

Central West Region Pilot Area Beef Profile

FACTSHEET NO.2

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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 beef production across the central west study area as shown in Figure 1.



Figure 1- Central West 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.

Beef Production – Highlights

The diversity in topography and climatic conditions create a suitable environment for beef enterprises to operate as part of a mixed farming system with rotational cropping and grazing.

The mixed farming system enables local producers to take advantage of climatic conditions and markets suitable for a range of crops and livestock.

Breeding and finishing cattle (meeting market weights) is mostly targeted to the domestic market and the lighter end of the export market. The production of feeder steers (steers produced for feedlot finishing) is an important market for many producers, particularly as a response to poorer growing seasons. Feedlots tend to buy local store steers and heifers and finish them for many different beef markets, ranging from the domestic market to heavy export cattle. Breeds are predominantly British, British cross and European cross, with few Bos Indicus cattle found.



Figure 2- Beef cattle on rolling hills in the Blayney Shire landscape. (Photo: Kim Lees)

Economic Contribution

The beef industry represents one of the top three agricultural enterprises in the study area and accounts for 3.9% of the value of beef cattle sold for slaughter in NSW, as shown in Table 1 (ABS, 2006). Hence it is a significant and dominant land use that helps to define the regional character and economy.

Table 1 - Central West Beef and Mixed Farming Data (ABS 2006)*

Local Gov't Area	Est. value of cattle for slaughter (\$mill)	Production of cattle for slaughter as % of NSW total	No of Farms	Employment#
Blayney	42.6	0.9	306	665
Cabonne	59.1	1.7	645	1,807
Forbes	31.6	0.9	213	921
Orange	5.4	0.2	111	265
Total	138.7	3.9	1,275	3,658
NSW Total	3,491	100	30,373	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).

Beef production in the study area is conservatively estimated to contribute \$138.7 million to the NSW economy (NSW DPI, 2011).

The beef cattle industry additionally contributes to the local, regional and state economy via the purchase of farm equipment and rural supplies (such as fertiliser, seed, fencing, and veterinary supplies). Also supported by the industry are; local transport firms, regional processors, training providers and industry research and development. The beef industry also helps to maintain rural landscapes that support regional tourism and provide environmental services such as biodiversity and clean water.

The ABS (2006) agricultural census estimates that 3658 people are employed in the mixed farming (beef, sheep and cropping) industries in the study area. That represents 4.6% of NSW mixed farming employment (NSW DPI, 2011).

Industry Challenges

The Beef Cattle industry has had a number of difficult years as a result of changing market conditions and weather (IBISWorld, 2012). Dry periods have driven down the supply of beef for sale. Australian beef exports have also faced increased competition from the re-entry of the United States into the key export markets (IBISWorld, 2012). The appreciating dollar has also impacted beef exports resulting in declining returns from beef exports and weaker demand.

Many producers are faced with a delicate balance of wanting to rebuild drought depleted herds while still wanting to reduce debt, maintain cash flows and capitalise on future markets (IBISWorld, 2012). As market conditions change and numbers are rebuilt, it is likely there will be a future resurgence.

A critical threat to the beef industry (and mixed farming generally) is the impact of increasing farm subdivision for lifestyle blocks. Fragmentation can restrict industry expansion due to high land prices and competing land uses.

Other challenges include:

- climate change impacts of lesser rainfall and higher temperatures reducing available water
- animal welfare issues overseas and impacts on consumer choice
- shortage of skilled farm workers

Climate Change

The climate change impacts for beef grazing include; increased heat stress and increased risks of storms and flooding.

The effects of climate change on water quantity and quality will become more significant, particularly in the western parts of the study area which currently receives the lowest rainfall and the highest temperatures.

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.

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.

In the eastern parts of the study area with cooler temperatures and higher rainfall conditions, climate change impacts may increase production. This is due to higher temperatures providing a warmer climate for increased pasture growth (House, 2012, pers comm.).

Infrastructure Requirements

The beef 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.

Development Prospects

With the advantages of fertile soils, available water, good access to markets and feed supplies and the critical mass of the industry within the region, beef production will continue to be an important industry within the mixed farming system in the central west.

The region is also ideally suited for feedlot expansion, particularly on drier and well irrigated properties further west. The steeper and lighter soil areas of the tablelands in the east of the study area are more suited to wool and prime lamb production although beef is still an important part of mixed enterprises in that environment.

High prices for land and growth of competing land uses are significant impediments to sustainable beef and mixed farming enterprises. This can cause the loss of the ability to be adaptable to external influences such as climate change, government regulations and market changes.



Figure 3- Angus & Murray Grey Steers in the cattle yards. (Photo: Melissa Kahler)

Important Beef Growing Areas

Due to the mixed nature of farms, beef cattle properties are distributed across most of the study area on a broad range of landscapes and property sizes.

Larger scale beef productions are common in the west of the study area where the terrain is undulating (and not steep), the soils are heavier to allow for pasture and fodder production and where land is more flood prone (and can be tolerated by cattle). The average number of cattle per farm in the study area (190) is close to the state average of 198 (ABS, 2006). Small to medium sized feedlots are located in the west of the study area also.

Beef production is also a popular option for rural lifestyle holdings as they require limited infrastructure and low input levels. Beef cattle herds in the Orange and the eastern part of the Cabonne LGA that are more urban in nature have smaller herd sizes than the state average.

Features of important grazing lands within the Central West region include:

- Rainfall 650 to 950mm
- Elevation 400m to 11100m (not steep)
- Soil fertility moderate to moderately high

Additional requirements for Beef Feedlot production include:

- Larger property size to meet environmental requirements (such as effluent management and odour buffers)
- Capacity to irrigate to produce reliable fodder crops
- Access to grain and roughage supplies

The attached maps (figures 4 and 5) identify land that is well suited for beef cattle grazing in the Orange, Cabonne, Blayney and Forbes LGA's.

The locations that are important for the current beef grazing industry may also be used for other agricultural land uses, such as cropping or sheep grazing. This indicates how valuable the land resources are in this region for a variety of uses.

Land Use Planning Implications

The beef industry requires land of sufficient size to meet the economies of scale for the mixed farming operations in the study area.

Land use planning can support sustainable beef feedlot and extensive farm development by retaining suitable rural lands and recognising the importance of regional sale yards.

For the feedlot industry, there are specific requirements that dictate where they can be located, including access to water, proximity to transport, saleyards, processing plants and areas that can appropriately manage environmental / amenity impacts. To avoid land use conflicts between different land uses, appropriate separation from neighbours should be achieved and suitable areas and property sizes established to allow the productive re-use of manures.

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

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Additional Reading

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

Beef cattle advisory information; www.dpi.nsw.gov.au/agriculture/livestock/beef

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

Glossary of Agricultural terms
<http://www.dpi.nsw.gov.au/agriculture/info/ag-glossary>

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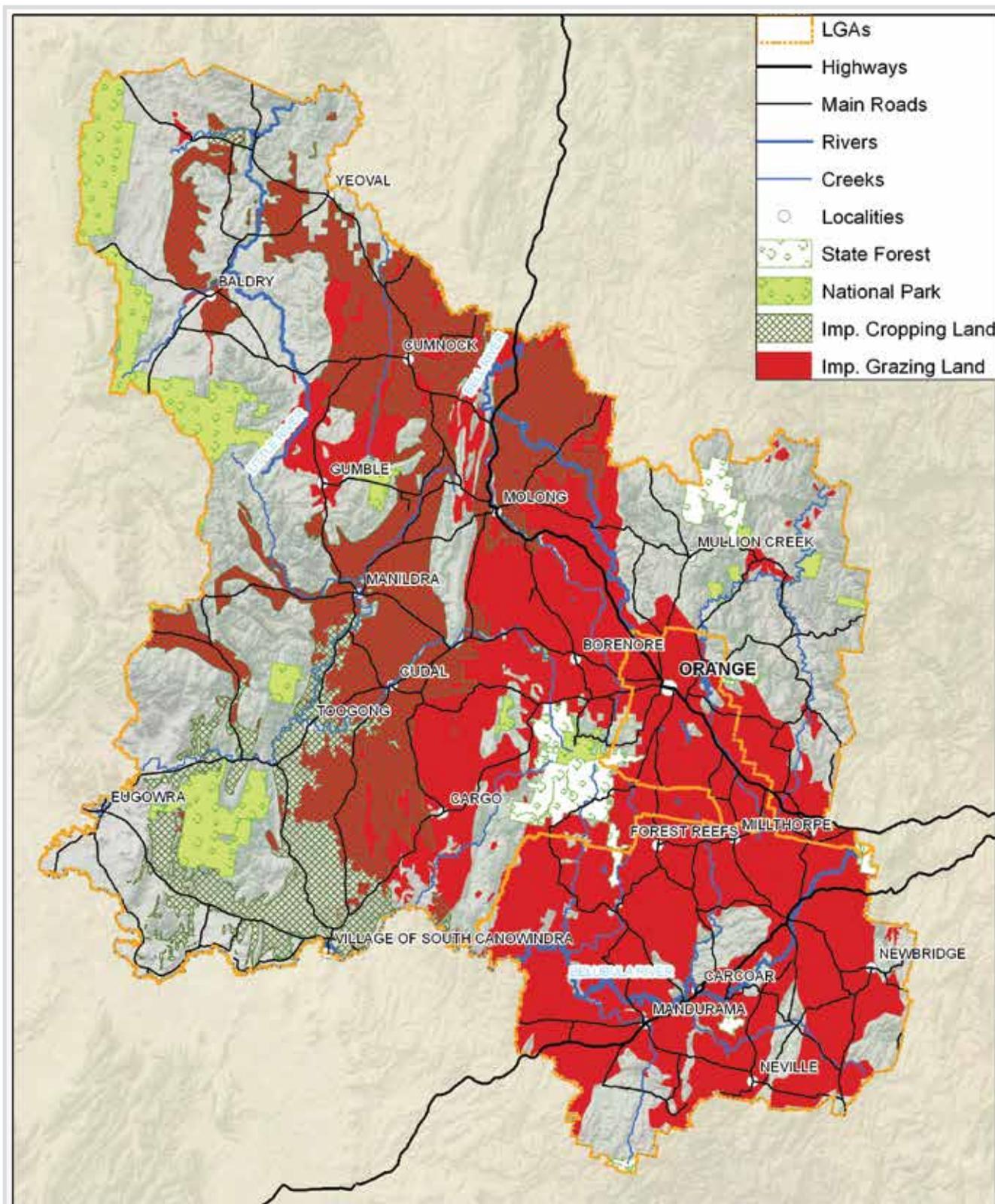
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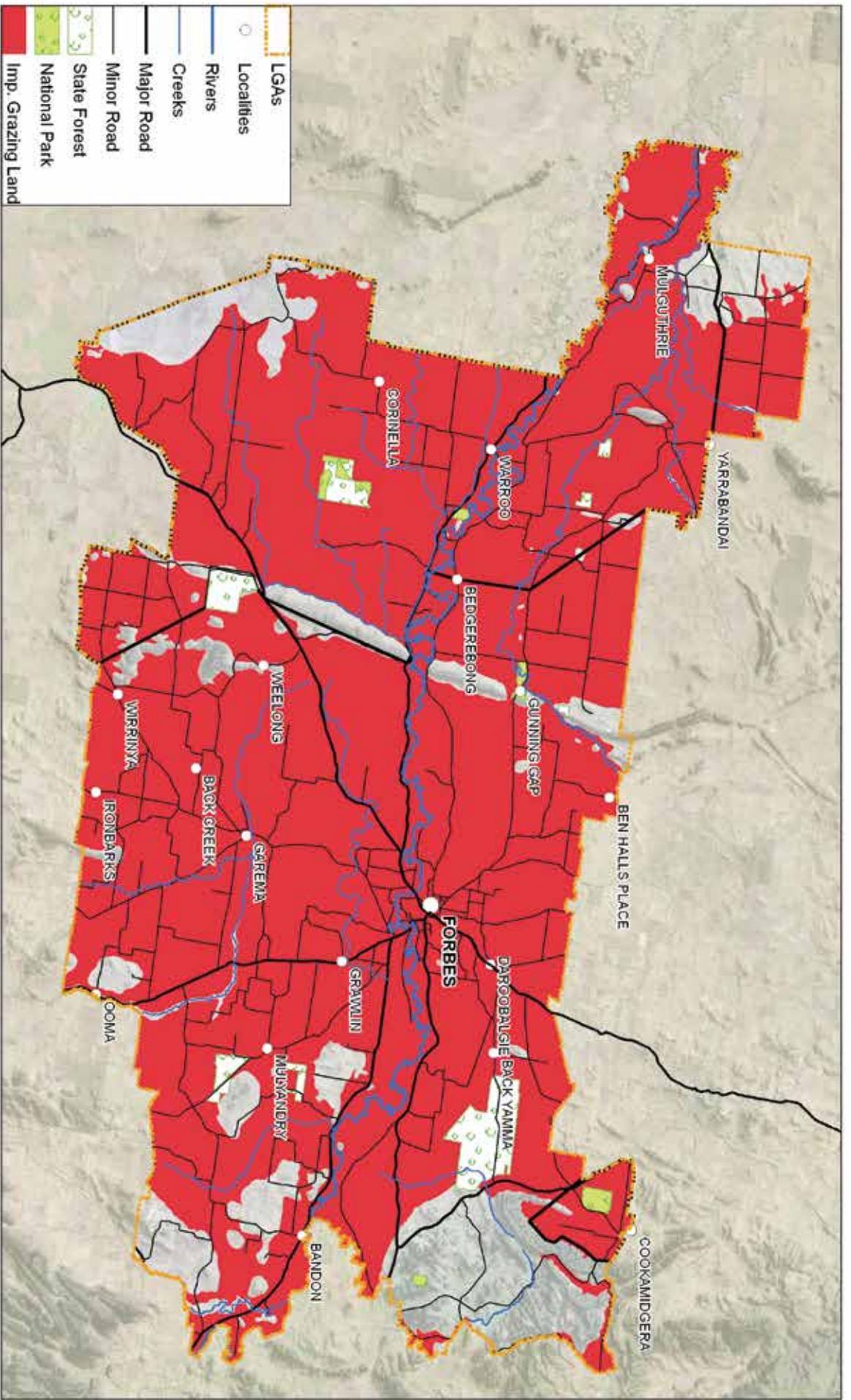
**Blayney, Cabonne, Orange LGA Pilot Area
Important Grazing and Cropping Land**

 **Department of
Primary Industries**

0 2.5 5 10 15 20 25
Kilometers

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



Forbes LGA Pilot Area, Important Grazing Land

NSW 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 beef grazing with that land also important for cropping and sheep meat grazing in the Forbes LGA