

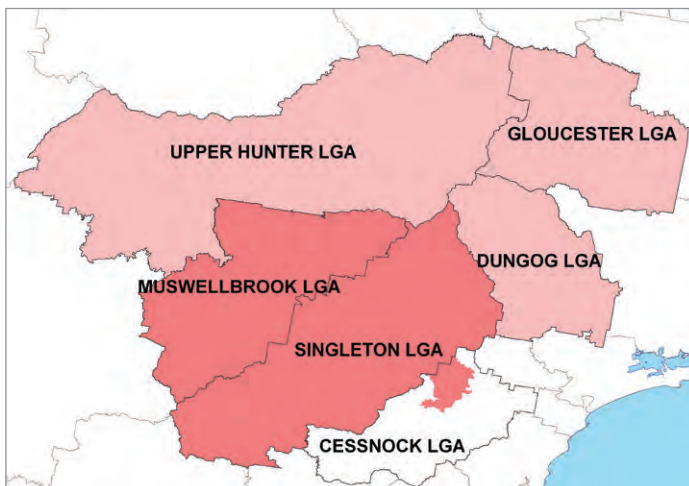
Upper Hunter Region Equine Profile

FACTSHEET NO.6

June 2013

This profile identifies important equine resources, critical agricultural industry features, their potential development and related land use planning issues across the Upper Hunter region as shown in Figure 1.

Figure 1 – Upper Hunter region and study area (in orange) covered by this profile



Introduction

The Department of Primary Industries is developing a consistent method for mapping important agricultural lands to support strategic planning by local governments and industry.

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

They complement the state significant agricultural lands mapping developed for Strategic Regional Land Use Plans (led by the Department of Planning & Infrastructure).

A case study approach was adopted to identify the important agricultural lands for a range of agricultural industries within six local government areas (LGAs) including Orange, Cabonne, Blayney and Forbes in the central west; and Singleton and Muswellbrook in the Upper

Hunter study area. Those areas were chosen to cover a wide variety of agricultural landscapes and industries.

Figure 8 identifies the important viticultural lands in the study area incorporating Singleton and Muswellbrook LGAs. This profile also identifies the critical industry features and land use planning issues that are shared by each LGA in the Upper Hunter region that additionally includes Gloucester, Dungog and Upper Hunter LGAs.

Equine highlights

The Upper Hunter is an internationally acclaimed and mature thoroughbred breeding region and is one of three international centres of thoroughbred breeding excellence. The region is ranked second only to Kentucky, USA in terms of the concentration of thoroughbred stud properties, the quality and number of bloodlines (Hunter Thoroughbred Breeders Association HTBA, 2012).

Figure 2 - Upper Hunter broodmare and foal. (Photo: HTBA)



The Upper Hunter LGA is additionally renowned as the Horse Capital of Australia, and not just because of its thoroughbred studs. The Upper Hunter region produces, trains and sells a wide range of equine breeds including heavy draught horses, horses for carriage work, endurance and other sports such as polo and polocrosse, dressage, racing and recreational use.

Scone Polo Club dates back to 1891 and is one of the largest clubs in Australia. Scone 'Horse Sports for Schools' is one of the most comprehensive and largest inter school competitions in Australia (SUHHFC 2012). Scone is also the headquarters for the Australian Stock Horse Society, the largest individual breed association in NSW.

The first pony club in Australia began in Merriwa, (in the Upper Hunter LGA). Scone Horse Trials, the Upper Hunter Horse Festival and Murrurundi King of the Mountain Horse Challenge additionally attract 1,000s of visitors each year.

The region also supports nationally recognised specialist equine training, racing, medical and research facilities.

The unique geography of the Hunter Valley with its long valleys, allows maritime influences to extend much further inland than other coastal catchments. For horses the key benefit is a reduction in temperature variability.

The Upper Hunter additionally features;

- wide stretches of free draining alluvial soil on the valley floors rising to surrounding uplands that are critical for equine bone and muscle development
- attractive rural landscapes
- close proximity to major ports, markets and world class equine facilities.

The resultant moderate climate, low risk of pests and diseases, topography, and reliable irrigation options are ideal for producing premium quality horses (HTBA, 2012 and ASH, 2012.).

The region has experienced 200 years of equine development and has the features to further build on that investment.

Economic contribution

No comprehensive information is available on the combined economic value of all equine facilities horse breeds and events in the Upper Hunter region. However, the sector is critical to the economy of the region and is an intrinsic part of its identity, particularly in the Muswellbrook and Upper Hunter LGAs.

The following sections provide a snapshot of published information on the economic significance of the key equine sectors in the region.

Thoroughbred breeding

Whilst each Upper Hunter LGA has horse studs, the number of studs and stud horses varies greatly. The greatest concentration of studs and stud horses is in the Muswellbrook and Upper Hunter LGAs (see table 1).

ABS does not estimate any values for the equine industry production, possibly because the value of horses sold varies so widely. The average value of yearling foals produced on the leading Upper Hunter stud properties is estimated as \$100,000. Top value yearlings, however, can sell for over \$2 million.

ABS census (2006b) data identifies that equine properties in the Upper Hunter resulted in 1,124 jobs in NSW (see table 1). This equates to 4% of total equine industry employment in NSW (ABS 2006b). However, the 30 June census misses the peak period of regional equine employment during the spring foaling and mating periods. The scale of breeding operations in the Upper Hunter means the discrepancy is particularly significant.

Table 1- 2006 Upper Hunter Stud data (ABS)*

Local Gov't Area	No. of Studs	No. of Stud Horses	Employment
Dungog	27	278	20
Gloucester	18	201	0
Muswellbrook	38	2,630	378
Singleton	43	932	62
Upper Hunter	119	6,617	664
Total	245	10,658	1,124
NSW total	2,430	38,356	2,855

* 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).

The timing of the ABS agricultural surveys also underestimates the actual number of stud horses in the region and excludes:

- shuttle stallions (flown in for the spring mating season)
- visiting mares, resident on Upper Hunter region studs for the equine breeding season
- the majority of yearling horses (peak sales occur in May)

Hence whilst ABS agricultural surveys (ABS 2006a) report that on the 30th June 2006 there were 10,658 stud horses on 245 studs in the Upper Hunter region (ie 28% of all NSW stud horses on 10% of NSW studs), industry figures are significantly higher.

The significance of the Upper Hunter region equine breeding industry is not additionally determined by the number of permanently based horses, or the number of foals produced, but by:

- the quality of bloodlines and the value of horses bred in the region

- the reputation of those studs and the consequent fees they can attract for servicing and agisting mares and rearing foals
- the very extensive flow on values generated by the industry via employment, investment and support services

The HTBA (HTBA, 2011 and HTBA, 2012) identify the Hunter Valley as:

- the largest domestic producer of thoroughbred breeds, producing around half of all thoroughbred horses born in Australia
- the largest source of thoroughbred exports. 67% of all Australian thoroughbred horses exports in 2008-09; and 80% to 90% of the total value of all Australian thoroughbred exports were sired or bred in the region
- the total estimated value of exported Hunter sired or bred yearling foals was estimated as over \$100million in 2011 (Buchan 2012)
- internationally recognised for producing international Group 1 winners – the equine equivalent to Olympic Gold medal winners.
- In 2011 the Hunter produced 63 per cent of the world's top Australian racehorses (as ranked by the federation) and 33 Hunter Valley bred horse made world rankings
- the largest supplier of premium thoroughbreds at national sales. Half of all yearling horses listed for sale and all of the top 10 priced yearlings sold in 2010 were sired by Hunter Valley stallions
- a significant contributor to the regional economy with 85 per cent of all operating expenses spent within the Hunter Valley region
- contributing over \$2.4 billion to the NSW economy; and \$5 billion to the national economy, and
- employing thousands of people in the region and hundreds of thousands of Australian jobs across its value chain nationally

Buchan (2011) records that regional equine employment provided 1,946 NSW jobs in 2006 (includes standard ABS multiplier of 1.828) and had increased by 52% from 2000.

The overall economic contribution of Australia's thoroughbred breeding and racing industry in 2006 included; over \$1.1 billion in state and federal taxes; over \$750 million for horses exported to 24 countries and over \$1.1 billion of annual investment by breeders, owners and trainers (HTBA 2012).

Due to the concentration of studs, the region's premier bloodlines and dominance of the export markets, a very large proportion of the national economic value of thoroughbreds would also accrue from the Upper Hunter region.

Other equine breeds

A registered specific equine breed, the Australian Stock Horses are renowned for their toughness, endurance, resilience, and strength and versatility. They are particularly valued for stock work on farms and for competitive performance sports such as polocrosse and camp drafting (ASHS, 2012).

Scone is the national headquarters for the Australian Stockhorse Society (ASHS). The largest equine recreational and pleasure horse association in Australia, the ASHS has more than 180,000 registered horses (ASHS, 2012).

Figure 3 - Australian Stock Horses in the 2012 Dungog Film Festival parade (Photo: Glenda Briggs)



Some 97% of Australian stockhorses are either based in the Hunter or have Hunter bloodlines. More than 50% of the winners of the ASHS annual awards for outstanding national horses have been from the Upper Hunter region. Stock horses from the Upper Hunter region also featured in the opening ceremony of the 2000 Sydney Olympics. (Poole pers comm., 2012).

Figure 4 - Upper Hunter bred Polo horse in action. (Photo: Hunter Nursing Nannies)



The Upper Hunter additionally supports 3 of the state's 20 polo clubs. Founded in 1891, Scone is the largest NSW polo club and one of the most active. Contrary to a pattern of statewide rationalisation, Upper Hunter region polo clubs have grown to forge a strong "northern hub" (Scone Polo Club (SPC) 2010). This is attributed to exceptional circumstances including a local polo school (unique in Australia), strong links with equine breeders, history, facilities and the interactions between clubs. Polo horses are often Australian Stock horses and thoroughbred crossbreds.

ABS 2006 agricultural survey data identifies more than 5,000 'other' (non stud) horses on Upper Hunter region farms. This equates to 11% of the total number of other horses in NSW.

The density of those 'other' horses varies greatly between LGAs in the region and ranging from an average of 2 horses per horse property in Gloucester LGA to 13 horses per horse property in the Upper Hunter LGA (ABS 2006a). The NSW average was 5 other horses per equine property in 2006.

Support services and benefits

The Upper Hunter region additionally supports a unique concentration of equine services that includes;

- a specialist equine hospital at Scone (largest in the southern hemisphere)
- the world class Hunter Valley Equine Research Centre at Scone that combines nationally recognised education, training and racing facilities with specialist equine disease research
- experienced veterinarians, equine dentists, international breeders, managers and support staff attracted by the regions reputation
- specialist equine education and training facilities at Scone TAFE and Tocal Agricultural College
- a complex network of specialist horse transport and feed companies, specialist breeding, rearing, training, spelling and competition facilities and events
- access to cost effective feed, including hay and grains from the local growers as well as those in the Central West and North West regions.

Large volumes of hay are required, but hay is costly to transport due to its bulk. A critical mass of local lucerne hay growers provides high quality material for feed.

The equine industry also has strong linkages to regional beef cattle properties and to other horse groups. Beef cattle are typically run in conjunction with stud horses; to manage pastures, to help train horses and to diversify farm income.

Equine developments in the region that maintain the attractive rural landscapes are a key drawcard for local and regional tourism. The 17 day Upper Hunter Horse festival is a landmark regional tourism event. The region also features innumerable other equine events such as; the spring racing carnival, camp-drafting, polo and polocrosse events and the Scone Horse trials.

Industry challenges

The Upper Hunters' historic national and international reputation, the cluster of equine properties and related facilities and the maturity of existing studs are critical to the regions' marketing success and future development.

These advantages, however, also make the industry highly dependant on particular geographic locations. Consequently, the industry is highly vulnerable to potential land use conflicts, and the relocation of the current, mature studs is unviable.

Several Upper Hunter region thoroughbred studs adjoin existing coal mine holdings. The equine industry is consequently highly concerned about the proposed expansion of mining developments and coal seam gas exploration in the region (Buchanan 2012).

The HTBA (HTBA, 2010) highlight that the scale and location of currently proposed mining developments and coal seam gas exploration threatens critical perceptions of the region as a clean, healthy and secure location to breed and develop outstanding yearling horses. These concerns include:

- cumulative impacts on regional air quality
- increased competition for water supplies
- increased road traffic and conflicts
- an expansion of industrial landscapes
- a shortage of skilled rural workers
- loss of rural communities and changed culture. For example: a shift from permanent to transient population; reduced security and certainty; loss of local decision making; and lack of government investment

Figure 5 - Thoroughbred Stud horses on alluvial soils at Jerrys Plains with surrounding ranges. This rural landscape is a critical marketing factor (Photo: Glenda Briggs).



Equine stakeholders stress that even short term mining impacts would have serious and long lasting cumulative effects on equine and tourism sectors in the Upper Hunter region due to:

- investor uncertainty and reduced investment in blood stock, staff and facilities
- owners sending brood mares and shuttle stallions to other interstate and international locations such as New Zealand that are perceived to be less risky & less conflicted
- reduced buyer interest and yearling prices
- missing the current opportunity to further grow the industry based on exports to Asia
- inflated regional land prices
- ultimately declining production and profitability, loss of market share, and the loss of critical equine industry mass and support services.

Climate variability and change

Climate change impacts for equine developments include; increased heat stress, increased risks of storms and flooding and less reliable water supplies.

However, most thoroughbred studs are located in areas with a moderate temperature range and are experienced in adapting to the highly variable regional climate. This provides the capacity to adapt to predicted longer term changes. For instance, most studs have invested in on-farm water storages to capture peak flows, and in paddock shade and shelters. Opportunities also exist to improve irrigation efficiency.

A warming climate may additionally increase fodder production in the region, particularly in the higher rainfall areas where most studs are concentrated.

The Upper Hunter region equine industry is consequently well placed to adapt to climate change.

Infrastructure requirements

A reliable high volume source of high quality water is essential for equine developments. Water is used: to irrigate pastures; for livestock (drinking water, exercise pools and washing); for the large numbers of resident staff; for cleaning stables, yards and veterinary areas; and to maintain attractive surroundings (essential for marketing).

Regional water storages and the regulated Hunter River management systems ensure a high volume and relatively secure water for a large proportion of the thoroughbred studs and Australian stock horse properties within Singleton, Muswellbrook and the Upper Hunter LGAs. Larger studs additionally have invested significantly in off river storage dams that allow them to extract water when flows are high for use later when pumping restrictions might apply. The region's relatively uniform rainfall pattern is also beneficial.

Accessibility creates additional critical regional and local infrastructure requirements. Stud properties depend on good standards of roads for ready access to: regional grain and local hay supplies; specialist support services; other equine properties and for equine sales.

The joint running of cattle and horses also means that the equine industry also need access to regional cattle markets and transport services.

The thoroughbred industry also requires ready access to domestic and international airports to transport investors; shuttle stallions and export yearling horses. Studs also need regional towns to accommodate contractors and clients.

Figure 6 - Horse fencing, stables and facilities involve significant long term capital investment (Photo: Glenda Briggs)



Horse properties additionally have significant capital invested in on farm infrastructure such as stables, training and recovery facilities, fencing, landscaping and accommodation. Some 60% of employees are accommodated on site.

Over the last decade, thoroughbred breeders have invested over \$5 billion in breeding and training facilities in the Hunter region (HTBA, 2012).

Development prospects

Equine developments in the region have expanded significantly in the last decade. Industry surveys in 2000 and 2006 (Buchan 2012) identified;

- a doubling in the value of mares and foals (owned / majority owned)
- a 37% increase in average income from \$68 mill. in 2000 to \$93 mill. in 2006 (includes servicing fees, horse sales and fees for; agistment, spelling and marketing) and estimated to be over \$100 million in 2012
- 52% increase in the numbers employed on equine properties from 2000 to 2006
- a massive increase in average annual expenditure from \$59 million per stud in 2000 to \$270 million in 2006.

Strong prices, an expanding Asian market and the region's significant competitive advantages provide the basis for continued industry growth in both value and scale.

Many regional studs have detailed plans to expand their current operations. However, current mining pressures have created uncertainty that is expected to constrain investment.

The Hunter Valley Thoroughbred Breeders Australia and the Australian Stock Horse Association consequently advocates a 10 point plan of action to "restore balance, certainty and sustainability" to the region (HTBA, 2010). Critical to the plan is recognition of the region as a premier equine breeding location of state significance.

Important equine locations

The majority of equine studs are located in relatively close proximity to regulated water sources of the Hunter River and major transport routes. These areas also provide a desirable combination of features that support the growth of world class foals and critical marketing advantages.

Features of Important Equine lands in the Upper Hunter region:

- well drained alluvial soils and highly productive pastures for lactating mares and their foals (Class 1 to 3 Land and soil capability and moderate to high soil fertility);
- adjoining slopes for developing strong boned yearlings and for running dry mares (class 3 to 5 Land and soil capability and moderately low to moderate soil fertility); and
- reliable water sources for equine needs and irrigation (>900mm rainfall or within 2km of the regulated river systems and closely associated with alluvial groundwater)
- Equally important features found throughout the Upper Hunter region are:
 - temperate climate with low risk of pests and disease;
 - clean air and attractive surrounding landscapes and attractive landscapes along the access routes used by clients and investors;
 - ready access to quality lucerne hay and to grain supplies;
 - ready access to beef cattle enterprises and facilities to support pasture management; and
 - established industry clusters with ready access to international airports, racing and training facilities and support services.

The attached map (Figure 8) identifies land that combines all these features and is consequently highly suited to equine developments in Singleton and Muswellbrook LGAs and part of the Cessnock LGA (the study area).

These important locations for the equine industry may also be used for other agricultural land uses, such as beef cattle, dairying, hay or horticulture. This diversity of uses indicates the economic value of such agricultural lands.

Land use planning implications

Opportunities for equine studs are limited by their highly specific resource requirements. Reputation is also place specific.

The Upper Hunter region's equine reputation is built upon decades of capital investment, breeding and marketing. It is also supported by an established critical industry mass that ensures ongoing access to a wide range of specialist support services. This includes strong links with the regions beef and hay producing sectors.

Economies of scale are also necessary to: justify the level of investment in facilities, provide a range of bloodlines and equine environments; manage pastures and minimise land use conflict risks (such as noise or vehicle movements that can spook highly strung horses) and protect riparian areas and remnant vegetation.

Whilst equine properties can vary greatly in size, most of the successful internationally recognised studs in the region are between 1,000 and 3,000 ha in size.

The numerous stud properties in the region are a long term land use that can take many decades to establish and involve high levels of capital investment in fixed facilities with a long lifespan of more than 25 years. Investment surety and compatible development of surrounding lands are consequently critical.

Figure 7 - Mares and foals near Scone with adjoining undulating grazing lands that are critical for young stock structure and development (Photo: Glenda Briggs)



Landuse Planning can support equine developments via strategic studies and planning instruments that:

- identify lands that are highly suitable for equine development, including critical industry clusters
- identify the location, significance and nature of existing equine developments
- provide for compatible land uses within locations that are highly suitable for equine developments
- strategically plan for mining and residential developments in locations that do not conflict with equine developments

Local governments are encouraged to retain equine development opportunities via appropriate zoning of critical industry cluster areas and highly suitable equine lands (preferably RU1).

Within important equine land areas LGAs are also encouraged to adopt an appropriate minimum lot size to support industry growth. A minimum lot size of 100ha is recommended.

DCP controls, such as set backs and landscaping requirements may also help to minimise land use conflicts and retain critical landscapes.

Additional information on land use planning issues including the number of horses per hectare is available in the DPI guideline; Planning for Horse Establishments.

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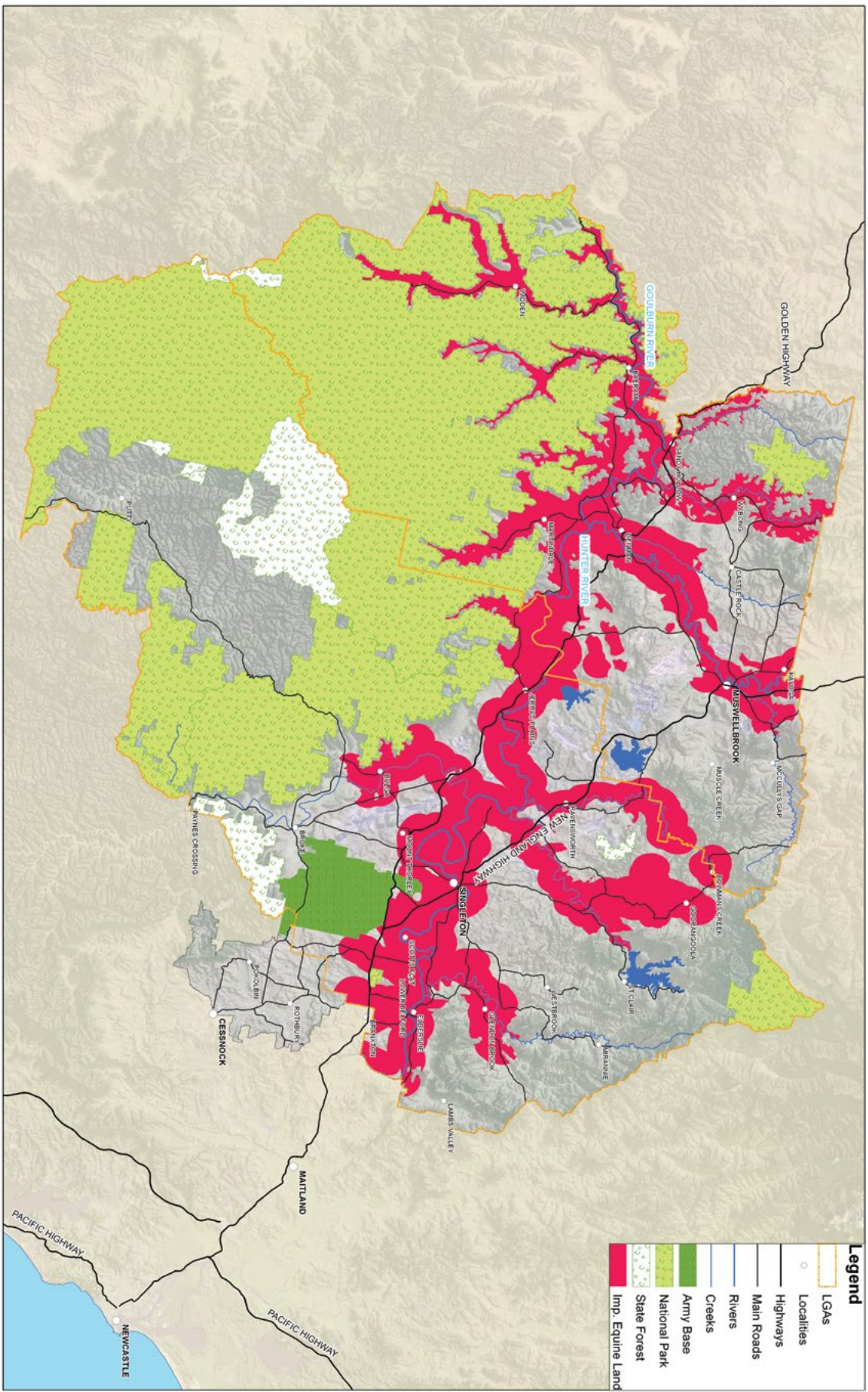
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Figure 8 – Land Important for Equine land uses in the Singleton and Muswellbrook Local Government areas.



Singleton - Muswellbrook Pilot Area Important Equine Land



Department of
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