

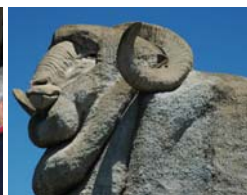


NSW GOVERNMENT  
Department of Planning



# GOULBURN MULWAREE STRATEGY 2020







# GOULBURN MULWAREE STRATEGY 2020

AUGUST 2006



Parsons Brinckerhoff Australia Pty Limited ACN 078 004 798 and  
Parsons Brinckerhoff International (Australia) Pty Limited ACN 006 475 056  
trading as Parsons Brinckerhoff ABN 84 797 323 433

*Ernst & Young Centre  
Level 27  
680 George Street  
Sydney NSW 2000  
Telephone +61 2 9272 5100  
Facsimile +61 2 9272 5101  
Email [sydney@pb.com.au](mailto:sydney@pb.com.au)*

*ABN 84 797 323 433  
NCSI Certified Quality System ISO 9001 and  
Environmental Management System ISO 14001*

*Parsons Brinckerhoff supports the Environment by printing on  
100% A4 recycled paper*



NSW GOVERNMENT  
**Department of Planning**

Goulburn Mulwaree Council acknowledge the financial support of the NSW Department of Planning in the preparation of this report.

© Parsons Brinckerhoff Australia Pty Limited and Parsons Brinckerhoff International (Australia) Pty Limited trading as Parsons Brinckerhoff ("PB") 2006

Copyright in the drawings, information and data recorded in this document ("the information") is the property of PB. This document and the information are solely for the use of the authorised recipient and this document may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by PB. PB makes no representation, undertakes no duty and accepts no responsibility to any third party who may use or rely upon this document or the information.

Author: PB Technical Team

Reviewer: S. Manoski

Approved by: B. Colman

Signed:

A handwritten signature in black ink, appearing to read 'Bruce Colman', written over a light grey rectangular background.

Date: August 2006

Distribution: Section 65 Community Consultation, Goulburn Mulwaree Council





## Background

In 2004, the newly formed Goulburn Mulwaree Council resolved to prepare a Strategy and draft Goulburn Mulwaree Local Environmental Plan to reflect the Council's new local government area boundaries. In April 2005, Parsons Brinckerhoff (PB) was commissioned by Council to begin investigations into planning for growth in the local government area. The objective of these investigations was to prepare a Strategy (the Goulburn Mulwaree Strategy 2020) to promote the sustainable management of the local government area and guide land use decisions in the local government area to 2020.

## Need for a Strategy

The Goulburn Mulwaree Strategy will be used as a basis for the preparation of a comprehensive Local Environmental Plan for the Goulburn Mulwaree local government area. The new Goulburn Mulwaree Local Environmental Plan will replace the current two local environmental plans that apply to the Goulburn Mulwaree Council area.

Investigations for the Goulburn Mulwaree Strategy were undertaken in parallel with similar research by PB for the Upper Lachlan Shire Council. This parallel process helped to establish a sub-regional context for the Strategy.

Preparation of a Strategy for the Goulburn Mulwaree local government area has arose as a result of the need to:

- Provide the technical research that will underpin a new Goulburn Mulwaree Local Environmental Plan, using the Department of Planning's new Local Plan Template.
- Address sub-regional issues, particularly linkages between towns and villages.
- Consider rural employment issues, including agriculture and tourism, and to promote rural activity where appropriate.
- Identify opportunities for investment and employment.
- Reinforce Goulburn as a commercial and administrative centre for the region.
- Undertake a comprehensive analysis of the capacity of rural and urban areas to sustain residential growth.

## Planning reforms across NSW

Councils across NSW have historically prepared local environmental plans based on local circumstances and needs. This has generated complexities in achieving consistent planning outcomes, and as a result, there is now great variety in definitions and standards across NSW.

Reforms introduced by the Department of Planning in 2004 have been designed to create uniformity in environmental planning provisions across NSW. The reforms seek to retain flexibility for local environmental planning instruments to appropriately respond to local needs. This approach has been designed to provide improved clarity and certainty for residents, businesses and the wider community.

As the Goulburn Mulwaree local government area is a newly established local government area, the Goulburn Mulwaree Council's current planning instruments and supporting planning controls now need to be reviewed, updated and consolidated to reflect the new local government area boundaries. This provides the Council with the opportunity to undertake a strategic review of planning issues; to reflect on current social, economic and environmental trends; and to reassess current assumptions about the future of the area. The preparation of a strategic land use planning framework is part of a NSW Government planning reform initiative to update and strengthen planning instruments at the local government level.

## Strategy purpose and objectives

Due to the 2004 local government amalgamations, the Goulburn Mulwaree Council currently operates under the existing Goulburn Local Environmental Plan 1990 and the Mulwaree Local Environmental Plan 1995.

The Strategy seeks to document the pressures for growth and identify current and future opportunities for sustainable growth across the local government area.

Pursuant to Section 62 of the Environmental Planning and Assessment Act 1979, relevant government departments have been consulted throughout the process. In addition, key stakeholders and the general public have been engaged in the preparation of this Strategy.

Preparation of the Goulburn Mulwaree Strategy required an assessment of the whole local government area, including:

- Agricultural lands, hydrology, protected lands, flora and fauna, steep areas, gorges, water recharge areas, karst areas, mountain ranges and Aboriginal heritage.
- Hazards such as land and soil degraded areas, flood-affected areas, contaminated sites, salinity-affected areas, abandoned mines and mining areas, and likely odour and noise-affected areas.
- Land capability mapping, including strategic land and water capability assessment, geotechnical and groundwater assessment, and water cycle management studies that are required to assess impacts of the potential expansion of urban areas.



Specific objectives of the Strategy are to:

- Integrate the results of community engagement activities.
- Provide an understanding of the existing social, economic and physical characteristics of Goulburn Mulwaree.
- Analyse trends and patterns, and identify the 'drivers of change' across Goulburn Mulwaree.
- Identify challenges facing the Goulburn Mulwaree community, including social, economic, environmental and infrastructure issues.
- Document agricultural activities and production to understand how this sector contributes to economic outcomes.



- Identify the wider regional context, beyond the boundaries of the local government area to identify those elements that may influence or be affected by proposed planning approaches.
- Identify constraints to future development relating to the availability of water and water quality.
- Outline the current NSW Government policy setting, including state environmental planning policies, regional environmental plans, the Local Plan Template and other government policy positions.
- Identify broad solutions/policy directions that may be implemented in the new Goulburn Mulwaree Local Environmental Plan, and also potentially through other Council management tools, such as the Management Plan or Social Plan.

*"...we want to see jobs for our children and a future for our town"*

## Strategy area

The Strategy area comprises the entire Goulburn Mulwaree local government area.

The Goulburn Mulwaree local government area is surrounded by five other local government areas, including: the Upper Lachlan local government area to the west and north-west, the Wingecarribee and Wollondilly local government areas to the north-east, the Shalhaven local government area to the east, the Palerang local government area to the south, and the Yass local government area to the west.

The new local government area occupies an area of approximately 3,220 square kilometres, comprising part of the former Mulwaree and all of the former Goulburn local government areas. The population of the new local government area is approximately 27,100 people. This population predominantly lives within the towns of Goulburn, Marulan and Tarago; in a number of surrounding rural villages, including Tallong, Bungonia and Lake Bathurst; and in rural localities, including Parkesbourne, Yarra, Mummel, Kingsdale, Tarlo, Caoura, Gundry, Windellama and Oallen Ford.

## Growth and development

Goulburn Mulwaree is expected to experience modest population growth in selected areas, including Goulburn and Marulan with lower levels of growth expected in Tarago and the rural villages.

The Council is seeking to encourage population and employment growth across the whole of Goulburn Mulwaree. Evidence from recent development data are indicating positive trends particularly in Goulburn. This may be largely attributed to the 'tree change' phenomenon, which has been stimulated by lifestyle choices and higher property prices in the Sydney metropolitan and the coastal areas.

## Preparing the Goulburn Mulwaree Strategy

The preparation of the Strategy involved the review of all existing data and material supplied by the Goulburn Mulwaree Council, relevant government agencies and community representatives, including maps, plans, reports, strategies, data, literature, aerial photographs and development and rezoning applications relating to the local government area. The approach was to gather data from a wide range of existing sources and investigate the following issues:

- agricultural land capability/suitability
- flora and fauna
- bushfire prone areas
- traffic and transport
- hydrological including flooding and stormwater
- geotechnical characteristics and known contamination
- European and Aboriginal heritage
- existing services and utilities.

More detailed individual site investigations will be required to accurately determine the extent to which land within the study area has the potential to accommodate further development. This will apply to situations like proposed new greenfield release areas for residential development.

Such investigations will form part of individual development or rezoning applications. These will require detailed assessments of:

- Traffic, transport and intersection impacts.
- Development impacts, including amenity (noise, odour, privacy) and impacts on existing rural aesthetics.
- Hydrological and hydrogeological characteristics.
- Geotechnical or contamination field work or borehole drilling.
- Economic impacts (particularly in relation to the need for new commercial or retail areas).
- Social, recreational and community needs.

- Availability of adequate services and utilities including water.
- Flora and fauna impacts.
- Agricultural land capability.
- Archaeology and cultural heritage.

## Existing and future settlement

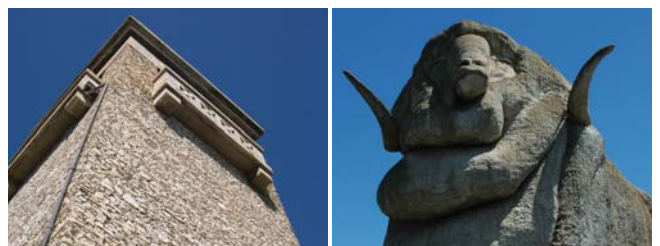
### *Regional context*

Goulburn is located on the NSW Southern Tablelands, approximately 192 kilometres south-west of Sydney and 95 kilometres north of Canberra.

The Goulburn Mulwaree local government area possesses a wide diversity of flora and fauna, which reflect the different types of soil, landscapes and topography, including flat terrains and undulating areas. The steep sloping areas, particularly to the east of the local government area, resemble much of the NSW Southern Tablelands.

### *Goulburn*

Low density subdivision and rural residential development has continued to dominate development surrounding Goulburn. The expansion of Goulburn is occurring to the north and west of the town centre. Goulburn has natural and built boundaries, including the Main Southern Railway and the Mulwaree River to the south and east, topographical constraints to the west, and the Wollondilly River to the north. These boundaries have influenced the growth of Goulburn, with future growth directed north of the Wollondilly River. Several significant land uses occupy areas north of and adjacent to the Wollondilly River, including the Goulburn Gaol, the NSW Police Academy and sewage treatment facilities.





## Marulan

Marulan is located on the Hume Highway, approximately 160 kilometres from Sydney and 31 kilometres north of Goulburn. Although primarily residential in character, Marulan has provided the function of a highway service centre.

Marulan provides local community services and utilities, including a primary school, shops, a hotel, a police station, and bushfire and medical services. Key employment activities include several existing and proposed industrial activities, such as the Lynwood Quarry and the Marulan Waste Management Facility, and a number of industries located within the industrial zone. Marulan provides an important employment base for the local government area and will be of key importance to the future growth of Goulburn Mulwaree particularly within the mining and industry sectors.

## Tarago

Tarago is located south of Lake Bathurst, approximately 40 kilometres south of Goulburn and 67 kilometres north-east of Canberra. The former Woodlawn Mine, located west of Tarago, is now owned by Collex Waste Management for use as a landfill and bioreactor site. Once fully operational, this facility will employ 25 people.

Tarago is experiencing growth pressure similar to that experienced in the nearby town of Bungendore. As capacity is reached in Canberra and to a lesser extent in Queanbeyan, Tarago presents an opportunity for residential development with strong lifestyle opportunities and employment links to Canberra.

## Economic base

The Goulburn Mulwaree local government area is a prosperous inland region with a rich history and growth based on agriculture and commerce. Goulburn Mulwaree and its surrounding areas have developed an increasingly varied economic base underpinned by specialist farming, service industries, retailing and tourism. Goulburn Mulwaree will continue to grow in the medium to long term as its location becomes increasingly important as a regional centre within the Sydney to Canberra Corridor.

Retail and business services are concentrated within the Goulburn town centre. A network of smaller commercial operations and services support the surrounding towns and villages.

Retail trade is the single largest employer within Goulburn Mulwaree, employing over 16.9 percent of Goulburn Mulwaree workers, with individual figures for Goulburn at 17.8 per cent and Marulan at 23.2 per cent. The health and community sector is the second largest employer within Goulburn Mulwaree (13.4 per cent), with a majority of this employment occurring within Goulburn (14.2 per cent).

Manufacturing is the third largest employment sector within Goulburn Mulwaree, employing approximately 9 per cent of workers. This is expected to increase to 2020. The supply of adequate employment land is a key issue that has been addressed by the Strategy in ensuring demands for light and heavy industry types are accommodated for. The availability of land, coupled with access to key road and rail freight facilities, provides the framework for attracting new employment.

Other key industries across Goulburn Mulwaree include personal services (7.8 per cent), wholesale trade (6.6 per cent), education (6.2 per cent) and property and business (6.1 per cent). Mining and transport storage are identified as key industries for Marulan each employing 12.4 per cent of the Marulan workforce.



Agriculture and forestry account for 5.6 per cent of total employment across Goulburn Mulwaree (Hassall, 2006). Large pastoral operations, which are used primarily for sheep grazing, form the basis of the significant fine wool production for the region. In 2001, 3,140 tonnes of wool was produced. Other agricultural industries include egg and honey production and horticulture, including stone and pome fruit (apples and pears).

Between 1996 and 2001, the wholesale, trade and government and administration sectors were among the fastest growing industries in Goulburn Mulwaree, with a growth rate of over 39.5 per cent and 33.4 per cent respectively. Agriculture and forestry grew by 18.3 per cent during this period, with much of the growth centred on Goulburn (Hassall, 2006). During this period, the mining and energy sectors (electricity, gas and power) experienced the greatest decline, falling by 54.4 per cent and 58.5 per cent respectively. Much of this decline was experienced within Goulburn (63.4 per cent for mining and 61.9 per cent for energy related employment), this trend is however expected to reverse in the short to medium term.

There is a need to balance growth with the capability and suitability of the land. This Strategy seeks to achieve integrated and more 'self-contained' communities within existing towns and villages.

### *Sustainable development and strategic planning*

The Goulburn Mulwaree Strategy provides an opportunity for the Goulburn Mulwaree Council to promote a sustainable approach to future growth in the local government area. This is important given increasing pressures within Goulburn and Marulan for development into greenfield areas.

### *Water management*

A key issue that will affect the future growth is the availability of potable water. Traditionally, river flows in the Wollondilly River have been low and this is expected to further constrain further residential growth across the local government area.

Future growth within Goulburn Mulwaree will be required to explore the need for integrated water cycle management to substitute water supply sources. Particularly in growth pressure areas to

the west and north of Goulburn and Marulan, water cycle management will be critical, and will need to demonstrate a 40 per cent reduction in water consumption in accordance with BASIX requirements.

### *Land use conflicts*

Land use conflict is a key issue facing regional NSW, particularly in relation to tensions between urban and rural lifestyle uses. Urban growth pressures lead to the encroachment of development into established intensive and non-intensive agricultural areas.

The effects of inappropriately located uses include cumulative problems associated with odour, dust, waste management and water management. The Strategy is cognisant of land uses that may cause conflict, such as intensive agriculture or offensive and hazardous uses and aims to cluster these uses to minimise the distribution of offensive/inappropriate land uses. This approach will need to be supported by appropriate environmental standards and development controls.

The Goulburn Mulwaree Local Environmental Plan will provide the zoning framework to minimise land use conflicts and will be supported by a Development Control Plan that will apply buffers for new development. Longer-term management of buffers remains a key issue, as it implies certain responsibilities for landholders to minimise conflict potential.

### *Noise*

Increases in urban growth will bring about change to the acoustic environment particularly with the further introduction of mining and industrial land uses. Community expectations for highly amenable residential environments both within urban and rural areas will however remain. Strategic land use planning provides the opportunity to manage land use conflicts arising from noise through avoiding conflicts by locating noise incompatible land uses away from each other through zoning and natural/physical buffers.

### *Waste*

The Marulan waste facility is nearing capacity. As no new landfill sites are proposed within Goulburn Mulwaree, many local government areas, including

metropolitan areas, are considering the Woodlawn waste facility at Tarago as an alternative. This facility only has consent to receive waste from specific areas of Sydney, and separate development consent is required to service alternative local government areas.

As the Woodlawn facility services a significant population base, consideration should be given preparing a regional waste strategy that addresses long-term management issues associated with the facility, including the transportation of waste, recycling and environmental management programs. Any regional approach should incorporate the Council's Waste Management Strategy, and proposals to introduce a green waste collection.

## Accommodating sustainable growth

The Strategy suggests several approaches to addressing land demands for urban, rural and agricultural purposes in the future. The approaches comprise:

- Protecting the viability of the local agricultural economy by eliminating highly productive agricultural lands from urban development.
- Conserving the landscape character and scenic quality of Goulburn Mulwaree by sensitively accommodating (or avoiding) development on ridgelines.
- Ensure proactive approach to minimise demands on potable water.
- Facilitating urban development in the areas that allow urban infrastructure services to be provided in a cost-efficient manner.
- Reserving land to facilitate the provision of key infrastructure which would be required by urban communities in the future.
- New urban areas with a sense of 'community' with key services available locally.
- Locating urban development away from areas affected by hazards, including risk of flood, fire, erosion, slip or subsidence.
- Accommodating rural residential living opportunities on less productive rural lands and in locations which would not detract from the cost-effective provision of services and utilities.

- Maintaining Goulburn as the regional centre for Goulburn Mulwaree and the Central Sector as defined in the Sydney to Canberra Corridor Strategy.
- Accommodating employment in new industrial areas within Goulburn and Marulan.
- Safeguarding important heritage and ecological assets in any land use and development decisions overall, to ensure that the development of land is carried out in as orderly and efficient manner.
- Supporting the principles of ecologically sustainable development.

Constraining growth to existing towns and villages would be possible through the future Goulburn Mulwaree Local Environmental Plan provisions, however, the following possible consequences may arise if this approach is taken:

- The constrained availability of new land may increase land prices and reduce affordability.
- Satellite towns may emerge, which would require servicing, and could adversely affect the viability and existence of existing towns and villages.
- Denser living precincts may result, which, without commensurate investment in urban services (for example, new public transport and more public open spaces), may reduce existing residential amenity.
- As a result of these and other factors, the attractiveness of existing towns and villages as high amenity rural living areas may be eroded.

These factors suggest that the community needs to continue to plan for a defined level of expansion. Infill development is unlikely to fulfil all future housing needs. Residents choosing to live in the Goulburn Mulwaree area generally seek land parcels larger than traditional metropolitan land sizes of 400+ square metres to meet their housing and lifestyle needs. This may conflict with objectives to accommodate more people in infill housing (for example, small lot, dual occupancy, villa housing).



## Community and stakeholder involvement

### *Consultation approach and program*

The Community and Stakeholder Involvement program was a major component of the overall planning approach for the Goulburn Mulwaree Strategy Plan with consultation activities integrated into each stage of the project. The Community and Stakeholder Involvement program focused on community, regulatory and Council stakeholders and communication with Goulburn Mulwaree Council.

A Community and Stakeholder Involvement Plan was developed in the initial stages of the project. The plan identified the communication objectives and protocols for community and stakeholder involvement and established a framework for undertaking community visioning activities to inform the strategic planning process for the Goulburn Mulwaree Strategy Plan.

The aim of the Community and Stakeholder Involvement program was to ascertain the values, visions, ideas and requirements of project stakeholders during the preparation of the Strategy. Primarily, the community and stakeholder involvement program identified the key issues which stakeholders recognised as being important and that had to be considered in the planning process when developing the Strategy. Consultation with stakeholders including the community occurred throughout the project to ensure locally relevant issues were addressed in the Strategy. The Plan established a framework for participation and communication with project stakeholders. It included the needs of information dissemination, government discussion, community participation and issues management.

The objective of the Plan was to:

- Create stakeholder and community awareness of the Goulburn Mulwaree Strategy Plan.
- Create working relationships with project stakeholders, including the community by encouraging widespread involvement and understanding of project outcomes.
- Identify and understand stakeholder and community issues, values and needs.
- Build the Council's capacity to undertake community consultation activities for this and future projects.
- Consider and utilise stakeholder and community values, visions, priorities and ideas as the basis for developing the strategic plans.

Implementing a coordinated and consistent approach to project communication helped to ensure the community and stakeholder involvement process was robust and transparent. As a result the strategic plan making process has been strengthened through community involvement which allowed community values to be aligned with strategic priorities.

### *Consultation outcomes*

The project achieved the consultation outcomes through many key stages producing a wide range of visions, ideas, values and key issues which needed to be addressed in the Strategy to ensure that it was locally relevant.

Key consultation outcomes from the community and stakeholder involvement process included the identification of a broad range of issues relating to the whole local government area. Below identifies in brief the broad spectrum of issues raised by the community during consultations:

- accommodating rural 'lifestyle' lots
- development standards for rural dwellings
- reduce fragmentation of rural land
- amalgamation of rural land
- rural decline/decreased primary production
- absentee landowners



- high land valuation
- reduce ad hoc subdivision by creating designated areas for rural residential development
- natural resource management
- bushfire preparedness
- controlled infill development
- new development sympathetic with heritage
- buffer zones between conflicting land
- plan for recycling water uses
- decline in services
- further develop Goulburn as a regional centre
- preferred industrial development-transport distribution centres
- improved youth services
- protection of prime agricultural land
- threat to rural attractiveness
- weed management
- control ribbon development and sprawl
- limit number of bores in rural residential areas
- retain rural character of towns and villages
- loss of concessional lots

### *Community visioning*

Visioning was an approach taken to manage community involvement for the project. Visioning was a tool used to encourage a holistic and integrated approach to planning and policy-making. The first series of workshops held in June 2005 were visioning workshops that aimed to bring the community together to explore its sense of place, identity and purpose. The process initiated an open dialogue with local people to identify community values and aspirations for the future, to reflect on emerging trends and issues, to envision future directions and develop actions to realise the desired vision.

The visioning process was used to actively involve the local community in the planning process to identify values, visions and actions to provide direction to the



Strategy. The visioning process focused on big picture goals and visions rather than immediate problems and needs. It was structured as an energetic, hands-on process oriented towards future action and was an empowering process for widespread community involvement.

## Planning for growth

In the first series of workshops attendees were asked to identify how their community would change in the future and how they would see their community in the next 10 to 15 years. The community had identified a series of growth scenarios for Goulburn Mulwaree on a variety of key local issues.

Key issues likely to affect the future growth and development of the local government area to 2020 would include:

- Increased ageing population in Goulburn and surrounding areas and more facilities and services need to be established to meet the increasing demands.
- Water shortages to impact on agricultural productivity and rate of development.
- Goulburn's role as a regional centre for Goulburn Mulwaree and the Upper Lachlan must be supported by ensuring social support systems such as health care, education, commercial and retail services are adequate.
- Influx of people seeking a lifestyle change must be accommodated for by providing designated areas for rural residential development
- Appropriate areas must be designated to ensure the sustainable growth in Towns and villages.

- Avoid fragmentation of productive agricultural land.
- Land values in the area will increased pressure for farmers to sell.
- The rural community will be lost due to the fragmentation of rural land
- Employment opportunities are required to retain young people in the area
- Upgrades to infrastructure services to encourage businesses to locate here.
- Increase the public transport network to Goulburn and surrounding villages and to improve the quality of local roads
- Protection of the natural environment and retain Goulburn Mulwaree's character.
- Sydney to Canberra Corridor strategy will influence the area due to increased access to the area and more people will buy land in the area.
- Tourism (including (farm-stay accommodation) to be further promoted.
- Need to plan for higher demands on infrastructure due to the increased population.

### *So how do we grow – a community perspective*

A number of key approaches were offered during the consultations as to the preferred approach towns and villages should grow to 2020. These issues were obtained in a variety of ways such as the workshops, feedback forms, focus group sessions, information line and email through other consultation activities. There was no general consensus on any one particular direction.

The following briefly defines possible growth directions for localities across the local government area.

#### *Goulburn*

A range of minimum lot sizes for residential land use within Goulburn were identified by the community with the preference ranging between 700m<sup>2</sup> and 1000m<sup>2</sup>. The community felt that the current lot sizes were too narrow and needed to be widened and backyard access should be considered for all new

residential developments. Street width and off-street parking requirements were items that the community felt needed careful attention. It was identified that newer residential areas required more open space areas including parks as these areas currently lack open space areas.

Lower density development should be located on the fringe of the City and medium density development should be located within the town centre with density decreasing in proportion to the distance from the town centre. A maximum height limit of 3 to 4 storeys should be imposed for all development in Goulburn.

A variety of employment opportunities should be encouraged in Goulburn including knowledge jobs, skilled jobs and unskilled jobs with a particular focus to encourage more white collar industry and female oriented jobs

Industrial and employment lands in Goulburn should be located adjacent to the highway and away from residential areas. Industrial areas should have a separate access areas so traffic associated with industrial uses does not travel through residential areas. Buffer zones should be imposed between industrial and residential land uses to reduce any potential land use conflicts. Suggestions for locations for industrial land uses include; north of the Highway, the railway corridor and Murray's Flat.

Services within Goulburn should be extended as there is a lack of entertainment, health, aged care and youth facilities. There is also a demand for an increased variety of retail options such as a department store and bulky goods stores. It was recognised that the health and viability of the town centre was dependant on current rail services increasing to help support the town centre.

*"...we want to retain the rural character of our town"*

Improvements to utility services such as underground electricity and water storage. Increasing the minimum requirements for mandatory water tank storage should be considered to help accommodate for the water shortages. Public transport services to Goulburn need to be improved with increased train services to the city and more public transport options linking the surrounding villages such as community buses.

### *Marulan*

Residential development should be directed towards the north west of the village with potential areas including behind Collins Street and Loseby Avenue. Including a need for larger residential lots to be developed outside of the current village boundary to north of Marulan.

Suggested minimum lot sizes for Marulan include 700m<sup>2</sup> and 1000m<sup>2</sup> with the density ranging from low to medium. Wider street frontages, increased Council services to Marulan, minimum water tank requirements and diversity in houses are some residential development issues needing resolve.

Commercial development should continue to be concentrated in the centre of George Street. The narrowing of George Street, establishment of more parks and the concentration of commercial development should lead to a more active commercial centre in Marulan as well as creating a safer environment.

Industry in Marulan should be graduated with the least intrusive industrial development located closest to residential areas. Buffer zones between industrial and residential land uses should also be established to prevent land use conflicts.



The community feel that the current highway crossing is dangerous and needs to be improved.

### *Tarago*

Development of a retirement village in Tarago was considered appropriate if it consists of no more than 12-15 buildings and located on the edge of the village. Ideally, the rural character of the village is sought to be retained.

Consideration should be given to the self-sufficiency of lots, for example a 2000m<sup>2</sup> lot will not be self-sufficient as there is not enough room for water and sewerage facilities. The consolidation of lots within the village to allow the lots to be large enough to be self-sufficient should be encouraged.

Density should be determined by the type of sewerage system and water system that can be provided for each lot. Residents would not like to see more than 4 dwellings per hectare.

It is not necessary to have an industrial area in Tarago as Bungendore is only 20 minutes away however light commercial uses are considered appropriate as these uses would not impact on the character of the village.

### *Bungonia*

The character of Bungonia should be retained and future policies will ensure that any new developments are sympathetic to the heritage character of the village such as fencing, colour schemes and facades.

Potential minimum lot sizes suggested included maintaining the 2000m<sup>2</sup> lots in the village centre and establishing a minimum requirement of 4,000m<sup>2</sup> for the fringes of the village including Goderich Street, Lookdown Street and Eliza Campion Street.

Bio-cycle type sewerage systems should be encouraged for all new developments in Bungonia. Flood prone land surrounding the village should be avoided for any subdivision.

### *Tallong*

Low density should be maintained in Tallong. Self supporting infrastructure should be mandatory and new developments should be encouraged near a bus route.

New development should be restricted to areas within the existing town boundaries with no extension of the existing village zoning. Commercial developments should be restricted to retail and essential services such as the Rural Fire service.

Industrial development in Tallong should be restricted to small scale industrial enterprises such as home industries, tourism or services relating to residents such as chemists and rural supplies.

### *Consulting with government*

In developing the research framework for the social, environmental and economic issues relevant to Goulburn Mulwaree, key Government agencies and stakeholders were invited to a consultative workshop in June 2005. Government agencies and stakeholders were also asked to provide further comments on issues and information to be addressed in the development of the strategy and draft local environmental plan.

### *Growth opportunities*

The factors influencing growth and land demands vary. These factors relate to environmental factors including economic social, government investment and other factors.

Growth and activity is considered as the interaction between regional and local factors that influence and ultimately determine economic development and population growth outcomes. Both factors need to be considered when assessing future land supply and demand.

Based on an assessment of regional and local factors, several local features were identified as having potential to attract population growth and economic success. These were based on the following approaches being implemented:

- Consolidating the higher education opportunities in the Region, to retain qualified persons and those aged twenty and over. This may be difficult as the Universities at Canberra and Sydney are easily accessible and highly diverse. Nonetheless, it is noted that the TAFE in Goulburn has been taking some positive steps towards providing a virtual campus such that further educational opportunities are available.

- Improving and diversifying the services available in the Region, including the 'café style services' for the growing diversity in population. While the Region generally has improved in these areas in recent past, further improvements are required if the area is to continue to attract and maintain the urban 'lifestyle' such as Berry, Bowral and Moss Vale which have the effect of attracting younger residents and visitors.
- Ensuring that information and communication infrastructure is of high quality, particularly with regard to mobile and broadband coverage.
- Ensuring that the hard infrastructure (such as water, sewage, drainage and roads) is capable of supporting any forecast growth and that any augmentation is capable of servicing and supporting industry.
- Ensuring that population and employment growth can be catered for in terms of land that is 'ready' for occupation such that urban services can be efficiently and fully utilised.

## Environmental themes

### *Flora and fauna*

The Goulburn Mulwaree local government area is fortunate in that many of its urban areas are generally free of significant or sensitive biodiversity assets. Any future development would however need to be cognisant of flora and fauna and appropriately assess any potential impact.

The distribution of native vegetation remaining within the Goulburn Mulwaree local government area closely matches the less accessible land associated with the ranges that exist in the region.

Three main ranges, orientated in a north-south direction, traverse the local government area. The eastern range is the most expansive, and incorporates the Bungonia State Conservation Area and part of the Morton National Park. Vegetation along the central range is more fragmented than the eastern range. Vegetation extends from the northern to southern limit of the local government area and incorporates the Nadgigomar Nature Reserve in the south. The western range is a more abrupt area of uplift than the central



and eastern ranges. As a result, its associated vegetation is restricted to a relatively limited area along the ridgeline.

A biodiversity strategy is proposed to be prepared in 2006 and will provide a more detailed analysis of the biodiversity assets within Goulburn Mulwaree. It is expected that the results of this strategy to be incorporated in the initial review of the Goulburn Mulwaree Strategy and Local Environmental Plan within 3- 5 years.

Much of the biodiversity values are found within the eastern range and is been proposed to be protected through the Local Environmental Plan and further safeguarded via the development control plan.

### *Geotechnical*

Geotechnical conditions have the potential to affect building foundations and ability for on-site disposal where reactive or soils with high plasticity occur. Soil contamination associated with farming and spray irrigation may need remediation in selected areas particularly where sheep-dips are known to have operated.

Areas which have undergone urban development, or are used for light industrial purposes, are at higher risk of contamination. Detailed studies are recommended in these areas.

A series of management measures have been proposed to mitigate future issues associated with adverse soil landscapes. Individual detailed site assessment would however be required as part of any environmental assessment to ensure the appropriateness of soil formations and conditions for the proposed use.

### *Flooding and drainage*

Goulburn is located at the confluence of the Wollondilly River and Mulwaree Ponds. Potential flooding from these waters would result in the inundation of adjoining lands, increasing risks to life and property.

The Sooley and Pejar Dams, located upstream of Goulburn, can only give limited protection during floods on the Wollondilly River. These dams do not provide any protection from flooding on the Mulwaree River. The areas most affected by flooding are



Eastgrove, the Braidwood Road area, and properties in the vicinity of the Marsden, Victoria Street and Kenmore Bridges over the Wollondilly River.

Other urban areas and villages within the local government area are not located near major watercourses and would not, therefore, be subject to mainstream flooding.

### *Aboriginal Heritage*

Numerous Aboriginal heritage studies and archaeological surveys have been carried out however, these studies have almost exclusively been in response to re-zoning and/or development applications. As a result, there have been very few studies conducted with a view to studying Aboriginal heritage on a broader local government area or regional scale.

In the absence of a broader study having been prepared, together with local Aboriginal Land Council's broad areas were identified as having potential archaeological deposits and development applications within these areas would need to assess whether proposal are likely to impact archaeological deposits or Aboriginal heritage items.

The likely predictive locations for Aboriginal site types included:

- Open campsites
- Scarred trees and carved trees
- Potential Archaeological Deposits (PADs)
- Burial sites
- Axe grinding grooves
- Quarry sites and procurement sites
- Contact sites

## European Heritage

The region has a rich and varied European heritage. From the earliest years of settlement this region has been important in the development of Australia. Current studies clearly indicate that there is an extensive amount of built heritage in the region. All studies reviewed seem to focus on the built heritage of the area with relatively little consideration given either to archaeological sites, or to places which might hold some historical significance but do not contain a historical building, structure or other physical remains.



The Strategy recommends that Council enhance its current understanding and knowledge of heritage, and consider preparing a consolidated heritage strategy that would bring together existing information and knowledge beyond the built environment and provide direction to managing European heritage.

## Urban Infrastructure

The Strategy examined provision and capacity of key infrastructures and existing constraints and opportunities with particular reference to ensuring future growth needs are satisfactorily met.

### Groundwater

Based on a hydrogeological assessment of the local government area, the following areas were identified for special protection to ensure that water quality and quantity are not compromised by future land use activities:

- the Kingsdale Limestone area
- the catchment for the Sooley Dam
- the Lake Bathurst internal drainage basin.

Future growth and development within Goulburn Mulwaree should ensure that minimal risks are posed to groundwater resources. Land uses that have the potential to impact groundwater resources such as service stations, including agricultural operations, will be assessed in detail to ensure potential groundwater resources are not compromised.

### Water supply

Much of the Goulburn Mulwaree local government area is located in a rain shadow, with average annual rainfalls of 650 millimetres. The major water storages that service Goulburn Mulwaree are the Sooley and Pejar Dams, and Rossi Weir. These facilities are, however, primarily used to supply water to Goulburn.

Water quality from the Rossi Weir or Sooley Dam can vary substantially, depending on local weather conditions. Manganese levels have previously been a problem in the raw water, initially at Marulan, and recently also at the Rossi Weir and the Sooley Dam.

### Goulburn Water Treatment Plant capacity

The Goulburn Water Treatment Plant was established in 1952. Raw water is pumped from the Rossi Weir for treatment, then distribution for town use. The Goulburn Water Treatment Plant is currently undergoing an upgrade to improve safety and treatment processes

Due to below average rainfall over the past five years, Council is currently establishing emergency water supply measures, including the transfer of up to six megalitres per day of water from the Wollondilly River at Copford, to the Sooley Dam, and the extraction of groundwater at 5 megalitres per day from the Kingsdale borefield transfer system.

Marulan is the only other urban area to be supplied with town water and is extracted from the Wollondilly River.

Villages within the Goulburn-Mulwaree local government area are currently too small to be economically served by water and sewerage services.

The Goulburn Mulwaree Council has submitted a Water Smart Australia application for funds under the Goulburn Mulwaree Sustainable Cities Project. This Project involves the construction of a water recycling scheme for Goulburn, whereby recycled water is to be used to recharge an aquifer below Bumana Creek, which is used for agricultural purposes and as an emergency potable water source.

### *Accommodating future growth*

Residential and employment development to 2020 primarily in Goulburn and Marulan will need to be supported by a reliable and secure water supply system. Villages outside of these areas are unlikely to be serviced by reticulated water and sewer systems, as such systems would not be cost-effective for Council to produce and maintain.

Feasibility studies are currently being prepared for reticulated sewer facilities for Tarago. Should these facilities proceed, this will encourage future growth of this town and enable Tarago to build on longer-term population and employment opportunities however may erode some of the rural characteristic of the village.

Future development will be required to demonstrate water management approaches as part of the overall design concept to ensure water use is appropriately managed, with reduced reliance on potable water.

### *Electricity*

Country Energy currently provides electricity to most of Goulburn Mulwaree. Much of the electricity infrastructure is located in the north of the local government area, which reflects its passage to/from the Sydney metropolitan area and the bulk of the demand patterns.

There is an identified need to upgrade the electricity infrastructure to reduce the number of blackouts and accommodate future growth of the local government



area. The provision of secure electricity flows is critical, as this Strategy encourages an expansion of the existing industry base within Goulburn, which would increase future demands for energy.

The Council has advised that \$15 million worth of electricity upgrades are planned across the Goulburn Mulwaree local government area. This includes upgrades to many of the currently run down and ageing infrastructure facilities and improvements to the security of supply.

### *Gas*

Currently, the Sydney to Moomba natural gas pipeline runs north of Goulburn, through Marulan and on to Sydney. It supplies natural gas to towns within the Goulburn Mulwaree local government area.

Agility Gas plans to upgrade the existing gas infrastructure, however there is no need or demand to increase pressurisation of existing pipelines. There is spare capacity within the existing lines, which negates any current need to increase supply.

Approximately 99 per cent of gas supplied to Marulan is used by the Blue Circle Southern Cement Plant, with the remaining gas utilised by residential areas.

There is no future plan to supply natural gas to Tarago or other smaller villages across the Goulburn Mulwaree local government area.

### *Telecommunications*

Mobile phone towers are currently located along the Hume Highway, which runs through Goulburn Mulwaree. New towers are proposed at Tarago and Marulan to increase mobile coverage. Currently broadband internet is available at Marulan and Goulburn.

The local government area has access to CDMA technology which allows for multiple frequencies to be used simultaneously and has led to increased mobile phone coverage across rural areas.

All telecommunication exchanges within the local government area are fibre optic exchanges, and ISDN technology is available at most exchanges.

Augmentation of the existing mobile phone coverage is required primarily for rural and isolated areas. Villages will continue to lose potential business opportunities until telecommunication infrastructure is upgraded to national standards.

Provision should also be made for access to broadband internet across the local government area, particularly in the larger towns like Goulburn and Marulan. This utility would attract greater opportunities for home business and telecommuting to major commerce and employment centres, including Sydney and Canberra.

### *Transport networks and services*

The Goulburn Mulwaree Council road network consists of State and regional roads that fall under the jurisdiction of the NSW Roads and Traffic Authority, and local roads maintained and funded by the

Goulburn Mulwaree Council. The local (urban and rural) network within Goulburn Mulwaree is in excess of 1,250 kilometres. At present, more than 70 per cent of local roads within the local government area are sealed.

Based on consultations and assessment of the current road and transport network, a number of actions have been identified that would need to be considered as part of the implementation of this Strategy. Three key elements include:

- Investigate existing road capacity issues in light of future growth.
- Expand public transport services to the outer villages.
- Promote cost-effective public transport options.

The available public transport services in Goulburn include local bus, long distance coach, school bus and rail services.

CountryLink operates two rail services daily between Canberra and Sydney, and Melbourne and Sydney, stopping at Goulburn. There is also one rail service daily between Sydney and Canberra that stops at Tarago.

Outside of Goulburn which is generally well serviced by way of traffic and transport infrastructure, the remainder of the local government area is sparsely spread across a large geographic area. This makes the provision of an efficient and reliable public transport network inefficient. Goulburn Mulwaree has a high reliance on the use of the private vehicle, particularly for the journey to work (approximately 85 per cent of workers travel to work by car). It is likely that the use of the private car for other trip purposes is more than 80 per cent.

In light of future projected growth rates, it is likely that public transport for villages will continue to be limited to school bus services.

Discussions with Council Officers indicated that previous public transport services had failed because the community did not perceive them as long-term services and relied on family and friends to provide transport requirements. The cost of using public transport was also advised as a hindrance, in that



the cost of a one-way trip between Crookwell and Goulburn is as high as \$14, which does not make this service feasible for certain passengers as a longer-term method of transport.

## *Sewerage*

The only two sewered towns within the local government area are Goulburn and Marulan.

The Goulburn Sewage Scheme services approximately 98 per cent of the developed urban area however approximately 150 septic tanks remain in service. The reticulation system covers an area of approximately 1,850 hectares, comprising 7,600 residential connections and 610 non-residential connections. The reticulation system includes five pumping stations, 194 kilometres of reticulation pipework, and 35 kilometres of trunk mains. The system experiences significant infiltration and wet weather overflows, due to its age and associated defects.

Excess flows to the Goulburn sewage treatment plant are discharged to the Wollondilly River, while the effluent produced at the Plant is irrigated onto Council farms, as it does not meet current standards for river discharge.

The current quality of the effluent produced at the Goulburn Sewage Treatment Plant is inadequate for re-use with the current treatment process. An upgrade of the Plant will be required to sustainably support any further growth within Goulburn. In addition, treating the effluent to a higher quality will enable the effluent to be used for other purposes, such as replacing the raw water used for environmental flows, or establishing a water recycling scheme.

The proximity of the irrigation areas to the Wollondilly River presents the opportunity for effluent to run-off and leach into the River. In order to avoid further deterioration of the current health of the Wollondilly River, ongoing monitoring of the River is required, particularly in light of additional development pressure that is likely to be experienced within the Wollondilly River catchment.

The Council has developed a Nutrient Management Plan for the effluent irrigation areas. This plan identifies appropriate pasture types and requires regular cutting for removal and sale to external markets.

The Marulan Sewage Treatment Plant produces 25-26 megalitres per year of effluent, which is used for irrigation of 30 hectares of farmland.

Currently, the other villages within Goulburn Mulwaree are too small to be economically serviced by a reticulated sewerage system. It is assumed that the current sewage management arrangement is sufficient to meet the demands of these villages.

## *Waste management*

Council's existing landfill sites at Goulburn and Marulan are currently unlined, and no monitoring of possible leaching or contamination of watertables is undertaken. Currently, there are no plans to close and remediate existing landfill sites when they reach their capacity.

A key recommendation of the Strategy is to commence assessment of environmental impacts associated with the existing Goulburn and Marulan landfill sites including decommissioning strategy.

The Goulburn Mulwaree Council has implemented domestic recycling programs in an attempt to encourage residents to recycle and minimise waste generated at the individual household level. Recyclable wastes are collected, hand-sorted and sold to recycling companies, including Smorgan Steel and Visy.

The Council also has a waste transfer facility at Tarago, which processes approximately 60 cubic metres of waste per week and operates a commercial waste collection service for businesses in Goulburn. A hazardous waste collection program is currently in operation, and is partially funded by the Sydney Catchment Authority.

The Woodlawn Bioreactor located west of Tarago has the potential to receive up to 400,000 tonnes of waste per annum, and produce approximately 20 megawatts of green electricity as a by-product. As the Woodlawn facility will continue to operate to 2020 and beyond, consideration should be given to preparing a regional waste strategy that addresses long-term management issues associated with waste disposal at the facility.

## Rural planning issues

### *Agricultural industry in Goulburn Mulwaree*

The major agricultural industries within Goulburn Mulwaree are pastoral based, including wool production, fat lambs and cattle grazing. Based on the land capability system for classifying soils, 95 per cent of land in the local government area is suitable for grazing, with less than one per cent of land available for cultivation.

External factors affecting the agriculture sector include commodity markets, the provision of infrastructure, access to labour and drought. All of these external factors have placed significant pressure on the agriculture sector.

The Local Plan Template specifies objectives for agricultural land in relation to its protection, maintenance and the avoidance of fragmentation.

Agricultural, forestry and fishery industries in the Goulburn Mulwaree local government area are an important workforce employer. Figures provided by the Census of Population and Housing indicate that seven percent of the workforce are employed by these industries. Outside of Goulburn City, the proportion of the workforce employed in agricultural, forestry and fishery industries in the Goulburn Mulwaree local government area rises to 20 percent (ABS 2001).

Aside from the traditional agricultural industries within the Goulburn Mulwaree local government area, several niche industries are of growing importance to the rural economies of the region. These enterprises include lavender production (in particular, at Lake Bathurst and Mt Wayo) berries, grapes, olives and a growing poultry industry (Capital Region Area Consultative Committee 2006).

A majority of farm businesses operate on more than one allotment, since the average farm size is much greater than the general distribution of lot sizes. In 2001, the average size of agricultural holdings in the Goulburn Mulwaree stood at 577 hectares, while only one percent of allotments were more than 500 hectares in size.



There is also a large differential in the average size of agricultural holdings between the former Goulburn and Mulwaree Shires, with the average holding size being approximately 243 hectares greater in the former Mulwaree Shire than for Goulburn.

### *Pest and weed control*

The control of feral animals and weeds is an important rural issue. In most cases, pest and weed control require an integrated approach across all landholders within a region. Weeds of National Significance area also found in the Goulburn Mulwaree local government area and require especial management measures to minimise opportunity for spread. The problem of serrated tussock however is an ongoing concern.

These weeds have a variety of adverse effects on agricultural production in the region, providing a habitat for feral animals, smothering crops and pastures, preventing stock from grazing affected areas, changing the nutrient status of local waterways and reducing water temperature.

Serrated tussock management in the Goulburn Mulwaree local government area is an on-farm and regional issue. The significant impacts on farm viability and the speed of invasion are threats to what has traditionally been profitable agricultural land used for grazing. The primary impact of serrated tussock is to reduce the productive capacity of a farm. Being unpalatable, serrated tussock reduces the area of productive pasture and reduces earning capacity and increases costs of production. The impact of inadequate control can lead to an under investment in control and a consequential spread of the weed.



Serrated tussock is a community issue and is the responsibility of individual landholders. Council also plays a role in that it has the ability to assist cooperative landholders and to force non-cooperative landholders to control the weed.

Selected areas of Crown land also infested with serrated tussock. Poor management of these areas in the past has been shown to lead to the spread of tussock into adjacent areas.

### *Structural change in the agricultural sector*

Major structural changes to the NSW rural sector have been occurring. Alternative methods to promote agriculture and maintain ecologically sustainable development could include:

To ensure that agricultural lands are protected and to minimise fragmentation of agricultural land, the Department of Primary Industries recommend that housing density in rural areas be controlled. Rural dwellings on rural allotments, such as those located on the former concessional allotments, can contribute to farm fragmentation and increase the incidence of land use conflict. The Department of Primary Industries therefore does not support the continuance of concessional allotments in the Goulburn Mulwaree local government area. This policy stance has been reflected in the Department of Planning Local Plan Template.

Houses on smaller rural lots do provide the opportunity to satisfy demand for small farms, the introduction of economic activity and generation transfer within farming families. If well planned and located away from the prime agricultural land, smaller lots and/or part-time farming can be compatible with rural land use.

The removal of concessional lots will have some implications for intergenerational farm transfers. Intergeneration farm transfers have been an important process whereby the ownership of the farming business is shifted to the younger generation. It is important to the ongoing sustainability of the agricultural sector that this process remain a viable option.

It is important that appropriate planning be undertaken so that future subdivision adjacent to viable farm land does not conflict with the activities of those farms. This typically requires segregation of agricultural land uses and rural residential zones. Consideration of the impact of residential occupation on the adjoining agricultural use will be required at the zoning and development application stage.

Apart from segregation, the use of development conditions on rural lifestyle residents can help to raise awareness in advance, and buffer zones and setbacks for dwellings are another means of dealing with the issue. It is important to plan the location of rural residential blocks to ensure they are big enough to incorporate adequate buffers.

Overall, the system adopted for planning in rural areas needs to rely on a set of broad, outcome orientated principles. These principles include:

- the avoidance of conflict between rural land uses and therefore landholders;
- reducing the impact of additional service provision responsibilities for local government; and
- encouraging sustainability and protection for the environment.

## Growth targets and strategy

Based on investigations of environmental constraints, land capability, demand, and community values, several key strategies were identified to accommodate urban and rural growth within the Goulburn Mulwaree local government area. These strategies are shown following:

STRATEGY	1	Urban development should be facilitated primarily in areas already zoned for that purpose. This includes all land within Goulburn and existing village boundaries including vacant and developed areas.
STRATEGY	2	Employment areas capable of supporting an expanding population base and reinforcing Goulburn as a regional economy in light of its locational attributes within the Sydney to Canberra Corridor.
STRATEGY	3	Supporting rural and agricultural industry and lifestyles including provisions for Large Lot Residential living should be focused around the existing City and Village zones. The future use of rural lands will seek to balance agricultural requirements, environmental constraints and minimise potential for land use conflicts and inappropriate fragmentation.
STRATEGY	4	Promotion of employment lands within Goulburn City, Marulan and Tarago.
STRATEGY	5	Reinforcing Main street commercial activity for Tarago and Marulan via development control provisions.
STRATEGY	6	Future planning associated with key sites across the local government area including the residential and employment lands will influence the rate and compositions of growth.
STRATEGY	7	Reinforce role of Goulburn as the centre for population and employment growth.
STRATEGY	8	Broaden the growth base for residential and employment land uses across towns and villages and promote rural living and lifestyle opportunities.

The challenges identified above define the key land uses issues stemming from environmental, social and economic pressures.

### *Purpose of implementing a growth strategy*

The purpose of the Strategy is to identify environmental, social and economic opportunities and constraints and weigh these against land demand and supply pressures for the Goulburn Mulwaree local government area to 2020. The Strategy considers a variety of options which have been informed by community feedback. These include:

- Provide strategic planning direction.
- Provide a decision making tool based on clarity, certainty and accurate data.
- Provide Council greater independence in local planning.
- Ensure Council is responsive to change and accountable to the local community.
- Determine the optimal location for development
- Achieve infrastructure certainty.
- Achieve more livable communities.

In order to implement and achieve well-located new development areas, the following principles have been considered in the Strategy:

- *Assessment of land suitability* – based on an assessment of all existing and potential land uses.
- *Minimise land use conflicts* – locating growth which minimises conflicts that would affect the current and future viability of other land uses, such as mining, agriculture, industry, forestry and tourism.
- *Impacts on sustainable agriculture* – locate development areas where this will minimise increases in agricultural land values or incrementally reduce the lot size of prime agricultural lands.
- *Land capability* – locate development areas on land generally free of hazards such as flooding, contamination, erosion, subsidence, or land slip. Avoid areas susceptible to salinity, such as land with a high water table, or land subject to waterlogging.
- *Access to water resources* – consider adequacy of water supply and locate large lot residential development where on-site effluent disposal would not lead to pollution of waterways or degradation of soil and vegetation.
- *Biodiversity* – locate development areas where they would not endanger threatened species or critical habitat and minimise modification to natural ecosystems, habitat loss and fragmentation.
- *Create livable communities* – locate residential development where people want to live including convenient access to facilities and services having



regard to the existing settlement pattern, efficient service provision, road access and the protection of cultural and rural heritage

- *Existing infrastructure* – locate development areas which complement the capacity of the existing road network, and the ease with which utility services can be provided.
- *Community wellbeing* – locate development areas near social infrastructure.

### *Populating Goulburn Mulwaree*

With the successful promotion of Goulburn as regionally significant centre within the Sydney to Canberra Corridor together with local employment expansion, the population of Goulburn Mulwaree would be capable of reaching 32,000 residents by 2020.

This represents a total growth target of 5,600 persons at an average annual growth rate of 1.5 percent. Forecasts have been based on conservative estimates expectation that the relative affordability within the Goulburn Mulwaree local government area remaining.

Together with housing affordability, growth within Goulburn Mulwaree will generally be achievable where employment opportunities continue to be realised together with the provision of appropriate services and infrastructure to support a growing population base.

Supply of water to service future residential and employment land uses will continue to play a key consideration particularly in the short to medium term as investment decisions are made. Direction must be provided toward informing and instructing the community of available alternatives and serviceability of future demands.

Council, together with supporting agencies have a primary role in providing the most appropriate environment and infrastructure for social and economic development including facilitating the delivery of services such as education and health and enhanced lifestyle factors such as cultural and recreational facilities.

The impact that population change will have on towns and villages needs to be identified. Community consultation undertaken as part of the Strategy preparation has shown that the desire for further growth is not shared by all. Future growth therefore

must be sensitively planned to ensure a sensible and balanced approach eventuates and values existing assets across the local government area.

## Growth areas

### *Urban Areas*

The Strategy provides a basis for identifying options for Goulburn Mulwaree Council to meet long term urban and rural growth needs. Goulburn

### *Goulburn*

Goulburn will remain the primary living and employment centre for Goulburn Mulwaree. Mary's Mount will provide the primary source of residential land to accommodate the future growth of Goulburn to 2020. Areas west and south west of Goulburn also present the potential to accommodate large lot residential development and provide an alternative residential choice to Mary's Mount.

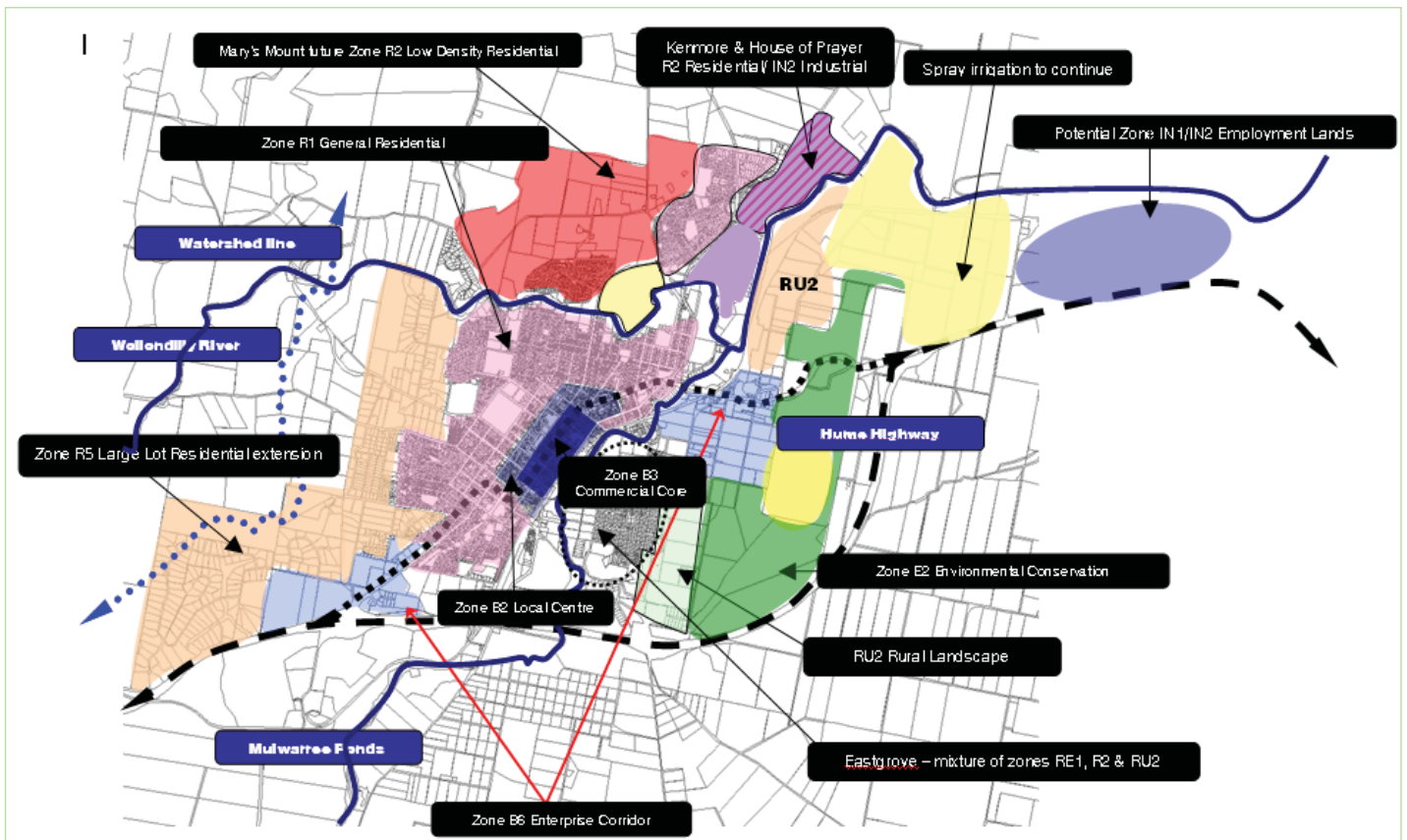
The balance of Goulburn is defined by a variety of land use zones including residential, commercial, recreational, industrial and land that is designated for infrastructure purposes in accordance with the Local Plan Template.

### *Mary's Mount*

Mary's Mount provides the most appropriate direction for expansion of the existing City footprint and is recommended for residential zoning to accommodate for future residential needs of Goulburn.

Mary's Mount is currently zoned 1(b) Rural Investigation Zone under Goulburn Local Environment Plan 1990. This area provides a logical direction to enable future expansion of Goulburn and will provide room for growth to 2020 and beyond. Environmental assessment undertaken as part of a 2003 local environment study reported that the environmental constraints identified within Mary's Mount would not preclude development for the purposes of low density residential development.

Servicing of the Mary's Mount development area would be staged in line with incoming development to avoid premature construction of utilities and services.



## West Goulburn

Areas to accommodate large lot residential development along the western front of Goulburn are recommended to enable an alternative residential product and reinforce a transition in land uses from urban to rural.

The Strategy recommends the following minimum lot sizes for West Goulburn:

- 2,000 square metres for allotments comprising water and sewer
- 10 hectares for allotments without water and sewer.

## Commercial and Employment

Council is currently experiencing pressure within Goulburn and Marulan for additional employment land due to good access to rail and road infrastructure. The Strategy focuses on Goulburn continuing to be the commercial and administrative centre for Goulburn Mulwaree.

Commercial land uses would be encouraged within the central core of Goulburn defined as the area bounded by Bradley Street, Bourke Street, Addison Street, Glebe Street and Sloane Street.

Future employment areas would require direct access to the Hume Highway to promote efficient ingress and egress and maximise visual exposure.

Providing adequate separation from sensitive land uses is also required to minimise potential for land use conflict and enable extended hours of operations for freight and distribution facilities. Employment land uses within Goulburn are likely to be Zones IN1 General Industrial and IN2 Light Industrial, B6 Enterprise Corridor and potentially B7 Business Parks.

Employment land uses require access to core utilities including connection to water supply, energy and sewerage systems. Providing access to these utilities is integral to encouraging future investment in Goulburn.

Several sites within Goulburn were considered for industrial purposes included Murrays Flat, areas along Windellama Road and areas south-east of the eastern

intersection of the Old Hume Highway and current Highway. Each site was tested for its appropriateness and with respect to environmental constraints, access and integration with the broader footprint for Goulburn.

Murrays Flat is recommended for future opportunities for employment uses including light and general industry and business park opportunities.

Murrays Flat provides an ideal location for future employment opportunities including access to road and rail infrastructure and relatively unconstrained land. Further, this location will provide adequate separation from sensitive land uses and would not adversely impact on the amenity or historic character of established residential areas within Goulburn.

Given the strategic position of Murrays Flat on the main approach into Goulburn City, any development would need to be supported by a detailed development control plan that would promote a high quality development outcome, efficient subdivision layout and attractive built form and façade to the Hume Highway.

A detailed local environmental study would be required to assess the environmental capacity of Murrays Flat to accommodate proposed land uses.



## Marulan

Marulan will continue to operate as a key town servicing surrounding rural areas and villages. Based on a detailed assessment of Marulan and its function as a rural centre within Goulburn Mulwaree, the Strategy proposes to reinforce the status of Marulan and support modest growth. The strategy also seeks to formalise existing and future heavy industry west of Marulan and in south Marulan.

The existing Village zone is proposed to be amended to Zone R1 General Residential which will enable a variety of residential densities to be accommodated. Some extension of the existing Village to the north is proposed to enable growth of the town. This area is proposed to be Zoned R1 General Residential to reflect the range of housing types that may be expected.

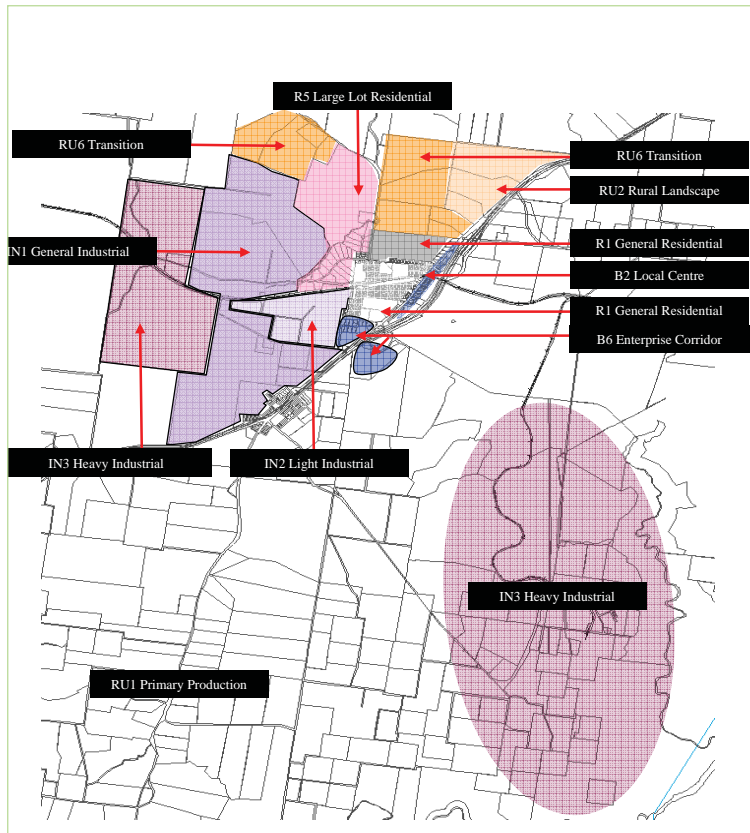
Key expansion areas have been identified for Marulan that aims to retain an appropriate spatial layout to enable industrial and sensitive land uses to coexist. An RU6 Transition Zone is proposed north of Bentley Park to provide the necessary buffer from industrial to residential land uses and protect the town from land use conflicts and inappropriate environmental impacts.

Although Marulan has capacity for growth, the existing Village would enable some capacity absorption through infill development. This is limited by existing utilities, particularly reticulated water supply and sewer services.

The Strategy promotes heavy industrial land uses at west and south Marulan to support existing mining, extractive industries and other forms of offensive and hazardous industries including fireworks manufacturing.

Population growth within and around Marulan will result in increasing expectations for more reliable utilities. The provision of additional facilities and services, including recreation and aged care facilities, as well as demand for employment generating activities (eg service and light industries) will attract further growth to Marulan.





## Tarago

Tarago will be retained as a rural town servicing surrounding rural areas and villages. The function of Tarago as a rural centre would be supported through the retention of the Village zone.

The Village zone will operate pursuant to the Local Plan Template enabling a variety of land use zones including commercial, employment, recreational and mixed uses.

The key change to Tarago is the replacement of the existing industrial zone to a Large Lot Residential zone. Based on the community consultations, it was concluded that the existing land zoned industrial land would be more appropriate as low density residential uses that would not adversely affect the rural character of Tarago.

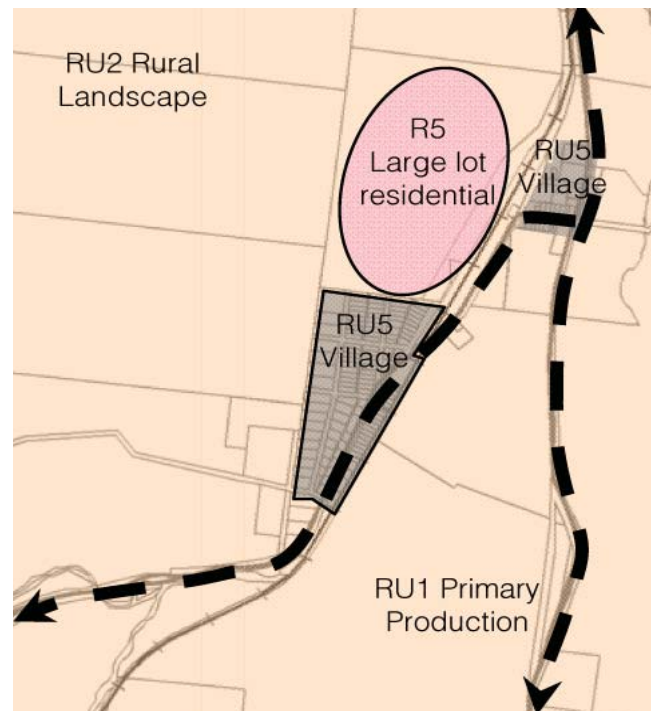
Tarago has existing growth capacity that may be absorbed through infill development within the existing village boundaries. This growth is limited by existing utilities particularly reticulated water and sewer services.

Commercial land uses would be focused to George Street. Future development would be required to retain a commercial presence and not replace existing commercial stock with residential uses. This approach will reinforce the function of the Local Centre zone and minimise pressure from alternative land uses from occupying key sites for non-commercial uses. Future development will also be guided by development control principles that would encourage future uses to incorporate sound design and be sensitive to existing uses and heritage items.

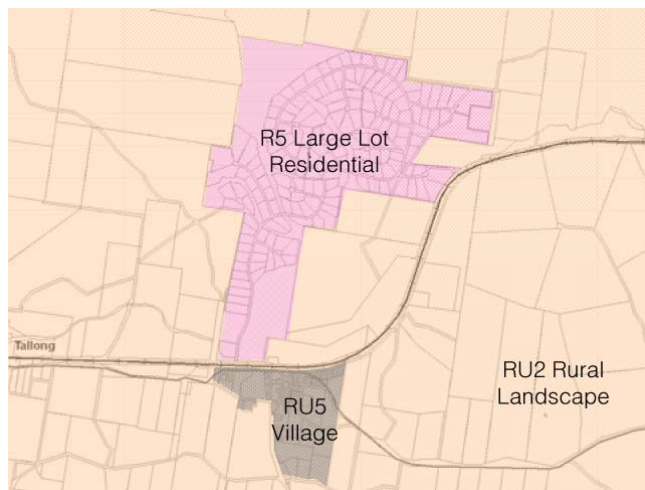
## Rural Villages

Rural villages across Goulburn Mulwaree are proposed to continue to operate as existing with minimal change. This reflects the feedback from rural communities who seek to retain rural lifestyles and minimise adverse impacts to village amenity and rural aesthetics.

This approach also reflects the limited services within rural villages. The Strategy does not envisage servicing these villages during the life of the Strategy.



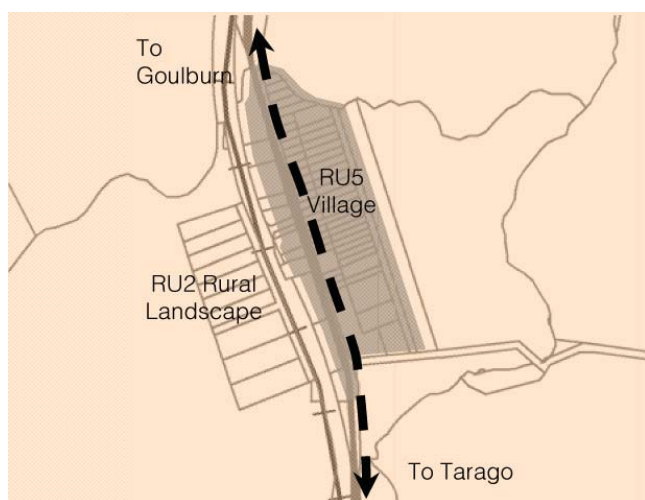




Tallong currently comprises a small Village zone south of the railway line that is proposed to remain as existing. The residential subdivision to the north of the rail line will be zoned to R5 Large Lot Residential to reflect the subdivision and development of this area and to provide an improved link to the existing Village Zone. It is expected that this approach would better integrate land uses within Tallong and better reflect exiting land uses.

### Lake Bathurst

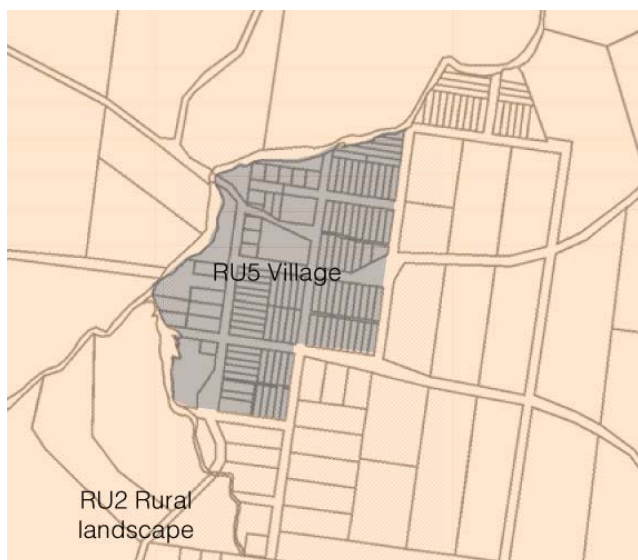
The Strategy proposes rezoning the existing Village zone west of the railway line to RU2 Rural Landscape due its severance from the primary Village area by the railway line. This would focus future activities east of the railway line which offers established land uses and direct road access. Areas east of the railway line also present capacity for infill development within the existing Village zone that will enable future land uses to be accommodated with Council consent.



Limiting the growth potential of the Village zone at Lake Bathurst will reinforce the safety of future residents as it will restrict at grade movement across the railway line.

### Bungonia

The Strategy does not propose any change to the existing Village boundary or adjoining land uses to Bungonia. This reflects the community's aspirations to retain the existing rural living lifestyle of this Village.



### Rural and agricultural areas

Rural living and agricultural operations will continue as key land uses across Goulburn Mulwaree. Environmental constraints were mapped as part of the Strategy to define areas affected by environmental sensitivities and areas appropriate for agricultural pursuits. The Strategy aims to promote areas suitable for agricultural operations and ensure these operations minimise potential for land use conflict, unnecessarily fragmentation or alienate existing land uses.

Areas identified as unconstrained are proposed to be zoned RU1 Primary Production to reflect the primary use of these areas for agricultural operations. Future subdivision within this zone would required a minimum lot size of 100 hectares. This minimum lot size will enable adequate buffers to be implemented as part of new development to minimise potential land use conflicts including, odour, weed invasion and spray drift. The minimum lot size for a dwelling entitlement is also 100 hectares.

Constrained areas will be zoned RU2 Rural Landscape. The Local Plan Template provides a range of environmental protection tools that allow councils to implement controls over different types of environmentally sensitive land. The RU2 Zone is one such tool and has been used extensively to protect the existing natural environment. Future subdivision within this zone require a minimum lot size of 100 hectares. This approach will restrict inappropriate land uses and further land fragmentation in constrained areas. Areas identified as constrained are based on the following environmental constraints:

- bushfire prone areas
- bushfire buffer areas
- 40 metres either side of watercourses
- soil constraints
- ridgelines
- mountain ranges
- wetland areas
- places of Aboriginal Heritage Significance
- electricity easements
- topography (> 10 percent slope)
- flooding
- vegetated and potentially vegetated areas
- limestone areas (potential groundwater source)
- alluvium areas (potential groundwater source)
- Lake Sooley Catchment area
- National Estate.

Constrained areas zoned RU2 Rural Landscape will maintain the existing landscape and scenic qualities of these areas. The zoning will also avoid inappropriate development that would result in environmental harm or impact primary producing areas.

This approach restricts dwelling construction in areas where environmental sensitivities occur. This was based on an assessment of land suitability to determine the most appropriate location for rural and agricultural activities and in addition to detailed consideration of land capability and suitability. The Strategy also aims to address rural

needs and emphasises improved access to basic services, agricultural diversification, natural resource management and the generation of employment in non-agriculture rural activities.

Locating the RU1 Primary Production Zone on land generally free of hazards such as flooding, contamination, erosion, subsidence or slip as well as avoiding areas susceptible to salinity reflects a higher likelihood of attracting agricultural and non-agricultural activities. Specifying a smaller minimum lot size within these areas will enable agricultural and rural activity pursuits to be drawn to these areas.

In defining the minimum area for a dwelling entitlement, various provisions were considered including:

- the agricultural productivity and suitability of the land
- capacity of land to accommodate agricultural land uses
- the nature and requirements of agricultural industries in Goulburn Mulwaree
- the importance of protecting environmentally sensitive lands through restricting capacity for residential development
- the risk of creating land use conflict.
- the current distribution of property sizes
- cumulative impacts.

The Strategy recommends the following minimum lot sizes be applied:

- R1 General Residential: 700 square metres
- R2 Low Density Residential: 1,000 square metres
- R5 Large Lot Residential: 2,000 square metres (serviced); 10 hectares (unserved)
- RU1 Primary Production: 100 hectares
- RU2 Rural Landscape: 100 hectares
- RU5 Village: 1,500 square metres (residential, detailed site investigation required)
- E2 Environmental Conservation: 100 hectares
- E3 Environmental Management: 100 hectares
- E4 Environmental Living: 10 hectares

As confidence in reduced lot sizes for agricultural and rural lifestyle needs increases in relation to modern farming, land use practices and telecommunications, some transition should be allowed over time to reduce the minimum allotment size. This should only occur where this would not result in an excessive risk to the long-term sustainability of the agriculture sector or environmental qualities of rural areas.

## Sustainable Development

Goulburn Mulwaree Council has both legislative and custodial responsibilities for managing the environment in accordance with the principles of ecologically sustainable development. Ecologically sustainable development is development which aims to meet the needs of today's society while conserving our ecosystems for the benefit of future generations.

A variety of principles have been prepared to inform future development controls and structure planning and have been based on the findings of the Strategy. These principles aim to ensure that future land uses and development stem from the Strategy and promote sustainable outcomes.

### *Built form principles – urban areas*

Development within the Goulburn Mulwaree local government area will be guided by standards, concepts and principles established as part of the Goulburn Mulwaree Local Environmental Plan and in the more detailed development control plan. The consolidated development control plan will provide practical on site solutions for the implementation of local environmental plan objectives.



Development principles that would underpin the basis of the comprehensive development control plan include.

- Residential land is to be developed with the creation of neighbourhoods comprising a range of densities.
- Protection of heritage – built and natural – shall be ensured to maintain the historic integrity of Goulburn Mulwaree.
- Residential areas should promote opportunities for walking and cycling as viable modes for local transport.
- Employment uses should be sensitively designed and located to minimise conflict.
- Buffers are to be used to safeguard the integrity and quality of waterways and creeks. The Strategy recommends that a minimum riparian buffer zone of 40 metres from the edge-line of waterways and creeks be maintained.
- Development buffers are to be used to safeguard prime agricultural land (where zoned Primary Production). New sensitive land uses should not be permitted within 400 metres of sites identified for agricultural production unless an appropriate buffer has been established.
- Integrated open space and drainage networks should also provide the framework for an off-road pedestrian and cyclist network.
- Non-residential land uses shall minimise impact upon the amenity of the area or surrounding sensitive land uses. This would include, for example, local shops and commercial premises, schools, child care centres, places of worship, open space and recreation.

- Land uses that maintain a rural landscape should be encouraged on the edges of residential areas to provide a defined transition to rural areas and minimise potential for land use conflicts. This is particularly important where large lot residential development is near areas identified for agricultural purposes.
- Prime agricultural areas and areas identifying potential to yield groundwater should be safeguarded from incompatible land uses and protected given their environmental sensitivities.
- Investigations will be required to determine the optimum water supply and sewage servicing approach for existing and future residential and large lot residential areas.
- Best practice water quality controls (including water quality monitoring) should be implemented. Pre-development water quality should be maintained or enhanced in post-development run-off. The management of water should address cumulative environmental impacts and be carried out in accordance with the principles of integrated water cycle management and water sensitive urban design.

### *Sustainable agriculture*

Protecting prime agricultural lands will be achieved through appropriate zoning of land and provisions that recognise and protect these lands for primary production purposes. The local plan template identifies primary production, and rural landscape zones that aim to protect agricultural production.

Appropriate zoning and enforcement of the zones will ensure consistency for future rural investment. Enforcing land use zones through a local environmental plan provides security to rural and agricultural businesses against, poorly designed subdivisions or urban encroachment into traditionally productive agricultural areas.

Appropriate zoning also removes the pricing pressure for those involved in agricultural practices wishing to expand operations. The defined intent of the zones supports the ongoing function of the land for agricultural purposes. This in turn provides confidence to farmers that have already invested in agricultural pursuits in the area by providing consistency in future decision making associated with productive lands.

In achieving the above objectives, the Strategy has been prepared to ensure agricultural land objectives:

- Encourage continued growth in the area's rural economic base by protecting prime agricultural areas.
- Introduce niche agricultural operations near towns and villages.
- Recognise the contribution agriculture makes to the Goulburn Mulwaree local government area.
- Prevent inappropriate fragmentation of agricultural lands.
- Permit compatible non-agricultural land uses within rural zones that would not adversely affect the future agricultural operations of the area.
- Protect and conserve prime agricultural lands and encourage sustainable agricultural operations.
- Promote appropriate access and efficient use of water resources.
- Prevent development of inappropriate non-agriculture land uses including large lot residential that will adversely affect the productivity potential of agricultural areas and result in inappropriate fragmentation.

Although subdivision of sites for agricultural purposes only may be subdivided below the minimum allotment size, these sites would not be permitted to erect a dwelling. Also, where a dwelling currently exists, future subdivisions would not be permitted where this would result in an allotment size below the minimum requirement.

Creating an environment that enables further fragmentation of agricultural lands will create long term challenges for the agricultural sector which has continued to stagnate within Goulburn Mulwaree representing less than six percent of the employment across the local government area. Economic development initiatives and other strategies such as property management planning, diversification, training and value adding are also necessary to ensure economic sustainability for this sector.



## *Staging*

The timing and staging of the residential development within the Goulburn Mulwaree local government area will be determined by Council. It involves balancing the objectives of the Environmental Planning and Assessment Act 1979, the Strategy and the desires of individual land developers.

Council is required to implement the objectives of the Environmental Planning and Assessment Act 1979, which include the promotion and co-ordination of the orderly and economic use and development of land. Clearly, land subdivided and serviced years in advance of new development is inefficient, and development encouraged on too many fronts defer Council's and public authorities' ability to recoup funds spent on up-front services.

Critical staging issues therefore include:

- Decision to enable lands to develop in accordance with the Strategy
- Development would be likely to stem from Goulburn given the established range of commercial and personal services, utilities, recreational and cultural facilities, institutional and administrative services and employment opportunities.
- The Strategy intends to reinforce Goulburn's position as the primary commercial and administrative centre for the Goulburn Mulwaree local government area and further strengthen its role as a leading regional centre in NSW.
- Suitable road and rail infrastructure would therefore be provided to stimulate growth and investment and achieve growth targets.
- A suitable utilities base would need to be aligned with growth and increasing demands and expectations of incoming communities.



NSW GOVERNMENT  
**Department of Planning**

