

Central West Region Pilot Area Sheep Meat Profile

FACTSHEET NO.4

September 2012

This profile identifies important agricultural resources, critical features of the regions industries, their development potential and land use planning issues for sheep meat production across the central west study area as shown in Figure 1.

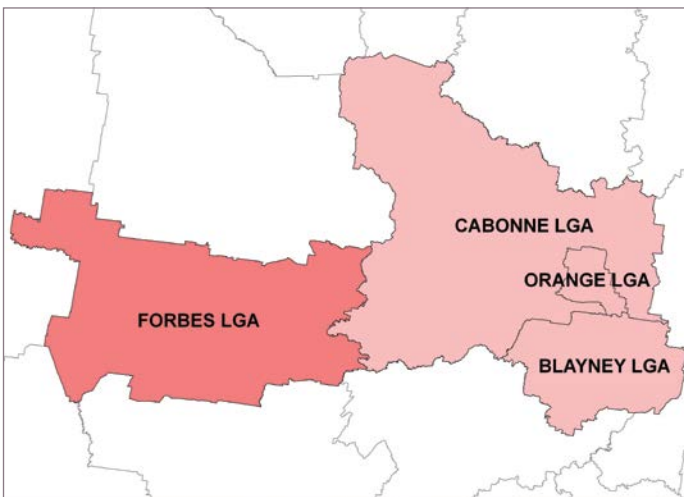


Figure 1- Central West Study Area covered by this profile

Introduction

The Department of Primary Industries is developing a consistent method for mapping important agricultural lands.

Maps of Important Agricultural Land highlight areas that are well suited to selected agricultural industries at a local and regional scale.

The pilot mapping project aims to guide local councils with strategic land use planning; and support sustainable industry development. Included in this profile is a map identifying land highly suitable for grazing.

A case study approach was adopted to identify the important agricultural lands for a range of industries within six local government areas (LGAs). They include: Orange, Cabonne, Blayney and Forbes in the central west; and Singleton and Muswellbrook in the Upper Hunter. Those areas were chosen to cover a variety of agricultural landscapes and industries.

Sheep Meat Production – Highlights

Sheep meat production is an important part of the mixed farming (livestock and cropping) enterprises in the study area.

It is an agricultural industry that is productive over a range of climatic conditions across the higher, cooler and wetter tablelands in the east and the lower elevations of the slopes and plains to the west of the study area.

Sheep meat feedlot production is more common in the western region where grain finishing (feeding lambs to meet market weights) occurs.

Tablelands lamb is also renowned for producing a “sweet meat” due to the cool climatic conditions which provide a more palatable type of meat choice for consumers.



Figure 2- Dorper ewe with twin lambs on the tablelands (Photo: Melissa Kahler)

Economic Contribution

Over the last decade there has been a trend for sheep and lamb producers to focus on the production of sheep meat, particularly prime lamb. The region services both the domestic and export markets, with the latter growing with increased demand for export lamb and mutton, particularly from the United States of America (ABARE, 2010).

Sheep meat is within the top 5 of all agricultural commodities for production value in the study area, with the exception of Orange City LGA. The ABS (2006) data identifies the value of sheep and lamb slaughter as \$65.4 million (Table 1) representing 6.3% of the states sheep and lamb slaughter.

Table 1 – Central West Sheep Meat Data (ABS data 2006)*

Local Gov't Area	Est. value of sheep and lamb slaughter (\$mill)	Prod'n of sheep and lambs as a % of NSW total	No of Farms	Employment
Blayney	\$10.6m	1%	231	665
Cabonne	\$30.9m	3%	575	1807
Forbes	\$22.6m	2.2%	307	921
Orange	\$1.3m	0.1%	45	265
Total	\$65.4m	6.3%	1,158	3658
NSW Total	\$1,036.5m	100%	17,903	79,253

*changes may have occurred since this data was collected

ABS data estimates the wholesale value of unprocessed agricultural products. These figures do not capture the flow on contribution of agriculture to other businesses in NSW. An estimate of the overall contribution of agriculture to the NSW economy, as presented in table 1, is obtained by multiplying the wholesale value of agriculture by the standard ABS multiplier for agriculture production which is 2.178. (I&I NSW, 2011)

An indication of the overall contribution of agricultural jobs to NSW employment was similarly obtained by multiplying employment in a particular industry sector by the standard ABS multiplier for agricultural employment of 1.828 (I&I NSW 2011).

ABS data combines employment in beef cattle and mixed farming (sheep / cattle grazing and crops).

Sheep meat enterprises additionally contribute to the local, regional and state economy through the purchase of farm equipment and inputs such as replacement lambs, fertiliser, seed, fencing and veterinary supplies.

Employment is also created from sheep meat enterprises such as transport contractors, abattoir workers, training providers, rural farm managers and research and development employees.

Sheep meat industry research, for example, is undertaken at the NSW DPI Cowra Agricultural Research and Advisory Station that provides a range of research on genetic improvements, meat quality, nutrition, reproduction, lamb survival and marketing development.

The ABS (2006) agricultural census estimates that 3658 people are employed in mixed farming industries (sheep, beef and cropping) in the study area. That represents 4.6% of NSW mixed farming employment (ABS, 2006).

Industry Challenges

A critical threat to the sheep meat industry (and mixed farming generally) is the impact of increasing farm subdivision for lifestyle blocks. Land increases in value as it changes from agricultural to rural residential functions, placing restrictions on the farmer to be able to purchase additional land to expand operations. Issues such as dog attacks on sheep are commonplace where rural residential style development abuts sheep meat properties.

Other challenges include:

- climate change impacts of higher temperatures reducing available water
- impacts of consumer responses to animal welfare guiding their choice, potentially reducing demand and impacting on sheep meat prices.
- reduced farm gate prices from increased production costs that cannot be passed on to the consumers because prices are set by buyers, wholesalers, exporters, processors and merchants."
- infrastructure limitations such as the condition of some local roads and bridges for transporting livestock to markets

Climate Change

Climate change predictions suggest that the variability in drought and flood conditions already being experienced by sheep meat producers will increase and will likely impact on:

- animal health and reproduction
- national and international markets
- pasture and fodder crops
- water resources
- land stewardship and
- competition from other agricultural activities

Increased heat stress from temperature increases may impact on the reproductive performance of sheep in response to changed pasture composition particularly where weed content and bare ground increases.

Potentially farm input costs will rise in response to the Australian Government Carbon Pollution Reduction Scheme (CPRS), despite the exclusion of agriculture from the scheme until 2015. 'Pollution permits', for instance, will need to be purchased by meat processors for their contribution of greenhouse gasses to the atmosphere (AWIL 2012).

The limiting factor to pasture growth in the higher elevations to the east of the study area is low temperatures. Warming temperatures in the tablelands could possibly benefit sheep meat production through the increased ability to grow pasture.

Water quantity and quality will become more significant, particularly in the Forbes LGA, which currently receives the lowest rainfall and the highest temperatures in the study area.

The capacity to irrigate to provide the feed quantity and nutritional value will be increasingly important to ensure that sufficient feed and water is available at critical times when shortages may occur. These are small scale feeding operations that finish a small number of home bred lambs.

Additionally, sheep meat enterprises mixed with other enterprises provides the versatility to adapt to changing climatic conditions.

Infrastructure Requirements

The meat sheep industry requires a reliable water supply for livestock and pasture that is sourced from regulated water supplies, farm dams, groundwater and natural springs.

A good system of roads provides access to saleyards, abattoirs, supplementary feed supplies and markets. Important access roads include; the Newell Highway, Lachlan Valley Way and Henry Lawson Way (that connects with the Mid Western Highway).

There is also existing saleyards at Carcoar and Cowra as well as the new \$15 million regional saleyard complex in Forbes. Sheep processing facilities at Cowra, Dubbo, Junee, Cootamundra and Goulburn provide important infrastructure to continue to service the meat sheep industry.

Further west, there is a greater reliance on irrigation infrastructure from the Lachlan River for pasture and fodder production to sustain the sheep meat industry.

Development Prospects

The sheep meat industry will continue to be an important part of the mixed farming system in the study area. The advantages of fertile soils, available water, good access to markets and feed supplies will ensure its continued production.

However, high prices for land and growth of competing land uses are significant impediments to sustainable meat sheep and mixed farming enterprises. This can reduce the ability to be adaptable to external influences such as climate change, government regulations and market changes.

Important Sheep Meat Growing Areas

Meat sheep production requires fertile soils and high rainfall or supplementary irrigation. Figure 2 and 3 identify land that is well suited to sheep meat farming systems in the Orange, Cabonne, Blayney and Forbes LGA's.

Features of important sheep meat production lands within the Central West region include:

- Rainfall 650 to 950mm
- Elevation 400m to 11100m
- Soil fertility is moderately high
- Mild temperatures

The lower rainfall in the western region makes finishing lambs more difficult and grain finishing becomes more important. These are small scale feeding operations finish a small number of home bred lambs. They are not sufficient in size to warrant statutory planning approval and are commonly a seasonal operation.

The eastern part of the study area (tablelands) that experiences higher rainfall and cooler temperatures is more conducive to grazing for sheep meat production.

In the immediate vicinity of Orange City LGA there are smaller properties owned by lifestyle farmers who also graze sheep for a "hobby" and for personal consumption.

The land in figures 4 and 5 identified as well suited to sheep meat production may be currently used for other agricultural land uses. This indicates how valuable the land resources are in this region for a variety of uses.



Figure 3- Dorper twins on pasture (Photo: Mrs Dalloway)

Land use planning implications

Land use planning can support sustainable intensive and extensive sheep meat industries by retaining suitable rural lands, recognising the importance of regional sale yards and reducing land use conflict between sheep meat farmers and neighbours, particularly rural residential properties.

Sheep meat farming has requirements that dictate where it can be located, including access to water and fertile soils as well as transport requirements.

For the intensive feedlot industry in particular, there is a need to meet the market weight requirements and comply with environmental legislation. Properties are required to be a size that will enable the effective management of environmental impacts.

Residential development and rural lifestyle developments should additionally be directed away from land important to the sheep meat industry to avoid further rural fragmentation of important sheep meat lands.

Acknowledgements

Information for this profile was sourced from available statistical and spatial data. This is supported by industry intelligence from DPI regional extension staff and workshops held in June, July and December 2011. Local farmers and industry consultants helped to pilot test important agricultural mapping outcomes and clarify industry development issues and opportunities.

Compiled by Wendy Goodburn and Mary Kovac and reviewed by the Resource Planning and Development Team in NSW DPI.

Special acknowledgement to the resource mapping team for providing and reviewing mapping data.

References

ABS (Australian Bureau of Statistics) 2006, 7125.0- Agricultural Commodities: Small Area Data, Australia 2005-06. accessed from <http://www.abs.gov.au/ausstats/abs@.nsf/Products/7125.0~2005-06+%28Reissue%29~Main+Features~New+South+Wales?OpenDocument>

ABS (Australian Bureau of Statistics) 2010, Catalogue 3235.0 Population by Age and Sex, Regions of Australia, 2010, accessed from <http://www.abs.gov.au/ausstats/abs@.nsf/Products/3235.0~2010~Main+Features~New+South+Wales?OpenDocument>

Australian Wool Innovation Limited, 2012. About the Wool Industry. http://www.wool.com/About-us_wool-industry.htm

Australian Wool Innovation Limited, 2012. Making more from sheep accessed from:

<http://www.makingmorefromsheep.com.au/hot-topics/topic-2.htm>

I&I NSW (Industry & Investment NSW), 2011, Contribution of Primary Industries to NSW Economy, agricultural contribution and standard agricultural multipliers, accessed from

<http://intranet.dpi.nsw.gov.au/library/statistics/industry/all-industries/key-data-2011.pdf>

NSW DPI (Department of Primary Industries), 2011, Analysis of ABS 2006 Census data for agriculture, accessed from <http://www.dpi.nsw.gov.au/environment/landuse-planning/agriculture/analysis-census-data>

Additional Reading

Agricultural Land use planning guidelines; www.dpi.nsw.gov.au/environment/landuse-planning/agriculture

Sheep advisory information; www.dpi.nsw.gov.au/agriculture/livestock/sheep

Sheep gross margins (financials); www.dpi.nsw.gov.au/agriculture/farm-business/budgets/livestock

Hassell and Associates Pty Ltd, 2007, Minimum Lot Size Analysis for Blayney- Cabonne- Orange Rural and Industrial Land Use Strategy, Report to Councils.

NSW DPI 1998. Policy for sustainable agriculture in NSW, <http://www.dpi.nsw.gov.au/environment/landuse-planning/agriculture/sustainable>

NSW DPI 2011. Land Use Conflict Risk Assessment (LUCRA) Guide, <http://www.dpi.nsw.gov.au/environment/landuse-planning/agriculture/lucra>

NSW DPI 2011. Policy O-104 Maintaining land for agricultural industries, http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0008/396458/Policy-O-104-maintaining-land-agricultural-industries.pdf

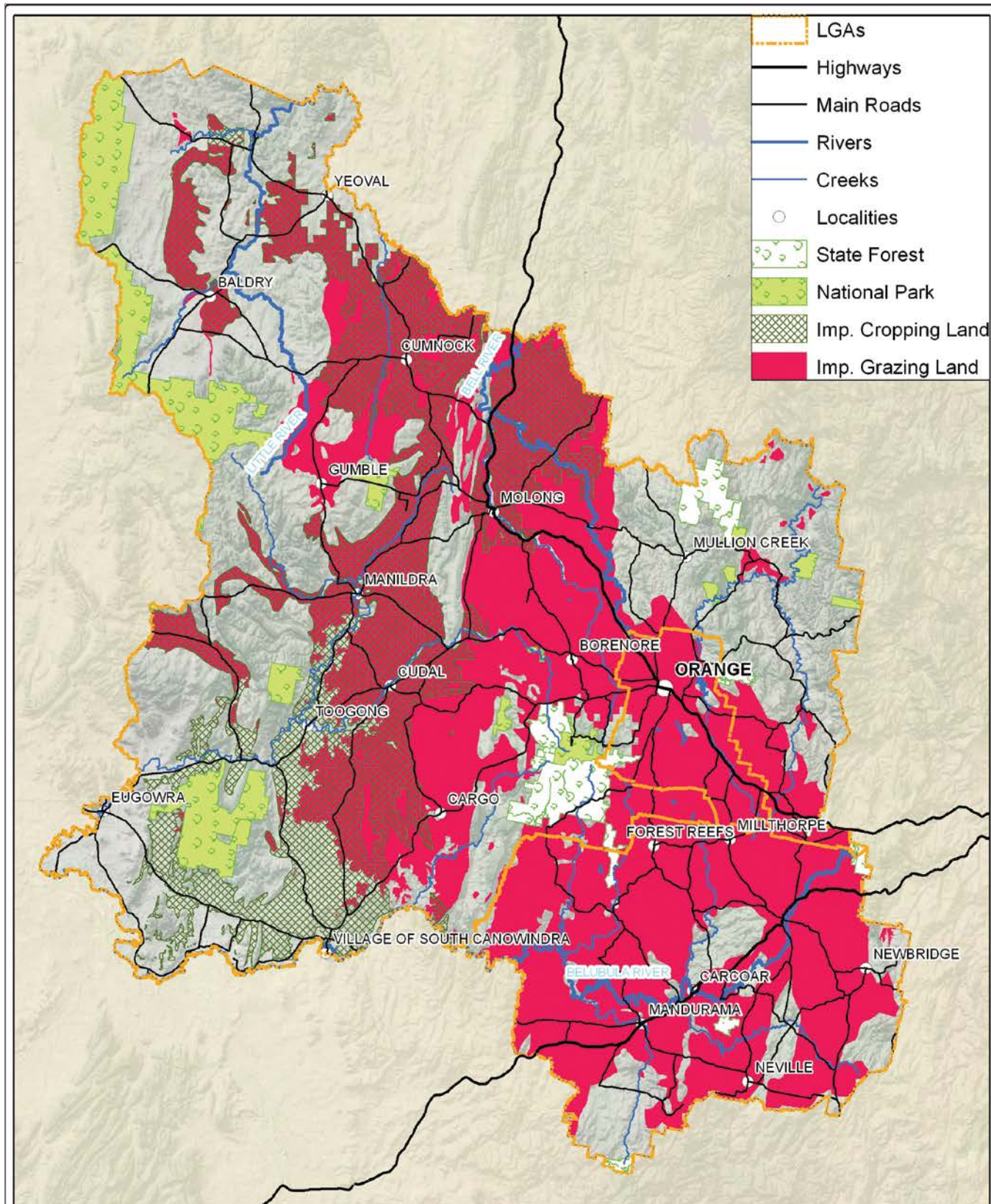
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ISSN 1832-6668

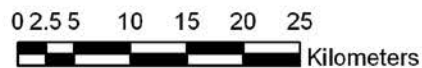
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Published by the Department of Primary Industries, a part of the Department of Trade and Investment, Regional Infrastructure and Services.

PUB 12/37

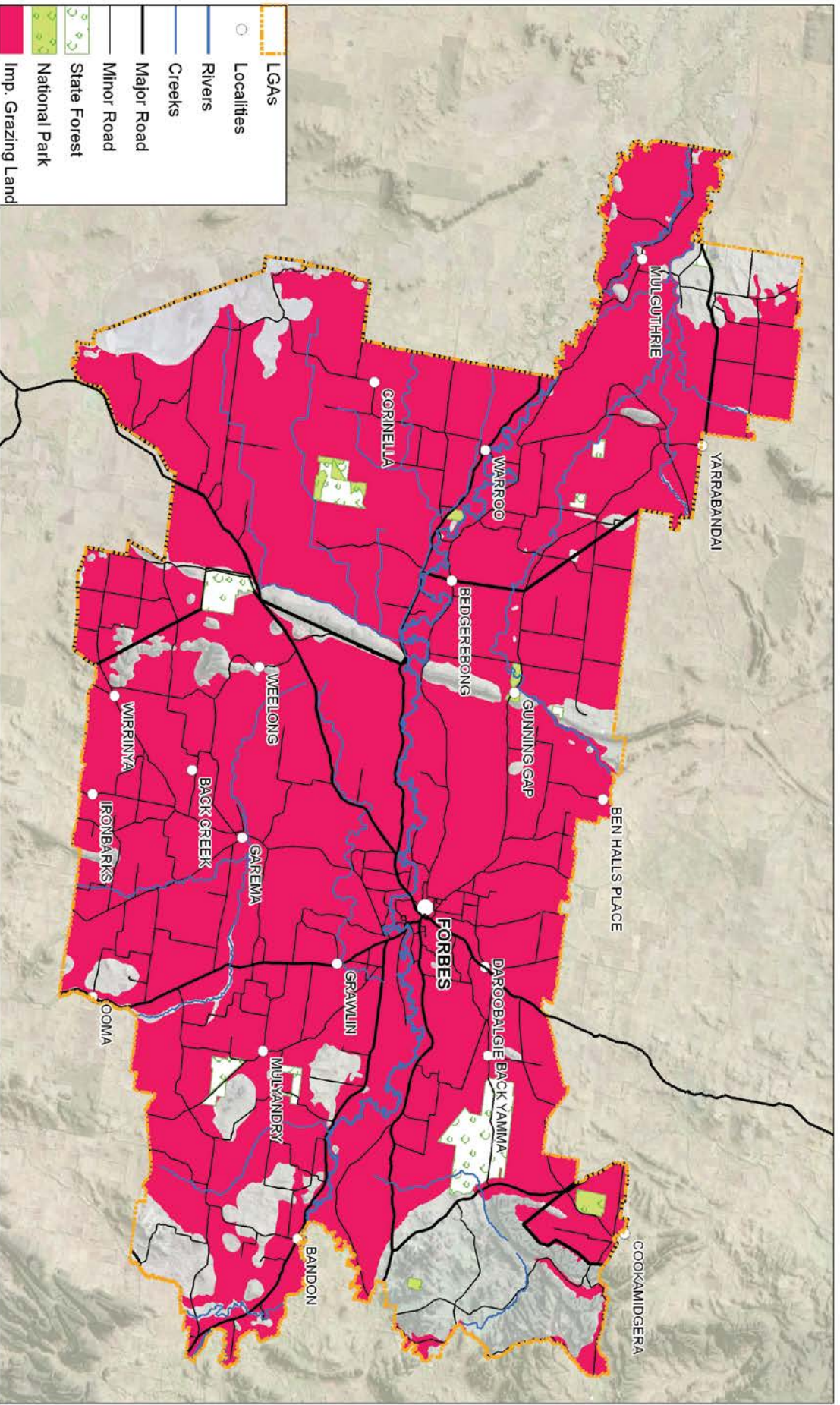


**Blayney, Cabonne, Orange LGA Pilot Area
Important Grazing and Cropping Land**



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Figure 4: Land important for sheep meat grazing with some of that land also important for beef grazing and cropping in the Blayney, Cabonne and Orange LGAs.



Forbes LGA Pilot Area, Important Grazing Land

NSW
GOVERNMENT
Department of
Primary Industries

0 2.5 5 10 15 20 25
Kilometers



Produced by Resource Information Unit

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Figure 5: Land important for sheep meat grazing with that land also important for beef grazing and cropping in the Forbes LGA