

# Central West Region Pilot Area Wool Profile

FACTSHEET NO.5

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

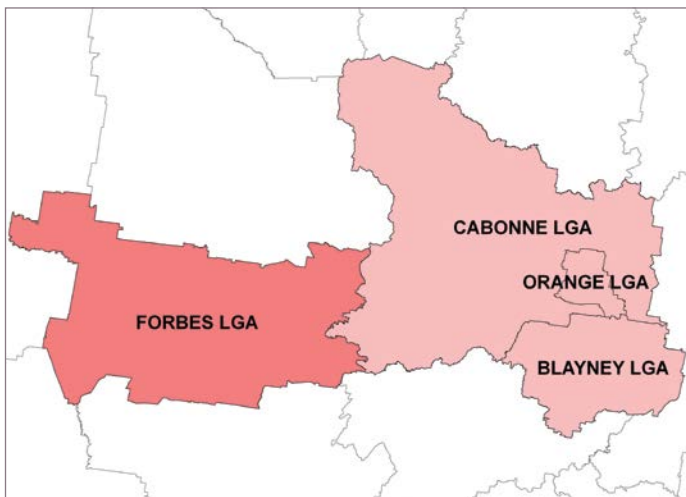


Figure 1- Central West Study Area covered by this profile



Figure 2- A flock of Merino sheep on native pastures (Photo NSW DPI)

## 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 are maps that identify land important for wool production in the Central West study area.

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.

## Wool – Highlights

Australia is the world's leading producer and exporter of wool, accounting for around 24% of the global wool production and two-thirds of the world's wool exports (AWI, 2012).

Wool forms an important part of the mixed farming (livestock and cropping) enterprises of the study area. As shown in Table 1, the estimated value of wool in the study area is \$79.8 million which represents 5.3% of the states wool production (ABS, 2006).

Wool is additionally a highly versatile and adaptable enterprise and is produced over a wide variety of landscapes and climates from the cooler and wetter tablelands in the east of the study area, to the more undulating topography of the slopes and plains in the west of the study area.

The breed of sheep in the study area is predominantly merino, with the remainder a mixture of cross bred sheep, mainly for meat production.

Fine wool production typically dominates in the cooler climate tableland areas where rainfall and soil type renders it more difficult to finish animals for meat production. Merino lambs are also being increasingly finished (fattened for meat production) on grain in the western areas of the Forbes LGA. This allows for greater flexibility between wool and meat production to allow farmers to respond to changing market and climatic conditions.

## Economic Contribution

Australia is the world's largest producer of apparel wool with much of it being exported to Europe for processing. The finer wool is in demand for the high end of the fashion market and attracts a premium price (AWIL, 2011).

In the study area, wool is the agricultural industry with the fourth highest dollar value, behind cropping, fruit production and beef (ABS, 2006).

Cabonne Shire has the highest value of wool production, contributing \$44.9 million to the NSW economy, as shown in Table 1 (DPI 2011).

Table 1- Central West Wool Data (ABS2006)\*

Local Gov't Area	Est. value of wool (\$mill)	Prod'n of wool as a % of NSW total	Employment#
Blayney	\$12.2	0.8%	665
Cabonne	\$44.9	3%	1,807
Forbes	\$21.6	1.4%	921
Orange	\$1.1	0.1%	265
Total	\$79.8	5.3%	3,658
Total NSW	\$1,505	100%	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).

Running wool sheep as part of a mixed farming system with other livestock and cropping provides the versatility to adapt to changing market conditions and changing external influences such as government regulations and new genetic innovations.

Wool enterprises in the Central West additionally contribute to the local, regional and state economy through the purchase of farm equipment and inputs such as fertiliser, seed, fencing and veterinary supplies. Wool production also supports local transport firms, saleyards and industry research and development.

As well, employment is created from wool enterprises such as transport contractors, abattoir workers, training providers, rural farm managers and research and development employees.

The sheep, beef and grain industries combined employ 3658 people in the study area which represents 4.6% of NSW employment in mixed farming enterprises (ABS, 2006).

## Industry Challenges

The expanding urban interface of Orange and the increase in the number of lifestyle blocks, of varying sizes, is a challenge to the industry. Fragmentation of land increases the number of neighbours in the vicinity of farms. Common problems with increasing neighbours include sheep attacks from dogs and higher land prices and competing land uses which can restrict wool industry expansion.

Other critical threats include:

- fluctuating markets
- infrastructure limitations such as the condition of roads and bridges for transporting wool to markets.



Figure 3- Merino wethers on improved pastures which assists in fattening sheep before sales (Photo NSW DPI)

## Climate Change

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

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

Heat stress from temperature increases may impact on the reproductive performance of sheep as well as increased dust contamination in wool in response to changed pasture composition particularly where weed content and bare ground increases (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 wool production through increased ability to grow pasture.

Access to quality water supplies, as well as changes to on farm practices will be required so that farmers are able to deal with these changes.

## Infrastructure Requirements

The wool 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 infrastructure (saleyards) at Carcoar and Cowra as well as the new \$15 million regional saleyard complex in Forbes that will also support the industries ongoing presence. In addition the study area is well serviced by abattoirs including Young, Forbes, Cowra and Dubbo.

## Development Prospects

The resurgent current prices and increasing world demand for wool, particularly from China will encourage the wool industry to continue to prosper in the study area.

The Australian wool industry plays a significant role in the nation's economy as wool remains one of Australia's major rural export commodities (AWIL, 2011). Of particular importance is the demand for wool at the traditional high end of the fashion market and Australia is the world's largest producer of fine apparel wool. These factors depict a promising outlook for future wool production.

However, high prices for land and growth of competing land uses are significant impediments to sustainable wool and mixed farming enterprises.

## Important Wool Growing Areas

Fine wool sheep (with fibres 20 microns or less in diameter) are principally produced on the tablelands whereas medium wool (with fibres between 20 and 23 microns in diameter) is mostly produced on the slopes and plains in the western part of the study area. Sheep that produce medium wool are meat or "mutton-type" and are raised for their meat qualities. Medium wool is suitable for interior applications such as carpets, upholstery and furnishings.

Medium and fine wool enterprises fit neatly into mixed farm enterprises in the study area, as they can be productive in variable climatic conditions. Wheat and sheep (wool and prime lamb) production represents a typical mixed farm in the Forbes LGA.

Figure 4 shows the locations that are well suited to fine and medium grade wool production in the Orange, Cabonne and Blayney LGAs. The defining feature of these locations is shown in Table 2.

Table 2 – Features of important wool growing areas in Orange, Cabonne and Blayney LGAs

Criteria	Medium Wool	Fine Wool
rainfall	650 to 950mm	600 to 900mm
elevation	400m to 1,100m	300m to 800m
soil fertility	moderate to moderately high	is low to moderately low
land capability	class 3 to 5	class 4 to 5

Figure 5 shows the locations that are highly suitable for fine and medium grade wool production in the drier, more inland area of the Forbes LGA. The defining features of these locations are shown in Table 3.

Table 3 Features of important wool growing areas in Forbes LGA

Criteria	Medium Wool	Fine Wool
soil fertility	low to moderately high	low to moderately low
land capability	class 2 to 5	class 4

There are pockets of land in the north and north west of the Cabonne LGA and in the north and east in the Forbes LGA that have land suitable for the production of fine wool only. These are usually at higher elevations with poorer soil types. Such lands usually support improved native pastures which have lower inputs, with the addition of some fertiliser and legumes. Other agricultural pursuits, including other grazing enterprises are not suited to these areas.

The land highlighted in the attached maps as important for the wool industry currently may be used for other agricultural land uses. This indicates how valuable the land resources are in this region for a variety of uses.

## Land Use Planning Implications

The increasing current demand and high prices for wool means that land well suited to wool production (especially fine wool) will be sought after. The demand for wool however is highly variable, so land for wool should be retained for future high demands.

Land use planning can support sustainable wool production by retaining suitable rural lands and recognising the importance of regional sale yards.

Land use planning can support a sustainable wool industry by ensuring there is adequate land available of sufficient size to meet industry needs and by minimising the risk of land use conflicts between the wool industry and neighbours, particularly rural residential properties.

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

## Acknowledgements

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

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## Additional Reading

Agricultural Land use planning guidelines; [www.dpi.nsw.gov.au/environment/landuse-planning/agriculture](http://www.dpi.nsw.gov.au/environment/landuse-planning/agriculture)

Sheep advisory information; [www.dpi.nsw.gov.au/agriculture/livestock/sheep](http://www.dpi.nsw.gov.au/agriculture/livestock/sheep)

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

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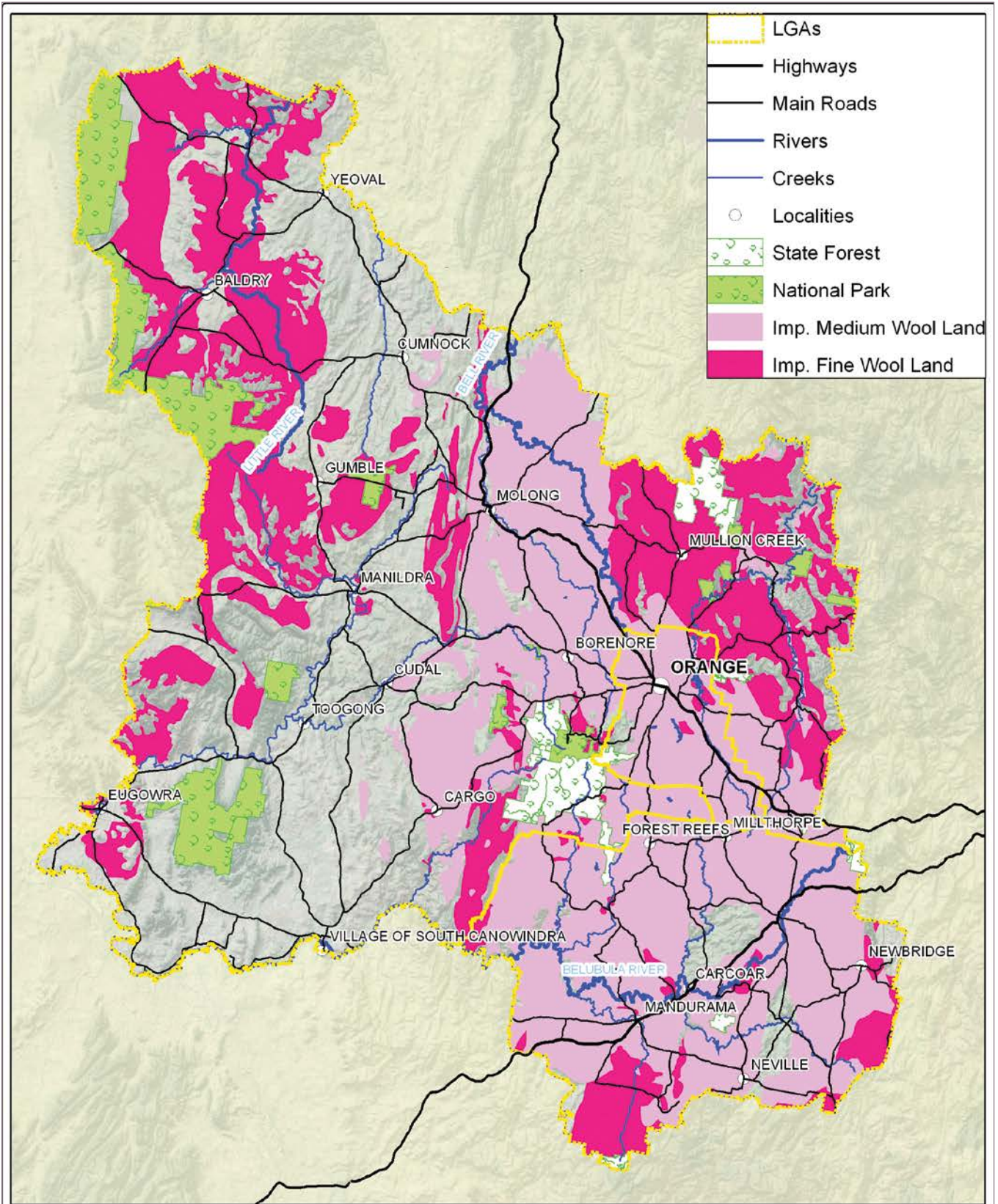
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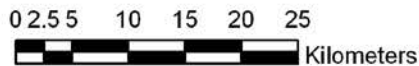




## Blayney, Cabonne, Orange LGA Pilot Area Important Wool Production Land



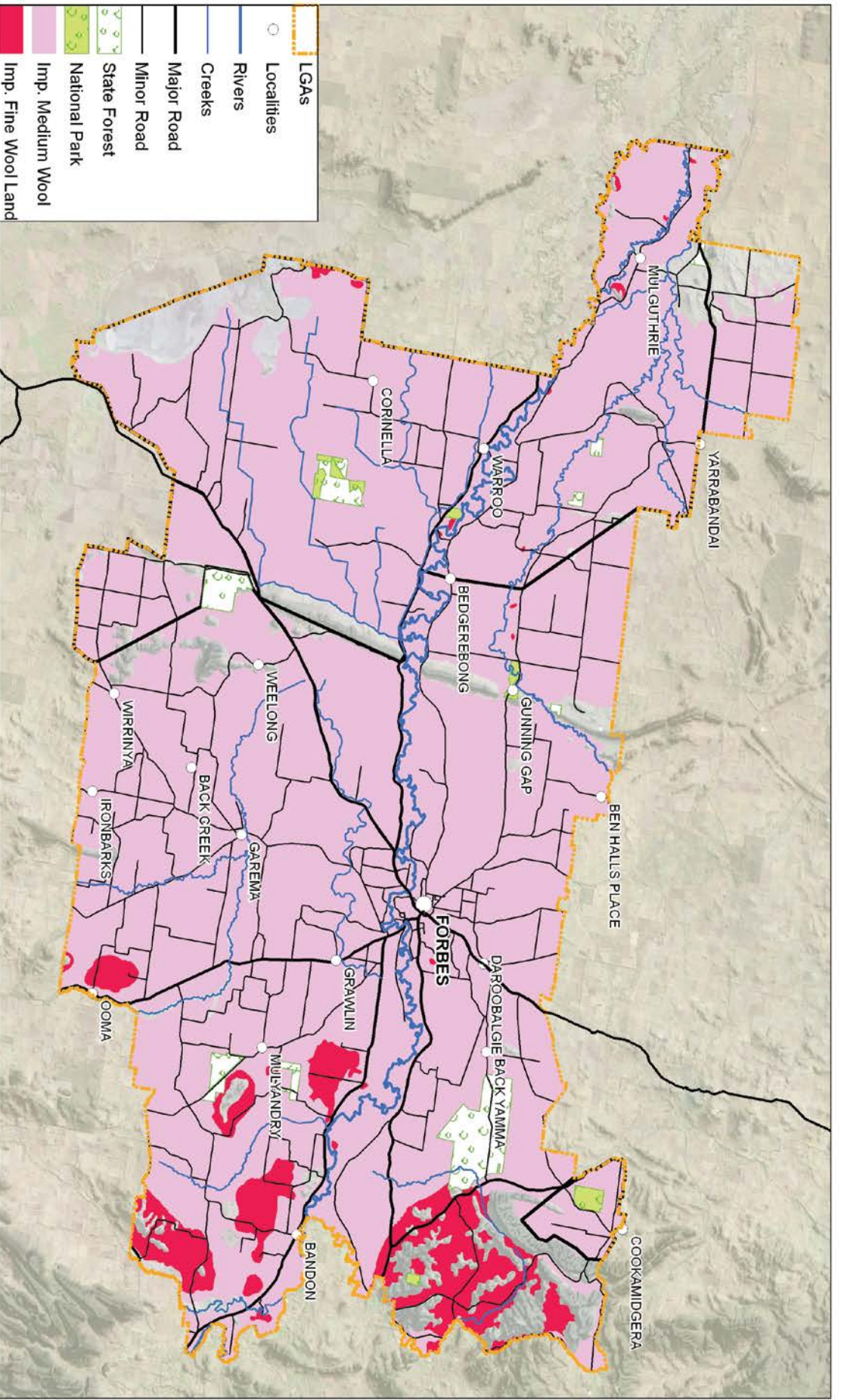
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Figure 4: Land important for medium and fine wool production with the medium wool land also important for beef and sheep meat grazing in the Blayney, Cabonne & Orange LGAs





# Forbes LGA Pilot Area, Important Wool Production Land

NSW GOVERNMENT  
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0 2.5 5 10 15 20 25  
 Kilometers



Produced by Resource Information Unit

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Figure 5: Land important for medium and fine wool production with the medium wool land also important for cropping, beef and sheep meat grazing in the Forbes LGA