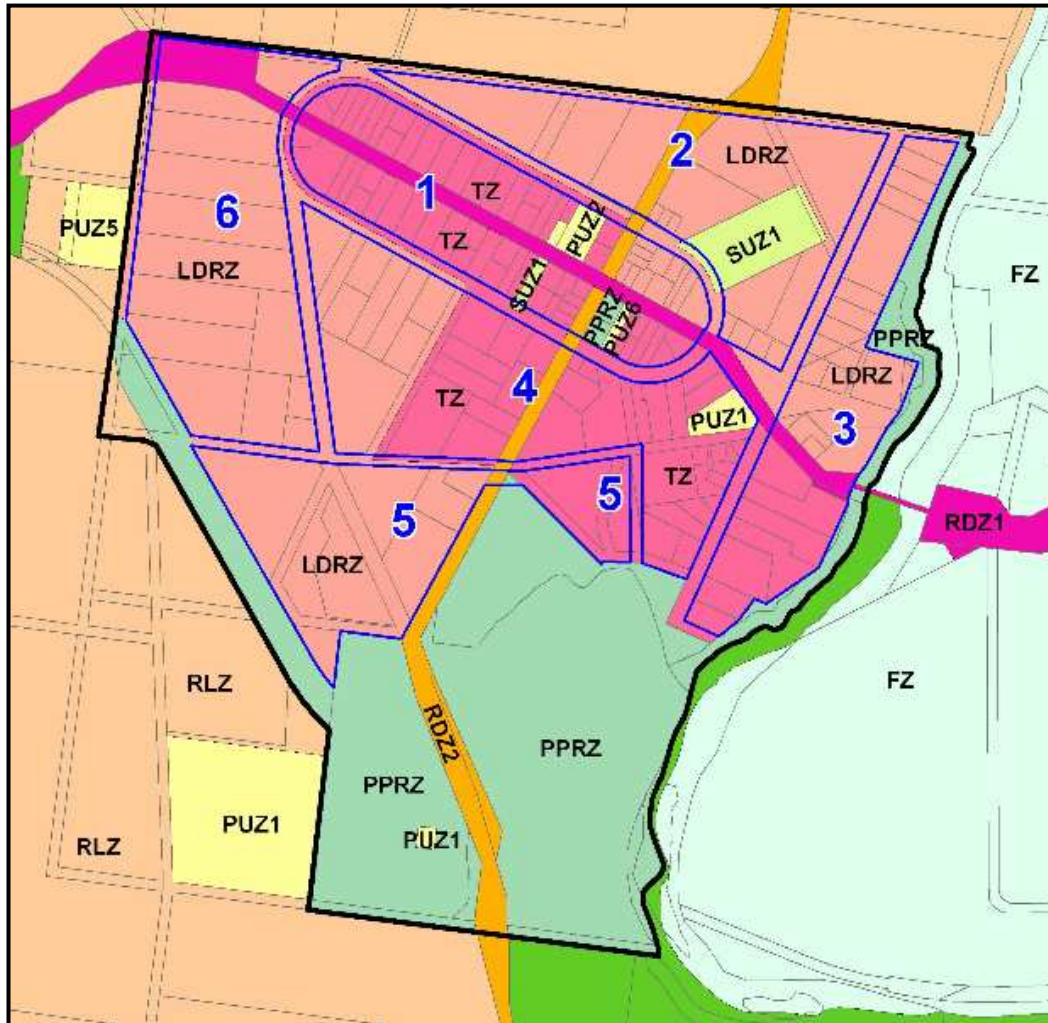
<sup>29</sup> *Greater Bendigo Planning Scheme*, Clause 72

<sup>30</sup> *Native vegetation offsets*, VPP Practice Note, March 2006



### 3. The study area

The area to which this plan applies is shown as the “Study boundary” below:



Study boundary ———

Precinct boundaries ———



#### 4. The native vegetation to be retained and removed

Before deciding on a planning application, the following planning scheme requirements must be considered, including having regard to “the Framework”:

- Clause 11.03-2: Environment;
- Clause 15.09: Conservation of native flora and fauna;
- Clause 52.17: Native vegetation;
- Clause 65: Decision guidelines; and
- Clause 66.02-3: Referral and requirements of Department of Sustainability and Environment.

**Table 11: Decision Guidelines under Clause 52.17:**

Precincts (see Table 12)	Description	General Issues	Land Protection	Conservation Significance	Offsets (see Table 13)
1. High Street	Highly modified urban development with remnant mature, native trees, particularly around Raglan Place West and Pechell Street	Land to be rezoned to R1Z and B1Z, with no minimum lot size. Area has recently been sewered so redevelopment of some lots expected.	Encourage retention of remnant vegetation with any new development.	Low conservation value on most developed lots, high along some road-sides: <ul style="list-style-type: none"> <li>• Raglan Place West;</li> <li>• Eddington Street between Shadforth and Mitchell Streets</li> </ul> Vegetation under pressure from urban development.	Encourage retention of remnant vegetation, particularly along roadsides. Provide avenue planting and entry statements at each end of the McIvor Highway.
2. Raglan Street North	Highly modified pasture grasses with minimal mature, native trees and no undergrowth.	Land to be rezoned to R1Z. Maintain larger allotments of 1,500 sqm and encourage tree planting.	Land is cleared, flat, grazing and not exhibiting soil erosion.	Low conservation value. Single trees with no understorey.	Encourage tree planting along roadsides to provide northern vista.
3. Williams Street / Campaspe Drive	Highly modified pasture grasses with minimal mature, native trees and no undergrowth.	Land to be zoned LDRZ and maintained at 4,000 sqm lots. Area is now sewered. Backs onto Campaspe River with slopes of 10 to 20%. Main township entrance.	Maintain large lots backing onto Campaspe River with no development within 30 m of the waterway to protect riparian ecosystem.	Low conservation value on cleared land, high along Campaspe River. Important riparian ecosystem required to protect water quality and native fauna. Area of natural beauty and interest.	Encourage planting of native vegetation and riparian undergrowth along Campaspe River. Use for preferred offset planting along Crown land edges to the waterway.
4. Shadforth Street / Mitchell Street	Mixture of urban development and remnant vegetation.	Land to be rezoned to R1Z. Important roadside vegetation.	Area is generally flat to gently undulating and developed with low	Low conservation value on cleared land with high quality roadside vegetation along Shadforth and Pechell Streets and Minter Road.	Encourage protection of roadside vegetation and location of driveways.

Precincts (see Table 12)	Description	General Issues	Land Protection	Conservation Significance	Offsets (see Table 13)
			density residential.	Pockets of high quality vegetation to be protected: <ul style="list-style-type: none"> <li>10 Drake Street (Anglican Church).</li> <li>44 Raglan Place West.</li> </ul>	Petchell Street and Minter Road not to be opened or constructed
5. Burns Street	Cleared patches between quality native vegetation	Land to be zoned LDRZ. Abuts the golf course and O'Keefe Trail Main southerly township entrance.	Significant vegetation needs to be protected as supporting regional open space. Maintain larger lots.	High conservation status of native vegetation providing habitat corridor between the O'Keefe trail and Hargreaves Creek to the west and the golf course and Campaspe River to the east.	Unused Government roads not to be opened. Provide additional roadside planting and enhancement of township gateway.
6. Cemetery Road	Highly modified pasture grasses with mature native trees along Hargreaves Creek. 37-45 Cemetery Road is owned by the City of Greater Bendigo being a 5.5 hectare parcel.	Land to be zoned LDRZ and PPRZ and remain as a holding zone for long-term future urban development.	Precinct is bisected by Hargreaves Creek and drainage lines, with mature native vegetation along the waterway.	Low conservation value on cleared areas and medium to high conservation value along the creek. Need to protect waterway, water quality and riparian ecosystem from development by maintain existing lot sizes.	Unused Government roads not to be opened, unless essential for access. No access to be provided across Hargreaves Creek, unless essential for access. No development within 30 metres (minimum) of the creek centreline (both sides). No wastewater disposal within 100 metres of waterway.

Source: Clause 52.17-5 Greater Bendigo Planning Scheme

**Table 12: Precinct lot sizes:**

Precinct	Minimum lot size (desirable)	Purpose of lot size
1. High Street	No minimum lot size	To encourage full urban development
2. Raglan Street North	1,500 sqm	To maintain township character and enhance northern vista.
3. Williams Street / Campaspe Drive	2 hectare	To protect riparian ecosystem and enhance waterway environment and township entrance.
4. Shadforth Street / Mitchell Street	1,500 sqm	To maintain township character.
5. Burns Street	2 hectare	To protect native vegetation and enhance township entrance
6. Cemetery Road	2 hectare	To protect Hargreaves Creek and provide a holding zone for long-term urban development

Source: City of Greater Bendigo

**Table 13: North Central CMA Native Vegetation Plan - Offsets****EVC benchmark sizes**

Benchmark size (cm dbh at 1.3 m)	Very large old tree	Large old tree	Medium tree	Smaller tree
	> 1.5 times benchmark	> 1 times benchmark < 1.5 times benchmark	> 0.75 times benchmark < 1 times benchmark	< 0.75 times benchmark
80	120	80	60	60
70	105	70	52.5	52.5
60	90	60	45	45
50	75	50	37.5	37.5
40	60	40	30	30

If the native vegetation proposed for clearing consists ONLY of scattered trees AND is in a parcel of land larger than 4 ha and with less than 8 scattered old trees 4/ha, OR is less than 4 ha with any number of scattered old trees 4/ha.

**Protection plus Recruitment offset (scattered trees)**

Conservation Significance	Very large old tree	Large old tree	Medium tree	Smaller tree	To be commenced
Very High	10 very large old trees AND 50 new plants	8 very large old trees AND 40 new plants	4 very large old trees AND 20 new plants	Recruitment only	Prior to loss
High	8 very large old trees AND 40 new plants	4 very large old trees AND 20 new plants	2 very large old trees AND 10 new plants	Recruitment only	Within 12 months of loss
Medium	4 very large old trees AND 20 new plants	2 very large old trees AND 10 new plants	1 large old tree AND 5 new plants	Recruitment only	Within 12 months of loss
Low	2 very large old trees AND 10 new plants	1 large old tree AND 5 new plants	15 new plants	Recruitment only	Within 12 months of loss

**Recruitment only offsets (to be maintained for three years)**

Conservation Significance	Very large old tree	Large old tree	Medium tree	Smaller tree	To be commenced
Very High	400	270	150	70	Prior to loss
High	270	150	70	30	Within 12 months of loss
Medium	150	70	30	15	Within 12 months of loss
Low	70	30	10	10	Within 12 months of loss

**Patches of vegetation****Protection plus Recruitment offset (patch)**

Conservation Significance	Very large old tree	Large old tree	Medium tree	To be commenced
Very High	8 very large old trees AND 40 new trees	4 large old trees AND 20 new trees	4 large old trees AND 20 new trees	Prior to loss
High	4 very old trees AND 20 new trees	2 large old trees AND 10 new trees	2 large old trees AND 10 new trees	Within 12 months of loss
Medium	2 very large old trees AND 10 new trees	1 large old tree AND 5 new trees	1 large old tree AND 5 new trees	Within 12 months of loss
Low	No specific tree offset required	15 new trees	15 new trees	Within 12 months of loss

Source: North Central Catchment Management Authority

## 5. Format for a Vegetation Management Plan

For planning applications involving medium to high conservation value sites, a vegetation management plan should be required. Clause 52.17-3 of the *Greater Bendigo Planning Scheme* specifies the content of such a plan as follows:

- Specify its purpose.
- Specify the area to which the plan applies.
- Specify the native vegetation to be retained and the native vegetation to be removed, destroyed or lopped.
- Set-out the works, payments or other actions necessary to offset the removal, destruction or lopping of native vegetation.
- Relate the need for the works, payments or other actions to the proposed removal, destruction or lopping of native vegetation in the area; and
- Provide procedures for the collection of any payments.

## 6. Standard conditions (to include any other requirements of DSE)

The following standard conditions may be imposed on the removal of native vegetation:

1. Prior to the commencement of clearing works a vegetation management plan to the satisfaction of the responsible authority and the Department of Sustainability and Environment must be submitted to and approved by the responsible authority. When approved, the plan will be endorsed and will then form part of the permit. The plan must be drawn to scale with dimensions and three copies must be provided. The plan must show:
  - All native vegetation to be removed as a part of the works.
  - Planting locations for offset planting
  - Species mix of offset planting
  - Planting density of off set planting
  - A maintenance schedule, including replanting where necessary, that ensures all plants are effectively established and survive for at least three years.
2. The clearing of native vegetation must be to the minimum extent to carry out the development.
3. The environmental impact of any trees removed for the development is to be offset by establishing and maintaining replacement planting. Locally indigenous trees and shrubs are to be established in accordance with the approved vegetation management plan with offset numbers as defined by the North Central CMA Vegetation Plan - Offsets (see Table 13 above).