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NSW GOVERNMENT  
Department of Planning

# Councils of Blayney, Cabonne and Orange City

## Sub-Regional Rural and Industrial Land Use Strategy

Final Strategy

July 2008





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# Executive Summary

## Overview

The Councils of Blayney, Cabonne and Orange City have joined forces to undertake a Comprehensive Rural and Industrial Lands Strategy (the Strategy) for the Sub-Region, with a focus of guiding future land use planning for each Council as well as the Sub-Region, for the next 30 years. The Strategy will guide and inform the preparation of a new Local Environmental Plan (LEP) for each representative Council.

The Strategy has been developed in consultation with the three Councils, the Department of Planning, the community and various state agencies and provides the broad directions for future planning in the Sub-Region. As well as providing a sound basis for private and public sector decisions on services, development and new facilities, it outlines the planning framework for development, environment and infrastructure issues affecting the Sub-Region and its representative Councils.

The Strategy identifies potential future changes to zone boundaries and provides for the economic, social and environmental justification for the zoning of land. It also identifies the types of developments preferred to achieve economic, environmental and social sustainability. The Strategy also recommends development controls for the future land resource management within the Council areas.

The Strategy has been developed in three stages:

- ▶ Local Profile – describes existing local conditions and key identified trends across the Sub-Region;
- ▶ Issues Paper – identifies the emerging issues, based on the background research during preparation of the Local Profile and agency and community consultation; and
- ▶ Strategy (this document) – provides broad directions for future planning in the Sub-Region.

The views of the people who live and work in the Sub-Region have played a very important role in the preparation of the Strategy and subsequent future of the Sub-Region.

## Growth management

The Sub-Region has experienced considerable population growth in the past ten years particularly within the new urban release areas and the rural areas within close proximity to Orange City. This has resulted in increased demand for rural 'lifestyle' blocks close to Orange, and increased rural-residential development pressures and tensions between broad acre farming and intensive farming in the agricultural regions of Blayney and Cabonne Shires.

The central issue and challenge for the future development of the Sub-Region relates to the apparent conflicts between development (growth) and environmental sustainability. The Strategy seeks to reconcile these conflicts so that future development of economic benefit to the community is only undertaken in such a manner that it is environmentally sound in the long term. The key issues affecting the Sub-Region (identified through the preparation of the Local Profile and Issues Paper), are related to the protection of agriculture and primary production including mineral resources, forestry and energy generation, development of industry, impacts





of residential and rural subdivision, protection of the natural and scenic environment as well as heritage and culture.

## **Key issues**

### ***Agriculture***

The need to protect agricultural land is affected by the provision of rural settlement, with particular issues concerning subdivision of land into non-commercial holding sizes. Economic growth of agriculture in the Sub-Region depends on a number of factors including providing primary producers with a secure future through the prevention of encroachment by rural settlement; investment in transport infrastructure; population growth; supply and health of environmental resources such as water and soil; tourist expenditure; landscape and amenity values; the availability of local labour; and national and global fiscal policies and markets.

The State Government has advised that a minimum allotment size for the subdivision of rural land (with an ancillary dwelling) should be reflective of a sustainable and commercial agricultural operation typical to the area. Further, the Department's Standard Instrument for LEPs disposes of concessional lot provisions and does not recognise 'existing holding' status. Conversely, the findings of the Central West Rural Land Use Inquiry in 2007 have recommended that minimum lot sizes be retained and also the ability to erect a dwelling on lots created for the purpose of a dwelling. A Rural State Environmental Planning Policy (SEPP) is currently in draft form and will provide further guidance on these matters in the future.

The potential economic and environmental benefits of forestry is recognised and supported where it would not adversely affect agriculture, remnant vegetation, the visual resource or constitute a fire hazard to settled areas.

### ***Industry***

The provision of well-located and suitable serviced land is vital in ensuring that land is available for industrial development when needed. Existing and proposed industrial areas within Orange City and the town of Blayney will be zoned for industrial purposes, in accordance with the Standard Instrument. In Cabonne, there are a number of towns and villages where some industrial activities within a "Village" zone is resulting in adverse impacts for adjoining residential or commercial development. For the larger towns and villages, it is recommended that the areas identified for industrial purposes be zoned Industrial under the Standard Instrument.

New mines have the potential to affect water resources, native vegetation, human health and adjacent land uses and therefore should be established only after relevant investigative and approval processes have been undertaken and managed carefully. Mining also brings employment opportunities to the Sub-Region, and like agriculture, requires a planning system that prevents the encroachment of incompatible land use such as rural settlement.

Tourism planning needs to avoid any adverse impacts on agriculture and should concentrate on low impact rural tourism, particularly where it includes overnight accommodation, in and around rural towns. Opportunities for tourism development in rural areas however needs to be encouraged, and zoning provisions should enable appropriate forms of tourism development to be carried out.



### ***Residential and Rural Subdivision***

A structured range and planned location of lifestyle allotments and small holdings (in accordance with demand indicators) may be a desirable goal. However, population projections for Blayney and Cabonne indicate that the outer areas of these LGAs may experience a decline in population over time. Rural residential development should not be seen as the solution to reversing this decline because of the economic burden it places upon the entire community.

One objective of this Strategy is to provide a range of residential opportunities within the Sub-Region which are compatible with the natural environment, settlement patterns, community aspirations, and economic pursuits of people living and working in the Sub-Region. Growth is to be directed to the defined footprints for each settlement and is not allowed to sprawl, form ribbon or ad hoc development that would compromise the rural landscape and atmosphere. This will also ensure settlements remain distinct from each other and the identity of the individual centres is retained.

Importantly, new lifestyle subdivision opportunities should be released in a controlled manner, having regard to the existing large supply of land already zoned for this purpose. Table ES.1 below provides a summary of proposed new 'lifestyle' areas within the Sub-Region. However, these areas are indicative only, with further environmental assessment, particularly concerning water supply and management of existing excess of land stock required prior to rezoning to a suitable land use zone.

### ***Natural and Scenic Environment***

The four principles of ESD will be a fundamental consideration in future development of the Sub-Region. Healthy water resources and catchments in the Sub-Region are critical to the wellbeing of the Sub-Region due to the vital role for the agricultural industry, other forms of primary production and value-adding industries. Protection of water quality and quantity is one of the highest priorities for the region and attention must be given to the cumulative impact of land uses and management of these resources.

Provision of suitable buffers to development is also critical in facilitating appropriate outcomes for natural resources, including groundwater and surface water, remnant vegetation, threatened fauna and flora and riparian corridors.

### ***Heritage and Culture***

Heritage provisions should be included in the new LEP, including an updated list of heritage items and conservation areas. There are standard heritage provisions for LEPs that are prescribed by the Heritage Office.

### **Land use strategies**

#### ***Recommended Lifestyle Allotment Strategy Areas***

A number of areas for potential future lifestyle allotment development were identified through constraints analyses, as summarised in Table ES.1.



**Table ES.1 Summary assessment of proposed Lifestyle Allotment Strategy Areas**

<b>Strategy Area</b>	<b>LGA</b>	<b>Reason/s for recommending inclusion</b>
SA 1 Leeds Parade  Approximately 150 ha	Orange	<ul style="list-style-type: none"> <li>▶ Close proximity to Orange and existing urban areas</li> <li>▶ Unaffected by bushfire, drinking water catchment, topographical constraints and contains no significant remnant vegetation</li> <li>▶ Access to services</li> <li>▶ Likely lot size of 1 hectare or lower, due to likelihood that lots will be serviced</li> </ul>
SA 2 University  Approximately 635 ha	Orange	<ul style="list-style-type: none"> <li>▶ Close proximity to Orange and existing urban and rural residential areas</li> <li>▶ Unaffected by bushfire, slope affected or within drinking water catchments.</li> <li>▶ Access to services</li> <li>▶ Likely lot size of 1 hectares or lower, due to likelihood that lots will be serviced</li> </ul>
SA 3 Weemilah  Approximately 60 ha	Cabonne	<ul style="list-style-type: none"> <li>▶ Adjoins existing Clifton Grove and Weemilah rural residential areas</li> <li>▶ Close proximity to Orange</li> <li>▶ Unaffected by highly productive agricultural land, drinking water catchment, slope or remnant native vegetation</li> <li>▶ Likely lot size of 2 hectares or greater</li> </ul>
SA 4 Spring Glen  Approximately 250 ha	Cabonne	<ul style="list-style-type: none"> <li>▶ Relatively close proximity to Orange</li> <li>▶ Fragmented subdivision pattern precludes highly productive agriculture</li> <li>▶ Not in drinking water catchment</li> <li>▶ Will need to manage bushfire risk</li> <li>▶ Likely lot size of 10 hectares or greater, consistent with existing Spring Glen subdivision</li> </ul>
SA 5 Mullion Creek  Approximately 400 ha	Cabonne	<ul style="list-style-type: none"> <li>▶ Relatively close proximity to Orange</li> <li>▶ Fragmented subdivision pattern precludes highly productive agriculture</li> <li>▶ Not in drinking water catchment</li> <li>▶ Likely lot size of 2 hectares or greater</li> </ul>
SA 6 Winderera  Approximately 160 ha	Cabonne	<ul style="list-style-type: none"> <li>▶ Close proximity to Orange and existing Winderera rural residential development</li> <li>▶ Fragmented subdivision pattern precludes highly productive agriculture</li> <li>▶ Likely lot size of 2 hectares or greater</li> </ul>



Strategy Area	LGA	Reason/s for recommending inclusion
SA 7 Millthorpe  Approximately 200 ha	Blayney	<ul style="list-style-type: none"> <li>▶ Proximity to services and existing village and rural residential development in Millthorpe</li> <li>▶ Fragmented subdivision pattern precludes highly productive agriculture</li> <li>▶ Unaffected by slope, remnant native vegetation, bushfire</li> </ul>
SA 8 Guyong Road  Approximately 440 ha	Blayney	<ul style="list-style-type: none"> <li>▶ Relatively close proximity to Blayney</li> <li>▶ Fragmented subdivision pattern precludes highly productive agriculture</li> <li>▶ Unaffected by slope, remnant native vegetation, bushfire</li> </ul>

It should be noted that inclusion as a Strategy Area in this Strategy does not automatically translate into rezoning into new LEPs. Detailed local environmental studies will be required for all Strategy Areas to determine their suitability for rezoning, addressing issues such as:

- ▶ Water supply;
- ▶ Effluent disposal;
- ▶ Bushfire risk;
- ▶ Flooding risk;
- ▶ Ecological and biodiversity constraints;
- ▶ Heritage constraints;
- ▶ Scenic and landscape analysis.

In some cases, Master Plans will also be required to support rezoning submissions.

The rezoning of land for lifestyle will also be subject to an appropriate staging process, based on supply of and demand for land for particular land uses. Rezoning of new lifestyle areas will be subject to take up of already zoned land.

#### **Areas recommended for rezoning to Primary Production**

SA 9 Forest Reefs Road and SA 10 Browns Creek Road are existing Rural 1(c) areas within Blayney Shire for which a differing planning and zoning approach is warranted. Despite current development provisions under the Blayney LEP 1998 allowing subdivision down to 2 hectare lifestyle lots, there has been limited take-up of this subdivision opportunity.

The constraints analysis undertaken for the Strategy identified that these areas are heavily constrained. In the case of SA 9, the proximity of known and potential metallic mineral resource deposits on adjoining lands, and in particular the proximity to current mining operations at Cadia, is a significant constraint to future lifestyle subdivision. SA 10 contains steep slopes which would preclude an efficient lifestyle allotment subdivision pattern.

Given the limited take-up of lifestyle lots subdivision in this zone to date, the opportunity exists through this Strategy and future planning instruments to minimise the potential for land use conflict and to maximise the efficient use of agricultural land in this location. As such the



ongoing application of a land use zone that allows lifestyle lots subdivision in this location should be reviewed.

Council would be required to honour and uphold any development approval obtained for lifestyle lot subdivision, which remain legally valid binding. It is recommended that a 'sunset clause' be included in any new LEP, whereby a development application for a dwelling could be lodged within a set time frame. After the expiry of the time frame, the area would not see new lifestyle dwelling development. Areas the subject of this rezoning and sunset clauses would require close monitoring. It is noted that the draft Rural SEPP may provide further guidance on this matter and may provide an alternative approach.

***Other areas considered for Lifestyle Allotment development but deemed unsuitable***

Other areas and parts of the Sub-Region were also considered for future lifestyle allotment development. However, each of these were subsequently discounted from further consideration for a variety of reasons, as shown in Table ES.2.

**Table ES.2 Summary assessment of other areas not proposed as Strategy Areas**

<b>Town/area/ locality</b>	<b>LGA</b>	<b>Reason/s for not recommending further expansion</b>
Canowindra	Cabonne	<ul style="list-style-type: none"> <li>▶ Presence of Class 1, 2 and 3 soils in close proximity to the township.</li> <li>▶ Access to water supply.</li> <li>▶ Adequate existing supply of Rural 1(c) zoned land on least constrained land.</li> </ul>
Cargo	Cabonne	<ul style="list-style-type: none"> <li>▶ Prevalence of large holdings (200 hectares or greater) to the west south and east of the village.</li> <li>▶ Bushfire constraints in vicinity of village (south and west).</li> <li>▶ Class 3 soils to east and west of village.</li> <li>▶ Adequate existing supply of Rural 1(c) zoned land.</li> </ul>
Cudal	Cabonne	<ul style="list-style-type: none"> <li>▶ Prevalence of large holdings (200 hectares or greater in the area).</li> <li>▶ Class 2 and 3 soils</li> <li>▶ Adequate existing supply of Rural 1(c) zoned land.</li> </ul>
Cumnock	Cabonne	<ul style="list-style-type: none"> <li>▶ Poor accessibility and significant road distance to nearest essential services. Adequate supply of zoned land for foreseeable growth.</li> </ul>
Eugowra	Cabonne	<ul style="list-style-type: none"> <li>▶ Adequate supply of Rural 1(c) zoned land.</li> </ul>
Kings Plains	Blayney	<ul style="list-style-type: none"> <li>▶ Prevalence large holdings (200 hectares or greater in the area).</li> <li>▶ Known and potential mineral resources in the immediate vicinity and potential for conflict with nearby residential land uses.</li> </ul>
Manildra	Cabonne	<ul style="list-style-type: none"> <li>▶ Adequate supply of Rural 1(c) zoned land.</li> </ul>



<b>Town/area/ locality</b>	<b>LGA</b>	<b>Reason/s for not recommending further expansion</b>
Molong	Cabonne	<ul style="list-style-type: none"> <li>▶ Adequate existing supply of Rural 1(c) zoned land.</li> </ul>
Nashdale and Borenore	Cabonne	<ul style="list-style-type: none"> <li>▶ Existing forestry and orcharding industries likely to create noise, odour and spray amenity impacts for future residents, which precludes the further development of lifestyle lots in this area.</li> <li>▶ Poor access to water supply, given current moratorium on groundwater bores.</li> </ul>
Newbridge	Blayney	<ul style="list-style-type: none"> <li>▶ General levels of environmental constraint surrounding existing village are significant.</li> <li>▶ Prevalence of larger holdings of 200 hectares or greater to the north and south of the village.</li> <li>▶ Poor accessibility and significant road distance to nearest essential services. Adequate supply of zoned land for foreseeable growth.</li> </ul>
Yeoval	Cabonne	<ul style="list-style-type: none"> <li>▶ Poor accessibility and significant road distance to nearest essential services. Adequate supply of zoned land for foreseeable growth.</li> </ul>

It should be noted that further studies will be undertaken by Cabonne Council in relation to the location of land zoned 1(c) adjacent to existing villages. It is possible that some 1(c) areas will be relocated through these further studies.

### ***Recommended Industrial Strategy Areas***

A number of areas for potential future industrial development were identified through constraints analyses, as summarised in Table ES.3.

**Table ES.3 Summary assessment of proposed Industrial Strategy Areas**

<b>Strategy Area</b>	<b>LGA</b>	<b>Reason/s for recommending inclusion</b>
SA A Narrambla extension  Approximately 145 ha	Orange	<ul style="list-style-type: none"> <li>▶ Immediately adjacent to existing industrial areas</li> <li>▶ Provides a buffer to future lifestyle development</li> <li>▶ Located on the fringe of the Orange urban area</li> <li>▶ Fragmented subdivision pattern precludes highly productive agriculture</li> </ul>
SA B North Clergate  Approximately 190 ha	Orange	<ul style="list-style-type: none"> <li>▶ Extension to the existing North Clergate industrial area</li> <li>▶ Fragmented subdivision pattern precludes highly productive agriculture</li> <li>▶ Provides opportunities for industrial development that requires large lots, due to size or impacts</li> </ul>
SA C Manildra  Approximately 130 ha	Cabonne	<ul style="list-style-type: none"> <li>▶ Adjacent to existing industrial development</li> <li>▶ Access to railway line</li> </ul>



Strategy Area	LGA	Reason/s for recommending inclusion
SA D Blayney Abattoir Approximately 30 ha	Blayney	<ul style="list-style-type: none"> <li>▶ Previously used for industrial activities</li> <li>▶ Adjacent to existing North Blayney Industrial Area</li> <li>▶ Flat land</li> </ul>
SA E Newbridge Road Approximately 65 ha	Blayney	<ul style="list-style-type: none"> <li>▶ Currently partly used for industrial activities</li> <li>▶ Close proximity to Blayney township</li> <li>▶ Flat land</li> </ul>
SA F Marshalls Lane North Approximately 65 ha	Blayney	<ul style="list-style-type: none"> <li>▶ Logical extension of existing industrial area</li> </ul>

#### **Minimum lot size for ancillary dwelling**

The NSW Department of Primary Industry's draft methodology was initially used to determine minimum lot sizes for ancillary dwellings for the Blayney, Cabonne and Orange local government areas. In addition to this analysis, further advice from the DPI was obtained, and they suggested alternative minimum lot sizes. Both are outlined in Table ES.4.

**Table ES.4 Outcome of Hassall and DPI analysis of minimum lot sizes for an ancillary dwelling**

Enterprise types	Recommended minimum lot size	
	Hassall & Associates	DPI
A. Intensive horticulture and viticulture	25 ha	30 ha
B. Highly productive mixed grazing	200 ha	300 ha
C. Mixed cropping and grazing	550 ha	550 ha
D. Extensive grazing	800 ha	800 ha

It is noted that, since these analyses were undertaken, the Central West Rural Lands Inquiry has concluded that the Department of Primary Industry's draft methodology is not a suitable tool for determining minimum allotment size for an ancillary dwelling. However, the Central West Panel, while critical of the DPI method, did not offer an alternative method of determining a minimum lot size. As such, consideration has also been given to retaining the current minimum allotment sizes which range from 100 hectares for broadacre agriculture to 16 hectares for viticulture.

Analysis of existing holding patterns shows that retaining the current minimum allotment size provides for excessive opportunities for subdivision, which is inconsistent with the strong community and State government desire to protect and promote agriculture.



Given uncertainties in relation to the State Government policy position following the recent Central West Rural Lands Inquiry, the Strategy provides a number of options, as well as recommending a specific approach.

The recommended minimum allotment size, on planning grounds, for an ancillary dwelling for each sector is shown in Table ES.5.

**Table ES.5 Recommended minimum lot size for an ancillary dwelling**

<b>Enterprise types</b>	<b>Recommended minimum lot size</b>
A. Intensive horticulture and viticulture	25 ha
B. Highly productive mixed grazing	200 ha
C. Mixed cropping and grazing	550 ha
D. Extensive grazing	800 ha
Drinking water catchment	200 ha

Following the finalisation of the draft Strategy, State Environmental Planning Policy (Rural Lands) 2008 (Rural Lands SEPP) was gazetted, and a number of directions under Section 117 of the Environmental Planning and Assessment Act 1979 were issued by the Minister for Planning.

The Rural Lands SEPP and Ministerial Directions do not require the councils to review or change their minimum lot size(s) in existing LEPs. The councils can transfer the existing minimum lot size(s) into their new LEPs.

However, the SEPP and Directions require that, where a council seeks to vary an existing minimum lot size in an LEP, it must do so in accordance with the Rural Subdivision Principles listed in the Rural Lands SEPP. In addition, the Minister for Planning may direct a council to review its minimum lot size(s) under section 55 of the *Environmental Planning and Assessment Act 1979*.

### **Implementation**

The success of the Strategy in meeting the objectives and vision for the Blayney, Cabonne and Orange LGAs will depend on the ongoing commitment of the councils in engaging the community and government agencies. The strategic directions specified in this in this Strategy can be translated into statutory provisions through the development of a comprehensive LEP (consistent with the Standard Instrument for LEPs) and subsequent DCP framework.

It should be noted that inclusion as a Strategy Area in this Strategy does not automatically translate into rezoning into new LEPs. The rezoning of land for lifestyle and industrial purposes will need to be subject to an appropriate staging process, based on supply of and demand for land for particular land uses.

Further to this, detailed local environmental studies will be required for all Strategy Areas to determine their suitability for rezoning. In some cases, Master Plans will also be required to support rezoning submissions.





## PART A – INTRODUCTION AND BACKGROUND

# 1. Introduction

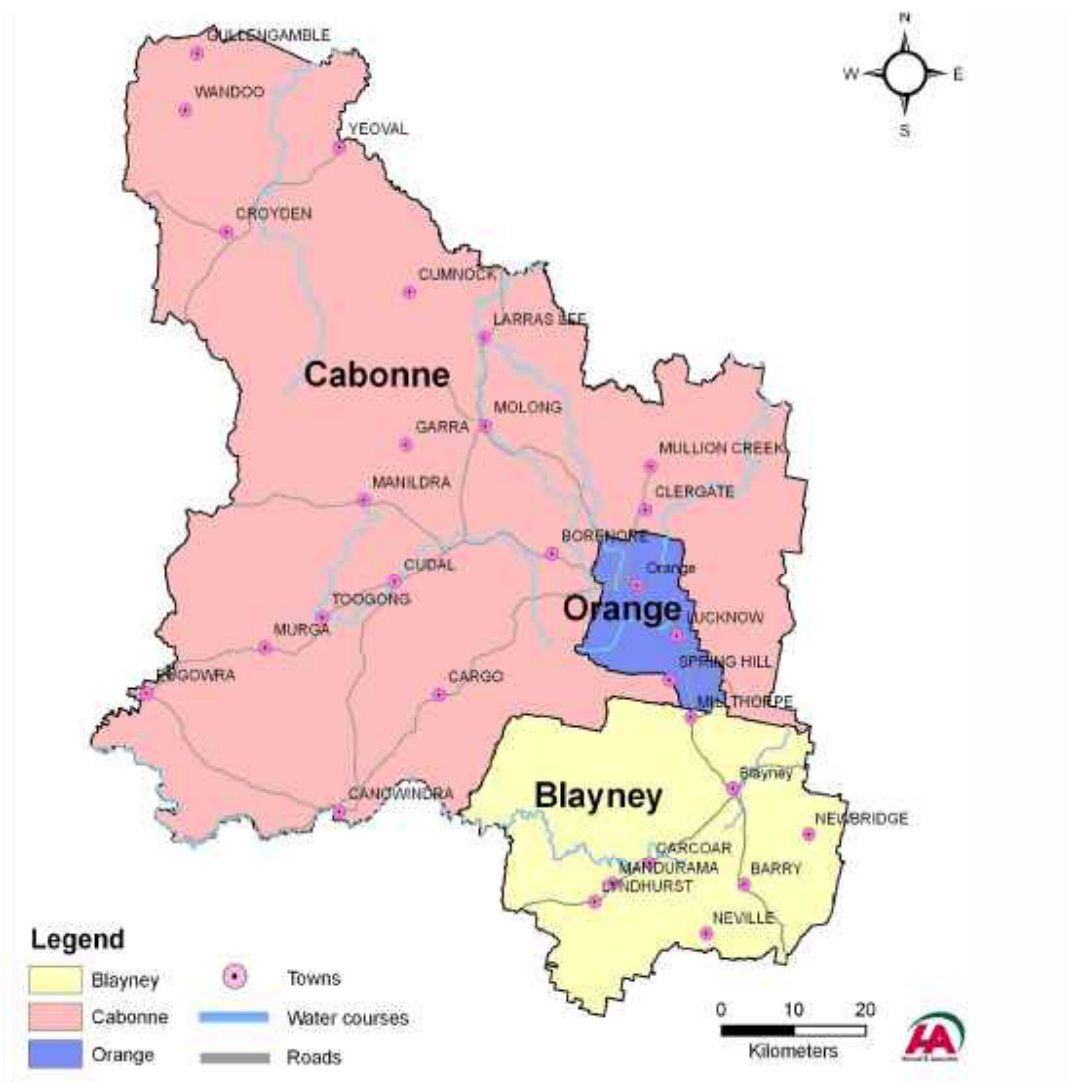
## 1.1 Background

### 1.1.1 Location

The Blayney, Cabonne and Orange City Local Government Areas (referred to in this report as the “Sub-Region”) are located in the Central West of New South Wales, approximately 250 kilometres west of Sydney. The Sub-Region is centrally located in terms of NSW, with a growing population and a strong and diverse economy. Orange is the main regional service centre. There are a number of smaller towns and villages in the Sub-Region including Blayney, Molong, Canowindra, Eugowra, Manildra and Yeoval.

A map of the Sub-Region is shown in Figure 1.1.

**Figure 1.1 Map of the Sub-Region**





### 1.1.2 Overview of issues

Orange has become a major service, commercial and administrative centre for Central and Western NSW, complemented by a number of smaller towns and villages. Blayney and Cabonne have a primary industry focus with agriculture, viticulture, horticulture and mining forming the basis of each local economy. Tourism is a significant and growing component of the regional economy, focused around food and wine from an emerging viticulture industry, historic sites and the natural beauty of the area. Key drivers of employment growth in the region are mining, agriculture, the local wine industry, construction, manufacturing, commerce/retail services, health and education.

The estimated population of the Sub-Region is now approximately 58,000 persons, comprising approximately 38,000 in the City of Orange, 7,000 in Blayney, and 13,000 in Cabonne. Beyond Orange City, the population lies largely within small towns and villages, however there is a considerable proportion of the population living within the rural areas.

Many competing and complementary factors have influenced the growth of Orange as a regional city. It is important to understand the dynamics of this growth so as to predict what may influence the future growth of Orange. The Orange region developed as a productive agricultural area from the early to mid 1800s and later boomed as a result of gold mining. The region is recognised as a good location for freight transport and logistics operators, building on the existing bulk and containerized freight transport distribution activities located primarily in Blayney.

The Sub-Region has experienced considerable population growth in the past ten years particularly within the rural areas in close proximity to Orange City. The trend toward rural living in the Sub-Region is particularly evident through the first release of the 2006 Census figures, which show that the population of Orange City has remained static since 2001, while the populations of Cabonne, Blayney and the Sub-Region as a whole, have increased significantly since this time, particularly close to Orange.

This growth can be partly attributable to the growth of tourism and viticulture within the region, together with the expansion of the Cadia/Ridgeway Gold Mine and the range of support services associated with this industry. The demand for small lots in the Cabonne and Blayney LGAs for lifestyle purposes is also a result of flexible LEP provisions permitting concessional lots. There are also indications of people moving to the region from larger population centres to experience town, village and rural lifestyle opportunities. Demand for rural 'lifestyle' blocks close to Orange has contributed to the heightened incidence of land use conflict between agriculture and dispersed rural residential development. There are also concerns over obtaining and maintaining an independent water supply in ad hoc lifestyle lot development.

As a regional centre Orange provides a range of residential living styles, however, recently sustained urban growth has reduced the capacity to provide rural-residential style living opportunities at the edge of the city. This urban growth has also absorbed much of the industrial land. There has been considerable pressure on the valuable agricultural land immediately surrounding the city in Cabonne and Blayney shires for residential lifestyle opportunities, and in Blayney for low-density industrial development.



Orange City Council has recently adopted a Settlement Strategy for urban growth over a 20 year time frame. Consideration of the need for urban development land beyond the time frame of this Strategy will be required when determining land use options around Orange.

Further from Orange, in the agricultural regions of Blayney and Cabonne Shires, broad acre cropping and grazing businesses are also under pressure for rural-residential development, with numerous examples of rural land use conflict emerging. Viticulture has also become an important rural pursuit and there are incidences of tensions between broad acre farming, intensive farming and rural-residential land uses. The permissibility of concessional lots under the existing Cabonne and Blayney LEP provisions has greatly contributed to poorly located rural residential development in these Council areas, particularly at the local government boundaries with Orange City Council.

Speculation on 'dwelling potential' artificially inflates land values and makes it difficult for farmers to consolidate holdings through purchase of neighbouring property. In addition, a survey of rural residential residents in Cabonne has found that average residential tenancies are as low as three years due to the relative inaccessibility of these areas to retail, community, educational and other essential services (Geoghegan 2002).

As such, the Orange, Blayney and Cabonne Local Environmental Plans are outdated in terms of rural land use policy and are in need of review.

## 1.2 Project overview

As a result of the above issues, Blayney, Cabonne and Orange City Councils required the preparation of a Strategy to guide and manage residential and industrial growth around Orange City, taking into account the impacts of development on the rural areas adjoining the city. The three Councils acknowledge the need for Orange to grow and maintain its status as a premier regional centre and for those needs to be managed in a sustainable way.

In 2004 the New South Wales Government began a major review of the NSW planning system. As part of this review a range of reforms to the *Environmental Planning and Assessment Act 1979* (EP&A Act) were introduced. The reforms focus on:

- ▶ Strategic planning for growth areas;
- ▶ Simplifying planning controls;
- ▶ Improving development assessment processes; and
- ▶ Allowing flexibility in the use of developer levies for local facilities and services.

One of the reforms requires each local government area within NSW to prepare a new comprehensive Local Environmental Plan (LEP) in accordance with a Standard Instrument for Local Environmental Plans that took effect on 31 March 2006. The aim of the Standard Instrument is for all LEPs to use the same planning language, making it easier for communities to understand the plan, whilst also saving both developers and government time and money.

The reforms also require that only one Development Control Plan (DCP) can apply to any property within an LGA. The reforms state that the DCP is to be a single document, which contains guidelines of detailed provisions on all aspects of development. The reforms establish that the DCP must supplement the provisions of the LEP and provide detailed design controls



for residential, rural, commercial, industrial development as well as development of a heritage item or within a conservation area.

In response to these reforms Blayney, Cabonne and Orange City Councils are now required to prepare new LEPs, which is consistent with the Standard Instrument. Three separate draft Principal LEPs will be prepared to cover the LGAs of Blayney, Cabonne and Orange City.

The Strategy has been developed in consultation with the three Councils, the Department of Planning, the community and various state agencies. It identifies the economic, social, cultural and environmental characteristics of Blayney, Cabonne and Orange Council areas and provides a strategic plan that will guide the preparation of Local Environmental Plans and associated plans and policies for the rural areas that complement the resources and attributes of the area.

Following finalisation of the Strategy, the Blayney, Cabonne and Orange Councils will prepare new Local Environmental Plans for the LGAs of Blayney, Cabonne and Orange, having regard to the outcomes of the Strategy.

### **1.3 What is a Strategy?**

A strategy is a plan for a desired future. In environmental planning terms, a strategy refers to the objectives and guidelines that describe how the Councils and the community intend the Sub-Region to develop in the long term (guided by government policy). It is usually a written document (with descriptive mapping) that explains what the Councils wish to achieve (and why), and how it is proposed to achieve the stated objectives. The value of a strategy is that it:

- ▶ Shows the public what the Councils are aiming for;
- ▶ Shows how the Councils expect to achieve it;
- ▶ Helps Council staff interpret and administer regulations intended to achieve the strategy
- ▶ Guides land use decision making at local level;
- ▶ If followed, enables all developments that the Councils approve, as well as its own actions, to be consistent.
- ▶ Provides certainty and security for investors in the sub region.

Land use strategies need to be endorsed by the Director General of the Department of Planning to enable strategic land use planning and the development/amendment of LEPs (s117 Directions).

### **1.4 Why prepare a Strategy?**

The prime responsibility of the three councils under the *Environmental Planning and Assessment Act 1979* is to encourage:

- “(i) *The proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,*
- (ii) *The promotion and co-ordination of the orderly and economic use and development of land,*



- (iii) *The protection, provision and co-ordination of communication and utility services,*
- (iv) *The provision of land for public purposes,*
- (v) *The provision and co-ordination of community services and facilities, and*
- (vi) *The protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and*
- (vii) *Ecologically sustainable development, and*
- (viii) *The provision and maintenance of affordable housing.”*

The central issue and challenge for the future development of the Sub-Region relates to the apparent conflicts between development (growth) and environmental sustainability. The Rural and Industrial Land Use Strategy will seek to reconcile these conflicts so that future development of economic benefit to the community is only undertaken in such a manner that it is environmentally sound in the long term.

Proper management of growth is essential for land use planning. Growth needs to be managed to ensure that it happens in an effective and efficient way whilst at the same time resources are conserved and maintained for future generations. Growth therefore needs to be sustainable.

Sustainable growth is about managing the social and economic implications of future growth in a responsible manner while protecting and preserving the environmental values of an area. The principle of sustainable growth applies equally to subdivision and agriculture and industry.

There are many different people and groups that have an interest in the sub-region and there is a range of views on the way the resources of the Sub-Region should be managed. Such people groups include village residents, primary producers, hobby farmers and lifestyle lot residents, government authorities, and the development industry. Their views or interests may be essentially social, economic, environmental or an amalgamation of these. They may be concerned with a specific site or be interested in a wider regional, state or national context. Their interests may be well represented or be poorly represented, or the views projected may be broadly supported across the community or be those of a minority. These views may reflect one's stage of life or economic circumstances and so may also be quite changeable.

Given the wide range of interests, it is inevitable that some conflict will occur. Generally, these conflicts revolve around incompatible land uses that are vying for the same or adjoining land, such as agriculture and smaller lot subdivisions. It is the role of the three Councils to protect and encourage those activities that are in the community's long-term interest.

Through preparing the Rural and Industrial Land Use Strategy, the three Councils will set the agenda for development within the Sub-Region in the next decade and beyond, thereby fulfilling their responsibilities under legislation and providing certainty to assist in the resolution and prevention of land use conflicts.

## **1.5 How the Strategy is prepared**

There are a number of processes that have influenced the preparation of this Strategy. Primarily the Strategy is guided by government policy, including section 117 of the



*Environmental Planning and Assessment Act 1979* and its associated guidelines and circulars, which in turn guide local land use decision making and future LEP preparation and amendments. The following processes are also involved in the Strategy's preparation:

- ▶ Public consultation;
- ▶ Agency involvement;
- ▶ Department of Planning endorsement;
- ▶ Complementarity with Orange Sustainable Strategy; and
- ▶ Review and amendment of document.

Local councils have a key statutory land use planning role in developing local solutions in response to emerging growth pressure, in a manner that protects community values and is undertaken within a the established framework of state legislation and policy. Therefore, the holistic aim of this Land Use Strategy is to guide Council strategic land use planning decision-making at the local level.

## **1.6 Objectives of the project**

The overall objective of the project is the preparation of a Rural and Industrial Land Use strategic planning framework for the Sub-Region comprising Blayney Shire, Cabonne Shire and Orange City Councils that:

- ▶ Addresses current and expected population change and development trends;
- ▶ Establish means, relevant to the Councils statutory role, to realise and protect the full suite of community values and assets relevant to the plan area.
- ▶ Protects and enhances the environmental assets of the Sub-region.
- ▶ Identifies the level of cultural, social and economic importance of agriculture to the district and provides a sustainable framework for the management of agricultural land. The sustainable framework should consider the supply of such lands for the continued operation and growth of local agricultural industries;
- ▶ Reconciles and identifies in a spatial context a means to sustainably address rural residential pressures;
- ▶ Identifies Sub-Regional needs for industrial land, based on type and requirements of industry, and manage the sustainable provision of industrial land including spatial identification of area(s) for future development;
- ▶ Includes wide consultation to develop an understanding of current trends in development of the region and the impacts of those trends;
- ▶ Investigates potential for complementary urban growth/expansion in Blayney Shire and Cabonne Shire;
- ▶ Assesses the suitability of current planning controls in each LGA;
- ▶ Recommends actions to ensure the capacity for long term growth of Orange City as a regional centre is maintained, and balanced with the need to protect agricultural areas from urban development; and



- ▶ Uses this framework as the basis for preparing an integrated Local Environmental Plan for the three local government areas (LGAs) within the Sub-Region.

Undertaking the project in a manner that encompasses all of the above requires the identification of the existing social, economic and environmental contexts of the Sub Region (through the Local Profile), the identification of policy shortcomings and issues that currently, or are likely to, impact the Sub-Region (Issues Paper) and to propose the means and actions by which these matters can be rectified or avoided and the quality of life of local communities enhanced through future land use planning activities (Land Use Strategy). The development of this comprehensive package requires extensive consultation of all government departments, stakeholders and local communities to ensure the final Strategy is representative of local conditions and to ensure local-level ownership of its outcomes.

## **1.7 Structure of the Strategy**

The Strategy is structured as follows:

- ▶ Part A – Introduction:
  - Chapter 1 outlines the purpose, aims and objectives of the project;
  - Chapter 2 outlines the process undertaken to prepare the Strategy;
  - Chapter 3 summarises the key issues to be addressed in the Strategy.
- ▶ Part B – Strategy Vision and Principles:
  - Chapter 4 outlines the vision for rural and industrial development and identifies and guiding principles for the Sub-Region;
  - Chapter 5 describes the recommended growth management strategy and principles by which development should be assessed.
- ▶ Part C – Strategy Analysis:
  - Chapter 6 discusses the methodology and results of the spatial analysis to determine areas that are suitable for future development. This Chapter presents the overall Strategy map, as well as detailed maps of areas identified as suitable for future lifestyle and industrial development;
  - Chapter 7 outlines the methodologies and results of the analyses to determine an appropriate minimum lot size for an ancillary dwelling. It should be noted that given uncertainties in relation to the State Government policy position following the recent Central West Rural Lands Inquiry, this section provides a number of options for minimum lot size and does not recommend a specific approach at this time;
- ▶ Part D – Land Use Strategies:
  - Chapter 8 provides an overview of the Strategy, including the overall Strategy map;
  - Chapters 9 to 13 relate to the five key issues addressed by the Strategy, and provides strategic directions, strategies and actions both for the Sub-Region, as well as individual local government areas (LGAs) where necessary;
- ▶ Part E – Implementation and Review:
  - Chapter 14 outlines the implementation process for the Strategy;





- Chapter 15 provides recommendations for future planning controls; and
- Chapter 16 discusses future monitoring and review.

In addition to the Strategy, there are two supporting documents that have been prepared:

- ▶ Local Profile, dated April 2008; and
- ▶ Issues Paper, dated April 2008.

These supporting documents provide the background and context to the Strategy, and must be considered when reading this Strategy.

## 1.8 Terminology

In the rural areas there are a number of different settlement types. For the purposes of this Strategy, the following terms and definitions are used:

- ▶ *Lifestyle allotments*

Often referred to as 'rural residential' allotments, these generally comprise large town block style lots on which generally larger, more expensive dwellings are located within extensive landscaped garden settings. There are usually little or no agricultural pursuits being carried out. These lots have high quality servicing, including sealed roads, power, telephone, capable of on-site wastewater disposal, and in some cases, reticulated water and sewer. They generally have an area of between 1 and 5 hectares, although lots with reticulated water and sewer can be as small as 4,000m<sup>2</sup>.

Examples of lifestyle allotments are Clifton Grove and Windera Estate, as well as existing concessional allotments that are scattered throughout the Sub-Region.

- ▶ *Rural small holdings*

Rural small holdings are either estates or isolated parcels within the general rural area, and their lot size ranges from 5 to 100 hectares (that is, less than the current minimum allotment size for an ancillary dwelling in the general rural area). Productive agricultural pursuits can be carried out, such as part-time farming or intensive agriculture including viticulture and horticulture. Servicing is generally at a lesser standard than lifestyle allotments, with gravel roads and self sufficient water and sewer.

Rural small holdings are currently scattered in isolated locations throughout the Sub-Region and exist as a result of historical subdivisions, or recent subdivision for genuine intensive agricultural activities.

- ▶ *Large holdings*

This term is used for the larger holdings that comprise the remainder of the rural area. Broadacre commercial farming is the primary activity carried out on these holdings.



## 2. Consultation

### 2.1 Project staging

Preparation of the Strategy was undertaken in three distinct stages:

- ▶ Stage 1 – an initial inception and fact finding stage including agency and community consultation for issue identification purposes;
- ▶ Stage 2 – formulation of the draft Strategy, again including agency and community consultation for the purposes of direction, clarification and outcome identification; and
- ▶ Stage 3 – a final consultation and confirmation stage following delivery of the draft Strategy. This will incorporate public display of the draft Strategy, community consultation meetings, receipt of comments and finalisation of the Strategy.

Following finalisation of the Strategy, the three Councils will prepare new Local Environmental Plans for their local government area, having regard to the outcomes of the Strategy.

### 2.2 Stage 1 activities

During Stage 1, a number of activities were undertaken, as discussed below.

#### 2.2.1 Site visits

Site visits of the Sub-Region were conducted to identify key features and provide a greater understanding of the local and regional issues affecting the study area.

#### 2.2.2 Review of background information

A range of background material was reviewed to assist with familiarisation with the study area and identify key local and regional issues. This material has been summarised in this report, and provides the statutory and strategic context for the Strategy.

#### 2.2.3 Agency consultation

A workshop was held at Cabonne Shire Council Chambers on 30 November 2005 with the key statutory authorities and service providers to seek their input into the Strategy. Representatives of the following agencies and authorities attended the workshop:

- ▶ Department of Planning;
- ▶ Department of Primary Industries (DPI);
- ▶ Department of Environment and Conservation (DEC);
- ▶ NSW Roads and Traffic Authority (RTA);
- ▶ Central West Catchment Management Authority (CMA);
- ▶ Molong Rural Lands Protection Board (RLPB);
- ▶ Central Tablelands Water;
- ▶ Telstra;



- ▶ Bathurst Regional Council; and
- ▶ Forbes Shire Council.

#### 2.2.4 Community consultation

During Stage 1, a Community Information Sheet was prepared, introducing the project to the community, outlining issues that would need to be considered, and providing information on the ways in which the community could be involved in the project. The Information Sheet was distributed throughout the three local government areas, to interested persons and at the community meetings.

16 community meetings were held during Stage 1. A summary of the locality, venue and approximate attendance numbers at the Stage 1 community meetings is set out in Table 2.1.

**Table 2.1 Stage 1 community meetings**

Locality	Venue	Date	Attendance
Blayney	Blayney Community Centre	31 October 2005	15
Millthorpe	School of Arts	1 November 2005	40
Carcoar	School of Arts	2 November 2005	8
Newbridge	Showground Hall	3 November 2005	6
Orange	Orange City Council Foyer	7 November 2005	50
Nashdale	Nashdale Hall	8 November 2005	65
Lucknow	Lucknow Community Hall	9 November 2005	10
Molong	Cabonne Council Chambers	14 November 2005	20
Canowindra	Moorbel Hall	15 November 2005	20
Cargo	Cargo Hall	16 November 2005	20
Cumnock	Cumnock Hall	21 November 2005	3
Mullion Creek	Mullion Creek Hall	22 November 2005	25
Yeoval	Yeoval Hall	23 November 2005	5
Cudal	Cudal Hall	28 November 2005	12
Eugowra	Eugowra Uniting Church Hall	29 November 2005	13
Manildra	Manildra Hall	30 November 2005	14
<b>TOTAL</b>			<b>326</b>

A PowerPoint presentation was used to provide an overview of the Strategy process and each of the following issues:

- ▶ Agriculture;



- ▶ Industry;
- ▶ Residential and rural subdivision;
- ▶ Natural and scenic environment; and
- ▶ Heritage and culture.

Issues raised were recorded at each meeting, and notes of the meetings are included as appendices to the Issues Paper.

In addition, throughout Stage 1 of the project, comments and submissions were received from the community via mail, telephone and email.

## **2.3 Stage 2 activities**

Following completion of the Local Profile and Issues Paper at the end of Stage 1, these documents were made available for public and agency review. During Stage 2 of the project, a number of consultation activities were undertaken, as discussed below.

### **2.3.1 Agency consultation**

A workshop was held at Cabonne Shire Council Chambers on 27 September 2006 with the key statutory authorities and service providers to seek their input into the Strategy. Representatives of the following agencies and authorities attended the workshop:

- ▶ Department of Planning;
- ▶ Department of Primary Industries (DPI);
- ▶ Department of Environment and Conservation (DEC);
- ▶ Department of Natural Resources (DNR);
- ▶ NSW Roads and Traffic Authority (RTA);
- ▶ Rural Fire Service (RFS);
- ▶ State Emergency Service (SES);
- ▶ Country Energy; and
- ▶ Telstra.

### **2.3.2 Community consultation**

During Stage 2, a Community Information Sheet was prepared, summarising the outcomes of Stage 1 of the project and identifying the issues that would need to be addressed in the Strategy. The Information Sheet was distributed throughout the three local government areas, to interested persons and at the community meetings.

10 community meetings were held during Stage 2. A summary of the locality, venue and approximate attendance numbers at the Stage 2 community meetings is set out in Table 2.2.



**Table 2.2 Stage 2 community meetings**

<b>Locality</b>	<b>Venue</b>	<b>Date</b>	<b>Attendance</b>
Yeoval	Yeoval Hall	25 September 2006	5
Millthorpe	School of Arts	26 September 2006	18
Molong	Cabonne Council Chambers	27 September 2006	7
Blayney	Blayney Community Centre	28 September 2006	15
Nashdale	Nashdale Hall	3 October 2006	30
Canowindra	Moorbel Hall	4 October 2006	5
Cudal	Cudal Hall	5 October 2006	20
Lyndhurst	Soldiers Community Hall	9 October 2006	3
Orange	Orange City Council Foyer	10 October 2006	30
Eugowra	Eugowra Uniting Church Hall	11 October 2006	5
<b>TOTAL</b>			<b>138</b>

Notes of discussion were recorded at each meeting, and are included as appendices to the Issues Paper.

In addition, throughout Stage 1 of the project, comments and submissions were received from the community via mail, telephone and email.

## **2.4 Stage 3 activities**

Following the end of Stage 2, the Draft Strategy was placed on public exhibition from 2 June 2008 to 4 July 2008.

### **2.4.1 Agency consultation**

A meeting was held at Orange City Council Chambers on 25 June 2008 with the key statutory authorities and service providers. Representatives of the following agencies and authorities attended the workshop:

- ▶ Department of Planning;
- ▶ Department of Primary Industries (DPI);
- ▶ Department of Environment and Conservation (DEC);
- ▶ Department of Water and Energy (DWR);
- ▶ Central West Catchment Management Authority (CMA);
- ▶ NSW Roads and Traffic Authority (RTA); and
- ▶ State Emergency Service (SES).



## 2.4.2 Community consultation

A Community Information Sheet was prepared, summarising the Draft Strategy. The Information Sheet was distributed throughout the three local government areas, to interested persons and at the community meetings.

8 community meetings were held during Stage 3. A summary of the locality, venue and approximate attendance numbers at the Stage 3 community meetings is set out in Table 2.3.

**Table 2.3 Stage 3 community meetings**

<b>Locality</b>	<b>Venue</b>	<b>Date</b>	<b>Attendance</b>
Yeoval	Yeoval Hall	Monday 16 June 2008	2
Nashdale	Nashdale Hall	Tuesday 17 June 2008	15
Molong	Cabonne Council Chambers	Wednesday 18 June 2008	3
Canowindra	Moorbel Hall	Thursday 19 June 2008	12
Eugowra	Eugowra Uniting Church Hall	Monday 23 June 2008	15
Orange	Orange City Council Foyer	Tuesday 24 June 2008	60
Millthorpe	School of Arts	Wednesday 25 June 2008	9
Blayney	Blayney Community Centre	Thursday 26 June 2008	18
<b>TOTAL</b>			<b>134</b>

## 2.4.3 Submissions

Up until 16 July 2008, a total of 90 submissions were received during the formal public exhibition of the Draft Strategy. Of these, four (4) were from government agencies and the remainder were from individuals and community groups.

All submissions were summarised and the key issues were considered. Where appropriate, modifications were made to the Draft Strategy.



## 3. Summary of Key Issues

The key issues affecting the Sub-Region were identified through the preparation of the Local Profile and Issues Paper. These key issues fall under the following broad headings:

- ▶ Agriculture;
- ▶ Industry;
- ▶ Residential and rural subdivision;
- ▶ Natural and scenic environment; and
- ▶ Heritage and culture.

The sections below provide a brief summary of the implications for the Strategy in relation to these key issues. Further detail is contained in the Issues Paper dated April 2008.

### 3.1 Agriculture

Adequate planning processes are needed to ensure that agricultural land is protected and retained for future agricultural use into the long term. This will include providing appropriate zones for agricultural activities in accordance with the Standard Instrument for Local Environmental Plans, and clear and specific development standards within the agricultural zones capable of accommodating opportunities for value-adding initiatives on individual farms. An overarching planning principle is to prevent encroachment by rural settlement and to restrict other incompatible land uses.

In this regard, the Strategy can attempt to provide a 'right to farm' by clearly delineating where incompatible forms of development will be permitted, and protecting the remaining agricultural area from such development.

The minimum allotment size for an ancillary dwelling in the rural area should be reviewed. State Government policy requires that the minimum allotment size for subdivision is to account for 'place-based' considerations, reflecting the factors required to produce a sustainable and viable commercial agricultural operation typical to the area. Options for the Strategy are to:

- ▶ Retain the existing minimum allotment size – this would be inconsistent with advice from the DPI and primary producers that the current minimum does not provide for viable farming units, particularly for extensive (broadacre) forms of agriculture;
- ▶ Reduce the broadacre minimum allotment size – while this would cater for more intensive forms of agriculture (as already provided in the three LEPs), it would conflict with State Government policy for the protection of agricultural land as it would encourage the conversion of agricultural land to non-agricultural activities;
- ▶ Increase the minimum allotment size in areas suited to grazing, while maintaining the current minimum or decreasing the minimum allotment size in areas suited to more intensive forms of agriculture – this would be a 'compromise' approach to planning, and could achieve multiple social aims, however while not necessarily resulting in the protection of agricultural land or consistent with State Government policy; or



- ▶ Determine a minimum allotment size that is reflective of the commercial holding size in each identifiable area – this would provide a ‘place based’ approach to planning and be consistent with State Government policy.

In consideration of these alternatives, the State Government policy that requires that minimum allotment size for an ancillary dwelling be determined on the basis of a commercial holding size typical of the locality. Councils also need to ensure that where a property is split between neighbouring properties, that any ‘residue’ parcel of land that has a dwelling meets the minimum lot size for the area.

Current planning provisions permitting smaller lots that are to be used for agricultural purposes only (with no potential for a dwelling house) are appropriate. However, these provisions have often been used to subdivide land and later seek approval for a dwelling via methods such as SEPP 1, which can lead to fragmentation of rural land therefore, there needs to be strict management of these ‘agricultural lots’ in the LEP to prevent pressure for a dwelling at a later time. Some Councils may choose to not provide for this form of subdivision due to potential for unplanned housing pressure at a later date.

The need for any rural subdivision to continue in light of the current industry needs (in terms of a trend to increased holding sizes) and the holdings available may see some areas where subdivision is no longer appropriate. Rural development may well be accommodated on the existing holding patterns. Hence there may not be need for the minimum lot size tool thus restricting further settlement in the rural areas. The supply issue is no different to the supply of industry land.

Concessional allotment provisions will be removed, consistent with State Government policy and good rural planning practice. Existing holdings are also not recognised under the Standard Instrument. Under the Principal LEPs, subdivision in rural areas will reflect the minimum lot size for a new farm with an ancillary dwelling.

Land use conflict between different types of agricultural activities should be addressed through appropriate development controls.

Development controls may be based on the level of fragmentation that has already occurred in an area, where there has been the conversion of lands to lifestyle purposes, or specific industries may require protection.

Existing State Forests and possibly forest plantations registered under the *Plantation and Reforestation Act 1999* should be recognised to allow the identification of interfaces between forestry and other land uses. This could be achieved either through specific zoning under the LEP or development control mechanisms built into the agriculture zones.

Water supply, land degradation and land use conflict need to be recognised as having implications for the land use strategy for agricultural land.

### **3.2 Industry**

To ensure the economic sustainability of the Sub-Region, it will be important to ensure a satisfactory supply of land to meet future demand for industrial land. It will also be important to ensure that land identified for future industrial development is adequately serviced.





The areas within Orange City that were planned for industry in the 1970s (Narrambla and Leewood) are nearing completion. While the Clergate Road area could be seen as an alternative location, this area has been designed to accommodate larger and heavier forms of industry. Additional areas for more intensive forms of industry may be required in the long term.

While Blayney currently has a reasonable supply of available industrial land, in the long term this may not be adequate.

Across all three LGAs, there is a need to be able to accommodate proposals for industrial activities that will generate employment, and often this will require a large area of land. The need for specific industrial zones in Blayney and Cabonne must be considered.

Future potential mining development needs to be considered and, in accordance with DPI recommendations:

- ▶ Operating mines and quarries should be protected from sterilisation or hindrance by encroachment of incompatible adjacent development;
- ▶ Known resources and areas of identified high mineral potential should not be unnecessarily sterilised by inappropriate zoning or development; and
- ▶ Access to land for mineral exploration and possible development should be maintained over as much of the planning area as possible.

Given the importance of rural industries in the Sub-Region including energy generation, demand for agricultural value-adding and processing industries could emerge. The zoning provisions in the rural area would need to be flexible to accommodate these industries, however development controls would need to be developed to ensure that impacts on surrounding agricultural activities were minimised.

Opportunities for tourism development in rural areas need to be encouraged, and zoning provisions should enable appropriate forms of tourism development to be carried out.

### **3.3 Residential and rural subdivision**

A structured range and planned location of lifestyle allotments and small holdings (in accordance with demand indicators) may be a desirable goal. However, population projections for Blayney and Cabonne indicate that these LGAs may experience an overall decline in population over time. Rural residential development should not be seen as the solution to reversing this decline because of the burden it places upon the entire community.

A key question for the Strategy is whether or not lifestyle allotments and small holdings should be further provided within the rural areas of the Sub-Region. The answer to this will largely depend upon the substantial existing supply of this type of development against the demand, and the desirability of continuing to supply this type of land use, given the various costs to the community.

The supply and demand analysis carried out as part of the Local Profile (GHD 2008) showed that there is some demand for additional lifestyle allotment and small holding development. However, this demand is confined to those parts of the Sub-Region that are close to Orange. The outer areas of Blayney and Cabonne are predicted to experience population decline, and hence there is adequate housing supply to cater for the likely population.



The rezoning of further land for this type of land use will depend on managing some existing zoned areas and will need to be in response to the take up of existing supply.

State Government policies, as outlined in the Issues Paper, advocate a planned approach to rural settlement subdivision in the rural areas for the purposes of addressing the issues identified in this report. This planned approach would take the form of assessing existing supply and demand for lifestyle allotments, assessing 'take up rates' and dwelling completions, then zoning where land that is suitable for lifestyle allotments and small holdings identified and zoned accordingly, while such subdivision is prohibited in remaining rural areas. Development of dwellings on lots previously created for the purpose of rural settlement needs to be rationalised in new LEPs, particularly where decisions have been made to consolidate settlement in and around existing villages and areas of fragmentation. This would prevent unjustified development of key agricultural land and would help to minimise or prevent land use conflicts from occurring in the future. Due to excessive subdivision for rural lifestyle development, a staged approach to new releases is required.

It is recognised that rural lifestyle allotments provide increased choice in housing options, however if they are to be further provided, they should be located in appropriate areas which do not take away good quality and productive agricultural land as well as areas of high biodiversity value. Furthermore, lifestyle allotments should only be provided where service provision is economically viable and efficient and there is a clear demand and no supply available.

Simply because agricultural land is perceived to be of poor quality, it is not necessarily suited to lifestyle allotments. Isolation or other constraints such as servicing, bushfire, slope or conservation value may restrict development for lifestyle allotments. Areas of existing fragmentation should be identified and considered. In some cases, areas of better quality agricultural land may be better suited to lifestyle allotments due to its location an ability to provide infrastructure and services.

If demand is justified, criteria for identification of appropriate lands to accommodate lifestyle allotments should be developed and could include:

- ▶ Potential impact on agricultural land and agricultural activities;
- ▶ Primary environmental constraints such as flooding, topography and drainage;
- ▶ Servicing constraints and opportunities;
- ▶ Natural resources including vegetation, biodiversity, surface and ground water, land degradation; and
- ▶ Possible constraints on village expansion.

Minimum lot sizes for lifestyle allotments should be determined having regard to the above constraints. This will also need to consider onsite disposal of effluent in accordance with relevant Australian Standards and the Government requirements.

Opportunities for small holdings should be provided in appropriate locations where soil and water resources lend themselves to intensive forms of agriculture. Minimum lot sizes for small holdings should be reviewed having regard to available soil and water resources and likely future agricultural activities.



Zoning is the preferred means of identifying preferred uses and separating potentially conflicting land uses. Boundaries between incompatible land uses should be strategically positioned, making use of natural features including reserves, vegetation and roads. The provision of adequate buffers between land uses is essential in preventing conflict. Buffer distances should be identified having regard to aerial spraying, noise, pesticide use, traffic generation, odour, and feral animal control. Zoning and adequate buffers would provide certainty for existing agricultural enterprises and an acceptable quality of environment for adjoining residents.

Transitional arrangements may need to be developed by the Councils in consultation with the Department of Planning for lots created for the purpose of lifestyle development under current planning controls. This issue refers to concessional lots or equivalent, and are often small (around 2ha) lots scattered across the landscape. A method of gradual 'phasing out' of lots created for the purpose of a dwelling is available through an LEP provision known as a 'sunset clause'.

Further, 'existing holdings' will not be defined under the LEPs, and any potential to create lots for rural lifestyle dwellings from existing holdings will be extinguished. The practice of estimating the potential, eligibility or otherwise of 'dwelling entitlements' is not supported by the Department of Planning as this leads to speculation, inflated land values and infers an automatic right to land holders which does not exist.

There are also a number of areas that have been zoned for lifestyle blocks since the current LEPs were gazetted but have not yet been developed. In some cases, these areas are poorly located and it is recommended that the councils either rezone these areas to Primary Production with the gazettal of the new LEPs or include 'sunset clauses' in the new LEPs to permit the lodgement of a DA for a dwelling in a certain time frame where lots have been created, where justified.

### **3.4 Natural and scenic environment**

The principles of Ecologically Sustainable Development (ESD) should be a fundamental consideration in the development of the Strategy. This includes consideration of the four principles of ESD:

- ▶ The precautionary principle;
- ▶ Intergenerational and intragenerational equity;
- ▶ Conservation of biological diversity and ecological integrity; and
- ▶ Improved valuation and pricing of environmental resources

A number of State Government policies have been developed to minimise the impact of development on the natural environment and protect environmental resources. These policies will play an important role in defining future land uses under the Strategy.

The natural environment provides the basis for the Sub-Region's important agricultural industries and their viability depends on maintaining the natural resource base.

Environmental protection zoning could be used to identify, protect and conserve environmentally sensitive lands and their high conservation values.



Provision of suitable buffers to development is critical in facilitating appropriate outcomes for natural resources, including groundwater, surface water, remnant vegetation and riparian corridors.

There is presently State legislation covering threatened species and vegetation clearing. Notwithstanding this, there is a need for the Strategy to consider protection of vegetation and biodiversity, and ensure that this imperative is reflected in the planning controls.

The Strategy should include mechanisms to protect, manage and restore watercourses, drinking water supplies, groundwater and other water sources supporting environmental features and values. There is also a need to consider flood risk and include provisions for development in flood prone areas.

The preservation and enhancement of the scenic environment are important considerations in any future development in the Sub-Region. The scenic environment is a major factor in attracting tourists to the area and its management is important to the continued growth of the tourism industry.

### **3.5 Heritage and culture**

The location of known and potential heritage items, including cultural heritage, will need to be addressed when considering the location of future development.

Appropriate planning provisions will need to be developed to ensure that heritage issues are adequately addressed.



## PART B – STRATEGY VISION AND PRINCIPLES



## 4. Vision and Guiding Principles

### 4.1 Vision for the Strategy

This Strategy has been developed in partnership with the community to guide future development in the Blayney, Cabonne and Orange LGAs. The vision for the Strategy sets out a preferred future for the Sub-Region.

Whilst such aspirations will change, the vision can be used as a point of reference to understand the changing needs of the communities that make up the region. This vision, used as a point of reference and discussion enables planning directions to focus on what is important to the community and what can be realistically achieved for the region.

#### **Vision for rural and industrial development in the Sub-Region**

*Economic development and growth within the Sub-Region is managed within sustainable resource management principles, and the following are achieved:*

- ▶ *A sustainable and productive agricultural industry;*
- ▶ *Balanced economic development and settlement;*
- ▶ *Preservation of natural resources and cultural assets; and*
- ▶ *Ecologically sustainable development.*

The views expressed during the community consultation process of this Strategy provide the basis of the vision above and largely influenced the principles listed below. The guiding principles and development principles in the following sections have been used to direct and refine the strategies proposed in the Strategy.

### 4.2 Guiding principles

The vision is embodied into six guiding principles.

#### **Ecologically Sustainable Development (ESD)**

Everything the community does must be sustainable – socially, environmentally and economically. Our ability to make the Sub-Region sustainable and prosperous in the future depends to a large extent on development decisions made now.

ESD and its core objectives and guiding principles are defined in the *National Strategy for Ecologically Sustainable Development (1992)* as:

*"Using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased."*

This Strategy is guided by the principles of ESD.



## **Economy**

- ▶ Developing a diverse and sustainable industrial and agricultural base:
  - Ensure agriculture carries on into the future as a significant, environmentally and economically sustainable industry with the capacity to capitalise on opportunities for intensification and diversification.
  - Ensure that adequate opportunities are provided for industrial activities that will provide employment opportunities for the community.
  - Promote and facilitate local communities to stimulate and act on local ideas for business.
  - Ensure that opportunities for future mining, conservation, nature-based tourism and recreation within non-urban areas not suitable for agriculture or other rural land uses are protected.
  - Encourage the development of a mining industry including downstream processing opportunities.
  - Encourage further development of a significant and sustainable tourism industry that promotes the unique characteristics of the Sub-Region.
- ▶ Provide a spatial development strategy that supports existing centres:
  - Establish a settlement hierarchy that supports existing infrastructure and services, commercial and retail business at the local and regional levels.
  - Ensure planning provisions support and promote sustainable employment, industrial lands and specialised centres.

## **Environment**

- ▶ Conserving our natural and cultural assets:
  - Ensure areas of environmental and cultural significance are protected and that land use and development within the Sub-Region is environmentally sustainable.
  - Work with residential and business communities to implement practices that use fewer natural resources, address climate change and reduce the regions ecological footprint.
  - Ongoing infrastructure upgrades and operational reviews will continuously improve sustainability and reduce pollution.
  - Through its planning and development role, the Sub-Region will achieve a high standard of sustainability in new buildings
- ▶ The natural resources of the Sub-Region are recognised as part of global systems, part of global commons and the natural heritage of all peoples:
  - There is a community-wide recognition of our responsibility for the preservation of this common heritage. Our actions at a local level are a part of a global response to the need to protect and enhance economic, ecological and social sustainability.

## **Community**

- ▶ Providing a quality lifestyle:
  - Enable rural living adjacent to existing towns and villages to provide additional housing and lifestyle options.



- Provide an expanded range of health and education services for the Sub-Region.
- Manage growth by identifying a development footprint for all areas and containing development in those areas.
- ▶ Ensure community cohesion:
  - Provide opportunities for community engagement in decision making.
  - Ensure clear communication of planning processes to the whole community.
  - Facilitate communication, education and information sharing between communities.
  - Advocate communities be active in defining the character of their rural areas.
- ▶ Recognition that the indigenous traditional owners possess a unique relationship with, and knowledge, of the land:
  - Acknowledgement of their right to maintain that relationship with the land and respect for their intellectual property rights

### **Infrastructure**

- ▶ Supporting rural and industrial growth and development:
  - Ensure the road network of the Sub-Region is adequate to meet the needs of residents, visitors and industry.
  - Provide adequate air services to meet Sub-Region and industry needs.
  - Provide a reliable and competitively priced power supply to meet the current and future needs of the Sub-Region.
  - Provide affordable and equitable telecommunications services to the Sub-Region.
  - Ensure an adequate supply of water to meet the current and future needs of the Sub-Region.
  - Ensure the appropriate treatment and disposal of solid waste and wastewater.

### **Governance**

- ▶ Carefully monitor and manage the implementation of the Strategy:
  - The planning framework should be robust and regularly reviewed. It shall not be subject to constant alteration that erodes the integrity of the planning principles.
  - The planning framework is to be clear and concise, reflecting the needs of the community and the Councils.
  - Introduce a land use monitor for rural settlement.





## 5. Growth Management

### 5.1 Growth and sustainability

The central issue and challenge for the future development of the Sub-Region relates to the apparent conflicts between development (growth) and environmental sustainability. The Rural and Industrial Land Use Strategy seeks to reconcile these conflicts so that future development of economic benefit to the community is only undertaken in such a manner that it is environmentally sound in the long term.

Proper management of growth is essential for land use planning. Growth needs to be managed to ensure that it happens in an effective and efficient way whilst at the same time resources are conserved and maintained for future generations. Growth therefore needs to be sustainable.

Sustainable growth is about managing the social and economic implications of future growth in a responsible manner while protecting and preserving the environmental values of an area. The principle of sustainable growth applies equally to subdivision and agriculture and industry.

Allowing growth to occur in the Sub-Region without any consideration of the limits to that growth would undermine the vision of the Strategy. Therefore, in order to properly balance the conflicts between development (growth) and environmental sustainability, a growth management strategy is required.

The growth management strategy must consider the broader policy context as outlined in the Issues Paper, in particular the various State Government policies outlined in the Issues Paper. These include:

- ▶ *Policy on the Protection of Agricultural Land* (NSW Department of Primary Industries, 2004);
- ▶ *Policy for Sustainable Agriculture* (NSW Government, 1998);
- ▶ *Rural Lands Policy* (Department of Urban Affairs and Planning, 2000);
- ▶ Catchment Blueprints and Action Plans; and
- ▶ *NSW Biodiversity Strategy* (National Parks and Wildlife Service, 1999).

### 5.2 Growth management strategy

The growth management strategy for the Sub-Region is to:

- ▶ Preserve and promote a wide range of agricultural land uses, including rural industries that are compatible with agriculture;
- ▶ Encourage industry and other forms of employment generating activities, particularly in or near existing centres;
- ▶ Limit increased residential development to those villages that have capacity for growth;
- ▶ Provide for rural lifestyle development only where it will not conflict with existing and future agricultural land uses, and where appropriate services can be provided and environmental impacts minimised.



### **5.3 Development principles**

A series of development principles have been developed to achieve the vision and growth management strategy. These principles should be used when considering development applications and proposals for rezoning of land.

The development principles are:

- ▶ Provide for the continued economic and social well being of the whole community;
- ▶ Consider the impacts on sustainable agriculture and ensure development will not unreasonably increase agricultural land values or incrementally reduce the size of agricultural holdings;
- ▶ Consider the potential for conflicts to arise between various land uses, including lifestyle allotments, small holdings, tourism, extensive and intensive agriculture, forestry and mining;
- ▶ Consider land capability, including soils, erosion potential, slope, and hazards (contamination, bushfire and flooding);
- ▶ Consider consistency with Catchment Action Plans to guide policy and planning instrument preparation;
- ▶ Consider water resources, including impact on water catchments, adequacy of water supply, access to water entitlements, and location of effluent disposal;
- ▶ Consider the impacts on biodiversity, including threatened species, habitat, natural ecosystems, and wildlife corridors; and
- ▶ Consider existing infrastructure, including the capacity of the existing road network and utility services.



## PART C – STRATEGY ANALYSIS



## 6. Spatial Analysis

### 6.1 Overview

In order to determine potentially suitable locations for future development (whether lifestyle allotments or industrial development) within the Sub-Region, based on the vision, guiding principles and development principles outlined above, it was important to identify land that is constrained unconstrained according to known criteria.

To achieve this a spatial analysis exercise was undertaken using material provided by the Department of Natural Resources (DNR), the Department of Environment and Climate Change (DECC), Blayney, Cabonne and Orange City Councils.

Appendix A presents the results of application of the constraints analysis in the form of constraints mapping across the Sub-Region. The constraints mapping was then used to formulate the overall Strategy map.

### 6.2 Methodology

There are two methods that are being used to determine the influence of constraints, a 'hard constraints' and a 'soft constraints' analysis.

The 'hard constraints' analysis considers all constraints to be equal and absolute with regard to their influence over land development potential. The 'soft constraints' analysis, in contrast, awards a nominated relative weighting to each constraint before normalising between criteria so that they may be adequately compared. This provides a more accurate representation of each constraint's influence over development.

The soft constraints analysis exercise considers the number of constraints associated with a given area and represents this as a graduated thematic map. Generally the fewer constraints associated with an area the more likely it is to be suitable for future development.

It is important to note that the thematic mapping only provides an abstract representation of the nominated constraints. The subsequent subjective analysis applies more specific planning logic in light of the information extrapolated from the spatial analysis exercise.

#### 6.2.1 Justification for soft constraints analysis method

Upon implementing the hard constraints criteria method it was determined that 95% of land within the study area was constrained. The rural residential / industrial supply of the remaining 'unconstrained' area will not satisfy the settlement requirements for the strategy. In addition, there were several areas identified as unconstrained land but considered unsuitable for development.

The hard criteria approach is a very simplistic method, useful only in that it highlights the complexity of the problem of supply. A more flexible and representative application of constraints is required to produce a map of suitable land rather than potentially 'unconstrained' land that would then warrant further investigation on a cognitive level. As such a soft constraints methodology was implemented which logically allocates a weighting to certain



constraints. Details of the relevant weighting afforded to each constraint used in this analysis are listed in Section 6.3.2.

The soft constraints model better reflects the nature of the planning problem in that not all constraints are equal as they relate to the restriction of land development. For example land designated as 'drinking water catchment' has no development flexibility by virtue of the importance of leaving that land vacant for water quality purposes. However, land within 500 metres of an industrial zone may attract some flexibility based on the application of appropriate mitigation measures, therefore inviting a lower weighting. Data sets may also have 'internal weighting' for example different intervals of slope may be classified and weighted separately to one another.

### **6.2.2 Limitations**

Limitations exist with the soft constraints analysis in that on top of applying a weight to each layer, the total of all layers is then divided by the number of layers contributing to produce an average for any given area. This average acts as an index, which is then comparable. What is not immediately obvious is the influence adding another layer has on the result, as the total is then divided by that additional layer. So, for example, the DNR land capability layer has been divided into two separate categories with categories 1, 2 & 3 representing good quality agricultural land, and 7 and 8 denoting substandard land. They have twice as much influence individually as they would have as a single data set.

### **6.2.3 Data sources**

The data used to extrapolate the information required to undertake the spatial analysis exercise was obtained from a number of sources, listed as follows:

- ▶ Blayney, Cabonne and Orange City Councils provided information relating to:
  - Cadastre;
  - Zoning (including water catchments, national parks and nature reserves);
  - Holding sizes;
  - Bushfire prone land;
- ▶ The Department of Natural Resources (DNR) provided information relating to:
  - Land capability classes;
  - Slopes;
  - Land use;
- ▶ The Central West Catchment Management Authority provided information relating to:
  - Remnant vegetation;
- ▶ The Department of Environment and Conservation provided information pertaining to:
  - Aboriginal heritage.



## 6.3 Criteria for constraints

### 6.3.1 Hard constraints analysis

Criteria that were included in the initial (hard constraints) analysis are listed as follows:

- ▶ Land within drinking water catchment zones;
- ▶ Productive agricultural land of Classes 1, 2 and 3 (using DNR Land Capability classes);
- ▶ Land of Classes 7 and 8 (using DNR Land Capability classes);
- ▶ Land use;
- ▶ Land within and urban or village zone;
- ▶ Bushfire prone land;
- ▶ Land known to contain remnant vegetation;
- ▶ Land with slopes containing 0-9 degrees, 9-15 degrees and greater than 15 degrees;
- ▶ Agricultural holdings greater than 200 hectares;
- ▶ Proximity to towns and key roads – buffer of up to 5km from towns and key roads, and up to 15 km from Orange; and
- ▶ Land that is within 500m of an industrial zone.

The results of the hard constraints analysis are contained in Appendix A.

### 6.3.2 Soft constraints analysis

The following list details the various weightings applied to each constraint.

- ▶ Land within drinking water catchment zones – **100%**
- ▶ Productive agricultural land of Classes 1, 2 and 3 (using DNR Land Capability classes) – **100%**
- ▶ Land of Classes 7 and 8 (using DNR Land Capability classes) – **100%**
- ▶ Land use – **100%**
- ▶ Land that is within an urban or village zone – **100%**
- ▶ Bushfire prone land – **100%**
- ▶ Land known to contain remnant native vegetation – **80%**
- ▶ Slopes between 0-9 degrees, 9-15 degrees and greater than 15 degrees – **75%** respectively
- ▶ Agricultural holdings greater than 200 hectares – **70%**
- ▶ Proximity to towns and key roads – **60%** (positive weighting)
- ▶ Land that is within 500m of an industrial zone – **50%**

The results of the soft constraints analysis are contained in Appendix B.

The following sections provides reasons for the weightings given above.



### **Reasons for 100% weightings**

The following constraints are considered steadfast and demand a heavy weighting. They represent the constraints that fully restrict future development and as such no flexibility has been awarded.

#### ***Land within drinking water catchment zones***

This land is within the drinking water catchment zones of the Sub-Region. Minimal interference with the water catchment area is critical to its overall efficient function and water quality.

#### ***Land Capability classes 1, 2 and 3***

This land has been identified as highly productive agricultural land. Primary industry related activities form the backbone of the Sub-Region's economy and should be protected accordingly.

#### ***Land capability classes 7 and 8***

This land has been identified as low-grade productive land based on soil quality and slope instability. The land is therefore unsuitable for further development due to these limitations, particularly in relation to the risk of erosion and difficulties associated with construction.

#### ***Land use***

Existing land-uses to a large degree dictate the sorts of development that may occur in the future. In particular, potential land use conflicts as a result of locating incompatible uses together need to be considered.

#### ***Land within an Urban or Village zone***

Land within these zones is already designated for residential purposes therefore cannot form part of the future residential development considerations.

#### ***Bushfire prone land***

This land has been identified as land prone to bushfire events and is therefore unsuitable or unsafe to allow further development. Bushfire prone land is also assumed to represent the extent of existing vegetation cover.

### **Reasons for flexible weightings (less than 100%)**

It is considered the following constraints warrant some level of flexibility by virtue of their presence not fully restricting future development. The degree of flexibility varies depending on the constraints overall impact on development.

#### ***Remnant native vegetation***

These areas are known to contain remnant vegetation. Remnant vegetation may be removed depending on the species present and provided that the proponent has gained the necessary approvals.

#### ***Slopes***

The varying degree of slopes will generally dictate the extent of development that may occur. 0-9 degrees potentially permits more development than slopes that are in excess of 15 degrees based on land stability and soil quality issues.



### ***Agricultural holdings greater than 200 hectares***

100 hectares is the current minimum lot size for a rural landholding to accommodate a dwelling within the Sub-Region. Given the outcomes of the Issues Paper, which suggests an increase in the minimum lot size, 100 hectares was considered too low, and 200 hectares was considered more appropriate. Primary industry related activities form the backbone of the Sub-Region's economy and should be protected accordingly. However, there may be circumstances where land is otherwise suitable for development or where land has been fragmented and it may be preferable to 'sacrifice' some agricultural land to development, whilst preserving other areas of agricultural land.

### ***Proximity to towns and key roads***

The proximity to towns and major roads is a very important factor for determining the location of new settlements, particularly because of the logical urban sprawl principle and the fact that main roads get people to main centres. Therefore a positive weighting has been applied to these areas. This was essentially achieved by constraining those areas outside the 5 and 15 km buffer zones respectively, known as a 'remoteness' constraint.

Due to the ambiguous selection criteria used to determine constrained land (i.e. 5 km from existing towns and 15 km from Orange), there is potential to give some flexibility to this constraint. The constraint does not consider the existing road network and resulting travel times (i.e. considers proximity as a direct line of sight), which is a very important factor when considering the influence distance plays on a settlement.

### ***Land with 500m of an industrial zone***

The extent of industrial / residential conflict depends on the nature of the industrial activities operating within the respective zones. Potential adverse effects can also be reduced through the application of appropriate mitigation measures. As there are secondary factors that can influence the effects of an industrial activity it is therefore appropriate to apply a relatively mild weighting to this constraint.

## **6.4 Findings and conclusions**

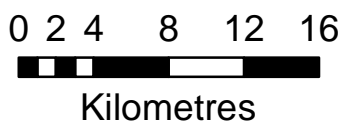
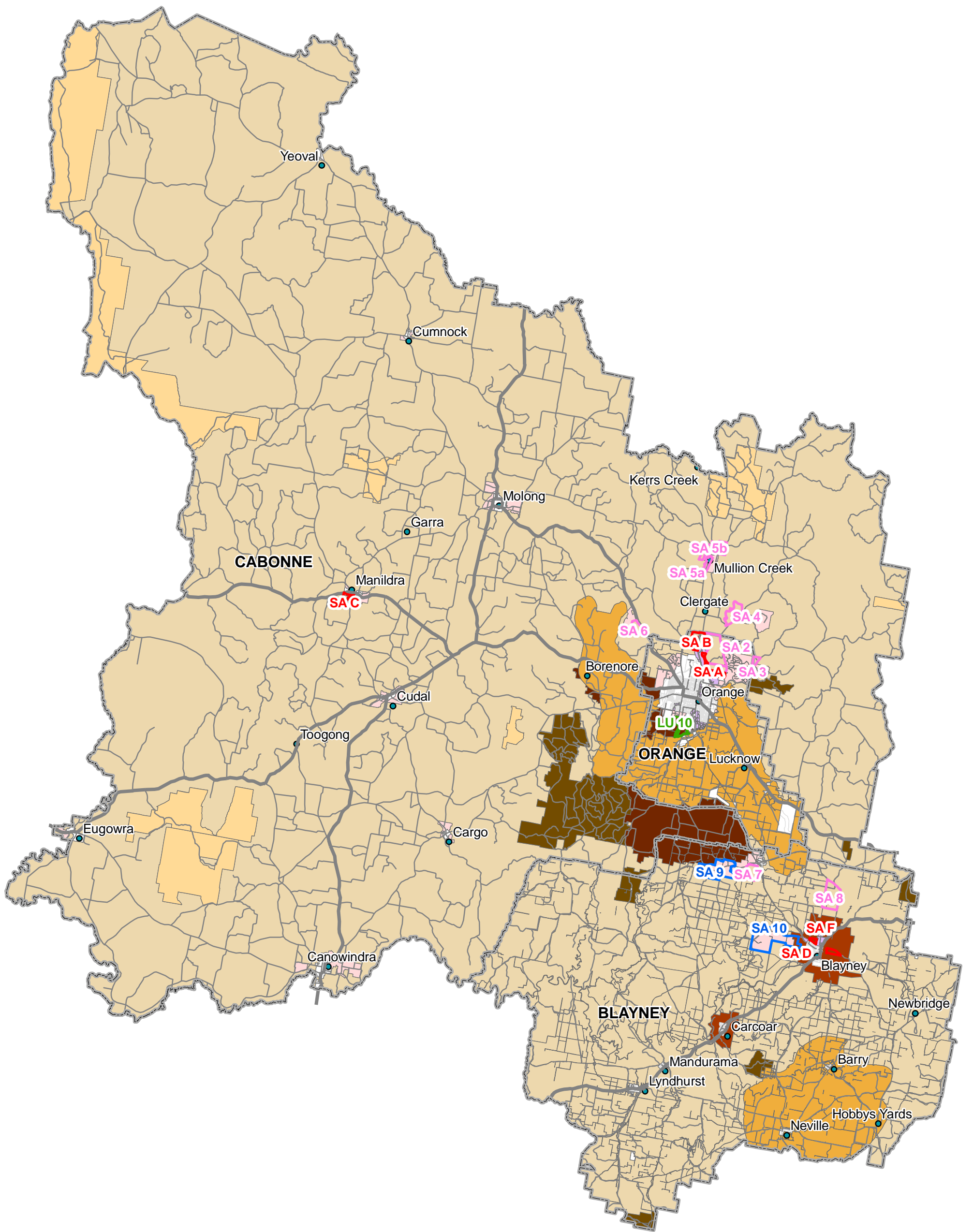
Based analysis of demand and supply, the Guiding Principles in Section 4.2, the spatial analysis exercise, particularly the soft constraints analysis, a number of 'Strategy Areas' (SAs) have been identified as the main areas suitable for future development within the Sub-Region, for:

- ▶ Rural subdivision (known as 'lifestyle lots'); and
- ▶ Industrial development.

In Blayney LGA, there are a number of areas that are currently zoned 1(c) for lifestyle development, and this development has not yet occurred. The Strategy recommends that these areas be rezoned for Primary Production purposes, in order to limit this form of development in locations assessed to be inappropriate.

The overall Strategy Map is shown in Figure 6.1, which provides a summary of the land use recommendations contained in this Strategy, having regard to the methodology described above. It must be read in conjunction with the land use strategies contained in Part D of the Strategy, as well as the specific maps and overlays contained in Appendix A and B.

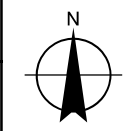




- NSW Local Government Areas**
- Towns
  - Roads
- Landuse Strategy**
- Lifestyle SAs 1-10
  - Lifestyle SAs 11-12
  - Industrial SAs
  - Sustainable Settlement Strategy Areas

**Legend:**

- Strategy Map Zones**
- Primary Production
  - Rural Small Holdings
  - National Parks and Nature Reserves
  - Rural Landscape
  - Large Lot Residential
  - Environmental Management
  - Forestry
  - General Industrial
  - Land not subject to Strategy



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PROJECT: Sub-Regional Rural and Industrial Land Use Strategy

Fig 6.1 Overall Strategy Map



The findings and suggested outcomes for each of the SAs are discussed individually below, and more detailed maps are provided.

It should be noted that this discussion represents the findings of the spatial analysis only, and does not imply or infer that development will occur in these Strategy Areas. Inclusion as a Strategy Area in this Strategy does not automatically translate into rezoning into new LEPs. The rezoning of land for lifestyle and industrial purposes will need to be subject to an appropriate staging process, based on supply of and demand for land for particular land uses.

As such, the following discussion needs to be considered in conjunction with the land use strategies outlined in Part D and the recommendations for implementation and staging in Part E.

#### 6.4.1 Lifestyle Allotment Strategy Areas

This section sets out the areas within further lifestyle allotment development can be justifiably pursued, subject to further detailed site specific investigations and design considerations that account for any site-level constraints, through future planning instruments within each of the three LGAs.

Table 6.1 provides a summary of the proposed Strategy Areas, including reasons for recommending their inclusion. A detailed description of the suitability of each Strategy Area then follows.

**Table 6.1 Summary assessment of proposed Lifestyle Allotment Strategy Areas**

Strategy Area	LGA	Reason/s for recommending inclusion
SA 1 Leeds Parade  Approximately 150 ha	Orange	<ul style="list-style-type: none"> <li>▶ Close proximity to Orange and existing urban areas</li> <li>▶ Unaffected by bushfire, drinking water catchment, topographical constraints and contains no significant remnant vegetation</li> <li>▶ Access to services</li> <li>▶ Likely lot size of 1 hectare or lower, due to likelihood that lots will be serviced</li> </ul>
SA 2 University  Approximately 635 ha	Orange	<ul style="list-style-type: none"> <li>▶ Close proximity to Orange and existing urban and rural residential areas</li> <li>▶ Unaffected by bushfire, slope affected or within drinking water catchments.</li> <li>▶ Access to services</li> <li>▶ Likely lot size of 1 hectares or lower, due to likelihood that lots will be serviced</li> </ul>
SA 3 Weemilah  Approximately 60 ha	Cabonne	<ul style="list-style-type: none"> <li>▶ Adjoins existing Clifton Grove and Weemilah rural residential areas</li> <li>▶ Close proximity to Orange</li> <li>▶ Unaffected by highly productive agricultural land, drinking water catchment, slope or remnant native vegetation</li> <li>▶ Likely lot size of 2 hectares or greater</li> </ul>

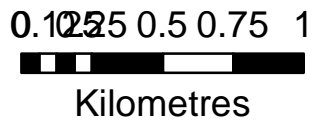
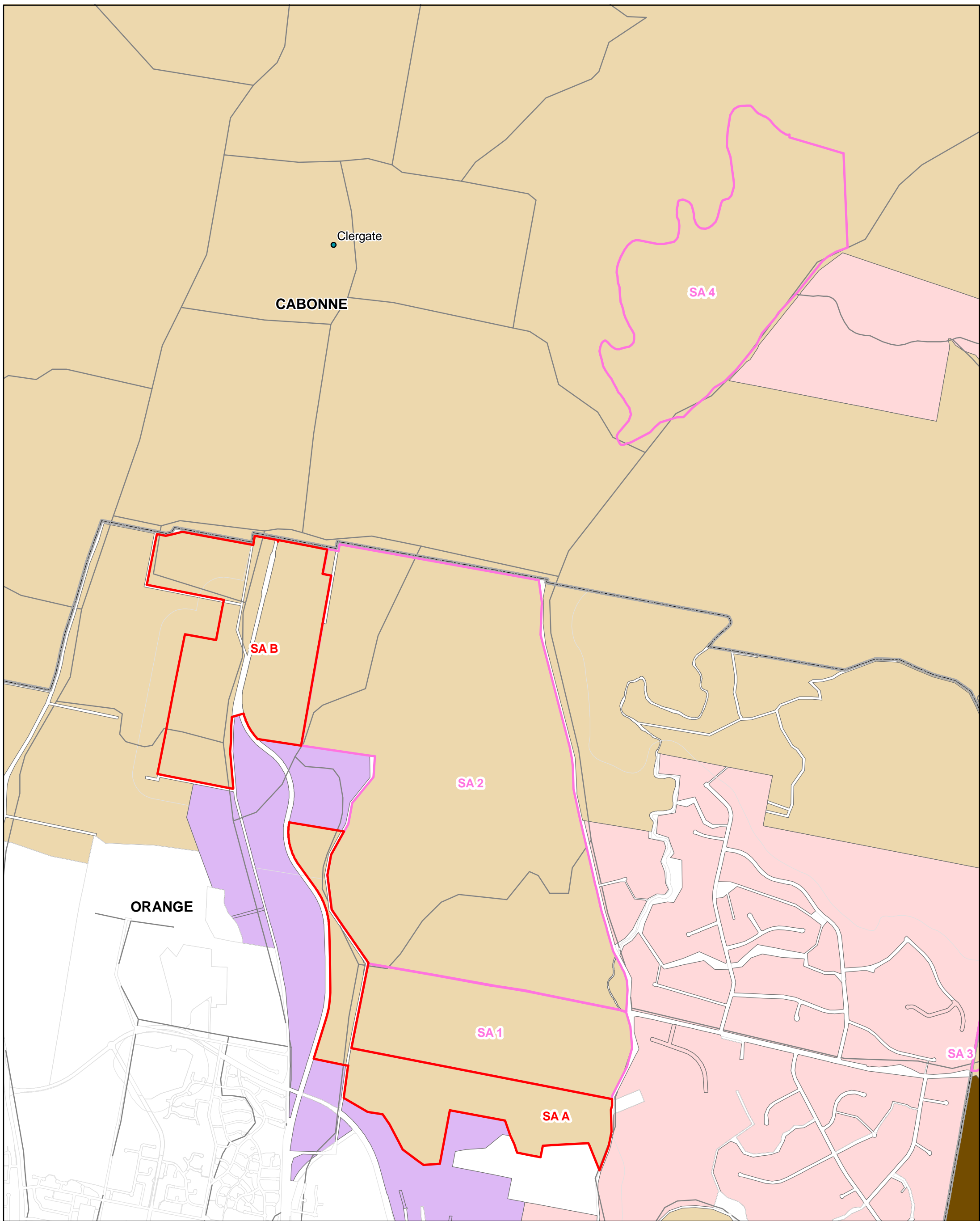


Strategy Area	LGA	Reason/s for recommending inclusion
SA 4 Spring Glen Approximately 250 ha	Cabonne	<ul style="list-style-type: none"> <li>▶ Relatively close proximity to Orange</li> <li>▶ Fragmented subdivision pattern precludes highly productive agriculture</li> <li>▶ Not in drinking water catchment</li> <li>▶ Will need to manage bushfire risk</li> <li>▶ Likely lot size of 10 hectares or greater, consistent with existing Spring Glen subdivision</li> </ul>
SA 5 Mullion Creek Approximately 400 ha	Cabonne	<ul style="list-style-type: none"> <li>▶ Relatively close proximity to Orange</li> <li>▶ Fragmented subdivision pattern precludes highly productive agriculture</li> <li>▶ Not in drinking water catchment</li> <li>▶ Likely lot size of 2 hectares or greater</li> </ul>
SA 6 Winderera Approximately 160 ha	Cabonne	<ul style="list-style-type: none"> <li>▶ Close proximity to Orange and existing Winderera rural residential development</li> <li>▶ Fragmented subdivision pattern precludes highly productive agriculture</li> <li>▶ Likely lot size of 2 hectares or greater</li> </ul>
SA 7 Millthorpe Approximately 200 ha	Blayney	<ul style="list-style-type: none"> <li>▶ Proximity to services and existing village and rural residential development in Millthorpe</li> <li>▶ Fragmented subdivision pattern precludes highly productive agriculture</li> <li>▶ Unaffected by slope, remnant native vegetation, bushfire</li> </ul>
SA 8 Guyong Road Approximately 440 ha	Blayney	<ul style="list-style-type: none"> <li>▶ Relatively close proximity to Blayney</li> <li>▶ Fragmented subdivision pattern precludes highly productive agriculture</li> <li>▶ Unaffected by slope, remnant native vegetation, bushfire</li> </ul>

## Orange LGA

### SA 1 Leeds Parade (Figure 6.2)

The Leeds Parade SA, immediately north east of the Orange township, could form an extension to the existing rural residential subdivision to the immediate east at Clifton Grove. The SA has eastern and western boundaries formed by Leeds Parade and Ophir Road respectively and extends northward as far as the alignment with Banjo Patterson Way within the adjoining Clifton Grove subdivision. The Leeds Parade SA adjoins the proposed Narrambla extension industrial strategy area.



<b>NSW Local Government Areas</b> NSW Local Government Areas Towns Roads	<b>Landuse Strategy</b> Lifestyle SAs 1-10 Lifestyle SAs 11-12 Industrial SAs Sustainable Settlement Strategy Areas	<b>Legend:</b>	
		Primary Production Rural Small Holdings Rural Landscape Forestry	<b>Strategy Map Zones</b> National Parks and Nature Reserves Large Lot Residential General Industrial Environmental Management Land not subject to Strategy

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				PROJECT NO: 21-14006		PROJECT: Sub-Regional Rural and Industrial Land Use Strategy
				MAP NO: 21-14006-Z016		Fig 6.2 Strategy Areas 1 and 2
				DRAWN: CW	CHECKED: PAP	DATE: 21/02/2008



The SA contains varying levels of constraint. The middle sections of the site are lesser-constrained areas (Levels 1-2). The majority of the eastern and western sections are assessed as containing mid-level constraints (Level 3), due largely to the Class 3 soils present within these sections of the site. However, the use of this land for agricultural purposes is not considered desirable, given the potential for land use conflicts with existing residential development should agriculture be pursued in this location.

The site presents a good opportunity to extend lifestyle subdivision into an area that logically links in with existing developed urban areas. Existing holding sizes are slightly lower by Sub-Regional standards, reflecting the proximity of the site to the Orange City Centre (2-3 kilometres). The site is unaffected by bushfire, drinking water catchment, topographical constraints and contains no significant remnant vegetation. Therefore, it is considered that higher density (i.e. partly serviced) rural residential development could be pursued in this SA.

The Leeds Parade SA adjoins the proposed Narrambla extension industrial strategy area. Appropriate investigations and design treatments would need to be provided in any future development that account for the proximity of the site to adjoining industrial and infrastructure land uses, in particular the sewage treatment plant.

### **SA 2 University (Figure 6.2)**

SA 2 University is immediately north of the Leeds Parade SA and also adjoins the north-western boundary of the existing Clifton Grove rural residential estate. The SA is bound to the west by the northern extent of Leeds Parade, extending northward to the unsealed road forming the Orange-Cabonne LGA boundary, Ophir Road to the east and the alignment with Banjo Patterson Way within the adjoining Clifton Grove subdivision to the south.

This SA includes Charles Sturt University itself. As such, the entire extent of this SA is not necessarily suitable for future lifestyle development. The eastern part of the SA along Ophir Road would be appropriate for consideration for future lifestyle development, and would not impact on long-term university operations.

The University SA shares many common environmental and locational characteristics with SA 1. The northern half of the SA contains few environmental constraints, with a cumulative weightings of 1 and 2. As the land is adjoining and contiguous with SA 1, it too contains a large north-south spine through the middle section of the site that is relatively unconstrained (Levels 1 and 2). The western and eastern fringes of the SA contain higher levels of constraint (Level 3 and 4) result from the presence of Class 3 soils and the presence of small stands of remnant vegetation. The site is also located within 500 metres of the industrial zoned land centred around Clergate Road.

The University SA shares the same accessibility advantages as the Leeds Parade SA, being located wholly within a 5-kilometre distance the Orange CBD and its range of services. Further, the land is not bushfire prone, slope affected or within drinking water catchments. Thus, with lot layout and designs that incorporate suitable measures to minimise land use conflicts with nearby industrial uses, rural residential development for this land is also considered appropriate and could be pursued.



## **Cabonne LGA**

### **SA 3 Weemilah (Figure 6.3)**

SA 3 Weemilah encompasses land within Cabonne LGA on the eastern boundary of the Clifton Grove estate. The existing Weemilah rural residential subdivision has formed an extension to Clifton Grove, fronting on to Lower Lewis Ponds Road, being the extension of the main vehicular spine through Clifton Grove, Banjo Patterson Way. SA 3 involves an extension of the existing Weemilah subdivision to the north of Lower Lewis Ponds Road to reinforce the contiguity of rural residential development, and linkages between, the Weemilah and Clifton Grove localities.

The weighted constraint assessment demonstrates that SA 3 is affected by low levels of environmental constraint, with a constraint level of 1-2. The SA is not affected by Class 1, 2 or 3 land, drinking water catchment, steep slope or remnant vegetation.

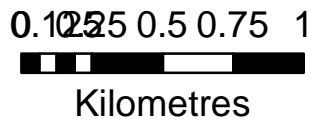
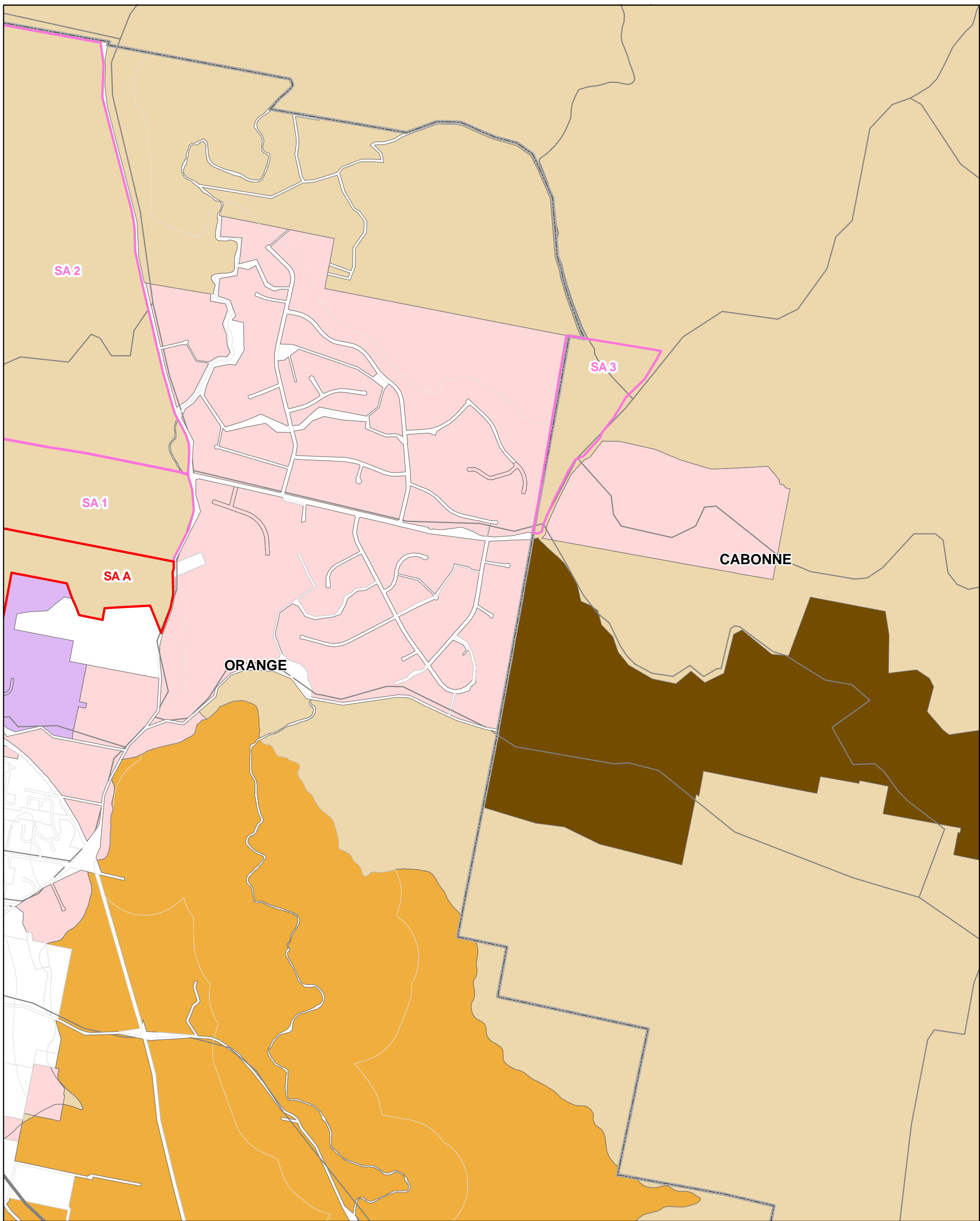
The constraints for the SA relate to holding size and designation as bush fire prone land. This latter constraint, however, does not entirely preclude future rural residential development in the SA, with anticipated lots being of sufficient size to accommodate the required asset protection zones in compliance with the *Planning for Bushfire Protection (PBP) Guidelines 2006*.

Based on the above, future zoning allowing rural residential development could be pursued in this location.

### **SA 4 Spring Glen (Figure 6.4)**

This SA is an extension of the existing Spring Glen rural residential subdivision onto the western side of Ophir Road. SA 4 is located approximately 8 kilometres north west of the Orange CBD and a further 1.5-3 kilometres further along Ophir Road from SA 2.

The cumulative weighted criteria assessment indicates that the site presents a low level of constraint to development, with all parts of the land falling within the Constraint Level 2 band. The only contributing environmental constraint is the designation of the land as bush fire prone. While the land itself contains no identified stands of remnant vegetation, such vegetation fringes the land in all directions and their statutory buffer areas fall across the site. However, the bushfire management measures provided in accordance with the PBP Guidelines, as discussed above in relation to SA 3, could equally enable a satisfactory and compliant rural lifestyle subdivision and development outcome for this site. This will need to be further investigated as part of the local environmental study required for rezoning.



- NSW Local Government Areas**
- Towns
  - Roads
- Landuse Strategy**
- Lifestyle SAs 1-10
  - Lifestyle SAs 11-12
  - Industrial SAs
  - Sustainable Settlement Strategy Areas

- Legend:**
- Strategy Map Zones**
- Primary Production
  - Rural Small Holdings
  - National Parks and Nature Reserves
  - Rural Landscape
  - Large Lot Residential
  - Environmental Management
  - Forestry
  - General Industrial
  - Land not subject to Strategy

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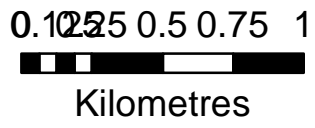
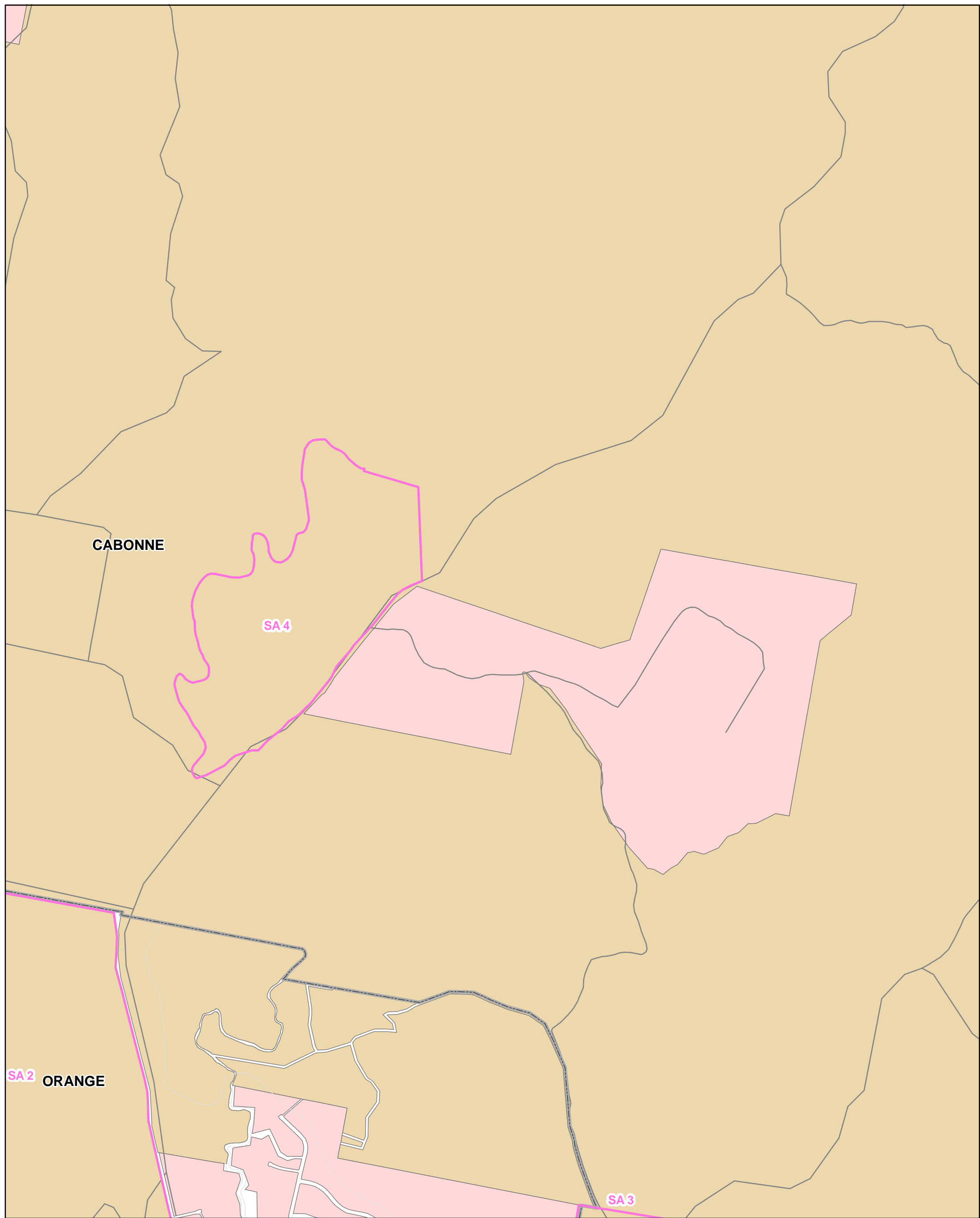


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Fig 6.3 Strategy Area 3



- NSW Local Government Areas
- Towns
- Roads

- Landuse Strategy**
- Lifestyle SAs 1-10
  - Lifestyle SAs 11-12
  - Industrial SAs
  - Sustainable Settlement Strategy Areas

**Legend:**

- |                    |                       |                                    |
|--------------------|-----------------------|------------------------------------|
| Primary Production | Rural Small Holdings  | National Parks and Nature Reserves |
| Rural Landscape    | Large Lot Residential | Environmental Management           |
| Forestry           | General Industrial    | Land not subject to Strategy       |

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 PROJECT: Sub-Regional Rural and Industrial Land Use Strategy  
 Fig 6.4 Strategy Area 4





Also contributing to the constraint level score was the location of the site within a potential mineral resource area, as formally recognised by the DPI. While a legitimate constraint to future development, exploration for mineral resources in this area is unlikely given existing established residential development in this area.

While the site falls outside a 5-kilometre distance of the Orange CBD and assigns the SA a middle ring location according to the weighted criteria assessment. However, its location on Ophir Road ensures that access to essential services is not too greatly constrained. The SA is already highly fragmented.

No other environmental constraint used in the weighted criteria assessment has been detected within the SA 4 land.

Future lifestyle development in this area would be subject to similar development controls that apply to the existing Spring Glen subdivision, in particular a 10 hectare minimum lot size.

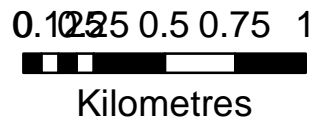
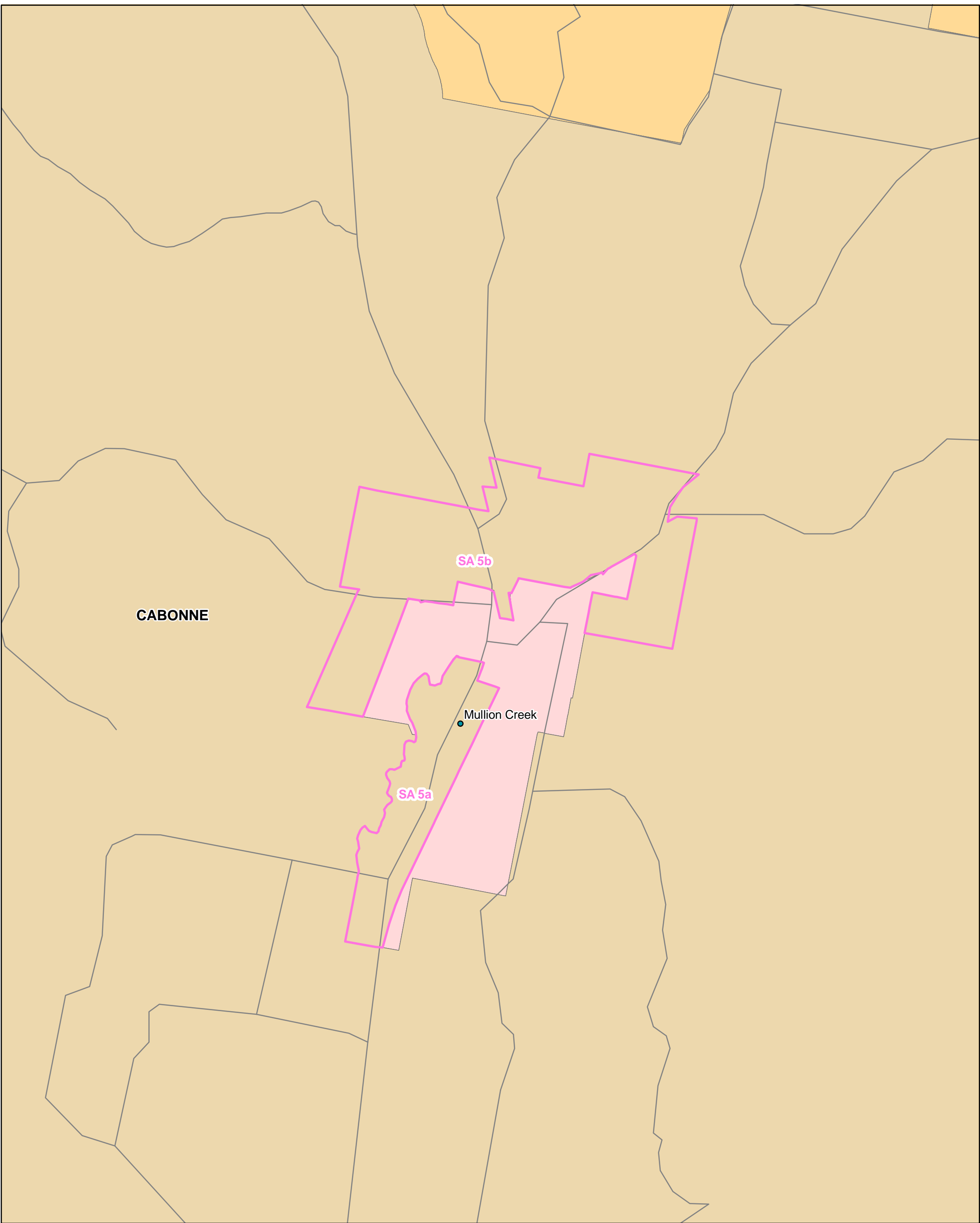
#### **SA 5 Mullion Creek (Figure 6.5)**

The existing lifestyle subdivision at Mullion Creek could be supplemented with further land supply for similar development:

- ▶ On the southern entry to the Mullion Creek Rural 1(c) zone, on both sides of Burrendong Way; and
- ▶ Expanding north, west and east of the northern section of the Rural 1(c) zoned land (SA 5b).

All parts of the Mullion Creek SA fall within lands whose assessment produced a Constraint Level of 2 in the weighted criteria assessment. Like the Spring Glen SA, the only two contributory constraints are designation as bush fire prone land and potential mineral resource land. Once again, the presence of existing residential development in Mullion Creek means mineral resource exploration in this area is unlikely. Combined with the ability for new lifestyle lots to incorporate bush fire risk mitigation measures from the PBP guidelines, it is considered that further rural lifestyle subdivision and development could be pursued in these locations.

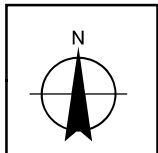
The location of the lifestyle residential area on Burrendong Way, which leads directly southward 10-12 kilometres into the Orange CBD ensures that future development will enjoy relatively good access to its regional-level services in comparison to other parts of the Sub-Region.



- NSW Local Government Areas**
- Towns
  - Roads
- Landuse Strategy**
- Lifestyle SAs 1-10
  - Lifestyle SAs 11-12
  - Industrial SAs
  - Sustainable Settlement Strategy Areas

**Legend:**

- Strategy Map Zones**
- Primary Production
  - Rural Small Holdings
  - National Parks and Nature Reserves
  - Rural Landscape
  - Large Lot Residential
  - Environmental Management
  - Forestry
  - General Industrial
  - Land not subject to Strategy



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Fig 6.5 Strategy Area 5



### **SA 6 Windera (Figure 6.6)**

The existing Windera Rural 1(c) zone could be extended in a south easterly direction toward Orange, along the southern frontage of the Mitchell Highway and north of Murphy's Lane.

The vast majority of the land earmarked for the extension of the Windera lifestyle residential area falls into low level constraint areas (Levels 1 and 2), with small portions in the southern and eastern sections affected by mid-level constraints (Level 3). The primary contributory constraints within the SA 6 area are the presence of Class 3 soils, combining with remnant vegetation on limited portions of the land producing these limited medium levels of constraint.

Fragmented land ownership and small rural holding sizes of less than 100 hectares suggests that high-productivity agriculture in SA 6 is likely to be unviable. The accessibility of the land, being within 5 kilometres of town centre services in Orange, adds considerable weight to pursuing lifestyle lots and development, as part of an expanded lifestyle lot subdivision area in Windera. In addition, the likely lot size outcomes (2 hectares or greater) ensures that there is ample scope for the retention of all identified remnant vegetation as part of future subdivision applications.

It should be noted that development in this SA would be subject to satisfactory resolution of visual impact issues on Mitchell Highway, such that ribbon development does not occur near the gateway to the Orange City LGA. Future rezoning of this SA would be subject to development of an appropriate masterplan for the site (see Section 14).

## **Blayney LGA**

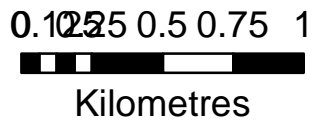
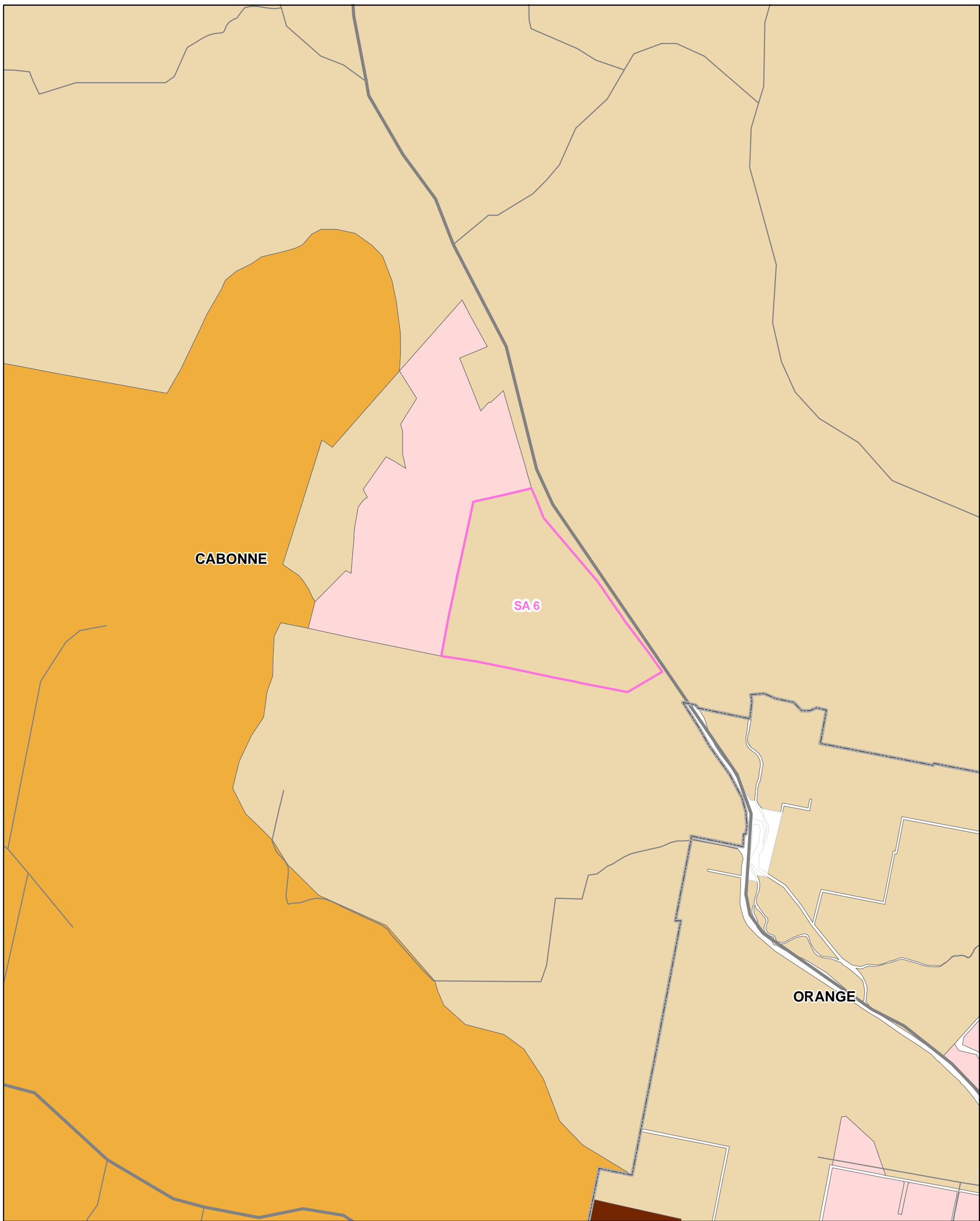
### **SA 7 Millthorpe (Figure 6.7)**

SA 7 involves the expansion of areas accommodating lifestyle lot development to the immediate west of the Millthorpe township in the northern-most extent of Blayney LGA. In particular, this Strategy recommends form of development in a manner that extends the existing Rural 1(c) area along the southern frontage of Forest Reefs Road, extending the existing lifestyle lot zoned land in an easterly direction toward the township.

SA 7 provides opportunities to provide modest expansion to the lifestyle lots stock of Millthorpe on lands with few environmental constraints to low density housing development (Constraint Level 1-2) and with good levels of road accessibility to services, given its location within the corridor between the higher-order service centres of Orange and Blayney. Therefore, the access advantages of the site presents considerable opportunities to produce modest and appropriately located expansion to the stock of lifestyle lots for the Sub-Region.

The Level 2 rating is based largely exclusively upon the presence of Class 3 agriculturally productive soils in both sites. However, the SA does not form part of a land holding of sufficient size to enable the construction of a dwelling, nor to produce economies of scale for agricultural production.

No other broad environmental or development constraint has been detected on the site as part of the weighted criteria assessment.

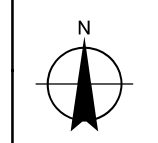


- NSW Local Government Areas**
- NSW Local Government Areas
  - Towns
  - Roads

- Landuse Strategy**
- Lifestyle SAs 1-10
  - Lifestyle SAs 11-12
  - Industrial SAs
  - Sustainable Settlement Strategy Areas

**Legend:**

- |                    |                       |                                    |
|--------------------|-----------------------|------------------------------------|
| Primary Production | Rural Small Holdings  | National Parks and Nature Reserves |
| Rural Landscape    | Large Lot Residential | Environmental Management           |
| Forestry           | General Industrial    | Land not subject to Strategy       |



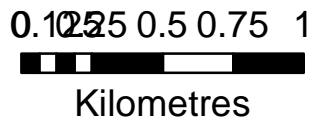
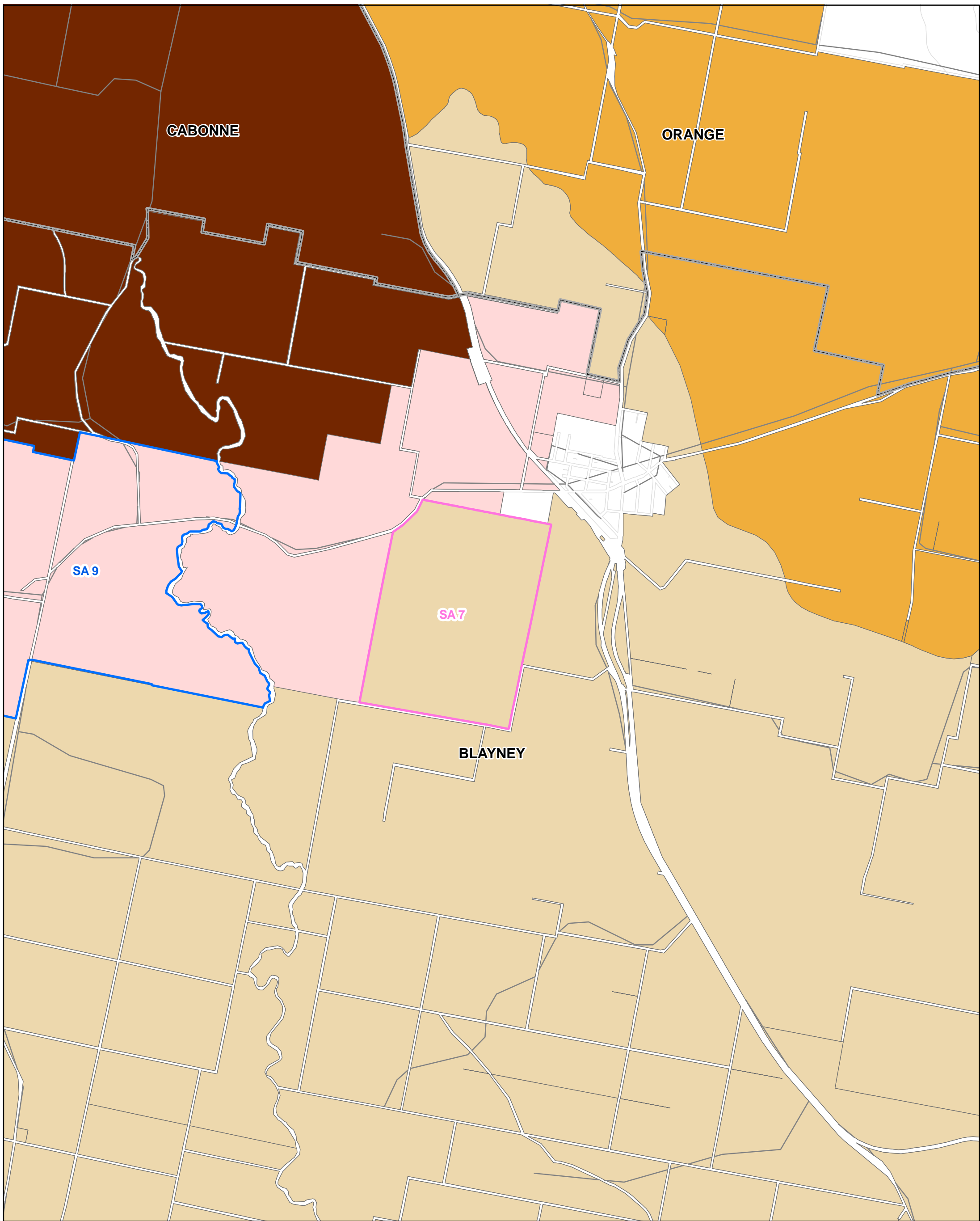
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Fig 6.6 Strategy Area 6	



NSW Local Government Areas Towns Roads	<b>Landuse Strategy</b> Lifestyle SAs 1-10 Lifestyle SAs 11-12 Industrial SAs Sustainable Settlement Strategy Areas	<b>Legend:</b>	
		Primary Production Rural Landscape Forestry	<b>Strategy Map Zones</b> Rural Small Holdings Large Lot Residential General Industrial National Parks and Nature Reserves Environmental Management Land not subject to Strategy

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### **SA 8 Guyong Road (Figure 6.8)**

Lifestyle lot development could be pursued along the lands to the east of (and fronting onto) Guyong Road in the area north of Blayney. The SA is wholly located within 7 kilometres (road distance) of the Blayney town centre. Being on the northern side of Blayney, SA 8 also enjoys closer proximity to Orange and Bathurst.

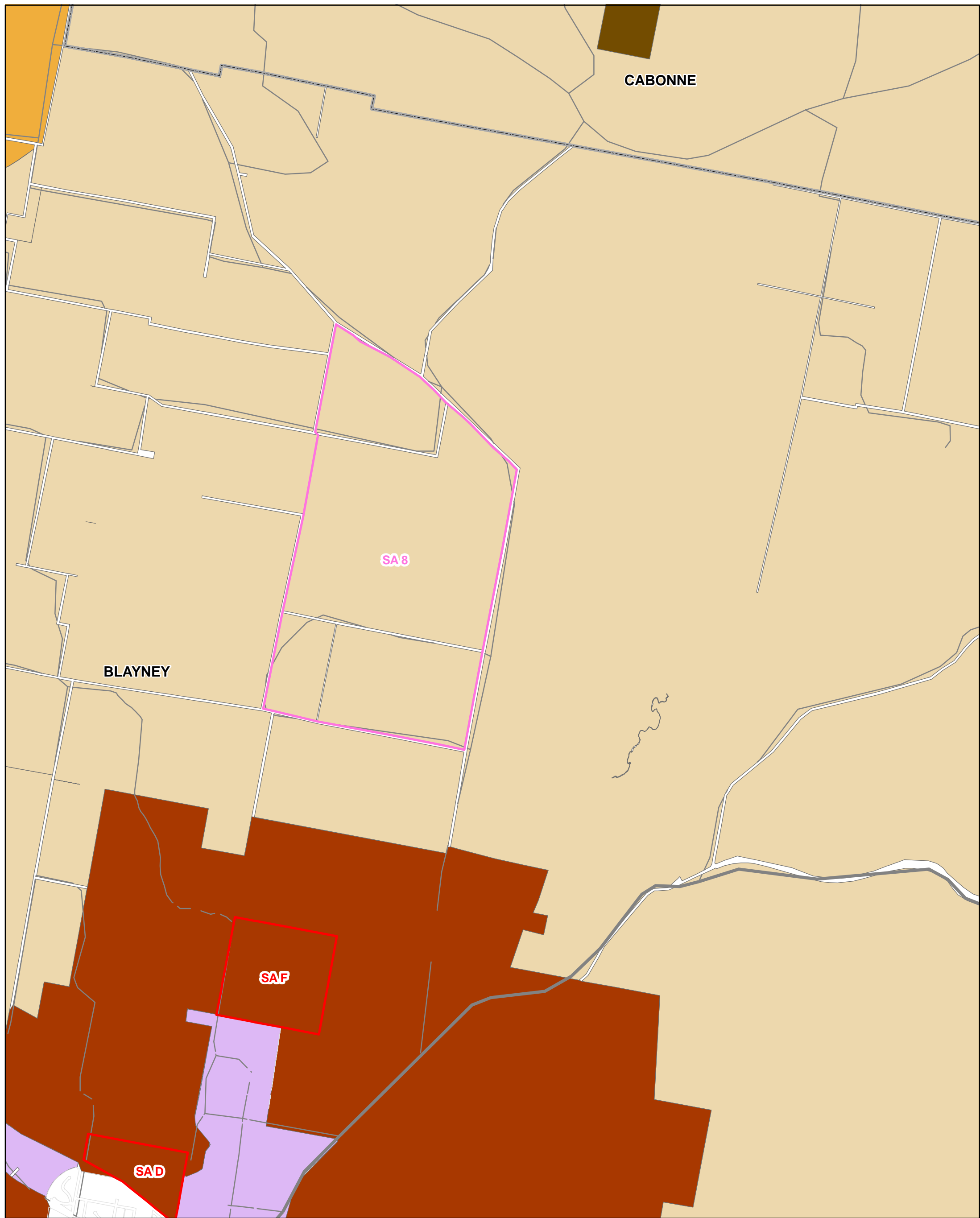
The SA is bound to the north and east by Guyong Road, an unmade road providing access to existing dwellings to its southern extent and extends as far west as the alignment of Greghamstown Road (at its intersection with Guyong Road).

The primary constraint on the site is the Class 3 soils through the northern portions and entire southern half of the SA. In addition, certain lands form part of large holdings that exceed 200 hectares in size. The cumulative weighted assessment of these factors has indicated low to medium levels of constraint to lifestyle lot subdivision within the SA (Levels 1 to 3).

The proximity and relatively close access to Blayney from the site via Guyong Road has most likely influenced the level of land ownership fragmentation of the land, as evidenced through a number of smaller land holdings. Given the general absence of constraints to development (as determined under the weighted criteria) and the limited ability to establishing viable working farms with associated dwellings in this specific location, it is appropriate that lifestyle lot development be considered for the Guyong Road SA.

Development in this SA would be subject to satisfactory resolution of visual impact issues to the Mid Western Highway, such that ribbon development does not occur near the gateway to Blayney. There would also need to be adequate buffer areas provided within any future subdivision to avoid land use impacts on surrounding agricultural activities. Future rezoning of this SA would be subject to development of an appropriate masterplan for the site (see Section 14).

It should be noted that this SA is identified on the basis that other areas currently zoned for lifestyle allotments in the Blayney LGA at Forest Reefs Road and Browns Creek Road (see SA 9 and 10), but where development has not yet occurred, be rezoned for Primary Production purposes. It is considered that SA 8 represents a more appropriate location for future lifestyle allotment development.



0.1 0.25 0.5 0.75 1  
 Kilometres

NSW Local Government Areas  
 Towns  
 Roads

**Landuse Strategy**  
 Lifestyle SAs 1-10  
 Lifestyle SAs 11-12  
 Industrial SAs  
 Sustainable Settlement Strategy Areas

**Legend:**

**Strategy Map Zones**  
 Primary Production  
 Rural Landscape  
 Forestry  
 Rural Small Holdings  
 Large Lot Residential  
 General Industrial  
 National Parks and Nature Reserves  
 Environmental Management  
 Land not subject to Strategy

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Fig 6.8 Strategy Area 8

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## 6.4.2 Areas recommended for rezoning

### ***SA 9 Forest Reefs Road (Figure 6.9)***

The Forest Reefs Road SA is one of two existing Rural 1(c) areas within Blayney Shire for which a differing planning and zoning approach is warranted. The SA is located near the northern boundary of the Shire, approximately 5 kilometres west of Millthorpe (7 kilometres to its western-most point).

Despite current development provisions under the Blayney LEP 1998 allowing subdivision down to 2 hectare lifestyle lots, there has been limited take-up of this subdivision opportunity. The western extent of the Rural 1(c) zoned land are constrained through location within one kilometre of both known and potential metallic mineral resource deposits on adjoining lands, and in particular the proximity to current mining operations at Cadia. The absence of lifestyle lot take-up in this SA provides an opportunity, through this Strategy and subsequent local planning instruments, to implement a new zoning that more appropriately recognises this constraint, to Primary Production, and avoids any potential future land use conflicts in this area.

Thus, in consideration of the distribution of lifestyle lots residential areas throughout the Sub-Region, the lifestyle lot provisions under the existing Rural 1(c) zoning in this location should not be allowed to continue.

Council would be required to honour and uphold any development approval obtained for lifestyle lot subdivision, which remain legally valid binding. A 'sunset clause' could be included in any new LEP, whereby a development application for a dwelling could be lodged within a set time frame (minimum of 2 years, maximum of 5 years).. After the expiry of the time frame, the area would not see new lifestyle development in the form of dwellings. Areas the subject of this rezoning and sunset clauses would require close monitoring.

### ***SA 10 Browns Creek Road (Figure 6.10)***

The Browns Creek Road SA, located 4 to 6 kilometres west of Blayney possesses a similar set of environmental and development circumstances to that at Forest Reefs Road.

Lifestyle lot subdivision opportunities have not been taken up within the existing Rural 1(c) zoned land. In addition, known metallic and industrial mineral deposits are located to the immediate east and west of the site, and accordingly, large portions of the existing Rural 1(c) zone fall within the one-kilometre buffer zones identified in the weighted constraints analysis.

The SA also contains steep slopes which would preclude an efficient lifestyle allotment subdivision pattern.

In addition, while the land is characterised by holdings of less than 100 hectares, the SA is surrounded to the north, west and south by larger holdings that have a soil profile (Class 3) considered suitable for agricultural activity. Over the long term, there may be potential for land in this SA to form part of these larger surrounding holdings.

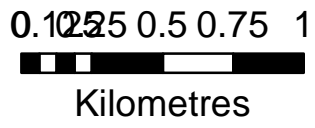


CABONNE

BLAYNEY

SA 9

SA 7

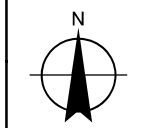


- NSW Local Government Areas**
- Towns
  - Roads

- Landuse Strategy**
- Lifestyle SAs 1-10
  - Lifestyle SAs 11-12
  - Industrial SAs
  - Sustainable Settlement Strategy Areas

**Legend:**

- Strategy Map Zones**
- Primary Production
  - Rural Small Holdings
  - Large Lot Residential
  - General Industrial
  - National Parks and Nature Reserves
  - Environmental Management
  - Land not subject to Strategy
  - Rural Landscape
  - Forestry



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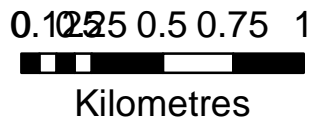
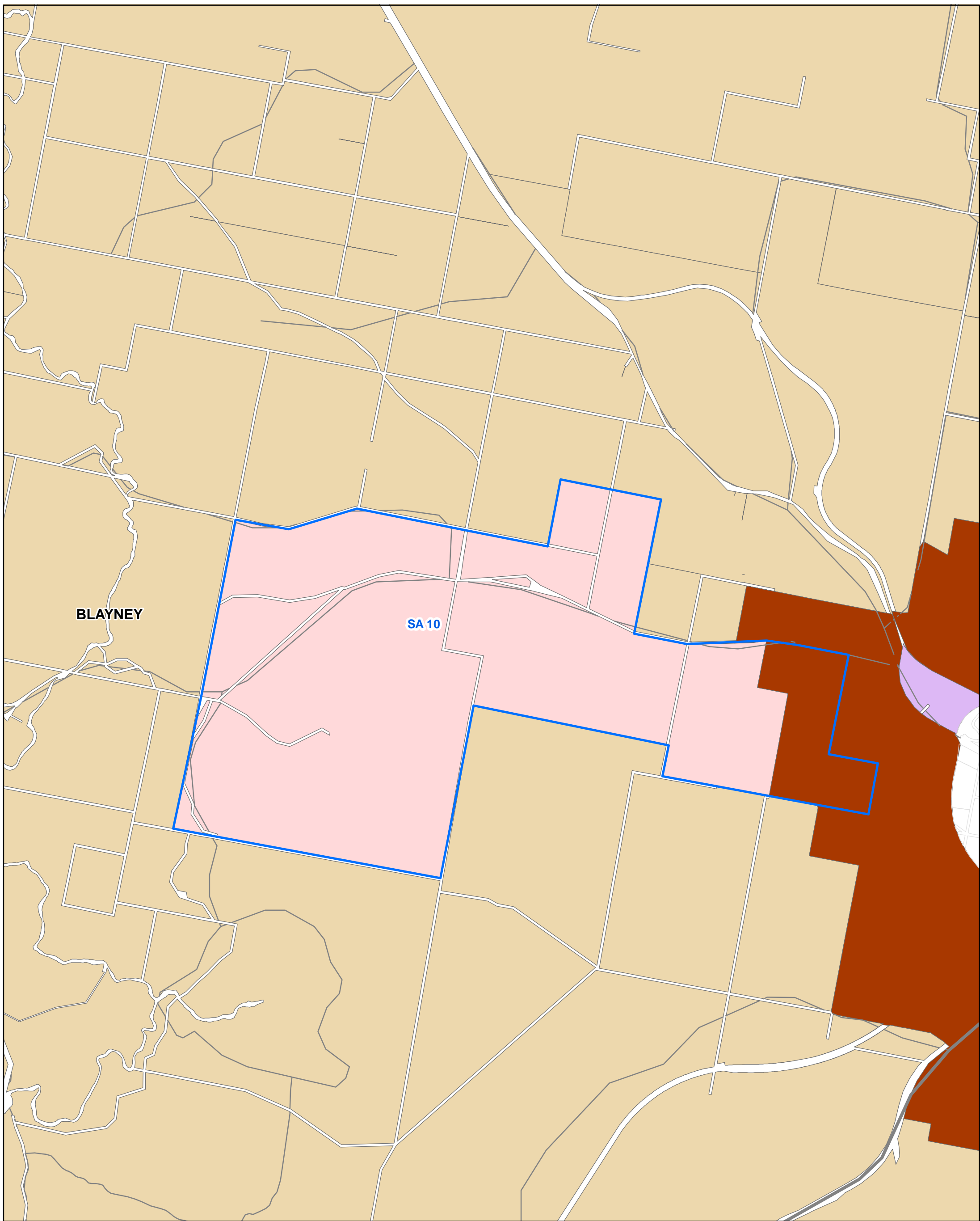
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PROJECT: Sub-Regional Rural and Industrial Land Use Strategy

Fig 6.9 Strategy Area 9



- NSW Local Government Areas
- Towns
- Roads

- Landuse Strategy**
- Lifestyle SAs 1-10
  - Lifestyle SAs 11-12
  - Industrial SAs
  - Sustainable Settlement Strategy Areas

**Legend:**

- |                    |                       |                                    |
|--------------------|-----------------------|------------------------------------|
| Primary Production | Rural Small Holdings  | National Parks and Nature Reserves |
| Rural Landscape    | Large Lot Residential | Environmental Management           |
| Forestry           | General Industrial    | Land not subject to Strategy       |

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CLIENT: The Councils of Blayney, Cabonne and Orange City  
 PROJECT: Sub-Regional Rural and Industrial Land Use Strategy  
 Fig 6.10 Strategy Area 10



Given the limited take-up of lifestyle lots subdivision in this zone, the opportunity exists through this Strategy and future planning instruments to minimise the potential for land use conflict and to maximise the efficient use of agricultural land in this location. As such the ongoing application of a land use zone that allows lifestyle lots subdivision in this location should be reviewed.

In addition, as outlined above, Council would be required to honour and uphold any development approval obtained for lifestyle lot subdivision, which remain legally valid binding. A 'sunset clause' could be included in any new LEP, whereby a development application for a dwelling could be lodged within a set time frame (minimum of 2 years, maximum of 5 years). After the expiry of the time frame, the area would not see new lifestyle development. Areas the subject of this rezoning and sunset clauses would require close monitoring.

### 6.4.3 Consideration of other potential Lifestyle Allotment Strategy Areas

Table 6.2 summarises the other areas and parts of the Sub-Region for which the future expansion of lifestyle lot subdivision was considered. However, each of these were subsequently discounted from further consideration for a variety of reasons, including the findings of the weighted constraint criteria assessment, existing levels of lifestyle lot supply, access constraints and other strategic issues preventing their subdivision and development for this purpose.

**Table 6.2 Summary assessment of other areas not proposed as Strategy Areas**

<b>Town/area/locality</b>	<b>LGA</b>	<b>Reason/s for not recommending further expansion</b>
Canowindra	Cabonne	<ul style="list-style-type: none"> <li>▶ Presence of Class 1, 2 and 3 soils in close proximity to the township.</li> <li>▶ Access to water supply.</li> <li>▶ Adequate existing supply of Rural 1(c) zoned land on least constrained land.</li> </ul>
Cargo	Cabonne	<ul style="list-style-type: none"> <li>▶ Prevalence of large holdings (200 hectares or greater) to the west south and east of the village.</li> <li>▶ Bushfire constraints in vicinity of village (south and west).</li> <li>▶ Class 3 soils to east and west of village.</li> <li>▶ Adequate existing supply of Rural 1(c) zoned land.</li> </ul>
Cudal	Cabonne	<ul style="list-style-type: none"> <li>▶ Prevalence of large holdings (200 hectares or greater in the area).</li> <li>▶ Class 2 and 3 soils</li> <li>▶ Adequate existing supply of Rural 1(c) zoned land.</li> </ul>
Cumnock	Cabonne	<ul style="list-style-type: none"> <li>▶ Poor accessibility and significant road distance to nearest essential services. Adequate supply of zoned land for foreseeable growth.</li> </ul>
Eugowra	Cabonne	<ul style="list-style-type: none"> <li>▶ Adequate supply of Rural 1(c) zoned land.</li> </ul>



<b>Town/area/ locality</b>	<b>LGA</b>	<b>Reason/s for not recommending further expansion</b>
Kings Plains	Blayney	<ul style="list-style-type: none"> <li>▶ Prevalence large holdings (200 hectares or greater in the area).</li> <li>▶ Known and potential mineral resources in the immediate vicinity and potential for conflict with nearby residential land uses.</li> </ul>
Manildra	Cabonne	<ul style="list-style-type: none"> <li>▶ Adequate supply of Rural 1(c) zoned land.</li> </ul>
Molong	Cabonne	<ul style="list-style-type: none"> <li>▶ Adequate existing supply of Rural 1(c) zoned land.</li> </ul>
Nashdale and Borenore	Cabonne	<ul style="list-style-type: none"> <li>▶ Existing forestry and orcharding industries likely to create noise, odour and spray amenity impacts for future residents, which precludes the further development of lifestyle lots in this area.</li> <li>▶ Poor access to water supply, given current moratorium on groundwater bores.</li> </ul>
Newbridge	Blayney	<ul style="list-style-type: none"> <li>▶ General levels of environmental constraint surrounding existing village are significant.</li> <li>▶ Prevalence of larger holdings of 200 hectares or greater to the north and south of the village.</li> <li>▶ Poor accessibility and significant road distance to nearest essential services. Adequate supply of zoned land for foreseeable growth.</li> </ul>
Yeoval	Cabonne	<ul style="list-style-type: none"> <li>▶ Poor accessibility and significant road distance to nearest essential services. Adequate supply of zoned land for foreseeable growth.</li> </ul>

It should be noted that further studies will be undertaken by Cabonne Council in relation to the location of land zoned 1(c) adjacent to existing villages. It is possible that some 1(c) areas will be relocated through these further studies.

#### **6.4.4 Industrial Strategy Areas**

This section sets out the Strategy Areas upon which further industrial development can be pursued through future planning instruments. Strategy Areas delineating suitable lands for industrial growth are identified in both Orange and Cabonne LGAs.

Table 6.3 provides a summary of the proposed Industrial Strategy Areas, including reasons for recommending their inclusion. A detailed description of the suitability of each Strategy Area then follows.



**Table 6.3 Summary assessment of proposed Industrial Strategy Areas**

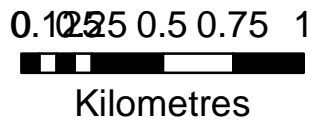
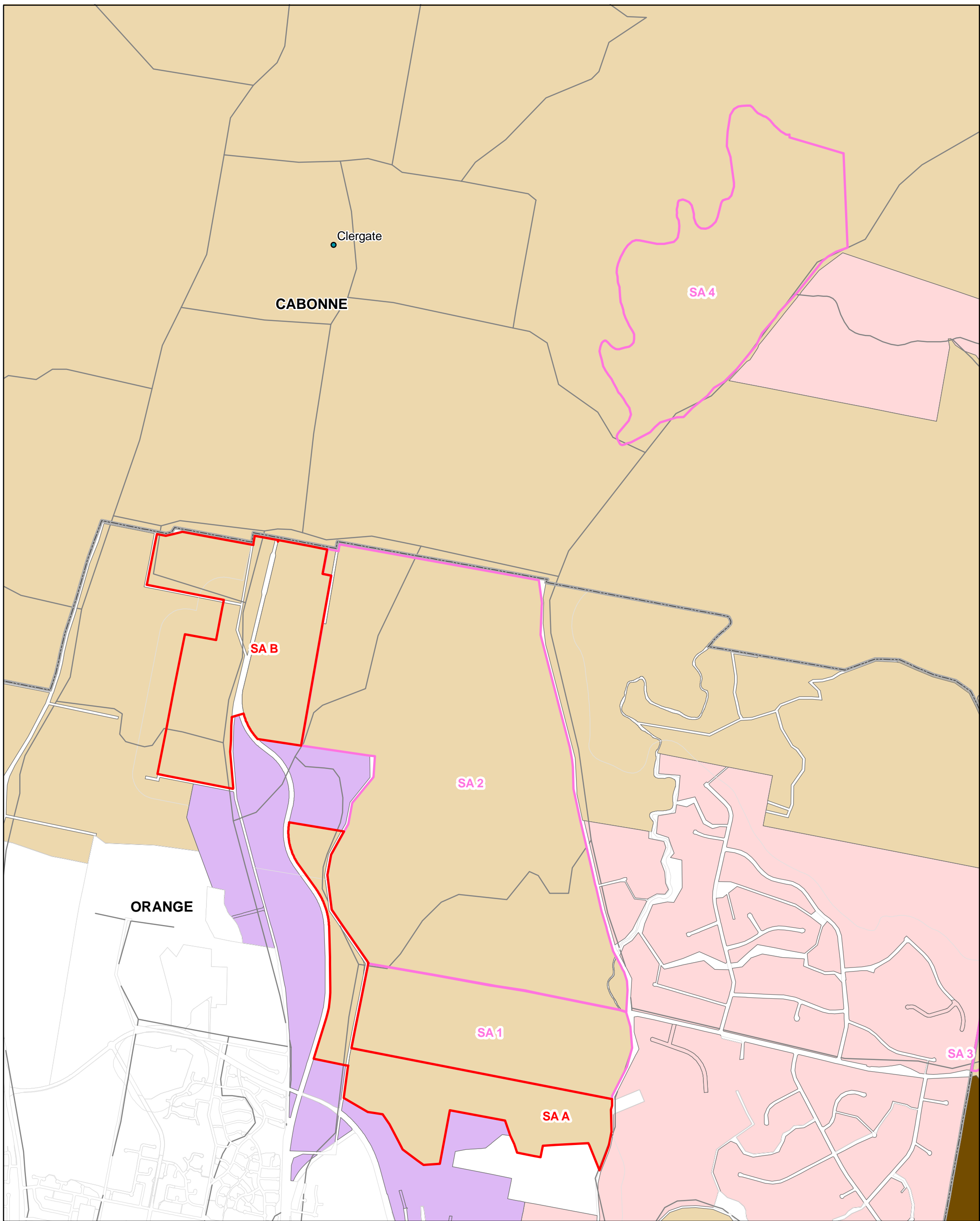
Strategy Area	LGA	Reason/s for recommending inclusion
SA A Narrambla extension  Approximately 145 ha	Orange	<ul style="list-style-type: none"> <li>▶ Immediately adjacent to existing industrial areas</li> <li>▶ Provides a buffer to future lifestyle development</li> <li>▶ Located on the fringe of the Orange urban area</li> <li>▶ Fragmented subdivision pattern precludes highly productive agriculture</li> </ul>
SA B North Clergate  Approximately 190 ha	Orange	<ul style="list-style-type: none"> <li>▶ Extension to the existing North Clergate industrial area</li> <li>▶ Fragmented subdivision pattern precludes highly productive agriculture</li> <li>▶ Provides opportunities for industrial development that requires large lots, due to size or impacts</li> </ul>
SA C Manildra  Approximately 130 ha	Cabonne	<ul style="list-style-type: none"> <li>▶ Adjacent to existing industrial development</li> <li>▶ Access to railway line</li> </ul>
SA D Blayney Abattoir  Approximately 30 ha	Blayney	<ul style="list-style-type: none"> <li>▶ Previously used for industrial activities</li> <li>▶ Adjacent to existing North Blayney Industrial Area</li> <li>▶ Flat land</li> </ul>
SA E Newbridge Road  Approximately 65 ha	Blayney	<ul style="list-style-type: none"> <li>▶ Currently partly used for industrial activities</li> <li>▶ Close proximity to Blayney township</li> <li>▶ Flat land</li> </ul>
SA F Marshalls Lane North  Approximately 65 ha	Blayney	<ul style="list-style-type: none"> <li>▶ Logical extension of existing industrial area</li> </ul>

## Orange LGA

### **SA A Narrambla extension (Figure 6.11)**

An extension to the existing Narrambla and Clergate Road industrial areas within the Orange LGA has been identified. This land is immediately adjacent to land zoned industrial, and includes land located between the railway line and Leeds Parade.

It also includes land immediately to the south of the Leeds Parade Lifestyle Strategy Area (SA 1), to provide a buffer between future lifestyle development and adjoining industrial uses (sewage treatment plant and waste facility). In this regard, it is anticipated that light industrial uses that do not result in adverse off-site impacts would be more appropriate in this location.



NSW Local Government Areas Towns Roads	<b>Landuse Strategy</b> Lifestyle SAs 1-10 Lifestyle SAs 11-12 Industrial SAs Sustainable Settlement Strategy Areas	<b>Legend:</b>	
		Primary Production Rural Landscape Forestry	<b>Strategy Map Zones</b> Rural Small Holdings Large Lot Residential General Industrial

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				PROJECT NO: 21-14006		PROJECT: Sub-Regional Rural and Industrial Land Use Strategy
				MAP NO: 21-14006-Z016		Fig 6.11 Strategy Areas A&B
				DRAWN: CW	CHECKED: PAP	DATE: 21/02/2008



### **SA B North Clergate (Figure 6.11)**

Extensions to the existing Clergate Road industrial estate are proposed through the North Clergate SA, which will contribute further to the supply of industrial land around the central Orange area and further reinforce the economic primacy of Orange in the Sub-Region.

SA B proposes a northward extension for the industrial area to the Cabonne LGA boundary and extending eastward onto the eastern side of the railway line. These extensions were determined on the basis of the low to medium level constraints identified by through the constraints analysis, comprising of:

- ▶ Class 3 soils present over the southern-most portions of the land, though the existing use of these lands for industrial purposes nullifies any requirement for the protection of these soils for agriculture; and
- ▶ Bush fire prone land impacting the north-eastern most extent of the SA, which can be managed on the site through the adherence of future development in affected areas to the PBP Guidelines.

The SA B North Clergate area would provide opportunities for industrial development that requires large lots, due to size or impacts.

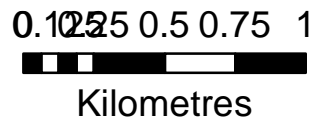
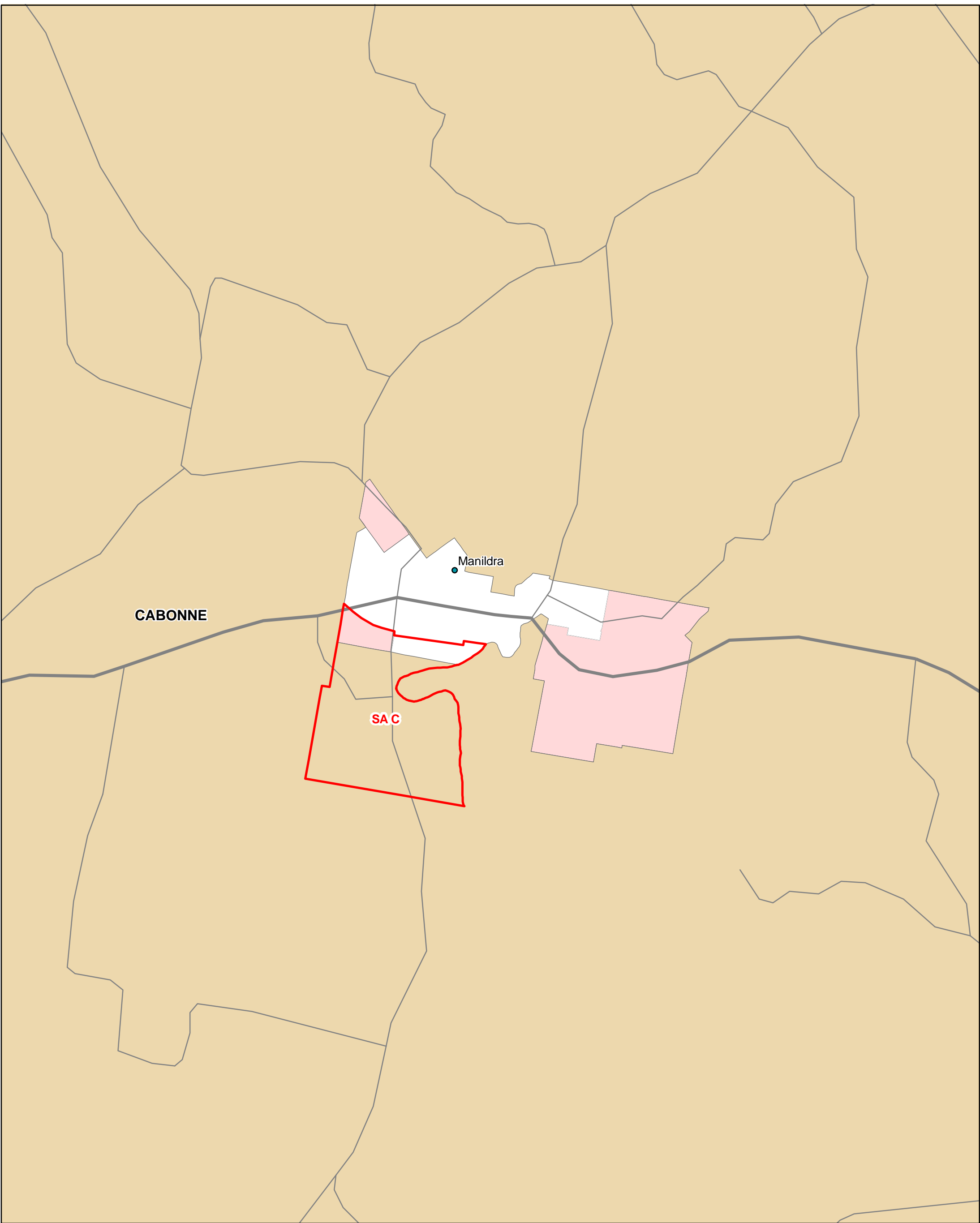
### **Cabonne LGA**

#### **SA C Manildra (Figure 6.12)**

New industrial land is also recommended in the village of Manildra on the basis of the weighted constraints analysis and additional demand for industrial land in this part of the Sub-Region. The new industrial SA is proposed for the southern side of the village, extending from its northern boundary along the railway line southward on both sides of Boree Street to the southern outskirts of the village. The SA is bound to the east by Mandagery Creek.

The proposed industrial land incorporates of under utilised Rural 1(c) zoned land in the south east of the village fronting Dederang Street. The loss of this land for lifestyle lot subdivision is compensated through the new land proposed within SA 7 on the northern outskirts of the village.

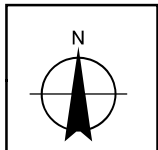
The majority of the SA C area is characterised by medium range levels of constraint when assessed against the weighted criteria. This is the result of the relatively large holding sizes in this area, which in combination with the presence of Class 2 and 3 soils, suggests the possible agricultural value of this land. However, there has been considerable pressure for additional industrial development in Manildra, and this was echoed in the community consultation.



- NSW Local Government Areas**
- Towns
  - Roads
- Landuse Strategy**
- Lifestyle SAs 1-10
  - Lifestyle SAs 11-12
  - Industrial SAs
  - Sustainable Settlement Strategy Areas

**Legend:**

- Strategy Map Zones**
- Primary Production
  - Rural Small Holdings
  - National Parks and Nature Reserves
  - Rural Landscape
  - Large Lot Residential
  - Environmental Management
  - Forestry
  - General Industrial
  - Land not subject to Strategy



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DATE: 21/02/2008

CLIENT: The Councils of Blayney, Cabonne and Orange City

PROJECT: Sub-Regional Rural and Industrial Land Use Strategy

Fig 6.12 Strategy Area C





## **Blayney**

### ***SA D Blayney Abattoir (Figure 6.13)***

SA D is the former Blayney Abattoir site, located to the west of the existing North Blayney Industrial area. The SA includes only the lower parts of the abattoir site, and does not include the northern part of the site which is sloping and located within the scenic protection zone.

This land is generally unconstrained and its former use for industrial purposes makes it suitable for future industrial use. The relationship with residential development to the south of the railway line will need to be resolved in any future rezoning and development proposals.

### ***SA E Newbridge Road (Figure 6.13)***

SA E is located along the Newbridge Road between Mid Western Highway and the railway line. It comprises relatively flat land, and is currently occupied by industrial cold storage facilities (which are permissible with consent in the Rural 1(a) zone).

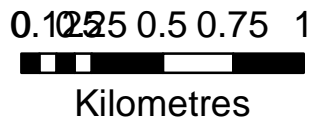
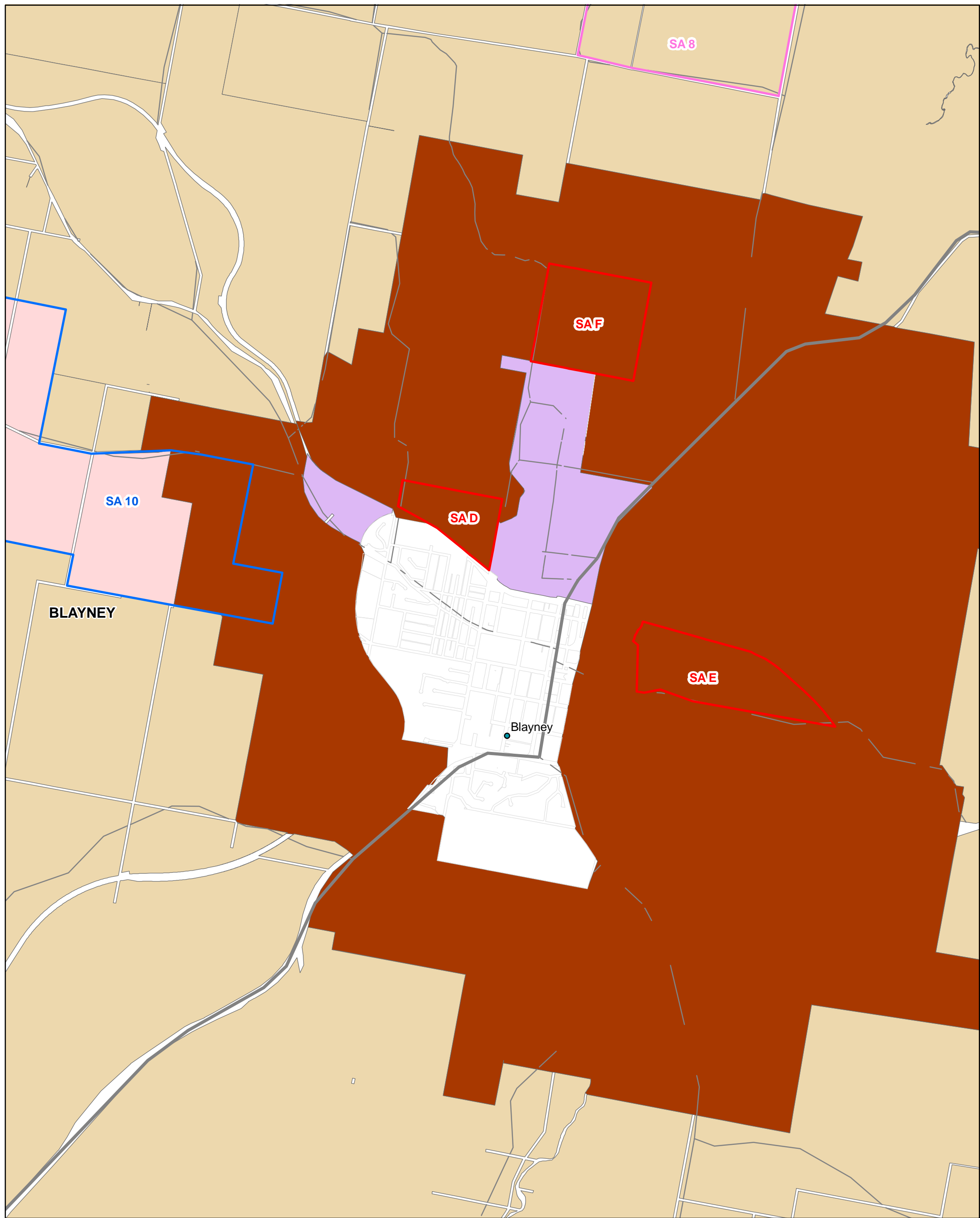
This SA is in close proximity to the Blayney township and is relatively unconstrained. The main constraint is Class 3 agricultural land, however the existing use of part of the SA for industrial activities precludes highly productive agricultural enterprises.

The western boundary of the SA is defined by the land currently occupied by the industrial cold storage facilities. A buffer between the industrial SA and the existing town is provided.

### ***SA F Marshalls Lane North (Figure 6.13)***

SA F is located to the north of Marshalls Lane, adjacent to the existing industrial area in North Blayney.

This land has a low constraint level (2) and is affected by Class 2 and 3 land. However, given its close proximity to existing industrial development, use of the land for industrial purposes is considered to be appropriate, as a logical extension to the existing North Blayney industrial area.



**NSW Local Government Areas**  
 Towns  
 Roads

**Landuse Strategy**  
 Lifestyle SAs 1-10  
 Lifestyle SAs 11-12  
 Industrial SAs  
 Sustainable Settlement Strategy Areas

**Legend:**

**Strategy Map Zones**  
 Primary Production  
 Rural Landscape  
 Forestry  
 Rural Small Holdings  
 Large Lot Residential  
 General Industrial  
 National Parks and Nature Reserves  
 Environmental Management  
 Land not subject to Strategy

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 PROJECT: Sub-Regional Rural and Industrial Land Use Strategy  
 Fig 6.13 Strategy Areas D,E&F



## 7. Minimum Lot Size Analysis

### 7.1 Overview

At the time the Strategy process had commenced and the bulk of the work carried out, the Department of Primary Industries recommended the use of a particular methodology to determine the appropriate rural minimum lot size for an ancillary dwelling. This methodology was in draft form, and is referred as the 'DPI draft methodology'. The DPI draft methodology was based on an economic analysis of typical enterprise mixes in identified areas, and determined a lot size based on a commercial farming unit for a certain locality.

On behalf of the three councils, Hassall & Associates used the 'DPI draft methodology' to determine minimum lot sizes for the Blayney, Cabonne and Orange local government areas. A copy of the Hassall & Associates report is contained in Appendix C.

Following this study, further advice from the DPI was obtained on the Hassall Report. DPI has recommended alternate minimum lot sizes for two of the Hassall & Associates' sectors. A copy of the advice from DPI is contained in Appendix D.

As discussed in the Issues Paper (GHD 2007b), the use of the DPI draft methodology was one of the issues addressed in the Central West Rural Lands Inquiry. The Inquiry Panel concluded that the DPI draft methodology is inappropriate as a planning tool, and that the minimum lot size for an ancillary dwelling should be determined based on local circumstances and actual trends, including:

- ▶ Existing farming patterns;
- ▶ Existing holding patterns;
- ▶ Current pressure for subdivision/dwellings; and
- ▶ Current pressure for change, and reasons for that change.

(It should be noted that the DPI methodology recommends analysis of existing holding and farming patterns and current trends in a locality.)

As such, an analysis has also been undertaken of existing holding patterns, using the Hassall & Associates agricultural sectors. Issues relating to pressure for subdivision and dwellings has been addressed in the demand and supply analysis on the Local Profile (GHD 2007a).

This section of the Strategy presents the findings from all three analyses. It should be noted that given uncertainties in relation to the State Government policy position following the recent Central West Rural Lands Inquiry, the Strategy provides a number of options, as well as recommending a specific approach.

It should be noted, however, that the recommended approach is the recommendation of the consultant, and has not been endorsed by the three councils. As such, community feedback is sought on the consultant's recommendation and the other options presented for minimum lot size for an ancillary dwelling.



## 7.2 DPI draft methodology

Hassall & Associates used the NSW DPI's draft methodology to determine minimum lot sizes for the Blayney, Cabonne and Orange local government areas. The data used to input into the methodology was obtained from public sources (DPI Gross Margins, ABARE Farm Surveys) and from members of a Landholder Reference Group. A copy of their report is included in Appendix C.

### 7.2.1 Agricultural sectors

The Hassall analysis divided the region into four sectors based on the natural resource conditions and existing land use, with each having a particular enterprise mix, as shown in Table 7.1 and Figure 7.1.

**Table 7.1 Agricultural sectors**

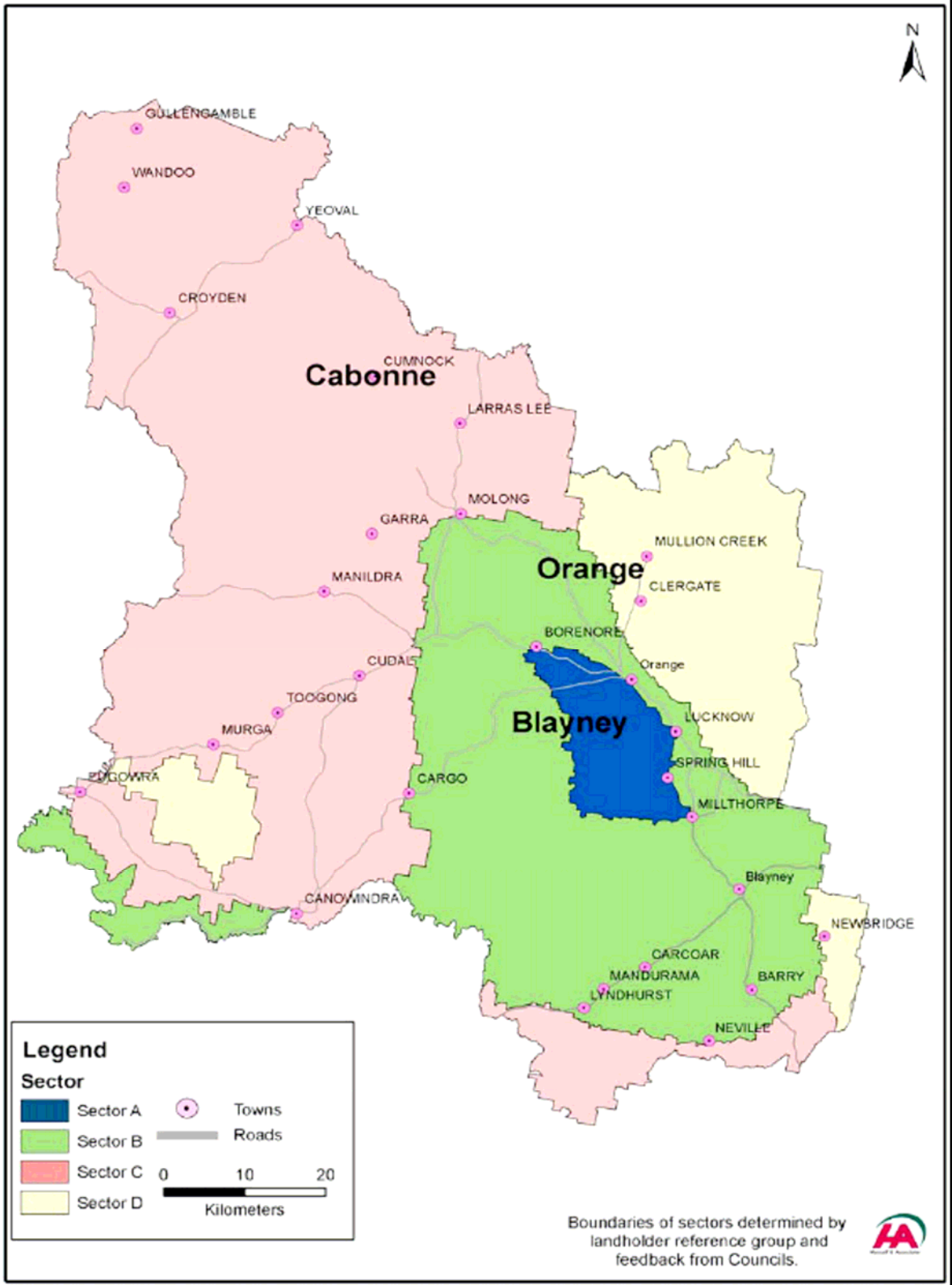
Sector name	Location and boundaries	Land types and holding sizes
A. Intensive horticulture and viticulture	Extending south from Orange into the Towac valley. Bounded by Orange, Borenore, Nashdale, Lucknow and Forest Reefs	High elevation, high rainfall, highly fertile basalt soils, frost risk. 12 to 40 ha.
B. Highly productive mixed grazing or lucerne production	Encircling A. Bounded by Molong, Cargo, Angelong, Neville, Hobbies Yards, Newbridge, Vittoria, Shadforth. Also west of Canowindra along the river for lucerne	Medium elevation and rainfall with variable but good quality soils. Alluvial soils on the river. 200 to 400 ha.
C. Mixed cropping and grazing	West of B extending to the Cabonne Shire boundary and south of B extending to the Blayney Shire boundary	Medium to lower elevation with lower rainfall towards the west. Mixed soil types. Larger land holdings suitable for broadscale cropping. 600 to 800 ha.
D. Extensive grazing	On the eastern extremities of Cabonne and Blayney Shires with an additional area around Nangar (east of Eugowra)	Higher elevation and rainfall in the east, but with poorer soils and increased scattered timber. Skeletal soils and timbered areas around Nangar. 1200 ha

### 7.2.2 Criteria for determining minimum lot size using the DPI methodology

The information gathered from each of the steps and the conclusions from the farmer reference group are outlined below:

- ▶ Identify the key agricultural industries and enterprises in the LGA;
- ▶ Identify the characteristics of farms in the LGA;
- ▶ Determine the existing production levels and gross margins of key enterprises on farms;
- ▶ Determine a target income level for a commercial farming unit;

Figure 7.1 Sectors for minimum allotment size for ancillary dwelling





- ▶ Calculate the overhead costs; and
- ▶ Calculate area needed to generate break-even level of income.

### 7.2.3 Results

A summary of the results of the Hassall & Associates analysis, which represents break even farm areas for each sector, is shown in Table 7.2.

**Table 7.2 Results Summary of break even farm areas for each sector**

<b>Enterprise types</b>	<b>Recommended minimum lot size</b>
A. Intensive horticulture and viticulture	25 ha
B. Highly productive mixed grazing	200 ha
C. Mixed cropping and grazing	550 ha
D. Extensive grazing	800 ha

### 7.3 DPI review

In addition to the analysis undertaken by Hassall & Associates, further advice from the DPI was obtained on the Hassall Report. DPI have recommended alternate minimum lot sizes for Sectors A and B, as outlined in Table 7.3.

**Table 7.3 DPI recommended minimum lot sizes for ancillary dwelling**

<b>Enterprise types</b>	<b>Recommended minimum lot size</b>
A. Intensive horticulture and viticulture	30 ha
B. Highly productive mixed grazing	300 ha
C. Mixed cropping and grazing	550 ha
D. Extensive grazing	800 ha

A copy of the DPI advice is contained in Appendix D.

### 7.4 Planning analysis

Since the above analyses were undertaken, the Central West Rural Lands Inquiry has concluded that the Department of Primary Industry's draft methodology is not a suitable tool for determining minimum allotment size for an ancillary dwelling, even though an alternative method was not offered. The Inquiry also concluded that there was no strong case to vary existing minimum allotment sizes. As such, in order to determine the appropriateness of the existing minimum allotment sizes, an analysis of subdivision "potential" based on current holding sizes was undertaken.

This analysis has used the agricultural enterprise sectors determined by Hassall & Associates as a base, and, using specified minimum lot sizes, considers the number of lots that:



- ▶ Are below the specified minimum lot size;
- ▶ Comply with the specified minimum lot size; and
- ▶ Are able to be subdivided based on the specified minimum lot size.

This analysis has been done for each LGA in the following sections, using:

- ▶ The current minimum lot size for an ancillary dwelling;
- ▶ The Hassall & Associates break-even farm size using the DPI methodology; and
- ▶ The minimum lot size recommended by DPI.

It should be noted that this analysis has been undertaken using holding size, rather than allotment size. While allotment size is relevant and provides information on subdivision patterns, in rural areas, the actual size of holdings is a more critical factor, as landowners often have holdings that are an amalgamation of more than one lot. However, the aggregation of holding size data is not able to distinguish between those holdings that are contiguous (ie. adjacent to each other and sharing a common boundary) and those that are spread throughout the LGA.

The analysis using holding size also has not taken into account that, under current and previous planning provisions, there may already be more than one dwelling erected on any one holding.

As such, the analysis presented here may overstate the number of lots and therefore dwellings that may eventuate should a particular minimum lot size(s) be adopted, and therefore represents a 'worst case' fragmentation assessment.



### 7.4.1 Current minimum allotment size

#### Blayney

In all sectors in Blayney, the current minimum allotment size for an ancillary dwelling is 100 hectares in the 1(a) zone.

**Table 7.4 Blayney holding size analysis – current minimum lot sizes**

Sector	Total no. of holdings	Min lot size	Below minimum lot size		Comply with minimum lot size		Able to be subdivided		Additional lots able to be created	
			No.	%	No.	%	No.	%	No.	%
Sector A	53	100ha	47	88.68%	6	11.32%	0	0.00%	0	0.00%
Sector B	970	100ha	675	69.59%	295	30.41%	165	17.01%	521	53.71%
Sector C	201	100ha	119	59.20%	82	40.80%	37	18.41%	95	47.26%
Sector D	71	100ha	47	66.20%	24	33.80%	14	19.72%	21	45.07%
<b>TOTAL</b>	<b>1295</b>		<b>888</b>	<b>68.57%</b>	<b>407</b>	<b>31.43%</b>	<b>216</b>	<b>16.67%</b>	<b>637</b>	<b>49.19%</b>

Based on the analysis above, only 31.43% of agricultural holdings in Blayney comply with the current minimum allotment size for an ancillary dwelling. However, these complying holdings total an area of approximately 124,000 hectares, which is 85% of the total rural area in Blayney.

If the current minimum allotment size for an ancillary dwelling was to remain, a total of 637 new lots would be able to be created which would each have the ability to lodge a DA to erect an ancillary dwelling, which represents an increase of over 49% compared to the existing number of holdings.





## Cabonne

The current minimum allotment size for an ancillary dwelling in Cabonne’s 1(a) zone is 100 hectares. However, Clause 13 of Cabonne LEP 1991 provides for subdivision to a minimum of 10 hectares in the 1(a) zone for commercial irrigated agriculture or intensive livestock keeping, subject to meeting a number of requirements, particularly in relation to access to water. As such, for the purposes of this assessment, it has been assumed that only land within Sector A would be able to be subdivided to 10 hectares, as Sector A was determined on the basis that the primary agricultural activity is intensive horticulture and viticulture. It is acknowledged that there are anomalies with this approach, particularly as irrigated agriculture is possible in Canowindra and areas near Borenore, Cudal and Cargo.

**Table 7.5 Cabonne holding size analysis – current minimum lot sizes**

Sector	Total no. of holdings	Min lot size	Below minimum lot size		Comply with minimum lot size		Able to be subdivided		Additional lots able to be created	
			No.	%	No.	%	No.	%	No.	%
Sector A	395	10ha	167	42.28%	228	57.72%	154	38.99%	621	157.22%
Sector B	843	100ha	621	73.67%	222	26.33%	121	14.35%	391	46.38%
Sector C	1454	100ha	679	46.70%	775	53.30%	541	37.21%	2140	147.18%
Sector D	640	100ha	456	71.25%	184	28.75%	119	18.59%	379	59.22%
<b>TOTAL</b>	<b>3332</b>		<b>1923</b>	<b>57.71%</b>	<b>1409</b>	<b>42.29%</b>	<b>935</b>	<b>20.06%</b>	<b>3531</b>	<b>105.97%</b>

Based on the analysis above, only 42.29% of agricultural holdings in Cabonne comply with the current minimum allotment size for an ancillary dwelling. However, these complying holdings total an area of approximately 473,100 hectares, which is 90% of the total rural area in Cabonne.

If the current minimum allotment sizes for an ancillary dwelling was to remain, a total of 3,531 new lots would be able to be created which would each have the ability to lodge a DA to erect an ancillary dwelling, which represents an increase of nearly 106% compared to the existing number of holdings.



## Orange

The current minimum allotment size for an ancillary dwelling in Orange is 100 hectares. However, Clauses 31 and 35 of Orange LEP 2000 provides for subdivision to:

- ▶ 40 hectares where a farm plan demonstrates that the allotment will be used for the purposes of sustainable agriculture; and
- ▶ 16 hectares where the allotment will be used for the purpose of horticulture or viticulture.

For the purposes of this assessment, it has been assumed that only land within Sector A would be able to be subdivided to 16 hectares, as Sector A was determined on the basis that the primary agricultural activity is intensive horticulture and viticulture. It has also been assumed that only land within Sector B would be able to be subdivided to 40 hectares, as this sector was determined on the basis that the primary agricultural activity was highly productive and therefore would be considered to be sustainable agriculture.

Note also that there is no land within Sector C in the Orange LGA.

**Table 7.6 Orange holding size analysis – current minimum lot sizes**

Sector	Total no. of holdings	Min lot size	Below minimum lot size		Comply with minimum lot size		Able to be subdivided		Additional lots able to be created	
			No.	%	No.	%	No.	%	No.	%
Sector A	513	16ha	324	63.16%	189	36.84%	111	21.64%	242	47.17%
Sector B	255	40ha	171	67.06%	84	32.94%	28	10.98%	61	23.92%
Sector D	77	100ha	70	90.91%	7	9.09%	4	5.19%	5	6.49%
<b>TOTAL</b>	<b>845</b>		<b>565</b>	<b>66.86%</b>	<b>280</b>	<b>33.14%</b>	<b>143</b>	<b>16.92%</b>	<b>308</b>	<b>36.45%</b>

Based on the analysis above, only 33.14% of agricultural holdings in Orange comply with the current minimum allotment size for an ancillary dwelling. However, these complying holdings total an area of approximately 16,600 hectares, which is 80% of the total rural area in Orange.



If the current minimum allotment sizes for an ancillary dwelling were to remain, a total of 308 new lots would be able to be created which would each have the ability to lodge a DA to erect an ancillary dwelling, which represents an increase of over 36% compared to the existing number of holdings.

#### 7.4.2 Break-even farm size (Hassall & Associates)

The break-even farm size was determined using the DPI methodology, as described in Appendix C. These minimum lot sizes are based on an economic analysis of typical enterprise mixes in each sector, and represent the area of land required to generate a breakeven income

#### Blayney

**Table 7.7 Blayney holding size analysis – break even farm size**

Sector	Total no. of holdings	Min lot size	Below minimum lot size		Comply with minimum lot size		Able to be subdivided		Additional lots able to be created	
			No.	%	No.	%	No.	%	No.	%
Sector A	53	25ha	30	56.60%	23	43.40%	15	28.30%	40	75.47%
Sector B	970	200ha	805	82.99%	165	17.01%	49	5.05%	145	14.95%
Sector C	201	550ha	197	98.01%	4	1.99%	2	1.00%	2	1.00%
Sector D	71	800ha	70	98.59%	1	1.41%	0	0.00%	0	0.00%
<b>TOTAL</b>	<b>1295</b>		<b>1102</b>	<b>85.10%</b>	<b>193</b>	<b>14.90%</b>	<b>66</b>	<b>5.10%</b>	<b>187</b>	<b>14.44%</b>

Using the break-even farm size as the minimum allotment size for an ancillary dwelling, only 14.90% of agricultural holdings comply with the minimum allotment size for an ancillary dwelling. However, these complying holdings total an area of approximately 83,100 hectares, which is 57% of the total rural area in Blayney.



If the break-even farm sizes were implemented as the minimum allotment sizes for an ancillary dwelling, a total of 187 new lots would be able to be created which would each have the ability to lodge a DA to erect an ancillary dwelling, which represents an increase of only 14% compared to the existing number of holdings.

### Cabonne

**Table 7.8 Cabonne holding size analysis – break even farm size**

Sector	Total no. of holdings	Min lot size	Below minimum lot size		Comply with minimum lot size		Able to be subdivided		Additional lots able to be created	
			No.	%	No.	%	No.	%	No.	%
Sector A	395	25ha	264	66.84%	131	33.16%	55	13.92%	126	31.90%
Sector B	843	200ha	722	85.65%	121	14.35%	43	5.10%	109	12.93%
Sector C	1454	550ha	1284	88.31%	170	11.69%	49	3.37%	73	5.02%
Sector D	640	800ha	626	97.81%	14	2.19%	0	0.00%	0	0.00%
<b>TOTAL</b>	<b>3332</b>		<b>2896</b>	<b>86.92%</b>	<b>436</b>	<b>13.08%</b>	<b>147</b>	<b>4.41%</b>	<b>308</b>	<b>9.24%</b>

Using the break-even farm size as the minimum allotment size for an ancillary dwelling, only 13.08% of agricultural holdings in Cabonne comply with the minimum allotment size for an ancillary dwelling. However, these complying holdings total an area of approximately 247,200 hectares, which is 47% of the total rural area in Cabonne.

If the break-even farm sizes were implemented as the minimum allotment sizes for an ancillary dwelling, a total of 308 new lots would be able to be created which would each have the ability to lodge a DA to erect an ancillary dwelling, which represents an increase of only 9.24% compared to the existing number of holdings.



## Orange

**Table 7.9 Orange holding size analysis – break even farm size**

Sector	Total no. of holdings	Min lot size	Below minimum lot size		Comply with minimum lot size		Able to be subdivided		Additional lots able to be created	
			No.	%	No.	%	No.	%	No.	%
Sector A	513	25ha	386	75.24%	127	24.76%	40	7.80%	90	17.54%
Sector B	255	200ha	251	98.43%	4	1.57%	1	0.39%	1	0.39%
Sector D	77	800ha	77	100.00%	0	0.00%	0	0.00%	0	0.00%
<b>TOTAL</b>	<b>845</b>		<b>714</b>	<b>84.50%</b>	<b>131</b>	<b>15.50%</b>	<b>41</b>	<b>4.85%</b>	<b>91</b>	<b>10.77%</b>

Using the break-even farm size as the minimum allotment size for an ancillary dwelling, only 15.5% of agricultural holdings in Orange comply with the minimum allotment size for an ancillary dwelling. These complying holdings total an area of approximately 8,100 hectares, which is 39% of the total rural area in Blayney.

If the break-even farm sizes were implemented as the minimum allotment sizes for an ancillary dwelling, a total of 91 new lots would be able to be created which would each have the ability to lodge a DA to erect an ancillary dwelling, which represents an increase of 10.77% compared to the existing number of holdings.



### 7.4.3 DPI recommended minimum allotment size

#### Blayney

**Table 7.10 Blayney holding size analysis – DPI recommended minimum allotment size**

Sector	Total no. of holdings	Min lot size	Below minimum lot size		Comply with minimum lot size		Able to be subdivided		Additional lots able to be created	
			No.	%	No.	%	No.	%	No.	%
Sector A	53	30ha	30	56.60%	23	43.40%	13	24.53%	30	56.6%
Sector B	970	300ha	876	90.31%	93	9.59%	19	1.96%	71	9.32%
Sector C	201	550ha	197	98.01%	4	1.99%	2	1.00%	2	1.00%
Sector D	71	800ha	70	98.59%	1	1.41%	0	0.00%	0	0.00%
<b>TOTAL</b>	<b>1295</b>		<b>1173</b>	<b>90.58%</b>	<b>121</b>	<b>9.34%</b>	<b>34</b>	<b>2.63%%</b>	<b>103</b>	<b>7.95%</b>

Using the DPI recommended minimum allotment size for an ancillary dwelling, only 9.34% of agricultural holdings comply with the minimum allotment size for an ancillary dwelling. However, these complying holdings total an area of approximately 65,300 hectares, which is 45% of the total rural area in Blayney.

If the DPI recommended minimum allotment sizes were implemented, a total of 103 new lots would be able to be created which would each have the ability to lodge a DA to erect an ancillary dwelling, which represents an increase of only 7.95% compared to the existing number of holdings.



**Cabonne**

**Table 7.11 Cabonne holding size analysis – DPI recommended minimum allotment size**

Sector	Total no. of holdings	Min lot size	Below minimum lot size		Comply with minimum lot size		Able to be subdivided		Additional lots able to be created	
			No.	%	No.	%	No.	%	No.	%
Sector A	395	30ha	281	71.14%	114	28.86%	41	10.38%	86	21.77%
Sector B	843	300ha	766	90.87%	77	9.13%	23	2.73%	48	5.69%
Sector C	1454	550ha	1284	88.31%	170	11.69%	49	3.37%	73	5.02%
Sector D	640	800ha	626	97.81%	14	2.19%	0	0.00%	0	0.00%
<b>TOTAL</b>	<b>3332</b>		<b>2957</b>	<b>88.75%</b>	<b>375</b>	<b>11.25%</b>	<b>113</b>	<b>3.39%</b>	<b>207</b>	<b>6.21%</b>

Using the DPI recommended minimum allotment size, only 11.25% of agricultural holdings in Cabonne comply with the minimum allotment size for an ancillary dwelling. However, these complying holdings total an area of approximately 235,900 hectares, which is 45% of the total rural area in Cabonne.

If the DPI recommended minimum allotment size were implemented, a total of 207 new lots would be able to be created which would each have the ability to lodge a DA to erect an ancillary dwelling, which represents an increase of only 6.21% compared to the existing number of holdings.



## Orange

**Table 7.12 Orange holding size analysis – DPI recommended minimum allotment size**

Sector	Total no. of holdings	Min lot size	Below minimum lot size		Comply with minimum lot size		Able to be subdivided		Additional lots able to be created	
			No.	%	No.	%	No.	%	No.	%
Sector A	513	30ha	400	77.97%	113	22.03%	33	6.43%	64	12.48%
Sector B	255	300ha	254	99.61%	1	0.39%	0	0.00%	0	0.00%
Sector D	77	800ha	77	100.00%	0	0.00%	0	0.00%	0	0.00%
<b>TOTAL</b>	<b>845</b>		<b>731</b>	<b>86.51%</b>	<b>114</b>	<b>13.49%</b>	<b>33</b>	<b>3.91%</b>	<b>64</b>	<b>7.57%</b>

Using the DPI recommended minimum allotment size, only 13.49% of agricultural holdings in Orange comply with the minimum allotment size for an ancillary dwelling. However, these complying holdings total an area of approximately 15,100 hectares, which is 73% of the total rural area in Orange.

If the DPI recommended minimum allotment size were implemented, a total of 64 new lots would be able to be created which would each have the ability to lodge a DA to erect an ancillary dwelling, which represents an increase of only 7.57% compared to the existing number of holdings.





## 7.5 Recommended minimum allotment size for an ancillary dwelling

The preceding analysis of subdivision potential using the current minimum allotment size, the break-even farm size and the recommended minimum allotment size has been analysed to recommend a specific approach for this Strategy.

Tables 7.4-7.6 show that, under the current minimum allotment sizes, there is excessive potential for subdivision. This is particularly the case for Cabonne, where the number of holdings could be more than doubled. The subdivision potential for Blayney and Orange is also significant, where the number of holdings would increase by almost half and over one third respectively.

As such, retaining the current minimum allotment sizes for an ancillary dwelling is not expected to achieve one of the objectives of the Strategy, which is to:

*Protect and enhance and develop diverse and productive agriculture in the Sub-Region that is profitable for producers and the community, protects and enhances the natural environment on which it depends and provides for the community and beyond.*

Tables 7.7-7.12 show that, by adopting the break-even farm size or the DPI recommended minimum allotment size, there would be a large reduction in the number of properties that could be subdivided, thereby preserving the agricultural resource.

However, the difference between the subdivision potential under the break-even farm size and the DPI recommended farm size is not significant. In the case of Blayney, using the DPI recommended minimum allotment size would result in a maximum increase in the number of holdings by around 8%, compared to 14% using the break-even farm size. For Cabonne, the increase in the number of holdings would be 6% using the DPI recommendation, compared to 9% using the break-even farm size. For Orange, the increase in the number of holdings would be 8% using the DPI recommendation, compared to 11% using the break-even farm size.

It is considered that this represents very little difference in subdivision potential between the two options, compared to the significant reduction in development potential achieved by increasing the current minimum allotment sizes to either the break-even farm size or the DPI recommended minimum allotment size.

As such, the reduction in development potential is not significant enough to warrant applying the DPI recommendation. However, in order to ensure that the agricultural resource is preserved, the break-even farm size has been recommended by the consultant as the appropriate minimum allotment size for an ancillary dwelling. This will still achieve the Strategy objective of preserving the agricultural resource whilst still allowing a reasonable amount of development potential. In addition, a larger minimum allotment size would provide greater opportunity to respond to climate change.

It should be noted that the drinking water catchments warrant a different approach. In this regard, the objective of the Strategy is to ensure that drinking water catchments are not adversely affected by overdevelopment. As such, it is recommended that a minimum allotment size of 200ha be applied. Based on current holding patterns, this would allow only minimal future subdivision, which would not result in water extraction problems in the drinking water catchments.



The recommended minimum allotment size, on planning grounds, for an ancillary dwelling for each sector and the drinking water catchments is shown in Table 7.13.

**Table 7.13 Recommended minimum allotment size for an ancillary dwelling**

<b>Enterprise types</b>	<b>Recommended minimum lot size</b>
A. Intensive horticulture and viticulture	25 ha
B. Highly productive mixed grazing	200 ha
C. Mixed cropping and grazing	550 ha
D. Extensive grazing	800 ha
Drinking water catchment	200 ha

Should the minimum allotment size for an ancillary dwelling be increased, the councils will need to consider including a local provision in their LEPs to recognise that allotments that were created for the purpose of a dwelling under a previous planning instrument and that are now below the minimum allotment size. It is recommended that the ability to erect a dwelling on these allotments be subject to a sunset provision, whereby a development application to erect a dwelling would need to be lodged within a specified period (minimum of 2 years, maximum of 5 years), after which time the ability to erect a dwelling would be removed. A similar provision should be included for 'existing holdings' as defined under the current LEPs.

## **7.6 State Environmental Planning Policy (Rural Lands) 2008**

Following the finalisation of the draft Strategy, State Environmental Planning Policy (Rural Lands) 2008 (Rural Lands SEPP) was gazetted, and a number of directions under Section 117 of the Environmental Planning and Assessment Act 1979 were issued by the Minister for Planning.

The recommendation of the Strategy, on planning grounds, is to increase the minimum allotment size for an ancillary dwelling.

However, the Rural Lands SEPP and Ministerial Directions do not require the councils to review or change their minimum lot size(s) in existing LEPs. The councils can transfer the existing minimum lot size(s) into their new LEPs. In this regard, the councils may choose to retain the existing minimum lot size provisions contained in the current LEPs.

However, the SEPP and Directions require that, where a council seeks to vary an existing minimum lot size in an LEP (either by increasing or decreasing it), it must do so in accordance with the Rural Subdivision Principles listed in the Rural Lands SEPP. These principles are:

- ▶ The minimisation of rural land fragmentation;
- ▶ The minimisation of rural land use conflicts, particularly between residential land uses and other rural land uses;
- ▶ The consideration of the nature of existing agricultural holdings and the existing and planned future supply of rural residential land when considering lot sizes for rural lands;



- ▶ The consideration of the natural and physical constraints and opportunities of land; and
- ▶ Ensuring that planning for dwelling opportunities takes account of those constraints.

In addition, the Minister for Planning may direct a council to review its minimum lot size(s) under section 55 of the *Environmental Planning and Assessment Act 1979*.



## PART D – LAND USE STRATEGIES



## 8. Overview

### 8.1 Introduction

This Part of the Strategy outlines the specific land use strategies for development in the rural and industrial areas of the Sub-Region.

The strategies have been grouped into the five issue headings as outlined in Chapter 3:

- ▶ Agriculture;
- ▶ Industry;
- ▶ Residential and rural subdivision;
- ▶ Natural and scenic environment; and
- ▶ Heritage and culture.

Overall objectives for these theme areas have been prepared.

Within each of the theme areas, key issues have been identified, for which objectives have been prepared. Strategies expand on these objectives and explain how they will be achieved. Policies and actions that are required to carry out the strategy are specified, and these outline the detail of the implementation strategies and provide an indication of what work is required.

Timeframes for achievement of the strategies have been specified to allow them to be built into planning by State and local government. Three categories have been used:

- ▶ Short term – up to two years;
- ▶ Medium term – two to five years; and
- ▶ Long term – five years and beyond.



## 9. Agriculture

### 9.1 Objective

Protect and promote sustainable agriculture in the Sub-Region, having regard to its economic value and contribution to the regional, state and national economies.

### 9.2 Strategic directions

The need to protect agricultural land is closely linked with provisions for settlement, and LEP subdivision provisions in particular. As such, the options for the Strategy with respect to agriculture are very closely linked to those related to Residential and Rural Subdivision (Chapter 11).

#### **Agriculture**

Economic growth of agriculture in the Sub-Region depends on a number of factors including transport infrastructure; population growth; supply and health of environmental resources such as water and soil; tourist expenditure; landscape and amenity; the availability of local labour; and national and global fiscal policies and markets.

#### **Minimum allotment size (with an ancillary dwelling)**

The recommended minimum allotment size for an ancillary dwelling for each sector and the drinking water catchments is shown in Table 9.1.

**Table 9.1 Recommended minimum allotment size for an ancillary dwelling**

<b>Enterprise types</b>	<b>Recommended minimum lot size</b>
A. Intensive horticulture and viticulture	25 ha
B. Highly productive mixed grazing	200 ha
C. Mixed cropping and grazing	550 ha
D. Extensive grazing	800 ha
Drinking water catchment	200 ha

It should be noted, however, that the Rural Lands SEPP and Ministerial Directions do not require the councils to review or change their minimum lot size(s) in existing LEPs. The councils can transfer the existing minimum lot size(s) into their new LEPs. In this regard, the councils may choose to retain the existing minimum lot size provisions contained in the current LEPs.

#### **Agricultural lots (with no dwelling house)**

Landholdings much smaller than 25 ha can be productive and provide a diversity of agricultural pursuits. NSW Sustainable Agriculture Implementation Review Group Report (2001) recognises the role of off farm income and smaller parcels of agricultural land that can be traded (with no



dwelling) with these smaller agricultural lots. A disadvantage of this type of lot is that in some occasions, agricultural activities cease and pressure is applied to Councils for a dwelling and the lot effectively becomes used for lifestyle purposes.

Current planning provisions permitting lots that are to be used for agricultural purposes only (with no potential or provision for an ancillary dwelling house) are appropriate and should be retained where a council desires.

### **Concessional Lots**

Concessional allotments were intended for farm workers and family members, but over time concessional lots have been sold to unrelated purchasers, which have generated land use conflicts. Therefore it is recommended that no concessional allotment provisions be provided, consistent with State Government policy and good planning practice.

It will also be necessary to manage the future development of concessional lots that already have subdivision approval or registration, but where a dwelling has not yet been erected. As these concessional lots are generally inappropriately located, it is recommended that the ability to erect a dwelling be extinguished.

### **Land use conflicts**

The most significant source of conflict is the introduction of lifestyle residential uses into rural areas, which can result in significant conflict between the new residents and adjoining primary producers. However, land use conflict also occurs between different types of agricultural activities, such as between viticulture and broadacre cropping, and should be addressed through appropriate development controls such as on-farm buffer zones.

Buffers can be used as land planning strategies to mitigate conflicting land uses and reduce the potential impact of one activity on an adjoining activity. Impact from spray drift and dust can be substantially minimised by the creation of a vegetative buffer. Use of appropriate vegetation can reduce the desirable buffer distance for example from more than 300 metres to between 40 and 60 metres to deal with spray drift and dust. Buffers can also be used to stabilise creeks and drainage lines. This can be achieved by use of a 25 metre buffer zone on both sides and the exclusion from grazing in the short term.

Improving farm design and farm management are other mechanisms for reducing land use conflicts. Farm design requires forward planning at the property level, in the siting and layout of crops, fences, infrastructure etc.

### **Forestry**

Forestry, in the form of tree plantations and agroforestry, has become an important part of rural land use activities. This is occurring as a result of structural changes within the agricultural and forestry sectors of the economy, and the benefits of tree planting for land care, salinity and erosion issues.

This Strategy recognises the potential economic and environmental benefits of forestry and supports this where it would not adversely affect agriculture, remnant vegetation, the visual resource or constitute a fire hazard to settled areas.



Existing State Forests and possibly forest plantations registered under the *Plantation and Reforestation Act 1999* should be recognised to allow the identification of interfaces between forestry and other land uses. This could be achieved either through specific zoning under the LEP or development control mechanisms built into the agriculture zones.

There is usually no requirement for dwellings to be associated with forestry activities.





### 9.3 Strategies and actions

#### Agriculture

**Objective:** Protect and enhance and develop diverse and productive agriculture in the Sub-Region that is profitable for producers and the community, protects and enhances the natural environment on which it depends and provides for the community and beyond.

Strategy	Policy actions	Responsibility	Timeframe
1. Provide for the economic growth of the rural area and maintain and enhance rural job opportunities	1.1	Councils and State Governments	Ongoing
	1.2		
	1.3		
	1.4		
	1.5		
2. Protect agricultural land resources	2.1	Councils	Short term and ongoing
	2.2		



Strategy	Policy actions	Responsibility	Timeframe
3. Minimise the fragmentation of the agricultural land resource and encourage the consolidation of small holdings	3.1 Adopt the minimum allotment sizes for ancillary dwellings that are agreed by the community, Councils and the Department of Planning.	Councils	Short term
	3.2 Consider including performance-based criteria for minimum lot size with an ancillary dwelling for intensive forms of agriculture as a local provision. Performance criteria will need to be rigorous.		
	3.3 Permit subdivision for lots that are below the minimum allotment size that are to be used for primary production purposes only (with no dwelling), particularly for intensive agriculture.		
	3.4 Prohibit subdivision for the purposes of lifestyle blocks (including concessional or retirement allotments) in the Primary Production, Rural Landscape and Rural Small Holdings zones.		
	3.5 Discourage the use of agricultural lots for lifestyle purposes by requiring the establishment of intensive agricultural activities and related infrastructure before the erection of a dwelling.		
	3.6 Allow the trade of agricultural lots, providing any residue lot with a dwelling meets the minimum lot size.		



Strategy	Policy actions	Responsibility	Timeframe
4. Promote sustainable management of natural resources for primary production.	4.1 Ensure planning policy supports efficient and sustainable irrigation practices on farms.	Councils, DPI, DWE, CMA	Medium and long term
	4.2 Provide opportunities for primary production to take advantage of non-traditional water supplies, in particular the re-use of treated stormwater and wastewater from urban development, to replace or augment traditional water supplies.		
	4.3 Investigate with industry the potential for re-use and recycling of waste products from primary industry and associated industries.		
	4.4 Locate and design primary industry and associated uses to minimise potential hazards, such as chemical spills, particularly onto productive land and watercourses.		
	4.5 Develop programs with primary industries to address drainage and management of irrigation wastewater to prevent adverse impacts on wildlife habitat including watercourses.		
	4.6 Provide guidelines on property management for environmental outcomes (ie agricultural production, weed management, flora and fauna habitat protection/enhancement).		
	4.7 Provide a property management advisory service including environmental, financial, agriculture and planning expertise.		
	4.8 Create environmentally sensitive area overlays with associated assessment clauses, increased minimum lot provisions and DCP requirements to maintain or improve the extent and condition of remanent vegetation in agricultural zones.		



Strategy	Policy actions	Responsibility	Timeframe
5. Protect and enhance forestry resources	5.1 Existing State Forests and forest plantations registered under the Plantation and Reforestation Act 1999 should be given the land use designation of Forestry.	Councils	Short term and ongoing
	5.2 Encourage the development of forestry in locations where: <ul style="list-style-type: none"> <li>▶ The impact on water resources is appropriately managed</li> <li>▶ The impact on threatened species and their habitats is manageable</li> <li>▶ Existing freight routes can be utilised.</li> </ul>		
	5.3 Restrict subdivision and development for rural settlement adjacent to lands zoned Forestry.		
6. Promote the forestry industry in the sub –region with regard to maintaining and enhancing job opportunities in forestry	6.1 Encourage State Forests, existing private forestry operators and landowners to expand existing forests or introduce new commercial forestry.	Councils, State Government, private forestry companies, landowners	Ongoing
	6.2 Encourage State Forests to better promote the benefits of forestry.		
	6.3 Encourage landowners to use millable timbers when planting windbreaks and other stands of trees where appropriate.		
7. Prevent and manage land use conflicts.	7.1 Prepare specific controls for the agricultural land uses and regulate them through the LEP or DCPs.	Councils	Short to medium term and ongoing
	7.2 Prevent potentially conflicting land uses from locating adjacent to agricultural activities. Where this is not possible, manage the conflicts through implementation of development controls.		
	7.3 Where agriculture, particularly intensive agriculture, or forestry is located adjacent to residential or village zones, consider using the Transition zone under the Standard Instrument to provide a buffer between agriculture and residential development.		
	7.4 Develop controls for development near agricultural activities and rural industries, including buffer zones and setbacks.		
	7.5 Notify neighbours of significant development proposals on adjoining properties.		



Strategy	Policy actions	Responsibility	Timeframe
8. Prepare and implement new environmental planning instruments for the LGAs	8.1 Prepare a new comprehensive Principal LEP in accordance with the Standard Instrument encompassing the relevant strategies and actions identified above (see also Chapter 13).	Councils	Short term
	8.2 Identify on a lot size map a range of minimum lot sizes to support Principal LEP.		
9. Prepare management guidelines for land uses in rural areas	9.1 Prepare a development control plan to support the LEP and provide additional detailed guidelines for development.	Councils	Short to medium term
10. Prepare controls and management requirements for specific land uses in the agricultural areas.	10.1 Prepare specific controls in the LEP and/or DCP for the following land uses:	Councils	Short to medium term
	▶ Animal boarding or training establishments		
	▶ Biosolid waste application		
	▶ Dwelling houses ancillary to agriculture		
	▶ Farm buildings		
	▶ Forestry		
	▶ Horticulture		
	▶ Intensive livestock agriculture		
	▶ Roadside stalls		
	▶ Additional dwellings		
	▶ Stock and sale yards		
	▶ Viticulture		
	11. Provide guidelines for development associated with viticulture.		



## 10. Industry

### 10.1 Objective

Provide adequate opportunities for employment-generating activities that will support the community and the economy of the Sub-Region.

### 10.2 Strategic Direction

#### Provision of adequate industrial land

The provision of well-located and suitable serviced land is vital in ensuring that land is available for industrial development when needed. This Strategy sets out the policy framework for achieving this objective by identifying the key areas and locations where industrial activities can be established. These areas:

- ▶ Will be protected from encroachment by activities that could hinder their effective operation, such as residential development;
- ▶ Are located near to transport and freight routes;
- ▶ Are located near existing zoned industrial land;
- ▶ Are located close to reticulated services (water and sewerage, and where necessary, natural gas) that have the capacity to accommodate the development level;
- ▶ Are free of hazards, such as flooding and bushfire; and
- ▶ Are located adjacent to areas with good access to a suitable workforce.

Key areas to be zoned for industry in the region are shown in Figure 6.1.

#### Staging

Section 6 identified a number of areas within which further industrial development can be justifiably pursued, subject to further detailed site specific investigations and design considerations that account for any site-level constraints.

It should be noted, however, that there needs to be a suitable staging strategy in place to ensure that appropriate amounts of land are available at any one time, and that there is not oversupply.

The recommended staging strategy is outlined below. Note that staging will generally operate independently within each LGA.

#### **Blayney**

Consideration for rezoning in the short term (5-10 years) is to generally occur in the following order:

- ▶ SA D Blayney Abattoir, for industrial activities that require good access to transport;
- ▶ SA E Newbridge Road, for larger scale industrial activities complementary to the current industrial cold storage use.



Once the existing industrial area and those Strategy Areas identified above are at 85% capacity, consideration can be given to SA F Marshalls Lane North.

### **Cabonne**

SA D Manildra is to be considered in the short to medium term (5-15 years) for rural industries.

### **Orange**

SA A Narrambla extension is to be considered for rezoning in the short term (0-10 years) for smaller scale industrial and light industrial activities.

SA B North Clergate is to be considered for rezoning in the short term (0-10 years) for large scale industrial activities that require large allotments, subject to development of vacant land within the existing industrial zoned area.

### **Industrial zones**

Existing and proposed industrial areas within Orange City and the town of Blayney will be zoned for industrial purposes, in accordance with the Standard Instrument.

In Cabonne, there are a number of towns and villages where some industrial activities within a "Village" zone is resulting in adverse impacts for adjoining residential or commercial development. For the larger towns and villages, it is recommended that the areas identified for industrial purposes be zoned Industrial under the Standard Instrument.

### **Buffers**

Industrial activities may cause offence or unacceptable risk to the neighbourhood or adjoining properties.

There are currently no NSW guidelines for buffer distances to industrial development. Appendix E is based on the Victorian Planning Provisions and outlines the threshold distances for different types of production, use or storages which is the basis upon which the buffer distances have been assigned to land uses. These are intended as a guide only and may be reduced, and/or increased, based on case by case analysis.

### **Mining**

New mines have the potential to affect water resources, native vegetation, human health and adjacent land uses and therefore should be established only after relevant investigative and approval processes have been undertaken and managed carefully.

In accordance with DPI recommendations, the following strategic directions are recommended:

- ▶ Operating mines and quarries would be protected from sterilisation or hindrance by encroachment of incompatible adjacent development, with a buffer of at least 1 kilometre;
- ▶ Known resources and areas of identified high mineral potential would not be unnecessarily sterilised by inappropriate zoning or development; and
- ▶ Access to land for mineral exploration and possible development would be maintained over as much of the planning area as possible.

The strategies in relation to mining are complemented by strategies in Chapters 9 and 11.



### **Rural industries**

Given the importance of rural industries in the Sub-Region, demand for agricultural value-adding and processing industries could emerge. The zoning provisions in the rural area would need to be flexible to accommodate these industries, however development controls would need to be developed to ensure that impacts on surrounding agricultural activities were minimised.

### **Tourism**

Tourism planning needs to avoid any adverse impacts on agriculture and should concentrate low impact rural tourism, particularly where it includes overnight accommodation, in and around rural towns. Areas could also be suitable where they are some distance from agriculture or separated by a physical feature such as a hill that minimises the risk of an adverse impact. Rural bed and breakfast (B&B) has become a very popular activity and as such could create some conflict with agricultural uses. Noise, dust and odour are the most common concern of B&B operators.

Sustaining the natural and cultural environment, building upon and encouraging existing products and services, and improving the connections between these areas and activities can enhance tourism appeal in the Sub-Region. Tourism development must protect and contribute to the natural and cultural resources of the Sub-Region and enhance primary industry activity as an investment in its own future.

Adding value to existing attributes will contribute to a richer tourism experience and help to diversify the local economy. Value adding can include accommodation, sales outlets, conference facilities and dining, in association with established industries. The key components for tourism development and growth within the region are:

- ▶ Small to medium-scale sustainable nature based tourism accommodation in strategic locations such as Canobolas region, Ophir, Springhill and Carcoar. This type of accommodation should have a high quality design emphasis and showcase the natural environment.
- ▶ Adding value to existing established industries. For example wine tourism development such as cellar door sales adds value to existing wineries.





### 10.3 Strategies and actions

#### Industry

**Objective:** Provide zoned and serviced industrial land, which fosters the growth and meets projected demands in terms of its location, quantity and quality.

Strategy	Policy actions	Responsibility	Timeframe
1. Provide for the ongoing economic viability of the Sub-Region, by providing adequate opportunities for employment-generating activities.	1.1 Ensure employment-generating activities are given priority in planning and decision making.	Councils and State Government	Ongoing
	1.2 Provide adequate strategic industrial land and zoned serviced business land to cater for industrial growth (job growth), as required in the most appropriate locations to ensure protection of competing land uses and physical constraints to development.		
	1.3 Encourage a wide variety of industrial activities within the industrial zones. compatible with existing development.		
	1.4 Ensure that at any time there are sufficient amounts of available land (zoned and serviced) for industrial purposes, and land identified for urban expansion for longer term industrial requirements.		
	1.5 Encourage clustering of related industries to maximise infrastructure efficiencies.		
	1.6 Implement strategies to identify opportunities to increase diversification of industrial activities.		
	1.7 Permit home industries and home occupations (possibly without consent) in residential and rural areas, subject to appropriate controls in relation to size and scale.		



Strategy	Policy actions	Responsibility	Timeframe
2. Identify land that is appropriate for industrial development.	2.1 Provide land zoned for industrial purposes as shown in Figure 6.1, using the General Industrial land use designation.	Councils	Short term and ongoing
	2.2 Prohibit inappropriate land uses from locating on land zoned for industrial purposes.		
	2.3 Provide a range of allotment sizes for industrial uses.		
	2.4 Rehabilitate and make available underutilised industrial land for new development.		
3. Ensure planning policy facilitates and supports business development.	3.1 Ensure planning policy facilitates the establishment of new businesses based on the competitive advantages of the region, including providing access to major road and rail access routes, land, and separation distances from adjoining land uses.	Councils	Medium term and ongoing
	3.2 Develop a partnership approach between Council and business interests for the development of industrial land.		
	3.3 Allow for a mix of related and complementary land uses in employment areas to provide services to local employees, while not undermining the key role and function of the area or zone.		
	3.4 Develop policies and actions to attract and retain youth.		
4. Ensure rail, road and air transport options supports the local economy, integrates land use planning options and is a sustainable network.	4.1 Incorporate projected local and regional urban growth and economic activity into analysis of the need for future transport infrastructure.	Councils and State Government	Medium term
	4.2 Ensure that the location and design of developments protect and maintain the function of State Government-maintained roads, freight, rail and shipping routes.		
	4.3 Ensure transport planning and infrastructure decisions promote development in appropriate locations.		
5. Ensure industrial land has adequate infrastructure.	5.1 Industrial land should be capable of being serviced by all required infrastructure and utilities.	Councils, utility service providers	Short term and ongoing
	5.2 Promote sustainable water and energy use in industrial development.		



<b>Strategy</b>	<b>Policy actions</b>	<b>Responsibility</b>	<b>Timeframe</b>
6. Prevent and manage land use conflicts.	6.1 Prepare specific controls for industrial land uses and regulate them through the LEP or DCPs.	Councils	Short to medium term and ongoing
	6.2 Prevent potentially conflicting land uses from locating adjacent to industrial activities. Where this is not possible, manage the conflicts through implementation of development controls.		
	6.3 Provide land use buffers to prevent land use conflict between industrial development and competing uses. Refer to the recommended buffer zones in Appendix E.		
	6.4 Allow for expansion of industry when defining separation distances from other uses.		
	6.5 Notify neighbours of significant industrial development proposals on adjoining properties.		
7. Prepare and implement new environmental planning instruments for the LGAs	7.1 Prepare a new comprehensive LEP in accordance with the Standard Instrument encompassing the relevant strategies and actions identified above (see also Chapter 15).	Councils	Short term
8. Prepare management guidelines for land uses in industrial zones	8.1 Prepare a development control plan to support the LEP and provide additional detailed guidelines for development.	Councils	Short to medium term



Strategy	Policy actions	Responsibility	Timeframe
9. Prepare development controls for industrial development	9.1 Prepare and adopt landscaping requirements (including implementation and maintenance requirements) for all new industrial sites and estates.	Councils	Medium term
	9.2 Protect and enhance industrial amenity and reduce the visual dominance of industrial estates/sites on the gateways to Orange City, towns and villages through the provision of adequate buffers, landscaping and appropriate building form and design.		
	9.3 Ensure that industry is compatible in terms of its scale and physical character with its rural and urban surroundings.		
	9.4 Ensure land use policy clearly describes the appropriate scale of industrial development in a locality or region.		
	9.5 Design landscaping, built form, access and services in a way that assists the appearance of industry.		
10. Ensure that home industries and home occupations do not adversely impact on residential amenity	10.1 As home industries and home occupations in residential and rural areas expand, encourage their relocation to appropriate industrial zones.	Councils	Ongoing



## Mining

**Objective:** Maximise opportunities to expand and access land resources for mining activities and extractive industries.

Strategy	Policy actions	Responsibility	Timeframe
11. Protect known and potential mineral and extractive resources	11.1 Protect operating mines and quarries from sterilisation or hindrance by encroachment of incompatible adjacent development.	Councils	Short term and ongoing
	11.2 Known resources and areas of identified high mineral potential would not be unnecessarily sterilised by inappropriate zoning or development.		
	11.3 Subdivision for residential lifestyle allotments would be prohibited adjacent to and near operating mines, known resources and areas of high mineral potential.		
	11.4 Access to land for mineral exploration and possible development would be maintained over as much of the planning area as possible, through the land use strategies recommended in Chapter 9.		
	11.5 Development for the purposes of mines and extractive industries would be permitted in the Primary Production zone.		



## Rural industries

**Objective:** Provide adequate opportunities for value-adding rural industries to be located in the Sub-Region, particularly in and adjacent to agricultural areas.

Strategy	Policy actions	Responsibility	Timeframe
12. Encourage the establishment of enterprises that value-add to the agricultural industry.	12.1 Permit rural industries within the Primary Production and Rural Small Holdings zones.	Councils State Government	Short, medium and long term
	12.2 Allow for the development of value-adding activity, such as packing sheds and processing facilities, which complement primary industry in the local area.		
	12.3 Maximise the use of productive land by encouraging the location of large-scale, value-adding activities outside areas of primary production significance.		
	12.4 Examine opportunities for co-location of intensive primary industries and compatible processing activities to reduce land use conflict and achieve efficiencies in production, processing, distribution, energy efficiency and waste recycling taking into account environmental, infrastructure and rural amenity issues.		
13. Prevent and manage land use conflicts.	13.1 Prepare specific controls for rural industries and regulate them through the LEP or DCPs.	Councils	Short to medium term and ongoing
	13.2 Prevent potentially conflicting land uses from locating adjacent to rural industries. Where this is not possible, manage the conflicts through implementation of development controls.		
	13.3 Provide land use buffers to prevent land use conflict between rural industries and competing uses. Refer to the recommended buffer zones in Appendix A.		
	13.4 Allow for expansion of rural industries when defining separation distances from other uses.		
	13.5 Notify neighbours of significant industrial development proposals on adjoining properties.		



Strategy	Policy actions	Responsibility	Timeframe
14. Encourage and protect energy generation in the rural area	14.1 Ensure existing energy generating activities are appropriately zoned and protected from rural settlement.	Councils, Department of Water and Energy	Short term and ongoing
	14.2 Identify areas that are suitable for wind generated energy within the sub-region and protect from rural settlement.		

## Tourism

**Objective:** Provide for the development of a significant and sustainable tourism industry that promotes the unique characteristics of the Sub-Region.

Strategy	Policy actions	Responsibility	Timeframe
15. Identify land that is appropriate for tourism development.	15.1 Identify areas where tourism is discouraged or encouraged.	Councils	Short term
	15.2 Where necessary, zone areas for tourism development as a Tourist zone in accordance with the Standard Instrument.		
	15.3 Review planning guidelines and criteria for assessment.		
	15.4 Encourage tourism development to be located to support and utilise facilities in existing settlements.		
	15.5 Encourage sustainable rural tourist facilities in rural zones including farm stays, ecotourism resorts and associated facilities through the development of a DCP.		
16. Continue to support and develop food and wine based tourism activities.	16.1 In conjunction with Orange Region Vignerons Association and Orange Regional Tourism to further develop the promotion of the Orange food and wine products, through financial support.	Councils, Tourism bodies, Vignerons Association	Short to medium term



Strategy	Policy actions	Responsibility	Timeframe
17. Promote and enhance those qualities of the region that attract tourists.	17.1 Ensure that rural settlement, industry and other urban development does not impair the landscape character of key scenic routes.	Councils	Short and medium term
	17.2 Protect the natural landscapes of the region along designated scenic routes and town approaches.		
	17.3 Ensure tourism development is of a scale, design and form that will not overwhelm, overcommercialise or detract from the intrinsic values of the land on which it is sited.		
	17.4 Encourage innovative and sustainable design solutions in tourism development.		
	17.5 Require rigorous site analysis and innovative design for any tourism development in environmentally sensitive areas.		
	17.6 Identify the appropriate scale, character and design criteria that will enhance the amenity and landscape character of the locality.		
	17.7 Reinforce the unique character of towns with tourism development that complements their desired cultural, built and landscape character.		
	17.8 Discourage promotional buildings and signage for tourism that detracts from the scenic qualities of important landscape areas.		
	17.9 Develop an open space network that enhances the tourist product and visitor appeal.		
	17.10 Ensure that land use policies for key tourist towns accord with their desired future character.		
	17.11 Use relevant tourism strategies and plans to inform planning policy.		





## 11. Residential and Rural Subdivision

### 11.1 Objectives

Provide a range of residential opportunities within the rural areas which are in accordance with real expressed demand, compatible with the natural environment, settlement patterns, community aspirations, and economic pursuits of people living and working in the rural areas of Sub-Region.

### 11.2 Strategic Direction

#### Settlement Hierarchy

Growth is to be directed to the defined urban footprints for each settlement and is not allowed to sprawl, form ribbon or ad hoc development that would compromise the rural atmosphere. This will also ensure settlements remain distinct from each other and the identity of the individual centres is retained.

Table 11.1 outlines the proposed settlement of hierarchy for the Sub-Region.

**Table 11.1 Proposed Settlement Hierarchy**

Role	Settlement	Typical Lot sizes
Regional centre	▶ Orange	▶ Urban lots (serviced) ▶ Lifestyle blocks (semi serviced)
Towns	▶ Blayney ▶ Molong	▶ Millthorpe ▶ Canowindra ▶ Residential (serviced) ▶ Lifestyle blocks (unserviced)
Villages	▶ Carcoar ▶ Mandurama ▶ Borenore ▶ Cudal ▶ Manildra ▶ Yeoval	▶ Lyndhurst ▶ Newbridge ▶ Cargo ▶ Eugowra ▶ Cumnock ▶ Village blocks (semi serviced) ▶ Lifestyle blocks (unserviced)
Rural Centres	▶ Mullion Creek ▶ Nashdale ▶ Barry ▶ Neville	▶ Lucknow ▶ Spring Hill ▶ Hobbys Yards ▶ Village lots (in parts of Spring Hill and Lucknow within drinking water catchment areas – semi serviced) ▶ Lifestyle blocks (unserviced) ▶ Rural lots (commercial farms)
Rural area	▶ Remainder of Sub-Region	▶ Rural lots (commercial farms)

Growth in the villages is to be in accordance with separate village strategies being prepared by Blayney and Cabonne Councils.



### **Lifestyle blocks**

A planned approach to subdivision for lifestyle blocks involves identifying those areas that are suitable for lifestyle blocks and permitting development to occur, whilst prohibiting such development in all other rural areas.

Once the areas for lifestyle blocks have been identified a planning framework needs to be established. The planning framework will achieve four key objectives:

- ▶ Protect agricultural land use resources wherever possible, by discouraging land uses unrelated to agriculture from locating on agricultural land and minimising the ad hoc fragmentation of rural land;
- ▶ Plan and provide for rural settlement where it can benefit and support existing communities and have access to appropriate community services and infrastructure;
- ▶ Minimise the potential for land use conflict by providing adequate separation distance between potential conflicting land uses, introducing management requirements that protect existing agricultural land uses, identify areas that are suitable and capable for intensive agricultural pursuits as agricultural priority areas; and avoid locating new rural settlements in areas that are likely to create conflict with established or proposed agricultural priority areas; and
- ▶ Carefully manage natural resources by discouraging development and/or subdivision that may result in land or environmental degradation; integrating land, catchment and water resource management requirements with land use planning controls and incorporating land management standards and sequential land uses change in the land use planning and development process.

### **Staging**

Section 6.4.1 identified a number of areas within which further lifestyle allotment development can be justifiably pursued, subject to further detailed site specific investigations and design considerations that account for any site-level constraints.

It should be noted, however, that there needs to be a suitable staging strategy in place to ensure that appropriate amounts of land are available at any one time, and that there is not oversupply.

The recommended staging strategy is outlined below. Note that staging will generally operate independently within each LGA.

### ***Blayney***

Consideration for rezoning is to generally occur in the following order in the short to medium term, when other lifestyle allotment areas (such as North Millthorpe) have reached 85% completion in terms of subdivision and dwelling construction):

- ▶ SA 7 Millthorpe may be rezoned for lifestyle allotments when SA 9 Forest Reefs Road has been rezoned to primary production; and
- ▶ SA 8 Guyong Road may be rezoned for lifestyle allotments when SA 10 Browns Creek Road has been rezoned to primary production.



### ***Cabonne***

Consideration for rezoning in the short to medium term (5-15 years) is to generally occur in the following order:

- ▶ SA 5 Mullion Creek;
- ▶ SA 3 Weemilah; and
- ▶ SA 4 Spring Glen.

In relation to SA 6 Windera, consideration could be given to rezoning in the medium to longer term (15+ years) when the existing lifestyle allotment zone at Windera has reached 85% completion in terms of subdivision and dwelling construction.

### ***Orange***

Consideration for rezoning is to generally occur in the following order:

- ▶ SA 1 Leeds Parade; and
- ▶ SA 2 University.



### 11.3 Strategies and actions

#### Settlement generally

**Objective:** Encourage an efficient and sustainable settlement pattern, by directing development to appropriate locations, particularly where there are adequate services, facilities and infrastructure.

Strategy	Policy actions	Responsibility	Timeframe
1. Promote a balanced approach to development and growth in Sub-Region that is sustainable	1.1 Adopt the growth management strategy outlined in Chapter 5.	Councils	Short term and ongoing
2. Prepare a hierarchy of settlements based on villages, localities and rural centres	2.1 Adopt the settlement hierarchy outlined in Section 11.2.	Councils	Short term
3. Support the ongoing viability of rural communities.	3.1 Direct population growth away from agricultural areas and toward towns and villages.	Councils	Short to medium term
	3.2 Prepare 'Area Character Statements' for each village and town. The statements will reflect the desired qualities of the rural villages. The statements will be used in conjunction with the LEP and DCP.		
4. Monitor the provision of services and facilities	4.1 Prepare indicators which can be measured and used to assess the level of service provided to residents. This is to be done in conjunction with the Social Plan	Councils, State Government, service providers	Ongoing
	4.2 Ensure an environmentally and economically sustainable water supply is available and planned settlement does not impact on potential water resources for town water supply or agriculture (both groundwater and surface water).		



<b>Strategy</b>	<b>Policy actions</b>	<b>Responsibility</b>	<b>Timeframe</b>
5. Manage current supply of lifestyle allotments	5.1 Rezone existing zoned 1(c) areas to Primary Production in Principal LEPs as defined in Section 6.4.2 and introduce sunset clauses relating to the erection of dwelling houses.	Councils	Short to medium term
	5.2 Manage existing concessional lots as part of the supply and consider introducing a sunset clause to remove access to these lots in the medium term.		
6. Direct settlement intensification away from Environmentally Sensitive Areas (ESA)	6.1 Direct settlement away from ESAs in the first instance and control the minimisation and offsetting of impacts on any subsequent development by way of a DCP.	Councils	Short to medium term



## Lifestyle blocks

**Objective:** Provide opportunities for subdivision for lifestyle blocks only in identified locations where adverse impacts on agricultural land and the environment are minimised.

Strategy	Policy actions	Responsibility	Timeframe
7. Identify areas within Sub-Region that are suitable for subdivision for lifestyle blocks.	7.1 Apply the criteria outlined in Section 5.3 to determine locations where lifestyle blocks may be appropriate.	Councils	Short to medium term
	7.2 Permit subdivision for lifestyle blocks in those areas identified in Figure 6.1 in a controlled, staged manner, in accordance with demand, after management of excess supply has been executed, and the preparation of an LES to prove the Strategy Area's suitability for development.		
	7.3 Prohibit subdivision for the purposes of lifestyle blocks (including concessional or retirement allotments) in the Primary Production, Rural Landscape and Rural Small Holdings zones.		
	7.4 Identify staging of land releases so that land is rezoned to enable development in a timely manner.		
	7.5 Only permit the subdivision of land for lifestyle purposes where there is a secure source of water available to service the extent of ensuing development. Consideration must be given towards the requirements for potable and non potable sources in addition to the potential impact of existing users and the environment.		
8. Ensure that an appropriate supply of land is provided for subdivision for lifestyle blocks.	8.1 Rezone land identified above for lifestyle blocks as land supply (including existing zoned land and concessional lots) is depleted.	Councils	Short to medium term and ongoing
	8.2 Develop provisions to ensure that an agreed percentage of lots have been developed before more small holding lots are created in a certain area.		
	8.3 Develop a rural small holdings land monitor, to monitor the approval and creation of rural small holdings allotments and dwellings.		



Strategy	Policy actions	Responsibility	Timeframe
9. Prepare development controls for lifestyle blocks	9.1 Provide a policy framework for subdivision for lifestyle blocks that achieves the guiding principles.	Councils	Medium term
	9.2 Ensure that lifestyle blocks are compatible with their rural surroundings in terms of scale and physical character.		
	9.3 Prepare and adopt landscaping requirements for all new lifestyle blocks.		
10. Provide a mechanism for cost recovery for provision of services.	10.1 Develop means of recovering costs associated with the provision of services to rural areas, including lifestyle blocks.	Councils	Medium term
	10.2 Prepare a Section 94 contributions plan for lifestyle block subdivision, including investigation of cross LGA boundary contributions.		

## Landuse Conflicts

Strategy	Policy actions	Responsibility	Timeframe
11. Prevent and manage land use conflicts	11.1 Use separation, screening vegetation and appropriate alignment of allotment boundaries within subdivisions for lifestyle blocks to manage the interface between primary industry and lifestyle blocks to protect the economic potential and viability of primary industry.	Council	Short to medium term and ongoing
	11.2 Avoid locating new rural settlements in areas that are likely to create conflict with established or proposed agricultural priority areas. Where this is not possible or desirable, manage any potential conflicts through implementation of development control.		
	11.3 Protect primary industry through the identification of appropriate buffer areas that take into account anticipated future development and the impact on the local water source and its existing demand.		
	11.4 Notify neighbours of significant development proposals on adjoining properties.		



## 12. Natural and Scenic Environment

### 12.1 Objective

To ensure that natural resources, the scenic environment and conservation values are preserved for the benefit of current and future generations.

### 12.2 Strategic Directions

#### **Ecologically Sustainable Development**

The principles of ESD will be a fundamental consideration in future development of the Sub-Region. This includes consideration of the four principles of ESD:

- ▶ The precautionary principle;
- ▶ Intergenerational and intragenerational equity;
- ▶ Conservation of biological diversity and ecological integrity; and
- ▶ Improved valuation and pricing of environmental resources

#### **Water quality**

Healthy water resources and catchments in the Sub-Region are critical to the wellbeing of both the Sub-Region due to the region's vital role for the agricultural industry. Protection of water quality and quantity is one of the highest priorities for the region and attention must be given to the cumulative impact of land uses and management of these resources.

Provision of suitable buffers to development is critical in facilitating appropriate outcomes for natural resources, including groundwater and surface water.

The Strategy includes mechanisms to protect, manage and restore watercourses, drinking water supplies, groundwater and other water sources supporting environmental features and values. There is also a need to consider flood risk and include provisions for development in flood prone areas.

#### **Biodiversity**

Environmental protection zoning could be used to identify, protect and conserve environmentally sensitive lands and their high conservation values. Impacts to areas of biodiversity are to be avoided in the first instance, followed by minimisation, rehabilitation and offsetting impacts in instances where development is allowed.

Provision of suitable buffers to development is critical in facilitating appropriate outcomes for natural resources, including remnant vegetation, threatened fauna and flora and riparian corridors.

#### **Scenic environment**

The preservation and enhancement of the scenic environment are important considerations in any future development in the Sub-Region. The scenic environment is a major factor in attracting tourists to the area and its management is important to the continued growth of the tourism industry.





## 12.3 Strategies and actions

### Water quality

**Objective:** To identify surface and groundwater water bodies and ensure the quality of water bodies is not adversely affected by development.

Strategy	Policy actions	Responsibility	Timeframe
1. Ensure development does not have a detrimental impact on nearby water bodies.	1.1 Development to be located an appropriate distance from waterways.	Councils, developers, DECC, DWE, DPI, Central West CMA	Ongoing
	1.2 Develop performance criteria to be applied to all development to ensure impact on water bodies is maintained or improved through applying the principal of avoiding impacts in the first instance followed by minimising, repairing and offsetting where development is allowed to proceed.		
	1.3 All development to utilise best practice management for soil and water management on the site		
	1.4 On-site effluent disposal is to be in accordance with an adopted DCP for On-Site Sewage Management and the NSW Government's Environment and Health Protection Guidelines (On-site Sewage Management for Single Households)		
	1.5 Promote water sensitive urban design (WSUD), through a DCP, in Development Plans and development proposals to achieve multiple catchment water management objectives such as reducing runoff and flooding; protecting waterways and their biotic communities; conserving and harvesting water; and enhancing the amenity of urban environments.		
	1.6 Identify and map environmentally sensitive waterways.		



<b>Strategy</b>	<b>Policy actions</b>	<b>Responsibility</b>	<b>Timeframe</b>
2. Control development in drinking water catchments	2.1 Implement a specific environmental protection zoning for land within the drinking water catchments.	Councils	Short term and ongoing
	2.2 Restrict the type and intensity of development permissible in the drinking water catchment.		
	2.3 Develop specific performance criteria based on the most current government endorsed Water Quality and River Flow Objectives, to be applied to all development in the drinking water catchment to further minimise adverse impacts.		
3. Increase community awareness and involvement in water quality and catchment issues	3.1 Develop an education program informing the community on typical water quality problems.	Councils, State Government, Central West CMA and community	Medium to long term
	3.2 Promote best practice in riparian corridor management.		
	3.3 Provide assistance to Landcare groups and primary producers in obtaining grants for restorative works.		



## Biodiversity

**Objective:** To ensure that the biodiversity and conservation values of the Sub-Region are maintained and enhanced.

Strategy	Policy actions	Responsibility	Timeframe
4. Recognise and protect the biodiversity and conservation values from the impacts of settlement and development intensification.	4.1 Identify significant areas of native vegetation and wildlife corridors.	Councils	Short term and ongoing
	4.2 Establish a land use management approach consistent with State, regional and local biodiversity goals, including Regional Vegetation Management Plans and Catchment Action Plans.		
	4.3 Implement a specific zoning for National Parks and Nature Reserves.		
	4.4 Implement environment protection zoning for areas of significant remnant vegetation or endangered ecological communities.		
	4.5 Identify and map environmentally sensitive land, being land with significant native vegetation (particularly Crown land), and aquatic environments.		
	4.6 Prepare general biodiversity and vegetation provisions to be applied to all development, through DCPs requiring impacts be avoided in the first instance backed by minimisation, rehabilitation and offsetting impacts in instances where development is allowed.		
	4.7 Implement ESA Overlays and associated special enhanced requirements through the LEP.		
5. Prepare management guidelines for land uses	5.1 Prepare a development control plan to support the LEP and provide additional detailed guidelines for development.	Councils	Short to medium term
6. Increase community awareness and involvement in identifying, protecting and enhancing biodiversity	6.1 Develop an education program informing the community on the values of native flora and fauna, habitat and corridors, and the threats to these from feral animals, weeds, grazing and clearing.	Councils, State Government and community	Medium to long term
	6.2 Provide assistance to Landcare groups and farmers in obtaining grants for restorative works.		



## Scenic Quality

**Objective:** Ensure that development has a minimal impact on the scenic and cultural landscape of the Sub-Region.

Strategy	Policy actions	Responsibility	Timeframe
7. Preserve, conserve and enhance major landscape features	7.1 Identify significant natural and modified landscapes and zone these as Rural Landscape.	Council	Short term and ongoing
	7.2 Require landscape and visual impact assessment for development in these identified areas.		
	7.3 Prepare general performance criteria relating to scenic quality and visual impact to be applied to all development.		
	7.4 Develop guidelines for the siting and design of buildings in the rural landscape.		
8. Prepare management guidelines for land uses in the Shire	8.1 Prepare a development control plan to support the LEP and provide additional detailed guidelines for development.	Council	Short to medium term

## Environmental Hazards

**Objective:** Ensure environmental hazards are fully understood and taken into account when considering impact if development

Strategy	Policy actions	Responsibility	Timeframe
9. Limit development within areas identified as having an environmental hazard	9.1 Prepare performance criteria relating to environmental hazards to be applied to development within identified areas.	Councils	Short term and ongoing
10. Ensure land development is minimised and hazards avoided in the first instance with minimisation, rehabilitation and offsetting impacts in instances where development is allowed.	10.1 Limit development that would require the removal of native vegetation that may result in erosion or an increase in dryland salinity.	Councils, State Government	Ongoing



Strategy	Policy actions	Responsibility	Timeframe
11. Recognise bush fire prone lands and ensure development is directed away from these lands.	11.1 Identify and implement the strategic fire protection zones as contained in the Bushfire Risk Management Plan.	Councils, State Government	Short term and ongoing
	11.2 Provide information on the bushfire regulations covering the LGA.		
	11.3 Provide information on Emergency Services Disaster Management and Response Plan.		
12. Identify and direct development away from flood prone lands	12.1 Prepare Floodplain Management Studies and Plans for all flood prone lands in accordance with the <i>NSW Floodplain Development Manual 2005</i> .	Councils, State Government	Short term and ongoing
13. Identify and manage Derelict Mines	13.1 Ensure those mines which represent risks to public health and safety are mapped.	Councils, State Government	Medium term and ongoing
	13.2 Provide information on Derelict Mines Program to assist in community understanding.		
	13.3 Work with DPI to address contamination at derelict mine sites.		
14. Develop policies that manage dryland salinity	14.1 Promote land uses that will not exacerbate dryland salinity, irrigation-induced salinity or water salinity and encourage those that will assist to reduce salinity in affected areas. Intensified development and settlement should be directed away from saline landscapes.	Council & State Governments	Ongoing
15. Protect new developments and settlement opportunities from the hazard of land contamination.	15.1 Manage land contamination as per Planning Guidelines SEPP 55 – Remediation of Land.	Councils	Ongoing



## Karst Landscapes

**Objective:** To protect significant karst landscape values from the impacts of development and settlement intensification.

Strategy	Policy actions	Responsibility	Timeframe
16. Limit development opportunities within significant karst landscape	16.1 Identify significant karst landscapes via the ESA process.	Councils, DECC	Short to medium term
	16.2 Protect Karst Conservation Reserves with E1 zoning.		
	16.3 Protect other significant karst landscapes with the use of other E zoning in the Standard Instrument.		
	16.4 By way of ESA Overlays with associated clauses, protect karst areas through minimum lot provisions and DCP requirements, avoiding impacts in the first instance backed by minimisation, rehabilitation and offsetting impacts in instances where development is allowed.		



## 13. Heritage and Culture

### 13.1 Objective

To preserve and enhance the heritage and culture of the Sub-Region.

### 13.2 Strategic Direction

#### Heritage

Whilst the existing mechanisms have arguably worked adequately, to date there has been very little challenge to the way the councils manage heritage.

Therefore, heritage provisions should be included in the new LEP, including an updated list of heritage items and conservation areas. There are standard heritage provisions for LEPs that are prescribed by the Heritage Office.

The strategic direction for the Strategy also incorporates:

- ▶ The incorporation of culture, heritage considerations into all aspects of the planning and development process;
- ▶ The strengthening of processes, policies and procedures to reinforce, protect and conserve areas, sites and places of heritage and cultural value. This includes the improved identification and listing of local heritage places and areas and completion of further studies;
- ▶ The development of partnerships and agreements between Local Government and traditional Aboriginal owners. These will serve to increase cultural awareness of their continued connection to the land and significance of 'Dreaming' sites, and protect important items, remains and landscapes during development processes; and
- ▶ Partnerships and public participation processes to create neighbourhoods that engender a sense of identity and help create stronger, more cohesive and culturally diverse communities.

#### Community services

Community services and facilities planning needs to acknowledge that thresholds of population in some towns are insufficient to support a full range of health and community services and that alternative arrangements are required to ensure access to facilities in some localities.



### 13.3 Strategies and actions

#### Heritage

**Objective:** Preserve the rural heritage and culture of the Sub-Region.

Strategy	Policy actions	Responsibility	Timeframe
1. Identify items and places of European heritage significance in Sub-Region.	1.1 Review existing heritage lists to identify what is important to the community in terms of heritage conservation.	Councils, State Government, community	Short term
	1.2 Ensure that adequate community consultation is undertaken with respect to identification of heritage items. This is to include discussions with affected landowners.		
2. Identify the Aboriginal heritage significance of Sub-Region.	2.1 Undertake an assessment of the Aboriginal heritage of the LGA, in consultation with local Aboriginal groups, including the identification of landscapes of significance.	Councils, State Government, Aboriginal groups	Short to medium term
3. Protect and enhance identified heritage values.	3.1 Develop heritage provisions for identified heritage items, conservation areas and Aboriginal places and landscapes.	Councils	Short term and ongoing
	3.2 Include a list of heritage items, conservation areas and Aboriginal areas (where appropriate) in the LEP.		
	3.3 Review the existing development control plans for villages with identified heritage character, and amend where necessary.		
	3.4 Develop streetscape protection measures for all villages.		
4. Prepare management guidelines for land uses in the Sub-Region.	4.1 Prepare a development control plan to support the LEP and provide additional detailed guidelines for development in relation to heritage	Councils	Short to medium term





Strategy	Policy actions	Responsibility	Timeframe
5. Increase community awareness and involvement in identifying, protecting and enhancing heritage.	5.1 Develop and implement an education program informing the community on the benefits of heritage conservation.	Councils, State Government, community	Medium term and ongoing
	5.2 Continue to provide free heritage advice to residents.		
	5.3 Encourage landowners to prepare conservation plans for significant items and places.		
6. Promote and support the rural heritage and culture of the Sub-Region.	6.1 Public information on heritage places and items and include in community and tourist information.	Councils	Short term and ongoing
	6.2 Support cultural and tourist activities which promote rural heritage.		

### Community Services

**Objective:** The provision of a range of health and community services facilities such as hospitals, primary care and community care centres, and the creation of healthy living environments to support and encourage physically and socially active communities.

Strategy	Policy actions	Responsibility	Timeframe
7. Create living environments in rural areas with access to services and facilities to support healthy lifestyles and active communities.	7.1 Support the physical, mental and social health of individuals and communities by ensuring good access to a range of education facilities, employment and training, affordable housing, social services, health centres and hospital facilities.	Councils and State Government	Medium term
	7.2 Manage the interface areas between living environments and other uses such as industry, arterial roads and primary industry, to minimise any adverse health impacts on the community.		
	7.3 Manage rural settlement patterns to ensure the effective and efficient provision of waste and recycling services.		
	7.4 Manage rural settlement patterns to minimise the creation of commuter dependent communities in the context of the emerging issues of fuel constraints and climate change.		



<b>Strategy</b>	<b>Policy actions</b>	<b>Responsibility</b>	<b>Timeframe</b>
8. Integrate service provision for new developments to support the function of new neighbourhoods or developments.	8.1 Review the overall impacts of rural residential development, and determine whether this type of development should continue to be made available in new release areas.  8.2 Allow for provision of services and facilities in residential areas to encourage exercise and neighbourly activity (for example, parklands and play equipment, footpaths, post boxes and public phones).	Council,	Short term and ongoing



## PART E – IMPLEMENTATION AND REVIEW



## 14. Implementation

The success of the Strategy in meeting the objectives and vision for the Blayney, Cabonne and Orange LGAs will depend on the on-going commitment of the councils in engaging the community and government agencies.

### 14.1 Strategic implementation

Various actions contained in this Strategy require further strategic attention by the three Councils and other stakeholders, and are not necessarily associated with the LEP/DCP framework or related land use planning decisions. These are also important in achieving the vision and objectives identified in this Strategy. The Strategy should be regularly reviewed (i.e. every 5 years) incorporating changes in the circumstances affecting the future of the Sub-Region. The Blayney, Cabonne and Orange Councils are committed to on-going involvement of the community and stakeholders in land use planning decisions.

### 14.2 Statutory implementation

The strategic directions specified in this Strategy are translated into statutory provisions through the development of an LEP and subsequent DCP framework. The LEPs and DCPs provide the means of ensuring that the development of the Blayney, Cabonne and Orange LGAs is consistent with the long-term land use vision and objectives identified for the Sub-Region.

This Strategy identifies key actions, recommendations and associated reference documents to be considered when assessing development applications for development and subdivision approval and proposals to rezone land. In the event that there are inconsistencies between reference documents and this Strategy, detailed recommendations of reference documents should only be implemented if the broad directions of the Strategy can be achieved.

#### 14.2.1 Local Environmental Plans

The New South Wales Government has recently introduced a range of reforms to the Environmental Planning and Assessment Act, 1979; one of which requires each local government area within NSW to prepare a new comprehensive Local Environmental Plan in accordance with the Standard Instrument for Local Environmental Plans that took effect on 31 March 2006. The Blayney, Cabonne and Orange Councils are expected to have completed their Principal LEPs by 31 March 2009.

The major initiative of the reform package is to develop a unified system for the delivery of land use controls by enabling all mandatory requirements for development to be identifiable by reviewing local environmental plans. The application of a common LEP template, common planning provisions, common definitions and common zones will provide a robust structure to give effect to regional strategies. It provides a framework within which each LEP asserts a leading role in environmental planning and management.

In response to these reforms and recommendations from the Local Profile and Issues Paper, a new LEP is required for each LGA to accommodate recent changes in planning practice, and new economic, social and environmental pressures. Therefore, new Local Environmental Plans

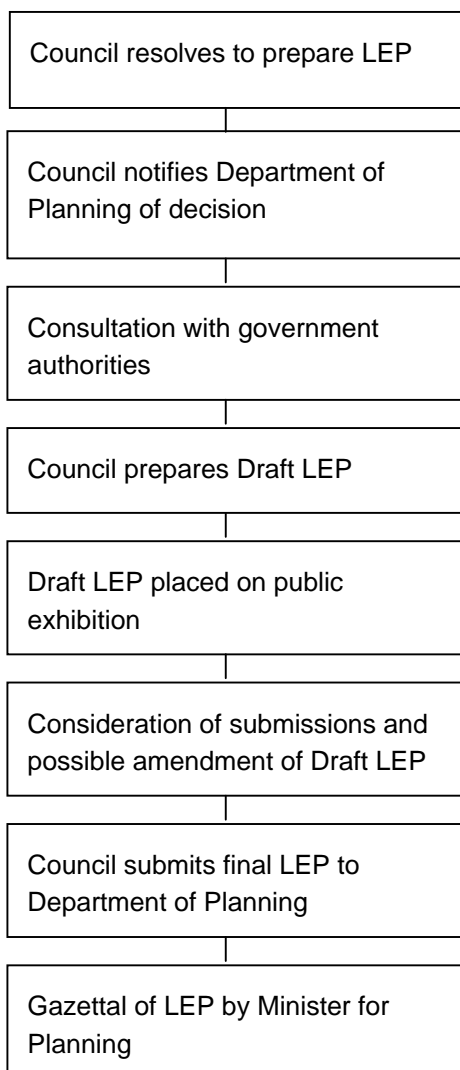


for the Blayney, Cabonne and Orange LGAs will be prepared, that will be consistent with the Standard Instrument.

Draft Local Environmental Plans will implement the Strategy and in particular will set out the development potential and key planning principles for development of the area. Based on the Standard Instrument, the draft LEPs will do the following:

- ▶ Rezone land to reflect the Strategy map. A range of new zones (based on the Standard Instrument for LEPs) will be included such as rural, residential business, industrial, special purpose, recreation and environment protection zones;
- ▶ Identify appropriate land uses which may be carried out within each zone;
- ▶ Stipulate subdivision and density controls;
- ▶ Identify and protect items of heritage significance, and
- ▶ Introduce measures to ensure protection of sensitive environmental areas.

The major steps involved in the preparation of LEPs are set out below. These steps apply to a principal comprehensive LEP, as well as future amendments to the principal LEP.



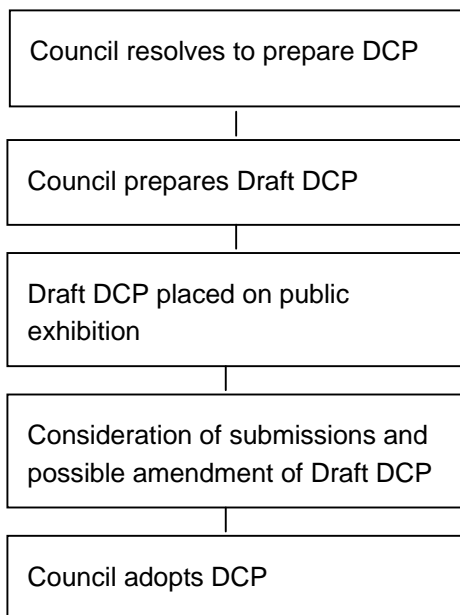


### 14.2.2 Comprehensive Development Control Plans

On 30 September 2005, the Environmental Planning and Assessment (EP&A) Amendment (Infrastructure and Other Planning Reform) Act 2005 (the Reform Act) commenced. The Reform Act includes changes to Part 3 of the EP&A Act 1979. The Reform Act contains a number of new provisions that require that only one Development Control Plan (DCP) apply to any site. It is therefore recommended that preparation of comprehensive DCPs should follow the preparation of new LEPs for each LGA.

The DCP for each LGA should be a single document, which contains guidelines of detailed provisions on all aspects of development. The DCP should supplement the provisions of the LEP and provide detailed design controls for residential, rural and industrial development as well as development of a heritage item or within a conservation area. The DCP should adopt a “performance based” approach to development control, focusing on development design outcomes as well as providing minimum standards for different types of development. This approach allows flexibility and innovation in design whilst ensuring development meets key site planning and design objectives.

The major steps involved in the preparation of DCPs are set out below. These steps apply to a principal comprehensive DCP, as well as future amendments to the principal DCP.



### 14.3 Staging

It should be noted that land that is identified by the Strategy map as being suitable for development will not necessarily be included in the first LEPs prepared by the three councils.

Staging and timing strategies must ensure that the extent of rezonings are moderated to provide for competition and choice in the market place. Also, the current level of supply needs to be managed before further releases are made. Opportunities for public involvement will occur



during the preparation of Strategic Plans for each growth area and the introduction of new development controls.

Staging of subdivisions within the growth areas should allow for the orderly extension of services, giving priority to areas that can utilise existing infrastructure and require lower levels of investment in new infrastructure. Also, water supply and access to water is an important matter that will largely determine the sustainability of both lifestyle and industrial development.

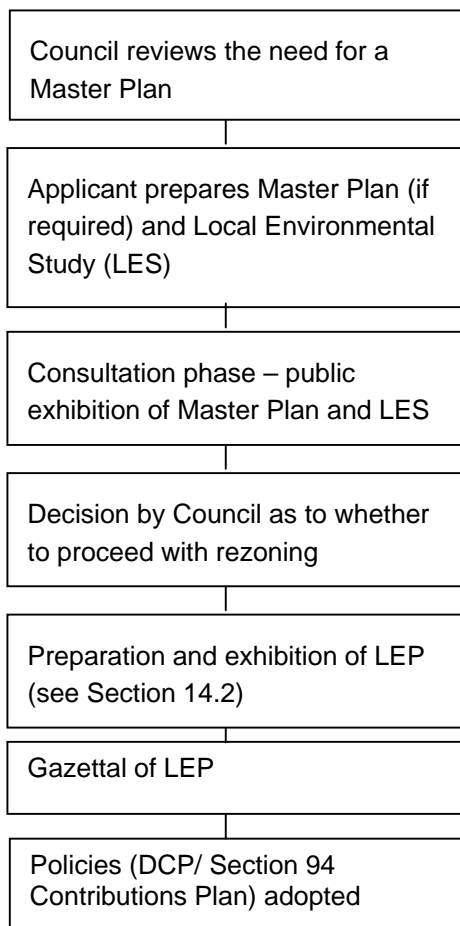
Once the designated lifestyle Strategy areas have reached approximately 40% to 60% built capacity (that is, dwellings have been erected), alternative areas nominated in the Strategy Plan should be considered for development.

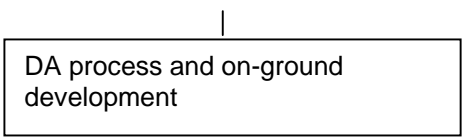
These lots should become available for development when other areas reach 80% capacity. It is recommended that an annual audit of land development rates be undertaken to monitor the rate of land take up and hence the need for additional land to be made available.

#### 14.3.1 Process for rezoning of Strategy Areas

The Strategy has identified a number of areas that are suitable for increased or additional development. As the Strategy only sets out broad strategic directions for development, in many cases further investigation will be required of those areas identified for future development in order to ascertain their suitability for that development.

The process by which the identified investigation areas are implemented is as follows:





**Master Plans**

The preparation of a master plan will be necessary in some investigation areas either due to the range of issues, the number of landowners and/or the need for increased community consultation prior to rezoning and development occurring. A master plan may also be deemed to be necessary for other investigation areas as the implementation of the Strategy progresses.

A master plan is essentially a broad planning study of an area to provide planning principles and direction for a whole investigation area or planning locality. The contents of the master plan will vary depending on each site but might include coordinated transport planning, water and sewer infrastructure planning, guidelines for development density, community service planning and/ or environmental outcomes. The master plan will generally be undertaken up-front, prior to more detailed investigations for the land in question to set a broad planning framework.

The importance of the master plan is to ensure that planning does not take place in an ad-hoc, piecemeal fashion. The process involves landowners, Council and other relevant government agencies to produce a plan, with input from the community to form the basis of land use decisions for a particular locality.

In instances where multiple landowners are involved, the initial coordination may need to be carried out by Council. For example, it may be necessary that Council facilitate a workshop of interested parties and/ or assist landowners to determine a fair and equitable system of distributing the cost of studies and planning between affected parties.

Council's role could also be related to the preparation of studies relevant to Section 94 of the EP&A Act in relation to developer contributions. This could include studies to determine the appropriate types of development in a locality (e.g. residential, open space, neighbourhood facilities or studies related to traffic planning, drainage and cycleways).

Council may also play a role in coordinating consultation with the community and the exhibition of plans. The distribution of costs for Council's involvement will need to be considered on a case-by-case basis by Council. However, as a general principle, the cost of undertaking master planning should wherever possible be distributed between landowners who stand to gain from the expected outcomes of the master planning, bearing in mind that there are no guarantees regarding the outcomes of this process.

Any costs incurred by Council in preparing the master plan will be recouped through increased fees (such as rezoning fees) or as part of a Section 94 Contributions Plan.

Landowners are therefore encouraged to undertake the preparation of a master plan for these areas, with guidance from Council.

**Local Environmental Studies**

Prior to any development occurring in the Strategy Areas, including lifestyle and industrial development, a local environmental study (LES) would be required to be carried out.





Whilst Council will retain control of the LEP and DCP process, proponents of the rezoning proposals will be required to fund all necessary studies, including the LES. The NSW Department of Planning is the lead State Government agency involved in the rezoning process.

The process of investigation will be required to be undertaken holistically, irrespective of the size of an area that is proposed to be rezoned. Council will expect that the design of the area proposed for rezoning will be considered in the context of any master plan including consideration of future development patterns, constraints and sequencing to ensure that successive developments are not fragmented and uncoordinated.

The LES would investigate such matters (but not limited to) as follows:

- ▶ The source of water supply to service the proposal; detailed analysis of groundwater and surface water resources and anticipated impacts of the proposal;
- ▶ Traffic generation and the standard of the road surface for the anticipated increase in vehicular movements;
- ▶ Ecological investigations to identify the presence of any species listed under the provisions of the Threatened Species Conservation Act;
- ▶ Drainage investigations to identify the 1% AEP flood;
- ▶ Bushfire risk. An assessment will have to be carried out of the potential bushfire risk to the land. Reference should be made to the recently published Planning for Bushfire Protection document;
- ▶ Effluent Disposal Study to identify the most efficient means of disposing of domestic effluent on the site. This will need to be done in accordance with the NSW Government Environment and *Health Protection Guidelines – On-site Effluent Management for Single Households*, published in 1998;
- ▶ European and cultural heritage assessment;
- ▶ Scenic and landscape analysis of the area to identify the important landscape features;
- ▶ The staging of the release of land to ensure that it occurs in a timely and efficient manner and is not premature in terms of existing supply;
- ▶ Protection and management of riparian zones;
- ▶ Flooding and access; and
- ▶ The preparation of master plans to highlight the overall subdivision pattern and the ways that it will blend into the landscape.

#### **14.4 Development applications**

In their roles as consent authorities for development applications within the Sub-Region, the three councils also have an ongoing role in the implementation of the Strategy through the development assessment process.

The vision, principles, strategies and actions of this Strategy should be taken into consideration by the councils when determining development applications for development in the rural and industrial areas.



## 15. Recommendations for LEPs

### 15.1 Recommended land use zones

The utilisation of land use zoning to segregate land uses is a commonly used planning practice in New South Wales. In rural areas however there has generally been one or 2 generic type zones that have been called a "rural" zone. One of the major reasons for zoning an area is to preclude or regulate specific uses that are considered to be not in keeping with the general amenity of the area.

Zone names such as residential, commercial and industrial are used to identify a list of specific land uses that are permissible in a particular location. Rural zones are often less specific. The term rural describes a character, not a use. In current LEPs, the rural zones often have objectives for the preservation of rural land for agricultural purposes but can also paradoxically permit lifestyle development (concessional lots and undersized rural lots) which is at odds with primary production. It is therefore appropriate to use a zone name that provides an indication of the uses that are carried out within that area, and definitively prohibit incompatible land uses.

Zoning can also be used to identify the major objective for any future as well as existing development in an area for example; if an area is of high conservation status then a zone name outlining this is also appropriate.

In accordance with the Standard Instrument for LEPs, the zones to be considered in the new LEPs are as follows:

- ▶ RU1 Primary Production
- ▶ RU2 Rural Landscape
- ▶ RU3 Forestry
- ▶ RU4 Rural Small Holdings
- ▶ RU5 Village
- ▶ IN1 General Industrial
- ▶ E1 National Parks and Nature Reserves
- ▶ E4 Environmental Management
- ▶ W1 Natural Waterway

Each zone is discussed below.

It should be noted that urban land use zones will cover the existing urban and village areas, which includes residential, village, commercial, industrial, special areas and recreational zonings. These are not discussed here. To provide additional environmental protection, in urban or rural areas an 'overlay' can be applied in addition to zones. Overlays' are simply a map with an associated clause in the plan that details the matters that must be considered when an application for development is determined.



### ***Zone RU1 Primary Production***

This zone is generally intended to cover land used for most kinds of primary industry production, including extensive agriculture, horticulture, intensive livestock agriculture, mining, forestry, energy generation (wind turbines) and extractive industries. The zone is aimed at maintaining and enhancing the natural resource base.

The objectives of the zone would include:

- ▶ To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.
- ▶ To encourage diversity in primary industry enterprises and systems appropriate for the area.
- ▶ To minimise the fragmentation and alienation of resource lands.
- ▶ To minimise conflict between land uses within the zone and with adjoining zones.

The mixture of rural uses is to be retained with controls placed on the location of houses so that they do not create a conflict by being too close to the boundaries, thereby creating rural land use conflict. Agriculture uses are to be encouraged as are low key rural tourism and accommodation.

### ***Zone RU2 Rural Landscape***

This zone is generally intended for rural land with landscape values or land that has reduced agricultural capability due to gradient, soil type, vegetation, rock outcrops, salinity etc. but which is suitable for grazing and other forms of extensive agriculture. The most compatible zone under the Orange LEP 2000 this zone includes 1(a) General Farming, Cabonne LEP 1991 includes 1(a) General Rural and Blayney LEP 1998 includes 1(a) General Rural zones. Under this zone extensive agriculture will be permitted without consent.

The objectives of the zone would include:

- ▶ To maintain the rural landscape character of the land.
- ▶ To provide for a range of compatible land uses, including extensive agriculture and rural tourism.

### ***Zone RU3 Forestry***

This zone is generally intended to identify and protect land that is to be used for long-term forestry use. Note that land which is to be used for forestry purposes may alternatively be dealt with under the RU1 Primary Production zone. Under the Cabonne LEP 1991 includes 1(f) Forestry and Blayney LEP 1998 includes 1(f) Forestry zones. Uses authorised under the Forestry Act 1916 are permitted without consent

The objectives of the zone would include:

- ▶ To enable development for forestry purposes.
- ▶ To enable other development that is compatible with forestry land uses.

### ***Zone RU4 Rural Small Holdings***

This zone is generally intended for land which, is to be used for small scale rural and primary industry production. Land within this zone might also provide for emerging primary industries



and agricultural uses. It is not intended that this zone be used for land that is primarily residential in function

The objectives of the zone include;

- ▶ To enable small –scale sustainable primary industry and other compatible land uses.
- ▶ To maintain the rural and scenic character of the land.
- ▶ To ensure that development does not unreasonably increase the demand for public services or public facilities.
- ▶ To minimise conflict between land uses within the zone and adjoining zones.

### ***RU5 Village***

This zone is generally intended to cover rural villages where a mix of residential, retail, and other uses is to be established or maintained. Localities such as Carcoar, Mandurama, Lyndhurst, Newbridge, Borenore, Cargo, Cudal, Manildra, Eugowra, Cumnock, Yeoval would be included in this zone.

The objectives of the zone would include:

- ▶ To provide for a range of land uses, services and facilities that are associated with a rural village.

### ***R1 Residential***

This zone is generally intended to provide for a variety of residential housing types and densities, including dwelling houses, multi-dwelling housing, residential flat buildings, boarding houses and seniors housing. The zone also provides for additional uses that provide facilities or services to residents, including neighbourhood shops and child care centres.

The objectives of the zone would include:

- ▶ To provide for the housing needs of the community.
- ▶ To provide for a variety of housing types and densities.
- ▶ To enable other land uses that provide facilities or services to meet the day to day needs of residents.

### ***R5 Large Lot Residential***

This zone is generally intended to cater for development that provides for residential housing in a rural setting.

The objectives of the zone would include:

- ▶ To provide residential housing in a rural setting while preserving environmentally sensitive locations and scenic quality.
- ▶ To ensure that large residential allotments do not hinder the proper and orderly development of urban areas in the future.
- ▶ To ensure that development in the area does not unreasonably increase the demand for public services or public facilities.
- ▶ To minimise conflict between land uses within the zone and adjoining zones.



### ***IN1 General Industrial***

This zone is generally intended to accommodate a wide range of industrial and warehouse uses. Councils could choose to supplement the existing mandated industrial and warehouse uses by permitting heavy, and offensive or hazardous industries, if appropriate. This zone would be suitable where a council wishes to have only one industrial zone.

The objectives of the zone would include:

- ▶ To provide a wide range of industrial and warehouse land uses
- ▶ To encourage employment opportunities.
- ▶ To minimise any adverse effect of industry on other land uses.

### ***E1 National Parks and Nature Reserves***

This zone is generally intended to cover existing national parks and nature reserves. All uses currently authorised under the *National Parks and Wildlife Act 1974* will continue to be permitted without consent within this zone.

The objectives of the zone would include:

- ▶ To enable the management and appropriate use of land that is reserved under the *National Parks and Wildlife Act 1974*.
- ▶ To enable uses authorised under the National Parks and Wildlife Act 1974.

### ***E3 Environmental Management***

This zone is generally intended to be applied to land that has environmental or scenic values or hazard risk, but where a limited range of development including dwelling houses and other uses could be permitted. This zone might also be suitable as a transition between areas of high conservation value and other land uses such as rural or residential. A high minimum lot size would apply to this zone to prevent the impacts of rural settlement.

The following will be prohibited under this zone: Business premises; Industries; Residential flat buildings; Retail premises; Service stations; Warehouse or distribution centres.

The objectives of the zone would include:

- ▶ To protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values.
- ▶ To provide for a limited range of development that does not have an adverse effect on those values.

### ***W1 Natural Waterway***

This zone is generally intended for waterways that are to be protected due to their ecological and scenic values.

A limited number of low impact uses that do not have an adverse effect on the natural value of the waterway can be permitted in this zone.

The objectives of the zone would include:

- ▶ To protect the ecological and scenic values of natural waterways; and



- ▶ To prevent development that would have an adverse effect on the natural values of waterways in these zones.

## 15.2 Transitional arrangements

Transitional arrangements need to be developed by the Councils in consultation with the Department of Planning and Department of Primary Industries where it is recommended that where there is an excess of rural lifestyle lots created for the purpose of a dwelling, where not strategically located or deemed necessary, are gradually 'phased' out. The Standard Instrument does not provide for outdated provisions such as 'concessional lots' or existing holdings, with new subdivision and development for the purpose of an ancillary dwelling determined by minimum lot size provisions.

Where a Council intends to 'phase out' lots created for the purpose of a dwelling under a current plan, a specific clause can be instigated in the Principal LEP, known as a 'sunset clause'. This type of clause gives landholders a period of time in which to lodge a development application for a dwelling house on lots created for the purpose of a dwelling by the previous plan. This type of clause enables those with legitimate intentions to develop to lodge a DA. Once the 'sunset clause' expires, dwellings will not be permissible on these lots.

There is also a large amount of land that has been zoned for rural smallholdings or rural small holdings under the current LEPs but have not yet been developed. In some cases, these areas are poorly located and it is recommended that the councils 'back zone' these areas to Primary Production and include 'sunset clauses' in the new LEPs to enable landholders to act lodge a DA for a dwelling where a lot has been created. Councils need to carefully consider which areas will be the subject of back zoning, while recognising the need to provide rural lifestyle opportunities in more strategic locations.

The Central West Rural Land Use Inquiry made recommendations for the management of rural living opportunities and it is expected that a draft Rural SEPP will be prepared to give further guidance.



## 16. Monitoring and Review

### 16.1 Monitoring

While the Strategy provides a vision for the Sub-Region to around 2036, it is inevitable that the opportunities and constraints affecting the Sub-Region will change over time. As the vision and actions arising from this Strategy must be responsive to this change, they should be reviewed regularly to ensure that the Strategy remains current. This review process will also provide for continued community involvement in the development of the Blayney, Cabonne and Orange LGAs.

Monitoring of the actions outlined in this Strategy will be undertaken annually to determine completion or continued compliance. Review of this Strategy will be undertaken every three to five years to ensure the issues covered in the Strategy are still current and comply with State government initiatives. The key indicators for the monitoring and review of the Strategy include, but are not limited to the following:

- ▶ Social considerations, for example, the changing views/and or attitudes of the community. These views will ultimately influence and alter the vision for the Sub-Region and the guiding principles, as outlined in this Strategy.
- ▶ Economic considerations, for example, market deregulation fuel prices, emissions trading (carbon footprint), globalisation, restructuring of the agricultural industry, and market fluctuations e.g. commodity markets all have the potential to affect the identified strategies and actions.
- ▶ Environmental considerations, for example, any changes in environmental factors (e.g. changes in climatic conditions such as drought, longer term climate change) that may affect the strategies and actions identified.
- ▶ Federal, State and Local Government documents/policies may also affect the identified strategies and actions. At a Federal level, for example, this may include things such as government agreements e.g. terms of trade. At a State and Local level this may include things such as amendments to planning reforms, the NSW water reforms, and the provisions of any draft planning policies, and the results of State of the Environment Reports.

### 16.2 Performance indicators

The purpose of an indicator is to determine how conditions or trends compare with desirable outcomes.

It is recommended that the following indicators be adopted to guide the initial monitoring and evaluation of the Strategy.

Desirable outcomes include:

- ▶ Protection of significant natural resources, including agricultural land, forestry, areas used for wind powered energy generation and mineral resources;
- ▶ Preservation and enhancement of the natural and cultural landscape value of the Sub-Region's natural areas;



- ▶ Extensive natural and rural landscapes which constitute and contribute to the local identity;
- ▶ Opportunities for lifestyle blocks are provided in response to demonstrated demand and in locations that do not compromise agricultural activity;
- ▶ A diversity of rural industries that contribute to the local and regional economy and employment base, without compromising the natural environment; and
- ▶ A vibrant tourist sector and recreation and leisure activities.







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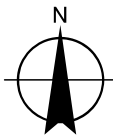
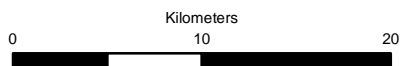
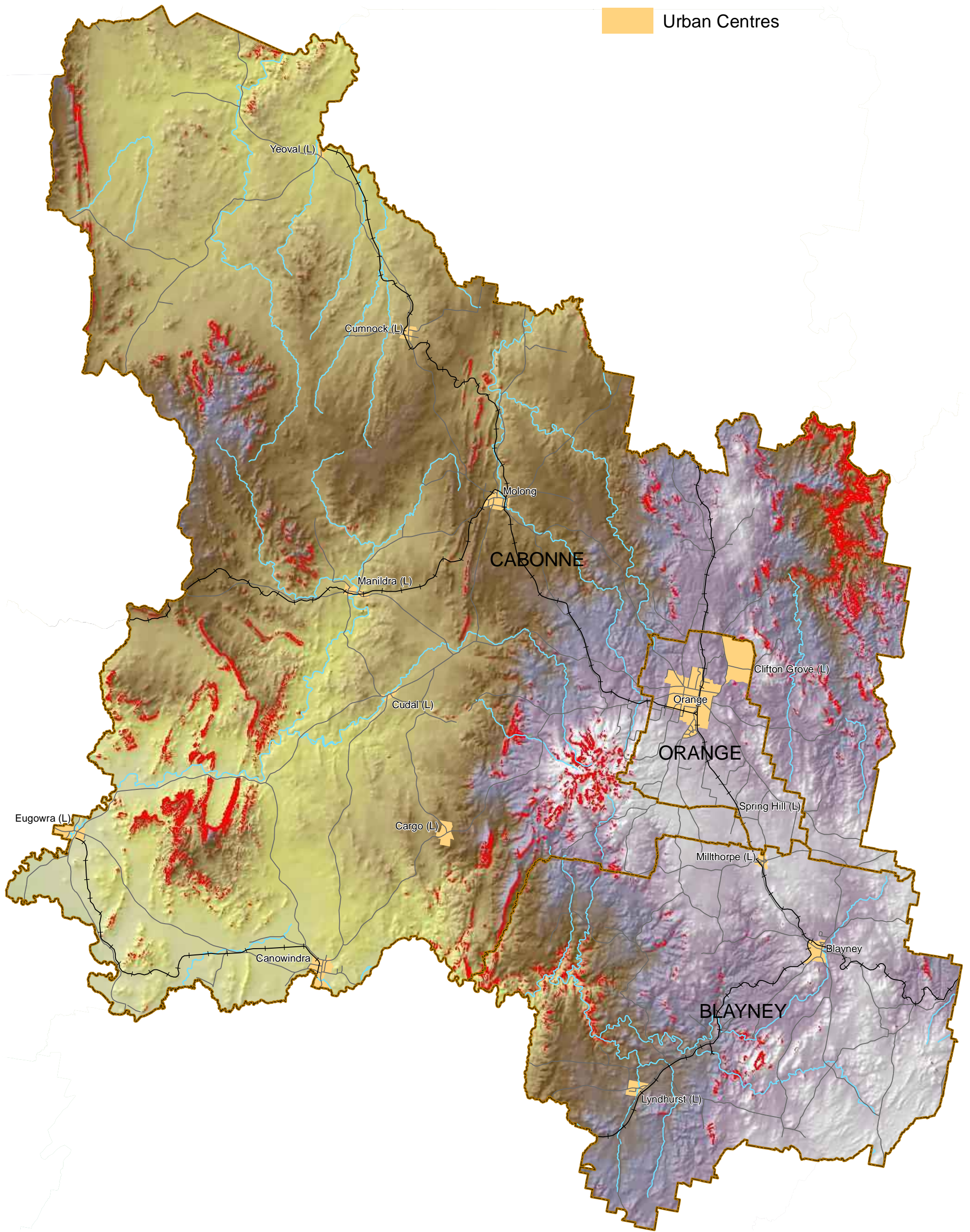


Appendix A

# Results of hard constraints analysis

# Legend

- Land with slope in excess of 18 degrees
- Urban Centres



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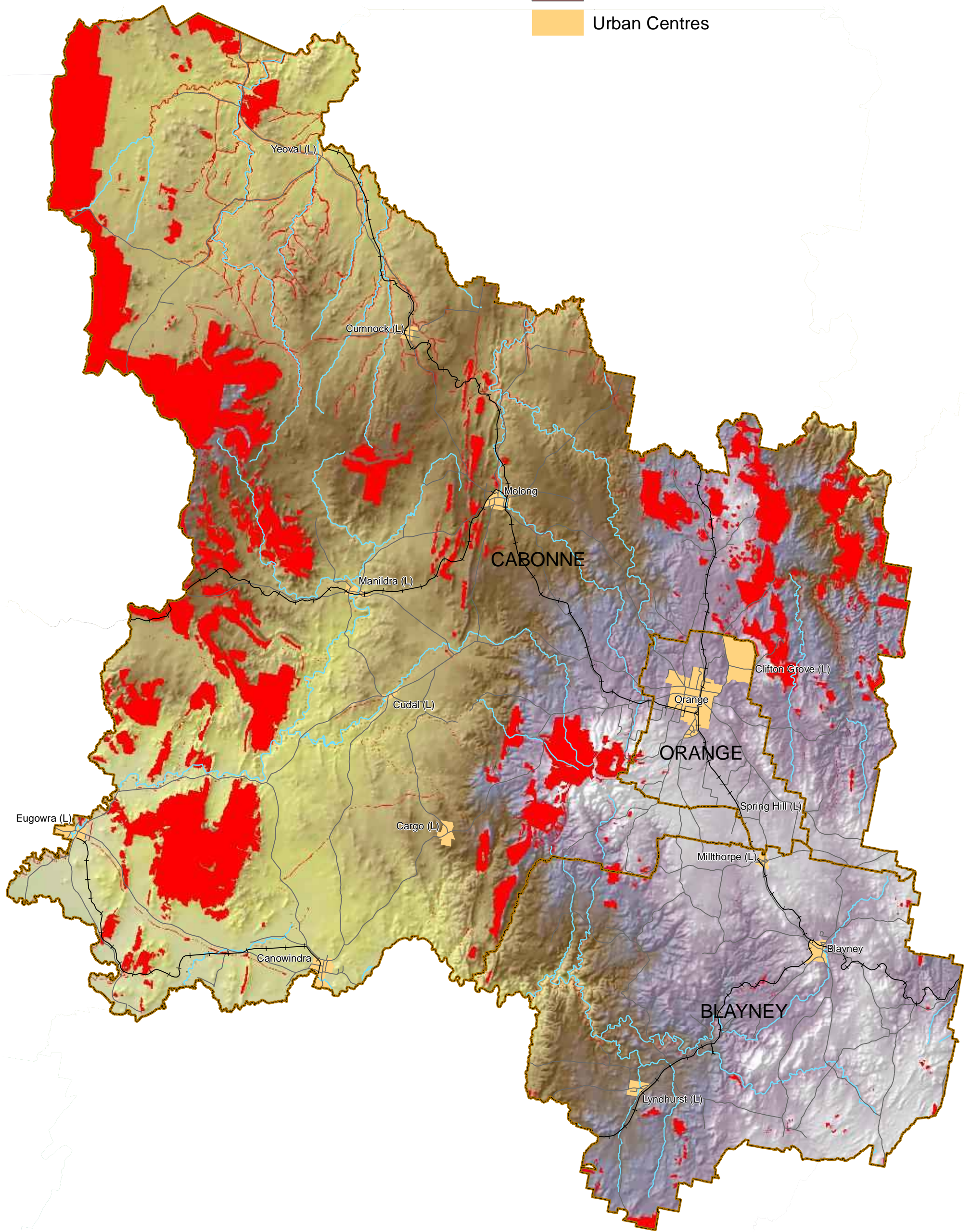
CLIENT: The Councils of Blayney, Cabonne and Orange City

PROJECT: Sub-Regional Rural and Industrial Land Use Strategy

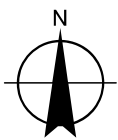
Constraint - slope in excess of 18 degrees

# Legend

- Land known to contain remnant native vegetation
- Urban Centres



Kilometers  
0 10 20



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VERSION: DRAFT

PROJECT NO: 21-14006

MAP NO: 21-14006-Z001

DRAWN: CWilson

CHECKED: MRoser

DATE: 10 Nov 2006

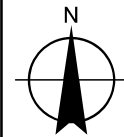
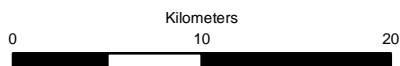
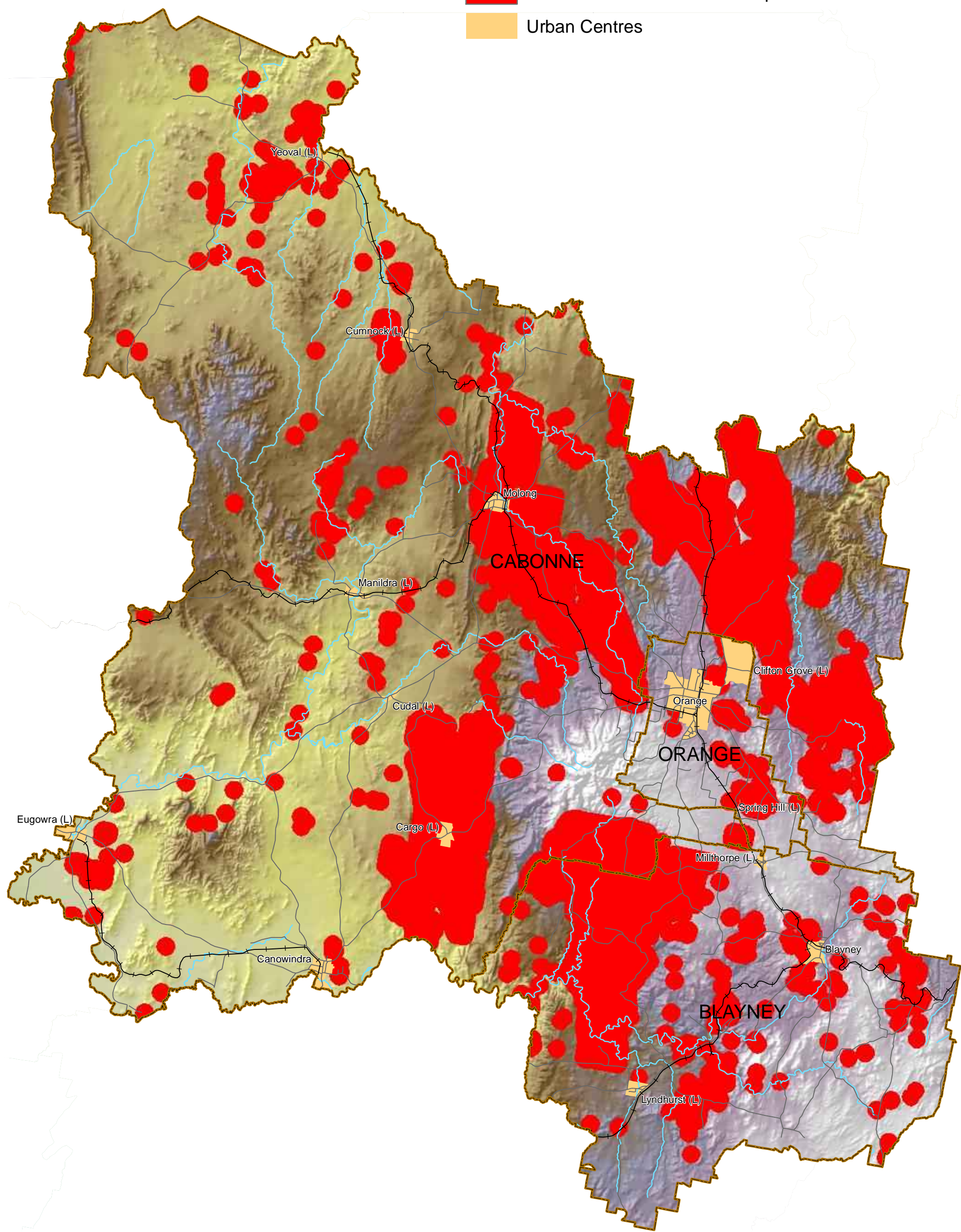
CLIENT: The Councils of Blayney, Cabonne and Orange City

PROJECT: Sub-Regional Rural and Industrial Land Use Strategy

Constraint - Remnant native vegetation

# Legend

- Areas within 1km of known or potential mineral resources
- Urban Centres



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DRAWN: CWilson

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DATE: 10 Nov 2006

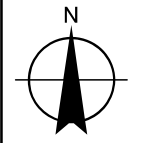
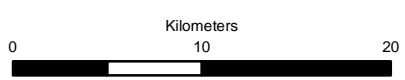
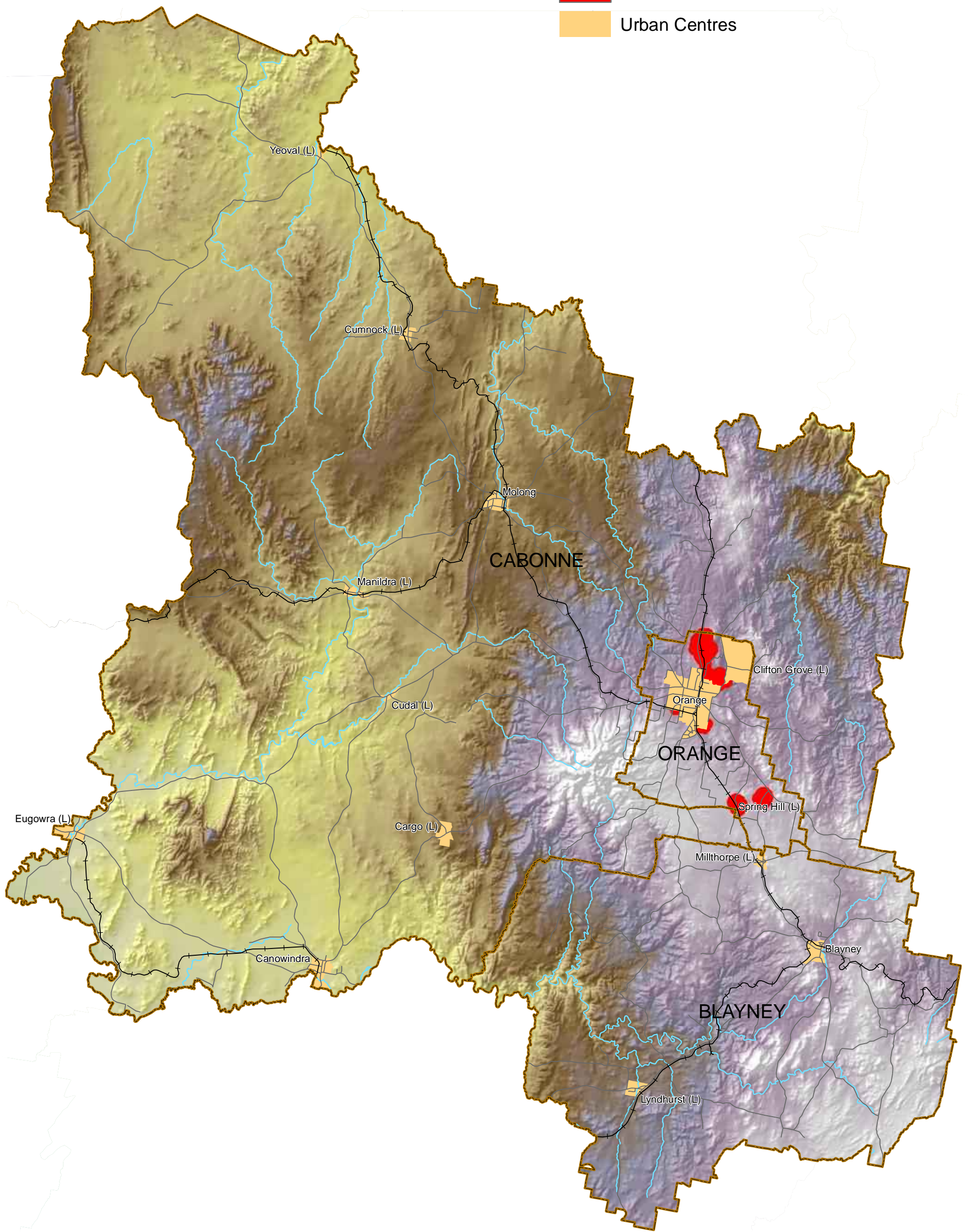
CLIENT: The Councils of Blayney, Cabonne and Orange City

PROJECT: Sub-Regional Rural and Industrial Land Use Strategy

Constraint - areas within 1km of known or potential mineral resources

# Legend

- Land that is within 500m of an industrial zone
- Urban Centres



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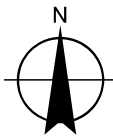
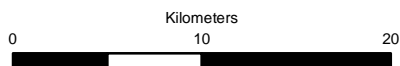
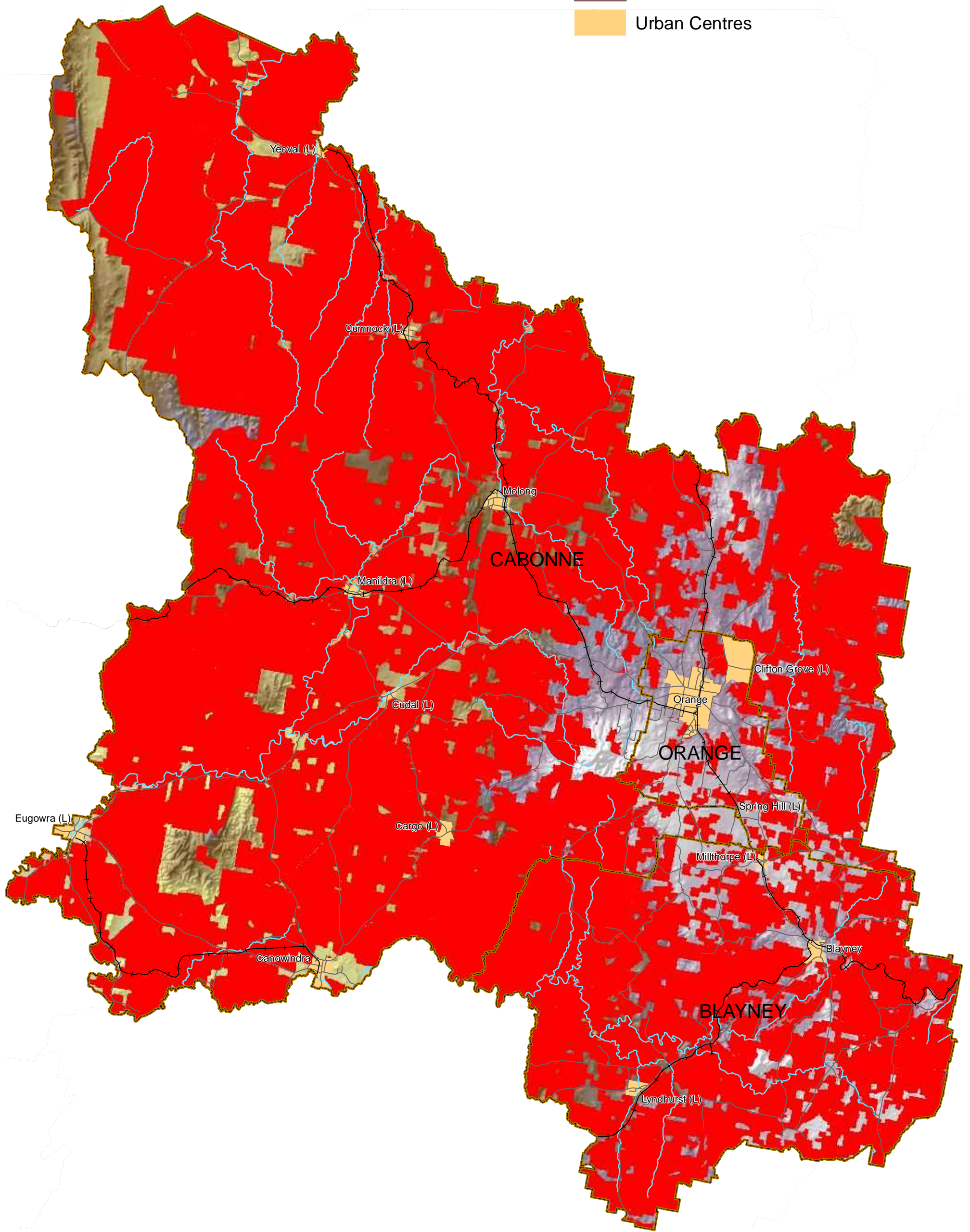
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PROJECT NO: 21-14006		
MAP NO: 21-14006-Z001		
DRAWN: CWilson	CHECKED: MRoser	DATE: 10 Nov 2006

CLIENT:	The Councils of Blayney, Cabonne and Orange City
PROJECT:	Sub-Regional Rural and Industrial Land Use Strategy
Constraint - within 500m of industrial zone	



# Legend

- Existing holdings greater than 100 hectares
- Urban Centres



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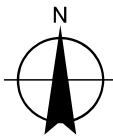
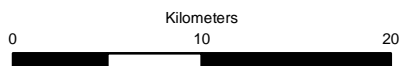
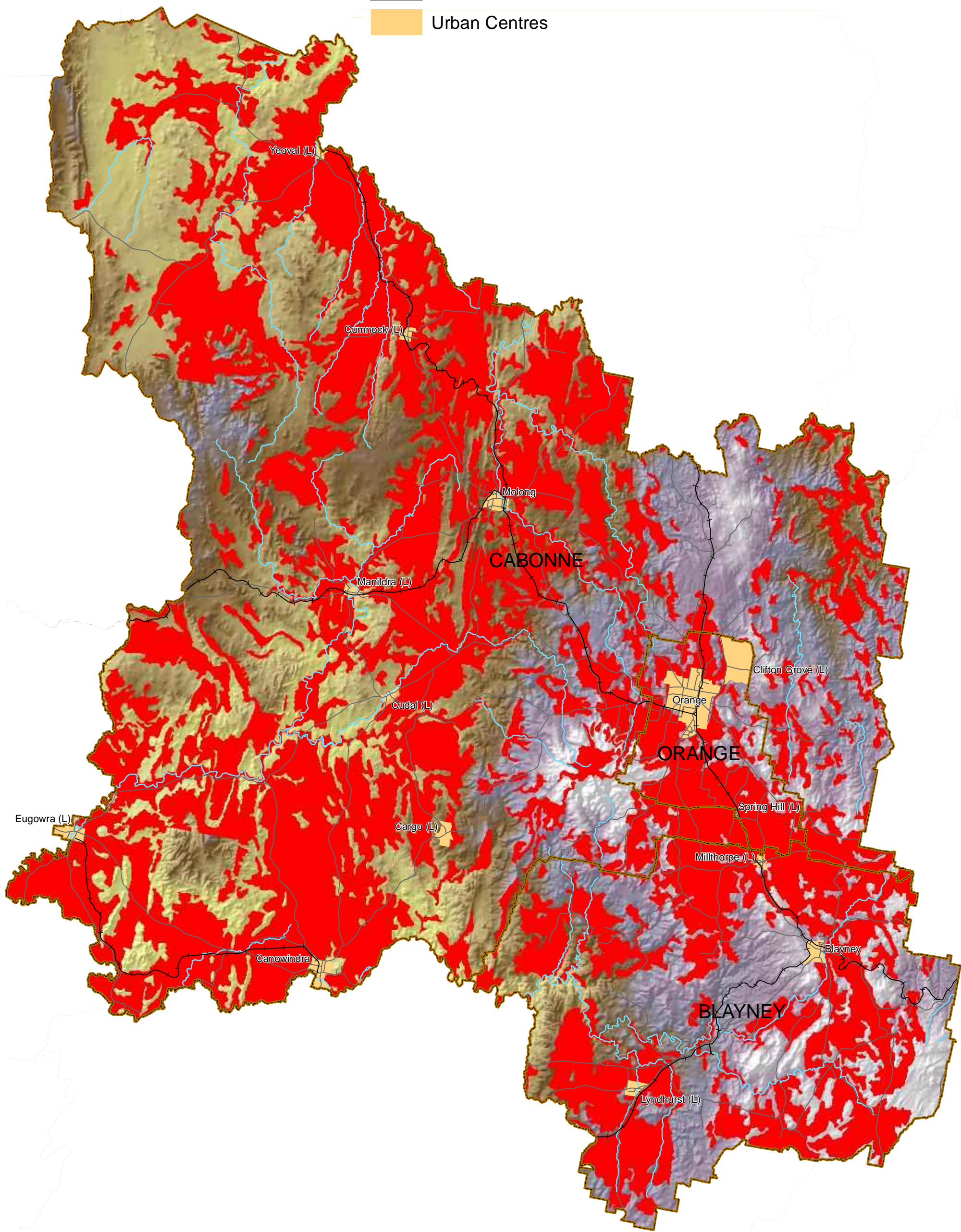
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Constraint - existing holdings greater than 100 hectares

# Legend

- DNR land capability classes 1, 2 & 3 (productive agricultural) or 7 & 8
- Urban Centres



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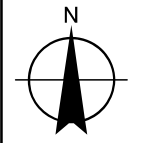
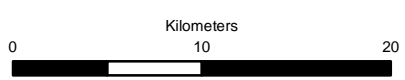
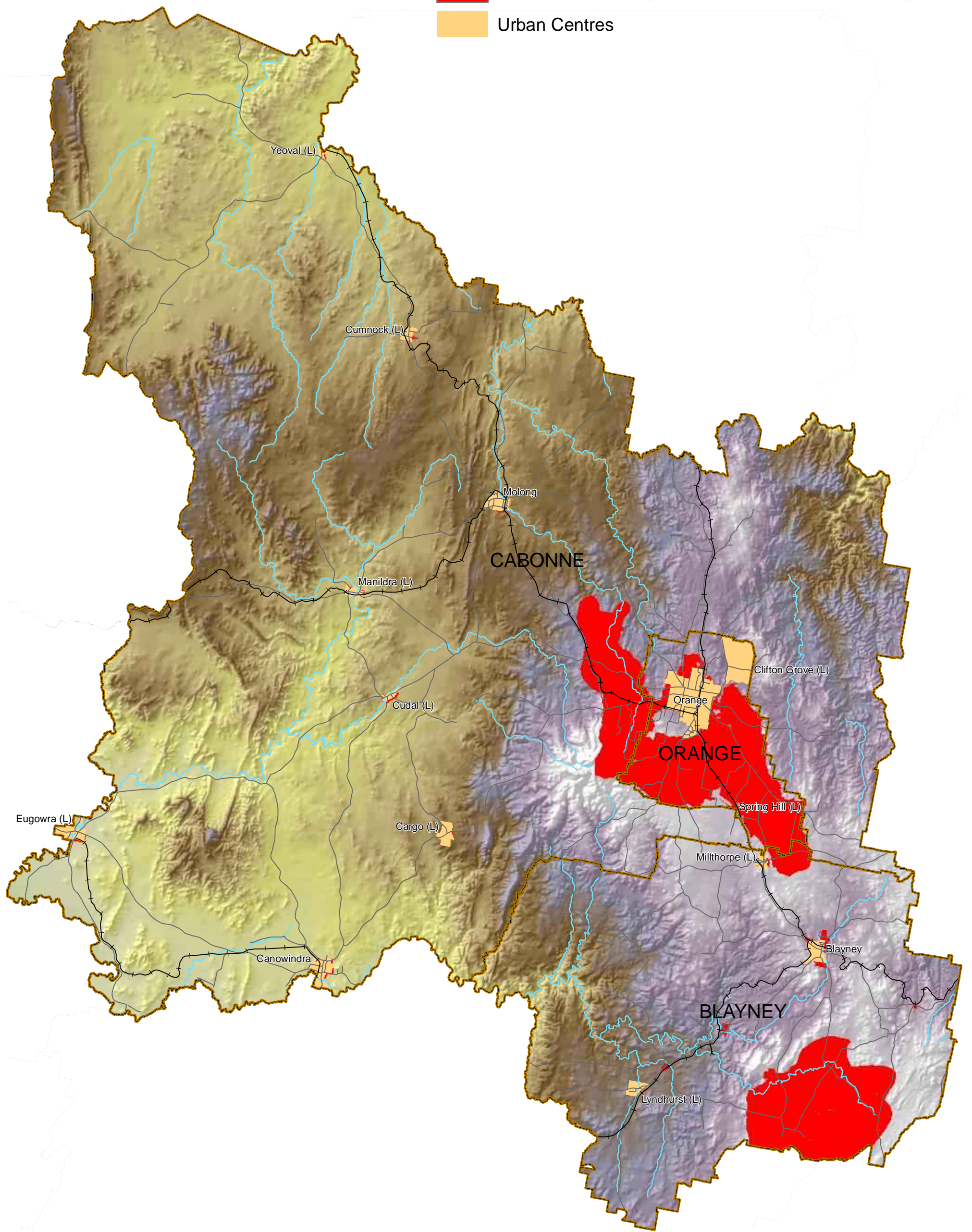
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PROJECT: Sub-Regional Rural and Industrial Land Use Strategy

Constraint - DNR land capability classes 1, 2, 3, 7 & 8

# Legend

- Land within drinking water catchment, urban or village zones
- Urban Centres



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DRAWN: CWilson

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DATE: 10 Nov 2006

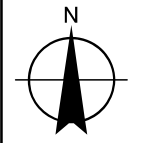
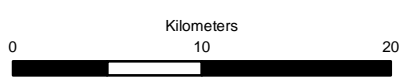
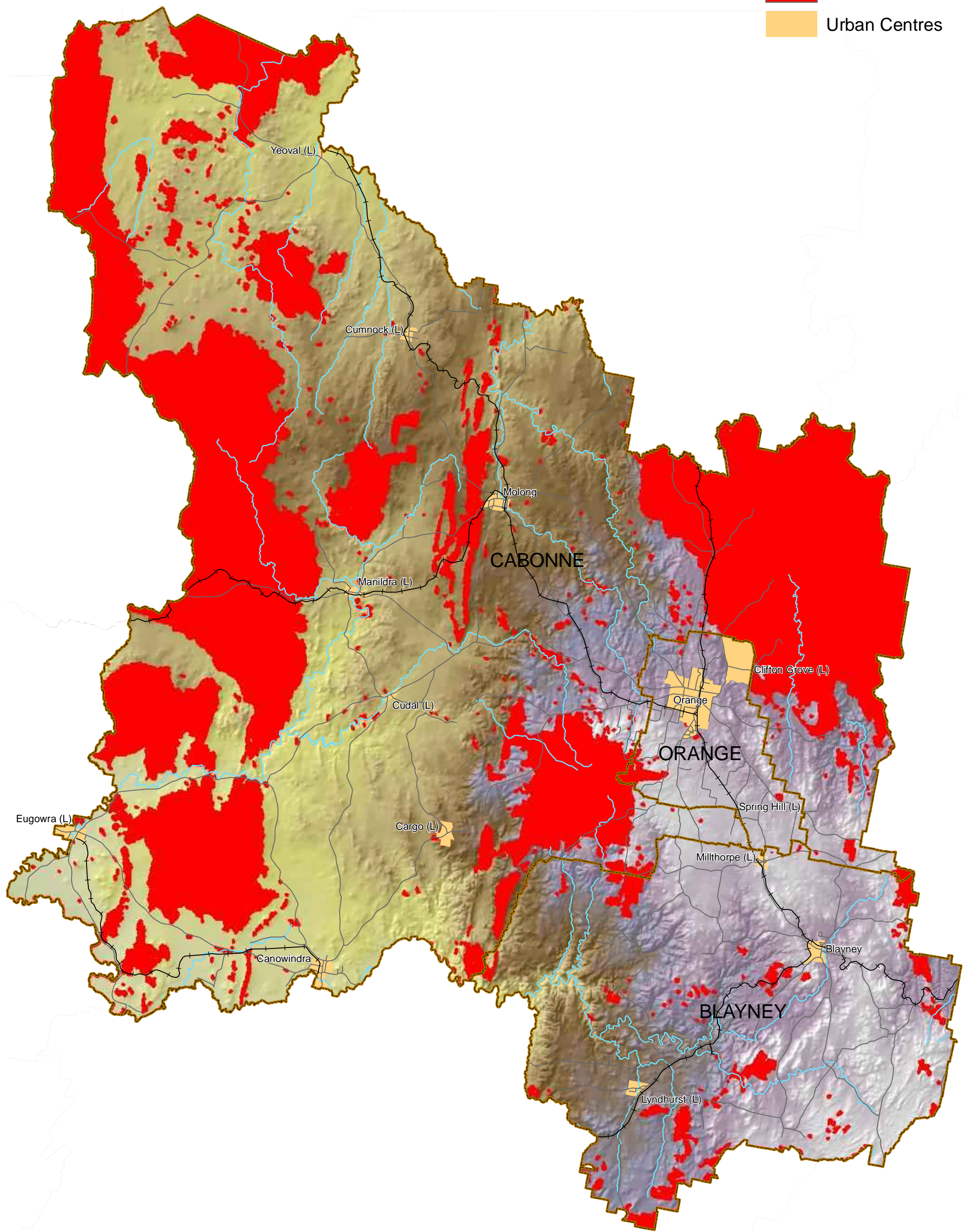
CLIENT: The Councils of Blayney, Cabonne and Orange City

PROJECT: Sub-Regional Rural and Industrial Land Use Strategy

Constraint - within drinking water catchment, urban or village zones

# Legend

- Bushfire prone land
- Urban Centres



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Constraint - bushfire prone land



Appendix B

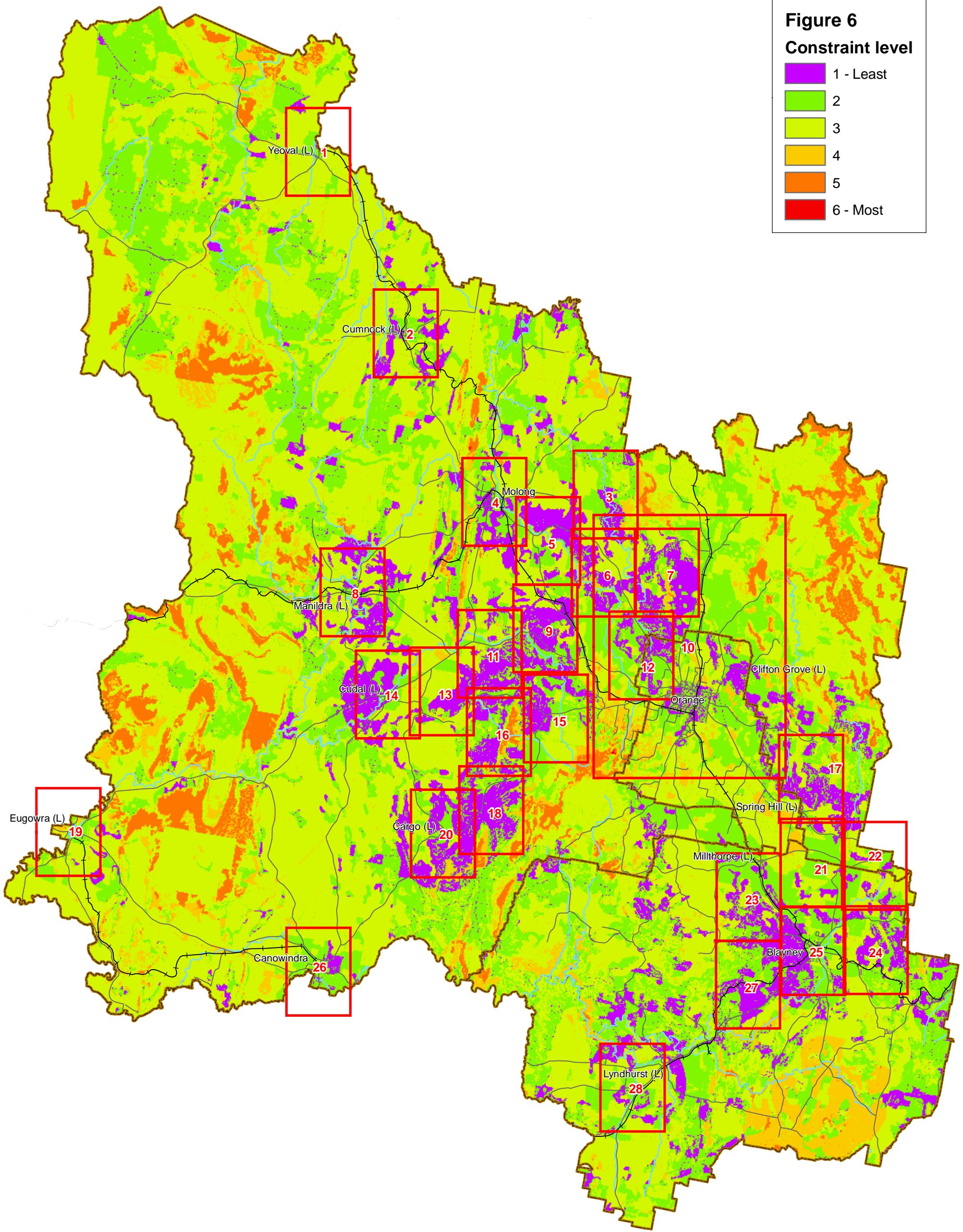
# Results of soft constraints analysis

**Legend**

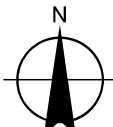
**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most



Kilometers  
0.5



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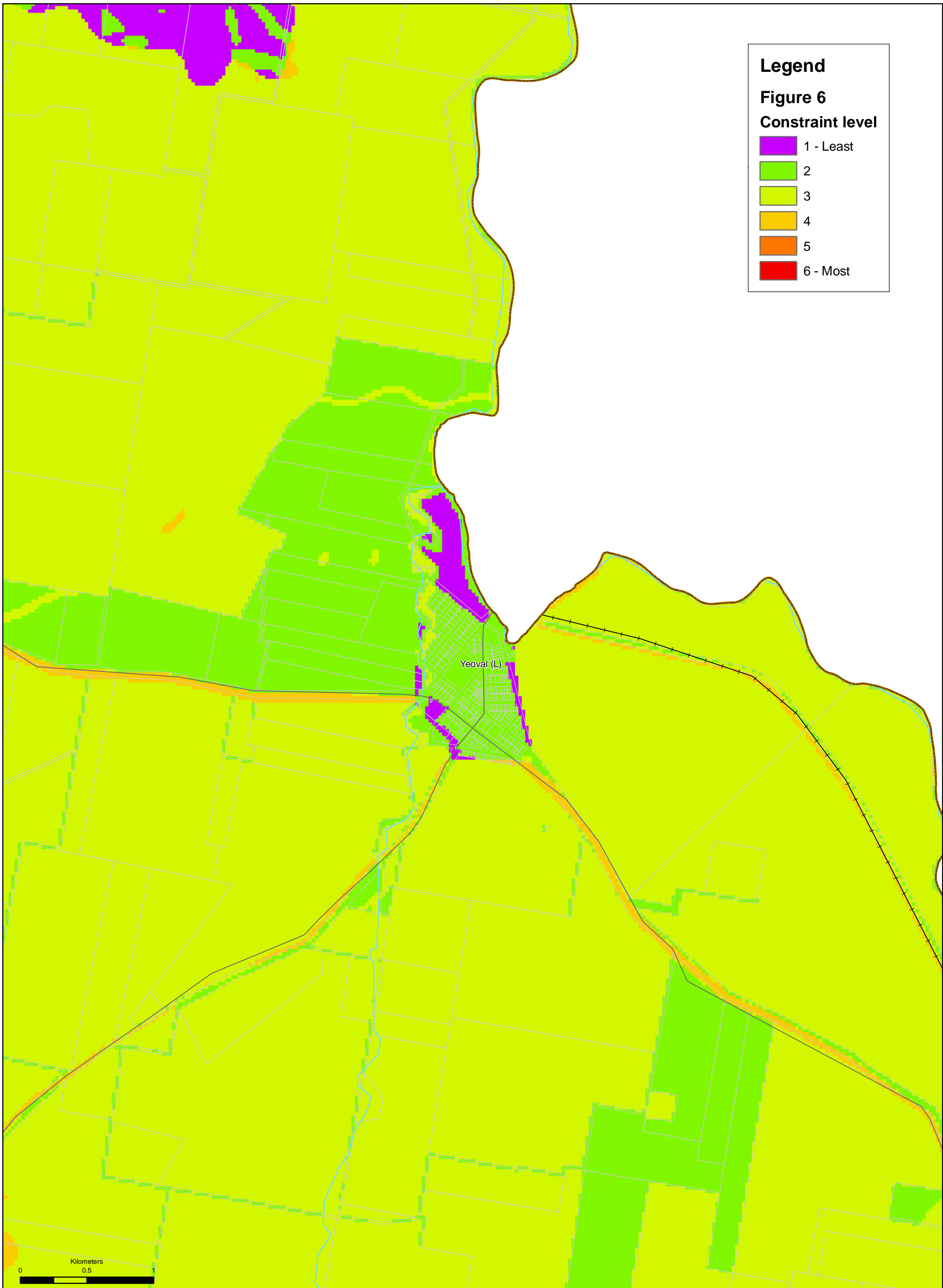
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DRAWN: CWilson    CHECKED: MRoser    DATE: 10 Nov 2006

CLIENT: The Councils of Blayney, Cabonne and Orange City

PROJECT: Sub-Regional Rural and Industrial Land Use Strategy

Soft Constraints Analysis - Key Map



**Legend**

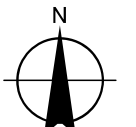
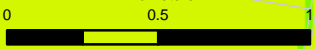
**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most

Yeoval (L)

Kilometers



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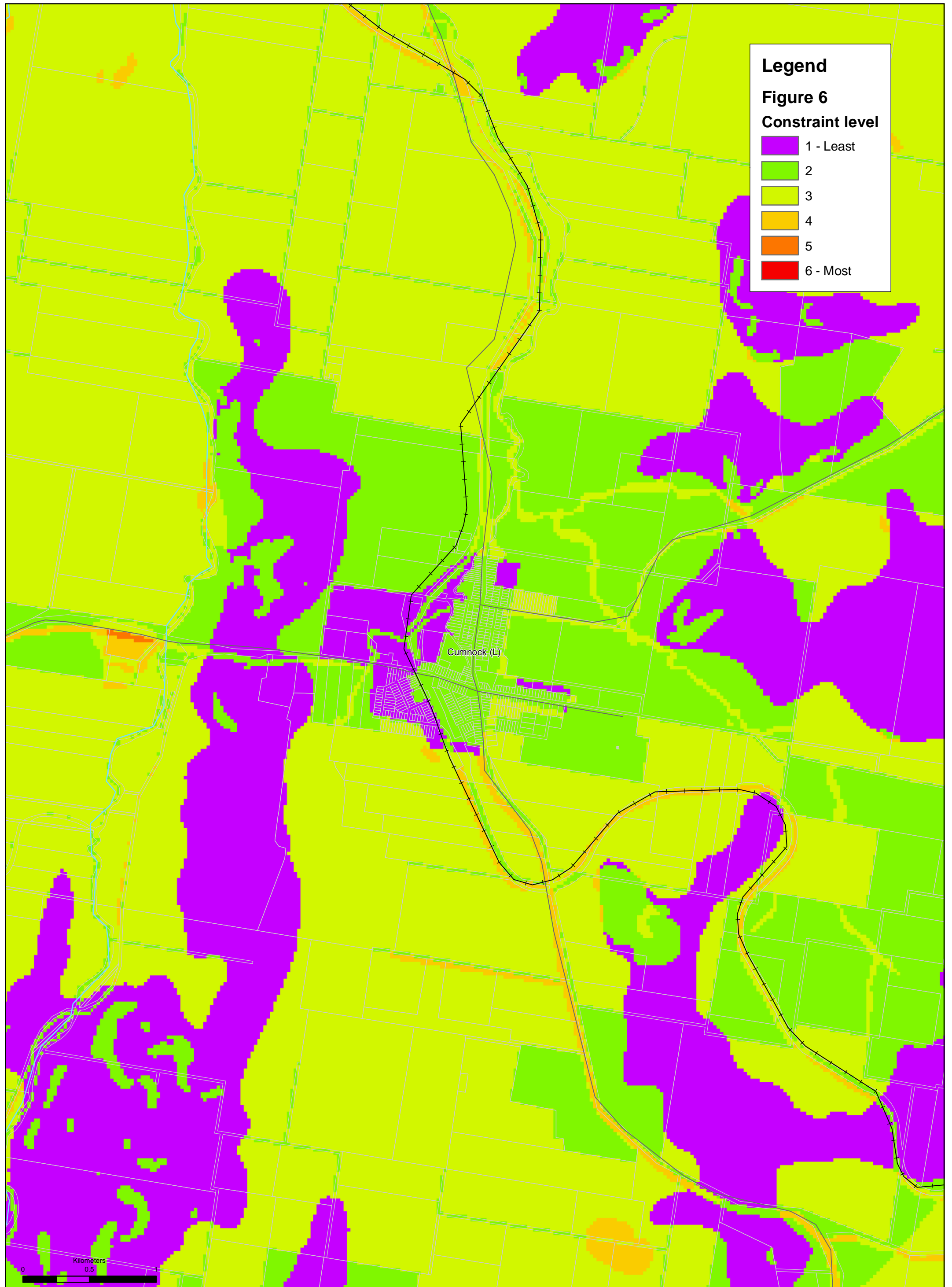
MAP NO: 21-14006-Z012

DRAWN: CWilson    CHECKED: MRoser    DATE: 10 Nov 2006

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PROJECT: Sub-Regional Rural and Industrial Land Use Strategy

Soft Constraints Analysis - 1



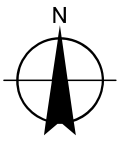
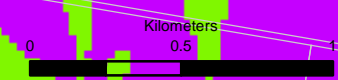
**Legend**

**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most

Cumnock (L)



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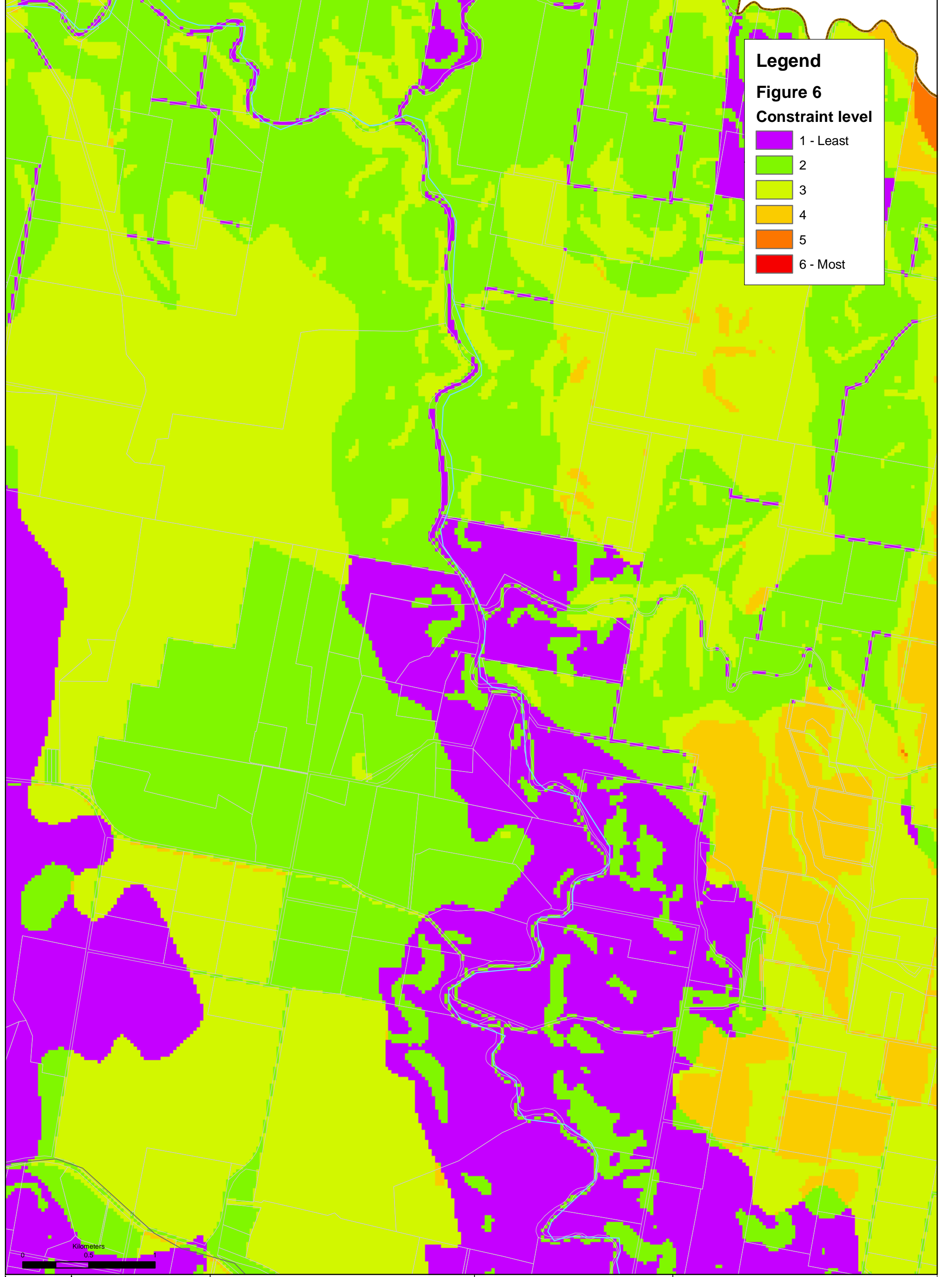
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DRAWN: CWilson	CHECKED: MRoser	DATE: 10 Nov 2006

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PROJECT:	Sub-Regional Rural and Industrial Land Use Strategy

Soft Constraints Analysis - 2



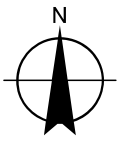


**Legend**

**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most



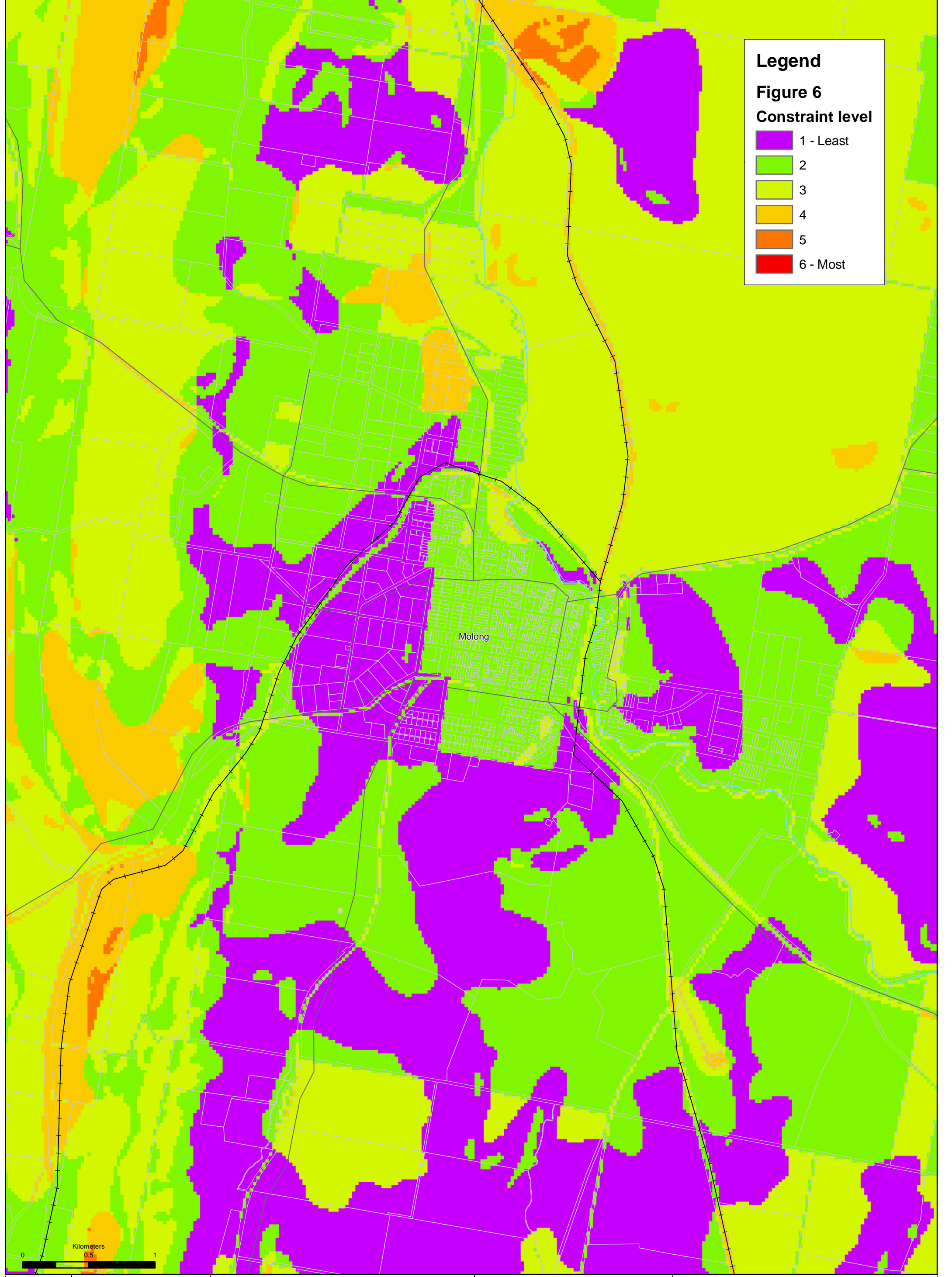
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PROJECT:	Sub-Regional Rural and Industrial Land Use Strategy
Soft Constraints Analysis - 3	



**Legend**

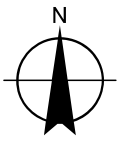
**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most

Molong

Kilometers  
0 0.5 1



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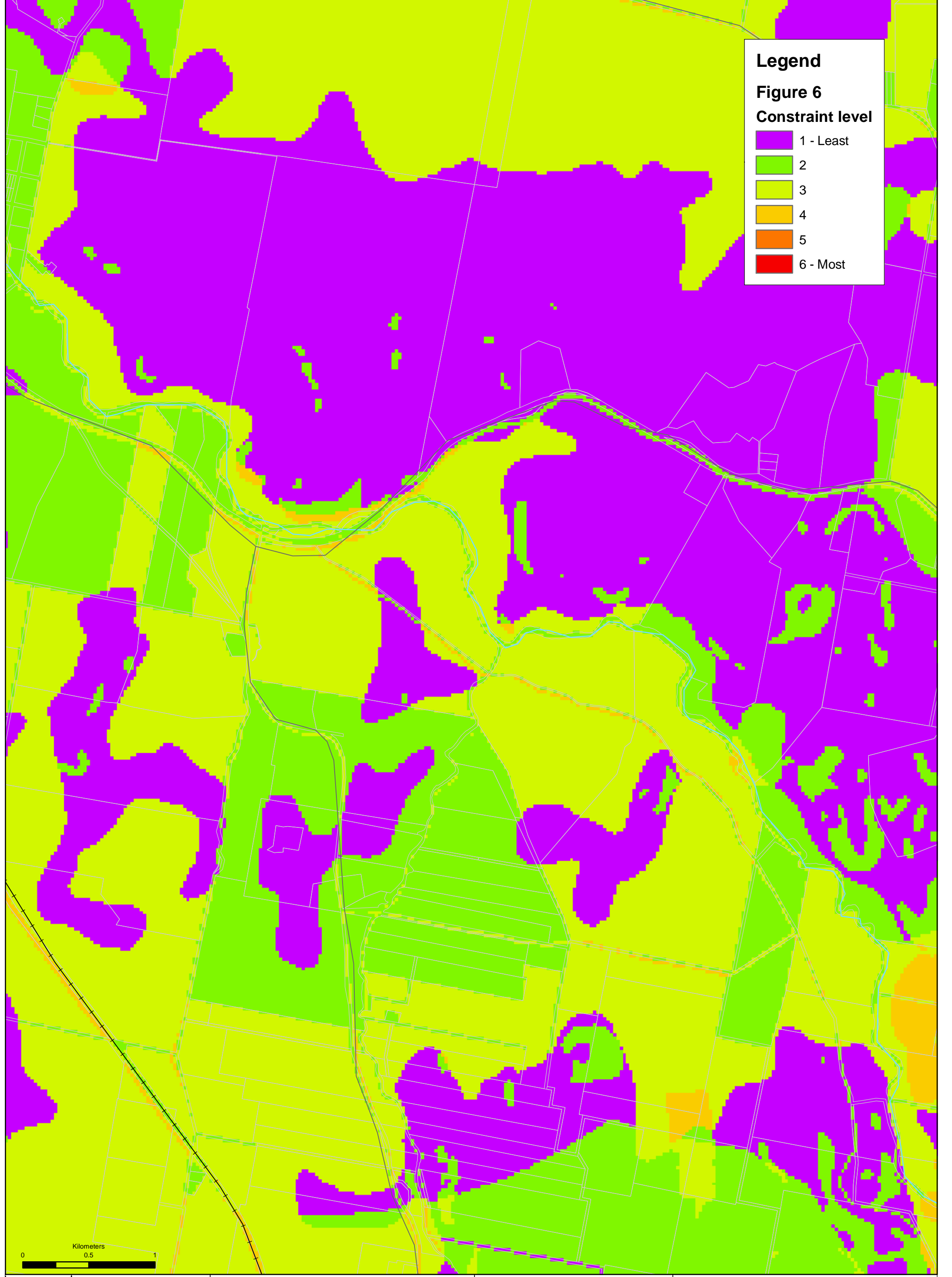
MAP NO: 21-14006-Z012

DRAWN: CWilson    CHECKED: MRoser    DATE: 10 Nov 2006

CLIENT: The Councils of Blayney, Cabonne and Orange City

PROJECT: Sub-Regional Rural and Industrial Land Use Strategy

Soft Constraints Analysis - 4

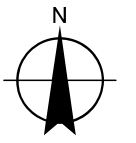


**Legend**

**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most



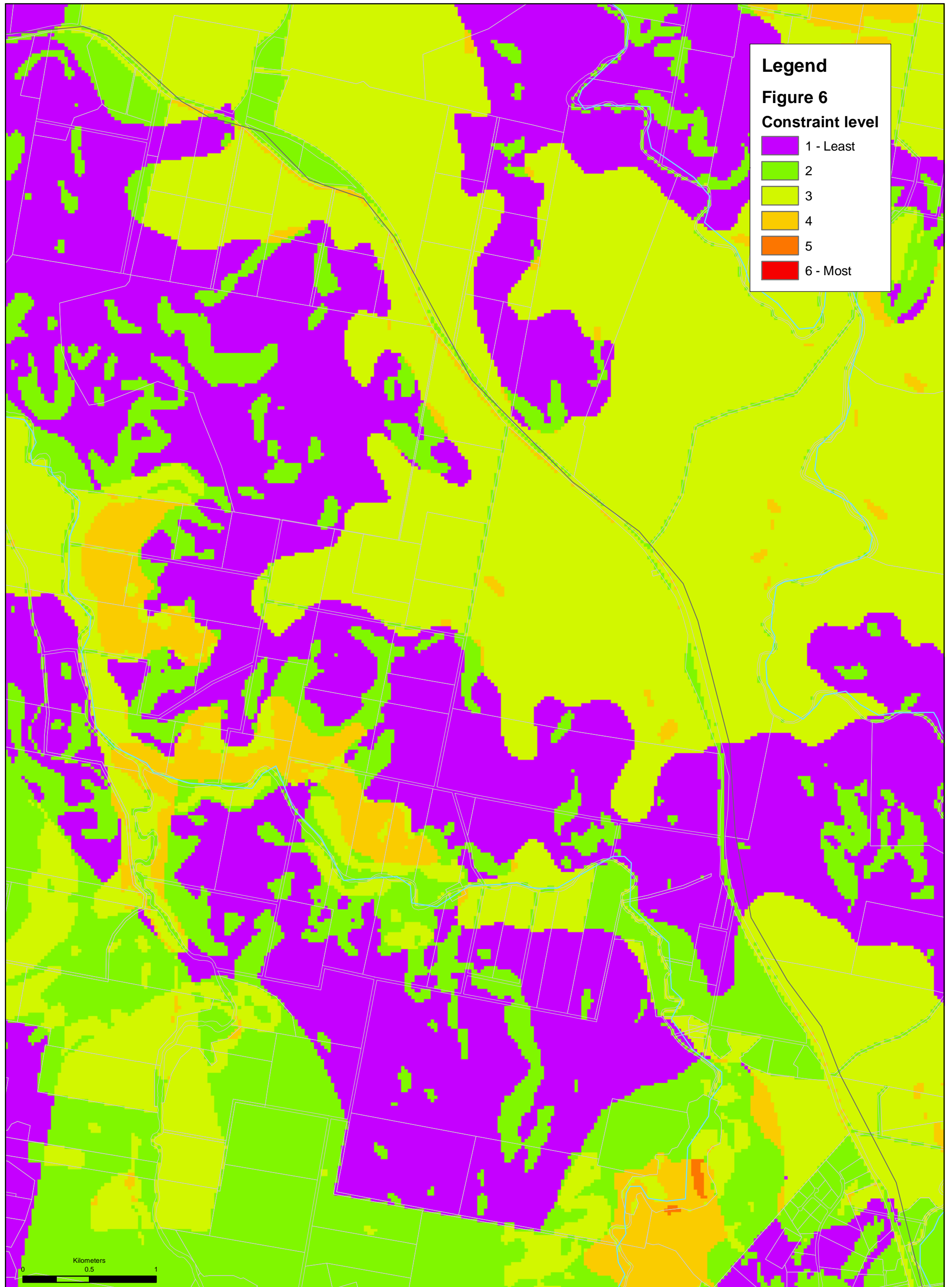
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PROJECT:	Sub-Regional Rural and Industrial Land Use Strategy
Soft Constraints Analysis - 5	

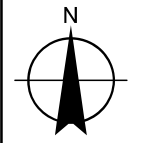
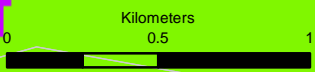


**Legend**

**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most



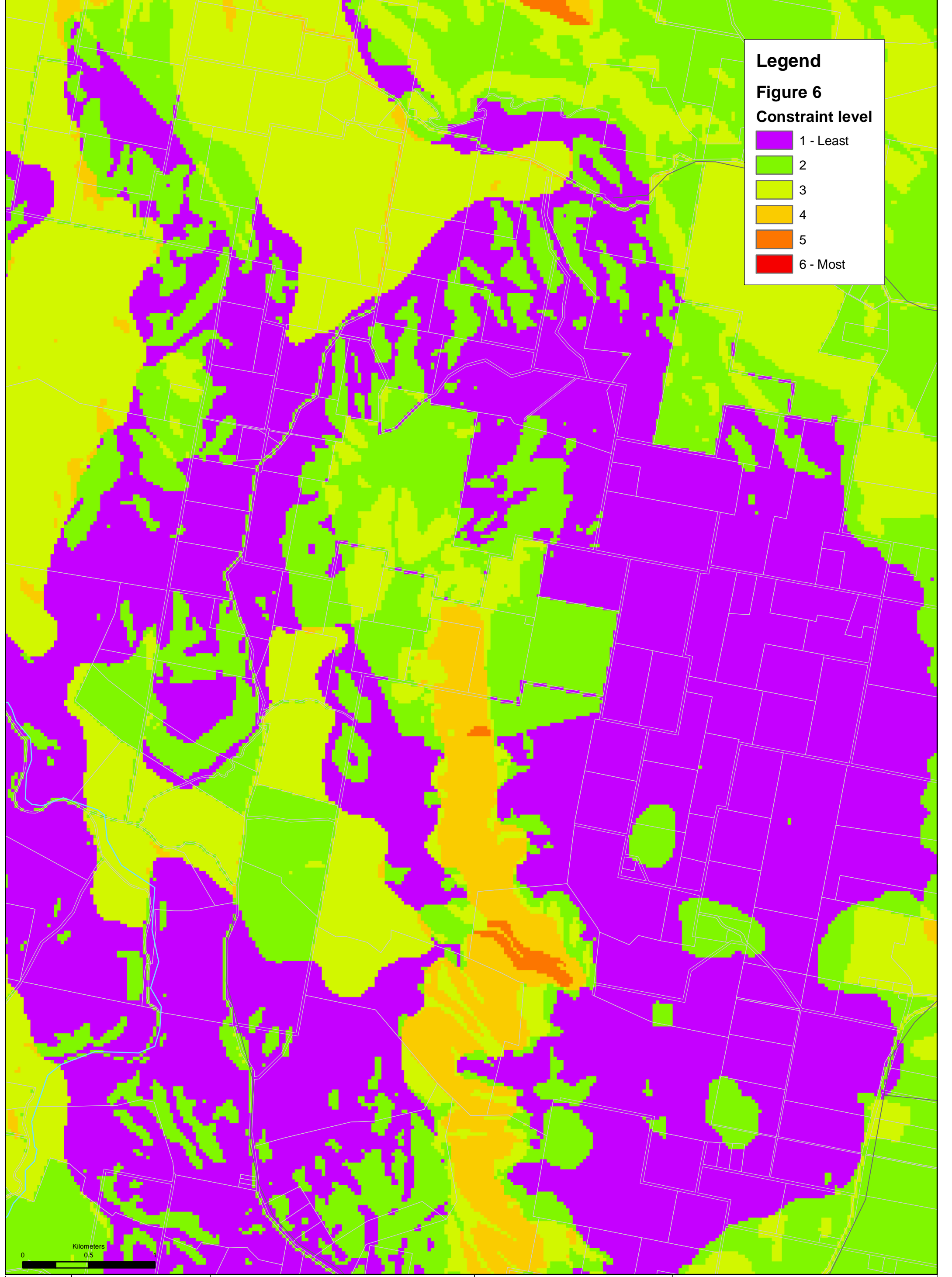
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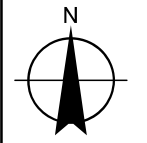
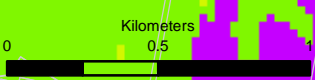
VERSION: DRAFT		
PROJECT NO: 21-14006		
MAP NO: 21-14006-Z012		
DRAWN: CWilson	CHECKED: MRoser	DATE: 10 Nov 2006

CLIENT:	The Councils of Blayney, Cabonne and Orange City
PROJECT:	Sub-Regional Rural and Industrial Land Use Strategy
Soft Constraints Analysis - 6	



**Legend**  
**Figure 6**  
**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most



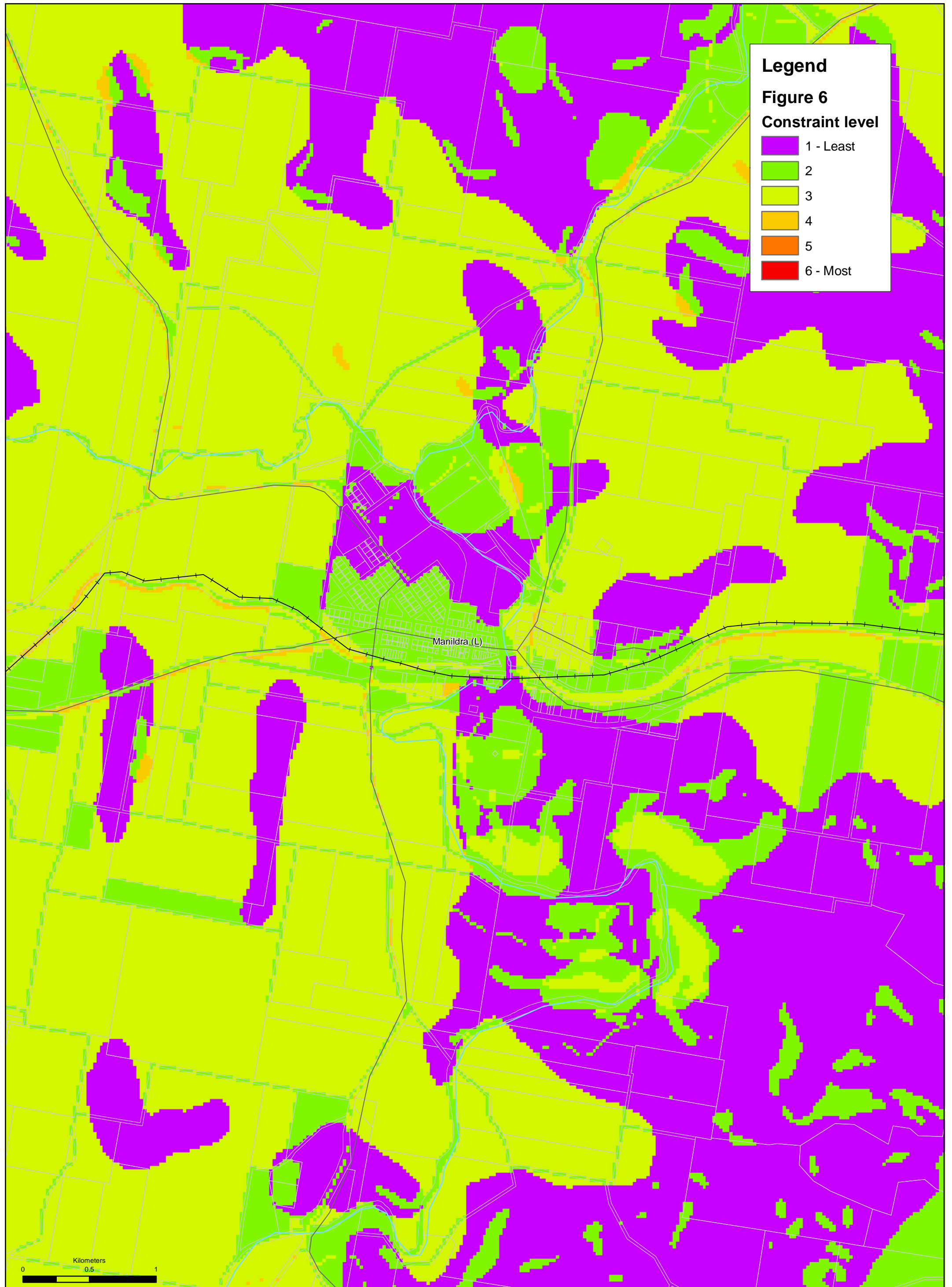
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PROJECT:	Sub-Regional Rural and Industrial Land Use Strategy
Soft Constraints Analysis - 7	



**Legend**

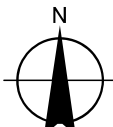
**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most

Manildra (L)

Kilometers  
0 0.5 1



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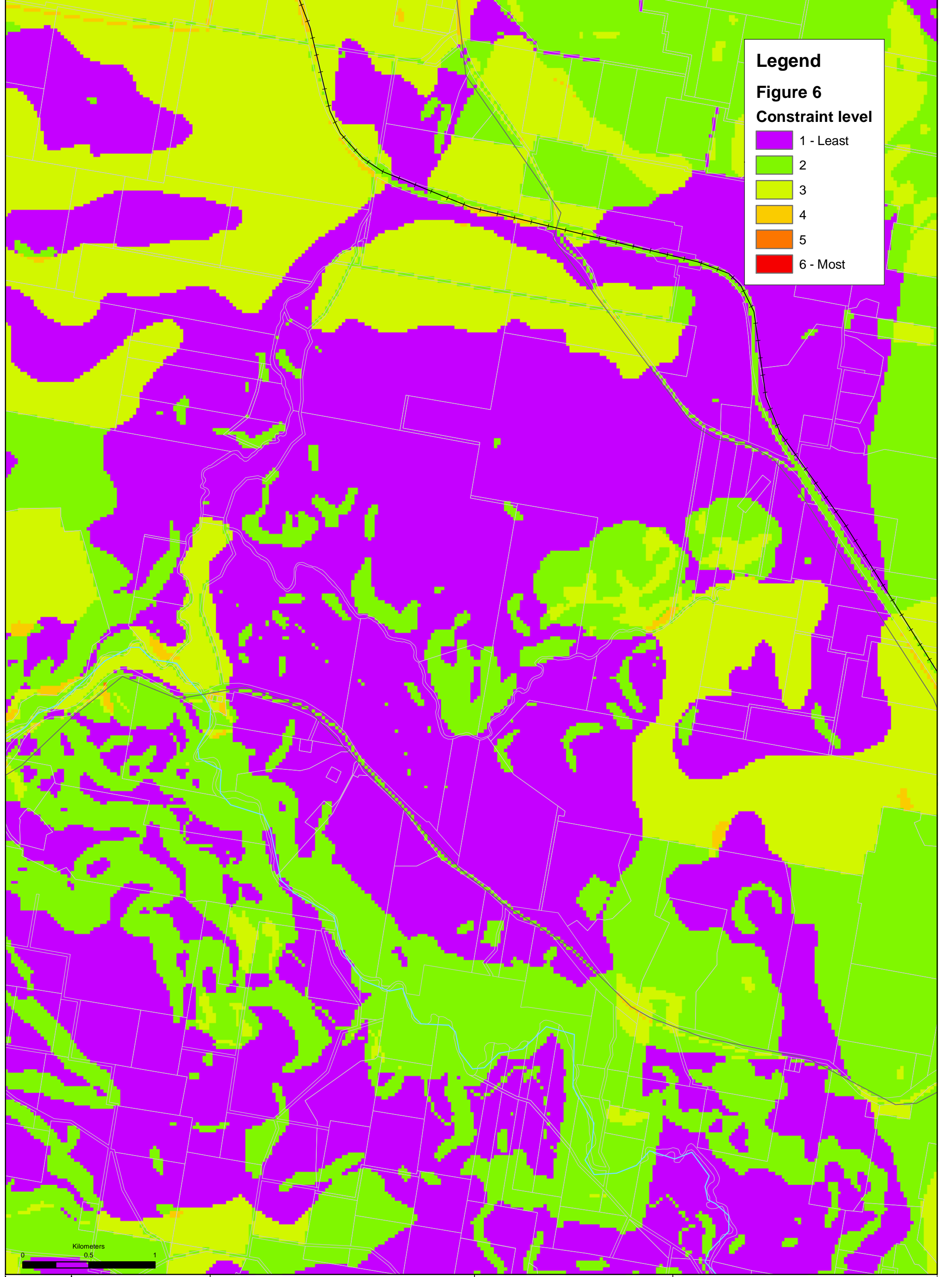


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DRAWN: CWilson	CHECKED: MRoser	DATE: 10 Nov 2006

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PROJECT:	Sub-Regional Rural and Industrial Land Use Strategy

Soft Constraints Analysis - 8

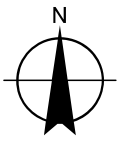


**Legend**

**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most



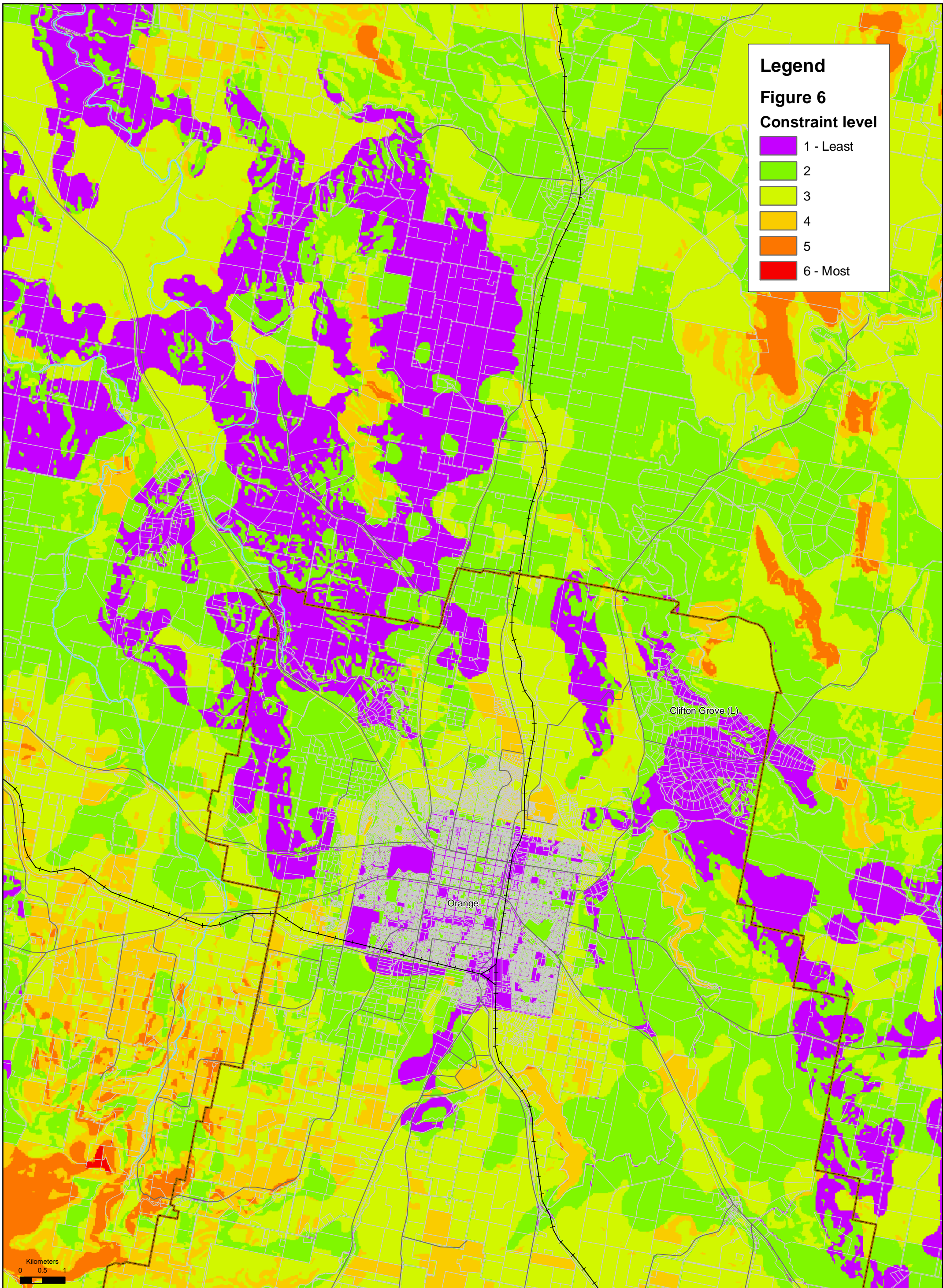
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MAP NO: 21-14006-Z012		
DRAWN: CWilson	CHECKED: MRoser	DATE: 10 Nov 2006

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PROJECT:	Sub-Regional Rural and Industrial Land Use Strategy
Soft Constraints Analysis - 9	



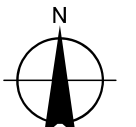
**Legend**

**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most

Kilometers  
0 0.5 1



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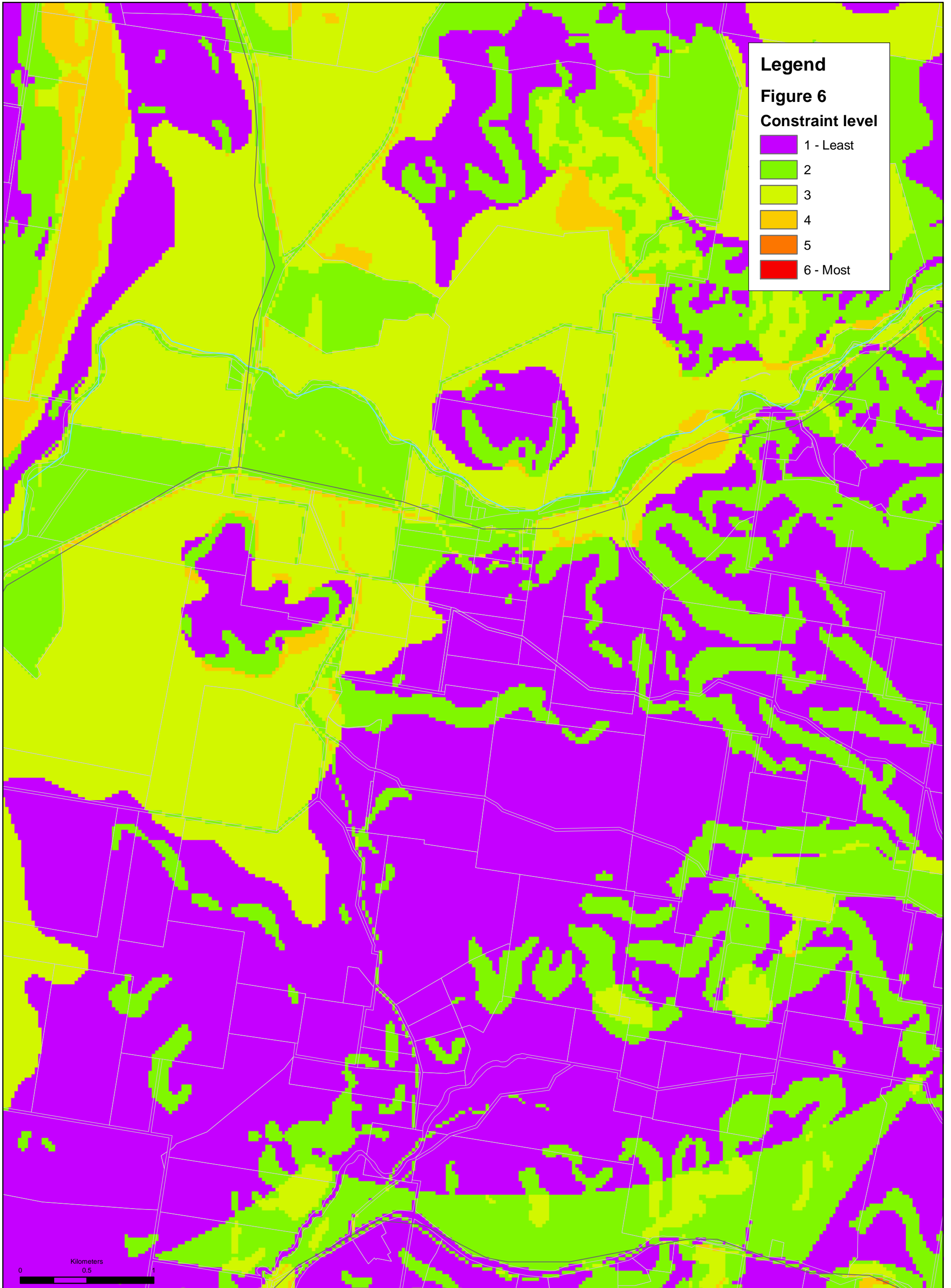


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PROJECT: Sub-Regional Rural and Industrial Land Use Strategy  
Soft Constraints Analysis - 10

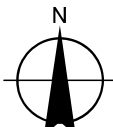




**Legend**  
**Figure 6**  
**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most

0 0.5 1  
 Kilometers



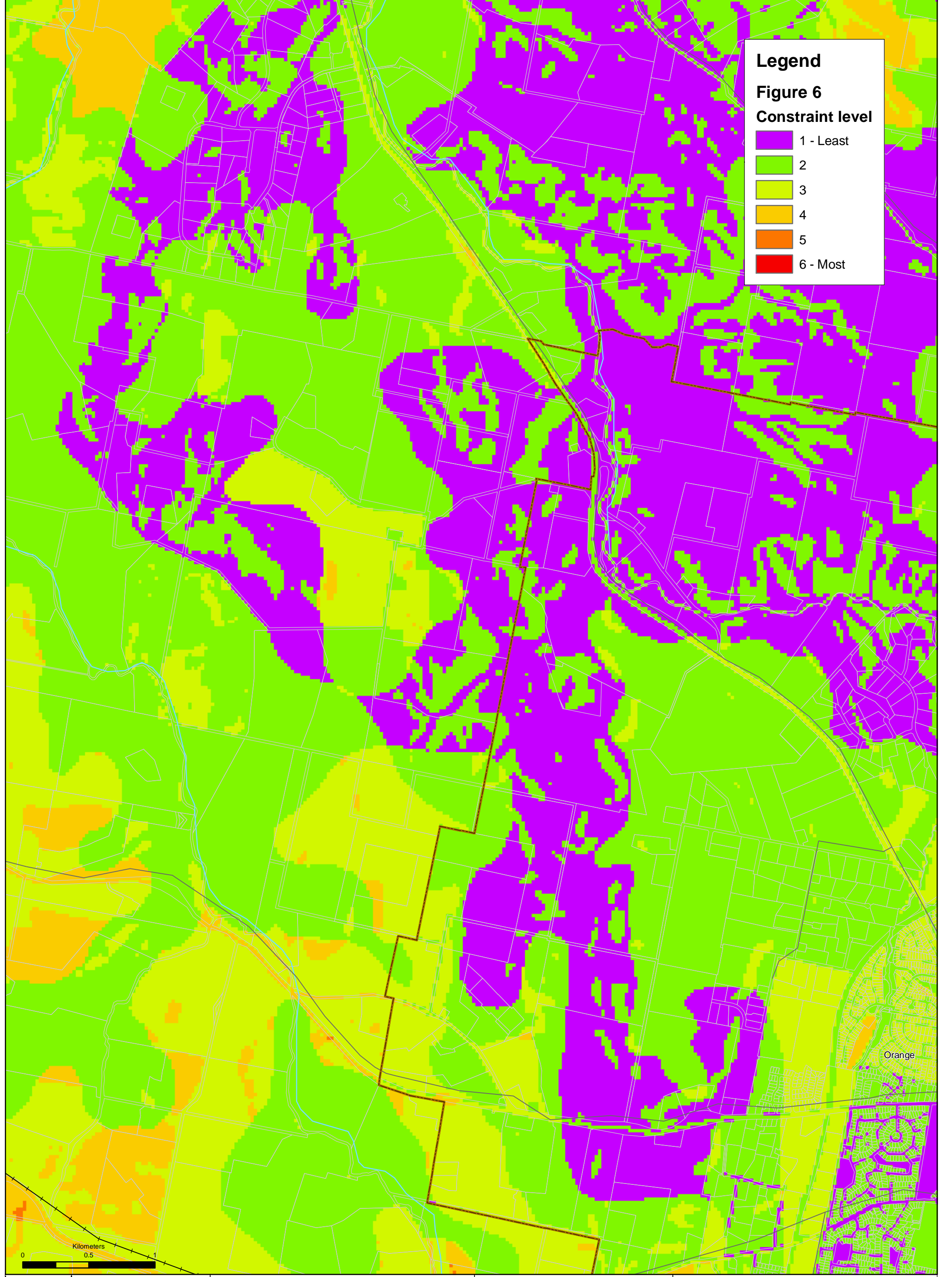
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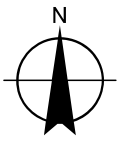
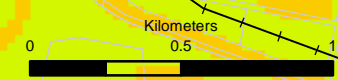


**Legend**

**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most



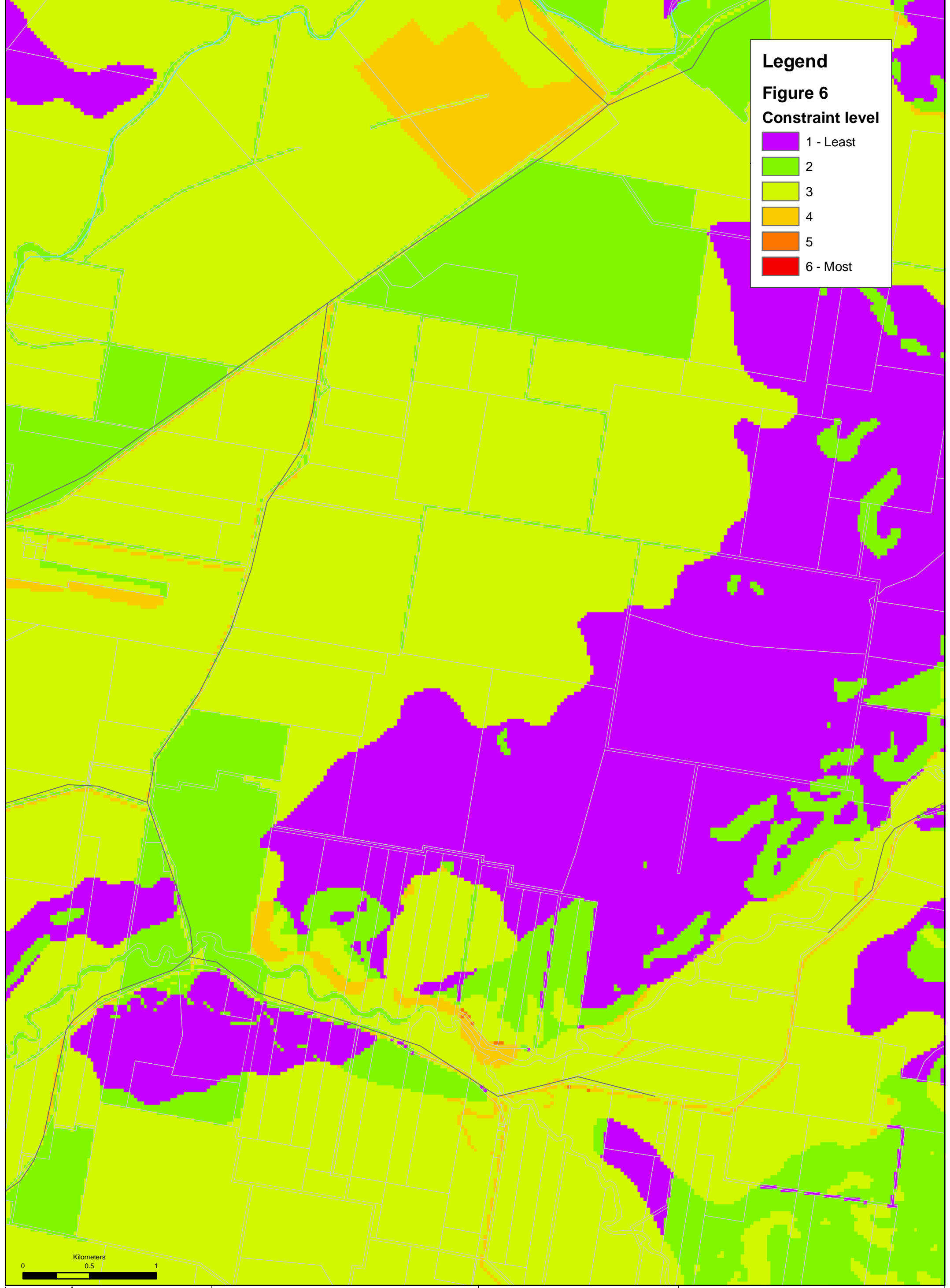
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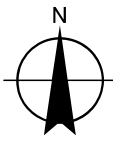
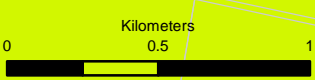


**Legend**

**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most



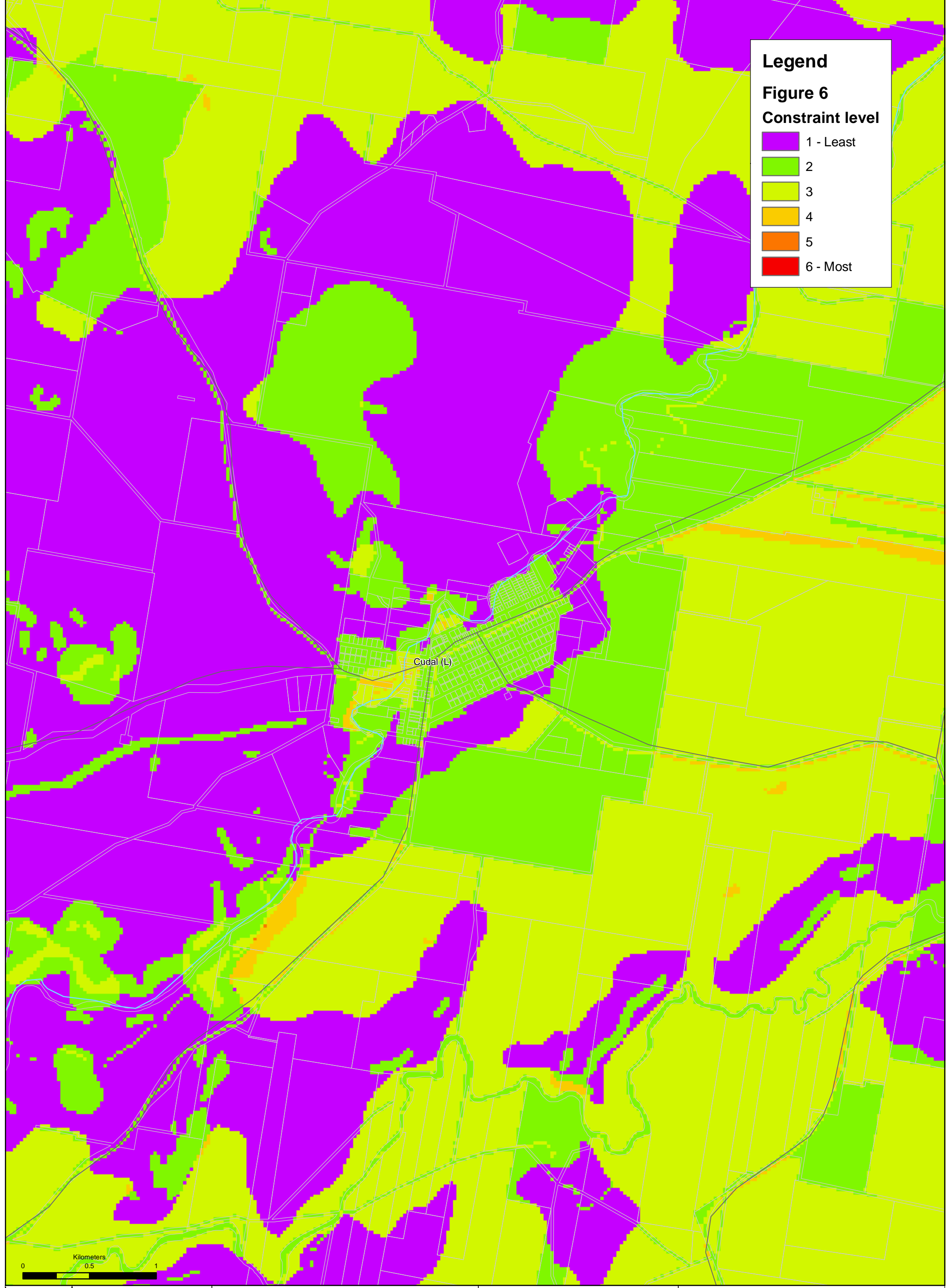
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Soft Constraints Analysis - 13	



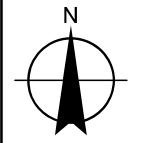
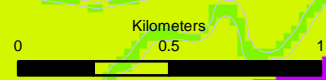
**Legend**

**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most

Cudal (L)



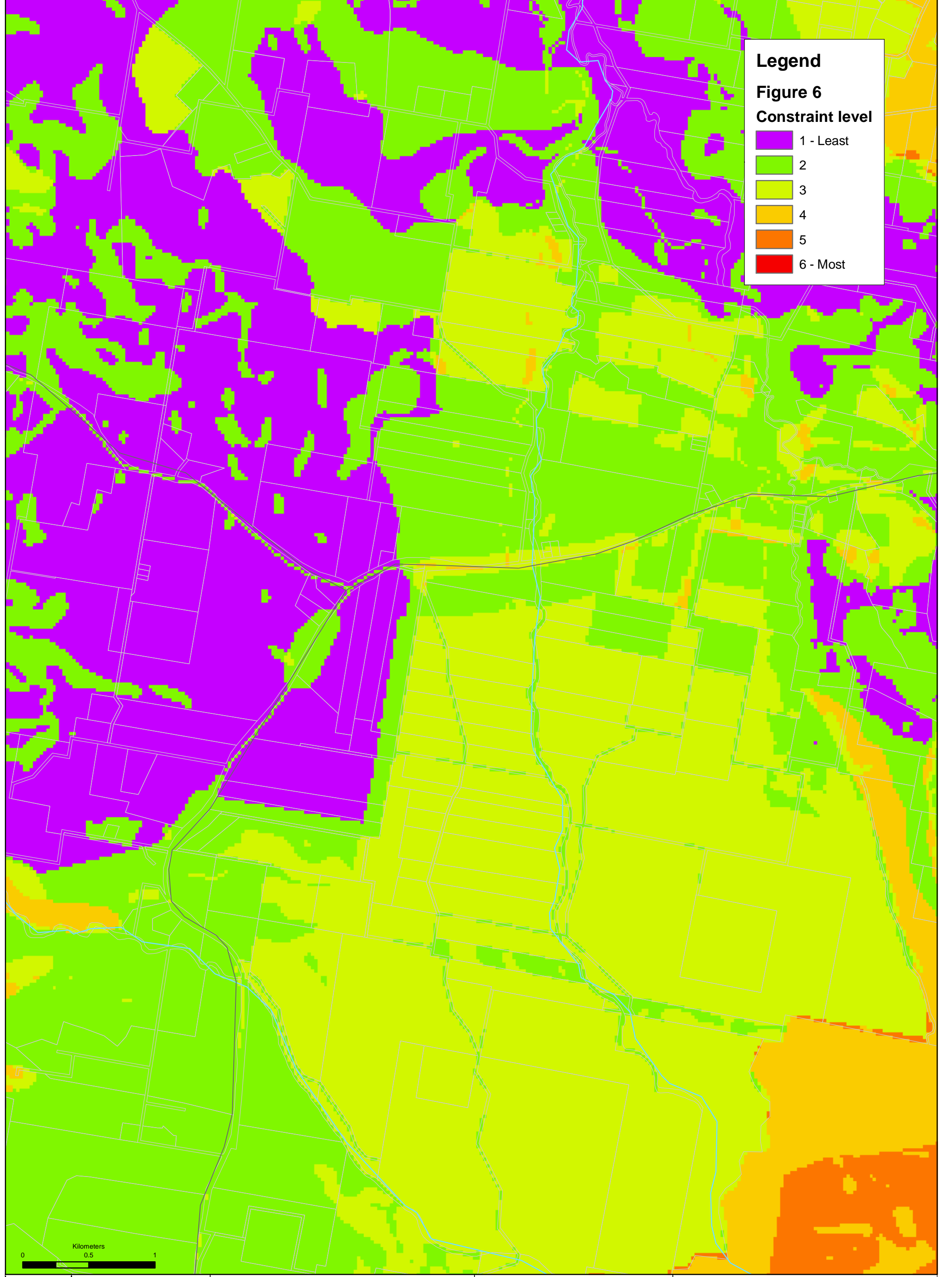
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Soft Constraints Analysis - 14	

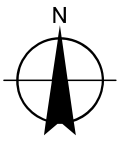
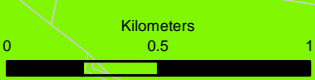


**Legend**

**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most



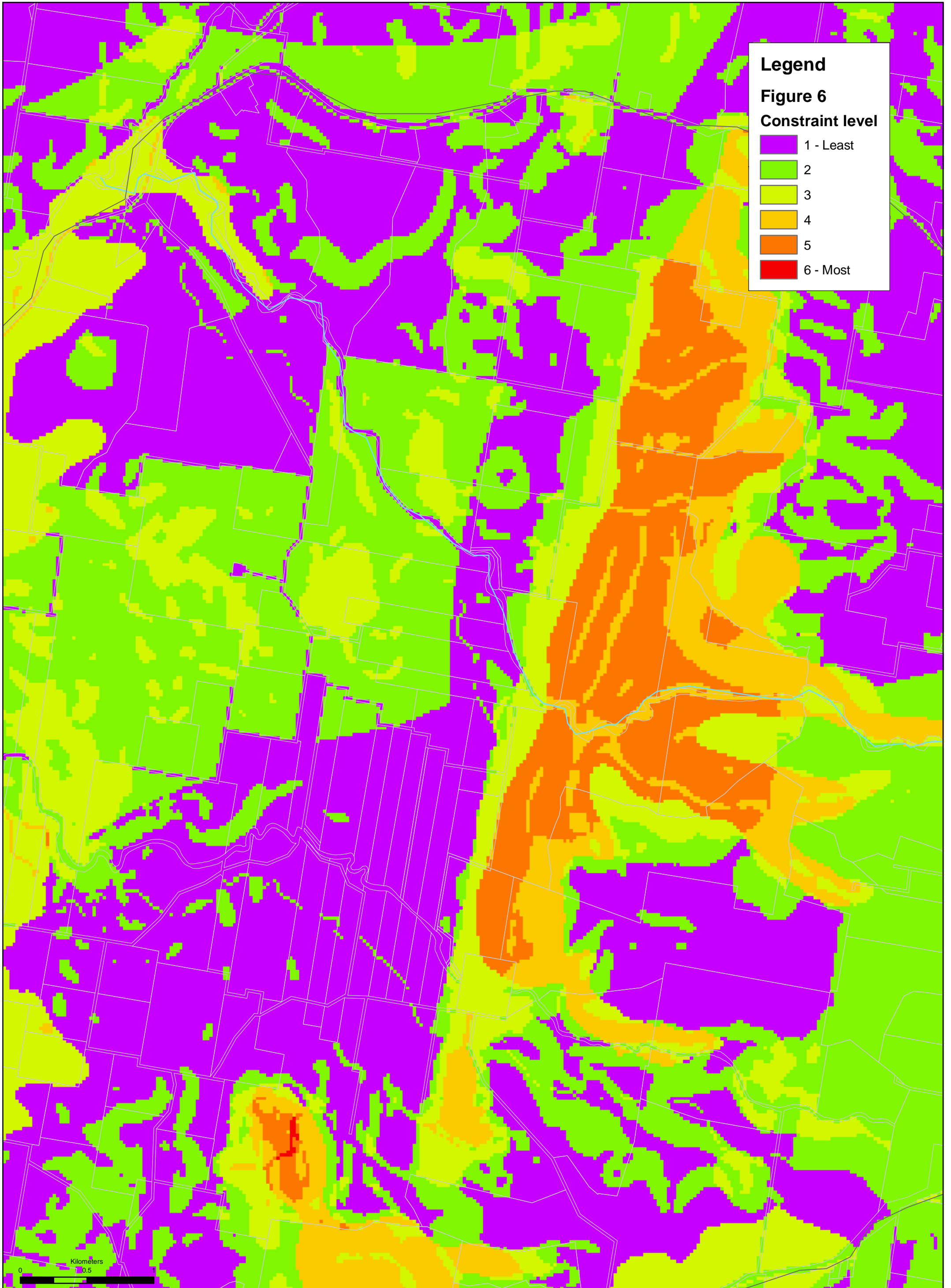
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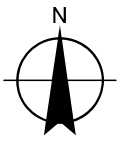
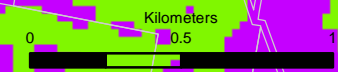


**Legend**

**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most



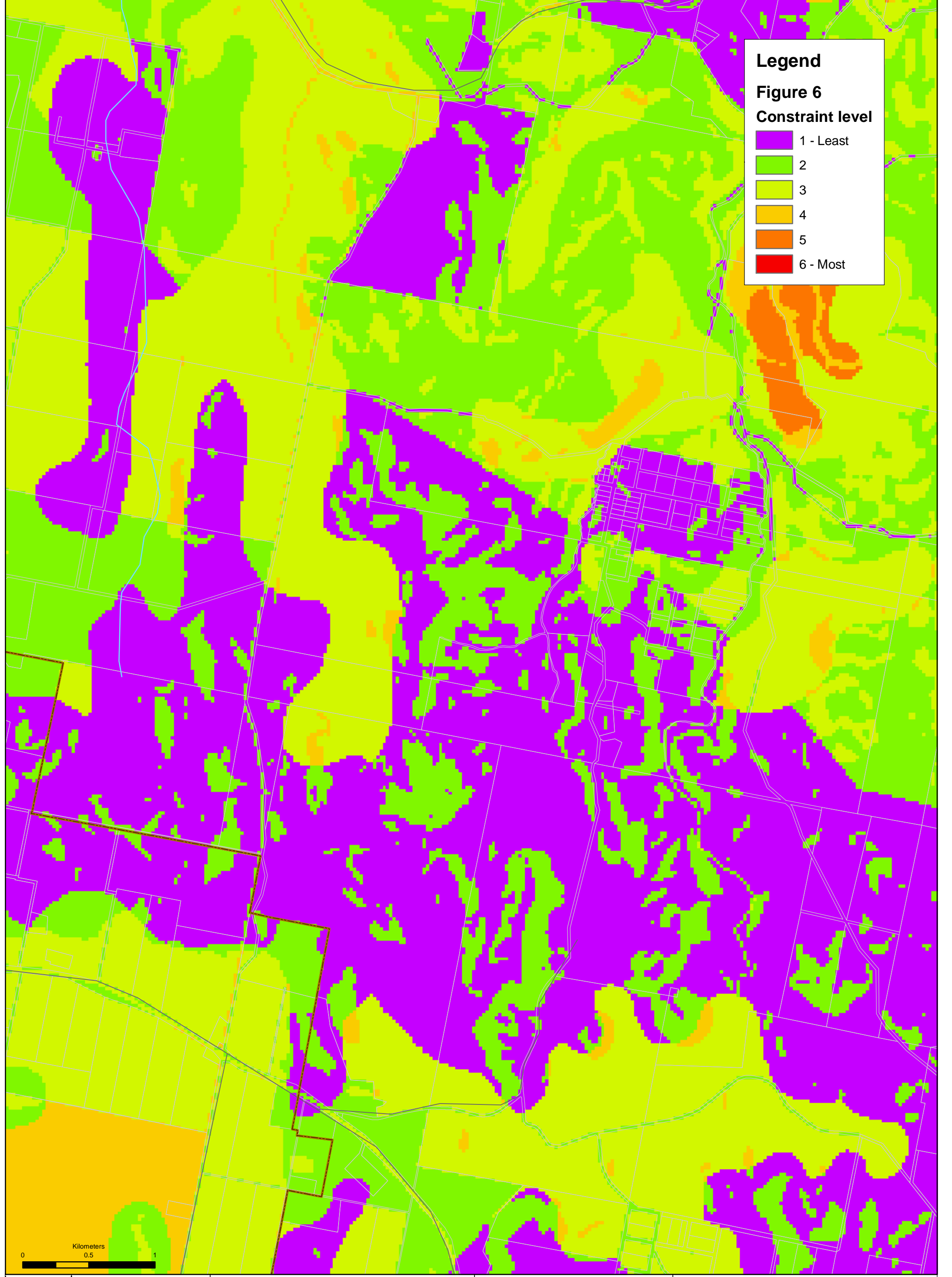
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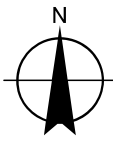
**Legend**

**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most

Kilometers  
0 0.5 1



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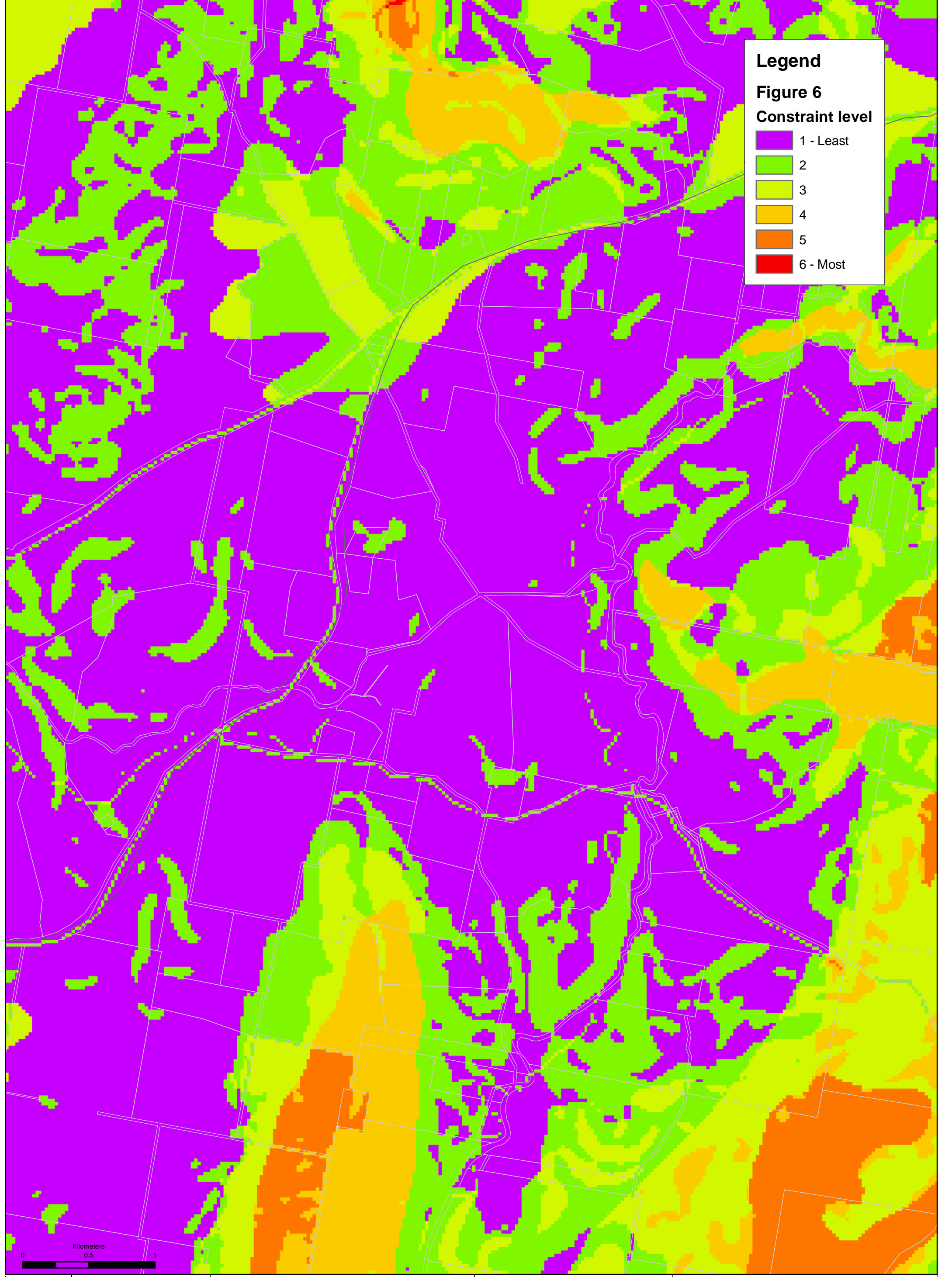
MAP NO: 21-14006-Z012

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PROJECT: Sub-Regional Rural and Industrial Land Use Strategy

Soft Constraints Analysis - 17

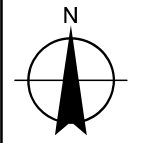
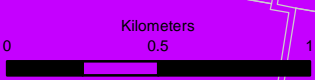


**Legend**

**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most



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Soft Constraints Analysis - 18	

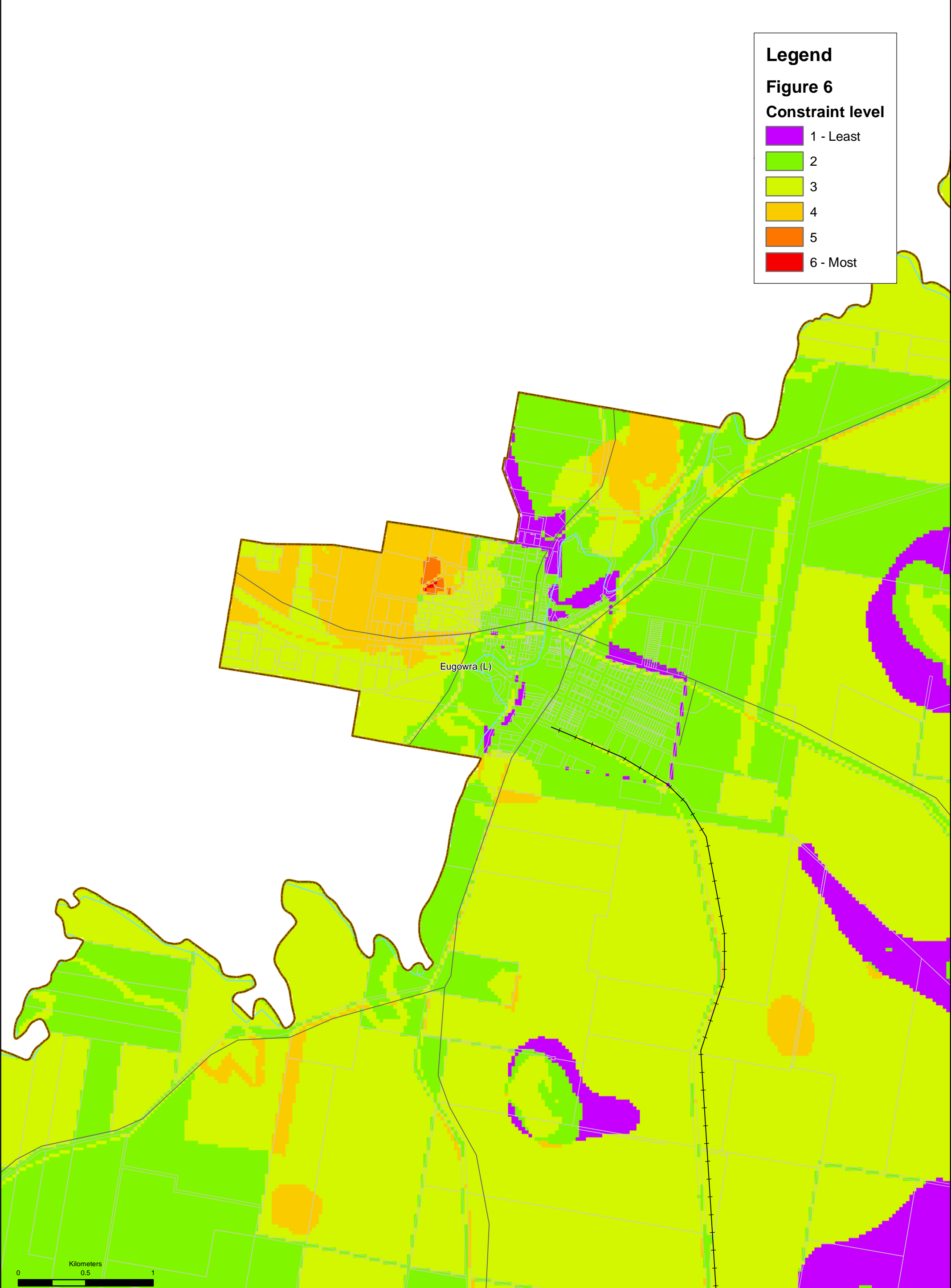


**Legend**

**Figure 6**

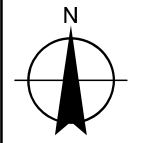
**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most



Eugowra (L)

Kilometers  
0 0.5 1



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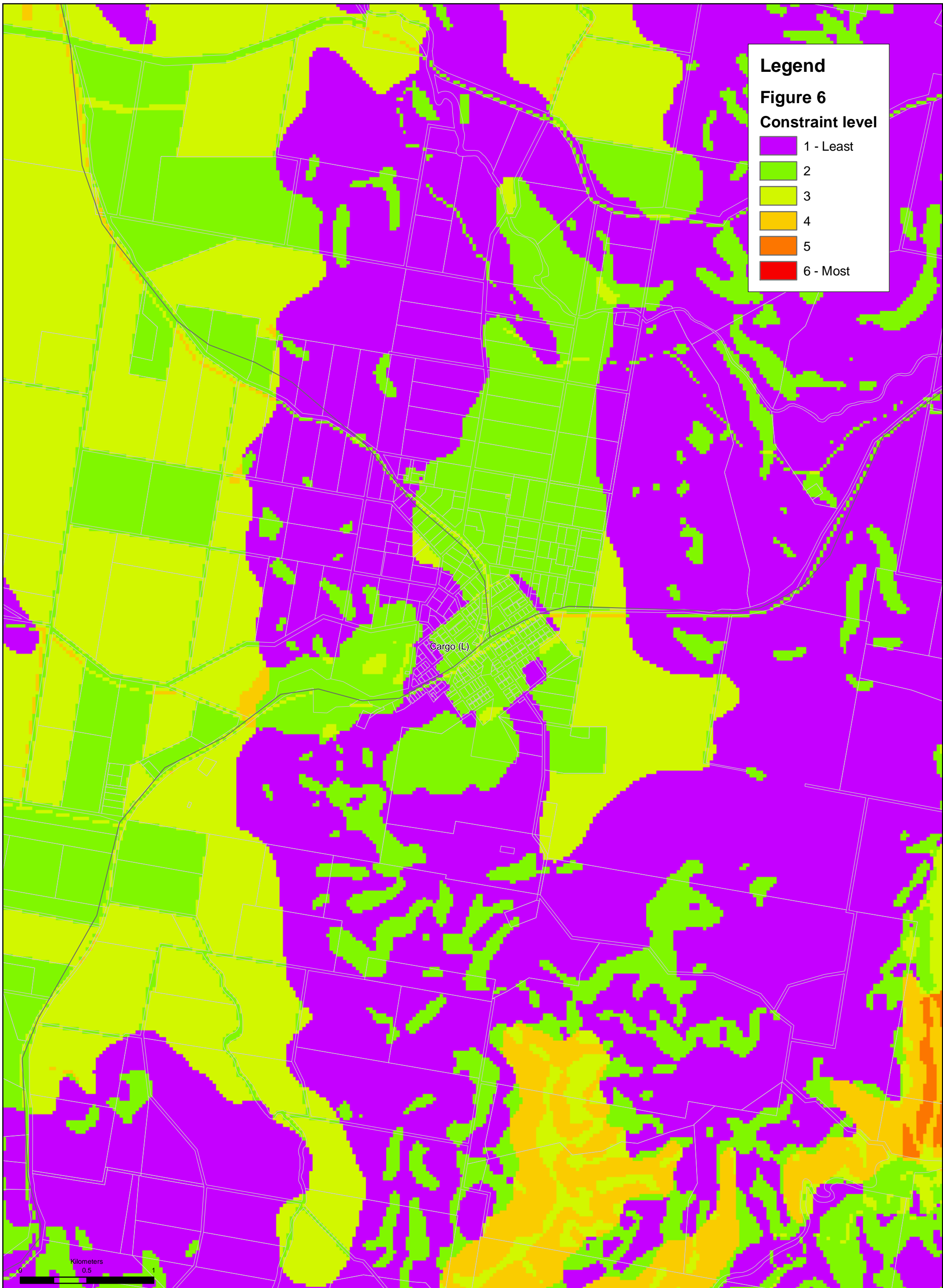
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Soft Constraints Analysis - 19



**Legend**

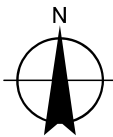
**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most

Cargo (L)

Kilometers



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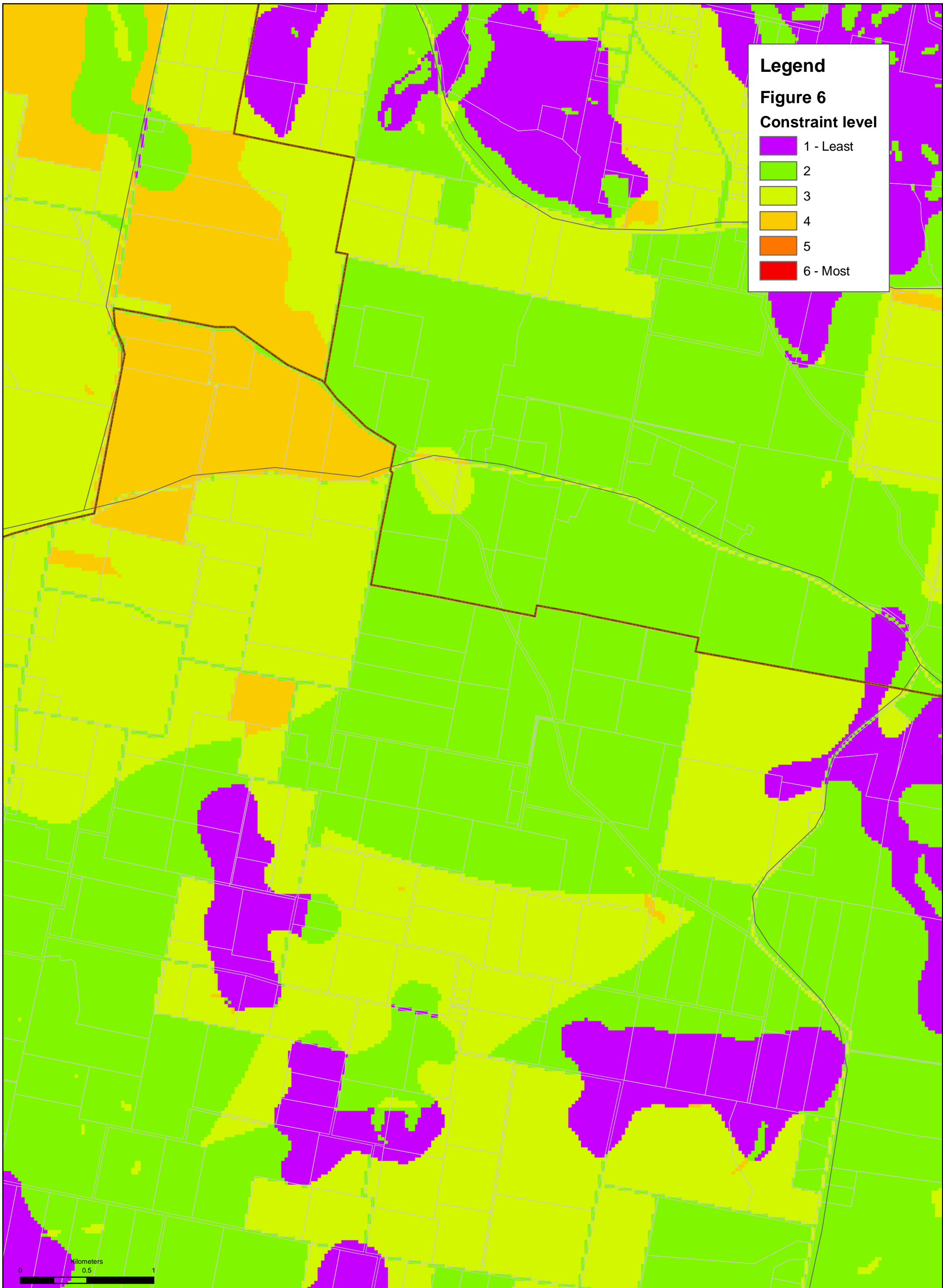
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Soft Constraints Analysis - 20

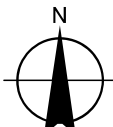
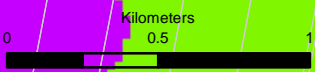


**Legend**

**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most



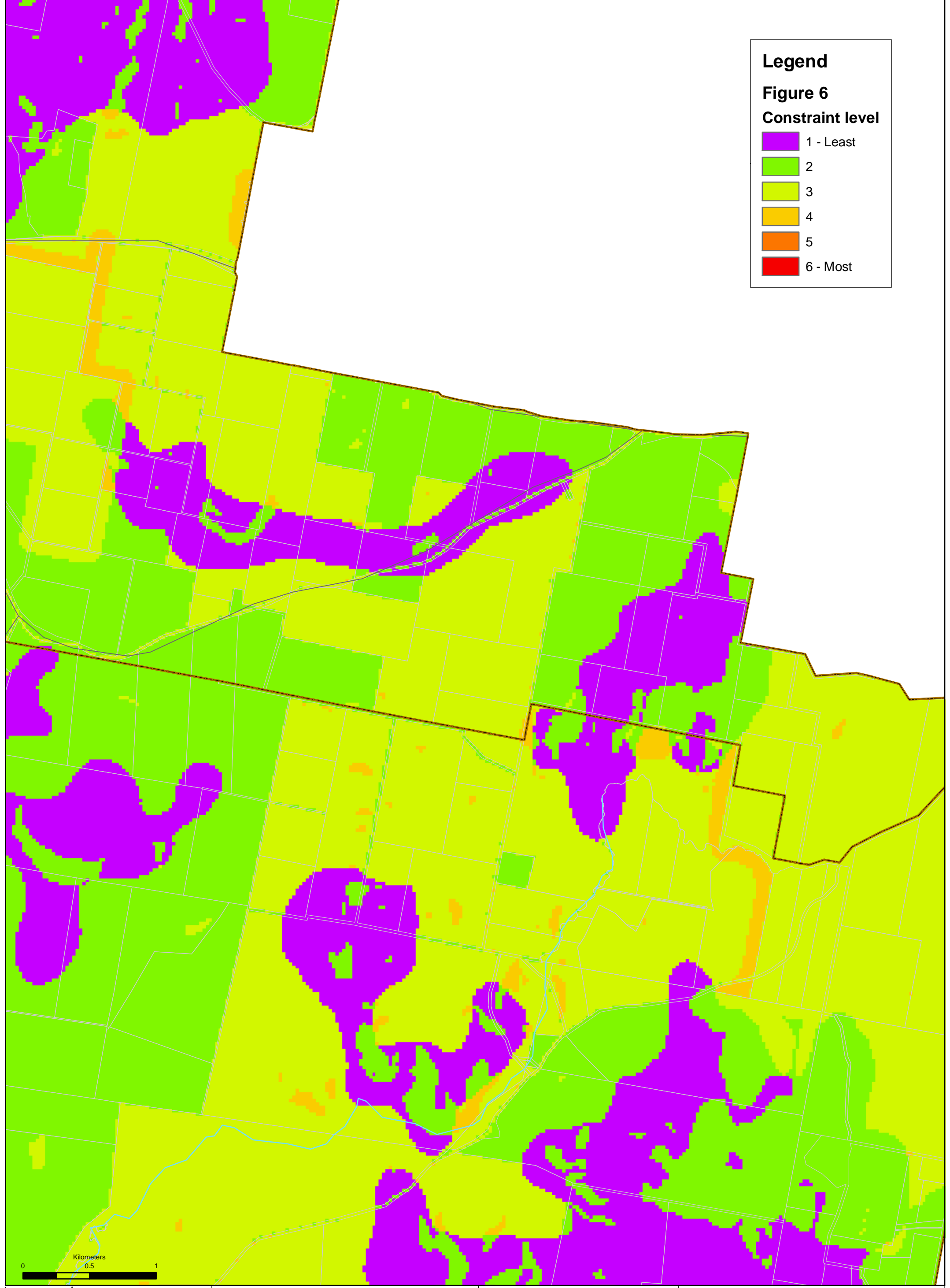
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Soft Constraints Analysis - 21	

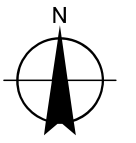


**Legend**

**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most



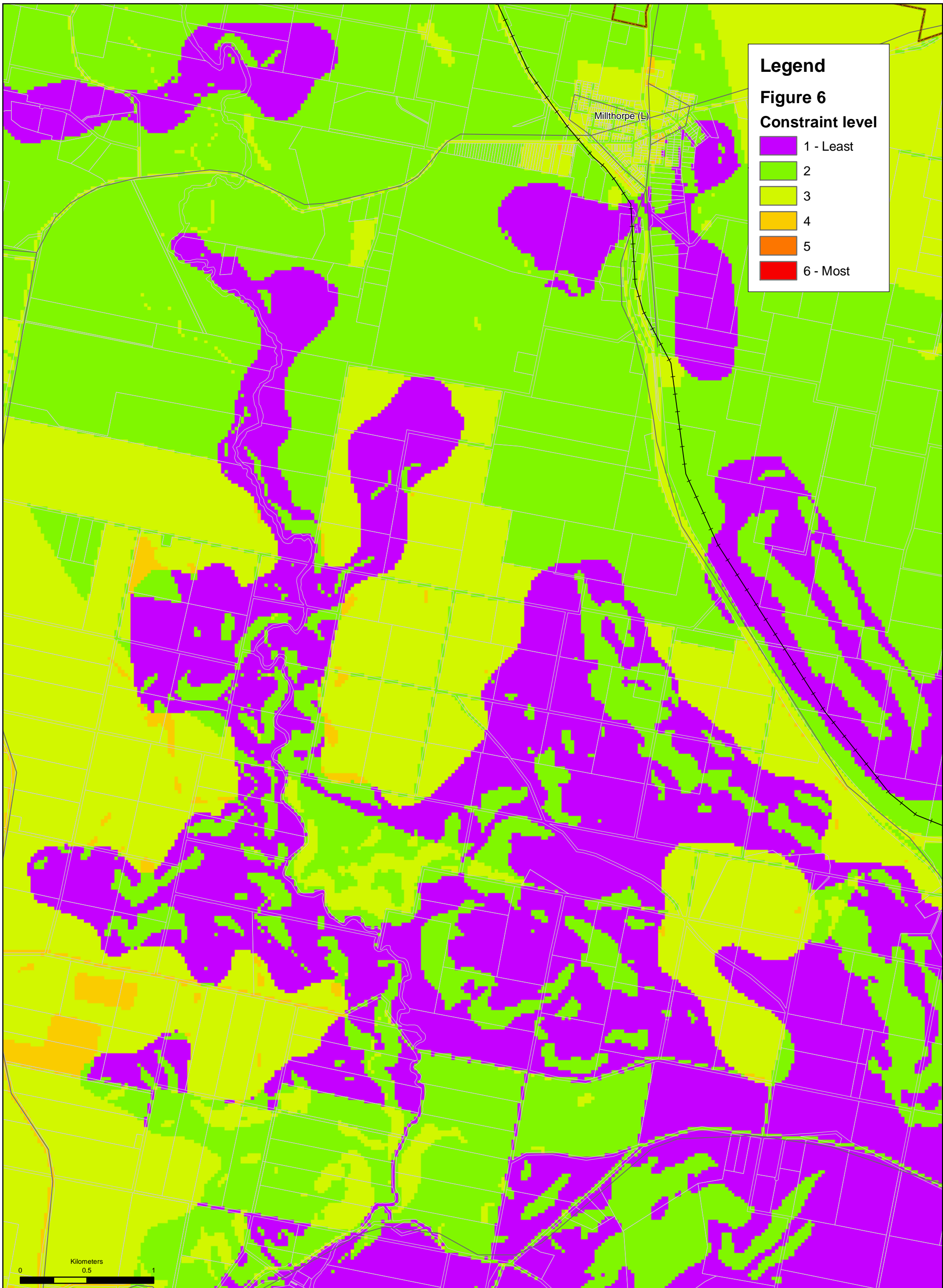
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Soft Constraints Analysis - 22	



**Legend**

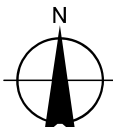
**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most

Millthorpe (L)

Kilometers  
0 0.5 1



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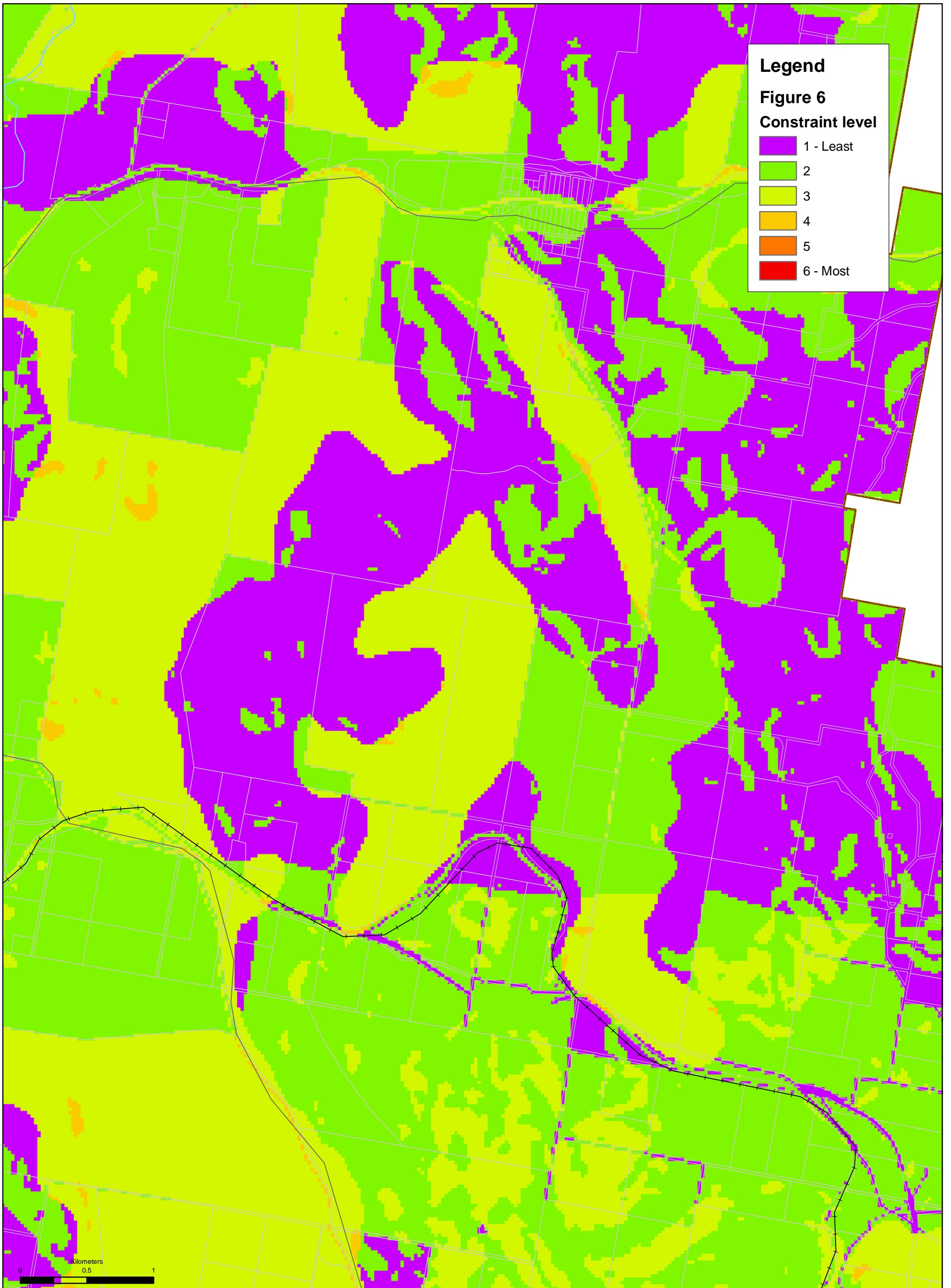
MAP NO: 21-14006-Z012

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PROJECT: Sub-Regional Rural and Industrial Land Use Strategy

Soft Constraints Analysis - 23

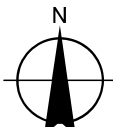
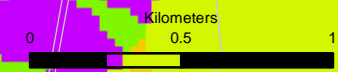


**Legend**

**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most



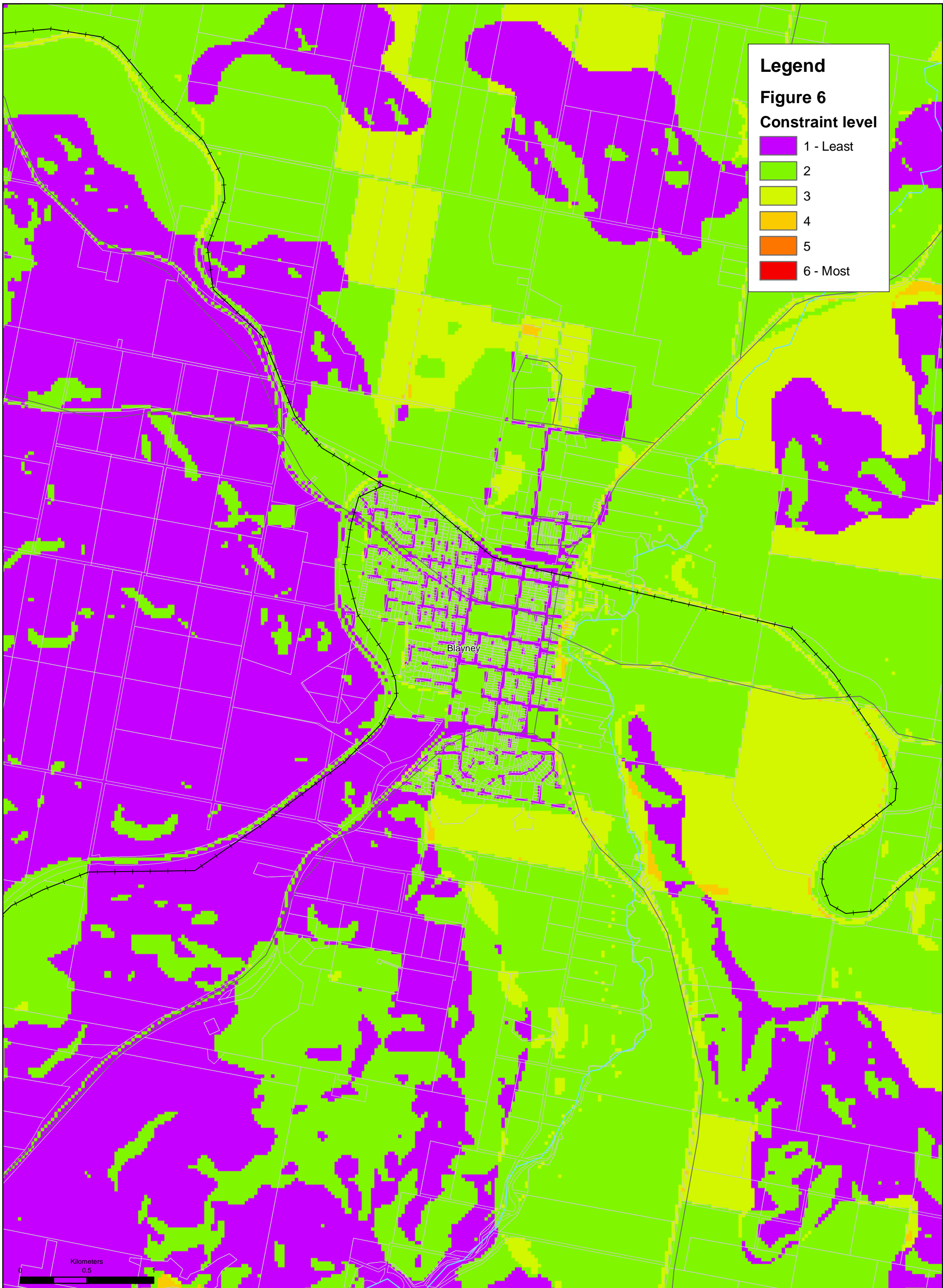
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Soft Constraints Analysis - 24	



**Legend**

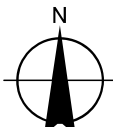
**Figure 6**

**Constraint level**

- 1 - Least
- 2
- 3
- 4
- 5
- 6 - Most

Blayney

Kilometers  
0 0.5



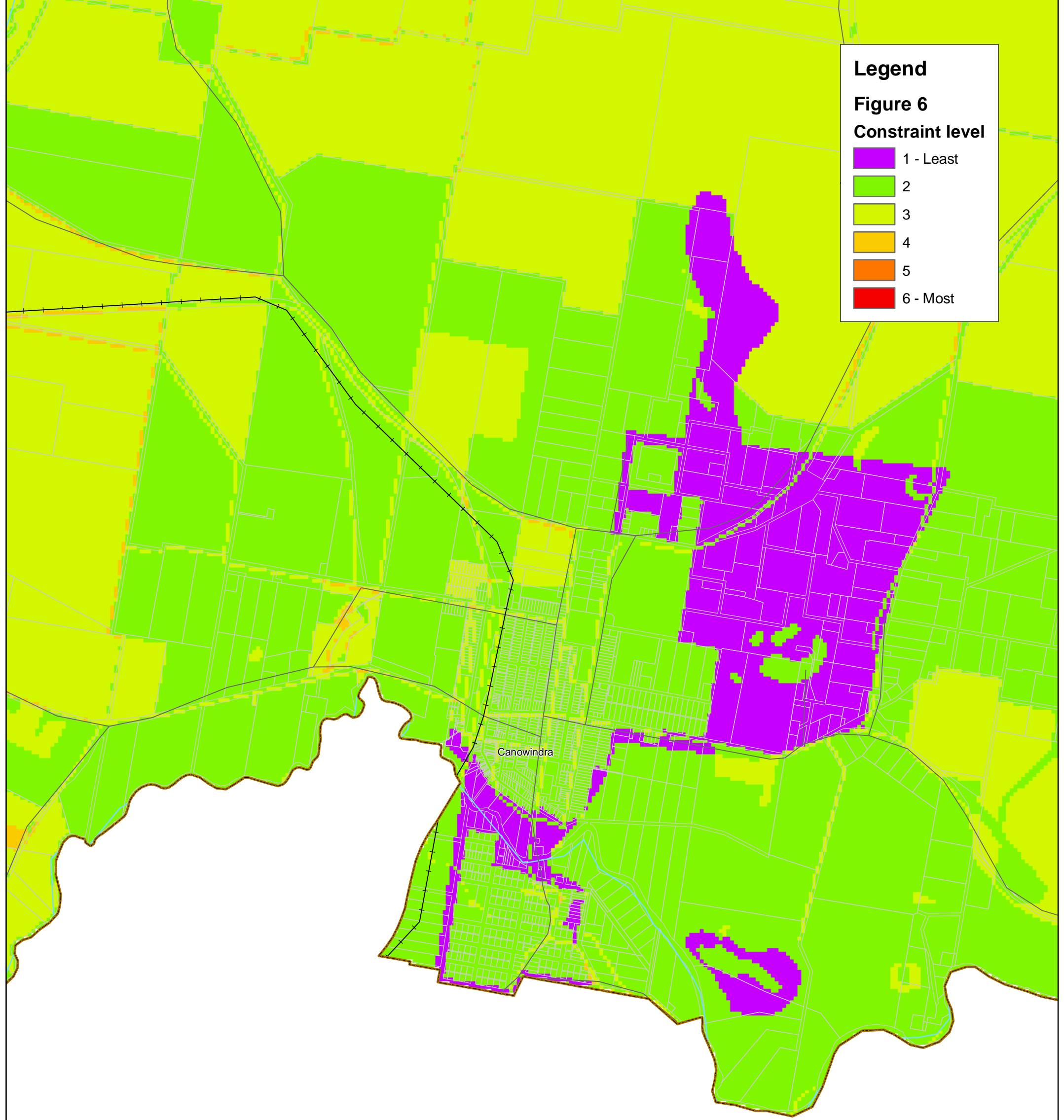
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DRAWN: CWilson	CHECKED: MRoser	DATE: 10 Nov 2006

CLIENT:	The Councils of Blayney, Cabonne and Orange City
PROJECT:	Sub-Regional Rural and Industrial Land Use Strategy



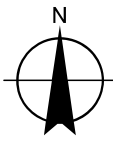
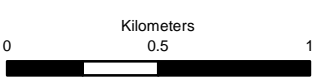
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**Figure 6**

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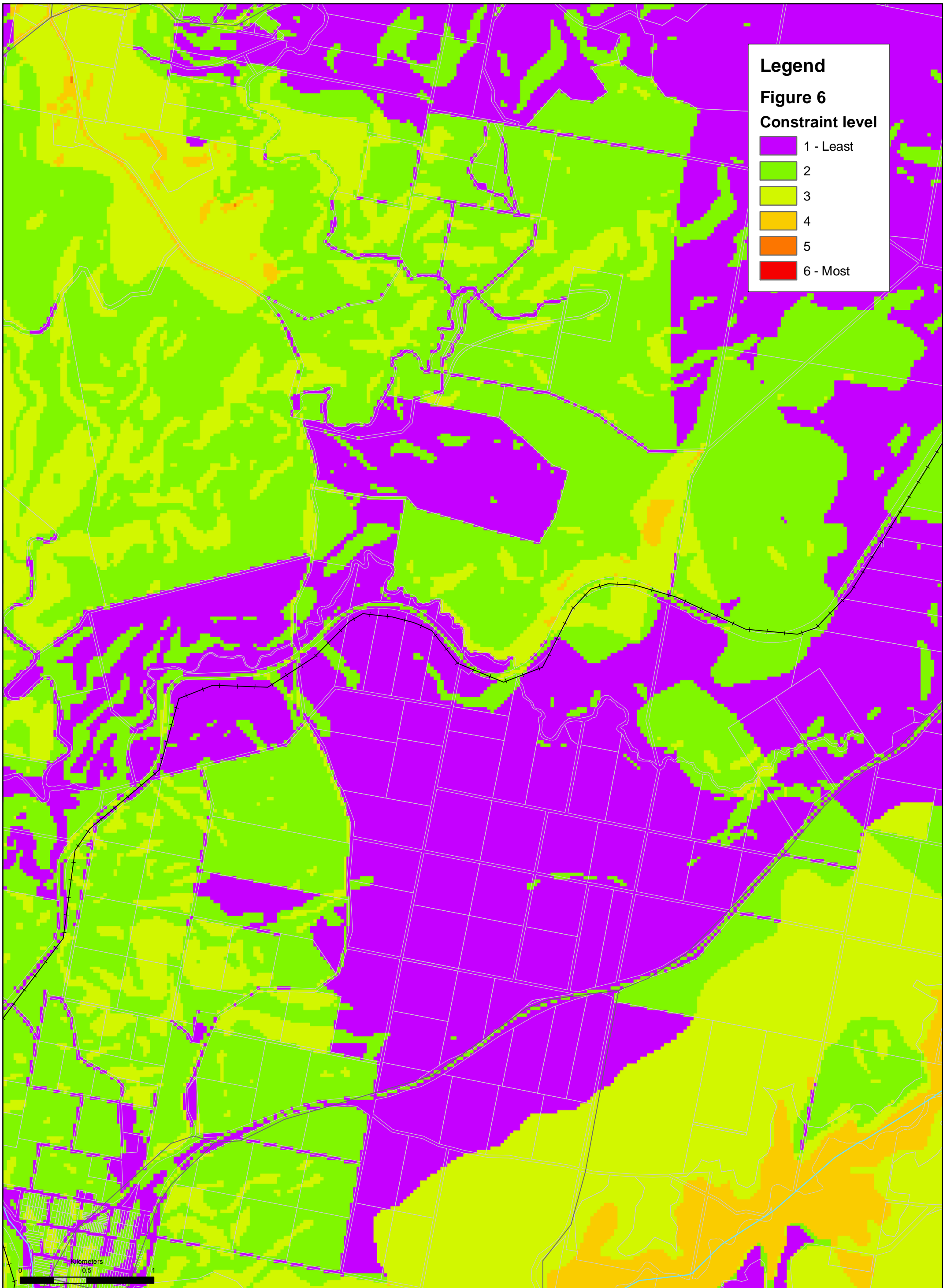


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PROJECT:	Sub-Regional Rural and Industrial Land Use Strategy
Soft Constraints Analysis - 26	



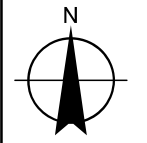


**Legend**

**Figure 6**

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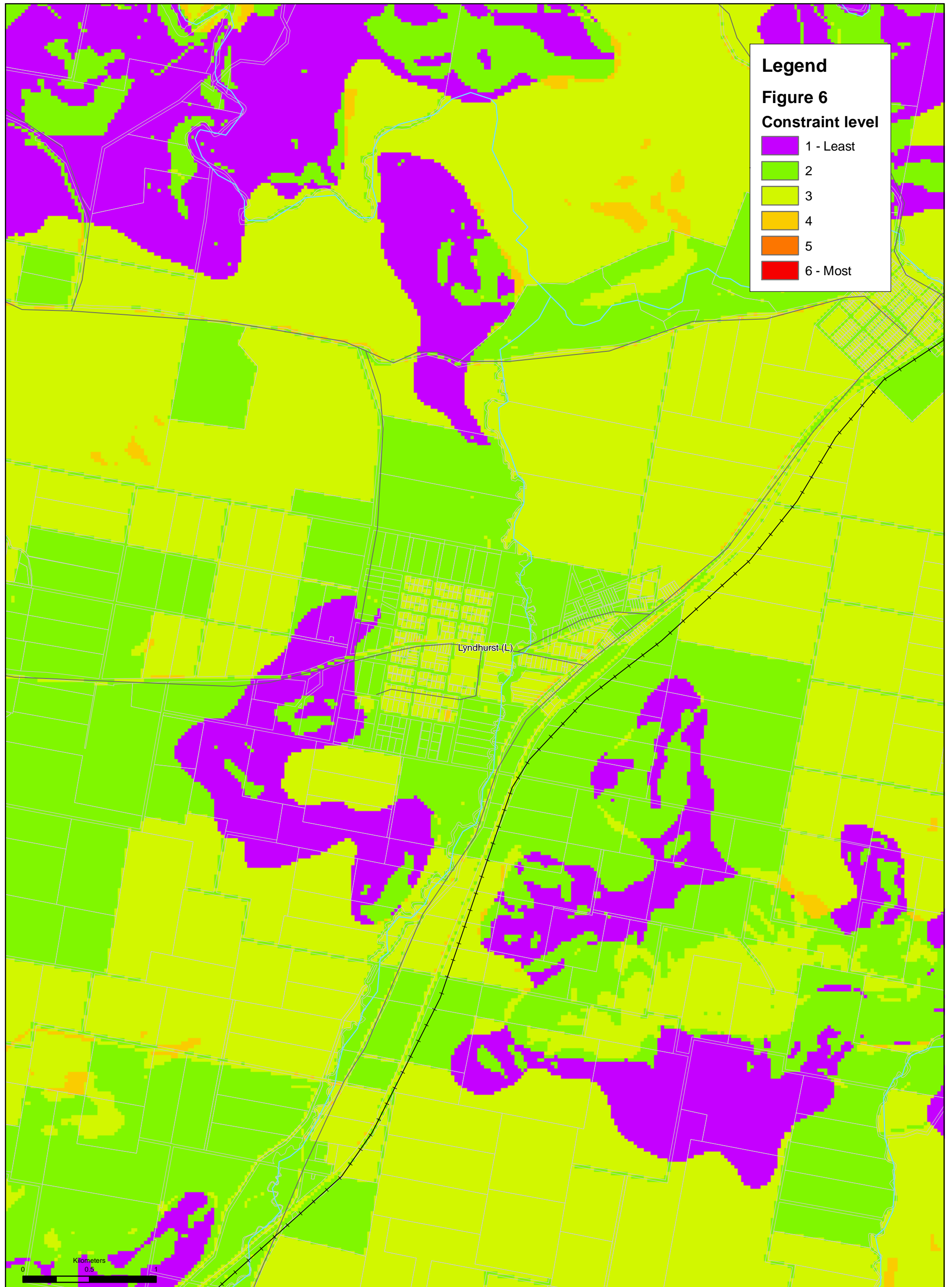
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PROJECT:	Sub-Regional Rural and Industrial Land Use Strategy
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**Legend**

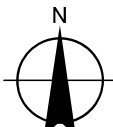
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CLIENT: The Councils of Blayney, Cabonne and Orange City

PROJECT: Sub-Regional Rural and Industrial Land Use Strategy

Soft Constraints Analysis - 28



Appendix C  
Minimum Lot Size Report – Hassall &  
Associates

# Minimum Lot Size Analysis

## Blayney, Cabonne and Orange Rural and Industrial Land Use Strategy

Prepared for

**GHD Pty Ltd**

Prepared by



**Hassall & Associates Pty Ltd**

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November 2006

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## DISCLAIMER

All description, figures, analyses, forecasts and other details have been prepared in good faith from information furnished to the consultants by other parties. These data are believed to be correct at the date of preparation of this report.

However, it should be noted that predictions, forecasts and calculations are subject to assumptions which may or may not turn out to be correct and Hassall & Associates Pty Ltd expressly disclaim all and any liability to any persons in reliance, in whole or in part, on the report in total or any part of its contents.

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## Summary

Hassall & Associates used the NSW Department of Primary Industries' methodology to determine minimum lot sizes for the Blayney, Cabonne and Orange local government areas. The data used to input into the methodology was obtained from public sources (DPI Gross Margins, ABARE Farm Surveys) and from members of a Landholder Reference Group.

The reference group considered that the region could be divided into four sectors based on the natural resource conditions and existing land use, with each having a particular enterprise mix. A minimum lot size was calculated for each of these four sectors as shown in the table below.

### Minimum lot size for enterprise types

<b><i>Enterprise types</i></b>	<b><i>Minimum lot size (hectares)</i></b>
A. Intensive horticulture and viticulture	25
B. Highly productive mixed grazing	200
C. Mixed cropping and grazing	550
D. Extensive grazing	800

A draft report was submitted on 16 November 2006 for Council consideration based on information from the reference group and the analysis by Hassall. Council recommended adjustments to the sector boundaries based on further local knowledge. Hassall incorporated these adjustments in this final report.

The minimum lot sizes are based on an economic analysis of typical enterprise mixes in each sector. The Blayney, Cabonne and Orange Councils may wish to adjust these areas by taking other factors into account, including the existing landholding sizes in each sector.

The following report outlines the process of calculating the minimum lot sizes and the location of the different sectors.

## 1. BACKGROUND

GHD Pty Ltd (GHD) commissioned Hassall & Associates (Hassall) to undertake a minimum lot size analysis for the Blayney, Cabonne and Orange (BCO) Rural and Industrial Land Use Strategy using the NSW Department of Primary Industries' (DPI) draft methodology. The analysis was to address at least three minimum lot sizes – for intensive agriculture, cropping/mixed farming and grazing.

To assist with the process, a Landholder Reference Group was established to provide information to Hassall on the types and locations of major agricultural enterprises in the BCO region.

Hassall conducted a workshop with reference group members on Monday 13 November in Orange and the information obtained from them and from public sources (DPI, ABARE Farm Surveys) was used in the DPI methodology to determine minimum lot sizes.

## 2. METHODOLOGY

The methodology used to determine minimum lot size recommendations is based on the recommended methodology developed by DPI. A summary of the methodology is presented in Appendix 1.

The information used to input into the methodology was obtained from a number of sources including DPI Gross Margins, ABARE Farm Surveys and the reference group. The DPI and ABARE information that was used is attached in Appendix 2 and Appendix 3.

The local farmer reference group consisted of 8 farmers from a range of locations within the BCO region who operate agricultural enterprises considered to be representative of the region. A list of the reference group members is provided in Table 1.

**Table 1 Landholder reference group members**

<b>Name</b>	<b>Enterprise type</b>	<b>Locality</b>
Justin Jarratt	Viticulture	Cargo Road
Andrew Gartrell	Orchardist	Towac Valley
Stephen Doyle	Viticulture	Several in region
Bob Sullivan	Mixed farming	Larras Lee
Graham Brown	Livestock	Orchard Road, Orange
Lawrence Balcomb	Cropping/livestock	Toogong
Cyril Wills	Mixed farming	Mandurama
Bob Stanbridge	Livestock	Blayney



Hassall conducted a four hour workshop with the reference group in Orange on 13 November 2006 to collect the necessary information and data required. Reference group members had in the previous week been sent the one page summary of the DPI methodology and were therefore prepared for the type of information being requested. All members received a copy of the ABARE and DPI data at the workshop.

Various maps of the three local government areas with information on land use and land capability were available during the workshop to assist in delineating particular sectors suitable for differing agricultural enterprises.

At the completion of the workshop, Hassall met with DPI staff in Orange to report on the outcomes of the workshop and inform them of the next phases in the process.

A Draft Report was submitted to GHD on 16 November 2006 for consideration by Blayney, Cabonne and Orange Councils. This Final Report includes changes recommended by the Councils to the original sector boundaries. Councils did not recommend any changes to the minimum lot size areas.

### **3. DPI METHODOLOGY STEPS AND WORKSHOP OUTCOMES**

The workshop with the farmer reference group followed each of the steps in the DPI methodology. The information gathered from each of the steps and the conclusions from the reference group are outlined below.

#### **Step 1 Identify the key agricultural industries and enterprises in the LGA**

The first conclusion from the reference group was that for the process of determining minimum lot sizes, the shire boundaries between each of the three LGAs were not of prime importance. The combined BCO region was therefore used throughout the various steps, with the key agricultural enterprises determined by natural resource conditions, as well as existing and historical land uses.

The range of agricultural enterprises varies across the region with the most important determinants being soil, topography and climate (especially rainfall). The combined area can be roughly divided in half along a north-south axis with the eastern half being considered as tablelands and the western half considered as slopes.

The more elevated tablelands generally have higher rainfall but also cooler temperatures and higher frost risk. Land slopes are variable but can limit cultivation because of soil erosion risks. Soil types are also variable but there are large areas of basalt derived soils of high fertility. Enterprises of most significance on the tablelands are beef cattle, prime lambs, horticulture and viticulture although wool enterprises predominate on the easterly fringe where soils are more skeletal and less fertile. Horticulture and viticulture require irrigation to supplement variable rainfall.

The slopes have lower elevations as well as lower rainfall and higher temperatures with less frost risk compared to the tablelands, and although slopes are variable there are large areas of land suitable for cultivation of winter grain crops. Enterprises of most significance on the slopes are wheat, canola, beef cattle, prime lambs and wool production. Viticulture is also suited in a range of locations but is limited by irrigation water supply.

Care is needed when generalising on the types of enterprises that are suitable throughout the region because of the complexity of resource conditions (topography, soil types, slopes) that can occur at the local level. The reference group recognised this difficulty but considered that it was important to use broader classifications within this planning exercise.

There has been a change in enterprise types in recent years especially on the tablelands where there has been a decline in cropping and an increase in beef cattle production. Viticulture plantings have also increased in the Cudal/Cargo areas. There has also been a decline in the apple orchard area around Orange with part of this area now used for grazing cattle. Cattle have been favoured over sheep in recent years because of the high labour requirements for sheep, and prime lambs have been favoured over merino sheep due to the relatively higher returns from meat compared to wool enterprises. Potato and other vegetable growing have declined over time due to market variability.

The above changes reflect both the diversity and flexibility in the suitability of agricultural enterprises in the BCO region. Reference group members highlighted the fact that the generally favourable conditions allow landholders to adapt their enterprise mix over time to take advantage of changing market conditions.

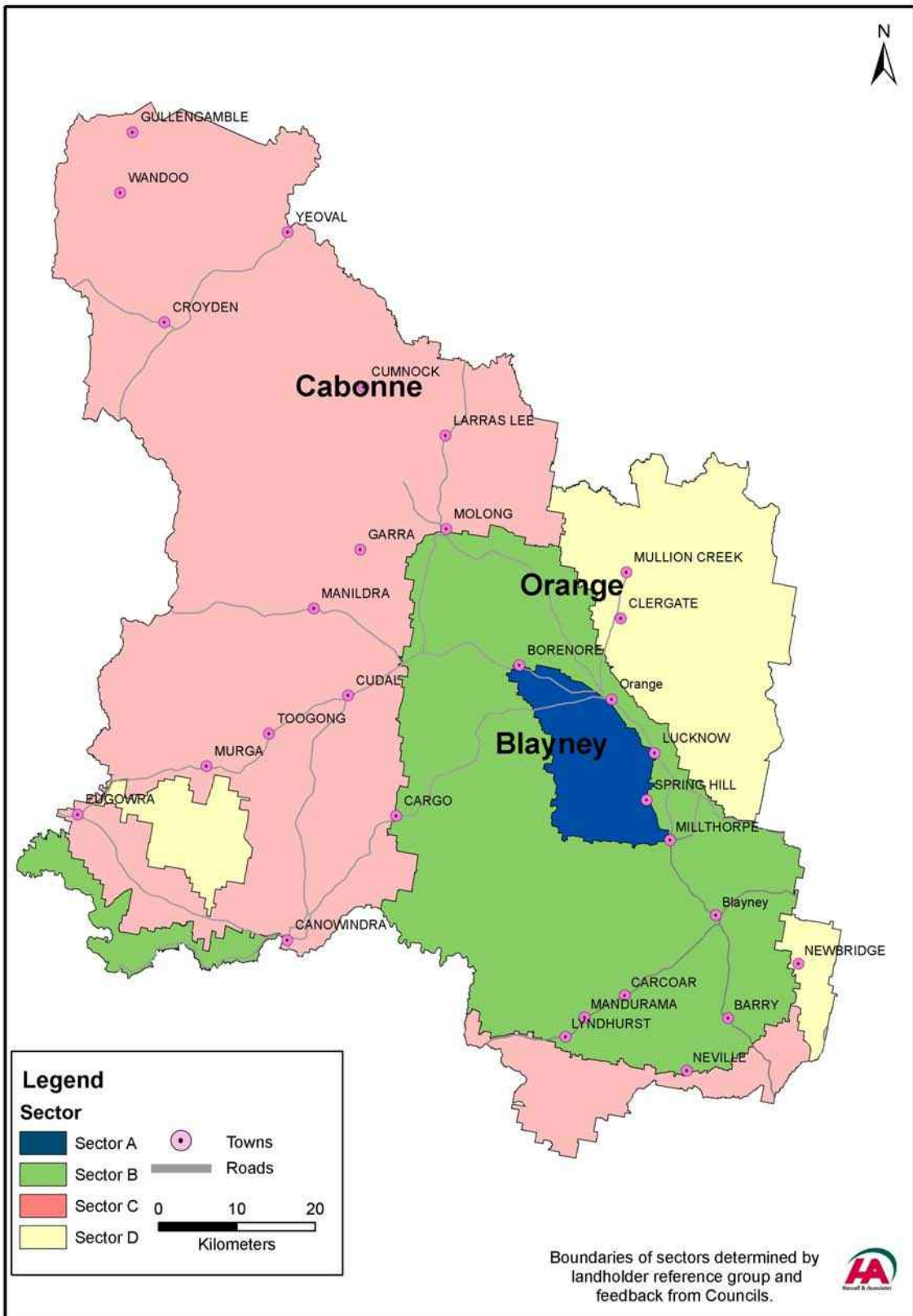
## **Step 2 Identify the characteristics of farms in the LGA**

The reference group considered that the region could be divided into four sectors that broadly depict the different patterns of the major agricultural enterprises, and that it was appropriate to determine a different minimum lot size for each of these sectors. The boundaries of these four sectors were outlined on a map with various towns and location names used to define the approximate boundaries. The four sectors were named as follows:

- A. Intensive horticulture and viticulture;
- B. Highly productive mixed grazing;
- C. Mixed cropping and grazing; and
- D. Extensive grazing.

The location of each of the sectors is shown in Figure 1 and the details for each are shown in Table 2. The location of each sector is based on the outcomes of the workshop and on feedback from the Blayney, Cabonne and Orange Councils.

Also shown in Table 2 are holding sizes that are considered to be the current ranges of commercial farms in each sector by the reference group. The land area for Sector A is based on a horticulture or viticulture enterprise with the lower area (12 ha) considered viable where value adding (for example a winery) is included.



**Table 2 Description of the four land sectors**

<b>Sector name</b>	<b>Location and boundaries</b>	<b>Land types and holding sizes</b>
A. Intensive horticulture and viticulture	Extending south from Orange into the Towac valley. Bounded by Orange, Borenore, Nashdale, Lucknow and Forest Reefs	High elevation, high rainfall, highly fertile basalt soils, frost risk. 12 to 40 ha.
B. Highly productive mixed grazing or lucerne production	Encircling A. Bounded by Molong, Cargo, Angelong, Neville, Hobbies Yards, Newbridge, Vittoria, Shadforth. Also west of Canowindra along the river for lucerne	Medium elevation and rainfall with variable but good quality soils. Alluvial soils on the river. 200 to 400 ha.
C. Mixed cropping and grazing	West of B extending to the Cabonne Shire boundary and south of B extending to the Blayney Shire boundary	Medium to lower elevation with lower rainfall towards the west. Mixed soil types. Larger land holdings suitable for broadscale cropping. 600 to 800 ha.
D. Extensive grazing	On the eastern extremities of Cabonne and Blayney Shires with an additional area around Nangar (east of Eugowra)	Higher elevation and rainfall in the east, but with poorer soils and increased scattered timber. Skeletal soils and timbered areas around Nangar. 1200 ha

### **Steps 3 and 4 Determine the existing production levels and gross margins of key enterprises on farms**

The average expected production levels and gross margins of the key enterprises on farms in each of the four sectors are shown in the Tables 3a, 3b, 3c and 3d, along with the proportional allocation of enterprises across farms. Also included are the assumed variable costs for each enterprise that is later used to calculate overhead costs (Step 6). For each sector, it has been assumed that 5% of the total farm area is non-productive because of dwellings, sheds, roads etc.

The reference group members used their extensive knowledge and experience to determine average yields and proportional allocation of enterprises across the different sectors. The DPI gross margins (Appendix 2) were considered and largely adopted by members as appropriate for the exercise with some minor adjustments.

**Table 3a Sector A - Production, gross margins, costs and proportion of enterprises**

<i>Enterprise</i>	<i>Production</i>	<i>Gross margins</i>	<i>Variable costs</i>	<i>Proportion</i>
<b>Non productive</b>	-	-	-	5%
<b>Peaches</b>	4,902 trays/ha	\$18,728/ha	\$30,292/ha	73%
<b>Apples</b>	45t/ha	\$6,653/ha	\$28,347/ha	22%

Reference group members indicated that holdings in Sector A may also contain enterprises other than horticulture, including beef cattle, however a mix of horticultural enterprises was used to ensure simplicity.

**Table 3b Sector B - Production, gross margins, costs and proportion of enterprises**

<i>Enterprise</i>	<i>Production</i>	<i>Gross margins</i>	<i>Variable costs</i>	<i>Proportion</i>
<b>Non productive</b>	-	-	-	5%
<b>Wheat/Canola</b>	4t/ha	\$307/ha	\$328.30/ha	5%
<b>Beef</b>	8.5DSE/ha	\$30.85/DSE	\$6.70/DSE	40%
<b>Prime lambs</b>	8.5DSE/ha	\$30.00/DSE	\$18.09/DSE	40%
<b>Grain/graze</b>	2t/ha, 2.5hd/ha	\$348.60/ha	\$307.22/ha	10%

Only a small amount of grain cropping is indicated in Sector B (5% of land area) and it has been assumed that this is mostly a mix of wheat and canola. For simplicity, the average of the wheat and canola gross margins and variable costs from the DPI data has been used in Table 3b.

Additionally, Sector B includes an enterprise called “grain/graze” on 10% of a farm where wheat or oats are grown for winter grazing by cattle and then the area is later harvested for grain. The gross margins and variable costs for this enterprise are based on DPI average figures (Appendix 2) for wheat and oats.

**Table 3c Sector C- Production, gross margins, costs and proportion of enterprises**

<i>Enterprise</i>	<i>Production</i>	<i>Gross margins</i>	<i>Variable costs</i>	<i>Proportion</i>
<b>Non productive</b>	-	-	-	5%
<b>Wheat</b>	3t/ha	\$178.40/ha	\$256.60/ha	20%
<b>Canola</b>	2.1t/ha	\$226.00/ha	\$400/ha	5%
<b>Beef</b>	5DSE/ha	\$30.85/DSE	\$6.70/DSE	35%
<b>Prime lambs</b>	5DSE/ha	\$30.00/DSE	\$18.09/DSE	35%

Table 3c assumes 25% cropping and 70% livestock production for Sector C although reference group members recognised there is a large variation between farms throughout the sector. In addition, although prime lambs is the enterprise chosen for this exercise, there are a number of farms with merino enterprises especially in the north west of the sector.

Table 3d indicates that a merino ewe enterprise based on the production of 21 micron wool is the only enterprise in Sector D.

**Table 3d Sector D - Production, gross margins, costs and proportion of enterprises**

<i>Enterprise</i>	<i>Production</i>	<i>Gross margins</i>	<i>Variable costs</i>	<i>Proportion</i>
<b>Non productive</b>	-	-	-	5%
<b>Merino ewes (21 micron)</b>	3DSE/ha	\$22.81/ha	\$11.76/ha	95%

### Step 5 Determine a target income level for a commercial farming unit

The approach suggested in the DPI methodology for determining target income levels was explained to the reference group members using the ABARE farm data for livestock and crops for NSW Tablelands and Central West regions (see Appendix 3). These show the averages for the last five years for a range of enterprises in the BCO region. The following equation was used to calculate a breakeven or target income for each sector:

$$\text{Breakeven income (\$)} = \text{Farm cash income (\$)} - \text{Profit at full equity (\$)}$$

Table 4 shows the target incomes selected for the four sectors. There was no ABARE data available for horticulture enterprises and therefore a target of \$60,000 was used for Sector A on the basis that the total gross margin income expected from a horticulture farm was similar to the total cash receipts from a mixed sheep farm in the Central West (\$326,962 – Appendix 2).

**Table 4 Target incomes for farms in each sector**

<i>Sector</i>	<i>Target income</i>	<i>Comment</i>
<b>A</b>	\$60,000	See above
<b>B</b>	\$42,823	Average for mixed enterprise beef and mixed sheep for the Tablelands
<b>C</b>	\$58,195	Average for mixed enterprise beef and mixed sheep for the Central West
<b>D</b>	\$40,220	Average for specialist sheep for Tablelands and Central West

## Step 6 Calculate the overhead costs

The overhead costs were assumed to be 30% of total costs for all sectors. The DPI methodology suggests choosing a range between 30% and 40% depending on whether enterprises are mostly livestock or cropping based respectively. The DPI suggests the higher percentage for cropping enterprises is due to higher depreciation costs for cropping equipment.

The reference group discussed the issue and agreed that 30% for overheads was acceptable for all enterprises, especially as the higher target incomes for Sectors A and C in Step 5 and shown in Table 4 were largely due to the higher depreciation costs for the chosen enterprise mixes. To further increase overhead costs in Step 6 would risk double counting the impact of depreciation.

## Step 7 Calculate area needed to generate break even level of income

Hassall developed a computer model based on the calculations in the DPI Methodology and the above variables were inputted into the model for each of the four sectors. The resulting areas of land required to generate a breakeven income are summarised in Table 5 with the more detailed spreadsheets attached in Appendix 4. Note that the areas have been rounded to reflect the fact that the methodology does not generate an exact outcome.

**Table 5 Summary of break even farm areas for each sector**

<b>Sector</b>	<b>Break even area (hectares)</b>
A. Intensive horticulture and viticulture	25
B. Highly productive mixed grazing	200
C. Mixed cropping and grazing	550
D. Extensive grazing	800

Based on the DPI Methodology, these breakeven areas are considered to be the minimum lot sizes in each of the sectors.

These minimum lot sizes are based on an economic analysis of typical enterprise mixes in each sector. The Blayney, Cabonne and Orange Shires may wish to adjust these areas by taking other factors into account including the existing landholding areas in each sector.

The reference group also discussed land use conflict that could arise from intensive horticultural enterprises and whether a buffer area should be included. It was suggested that a suitable buffer is four rows of trees as a windbreak around the perimeter of a property, equating to approximately 15 metres width. This would not significantly increase the above minimum lot size.



## Appendix 1 - DPI Methodology for calculating Minimum Lot Sizes

### Option A Basic assessment

1. Identify the key agricultural industries and enterprises in the LGA
  - type and mix of crops, grazing, horticulture, vegetables
  - what is the LGA well known for?
  - How has agriculture changed over time?
2. Identify the characteristics of farms in the LGA
  - land use characteristics of major agricultural enterprises in the area – with variation due to locality, topography, soils, climate
  - Are there different patterns in different areas across the LGA? – intensive, crop and livestock options
  - Assessment of holding sizes – are these reflective of commercial farms in an area?
  - Consider share farming, leasing etc

### Option B – Using economic analysis to determine basic commercial farm size

3. Determine the existing production levels of key enterprises on farms
  - source from DPI etc and include variation across LGA
  - carrying capacity, yields
  - seasonal variation and impact of drought and markets
4. Determine the appropriate gross margins for the key enterprises
  - get from DPI and adjust with local knowledge
  - derive whole farm gross margins by proportional allocation of enterprises across farm
  - any areas of the farm not contributing directly to GMs – buildings, roads, timber etc
5. Determine a target income level for a commercial farming unit
  - ABARE farm survey data
  - Farm business profit at full equity
  - Break even point – farm business profit of zero (income covers production costs, family labour and overheads)
6. Calculate the overhead costs
  - GM budgets do not cover fixed costs (rates, some R&M, depreciation)
  - Overheads for cropping can be higher than livestock enterprises because of machinery costs
  - DPI suggests 40% of total farm costs are overhead costs – but collect local data to improve accuracy
7. Calculate area needed to generate break even level of income
  - selection of farm with typical mix of enterprises and areas for each
  - calculate whole farm GM
  - calculate overheads – 40% of total farm costs?
  - Calculate net farm income
  - Compare with break even point and adjust areas or mix accordingly

## Appendix 2 DPI Gross Margins





# NSW DEPARTMENT OF PRIMARY INDUSTRIES

## Oats/Wheat: Grazing/Grain (Short Fallow)

### Central Zone - East

### Winter 2006

#### 1. GROSS MARGIN BUDGET:

##### INCOME:

Grain - Oats:	1.80	tonnes/ha @	\$115 /tonne (on farm) (feed)
Grain - Wheat:	2.50	tonnes/ha @	\$150 /tonne (on farm) (feed)
Grazing Oats:	2.5 hd/ha @	1.00 kg/d x	80 days x \$1.90/kg
Grazing Wheat:	2.3 hd/ha @	1.00 kg/d x	80 days x \$1.90/kg

##### A. TOTAL INCOME \$/ha:

##### VARIABLE COSTS:

See opposite page for detail

Cultivation.....	\$7.74
Sowing.....	\$53.35
Fertiliser.....	\$175.49
Herbicide.....	\$25.74
Insecticide.....	\$0.00
Contract-harvesting.....	\$32.00
Levies.....	\$2.10
Crop Insurance.....	\$4.24
Cartage, grading & bagging.....	\$0.00

##### B. TOTAL VARIABLE COSTS \$/ha:

##### C. GROSS MARGIN (A-B) \$/ha:

Oats Standard Budget \$/Ha	Wheat Standard Budget \$/Ha	Your Budget \$/Ha
\$207.00		
	\$375.00	
\$380.00		
	\$349.60	
<b>\$587.00</b>	<b>\$724.60</b>	
\$7.74	\$7.74	
\$53.35	\$61.35	
\$175.49	\$175.49	
\$25.74	\$25.74	
\$0.00	\$0.00	
\$32.00	\$32.00	
\$2.10	\$3.75	
\$4.24	\$7.69	
\$0.00	\$0.00	
<b>\$300.67</b>	<b>\$313.76</b>	
<b>\$286.33</b>	<b>\$410.84</b>	

#### 2. EFFECT OF YIELD AND PRICE ON GROSS MARGIN PER HECTARE:

##### Oats

YIELD tonnes/ha	ON FARM PRICE (\$/tonne)				
	\$75 /t	\$95 /t	<b>\$115 /t</b>	\$135 /t	\$155 /t
0.80	\$144	\$159	\$175	\$190	\$206
1.30	\$180	\$205	\$231	\$256	\$281
<b>1.80</b>	\$217	\$251	<b>\$286</b>	\$321	\$356
2.30	\$249	\$294	\$338	\$383	\$428
2.80	\$280	\$334	\$388	\$442	\$497
3.30	\$310	\$374	\$438	\$502	\$566

Gross  
Margin  
(\$/ha)

##### Wheat

YIELD tonnes/ha	ON FARM PRICE (\$/tonne)				
	\$110 /t	\$130 /t	<b>\$150 /t</b>	\$170 /t	\$190 /t
1.50	\$207	\$236	\$265	\$294	\$324
2.00	\$261	\$299	\$338	\$377	\$416
<b>2.50</b>	\$308	\$356	<b>\$405</b>	\$453	\$502
3.00	\$355	\$413	\$472	\$530	\$588
3.50	\$403	\$470	\$538	\$606	\$674
4.50	\$497	\$584	\$672	\$759	\$846
5.50	\$592	\$698	\$805	\$912	\$1,018

Gross  
Margin  
(\$/ha)

# Oats/Wheat: Grazing/Grain (Short Fallow)

## Central Zone - East

## Winter 2006

### CALENDAR OF OPERATIONS:

Operation	Month	Machinery*			Inputs			Total Cost \$/ha
		hrs/ha	Cost \$/hour	Total \$/ha	Rate/ha	Cost \$	Total \$/ha	
Broadleaf and grass weed control eg: Glyphosate 450 cultivation	Dec	0.05	41.54	<b>\$2.24</b>	1.20 L	\$5.00/L	<b>\$6.00</b>	<b>\$8.24</b>
	Jan	0.17	45.20	<b>\$7.74</b>				<b>\$7.74</b>
Broadleaf and grass weed control eg: Glyphosate 450	Feb	0.05	41.54	<b>\$2.24</b>	0.80 L	\$5.00/L	<b>\$4.00</b>	<b>\$6.24</b>
Nitrogen fertiliser eg: Urea	Mar	0.20	68.20	<b>\$13.35</b>	100 kg	\$0.52/kg	<b>\$52.00</b>	<b>\$65.35</b>
Sowing - Oats	Mar	0.20	68.20	<b>\$13.35</b>	80 kg	\$0.50/kg	<b>\$40.00</b>	<b>\$53.35</b>
Sowing - Wheat	Mar	0.20	68.20	<b>\$13.35</b>	80 kg	\$0.60/kg	<b>\$48.00</b>	<b>\$61.35</b>
Starter fertiliser eg: MAP	Mar	with above			80 kg	\$0.56/kg	<b>\$44.80</b>	<b>\$44.80</b>
Broadleaf and grass weed control eg: Chlorsulfuron (Glean®)	Apr	0.05	41.54	<b>\$2.24</b>	20 g	\$0.17/gm	<b>\$3.40</b>	<b>\$5.64</b>
Nitrogen fertiliser eg: Urea	Jun	0.20	68.20	<b>\$13.35</b>	100 kg	\$0.52/kg	<b>\$52.00</b>	<b>\$65.35</b>
Broadleaf weed control eg: MCPA LVE	Jul	0.05	41.54	<b>\$2.24</b>	0.70 L	\$4.85/L	<b>\$3.40</b>	<b>\$5.63</b>
Contract-harvest	Nov	contract		<b>\$32.00</b>				<b>\$32.00</b>
Crop Levies - Oats					1.00%	of on-farm value		<b>\$2.10</b>
Crop Insurance - Oats					2.05%	of on-farm value		<b>\$4.24</b>
Crop Levies - Wheat					1.00%	of on-farm value		<b>\$3.75</b>
Crop Insurance - Wheat					2.05%	of on-farm value		<b>\$7.69</b>

### NOTES:

#### Place in Rotation:

- Short Fallow: Fallow or weed free period of 5-6 months between harvest of one crop and sowing of the next crop. For example, canola harvested in November would be under a 5-6 month fallow until sowing in the next May.

#### Paddock Selection:

- Oats are more tolerant of acidic soils than wheat or barley.
- Wheat suited to better soil types.

#### Seed:

- Seed price used above is for purchased seed; if using retained seed adjust budget accordingly.

#### Varieties:

- Dual purpose wheat varieties such as Wylah (AH), EGA Wedgetail (AH) Sunsoft 98 (Soft), and, Currawong, Brennan, and Tennant (Feed)
- Dual purpose oats variety such as Cooba, Bimbil, Eurabbie, Coolabah, Yarran and Yiddah.

#### Fertiliser:

- Topdressing of urea in June is to increase leaf and grain production
- A starter fertiliser is recommended at sowing.

#### Herbicides:

- Rotate herbicide groups and use other non-chemical methods to avoid herbicide resistance developing.
- Use of a particular brand name does NOT imply recommendation of that brand by NSW Department of Primary Industries.

#### \*Machinery

- A tractor with 141 kW (190 HP) pto power and 148kW (225 HP) engine power is assumed
- Machinery costs refer only to variable costs: fuel, oil, filters, tyres, batteries & repairs.
- Contract-harvesting does not include the cost of fuel.

#### Labour

- The labour required for machinery operations is 1.46 Hrs/ha
- Using a labour cost of \$14/hr, an additional \$20.47 can be deducted from the budget

#### Economic note:

- These gross margins are only a guide. They do not include overhead costs.
- **Use your own figures and price assumptions to estimate your own gross margin.**

### PRODUCT TRADE NAMES

The product trade names in this publication are supplied on the understanding that no preference between equivalent products is intended and that the inclusion of a product does not imply endorsement by NSW Department of Primary Industries over any other equivalent product from another manufacturer.



# Canola: Long Fallow Central Zone - East

Winter 2006

## 1. GROSS MARGIN BUDGET:

**INCOME:**

2.40 tonnes/ha @ \$300.00 /tonne (on farm)

**A. TOTAL INCOME \$/ha:**

**VARIABLE COSTS:**

See opposite page for detail

- Cultivation.....
- Sowing.....
- Fertiliser.....
- Herbicide.....
- Insecticide.....
- Contract-harvesting.....
- Levies.....
- Crop Insurance.....
- Cartage, grading & bagging.....

**B. TOTAL VARIABLE COSTS \$/ha:**

**C. GROSS MARGIN (A-B) \$/ha:**

	Standard Budget \$/Ha	Your Budget \$/Ha
	\$720.00	
<b>A. TOTAL INCOME \$/ha:</b>	<b>\$720.00</b>	
Cultivation.....	\$39.75	
Sowing.....	\$27.03	
Fertiliser.....	\$136.00	
Herbicide.....	\$43.09	
Insecticide.....	\$54.33	
Contract-harvesting.....	\$78.00	
Levies.....	\$10.91	
Crop Insurance.....	\$25.83	
Cartage, grading & bagging.....	\$0.00	
<b>B. TOTAL VARIABLE COSTS \$/ha:</b>	<b>\$414.94</b>	
<b>C. GROSS MARGIN (A-B) \$/ha:</b>	<b>\$305.06</b>	

## 2. EFFECT OF YIELD AND PRICE ON GROSS MARGIN PER HECTARE:

YIELD tonnes/ha	ON FARM PRICE (\$/tonne)					Gross Margin (\$/ha)
	\$220 /t	\$260 /t	\$300 /t	\$340 /t	\$380 /t	
1.50	-\$58	\$0	\$57	\$114	\$171	
1.80	\$5	\$74	\$142	\$211	\$280	
2.10	\$65	\$146	\$226	\$306	\$386	
<b>2.40</b>	\$122	\$213	<b>\$305</b>	\$397	\$488	
2.70	\$178	\$281	\$384	\$487	\$591	
3.00	\$235	\$349	\$464	\$578	\$693	
3.30	\$291	\$417	\$543	\$669	\$795	

**PRODUCT TRADE NAMES**

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# Canola: Long Fallow

## Central Zone - East

### Winter 2006

#### CALENDAR OF OPERATIONS:

Operation	Month	Machinery*			Inputs			Total Cost \$/ha
		hrs/ha	Cost \$/hour	Total \$/ha	Rate/ha	Cost \$	Total \$/ha	
Broadleaf and grass weed control eg: Glyphosate 450	Sept	0.05	41.54	<b>\$2.24</b>	1.20 L	\$5.00/L	<b>\$6.00</b>	<b>\$8.24</b>
Broadleaf weed control eg: 2,4-D amine 300g/L (Surpass®)	Aug	with above			1.20 L	\$4.50/L	<b>\$5.40</b>	<b>\$5.40</b>
Mite control eg: Omethoate (Le-mat®)	Sept	with above			0.05 L	\$30.00/L	<b>\$1.50</b>	<b>\$1.50</b>
Broadleaf and grass weed control eg: Glyphosate 450	Dec	0.05	41.54	<b>\$2.24</b>	1.20 L	\$5.00/L	<b>\$6.00</b>	<b>\$8.24</b>
Chisel Plough	Feb	0.22	48.95	<b>\$10.93</b>				<b>\$10.93</b>
cultivation	Mar	0.17	45.20	<b>\$7.74</b>				<b>\$7.74</b>
cultivation	Apr	0.17	45.20	<b>\$7.74</b>				<b>\$7.74</b>
Broadleaf and grass weed control eg: Trifluralin 480g/L	Apr	0.05	41.54	<b>\$2.24</b>	1.70 L	\$6.75/L	<b>\$11.48</b>	<b>\$13.71</b>
Incorporation	Apr	0.20	68.20	<b>\$13.35</b>				<b>\$13.35</b>
Nitrogen and sulphur fertiliser eg: Extra Sul®	Apr	with above			200 kg	\$0.40/kg	<b>\$80.00</b>	<b>\$80.00</b>
Sowing (treated seed)	Apr/May	0.20	68.20	<b>\$13.35</b>	3.00 kg	\$4.56/kg	<b>\$13.68</b>	<b>\$27.03</b>
Starter fertiliser eg: MAP	Apr/May	with above			100 kg	\$0.56/kg	<b>\$56.00</b>	<b>\$56.00</b>
Mite control eg: bifenthrin (Talstar®)	Apr/May	0.03	56.03	<b>\$1.83</b>	0.10 L	\$30.00/L	<b>\$3.00</b>	<b>\$4.83</b>
Broadleaf weed control eg: Clopyralid (Lontrel®)	Jun	0.05	41.54	<b>\$2.24</b>	0.30 L	\$58.00/L	<b>\$17.40</b>	<b>\$19.64</b>
Heliothis control (every year) eg: Deltamethrin (Decis Forte EC®)	Oct	contract		<b>\$12.50</b>	0.50 L	\$19.00/L	<b>\$9.50</b>	<b>\$11.00</b>
Aphid contro (1 year in 2) eg: Pirimicarb (PirimorR WG)	Sep	contract		<b>\$12.50</b>	1 kg	\$52.00/L	<b>\$26.00</b>	<b>\$38.50</b>
Contract Windrow	Nov	contract		<b>\$20.00</b>				<b>\$20.00</b>
Contract-harvest	Nov	contract		<b>\$58.00</b>				<b>\$58.00</b>
Crop Levies							\$1.50/tonne + 1.02% of on-farm value	<b>\$10.91</b>
Crop Insurance							3.59% of on-farm value	<b>\$25.83</b>

#### NOTES:

##### Place in Rotation:

- First crop for country coming out of lucerne/sub clover pasture
- In a long fallow situation winter cropping cannot be carried out annually.
- Fallow is usually commenced in Aug-Sept to conserve moisture and stop weeds seeding. Preferably a spray is substituted for the opening cultivation, allowing extended grazing time, weed control and moisture conservation.

##### Paddock Selection:

- Avoid acidic soils with significant exchangeable aluminium and manganese.
- Apply lime on acid soils where pH (CaCl<sub>2</sub>) falls below 5.0.

##### Sowing Time:

- Seed bed must be firm, level and fine to allow sowing onto moisture.
- Sow after first sufficient rain, from mid April to late May.
- Seed price used above is for purchased seed.

##### Weed Control:

- Single super is one of many available alternatives, adequate levels of phosphorus and sulphur should be applied. Nitrogen for a starter is recommended.
- Rotate herbicide groups and use other non-chemical methods to avoid herbicide resistance developing.
- Clopyralid for capeweed and saffron thistle control.

##### Insect Control:

- Apply residual mite spray immediately after sowing.
- Check for aphids during early rosette stage.
- Aphids need to be monitored from early budding, when colonies begin to spread control may be needed.
- Heliothis control is needed in most years.
- Time earthmite spray in spring to kill adults before egg laying.

Use of a particular brand name does NOT imply recommendation of that brand by NSW Department of Primary Industries.

##### Fertiliser:

- Needs 30% more nitrogen than equivalent yielding wheat. All nitrogen should be applied before stem elongation. Soils low in sulphur particularly red soils should receive 25 kg sulphur /ha.
- Less nitrogen could be used depending on the quality of the pasture phase

##### Windrowing:

- Is recommended to avoid shattering losses and promotes even ripening.

##### \*Machinery

- A tractor with 141 kW (190 HP) pto power and 148kW (225 HP) engine power is assumed
- Machinery costs refer only to variable costs: fuel, oil, filters, tyres, batteries & repairs.
- Contract-harvesting does not include the cost of fuel.

##### Labour

- The labour required for machinery operations is 1.51 Hrs/ha
- Using a labour cost of \$14/hr, an additional \$21.09 can be deducted from the budget

##### Economic note:

- These gross margins are only a guide. They do not include overhead costs.
- **Use your own figures and price assumptions to estimate your own gross margin.**



# Wheat: Short Fallow

## Central Zone - East

Winter 2006

### 1. GROSS MARGIN BUDGET:

PREVIOUS CROP:

After	<b>INCOME:</b>		
Pulse	3.00 tonnes/ha @	\$145.00	/tonne (on farm) (AH)
Canola	3.00 tonnes/ha @	\$145.00	/tonne (on farm) (AH)
Cereal	2.80 tonnes/ha @	\$145.00	/tonne (on farm) (AH)

**A. TOTAL INCOME \$/ha:**

**VARIABLE COSTS:**

See opposite page for detail

Cultivation.....	\$7.74	\$7.74	\$7.74
Sowing.....	\$43.35	\$43.35	\$43.35
Fertiliser.....	\$137.35	\$137.35	\$100.95
Herbicide.....	\$40.14	\$16.90	\$16.90
Insecticide.....	\$0.00	\$0.00	\$0.00
Contract-harvesting.....	\$35.60	\$38.00	\$38.00
Levies.....	\$4.06	\$4.35	\$4.35
Crop Insurance.....	\$8.32	\$8.92	\$8.92
Cartage, grading & bagging.....	\$0.00	\$0.00	\$0.00

**B. TOTAL VARIABLE COSTS \$/ha:**

**C. GROSS MARGIN (A-B) \$/ha:**

CEREAL Standard Budget \$/Ha	CANOLA Standard Budget \$/Ha	PULSE Standard Budget \$/Ha	Your Budget \$/Ha
		\$435.00	
\$406.00	\$435.00		
<b>\$406.00</b>	<b>\$435.00</b>	<b>\$435.00</b>	
\$7.74	\$7.74	\$7.74	
\$43.35	\$43.35	\$43.35	
\$137.35	\$137.35	\$100.95	
\$40.14	\$16.90	\$16.90	
\$0.00	\$0.00	\$0.00	
\$35.60	\$38.00	\$38.00	
\$4.06	\$4.35	\$4.35	
\$8.32	\$8.92	\$8.92	
\$0.00	\$0.00	\$0.00	
<b>\$276.55</b>	<b>\$256.60</b>	<b>\$220.20</b>	
<b>\$129.45</b>	<b>\$178.40</b>	<b>\$214.80</b>	

**PRODUCT TRADE NAMES**

The product trade names in this publication are supplied on the understanding that no preference between equivalent products is intended and that the inclusion of a product does not imply endorsement by NSW Department of Primary Industries over any other equivalent product from another manufacturer.

## 2. EFFECT OF YIELD AND PRICE ON GROSS MARGIN PER HECTARE:

tonnes/ha	\$105 /t	\$125 /t	<b>\$145 /t</b>	\$165 /t	\$185 /t	
1.30	-\$128	-\$103	-\$78	-\$53	-\$27	
1.80	-\$77	-\$42	-\$8	\$27	\$62	
2.30	-\$26	\$18	\$63	\$107	\$152	
<b>2.80</b>	\$21	\$75	<b>\$129</b>	\$184	\$238	← Gross Margin (\$/ha)
3.30	\$66	\$130	\$194	\$258	\$322	
3.80	\$111	\$184	\$258	\$332	\$405	
4.30	\$156	\$239	\$322	\$406	\$489	

### After Canola

YIELD tonnes/ha	ON FARM PRICE (\$/tonne)					
	\$105 /t	\$125 /t	<b>\$145 /t</b>	\$165 /t	\$185 /t	
1.50	-\$85	-\$56	-\$26	\$3	\$32	
2.00	-\$34	\$5	\$44	\$83	\$121	
2.50	\$17	\$66	\$114	\$163	\$211	
<b>3.00</b>	\$62	\$120	<b>\$178</b>	\$237	\$295	← Gross Margin (\$/ha)
3.50	\$107	\$175	\$243	\$311	\$378	
4.00	\$152	\$229	\$307	\$385	\$462	
4.50	\$197	\$284	\$371	\$459	\$546	

### After Pulse

YIELD tonnes/ha	ON FARM PRICE (\$/tonne)					
	\$105 /t	\$125 /t	<b>\$145 /t</b>	\$165 /t	\$185 /t	
1.50	-\$48	-\$19	\$10	\$39	\$68	
2.00	\$3	\$41	\$80	\$119	\$158	
2.50	\$54	\$102	\$151	\$199	\$247	
<b>3.00</b>	\$98	\$157	<b>\$215</b>	\$273	\$331	← Gross Margin (\$/ha)
3.50	\$143	\$211	\$279	\$347	\$415	
4.00	\$188	\$266	\$343	\$421	\$498	
4.50	\$233	\$320	\$408	\$495	\$582	

### NOTES:

#### Sowing Time:

- Sowing at the optimum time for the selected variety is critical for maximum yield.
- There is a 4 to 7 % yield loss for every week delay past the optimum sowing time.
- Seed price used above is for purchased seed; if using retained seed adjust budget accordingly.

#### Weed Control:

- Weed control, if required, should be implemented either pre-emergent or within 4 to 6 weeks after sowing time to avoid yield loss and emergence.
- Rotate herbicide groups and use other non-chemical methods to avoid herbicide resistance developing.

#### Fertiliser:

- Adequate phosphorous is essential before applying extra nitrogenous fertiliser.
- To achieve AH quality, wheat must have a protein level of 11.5% or higher. Seasonal conditions will also have a large effect on protein content.
- Nitrogen fertiliser applications may be split i.e.. some applied presowing and some post emergence.
- The later nitrogen fertiliser is applied to a crop, the greater its effect on raising protein levels, and the less effect it has on increasing yield.

#### Rotation:

- Short fallow wheat crops perform differently depending on the previous crop.
- Pulse and canola crops can provide an effective disease break if grass weeds are adequately controlled before and during canola/pulse crop. Additionally, a pulse crop improves soil nitrogen reducing the amount of synthetic fertilisers required to achieve AH quality.
- Short Fallow: Fallow or weed free period of 5-6 months between harvest of one crop and sowing of the next crop. For example, canola harvested in November would be under a 5-6 month fallow until sowing in the next May.



# Wheat: Short Fallow Central Zone - East

## Winter 2006

### CALENDAR OF OPERATIONS:

Operation	Month	Machinery*			Inputs			Total Cost \$/ha
		hrs /ha	Cost \$/hour	Total \$/ha	Rate/ha	Cost \$	Total \$/ha	
Broadleaf and grass weed control eg: Glyphosate 450	Jan	0.05	41.54	<b>\$2.24</b>	1.20 L	\$5.00/L	<b>\$6.00</b>	<b>\$8.24</b>
cultivation	Mar	0.17	45.20	<b>\$7.74</b>				<b>\$7.74</b>
Broadleaf and grass weed control eg: Glyphosate 450	Apr	0.05	41.54	<b>\$2.24</b>	0.80 L	\$5.00/L	<b>\$4.00</b>	<b>\$6.24</b>
Nitrogen Fertiliser- After Canola eg: Urea	May	0.20	68.20	<b>\$13.35</b>	120 kg	\$0.52/kg	<b>\$62.40</b>	<b>\$75.75</b>
Nitrogen Fertiliser- After Cereal eg: Urea	May	0.20	68.20	<b>\$13.35</b>	120 kg	\$0.52/kg	<b>\$62.40</b>	<b>\$75.75</b>
Nitrogen Fertiliser- After Pulses eg: Urea	May	0.20	68.20	<b>\$13.35</b>	50 kg	\$0.52/kg	<b>\$26.00</b>	<b>\$39.35</b>
Sowing	May	0.20	68.20	<b>\$13.35</b>	50 kg	\$0.60/kg	<b>\$30.00</b>	<b>\$43.35</b>
Starter fertiliser eg: MAP	May	with above			110 kg	\$0.56/kg	<b>\$61.60</b>	<b>\$61.60</b>
Grass weed control (after cereal) eg: Diclofop-methyl (Hoegrass®)	Jun/July	0.05	41.54	<b>\$2.24</b>	1.00 L	\$21.00/L	<b>\$21.00</b>	<b>\$23.24</b>
Broadleaf weed control eg: MCPA LVE	Jun/July	with above			0.50 L	\$4.85/L	<b>\$2.43</b>	<b>\$2.43</b>
Contract-harvest - After Canola	Nov	contract		<b>\$38.00</b>				<b>\$38.00</b>
Contract-harvest - After Cereal	Nov	contract		<b>\$35.60</b>				<b>\$35.60</b>
Contract-harvest - After Pulse	Nov	contract		<b>\$38.00</b>				<b>\$38.00</b>
Crop Levies - After Canola					1.00%	of on-farm value		<b>\$4.35</b>
Crop Levies - After Cereal					1.00%	of on-farm value		<b>\$4.06</b>
Crop Levies - After Pulses					1.00%	of on-farm value		<b>\$4.35</b>
Crop Insurance - After Canola					2.05%	of on-farm value		<b>\$8.92</b>
Crop Insurance - After Cereal					2.05%	of on-farm value		<b>\$8.32</b>
Crop Insurance - After Pulses					2.05%	of on-farm value		<b>\$8.92</b>

### NOTES (cont):

Use of a particular brand name does NOT imply recommendation of that brand by NSW Department of Primary Industries.

#### \*Machinery

- A tractor with 141 kW (190 HP) pto power and 148kW (225 HP) engine power is assumed
- Contract-harvesting does not include the cost of fuel.

#### Labour

- The labour required for machinery operations is 1.39 Hrs/ha
- Using a labour cost of \$14/hr, an additional \$19.52 can be deducted from the budget

#### Economic note:

- These gross margins are only a guide. They do not include overhead costs.
- **Use your own figures and price assumptions to estimate your own gross margin.**



**BEEF CATTLE GROSS MARGIN BUDGET**

Farm enterprise Budget Series: September 2006

**Enterprise: Yearling (Southern/Central NSW)**

**Enterprise Unit: 100 cows**

**Pasture: Improved**

			Standard Budget	Your Budget
<b>INCOME:</b>				
42	steers 12-15 months @	\$718 /hd	\$30,135	
22	heifers 12-15 months @	\$629 /hd	\$13,838	
1	CFA Bull @	\$1,188 /hd	\$1,188	
7	CFA cows @	\$752 /hd	\$5,266	
11	Other culls @	\$752 /hd	\$8,275	
83				
<b>A. Total Income:</b>			<b>\$58,702</b>	
<b>VARIABLE COSTS:</b>				
Replacements	1 Bull @	\$5,000 /hd	\$5,000	
Livestock and vet costs: see section titled beef health costs for details.			\$1,203	
Ear tags @	\$2.00		\$40	
Fodder crops			\$0	
Hay & Grain			\$0	
Droughts can increase feed costs. For example costs see main menu.			\$0	
Pasture maintenance ( 194 ha improved pasture per 100 cows)			\$5,820	
Livestock selling cost (see assumptions on next page)			\$4,574	
<b>B. Total Variable Costs:</b>			<b>\$16,637</b>	
			GM including pasture cost	GM excluding pasture cost
<b>GROSS MARGIN (A-B)</b>			<b>\$42,065</b>	<b>\$47,885</b>
<b>GROSS MARGIN/COW</b>			<b>\$420.65</b>	<b>\$478.85</b>
<b>GROSS MARGIN/DSE*</b>			<b>\$27.10</b>	<b>\$30.85</b>
<b>GROSS MARGIN/HA</b>			<b>\$216.83</b>	<b>\$246.83</b>

**Change in gross margin (\$/cow) for change in price &/or the weight of sale stock**

(Note: Table assumes that the price and weight of other stock changes in the same proportion as steers. As an example if steer sale price falls to 340c/kg and steer weight to 195 kg, gross margin would fall to \$351 per cow. This assumes that price and weight of all other sale stock falls by the same percentage.

Dresses wt kgs Stock sold	Steer sale price cents/kg dw				
	330	340	350	360	370
<b>Steer dw</b>					
-40 kgs <b>185</b>	284	297	310	322	335
-20 kgs <b>195</b>	336	351	365	380	394
0 <b>205</b>	388	404	<b>421</b>	437	453
+20 kgs <b>215</b>	440	458	476	494	512
+40 kgs <b>225</b>	493	512	532	551	571

GM \$ per Cow

An increase of 5% in weaning percentage increases gross margin per cow by \$30.76

**Assumptions                      Yearling (Southern/Central NSW)**

Enterprise unit is 100 cows weighing on average 500 kg  
 Weaning rate: 86%, conception 92%

**Sales**

100% steers sold at 12-15 months	205 kg	@350c/kg dressed weight
100% sale heifers sold at 12-15 months	185 kg	@340c/kg dressed weight
20 heifers retained for replacement.		
Cull cows cast for age at 10 years	255 kg	@295c/kg dressed weight
100% of preg tested empty cows culled	"	" "
4% cows culled for other reasons	"	" "
Bulls run at 3% & sold after 4 years use	432 kg	@275c/kg dressed weight

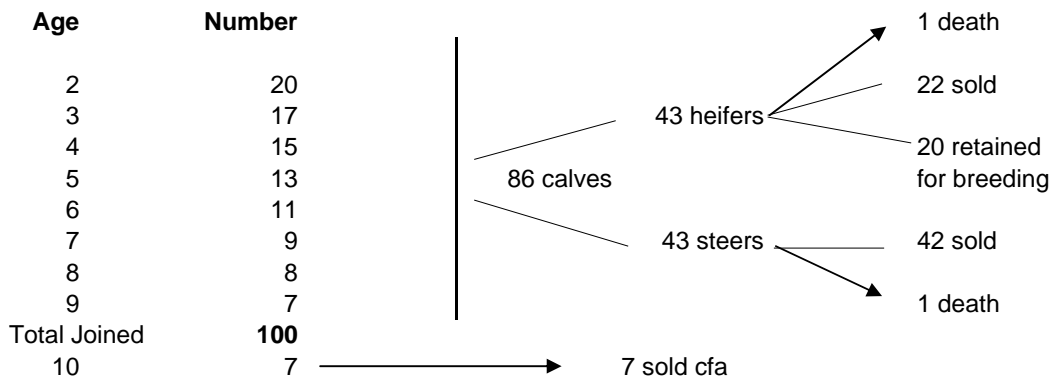
Selling costs include:      Commission 5%, MLA levy \$5/hd, average freight cost to abattoirs 5.5c/kg dw, tail tags 11 c ea., NLIS tags @ \$2.90 for all sale cattle.

Cows: age at first calf : 24 months

Mortality rate of adult stock: 2%

The average feed requirement of a cow + followers is rated at 15.52 dse's\*. This is an average figure and will vary during the year.

**Age structure**



**Marketing Information:**

Suited to the domestic supermarket trade and could access MSA grading with careful preparation. Note that for MSA grading producers need to be licensed. Good frame, well muscled, later maturing steers can be suited to the Japanese grain fed markets at heavier turn off weights than above. Steer portion may also be suited for live export to the Japanese feeder steer market (Angus and Murray Grey and Shorthorn breeds preferred) as a lighter weight option.

**Production Information:**

A common production system in the south west slopes; and the southern and central tablelands areas.



# NSW DEPARTMENT OF PRIMARY INDUSTRIES

## MERINO EWES (21 micron) - Merino Rams

Farm Enterprise Budget Series - January 2006

Flock size: 1000 ewes  
 Ewe body weight: 50 kgs  
 DSE rating: 2.1 dse's / ewe

### INCOME

					Standard Budget (\$)	Your Budget (\$)
<b>Wool</b>	<b>number</b>	<b>class</b>	<b>kg /hd</b>	<b>\$/kg</b>		
Shear	960	ewes	5.70	\$4.57	\$25,007.04	
	20	rams	6.00	\$4.57	\$548.40	
	426	ewe lambs	3.80	\$4.36	\$7,057.97	
Crutch	1426	mixed ages	0.25	\$2.63	\$937.50	
<b>Sheep Sales</b>	<b>number</b>	<b>class</b>	<b>\$/hd</b>			
	177	CFA ewes	\$36.80	(20.5 kg cwt)	\$6,513.60	
	4	CFA rams	\$59.42		\$237.68	
	435	weth weaners	\$35.00	(6 months)	\$15,225.00	
	201	ewe hoggets	\$85.00	(18 months)	\$17,085.00	
<b>Fodder</b>	<b>tonnes</b>	<b>type</b>	<b>value per tonne</b>			
Hay	0 t	lucerne hay @	\$200 /t		\$0.00	
Fodder crop grain	0 t	oats @	\$120 /t		\$0.00	
<b>A. Total Income:</b>					<b>\$72,612.19</b>	

### VARIABLE COSTS

<b>Replacements</b>	<b>number</b>	<b>class</b>	<b>cost (\$)</b>	<b>reps</b>		
	4	rams	\$750.00			\$3,000.00
<b>Wool Harvesting &amp; Selling Costs</b>						
Shearing	1386	ewes/hoggets	\$5.21	1		\$7,224.64
	20	rams	\$7.82	1		\$156.38
Crutching	1406	ewes/hoggets	\$0.76	1		\$1,067.29
	20	rams	\$1.52	1		\$30.36
Wool tax			2.00%			\$671.02
Commission, warehouse, testing charges			\$38.85/ bale			\$1,631.50
Wool - cartage	42	bales	\$10.97			\$460.74
- packs	42	packs	\$8.59			\$360.78
<b>Sheep Health</b>	<b>number</b>	<b>class</b>				
Drenching following DrenchPlan						
Broadspectrum	1426	adults/hoggets	\$0.27	2		\$770.04
	900	lambs	\$0.15	3		\$405.00
Dipping	1426	adults/hoggets	\$0.58	1		\$827.08
Jetting	1426	adults/hoggets	\$1.19	1		\$1,696.94
	435	ewe weaners	\$1.42	1		\$617.70
Vaccination- 6 in 1	1426	adults/hoggets	\$0.18	1		\$256.68
	900	lambs	\$0.18	2		\$324.00
Mules + Mark	900	lambs	\$1.45	1		\$1,305.00
Scanning	960	ewes	\$0.75	1		\$720.00
<b>Livestock Selling Costs</b>						
Livestock cartage	817	sale sheep	\$1.50			\$1,225.50
Commission on sheep sales			5.00%			\$1,953.06
<b>Fodder</b>						
Supplementary feed - 3.5 kgs grain/hd/week @ \$120 /t						
	960	ewes	\$0.42 /week	6 weeks		\$2,419.20
Grazing crops	0 ha	@	\$270 /ha			\$0.00
Supplementary fodder	0 t	@	\$150 /t			\$0.00
Pasture maintenance	210 ha	@	\$35 /ha			\$7,350.00
<b>B. Total Variable Costs:</b>						<b>\$34,472.92</b>

	incl. fodder costs	excl. fodder costs
<b>GROSS MARGIN (A-B)</b>	<b>\$38,139</b>	<b>\$47,908</b>
<b>GROSS MARGIN /EWE</b>	<b>\$38.14</b>	<b>\$47.91</b>
<b>GROSS MARGIN /DSE</b>	<b>\$18.16</b>	<b>\$22.81</b>
<b>GROSS MARGIN /HA</b>	<b>\$181.62</b>	<b>\$228.14</b>

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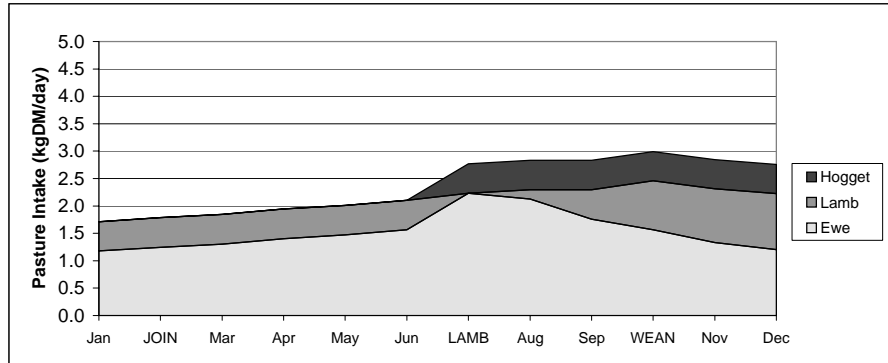
## ASSUMPTIONS

### 1. Flock Parameters

Flock mortality	4%	Ram %	2%
Productive life	5 years	Marking %	90%
Ewe body weight	50 kg	Weaning %	87%
DSE rating /ewe	2.10	Weaning age	3 months
Stocking rate/ha	10 dse's		

### 2. Feed Requirements per breeding ewe

Intakes are estimates based on a pasture that would meet the requirements of all stock at all times. If pasture is above or below this amount, intakes will be more or less (respectively) and livestock performance will vary accordingly. Feed requirements are expressed as kilograms dry matter intake per ewe per day. The intake of all lambs and hoggets are divided by the number of ewes and allocated to the breeding ewes.



Notes: The cost of pasture maintenance is calculated for single super applied at 125kg/Ha every second year. The cost of the grazing crop includes contract harvesting.

### 3. Flock Structure

Sheep numbers are modified to reflect mortality throughout the year.

Age	Number of ewes
1.5	217
2.5	208
3.5	200
4.5	192
5.5	184
6.5	0
<b>Total</b>	<b>1000</b>

900 lambs	870 weaners	435 ewe weaners kept	418 ewe hoggets	217 replacements kept
		435 weth. weaners sold		201 ewe hoggets sold
	177 CFA's sold			

### 4. Wool Prices

Merino Ewe	Micron	AWEX Type	Clean price	Yield	Greasy price	Specifications (all 35n/ktex)	Proportion of Clip
- Fleece GTM	21	MF5B.	\$8.13	66%	\$5.40	1%VMB, 90mm	66%
- Skirtings/bellies	20	MP5B.	\$6.28	55%	\$3.44	4%VMB, 80mm	22%
- Cardings	21	MZ2B.	\$3.97	54%	\$2.13	3%VMB.	12%
					<b>\$4.57</b>		used in budget

### 5. Sensitivity Table

Effect of ewe wool price and cut on gross margin per DSE - cuts and prices for rams, ewe hoggets and adult crutchings have not been varied (incl. fodder costs).

Wool Cut Kg/Hd	Ewe Greasy Wool Price \$/Kg greasy				
	\$3.66	\$4.11	\$4.57	\$5.03	\$5.48
4.56 kg	\$24.24	\$25.18	\$21.17	\$27.05	\$27.98
5.13 kg	\$25.09	\$26.15	\$21.74	\$28.25	\$29.30
5.70 kg	\$25.94	\$27.11	<b>\$22.81</b>	\$29.45	\$30.61
6.27 kg	\$26.79	\$28.08	\$25.01	\$30.65	\$31.93
6.84 kg	\$27.64	\$29.05	\$25.31	\$31.85	\$33.25

Note: both ewe wool cut and greasy wool price have been varied by +/- 10% and +/- 20%. Pasture costs have been included.

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# NSW DEPARTMENT OF PRIMARY INDUSTRIES

## 1st CROSS EWES - Terminal Meat Rams

### Farm Enterprise Budget Series - January 2006

Flock size: 1000 ewes  
 Ewe body weight: 65 kgs  
 DSE rating: 2.6 dse's / ewe

#### INCOME

					Standard Budget (\$)	Your Budget (\$)
<b>Wool</b>	<b>number</b>	<b>class</b>	<b>kg /hd</b>	<b>\$/kg</b>		
Shear	960	ewes	4.50	\$2.58	\$11,145.60	
	20	rams	3.50	\$2.19	\$153.30	
Crutch	2176	mixed ages	0.30	\$1.12	\$728.97	
<b>Sheep Sales</b>	<b>number</b>	<b>class</b>	<b>\$/hd</b>			
	177	CFA ewes	\$51.97	(26.7 kg cwt)	\$9,198.69	
	4	CFA rams	\$59.42		\$237.68	
	588	mixed sex lambs	\$72.00	(20.0 kg cwt)	\$42,336.00	
	588	mixed sex lambs	\$92.40	(24.0 kg cwt)	\$54,331.20	
<b>Fodder</b>	<b>tonnes</b>	<b>type</b>	<b>value per tonne</b>			
Hay	0 t	lucerne hay @	\$200 /t		\$0.00	
Fodder crop grain	0 t	oats @	\$120 /t		\$0.00	
<b>A. Total Income:</b>					<b>\$118,131.44</b>	

#### VARIABLE COSTS

<b>Replacements</b>	<b>number</b>	<b>class</b>	<b>cost (\$)</b>	<b>reps</b>		
	4	rams	\$800.00		\$3,200.00	
	217	ewes (1.5 years)	\$110.00		\$23,870.00	
<b>Wool Harvesting &amp; Selling Costs</b>						
Shearing	960	ewes	\$5.21	1	\$5,004.08	
	20	rams	\$7.82	1	\$156.38	
Crutching	980	ewes	\$0.76	1	\$743.92	
	20	rams	\$1.52	1	\$30.36	
	1176	weaners	\$0.76	1	\$892.70	
Wool tax			2.00%		\$240.56	
Commission, warehouse, testing charges			\$38.85/ bale		\$1,087.66	
Wool - cartage	28	bales	\$10.97		\$307.16	
- packs	28	packs	\$8.59		\$240.52	
<b>Sheep Health</b>	<b>number</b>	<b>class</b>				
Drenching following Drenchplan						
Broadspectrum	980	adults	\$0.27	2	\$529.20	
	1230	lambs	\$0.15	4	\$738.00	
Dipping	980	adults	\$0.58	1	\$568.40	
Jetting	980	adults	\$1.19	1	\$1,166.20	
Vaccination- 6 in 1	980	adults	\$0.18	1	\$176.40	
	1230	lambs	\$0.18	1	\$221.40	
Marking	1230	lambs	\$1.05	1	\$1,291.50	
Scanning	960	ewes	\$0.75	1	\$720.00	
<b>Livestock Selling Costs</b>						
Livestock cartage	1,357	sale sheep	\$1.50		\$2,035.50	
Commission on sheep sales			5.00%		\$5,305.18	
<b>Fodder</b>						
Supplementary feed - 3.5 kgs grain/hd/week @ \$120 /t						
	960	ewes	\$0.42 /week	6 weeks	\$2,419.20	
Grazing crops	0 ha	@	\$270 /ha		\$0.00	
Supplementary fodder	0 t	@	\$150 /t		\$0.00	
Pasture maintenance	260 ha	@	\$35 /ha		\$9,100.00	
<b>B. Total Variable Costs:</b>					<b>\$60,044.32</b>	

	incl. fodder costs	excl. fodder costs
<b>GROSS MARGIN (A-B)</b>	<b>\$58,087</b>	<b>\$69,606</b>
<b>GROSS MARGIN /EWE</b>	<b>\$58.09</b>	<b>\$69.61</b>
<b>GROSS MARGIN /DSE</b>	<b>\$22.34</b>	<b>\$26.77</b>
<b>GROSS MARGIN /HA</b>	<b>\$223.41</b>	<b>\$267.72</b>

This budget should be used as a GUIDE ONLY and should be changed by the grower to take account of movements in commodity and input prices, changes in seasonal conditions and individual farm characteristics. Estimated prices are GST exclusive.

# ASSUMPTIONS

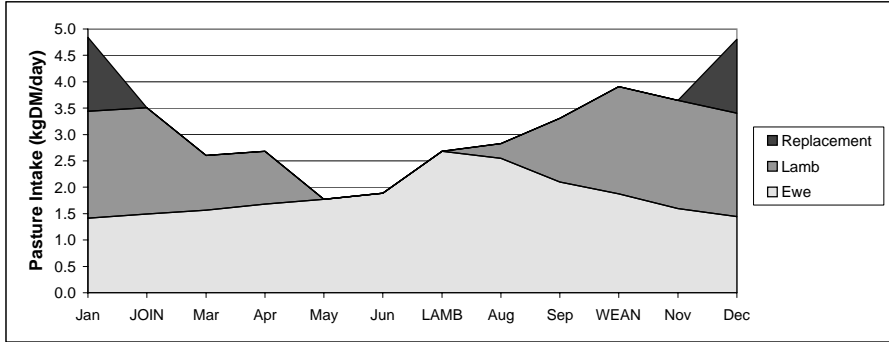
## 1. Flock Parameters

Flock mortality	4%	Ram %	2%
Productive life	5 years	Marking %	123%
Ewe body weight	65 kg	Weaning %	120%
DSE rating /ewe	2.6	Selling age	6-8 months
Stocking rate/ha	10 dse's		

This enterprise is usually run on more productive country and the stocking rate reflects this.

## 2. Feed Requirements per breeding ewe

Intakes are estimates based on a pasture that would meet the requirements of all stock at all times. If pasture is above or below this amount, intakes will be more or less (respectively) and livestock performance will vary accordingly. Feed requirements are expressed as kilograms dry matter intake per ewe per day. The intake of all lambs and hoggets are divided by the number of ewes and allocated to the breeding ewes.



Notes: The cost of pasture maintenance is calculated for single super applied at 125kg/Ha every second year.  
The cost of the grazing crop includes contract harvesting.

## 3. Flock Structure

Sheep numbers are modified to reflect mortality throughout the year.

Age	Number of ewes
1.5	217
2.5	208
3.5	200
4.5	192
5.5	184
6.5	0
<b>Total</b>	<b>1000</b>

217 Replacements Bought  
 1230 lambs  
 1200 weaned lambs  
 177 CFA's sold  
 1176 mixed sex lambs sold

## 4. Wool Prices

	Micron	AWEX Type	Clean price	Yield	Greasy price	Specifications (all 35n/ktex)	Proportion of Clip
1st Cross Ewe							
- Fleece GTM	28	XF5B	\$4.40	68%	\$3.00	1%VMB, 90mm	66%
- Skirtings/bellies	26	XP5B.	\$3.29	55%	\$1.81	4%VMB, 80mm	22%
- Cardings	28	XZ2B.	\$2.44	69%	\$1.68	3%VMB.	12%
					<b>\$2.58</b>		used in budget

## 5. Sensitivity Table

Effect of weaning % and average lamb price on gross margin per DSE (incl. fodder costs).

Av. Lamb Price \$/Hd	Weaning %				
	96%	108%	120%	132%	144%
\$65.76	\$14.40	\$17.04	\$19.71	\$22.37	\$25.01
\$73.98	\$17.23	\$20.22	\$23.24	\$26.26	\$29.25
\$82.20	\$20.06	\$23.40	<b>\$26.77</b>	\$30.14	\$33.49
\$90.42	\$22.88	\$26.58	\$30.30	\$34.03	\$37.72
\$98.64	\$25.71	\$29.75	\$33.84	\$37.92	\$41.96

Notes: both the lamb price and weaning percentage have been varied by +/- 10% and +/- 20%, lamb price is average of the two grades - marking percentage is held at 3% above the weaning percentage in all cases.

This budget should be used as a GUIDE ONLY and should be changed by the grower to take account of movements in commodity and input prices, changes in seasonal conditions and individual farm characteristics. Estimated prices are GST exclusive.

Enterprise: **Apple**  
Description: **Central Leader- Gala on M111**  
Location: **Orange**

					Standard Budget	
					\$/Ha	
<b>GROSS MARGIN BUDGET:</b>	1.0 hectare	Planting density (trees/ha):		<b>894</b>		
	<b>70%</b> Packout (marketable yield)	Yield		<b>45000</b> kg		
<b>INCOME:</b>	Bins per ha:	125				
	Yield per tree (ctn):	2.80	@	\$ 20.00 /case		\$ 35,000.00
	Harvestable yield (ctn/ha):	2500				
	Marketable yield (ctn/ha):	1750		<b>A. Total Income</b>		<b>\$ 35,000.00</b>
<b>VARIABLE COSTS:</b>						
<b>Plant Protection</b>					\$/hectare	\$/case
<b>Disease control - fungicides</b>						
Penconazole(Topas)	0.5 L/ha	@	\$ 102.00 /L	1 appl.	\$ 51.00	\$ 0.02
Myclobutanil (Systhane)	240.0 g/ha	@	\$ 0.20 /g	2 appl.	\$ 96.00	\$ 0.04
Cyprodinil (Chorus)	0.8 L/ha	@	\$ 83.00 /kg	1 appl.	\$ 66.40	\$ 0.03
Kressoxim-methyl (stroby)	200.0 g/ha	@	\$ 0.25 /g	3 appl.	\$ 147.00	\$ 0.06
Dodine (syllit)	1.6 L/ha	@	\$ 18.60 /L	1 appl.	\$ 29.76	\$ 0.01
Copper oxychloride	3.0 kg/ha	@	\$ 3.72 /kg	1 appl.	\$ 11.16	\$ 0.00
Metiram (polyram)	3.0 kg/ha	@	\$ 8.00 /kg	5 appl.	\$ 120.00	\$ 0.05
Captan	2.5 kg/ha	@	\$ 14.25 /kg	7 appl.	\$ 249.38	\$ 0.10
Ziram	3.8 kg/ha	@	\$ 7.95 /kg	0 appl.	\$ -	\$ -
<b>Insect control - insecticides</b>						
Winter oil	50.0 L/ha	@	\$ 1.20 /L	1 appl.	\$ 60.00	\$ 0.02
Diazinon	1.3 L/ha	@	\$ 20.50 /L	1 appl.	\$ 26.65	\$ 0.01
Chlorpyrifos (Lorsban)	2.0 L/ha	@	\$ 11.00 /L	2 appl.	\$ 44.00	\$ 0.02
Azinphos	1.5 L/ha	@	\$ 15.00 /L	0 appl.	\$ -	\$ -
Isomate CM CT	1000.0 /ha	@	\$ 0.42 /unit	1 appl.	\$ 420.00	\$ 0.17
labour to put out isomate	30.0 trees / hr	@	\$13.00 /hr	1 appl.	\$ 387.40	\$ 0.15
Isomate CTT	500.0 /ha	@	\$ 0.84 /unit	0 appl.	\$ -	\$ -
Confidor (IPM rate)	0.003 L/tree	@	\$ 280.00 /L	0 appl.	\$ -	\$ -
<b>Insect Control- miticides</b>						
Pyranica	0.6 kg/ha	@	\$ 195.00 /kg	0 appl.	\$ -	\$ -
Omite + adjuvant	8.8 kg/ha	@	\$ 31.00 /kg	1 appl.	\$ 272.80	\$ 0.11
	1.9 L/ha	@	/L	1 appl.	\$ -	\$ -
<b>Weed control - herbicides</b>						
Glyphosate	3.0 L/ha	@	\$ 6.00 /L	3 appl.	\$ 54.00	\$ 0.02
Soligam	2.5 kg/ha	@	\$ 6.00 /kg	1 appl.	\$ 15.00	\$ 0.01
Glufosinate- ammonium	2.4 L/ha	@	\$ 17.25 /L	0 appl.	\$ -	\$ -
Paraquat	0.0 L/ha	@	\$ 12.55 /L	0 appl.	\$ -	\$ -
<b>Nutrition</b>						
<b>Fertilisers</b>						
Lime	1.0 T/ha	@	\$ 2.00 /T	1 appl.	\$ 2.00	\$ 0.00
Superphosphate	0.1 T/ha	@	\$ 259.00 /T	1 appl.	\$ 32.38	\$ 0.01
Calcium Ammonium Nitrate	0.0 kg/ha	@	\$ 475.00 /T	0 appl.	\$ -	\$ -
<b>Foliar spray</b>						
Zinc	1.0 L/ha	@	\$ 15.40 /L	1 appl.	\$ 15.40	\$ 0.01
Boron	1.5 L/ha	@	\$ 11.00 /L	0 appl.	\$ -	\$ -
Magnesium	3.0 L/ha	@	\$ 5.77 /L	1 appl.	\$ 17.31	\$ 0.01
Urea spray	0.1 T/ha	@	\$ 599.00 /T	0 appl.	\$ -	\$ -
Calcium Chloride plus	5.2 kg/ha	@	\$ 720.00 /T	2 appl.	\$ 7.47	\$ 0.00
Adjuvant	0.7 L/ha	@	\$ 7.40 /L	2 appl.	\$ 9.62	\$ 0.00
Calcium Nitrate (pit-stop)	10.0 L/ha	@	\$ 4.68 /L	8 appl.	\$ 374.40	\$ 0.15
Leaf testing	1.0 kit	@	\$ 50.00 /kit		\$ 50.00	\$ 0.02
Soil testing (every 2 years)	0.5 kit	@	\$ 50.00 /kit		\$ 25.00	\$ 0.01
<b>Canopy Management - Pruning</b>						
<b>Pruning &amp; Training</b>						
Winter	10.0 tree/hr	@	\$ 13.00 /hr	1 appl.	\$ 1,162.20	\$ 0.46
Summer	30.0 tree/hr	@	\$ 13.00 /hr	1 appl.	\$ 387.40	\$ 0.15
Tree training	79.0 tree/hr	@	\$ 13.00 /hour	1 appl.	\$ 147.11	\$ 0.06
Hand thinning	834.0 trees	@	\$ 1.70 /tree	1 appl.	\$ 1,417.80	\$ 0.57
<b>Crop Load Management</b>						
<b>Chemical Thinning</b>						
Cytolin	1.5 L/ha	@	\$ 334.00 /L	1 appl.	\$ 501.00	\$ 0.20
Ethrel	0.0 L/ha	@	\$ 26.00 /L	0 appl.	\$ -	\$ -
Carbaryl	3.5 L/ha	@	\$ 12.50 /L	1 appl.	\$ 43.75	\$ 0.02
NAA	0.6 mL/ha	@	\$ 10.00 /L	1 appl.	\$ 6.25	\$ 0.00
ATS	L/ha	@	\$ 11.00 /L	0 appl.	\$ -	\$ -
CyLex	9.0 L/ha	@	\$ 352.00 /L	1 appl.	\$ 3,168.00	\$ 1.27
Pollination (Hive hire)	3.0 hives/ha		\$ 30.00 /hive		\$ 90.00	\$ 0.04
<b>Irrigation</b>						
Total water	1.0 ML/ha	@	\$ 100.00 /ML		\$ 100.00	\$ 0.04



<b>Machinery</b>								
<b>Tractor (labour)</b>								
weed spraying	4.0 hrs	@	\$ 14.95 /hr		\$ 59.80	\$	0.02	
tree spraying	23.0 hrs	@	\$ 14.95 /hr		\$ 343.85	\$	0.14	
harvest	6.6 hrs	@	\$ 14.95 /hr		\$ 98.82	\$	0.04	
cultivation	0.0 hrs	@	\$ 14.95 /hr		\$ -	\$	-	
transport	0.0 hrs	@	\$ 14.95 /hr		\$ -	\$	-	
mowing	15.0 hrs	@	\$ 14.95 /hr		\$ 224.25	\$	0.09	
fuel & oil			\$ 100.00 /ha		\$ 100.00	\$	0.04	
<b>Harvesting</b>								
Picking	45000 kg/ha	@	\$ 0.08 kg (inc 9%super and 9% workers comp)		\$ 3,600.00	\$	1.44	
<b>Packing</b>								
Carton outer			\$0.94 ctn		\$1,648.50	\$	0.94	
Carton inner			\$0.82 ctn		\$1,435.00	\$	0.82	
Trays	125 per bundle	@	\$11.20 per bundle		\$ 784.00	\$	0.45	
wax	1.5 drums / ha	@	\$300 per drum		\$ 450.00	\$	0.26	
maintenance grease oil etc	500 per season				\$ 500.00	\$	0.29	
Storage	125 bins/ha	@	\$32 per bin		\$ 4,000.00	\$	2.29	
dipping	125 bins/ha	@	\$7 per bin		\$ 875.00	\$	0.50	
labour	146 total hrs	@	\$17.88 per hour		\$ 2,607.50	\$	1.49	
<b>Marketing</b>								
Freight	1750 ctn	@	0.78 /box		\$ 1,365.00	\$	0.78	
Porterage / Sort & stack	1750 ctn	@	0.16 /box		\$ 280.00	\$	0.16	
Levies	1750 ctn	@	0.21 /box class 1 only		\$ 367.50	\$	0.21	
					<b>B. Total Variable Costs</b>	<b>\$ 28,346.86</b>	\$	11.34
					<b>GROSS MARGIN/HA (A-B)</b>	<b>\$ 6,653.14</b>	\$	2.66

#### SENSITIVITY ANALYSIS

##### Effect of Yield and Price on Gross Margin/Ha

Yield (cases/ha)	Crop Price (\$/case)					
	\$5.00	\$10.00	\$20.00	\$25.00	\$30.00	\$40.00
0	-10,434	-10,434	-10,434	-10,434	-10,434	-10,434
500	-13,044	-10,844	-6,444	-4,244	-2,044	2,356
1000	-15,653	-11,253	-2,453	1,947	6,347	15,147
1500	-18,262	-11,662	1,538	8,138	14,738	27,938
2000	-20,871	-12,071	5,529	14,329	23,129	40,729
2500	-23,481	-12,481	9,519	20,519	31,519	53,519
3000	-26,090	-12,890	13,510	26,710	39,910	66,310
3500	-28,699	-13,299	17,501	32,901	48,301	79,101
4000	-31,309	-13,709	21,491	39,091	56,691	91,891

Cost Summary	Total	Cost/case	% Cost
Disease control - fungicides	\$ 771	0.31	2.7
Insect control - insecticides	\$ 1,211	0.48	4.3
Weed control - herbicides	\$ 69	0.03	0.2
Nutrition	\$ 534	0.21	1.9
Crop Load Management	\$ 6,834	2.73	24.1
Pollination	\$ 90	0.04	0.3
Irrigation	\$ 100	0.04	0.4
Machinery	\$ 827	0.33	2.9
Labour harvest	\$ 3,600	1.44	12.7
Packing consumable	\$ 9,693	3.88	34.2
Packing labour	\$ 2,608	1.04	9.2
Marketing	\$ 2,013	0.81	7.1
<b>Total</b>	<b>\$ 28,347</b>	<b>\$ 11.34</b>	<b>100</b>

**Always read the chemical labels and follow directions, as it is your responsibility to do so.**

Use of a particular brand name does not imply a recommendation of that brand by NSW Agriculture.

Assuming spraying volume of 2000L per hectare

This budget should be used as a GUIDE ONLY and should be changed by growers to take account of movements in crop and input prices, changes in seasonal conditions and individual farm characteristics.

Prepared by Jeremy Bright, NSW DPI Orange 2003

Sum	\$10,434.36
Harv labour	\$ 1.44
Packing consumables	\$ 5.54
Packing labour	\$ 1.49
Marketing	\$ 1.15
Agent	12%

Enterprise: Peach - J H Hale

Description: Palmette Hedgerow

Location: Orange NSW 1999

GROSS MARGIN BUDGET: 1 hectare Planting density (trees/ha): 817

Standard Budget \$/Ha	Your Budget \$/Ha
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INCOME: 6 trays/tree @ \$ 10.00 /tray \$ 49,020.00

**A. Total Income**

\$ 49,020.00	
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**VARIABLE COSTS:**

**Plant Protection**

*Disease control - fungicides*

Propiconazole	0.3 L/ha	@	\$ 70.00 /L	2 appl.	\$ 42.00
Petroleum oil	7.5 L/ha	@	\$ 2.50 /L	5 appl.	\$ 93.75
Copper oxychloride	6 kg/ha	@	\$ 4.50 /kg	5 appl.	\$ 135.00
Ziram	3 kg/ha	@	\$ 6.56 /kg	4 appl.	\$ 78.72

*Insect control - insecticides*

Chlorpyrifos	2 L/ha	@	\$ 13.52 /L	1 appl.	\$ 27.04
Petroleum oil	45 L/ha	@	\$ 2.50 /L	1 appl.	\$ 112.50
Pirimicarb	1 kg/ha	@	\$ 230.00 /kg	1 appl.	\$ 230.00

*Weed control - herbicides*

Glyphosate	2 L/ha	@	\$ 6.60 /L	2 appl.	\$ 26.40
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**Nutrition**

*Fertilisers*

NPK (14:6:5) fertiliser	0.4 t/ha	@	\$ 440.00 /t	1 appl.	\$ 176.00
Boron	7.5 kg/ha	@	\$ 5.00 /kg	1 appl.	\$ 37.50
Magnesium foliar spray	3 L/ha	@	\$ 4.60 /L	1 appl.	\$ 13.80
Calcium Nitrate	7.5 kg/ha	@	\$ 0.87 /kg	2 appl.	\$ 13.05
Potassium foliar spray	5 L/ha	@	\$ 4.60 /L	4 appl.	\$ 92.00
Leaf testing	1 kit	@	\$ 59.00 /kit		\$ 59.00
Soil testing	0.5 kit	@	\$ 76.00 /kit		\$ 38.00

**Canopy Management - Pruning**

Winter	5 mins/tree	@	\$ 14.21 /hr		\$ 967.46
Preharvest	10 mins/tree	@	\$ 14.21 /hr		\$ 1,934.93
Postharvest	5 mins/tree	@	\$ 14.21 /hr		\$ 967.46

**Crop Load Management**

Blossom thinning	mins/tree		\$ - /hr		\$ -
Fruit thinning	15 mins/tree		\$ 14.21 /hr		\$ 2,902.39

**Irrigation**

Total water	2 ML/ha	@	\$ 100.00 /ML		\$ 200.00
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**Machinery**

Mowing/Slashing	2 hrs	@	\$ 13.00 /hr	5 appl.	\$ 130.00
Pesticide Application	2 hrs	@	\$ 13.00 /hr	8 appl.	\$ 208.00
Herbicide Application	1 hrs	@	\$ 13.00 /hr	2 appl.	\$ 26.00
Harvesting	2 hrs	@	\$ 13.00 /hr	2 appl.	\$ 52.00
Fertilising	2 hrs	@	\$ 13.00 /hr	5 appl.	\$ 130.00

**Harvesting**

Picking	3.5 min/tray	@	\$ 14.21 /hr		\$ 4,063.35
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**Packing**

Trays	4902 No/ha	@	\$ 0.75 /tray		\$ 3,676.50
Liners	4902 No/ha	@	\$ 0.13 /tray		\$ 637.26
Labels	4902 No/ha	@	\$ - /tray		\$ -
Packing labour	4 min/tray	@	\$ 14.21 /hr		\$ 4,643.83

**Marketing**

Transport	4902 No/ha	@	\$	0.40 /tray	\$	1,960.80
Levies	4902 No/ha	@	\$	0.05 /tray	\$	245.10
Agents commission				13 %	\$	6,372.60
<b>B. Total Variable Costs</b>					<b>\$</b>	<b>30,292.45</b>
<b>GROSS MARGIN/HA (A-B)</b>					<b>\$</b>	<b>18,727.55</b>

**SENSITIVITY ANALYSIS**

Effect of Yield and Price on Gross Margin/Ha

Yield (trays/ha)	Crop Price (\$/tray)							
	\$ 4.00	\$ 6.00	\$ 8.00	\$ 10.00	\$ 12.00	\$ 14.00	\$ 16.00	
500	-8506	-7636	-6766	-5896	-5026	-4156	-3286	
1000	-8319	-6579	-4839	-3099	-1359	381	2121	
1500	-8132	-5522	-2912	-302	2308	4918	7528	
2000	-7946	-4466	-986	2494	5974	9454	12934	
3000	-7572	-2352	2868	8088	13308	18528	23748	
4000	-7198	-238	6722	13682	20642	27602	34562	
5000	-6824	1876	10576	19276	27976	36676	45376	
6000	-6451	3989	14429	24869	35309	45749	56189	

Cost Summary	Total	Cost/tray	% Costs
Disease control - fungicides	\$ 349.47	0.07	1.2
Insect control - insecticides	\$ 369.54	0.08	1.2
Weed control - herbicides	\$ 26.40	0.01	0.1
Nutrition	\$ 429.35	0.09	1.4
Pruning	\$ 3,869.86	0.79	12.8
Thinning	\$ 2,902.39	0.59	9.6
Irrigation	\$ 200.00	0.04	0.7
Machinery	\$ 546.00	0.11	1.8
Harvesting	\$ 4,063.35	0.83	13.4
Packing	\$ 8,957.59	1.83	29.6
Marketing	\$ 8,578.50	1.75	28.3
<b>Total</b>	<b>\$ 30,292.45</b>	<b>\$ 6.18</b>	<b>100</b>

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This budget should be used as a GUIDE ONLY and should be changed by growers to take account of movements in crop and input prices, changes in seasonal conditions and individual farm characteristics.

## Appendix 3 ABARE Information



**Mixed Enterprise Beef Farm Data - Tablelands**

	2001	2002	2003	2004	2005	Average
Beef cattle numbers	206	258	238	309	276	257
Government assistance to farm business	1,073	0	5,927	798	742	1,708
Off-farm contracts (\$)	153	1,935	211	221	1,158	736
Barley receipts (\$)	951	685	1,002	5,121	4,264	2,405
Grain legumes receipts (\$)	0	0	0	0	0	0
Off-farm sharefarming (\$)	0	0	0	0	0	0
Oilseeds receipts (\$)	1,942	1,900	642	7,673	1,823	2,796
Rice receipts (\$)	0	0	0	0	0	0
Sorghum receipts (\$)	1,375	1,056	4,446	9,038	6,672	4,517
Total crop gross receipts (\$)	10,895	11,586	15,286	40,212	24,477	20,491
Wheat receipts (\$)	5,263	5,842	6,692	16,731	6,181	8,142
Total wool gross receipts (\$)	92,408	78,980	80,589	54,215	66,885	74,615
Beef cattle sold (\$)	46,774	69,104	58,534	97,671	83,307	71,078
Other livestock sales (\$)	82	0	189	0	0	54
Total sheep and lamb sales (\$)	26,716	43,965	24,604	42,327	59,256	39,374
Livestock transfers - outward (\$)	350	0	873	744	0	393
Total lambs sales (\$)	11,749	14,942	6,447	15,368	22,971	14,295
Live export cattle sales (\$)	0	0	0	143	0	29
Prime lamb sales (\$)	10,423	14,387	4,597	4,286	9,394	8,617
Other cash receipts (\$)	5,437	4,296	4,399	5,332	8,349	5,563
Sheep sales (\$)	14,967	29,023	18,155	26,960	36,285	25,078
<b>Total cash receipts (\$)</b>	<b>183,894</b>	<b>209,870</b>	<b>190,616</b>	<b>241,523</b>	<b>244,174</b>	<b>214,015</b>
Administration expenses (\$)	6,406	5,825	6,381	7,080	7,989	6,736
Crop and pasture chemicals (\$)	2,596	2,625	1,387	6,744	3,701	3,411
Fertiliser (\$)	13,239	9,682	7,394	18,345	15,071	12,746
Fodder (\$)	3,003	4,504	24,998	11,785	13,225	11,503
Fuel, oil and lubricants (\$)	7,729	6,096	7,631	8,516	9,332	7,861
Interest payments (\$)	10,592	12,664	13,619	12,851	16,266	13,198
Land rent (\$)	1,579	1,370	1,459	1,254	449	1,222
Leasing payments (\$)	572	569	2,237	1,099	1,722	1,240
Livestock materials (drenches, dips etc) (\$)	7,401	10,340	7,216	7,391	9,784	8,426
Total rates (incl water) (\$)	5,211	5,383	6,839	6,398	6,432	6,053
Water charges (\$)	1	36	21	52	35	29
Repairs and maintenance (\$)	10,144	12,580	14,050	16,207	21,351	14,866
Seed (\$)	635	1,339	1,832	2,312	2,585	1,741
Shearing and crutching (\$)	9,509	9,553	9,150	10,616	11,533	10,072
Payments to sharefarmers (\$)	444	125	0	0	0	114
Contracts (\$)	1,348	1,405	1,934	2,298	2,311	1,859
Handling and marketing expenses (\$)	9,889	10,521	9,355	8,188	12,191	10,029
Freight (\$)	2,045	3,224	4,139	7,872	4,187	4,293
Wages paid to hired labour (\$)	6,384	4,837	6,698	8,718	5,997	6,527
Agistment (\$)	105	1,947	2,176	1,303	540	1,214
Beef cattle purchases (\$)	6,521	10,017	10,786	12,433	16,151	11,182
Other livestock purchases (\$)	194	0	0	0	15	42
Sheep purchases (\$)	6,116	8,269	3,469	7,164	11,526	7,309
Livestock transfers - inwards (\$)	1,408	2,808	4,002	744	0	1,792
Other cash costs (\$)	11,382	15,205	15,676	16,855	23,168	16,457
Seed, Fodder and Fertilizer (\$)	16,877	15,526	34,226	32,442	30,880	25,990
<b>Total cash costs (\$)</b>	<b>124,463</b>	<b>140,902</b>	<b>162,442</b>	<b>176,182</b>	<b>195,527</b>	<b>159,903</b>
Total Cash Receipts (\$)	183,894	209,870	190,616	241,523	244,174	214,015
less Total Cash Costs (\$)	124,463	140,902	162,442	176,182	195,527	159,903
<b>Farm Cash Income (\$)</b>	<b>59,431</b>	<b>68,968</b>	<b>28,174</b>	<b>65,341</b>	<b>48,647</b>	<b>54,112</b>
plus Build up in trading stocks (\$)	59,431	68,968	28,173	65,341	48,647	54,112
less Depreciation (\$)	1,237	8,647	-8,547	-1,625	17,183	3,379
less Operator and family labour (\$)	11,628	15,806	18,054	21,570	20,447	17,501
<b>Farm Business Profit (\$)</b>	<b>41,576</b>	<b>40,010</b>	<b>40,271</b>	<b>45,347</b>	<b>44,073</b>	<b>42,255</b>
plus Rent (\$)	1,579	1,370	1,459	1,254	449	1,222
plus Interest (\$)	11,164	13,233	15,856	13,950	17,988	14,438
less Depreciation on leased items (\$)	431	0	883	949	572	567
<b>Profit at Full Equity (\$)</b>	<b>19,777</b>	<b>36,404</b>	<b>-22,266</b>	<b>11,052</b>	<b>19,175</b>	<b>12,828</b>
<b>Breakeven Income (\$)</b>	<b>39,654</b>	<b>32,564</b>	<b>50,440</b>	<b>54,289</b>	<b>29,472</b>	<b>41,284</b>

Source: ABARE (2006) Beef, Lamb, Sheep Industry Database.

**Mixed Enterprise Beef Farm Data - Central West**

	2001	2002	2003	2004	2005	Average
Beef Cattle	175	168	240	173	185	188
Government assistance to farm business (\$)	11,017	102	3,739	7,280	2,256	4,879
Off-farm contracts (\$)	3,553	1,643	2,244	938	1,446	1,965
Barley receipts (\$)	9,945	8,912	6,849	7,377	7,325	8,082
Grain legumes receipts (\$)	1,350	384	561	0	4,358	1,331
Off-farm sharefarming (\$)	3,931	1,554	0	2,778	0	1,653
Oilseeds receipts (\$)	6,892	35,661	483	2,799	3,656	9,898
Rice receipts (\$)	0	0	0	0	0	0
Sorghum receipts (\$)	1,458	1,782	3,251	0	6,275	2,553
Total crop gross receipts (\$)	98,368	138,091	65,585	80,502	90,939	94,697
Wheat receipts (\$)	69,964	87,261	43,525	65,014	60,975	65,348
Beef cattle sold (\$)	52,143	64,081	47,057	46,021	73,258	56,512
Other livestock sales (\$)	2,132	2,746	2,323	22	133	1,471
Total sheep and lamb sales (\$)	52,191	58,664	69,676	47,703	43,589	54,365
Livestock transfers - outward (\$)	560	56	0	40	158	163
Total lambs sales (\$)	41,432	38,712	36,398	29,643	30,901	35,417
Live export cattle sales (\$)	3,853	5,063	983	817	0	2,143
Prime lamb sales (\$)	37,418	37,769	25,363	15,557	20,804	27,382
Other cash receipts (\$)	7,857	5,997	10,298	12,102	14,360	10,123
Sheep sales (\$)	10,758	19,951	33,277	18,058	12,688	18,946
Total wool gross receipts (\$)	36,655	44,183	88,126	46,120	46,526	52,322
<b>Total cash receipts (\$)</b>	<b>268,411</b>	<b>317,121</b>	<b>289,051</b>	<b>243,511</b>	<b>272,667</b>	<b>278,152</b>
Administration expenses (\$)	5,612	8,534	13,333	6,908	9,438	8,765
Crop and pasture chemicals (\$)	9,714	8,794	5,294	6,852	7,677	7,666
Fertiliser (\$)	19,704	22,515	10,019	15,097	13,274	16,122
Fodder (\$)	1,041	1,810	22,035	6,386	7,832	7,821
Fuel, oil and lubricants (\$)	17,508	14,865	16,232	14,130	16,838	15,915
Interest payments (\$)	16,135	16,686	19,869	16,431	12,196	16,263
Land rent (\$)	1,668	1,634	2,274	1,231	2,962	1,954
Leasing payments (\$)	5,256	5,167	5,448	3,369	599	3,968
Livestock materials (drenches, dips etc) (\$)	5,016	7,384	8,522	4,704	4,651	6,055
Total rates (incl water) (\$)	6,107	7,186	9,810	7,595	7,947	7,729
Water charges (\$)	659	1,467	2,444	1,056	1,094	1,344
Repairs and maintenance (\$)	20,399	25,016	25,558	23,381	24,169	23,705
Seed (\$)	2,800	3,034	2,111	2,269	1,457	2,334
Shearing and crutching (\$)	5,402	5,823	9,827	8,303	5,484	6,968
Payments to sharefarmers (\$)	6,247	12,466	3,862	1,417	740	4,946
Contracts (\$)	6,843	7,823	3,831	3,790	5,174	5,492
Handling and marketing expenses (\$)	9,887	14,383	12,686	7,612	10,238	10,961
Freight (\$)	6,802	11,381	4,867	5,006	4,786	6,568
Wages paid to hired labour (\$)	6,191	6,888	9,721	5,131	6,874	6,961
Agistment (\$)	255	398	1,348	680	490	634
Beef cattle purchases (\$)	26,497	22,990	29,817	10,712	13,185	20,640
Other livestock purchases (\$)	435	329	155	0	0	184
Sheep purchases (\$)	10,742	9,659	9,276	10,331	10,027	10,007
Livestock transfers - inwards (\$)	14	521	2,198	0	0	547
Other cash costs (\$)	12,157	14,419	20,300	20,712	20,799	17,677
Seed, Fodder and Fertilizer (\$)	23,546	27,360	34,166	23,752	22,563	26,277
<b>Total cash costs (\$)</b>	<b>202,442</b>	<b>229,719</b>	<b>248,403</b>	<b>182,056</b>	<b>186,836</b>	<b>209,891</b>
Total Cash Receipts (\$)	268,411	317,121	289,051	243,511	272,667	278,152
less Total Cash Costs (\$)	202,442	229,719	248,403	182,056	186,836	209,891
<b>Farm Cash Income (\$)</b>	<b>65,969</b>	<b>87,402</b>	<b>40,648</b>	<b>61,455</b>	<b>85,831</b>	<b>68,261</b>
plus Buildup in trading stocks (\$)	10,884	3,515	-11,442	11,479	-19,391	-991
less Depreciation (\$)	21,230	25,144	35,329	30,605	30,948	28,651
less Imputed labour cost (\$)	43,664	40,641	51,900	53,296	50,707	48,042
<b>Farm business profit (\$)</b>	<b>11,958</b>	<b>25,132</b>	<b>-58,024</b>	<b>-10,967</b>	<b>-15,216</b>	<b>-9,423</b>
plus Rent (\$)	1,668	1,634	2,274	1,231	2,962	1,954
plus Interest (\$)	21,391	21,853	25,317	19,800	12,795	20,231
less Depreciation on leased plant & equipment (\$)	3,472	0	1,370	482	110	1,087
<b>Profit at full equity (\$)</b>	<b>31,544</b>	<b>48,620</b>	<b>-31,802</b>	<b>9,584</b>	<b>432</b>	<b>11,676</b>
<b>Breakeven Income (\$)</b>	<b>34,425</b>	<b>38,782</b>	<b>72,450</b>	<b>51,871</b>	<b>85,399</b>	<b>56,585</b>

Source: ABARE (2006) Beef, Lamb, Sheep Industry Database.

**Specialist Beef Producer Farm Data - Tablelands**

	2001	2002	2003	2004	2005	Average
<b>Beef Cattle</b>	467	631	517	485	527	525
Government assistance to farm business (\$)	0	0	2,189	0	172	472
Off-farm contracts (\$)	25	751	852	113	161	380
Barley receipts (\$)	0	0	0	0	0	0
Grain legumes receipts (\$)	0	0	0	0	0	0
Off-farm sharefarming (\$)	0	0	0	0	0	0
Oilseeds receipts (\$)	0	0	0	0	0	0
Rice receipts (\$)	0	0	0	0	0	0
Sorghum receipts (\$)	0	0	0	0	0	0
Total crop gross receipts (\$)	628	0	674	0	1,745	609
Wheat receipts (\$)	18	0	0	0	1,745	353
Beef cattle sold (\$)	167,638	188,398	167,132	153,378	172,274	169,764
Other livestock sales (\$)	83	833	346	245	1,816	665
Total sheep and lamb sales (\$)	3	238	22,087	415	219	4,592
Livestock transfers - outward (\$)	0	0	0	0	0	0
Total lambs sales (\$)	3	0	59	0	0	12
Live export cattle sales (\$)	0	0	0	0	0	0
Prime lamb sales (\$)	3	0	27	0	0	6
Other cash receipts (\$)	1,409	2,811	9,948	1,955	9,713	5,167
Prime lamb price per head (\$)	24	-	49	-	-	37
Cattle sales (incl. live export) price per head (\$)	835	857	691	904	893	836
Sheep sales (\$)	0	238	22,027	415	219	4,580
Total wool gross receipts (\$)	165	1,263	38,880	924	753	8,397
<b>Total cash receipts (\$)</b>	<b>169,953</b>	<b>194,299</b>	<b>242,110</b>	<b>157,033</b>	<b>186,854</b>	<b>190,050</b>
Administration expenses (\$)	4,116	5,491	8,035	3,897	5,592	5,426
Crop and pasture chemicals (\$)	1,332	650	1,949	395	1,328	1,131
Fertiliser (\$)	13,065	12,368	17,019	14,978	7,454	12,977
Fodder (\$)	1,554	3,000	33,404	3,992	7,997	9,989
Fuel, oil and lubricants (\$)	7,014	5,590	8,658	6,904	6,557	6,945
Interest payments (\$)	7,010	6,220	29,655	3,034	8,835	10,951
Land rent (\$)	60	974	636	861	1,629	832
Leasing payments (\$)	159	151	1,075	2,275	607	853
Livestock materials (drenches, dips etc) (\$)	3,620	3,966	5,945	1,702	2,488	3,544
Total rates (incl water) (\$)	3,670	5,024	6,082	3,968	6,088	4,966
Water charges (\$)	0	21	32	26	0	16
Repairs and maintenance (\$)	9,280	12,896	11,224	13,709	11,573	11,736
Seed (\$)	1,063	367	221	11,817	1,192	2,932
Shearing and crutching (\$)	0	0	7,273	228	210	1,542
Payments to sharefarmers (\$)	0	0	0	0	1,308	262
Contracts (\$)	86	1,280	121	276	1,273	607
Handling and marketing expenses (\$)	4,487	6,552	9,692	4,937	5,183	6,170
Freight (\$)	3,676	4,462	6,151	3,983	5,873	4,829
Wages paid to hired labour (\$)	10,017	8,440	13,853	2,293	3,953	7,711
Agistment (\$)	1,071	1,760	3,140	1,987	6,488	2,889
Beef cattle purchases (\$)	19,231	19,044	25,465	27,544	21,599	22,577
Other livestock purchases (\$)	0	491	43	100	49	137
Sheep purchases (\$)	17	56	752	0	48	175
Livestock transfers - inwards (\$)	0	42	0	0	0	8
Other cash costs (\$)	10,247	15,083	20,165	8,996	18,751	14,648
Seed, Fodder and Fertilizer (\$)	15,683	15,736	50,646	30,787	16,642	25,899
<b>Total cash costs (\$)</b>	<b>100,786</b>	<b>113,917</b>	<b>210,570</b>	<b>117,883</b>	<b>126,073</b>	<b>133,846</b>
Total Cash Receipts (\$)	169,953	194,299	242,110	157,033	186,854	190,050
less Total Cash Costs (\$)	100,786	113,917	210,570	117,883	126,073	133,846
<b>Farm Cash Income (\$)</b>	<b>69,167</b>	<b>80,382</b>	<b>31,540</b>	<b>39,150</b>	<b>60,781</b>	<b>56,204</b>
plus Buildup in trading stocks (\$)	-13,915	9,542	-35,897	3,377	9,808	-5,417
less Depreciation (\$)	13,139	15,678	14,832	12,903	13,868	14,084
less Imputed labour cost (\$)	30,342	39,287	39,125	46,826	45,428	40,202
<b>Farm business profit (\$)</b>	<b>11,768</b>	<b>34,958</b>	<b>-58,315</b>	<b>-17,204</b>	<b>11,292</b>	<b>-3,500</b>
plus Rent (\$)	60	974	636	861	1,629	832
plus Interest (\$)	7,169	6,371	30,730	5,309	9,442	11,804
Depreciation on leased plant & equipment (\$)	91	0	0	0	252	69
<b>Profit at full equity (\$)</b>	<b>18,907</b>	<b>42,303</b>	<b>-26,948</b>	<b>-11,033</b>	<b>22,110</b>	<b>9,068</b>
<b>Breakeven Income (\$)</b>	<b>50,260</b>	<b>38,079</b>	<b>58,488</b>	<b>50,183</b>	<b>38,671</b>	<b>47,136</b>

Source: ABARE (2006) Beef, Lamb, Sheep Industry Database.

**Specialist Beef Producer Farm Data - Central West**

	2001	2002	2003	2004	2005	Average
Beef cattle	448	212	276	400	324	332
Government assistance to farm business (\$)	0	0	1,350	1,602	917	774
Off-farm contracts (\$)	0	1,748	6,484	7,953	8,320	4,901
Barley receipts (\$)	0	0	0	0	4,256	851
Grain legumes receipts (\$)	0	0	0	0	0	0
Off-farm sharefarming (\$)	0	0	0	0	0	0
Oilseeds receipts (\$)	1,701	684	1,239	2,196	0	1,164
Rice receipts (\$)	0	0	0	0	0	0
Sorghum receipts (\$)	0	0	0	0	1,216	243
Total crop gross receipts (\$)	8,067	4,964	9,733	2,196	11,707	7,333
Wheat receipts (\$)	6,216	3,041	1,496	0	3,470	2,845
Beef cattle sold (\$)	200,523	72,177	119,012	319,409	148,210	171,866
Other livestock sales (\$)	2,635	1,361	6,304	0	0	2,060
Total sheep and lamb sales (\$)	2,553	2,430	7,622	0	57,995	14,120
Livestock transfers - outward (\$)	0	0	0	0	0	0
Total lambs sales (\$)	2,204	1,810	692	0	56,785	12,298
Live export cattle sales (\$)	0	0	0	0	0	0
Prime lamb sales (\$)	2,204	1,810	692	0	0	941
Other cash receipts (\$)	2,469	1,020	5,169	3,277	12,104	4,808
Prime lamb price per head (\$)	57	84	45	-	-	62
Cattle sales (incl. live export) price per head (\$)	718	768	398	776	1,020	736
Sheep sales (\$)	347	619	6,930	0	1,209	1,821
Total wool gross receipts (\$)	549	166	510	0	14,950	3,235
<b>Total cash receipts (\$)</b>	<b>216,798</b>	<b>83,869</b>	<b>156,189</b>	<b>334,439</b>	<b>254,202</b>	<b>209,099</b>
Administration expenses (\$)	4,721	3,263	6,852	6,902	10,971	6,542
Crop and pasture chemicals (\$)	3,244	2,005	679	1,936	2,338	2,040
Fertiliser (\$)	7,988	4,754	2,880	3,713	7,575	5,382
Fodder (\$)	8,382	338	14,906	23,822	10,759	11,641
Fuel, oil and lubricants (\$)	4,926	3,153	5,575	7,852	10,116	6,324
Interest payments (\$)	7,851	2,309	10,294	13,072	8,546	8,414
Land rent (\$)	1,549	3,016	121	269	524	1,096
Leasing payments (\$)	505	76	3,771	8,133	6,553	3,808
Livestock materials (drenches, dips etc) (\$)	6,852	3,243	4,622	1,832	3,618	4,033
Total rates (incl water) (\$)	4,566	2,311	4,666	4,753	7,577	4,775
Water charges (\$)	0	98	96	113	1,230	307
Repairs and maintenance (\$)	12,077	6,840	13,805	14,736	27,778	15,047
Seed (\$)	1,060	783	1,001	326	1,473	929
Shearing and crutching (\$)	122	37	72	38	4,895	1,033
Payments to sharefarmers (\$)	1,652	657	1,368	107	0	757
Contracts (\$)	4,169	1,074	4,694	11,211	3,474	4,924
Handling and marketing expenses (\$)	8,454	3,820	7,739	14,195	7,934	8,428
Freight (\$)	3,647	1,888	2,776	2,432	5,104	3,169
Wages paid to hired labour (\$)	10,118	2,486	10,271	10,609	508	6,798
Agistment (\$)	418	1,448	2,942	576	1,050	1,287
Beef cattle purchases (\$)	31,525	9,611	22,638	177,986	29,263	54,205
Other livestock purchases (\$)	0	207	64	0	0	54
Sheep purchases (\$)	0	449	0	0	11,757	2,441
Livestock transfers - inwards (\$)	0	0	0	0	0	0
Other cash costs (\$)	12,026	5,929	14,161	11,883	28,182	14,436
Seed, Fodder and Fertilizer (\$)	17,431	5,875	18,787	27,862	19,807	17,952
<b>Total cash costs (\$)</b>	<b>135,863</b>	<b>59,708</b>	<b>135,907</b>	<b>316,392</b>	<b>189,997</b>	<b>167,573</b>
Total Cash Receipts (\$)	216,798	83,869	156,189	334,439	254,202	209,099
less Total Cash Costs (\$)	135,863	59,708	135,907	316,392	189,997	167,573
<b>Farm Cash Income (\$)</b>	<b>80,935</b>	<b>24,161</b>	<b>20,282</b>	<b>18,047</b>	<b>64,205</b>	<b>41,526</b>
plus Buildup in trading stocks (\$)	-2,345	1,076	-74,110	3,296	8,232	-12,770
less Depreciation (\$)	10,693	8,282	17,943	13,141	14,194	12,851
less Imputed labour cost (\$)	24929	34293	31099	39026	39149	33,699
<b>Farm business profit (\$)</b>	<b>42,967</b>	<b>-17,337</b>	<b>-102,870</b>	<b>-30,824</b>	<b>19,094</b>	<b>-17,794</b>
plus Rent (\$)	1,549	3,016	121	269	524	1,096
plus Interest (\$)	8,356	2,385	14,065	21,205	15,099	12,222
less Depreciation on leased plant & equipment (\$)	921	0	1,170	2,635	2,375	1,420
<b>Profit at full equity (\$)</b>	<b>51,953</b>	<b>-11,935</b>	<b>-89,853</b>	<b>-11,984</b>	<b>32,343</b>	<b>-5,895</b>
<b>Breakeven Income (\$)</b>	<b>28,982</b>	<b>36,096</b>	<b>110,135</b>	<b>30,031</b>	<b>31,862</b>	<b>47,421</b>

Source: ABARE (2006) Beef, Lamb, Sheep Industry Database.



**Mixed Sheep Farm Data - Tablelands**

	2001	2002	2003	2004	2005	Average
Sheep	2,728	2,187	2,778	3,235	2,853	2,756
Government assistance to farm business (\$)	0	0	6,989	859	1,134	1,796
Off-farm contracts (\$)	194	2,961	1,874	1,736	2,538	1,861
Barley receipts (\$)	1,575	0	77	827	322	560
Grain legumes receipts (\$)	0	0	0	0	0	0
Off-farm sharefarming (\$)	0	0	0	0	0	0
Oilseeds receipts (\$)	623	206	0	0	278	221
Rice receipts (\$)	0	0	0	0	0	0
Sorghum receipts (\$)	0	0	110	871	42	205
Total crop gross receipts (\$)	8,057	7,418	1,038	10,571	1,807	5,778
Wheat receipts (\$)	2,943	4,286	82	5,162	426	2,580
Beef cattle sold (\$)	72,124	91,345	59,559	106,553	101,386	86,193
Other livestock sales (\$)	1	0	3	5	114	25
Total sheep and lamb sales (\$)	28,504	46,010	49,250	57,026	64,926	49,143
Livestock transfers - outward (\$)	0	0	1,336	1,141	0	495
Total lambs sales (\$)	7,411	15,263	4,436	19,671	25,373	14,431
Live export cattle sales (\$)	0	0	0	218	0	44
Prime lamb sales (\$)	6,487	15,223	1,833	11,912	4,442	7,979
Other cash receipts (\$)	4,738	4,645	7,692	8,151	11,353	7,316
Prime lamb price per head (\$)	45	65	21	98	70	60
Cattle sales (incl. live export) price per head (\$)	714	733	461	637	758	661
Sheep sales (\$)	21,092	30,747	44,814	37,355	39,553	34,712
Total wool gross receipts (\$)	110,067	70,309	123,130	73,279	70,996	89,556
<b>Total cash receipts (\$)</b>	<b>223,687</b>	<b>222,692</b>	<b>250,875</b>	<b>259,326</b>	<b>254,253</b>	<b>242,167</b>
Administration expenses (\$)	7,191	6,522	8,743	6,771	8,922	7,630
Crop and pasture chemicals (\$)	1,957	2,231	1,280	3,371	1,962	2,160
Fertiliser (\$)	16,694	13,698	2,313	18,195	14,715	13,123
Fodder (\$)	3,892	4,430	44,400	13,750	14,104	16,115
Fuel, oil and lubricants (\$)	8,767	6,473	9,642	8,554	8,094	8,306
Interest payments (\$)	17,204	17,391	34,761	14,569	15,238	19,833
Land rent (\$)	188	2,023	1,433	2,620	1,364	1,526
Leasing payments (\$)	806	833	2,700	2,338	2,124	1,760
Livestock materials (drenches, dips etc) (\$)	9,306	11,560	9,485	8,559	10,165	9,815
Total rates (incl water) (\$)	6,942	6,328	6,842	7,562	6,948	6,924
Water charges (\$)	0	0	14	63	32	22
Repairs and maintenance (\$)	13,485	14,777	21,677	19,780	23,049	18,554
Seed (\$)	665	854	331	1,174	1,890	983
Shearing and crutching (\$)	11,026	10,224	16,813	14,520	12,704	13,057
Payments to sharefarmers (\$)	0	200	0	0	0	40
Contracts (\$)	1,629	1,486	429	2,061	1,669	1,455
Handling and marketing expenses (\$)	12,208	10,359	12,458	9,809	12,620	11,491
Freight (\$)	2,388	2,835	4,042	5,263	3,983	3,702
Wages paid to hired labour (\$)	5,543	7,332	9,037	10,674	9,286	8,374
Agistment (\$)	227	1,258	1,943	1,953	749	1,226
Beef cattle purchases (\$)	7,694	14,202	7,149	3,699	12,659	9,081
Other livestock purchases (\$)	220	0	0	0	39	52
Sheep purchases (\$)	8,749	4,850	3,322	8,097	12,618	7,527
Livestock transfers - inwards (\$)	3,031	0	6,029	1,141	0	2,040
Other cash costs (\$)	12,913	16,630	21,224	15,877	22,992	17,927
Seed, Fodder and Fertilizer (\$)	21,251	18,982	47,045	33,120	30,710	30,222
<b>Total cash costs (\$)</b>	<b>152,737</b>	<b>156,506</b>	<b>226,068</b>	<b>180,346</b>	<b>197,896</b>	<b>182,711</b>
Total Cash Receipts (\$)	223,687	222,692	250,875	259,326	254,253	242,167
Total Cash Costs (\$)	152,737	156,506	226,068	180,346	197,896	182,711
<b>Farm Cash Income (\$)</b>	<b>70,950</b>	<b>66,186</b>	<b>24,807</b>	<b>78,980</b>	<b>56,357</b>	<b>59,456</b>
plus Buildup in trading stocks (\$)	-3,922	914	-42,195	7,648	15,772	-4,357
less Depreciation (\$)	13,369	17,557	20,644	23,823	18,676	18,814
less Imputed labour cost (\$)	44,197	39,624	41,482	48,977	42,973	43,451
<b>Farm business profit (\$)</b>	<b>9,458</b>	<b>9,919</b>	<b>-79,516</b>	<b>13,826</b>	<b>10,481</b>	<b>-7,166</b>
plus Rent (\$)	188	2,023	1,433	2,620	1,364	1,526
plus Interest (\$)	18,010	18,224	37,461	16,907	17,362	21,593
Depreciation on leased plant & equipment (\$)	833	0	1362	1533	574	860
<b>Profit at full equity (\$)</b>	<b>26,825</b>	<b>30,167</b>	<b>-41,982</b>	<b>31,820</b>	<b>28,633</b>	<b>15,093</b>
<b>Breakeven Income (\$)</b>	<b>44,125</b>	<b>36,019</b>	<b>66,789</b>	<b>47,160</b>	<b>27,724</b>	<b>44,363</b>

Source: ABARE (2006) Beef, Lamb, Sheep Industry Database.

**Mixed Sheep Farm Data - Central West**

	2001	2002	2003	2004	2005	Average
Sheep	2,471	2,455	1,779	1,677	1,900	2,056
Government assistance to farm business (\$)	13,730	82	2,579	7,998	2,647	5,407
Off-farm contracts (\$)	4,016	4,272	4,124	2,630	10,270	5,062
Barley receipts (\$)	10,601	5,163	5,776	18,771	8,680	9,798
Grain legumes receipts (\$)	3,679	656	1,007	756	4,801	2,180
Off-farm sharefarming (\$)	4,001	1,236	26	0	3,054	1,663
Oilseeds receipts (\$)	21,457	32,222	3,398	7,095	9,132	14,661
Rice receipts (\$)	0	0	0	0	0	0
Sorghum receipts (\$)	1,485	1,418	1,695	0	3,223	1,564
Total crop gross receipts (\$)	151,630	157,038	118,386	142,008	125,176	138,848
Wheat receipts (\$)	106,664	100,594	87,986	109,556	89,649	98,890
Beef cattle sold (\$)	44,601	57,289	29,887	32,045	30,601	38,885
Other livestock sales (\$)	10,444	4,119	1,809	630	20	3,404
Total sheep and lamb sales (\$)	65,349	89,770	80,061	58,515	60,870	70,913
Livestock transfers - outward (\$)	570	44	0	33	81	146
Total lambs sales (\$)	49,774	65,537	49,588	37,656	48,683	50,248
Live export cattle sales (\$)	329	4,029	512	402	0	1,054
Prime lamb sales (\$)	45,689	63,952	39,555	27,604	26,577	40,675
Other cash receipts (\$)	7,948	7,197	8,822	11,710	13,886	9,913
Prime lamb price per head (\$)	54	79	82	93	87	79
Live export cattle sales price per head (\$)	708	786	1,556	1,012	-	1,016
Cattle sales (incl. live export) price per head (\$)	743	799	507	539	618	641
Sheep sales (\$)	15,574	24,232	30,473	20,858	12,187	20,665
Total wool gross receipts (\$)	55,233	64,420	60,729	41,148	42,062	52,718
<b>Total cash receipts (\$)</b>	<b>357,526</b>	<b>385,470</b>	<b>306,427</b>	<b>296,721</b>	<b>288,667</b>	<b>326,962</b>
Administration expenses (\$)	7,319	7,014	7,363	7,426	10,662	7,957
Crop and pasture chemicals (\$)	16,145	15,741	9,250	14,505	12,566	13,641
Fertiliser (\$)	31,300	27,373	16,760	24,046	20,501	23,996
Fodder (\$)	7,099	2,799	9,697	3,983	5,500	5,816
Fuel, oil and lubricants (\$)	21,522	18,051	15,920	18,204	19,614	18,662
Interest payments (\$)	20,494	16,046	17,064	18,295	19,247	18,229
Land rent (\$)	1,888	965	1,559	543	1,706	1,332
Leasing payments (\$)	7,860	6,091	5,911	5,549	4,029	5,888
Livestock materials (drenches, dips etc) (\$)	6,750	6,328	5,899	3,376	4,651	5,401
Total rates (incl water) (\$)	7,632	7,796	7,546	8,373	7,762	7,822
Water charges (\$)	760	1,463	839	987	622	934
Repairs and maintenance (\$)	28,655	30,090	24,813	24,279	26,348	26,837
Seed (\$)	3,957	3,047	2,676	2,809	2,515	3,001
Shearing and crutching (\$)	7,358	9,147	8,595	8,078	7,277	8,091
Payments to sharefarmers (\$)	13,980	2,189	3,838	1,199	716	4,384
Contracts (\$)	9,458	8,377	4,400	3,600	8,298	6,827
Handling and marketing expenses (\$)	12,731	19,179	10,967	7,409	9,851	12,027
Freight (\$)	8,271	13,290	4,508	6,428	5,950	7,689
Wages paid to hired labour (\$)	6,185	8,356	5,697	4,964	7,204	6,481
Agistment (\$)	169	428	1,139	1,026	378	628
Beef cattle purchases (\$)	22,198	10,810	14,373	4,096	3,671	11,030
Other livestock purchases (\$)	130	346	23	0	0	100
Sheep purchases (\$)	14,918	18,493	15,235	12,816	13,383	14,969
Livestock transfers - inwards (\$)	15	834	1,146	0	0	399
Other cash costs (\$)	16,132	16,799	15,919	21,922	24,864	19,127
Seed, Fodder and Fertilizer (\$)	42,357	33,220	29,134	30,839	28,516	32,813
<b>Total cash costs (\$)</b>	<b>272,176</b>	<b>249,605</b>	<b>210,305</b>	<b>202,938</b>	<b>216,693</b>	<b>230,343</b>
Total Cash Receipts (\$)	357,526	385,470	306,427	296,721	288,667	326,962
Total Cash Costs (\$)	272,176	249,605	210,305	202,938	216,693	230,343
<b>Farm Cash Income (\$)</b>	<b>85,350</b>	<b>135,865</b>	<b>96,122</b>	<b>93,783</b>	<b>71,974</b>	<b>96,619</b>
plus Buildup in trading stocks (\$)	6,455	-2,732	-18,817	5,338	-5,446	-3,040
less Depreciation (\$)	25,118	30,061	34,052	35,685	36,076	32,198
less Imputed labour cost (\$)	48,524	47,256	47,706	50,593	47,993	48,414
<b>Farm business profit (\$)</b>	<b>18,162</b>	<b>55,815</b>	<b>-4,454</b>	<b>12,842</b>	<b>-17,542</b>	<b>12,965</b>
plus Rent (\$)	1,888	965	1,559	543	1,706	1,332
plus Interest (\$)	28,354	22,137	22,975	23,844	23,276	24,117
less Depreciation on leased plant & equipment (\$)	4,567	0	1,771	913	746	1,599
<b>Profit at full equity (\$)</b>	<b>43836</b>	<b>78918</b>	<b>18307</b>	<b>36317</b>	<b>6695</b>	<b>36815</b>
<b>Breakeven Income (\$)</b>	<b>41,514</b>	<b>56,947</b>	<b>77,815</b>	<b>57,466</b>	<b>65,279</b>	<b>59,804</b>

Source: ABARE (2006) Beef, Lamb, Sheep Industry Database.

**Specialist Sheep Producer Farm Data - Tablelands**

	2001	2002	2003	2004	2005	Average
Sheep	2,652	2,924	2,536	2,106	1,782	2,400
Government assistance to farm business (\$)	0	0	1,773	278	185	447
Off-farm contracts (\$)	1,466	2,840	8,152	125	6,195	3,756
Barley receipts (\$)	0	0	0	0	1,764	353
Grain legumes receipts (\$)	0	0	0	0	0	0
Off-farm sharefarming (\$)	216	0	0	0	0	43
Oilseeds receipts (\$)	0	0	0	0	0	0
Rice receipts (\$)	0	0	0	0	0	0
Sorghum receipts (\$)	0	0	0	0	0	0
Total crop gross receipts (\$)	1,782	2,014	6,295	366	1,960	2,483
Wheat receipts (\$)	594	0	0	0	0	119
Beef cattle sold (\$)	16,601	16,520	20,045	12,314	14,459	15,988
Other livestock sales (\$)	135	0	320	0	0	91
Total sheep and lamb sales (\$)	33,574	38,216	27,700	39,510	32,372	34,274
Livestock transfers - outward (\$)	575	0	0	0	0	115
Total lambs sales (\$)	20,337	21,918	8,048	10,418	13,135	14,771
Live export cattle sales (\$)	0	0	0	0	0	0
Prime lamb sales (\$)	18,856	21,026	7,847	2,169	8,923	11,764
Other cash receipts (\$)	7,059	5,947	4,796	4,459	5,479	5,548
Sheep sales (\$)	13,237	16,298	19,650	29,093	19,236	19,503
Total wool gross receipts (\$)	95,839	88,979	82,082	59,363	45,561	74,365
<b>Total cash receipts (\$)</b>	<b>157,253</b>	<b>154,519</b>	<b>151,166</b>	<b>116,418</b>	<b>106,211</b>	<b>137,113</b>
Administration expenses (\$)	6,100	6,230	5,818	5,005	4,692	5,569
Crop and pasture chemicals (\$)	745	1,975	895	372	683	934
Fertiliser (\$)	6,870	5,954	7,024	6,376	5,191	6,283
Fodder (\$)	2,306	2,949	12,547	5,405	6,617	5,965
Fuel, oil and lubricants (\$)	6,589	5,798	6,895	3,638	6,303	5,845
Interest payments (\$)	13,495	12,707	12,039	11,617	8,756	11,723
Land rent (\$)	3,114	2,503	1,722	1,350	501	1,838
Leasing payments (\$)	590	79	2,297	0	260	645
Livestock materials (drenches, dips etc) (\$)	6,307	8,519	8,655	6,650	6,046	7,235
Total rates (incl water) (\$)	3,902	4,405	4,250	4,076	3,675	4,062
Water charges (\$)	0	35	50	0	0	17
Repairs and maintenance (\$)	7,888	11,258	11,408	9,275	7,209	9,408
Seed (\$)	535	1,491	987	984	660	931
Shearing and crutching (\$)	10,970	8,961	9,099	9,317	8,629	9,395
Payments to sharefarmers (\$)	729	0	0	0	0	146
Contracts (\$)	444	237	809	544	1,054	618
Handling and marketing expenses (\$)	9,342	7,918	7,910	5,677	6,193	7,408
Freight (\$)	1,231	1,791	2,585	1,947	1,372	1,785
Wages paid to hired labour (\$)	7,056	5,359	7,224	1,889	1,887	4,683
Agistment (\$)	0	0	1,112	67	224	281
Beef cattle purchases (\$)	2,122	2,718	5,034	1,055	4,441	3,074
Other livestock purchases (\$)	150	0	0	0	3	31
Sheep purchases (\$)	4,628	11,071	8,279	9,058	5,238	7,655
Livestock transfers - inwards (\$)	0	4,725	0	0	0	945
Other cash costs (\$)	11,161	12,020	14,587	11,852	14,984	12,921
Seed, Fodder and Fertilizer (\$)	9,712	10,395	20,559	12,766	12,467	13,180
<b>Total cash costs (\$)</b>	<b>106,286</b>	<b>118,678</b>	<b>131,187</b>	<b>96,168</b>	<b>94,617</b>	<b>109,387</b>
Total Cash Receipts (\$)	157,253	154,519	151,166	116,418	106,211	137,113
Total Cash Costs (\$)	106,286	118,678	131,187	96,168	94,617	109,387
<b>Farm Cash Income (\$)</b>	<b>50,967</b>	<b>35,841</b>	<b>19,979</b>	<b>20,250</b>	<b>11,594</b>	<b>27,726</b>
plus Buildup in trading stocks (\$)	-4,654	15,234	-166	-13,785	-2,117	-1,098
less Depreciation (\$)	12,359	12,851	12,872	11,752	13,484	12,664
less Imputed labour cost (\$)	39,126	36,485	39,052	39,033	35,448	37,829
<b>Farm business profit (\$)</b>	<b>-5,172</b>	<b>1,739</b>	<b>-32,114</b>	<b>-44,320</b>	<b>-39,454</b>	<b>-23,864</b>
plus Rent (\$)	3,114	2,503	1,722	1,350	501	1,838
plus Interest (\$)	14,085	12,786	14,336	11,617	9,016	12,368
less Depreciation on leased plant & equipment (\$)	98	0	1,346	0	6	290
<b>Profit at full equity (\$)</b>	<b>11,931</b>	<b>17,031</b>	<b>-17,399</b>	<b>-31,352</b>	<b>-29,944</b>	<b>-9,947</b>
<b>Breakeven Income (\$)</b>	<b>39,036</b>	<b>18,810</b>	<b>37,378</b>	<b>51,602</b>	<b>41,538</b>	<b>37,673</b>

Source: ABARE (2006) Beef, Lamb, Sheep Industry Database.

**Specialist Sheep Producer Farm Data - Central West**

	2001	2002	2003	2004	2005	Average
Sheep	2,653	2,165	3,296	2,930	1,731	2,555
Government assistance to farm business (\$)	0	0	0	157	784	188
Off-farm contracts (\$)	241	0	130	73	4,973	1,083
Barley receipts (\$)	4,274	0	0	350	653	1,055
Grain legumes receipts (\$)	155	0	0	0	0	31
Off-farm sharefarming (\$)	0	0	0	0	535	107
Oilseeds receipts (\$)	10,128	1,986	0	0	1,986	2,820
Rice receipts (\$)	0	0	0	0	0	0
Sorghum receipts (\$)	0	0	0	0	0	0
Total crop gross receipts (\$)	45,935	5,749	2,261	1,061	21,886	15,378
Wheat receipts (\$)	15,704	1,415	0	226	9,066	5,282
Beef cattle sold (\$)	8,834	11,893	26,620	33,586	10,636	18,314
Other livestock sales (\$)	3,158	0	6,930	0	1,684	2,354
Total sheep and lamb sales (\$)	83,589	52,137	50,682	59,812	45,085	58,261
Livestock transfers - outward (\$)	0	0	0	0	0	0
Total lambs sales (\$)	66,214	33,654	34,314	38,225	31,701	40,822
Live export cattle sales (\$)	0	0	0	5,613	0	1,123
Prime lamb sales (\$)	50,519	33,654	20,980	2,785	18,846	25,357
Other cash receipts (\$)	4,605	2,412	906	3,529	3,635	3,017
Sheep sales (\$)	17,373	18,481	16,367	21,586	13,383	17,438
Total wool gross receipts (\$)	88,653	57,403	135,006	70,885	37,631	77,916
<b>Total cash receipts (\$)</b>	<b>235,018</b>	<b>129,595</b>	<b>222,541</b>	<b>169,106</b>	<b>126,850</b>	<b>176,622</b>
Administration expenses (\$)	5,399	4,284	6,209	7,696	4,714	5,660
Crop and pasture chemicals (\$)	3,027	695	231	909	1,817	1,336
Fertiliser (\$)	7,684	7,579	6,847	7,843	4,721	6,935
Fodder (\$)	837	673	36,541	7,832	3,326	9,842
Fuel, oil and lubricants (\$)	11,618	5,475	8,042	7,735	8,511	8,276
Interest payments (\$)	8,072	4,889	18,282	18,064	5,432	10,948
Land rent (\$)	137	1,251	2,738	2,469	8,464	3,012
Leasing payments (\$)	2,446	141	0	210	191	598
Livestock materials (drenches, dips etc) (\$)	7,600	4,110	9,423	8,270	2,284	6,337
Total rates (incl water) (\$)	4,797	4,541	5,699	5,301	4,770	5,022
Water charges (\$)	0	0	0	0	225	45
Repairs and maintenance (\$)	17,102	11,271	20,394	10,401	6,710	13,176
Seed (\$)	1,125	213	566	1,564	341	762
Shearing and crutching (\$)	7,424	5,595	10,436	12,351	6,607	8,483
Payments to sharefarmers (\$)	0	0	0	0	0	0
Contracts (\$)	2,462	1,246	340	1,702	2,374	1,625
Handling and marketing expenses (\$)	10,394	5,845	13,963	7,299	7,215	8,943
Freight (\$)	1,753	1,358	3,880	2,058	3,075	2,425
Wages paid to hired labour (\$)	1,339	3,674	17,969	5,099	3,820	6,380
Agistment (\$)	1,477	657	2,928	1,631	1,135	1,566
Beef cattle purchases (\$)	1,812	3,281	5,385	13,151	3,671	5,460
Other livestock purchases (\$)	2,495	0	943	0	0	688
Sheep purchases (\$)	6,598	4,081	4,478	8,424	7,279	6,172
Livestock transfers - inwards (\$)	0	2,974	0	0	0	595
Other cash costs (\$)	8,350	7,917	10,764	10,154	12,172	9,871
Seed, Fodder and Fertilizer (\$)	9,647	8,467	43,955	17,239	8,388	17,539
<b>Total cash costs (\$)</b>	<b>113,956</b>	<b>81,762</b>	<b>186,069</b>	<b>140,172</b>	<b>98,630</b>	<b>124,118</b>
Total Cash Receipts (\$)	235,018	129,595	222,541	169,106	126,850	176,622
Total Cash Costs (\$)	113,956	81,762	186,069	140,172	98,630	124,118
<b>Farm Cash Income (\$)</b>	<b>121,062</b>	<b>47,833</b>	<b>36,472</b>	<b>28,934</b>	<b>28,220</b>	<b>52,504</b>
plus Buildup in trading stocks (\$)	-7,593	-3,750	-25,660	10,975	13,109	-2,584
less Depreciation (\$)	19,436	12,387	17,123	15,946	12,534	15,485
less Imputed labour cost (\$)	34,827	32,157	44,376	46,814	36,304	38,896
<b>Farm business profit (\$)</b>	<b>59,204</b>	<b>-464</b>	<b>-50,687</b>	<b>-22,851</b>	<b>-7,510</b>	<b>-4,462</b>
plus Rent (\$)	137	1,251	2,738	2,469	8,464	3,012
plus Interest (\$)	10,518	5,030	18,282	18,274	5,623	11,545
less Depreciation on leased plant & equipment (\$)	1,790	0	0	0	0	358
<b>Profit at full equity (\$)</b>	<b>68,069</b>	<b>5,817</b>	<b>-29,667</b>	<b>-2,109</b>	<b>6,577</b>	<b>9,737</b>
<b>Breakeven Income (\$)</b>	<b>52,993</b>	<b>42,016</b>	<b>66,139</b>	<b>31,043</b>	<b>21,643</b>	<b>42,767</b>

Source: ABARE (2006) Beef, Lamb, Sheep Industry Database.

### Wheat and Other Cropping

	2001	2002	2003	2004	2005	Average
Off farm contracts (\$)	20,386	12,738	10,152	3,991	12,619	11,977
Canola receipts (\$)	37,593	35,610	7,421	51,950	21,726	30,860
Field peas receipts (\$)	263	622	37	1,640	1,980	908
Lupins receipts (\$)	6,857	2,690	1,416	791	1,005	2,552
Cotton receipts (\$)	24,988	15,800	8,176	0	26,386	15,070
Barley receipts (\$)	28,615	37,723	22,733	50,749	25,206	33,005
Grain legumes receipts (\$)	21,076	49,183	20,043	12,370	13,245	23,183
Oats receipts (\$)	2,028	3,580	3,731	4,263	1,532	3,027
Off farm sharefarming (\$)	12,785	16,168	2,724	5,233	8,266	9,035
Oilseeds receipts (\$)	42,396	44,533	10,327	53,261	22,473	34,598
Rice receipts (\$)	71,060	72,874	28,815	24,749	6,889	40,877
Sorghum receipts (\$)	17,296	23,437	13,959	18,432	7,642	16,153
Total crop gross receipts (\$)	395,935	490,618	277,595	367,244	291,076	364,494
Wheat receipts (\$)	171,243	196,271	134,867	190,943	171,247	172,914
Beef cattle sold (\$)	57,123	37,775	16,698	17,502	32,192	32,258
Sheep sold (\$)	29,507	35,917	38,200	10,011	36,810	30,089
Livestock transfers - outward (\$)	445	566	278	461	210	392
Other farm income (\$)	28,691	21,151	16,761	20,101	23,326	22,006
Other livestock sold (\$)	2,747	3,811	816	0	113	1,497
Total wool gross receipts (\$)	24,354	17,554	25,546	12,523	15,547	19,105
<b>Total cash receipts (\$)</b>	<b>571,973</b>	<b>636,299</b>	<b>388,770</b>	<b>437,065</b>	<b>420,158</b>	<b>490,853</b>
Accounting services (\$)	3,441	3,320	3,403	3,570	2,350	3,217
Advisory services (\$)	1,382	1,438	1,431	973	1,527	1,350
AI stud fees and herd testing (\$)	221	225	19	11	59	107
Contracts - cropping (\$)	26,783	29,277	15,839	19,104	14,916	21,184
Contracts - livestock (\$)	146	302	418	0	79	189
Crop and pasture chemicals (\$)	46,512	42,213	23,931	37,652	33,441	36,750
Electricity (\$)	3,514	3,330	3,414	3,978	3,352	3,518
Fertiliser (\$)	53,529	59,013	30,083	44,847	32,070	43,908
Fodder (\$)	1,371	2,584	5,266	1,366	3,525	2,822
Fuel oil and grease (\$)	42,106	40,065	27,706	26,379	30,117	33,275
Insurance (\$)	10,390	10,212	8,961	10,253	11,070	10,177
Interest paid (\$)	36,634	31,743	29,345	31,989	45,794	35,101
Land rent (\$)	2,450	2,902	2,795	1,721	3,686	2,711
Leasing charges (\$)	10,846	11,132	5,142	11,478	6,552	9,030
Livestock materials (\$)	4,642	3,055	1,715	2,637	2,968	3,003
Water charges (\$)	10,354	10,935	12,229	7,644	3,084	8,849
Repairs and maintenance (\$)	38,162	46,854	30,353	33,478	30,145	35,798
Seed (\$)	8,039	9,868	6,625	6,548	3,908	6,998
Shearing crutching (\$)	5,322	4,682	2,574	2,735	4,142	3,891
Stores and rations (\$)	98	34	29	31	168	72
Telephone (\$)	2,768	2,538	2,812	2,774	2,834	2,745
Vet fees (\$)	67	176	200	224	470	227
Payments to sharefarmers (\$)	13,450	1,328	3,034	9,385	1,880	5,815
Produce purchased for resale (\$)	0	0	0	0	88	18
Handling and marketing (\$)	22,075	23,128	7,107	4,039	12,742	13,818
Wages for hired labor (\$)	15,896	13,891	8,362	11,442	10,469	12,012
Agistment (\$)	331	675	865	543	1,252	733
Beef cattle purchased (\$)	21,091	8,072	6,970	4,373	8,498	9,801
Sheep purchased (\$)	5,114	12,003	8,822	3,221	14,227	8,677
Livestock transfers - inwards (\$)	103	199	280	155	0	147
Other administration expenses (\$)	5,456	7,076	5,152	4,680	8,062	6,085
Other livestock purchased (\$)	271	256	18	0	147	138
Other materials (\$)	2,927	3,621	1,848	-	5,101	3,374
Other services (\$)	9,072	10,882	8,876	9,254	13,625	10,342
Shire and PPB rates (\$)	7,167	6,752	6,960	8,113	7,895	7,377
Total freight (\$)	18,305	25,025	5,490	15,032	16,844	16,139
<b>Total cash costs (\$)</b>	<b>430,032</b>	<b>428,808</b>	<b>278,073</b>	<b>312,843</b>	<b>337,088</b>	<b>357,369</b>
Total Cash Receipts (\$)	571,973	636,299	388,770	437,065	420,158	490,853
Total Cash Costs (\$)	430,032	428,808	278,073	312,843	337,088	357,369
<b>Farm Cash Income (\$)</b>	<b>141,941</b>	<b>207,491</b>	<b>110,697</b>	<b>124,222</b>	<b>83,070</b>	<b>133,484</b>
plus Buildup in trading stocks (\$)	-9,214	6,962	-11,399	12,522	21,397	4,054
less Depreciation (\$)	43,801	45,653	44,080	45,726	47,539	45,360
less Imputed labor cost (\$)	51,183	50,336	46,742	41,680	44,363	46,861
<b>Farm business profit (\$)</b>	<b>37,744</b>	<b>118,465</b>	<b>8,476</b>	<b>49,338</b>	<b>12,566</b>	<b>45,318</b>
plus Rent (\$)	2,450	2,902	2,795	1,721	3,686	2,711
plus Interest (\$)	47,480	42,875	34,487	43,467	52,346	44,131
less Depreciation on leased items (\$)	8,100	1	2,582	2,951	1,709	3,069
<b>Profit at full equity (\$)</b>	<b>79,574</b>	<b>164,241</b>	<b>43,176</b>	<b>91,575</b>	<b>66,889</b>	<b>89,091</b>
<b>Breakeven Income (\$)</b>	<b>62,367</b>	<b>43,250</b>	<b>67,521</b>	<b>32,647</b>	<b>16,181</b>	<b>44,393</b>

Source: ABARE (2006) AGSurf Database.

**Summary of Breakeven Values**

**TABLELANDS**

Mixed Enterprise Beef Farm	\$41,284
Mixed Enterprise Sheep Farm	\$44,363
Specialist Beef Producer	\$47,136
Specialist Sheep Producer	\$37,673

**CENTRAL WEST**

Mixed Enterprise Beef Farm	\$56,585
Mixed Enterprise Sheep Farm	\$59,804
Specialist Beef Producer	\$47,421
Specialist Sheep Producer	\$42,767

**NSW**

Wheat and Other Cropping	\$44,393
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## Appendix 4 Output from H&A computer model



## Sector - Horticulture / Viticulture

Input variables selected by landholders reference groups to determine minimum breakeven size.

<b>Enterprise breakdown</b>		<b>Enterprise assumptions</b>		
Horticulture	95%	Peaches Gross Margin		\$18,728 /ha
Not productive	5%	Peaches Variable Costs		\$30,292 /ha
	<u>100%</u>	Apples Gross Margin		\$6,653 /ha
		Apples Variable Costs		\$28,347 /ha
<b>Enterprise</b>	<b>Horticulture</b>	<b>Non-productive</b>	<b>Total</b>	
Area (ha)	20	1	<b>22</b>	
GM/ha	\$15,709			
Total GM	\$321,120		\$321,120	
GM variable costs	\$609,280		\$609,280	
Total costs			\$870,400	
Overhead costs			\$261,120	
GM variable costs as proportion of total costs			70%	
Overhead as proportion of total costs			30%	
<b>Net farm income</b>			<b>\$60,000</b>	







## Sector D - Extensive Grazing

Input variables selected by landholders reference groups to determine minimum breakeven size.

<b>Enterprise breakdown</b>		<b>Enterprise assumptions</b>	
Merino Ewes	95%	Gross Margin	\$22.81 /DSE
Not productive	5%	Variable Costs	\$11.76 /DSE
	<u>100%</u>	Stocking Rate	3.0 DSE/ha
<b>Enterprise</b>	<b>Merino Ewes</b>	<b>Non-productive</b>	<b>Total</b>
Area (ha)	754	40	<b>794</b>
GM/ha	\$68		
Total GM	\$51,627		\$51,627
GM variable costs	\$26,617		\$26,617
Total costs			\$38,025
Overhead costs			\$11,407
GM variable costs as proportion of total costs			70%
Overhead as proportion of total costs			30%
<b>Net farm income</b>			<b>\$40,220</b>



Appendix D

## Minimum Lot Size Response – Department of Primary Industries



The General Manager  
Blayney Shire Council  
PO Box 62  
BLAYNEY NSW 2799

Attention: Mr Paul O'Brien  
Project Manager  
Blayney-Cabonne –Orange Rural and Industrial Lands Strategy  
C/- Blayney Shire Council

Dear Paul

**Progress on the Determination of Minimum Lot Size for Rural Subdivision  
for the Blayney-Cabonne- Orange Rural and Industrial Land Strategy**

As discussed with you on 10 April 2007, the following is in response to furthering the progress of the Draft Minimum Lot Size Analysis Study undertaken by Hassall and Associates Pty Ltd, prior to public release as part of the strategic process and dealing with the concerns the Department identified. The following is recommended to deal with the limitations identified, particularly for the Sectors A and B as outlined in the following:

**A. Intensive horticulture/viticulture zone**

The recommended area should be higher this stage – to 30 hectares. The reasons for this include:

- The original study was unlimited to looking at only one horticultural activity (peaches/apples).
- Overhead costs were underestimated.
- Little consideration to other ancillary uses particularly in relation to the viticultural industry e.g. cellar doors, restaurants etc. There are also non plantable areas such as necessary internal access roads, buffer plantings, non usable agricultural areas (areas for instance that are too steep for machinery, rock outcrops).
- New developments should cater for best management practices in relation to buffer development and establishment, protection of any native bushland remnants, etc.
- Generally 30% of any land area is not under production in terms of averages.
- The evidence from the viticultural industry is that smaller developments are less sustainable economically, with little ability to expand as an option to deal with future development, which can address efficiency and mechanisation considerations.

- In addition to using the 2006 gross margins, a review of the price outlook for the major commodities would be useful.

In other areas 40 hectares is recommended - consistent with the outcomes of the viticultural industry in other areas eg Mudgee, Hunter.

( The Australian Bureau of Agricultural and Resource Economics publication, Wine Grapes – a survey of producers in the Mudgee and Riverland region<sup>1</sup> 2001-02 (Spencer and Ashton, 2003) that identified the average area of vineyards in the Mudgee area as 26 hectares (with one hectare being non bearing), with an average rate of return on capital at that time being 3.1%. Clearly large areas perform better in relation to yield, development of grapes and seasonal conditions. Also it ensures other infrastructure needs such as roads, sheds, dams, cellar doors, accommodation, parking and areas of land for conservation purposes, e.g. waterways or areas of land that are not suitable for planting should also be taken into account or can be accommodated. The Hunter situation is from professional comment undertaken by G Briggs in relation to input into Cessnock Shire Council's strategic work.)

The Canobolas area is acknowledged to have a higher rainfall and areas of highly valued soils that make this area different to those described above and hence some adjustment is being considered.

Access to water is critical to ensure future intensive agricultural development in sector A, and this is conditional to any subdivision proposed.

#### B. Highly productive mixed grazing

As noted in the former response, the minimum area for what is considered to be a commercial business unit for this sector is too low and not representative. It is recommended that this be increased to a minimum of 300 hectares at this stage – to allow for the area evidenced with past development applications for rural subdivision, and landuse enterprises and also to account for non productive areas, trends etc.

The name of this sector should also be changed as it signifies that it is more productive than elsewhere – although the area may be inherently higher value, management still plays a role here. We suggest it be changed to Tablelands Mixed Grazing.

The other main change is that the reference group members should be kept confidential at this stage but their contribution acknowledged anonymously. Please note, the preferred approach to this would be to undertake further modifications of the study as outlined in our previous response.

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<sup>1</sup> Spencer, D. and Ashton, D 2003, Wine grapes: A Survey of Producers in the Mudgee and Riverland Regions, 2001-02, ABARE eReport 03.20. Prepared for the Grape and Wine Research and Development Corporation, Canberra, October.

Please contact me for any further information on phone 68811270.

Yours sincerely

Mary Kovac  
Resource Management Officer  
DPI - Central West

cc Nita Lennon, Planner, Department of Planning



Appendix E

# Recommended buffer distances to industry types





## Recommended buffer distance to industry types

Type of Production, Use or Storage (Purpose)	Threshold Distance (metres)
<b><i>Rural industries</i></b>	
Abattoir	500
Smallgoods production	100
Manufacturing of milk products	300
Production of vegetable oils and fats using solvents	300
Flour mill	300
Bakery (other than one ancillary to a shop)	100
Maltworks	300
Tobacco and cigarette production	500
Poultry processing works	100
Freezing and cool storage	150
Milk depot	100
<b><i>Textiles</i></b>	
Dyeing or finishing of cotton, linen and woollen yarns and textiles	300
Carpet backing with latex	300
Production of artificial fibres and textiles	1,000
Rope, cordage and twine production	100
Wool scouring	200
<b><i>Wood, Wood Products and Furniture</i></b>	
Sawmill	500
Charcoal production	
- by the retort process	500
- other than by the retort process	1,000
Wood preservation plant	100
Wood-fibre or wood-chip products	1,500
Joinery	100
<b><i>Paper and Paper Products</i></b>	
Paper or paper pulp production:	
- involving combustion of sulphur or sulphur containing materials	5,000
- from semi-processed materials	100



<b>Type of Production, Use or Storage (Purpose)</b>	<b>Threshold Distance (metres)</b>
- from prepared cellulose and rags	200
<b><i>Chemical, Petroleum and Coal Products</i></b>	
Chemical fertiliser production	1,000
Industrial gases production	1,000
Polyester resins production	1,000
Synthetic resins and rubber production other than above	1,000
Ammunition, explosives and fireworks production	1,000
Formaldehyde production	300
<b><i>Paints and inks</i></b>	
- manufacture	1,000
- blending and mixing only	300
Pharmaceutical and veterinary production	1,000
Biocides production and storage	1,000
Soap and other detergents production	300
Cosmetics and toilet preparations production	100
Inks production	300
Petroleum refinery	2,000
Briquette production	300
Other petroleum or coal production	500
Organic industrial chemicals production other than above	1,000
Inorganic industrial chemicals production other than above	1,000
Chemical products other than above	300
<b><i>Non-metallic Mineral Products</i></b>	
Glass and glass production including glass wool	500
Rock wool manufacture	500
Clay bricks, tiles and pipe refractories with a design production rate exceeding 10,000 tonnes a year	200
Cement production in amounts:	
- up to 5,000 tonnes a year	300
- between 5,000 and 150,000 tonnes a year	500
- exceeding 150,000 tonnes a year	1,000
Concrete batching plant	300



<b>Type of Production, Use or Storage (Purpose)</b>	<b>Threshold Distance (metres)</b>
Bitumen batching plant	500
Concrete article or stone article production	100
Plaster or plaster articles production	100
<b><i>Basic Metal Products</i></b>	
Works producing iron or steel products in amounts:	
- up to 1,000,000 tonnes a year	100
- exceeding 1,000,000 tonnes a year	1,000
Production of non-ferrous metals as:	
- aluminium by electrolysis	2,000
other non-ferrous metals in amounts:	
- up to 100 tonnes a year	100
- between 100 and 2,000 tonnes a year	300
- exceeding 2,000 tonnes a year	500
<b><i>Fabricated Metal Products</i></b>	
Structural or sheet metal production	500
Works producing iron or steel products in amounts	
- up to 1,000,000 tonnes per year	100
- exceeding 1,000,000 tonnes per year	1,000
Boiler makers	100
<b><i>Miscellaneous Manufacturing</i></b>	
Rendering and casings works	1,000
Leather tanning and dressing	300
Leather and artificial leather goods production	300



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