GHD Advisory

Peel Equine Strategy Competitive and Comparative Analysis - Social / Economic

Peel Regional Leaders Forum

07 February 2020

Project Number: 9111030

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1. Executive summary

Purpose of the Report

This report has been prepared for the Peel Regional Leaders Forum to provide a high level comparative assessment of the various equine regions in and around the Greater Perth Metropolitan Area in Western Australia. The regions within the scope of this review are:

- The Peel region: Boddington, Mandurah, Murray, Serpentine-Jarrahdale and Waroona;
- The North East Metropolitan region: Bassendean, Bayswater, Belmont, Kalamunda, Mundaring, Swan and Wanneroo;
- The South East Metropolitan region: Armadale, Canning, Gosnells, Kwinana, Rockingham, Victoria Park;
- The Northam region: Toodyay, Northam and York; and
- The Greater Bunbury region: Bunbury, Capel, Dardanup and Harvey.

Report Objective

The objective of this report is to identify the most suitable region for intensification, agglomeration and growth of the equine industry over the long term. This suitability will be assessed according to a number of factors which determine the comparative advantages of each region individually and collectively.

The Equine Industry in Western Australia

Western Australia’s equine industry is a made up of a vibrant mix of activities that cater for both the racing and non-racing sectors. The industry provides significant levels of employment, particularly in the low skilled categories, and adds major value to the local and regional economies.

Premier racing events are predominantly held in the inner-city regions. These events are experiencing falling spectator attendance and have long veiled the underpinning equine service industries located in the outer urban areas, such as veterinarians, farriers, saddlers, feed merchants and other businesses. This change in participation is ushering in new thinking for the future direction of the equine industry in the state. Key participants are looking to collocate both racing and non-racing industries to achieve economic efficiencies and encourage engagement from a new generation of recreational equine industry participants.

Current Strategic Environment

Major strategic plans have been identified for the Peel Region which include ambitions for the future of the equine industry in this locality. The North East Metropolitan Region recognises the equine industry as an important contributor to the region, but of secondary priority to viticulture and tourism. By comparison, the Peel region has in place documented strategies and plans for the intensification of equine activity in the area. These include highly supportive local planning schemes for equine industry land use and dedicated equine hubs as key interventions to protect and nurture the industry. Recommendations for the racing industry long term future plans include moving the equine industry centre south into the Peel region. The Peel regional local government authorities’ equine strategies will encourage and facilitate both the racing and non-racing equine activity shifting further to the south of the Greater Perth Metropolitan Area.

Comparative Analysis

A high level comparative analysis was conducted that ranked each of the five identified equine industry regions against each other across a variety of criteria, summarised below.

Table 1 - Summary of Comparative Analysis Criteria

Criteria	Description
Overall strategic direction	Indicative of the ambition of each region in demonstrating the strength and sustainability of the equine industry.
Current population and population density	Important for understanding potential demand and current land use.
Forecasted population	Important for understanding the intensity of land use going forward.
Proximity to urban populations	Demonstrates the relationship between areas of equine activity, population centres and their dependencies.
Employment	Provides an indication of the current intensity and opportunity of the equine industry in each area.
Horse registrations	Demonstrates the registered location of race horses and provides an indication of associated activity locations
Non-racing equine clubs	Indicative of the intensity of non-racing equine activities such as riding and dressage that provide recreation for the community.
Allied commercial activity	Provides a comparative count of businesses relating to the equine industry such as feed stockists, veterinarians, farriers that indicate economic and financial benefits.
Land use planning	Important to obtain a full understanding of the current and future planning for equine land uses in each region, as the equine industry is land-use dependent.
Land affordability	Demonstrates the likelihood that equine land use will be affordable in a region, as compared with residential and other urban land uses.
Groundwater and soil	Groundwater availability and soil typologies are a critical requirement for the growth of equine land uses.
Local economic benefits	A holistic view of the market agglomerating forces acting on the equine industry in each region.

Recommendations

This report has determined the Peel Region to be the most appropriate region for the intensified development of the equine industry in Western Australia into the future. The region has a dedicated equine strategy, wide expanses of rural land, close proximity to major population centres, and highly accommodative local planning schemes. The combination of these favourable conditions currently supports major racing and non-racing assets such as Pinjarra Race Club, Pinjarra Paceway, the Murray Regional Equestrian Centre and the Byford Trotting Training Facility and an abundance of recreational clubs across all disciplines of the sport.

It is located close to growing population centres which are expected to provide significant demand for equine activity and in the region. This will shift the centre of the industry away from the traditional north east metropolitan areas as residential densification increasingly precludes equine activities.

Capitalising on the Peel region's suitability for increased equine industry activity and growth will involve a number of coordinated investment initiatives across the region. These recommendations for investment initiatives are as follows:

1. Improving and expanding state level equestrian facilities in the Peel region to attract and service growing populations from the southern Perth metropolitan area and broader south west region of Western Australia
2. Encouraging participation in sporting and recreational equine activities amongst the next generation of industry participants, including equine assisted therapy and opportunities for people with disabilities
3. Amending zoning and structure plans to provide a standardized and optimised approach to equine management plans to simplify usage and land purchase processes for the average land /horse owner
4. Enhancing the region's industry linkages with the educational sector and small to medium enterprises that form key parts of the industry supply chain to encourage employment development and participation (industry means racing, recreation and supporting supply chains)
5. Enhancing tourism promotion, marketing and amenities to increase levels of visitation for equine events and activities
6. Alignment of environmental planning conditions for the domiciling of horses across all Peel Regional local government authorities, to achieve a high level of environmental protection
7. Development of on-course and on-facility stabling to encourage increased racing, pacing, eventing and recreating industry participation, particularly from nearby densely populated urban areas

2. Introduction

2.1 Scope

This report has been prepared for the Peel Regional Leaders Forum to compare and contrast the regions engaged in the equine industry in and around the Greater Perth Metropolitan Area. The report analyses the competitive and comparative attributes of each region with respect to suitability and desirability to be recognised as Western Australia's premier equine region.

The overall project aim is to facilitate the implementation of land use and infrastructure planning associated with the equestrian industry. This approach will be aligned with the principles of the State Planning Framework and assist in informing investment decisions of significant equine infrastructure by identifying opportunities for growth in the equine industry.

This report and analysis is a literature sourced review and may be limited by the quality, quantity and factual accuracy of source documents reviewed. GHD's opinions, findings, conclusions, and recommendations are based on interpretations of these source documents.

2.2 Background

The Peel Regional Leaders Forum is comprised of the Shires of Boddington, Murray, Serpentine-Jarrahdale, and Waroona, the City of Mandurah, Regional Development Australia Peel, the Peel Community Development Group and the Peel Harvey Catchment Council. The Forum's objectives are to:

- Reinforce, promote and enhance the identity, regional boundary of Peel, ensuring its retention as a region
- Facilitate the economic development, ecological integrity and social wellbeing to benefit the people and environment of the Peel region
- Encourage collaboration internally and externally to develop and implement mutually and regionally beneficial projects

The equestrian sector is a strong contributor to the Peel economy, and is recognised as a key development objective in Peel Development Commission's 'Peel Regional Investment Blueprint'. The Blueprint notes 'The Peel is positioned as the premier region for the expansion of the equine industry in regional Western Australia'.

Collectively, the Peel Regional Leaders Forum is seeking to demonstrate this premier positioning to the Western Australian government agencies that undertake land planning, sport and recreation, agricultural and other infrastructure development planning activities.

This Peel Equine Strategy Competitive Analysis Report will add to the already extensive body of reports and studies that support the case for the designation of the Peel Regional as the premier region for further equine investment by both the Government and the private sector.

The economic contribution of the equine industry is significant. A range of equine businesses and services support the equine activities across all codes. Each horse necessitates a binding commitment to adequate care, feed, land and shelter, gear, veterinary services and facilities, as well as the retention of skills or education amongst individual owners. The estimated cost of keeping a horse is $10,000 per horse per year, whereby the community has indicated that 80% of the expenditure is on local goods and services. This contributed to an overall local equine economy of $168 million[1].

2.3 The Equine Industry in Western Australia

Western Australia's equine industry is a made up of a vibrant mix of activities that cater for both the racing and non-racing sectors. The industry employs a significant number of people and adds a significant value to the local and regional economies where they are employed.

The development, welfare and integrity of the racing sector is regulated by Racing and Wagering Western Australia (RWWA), which oversees metropolitan and country thoroughbred, harness and greyhound racing in the interests of the long-term viability of the industry in the state. RWWA schedules meetings and provides funding for prize money, rider fees, event and training fees, and capital grants to clubs. Clubs own, operate and maintain assets to support racing. These assets include racing tracks and courses, public facilities and associated supporting infrastructure. Racing club's operational revenue is comprised of admission fees, food and beverage, margin from on-course wagering activities and event and training fees from RWWA.

The non-racing sector consists of a large variety equine activities including non-racing competitive sports, recreational horse riding, riding for people with disabilities and other uses.

A breakdown of horse registrations by various disciplines is presented below in Table 2.

Table 2. Snapshot of horse registrations in Western Australia

Local Government Area	Racing		Non-Racing				Total
	Standardbred horses	Thoroughbred horses	Equestrian horses	Pony club horses	Polocrosse horses	Polo horses	
Shire of Serpentine-Jarrahdale	1,085	445	792	963	333	258	3,876
Shire of Murray	496	225	258	387	183	0	1,549
City of Rockingham	22	739	138	342	0	0	1,241
City of Swan	250	514	1,251	1,200	342	174	3,731
City of Armadale	153	13	198	726	0	0	1,090
Shire of Mundaring	26	15	477	585	0	0	1,103
Shire of Capel	202	299	132	318	162	0	1,113
City of Geraldton	0	442	99	510	843	36	1,930

Source: RWWA 2017, Shire of Serpentine-Jarrahdale Equine Strategy 2018.

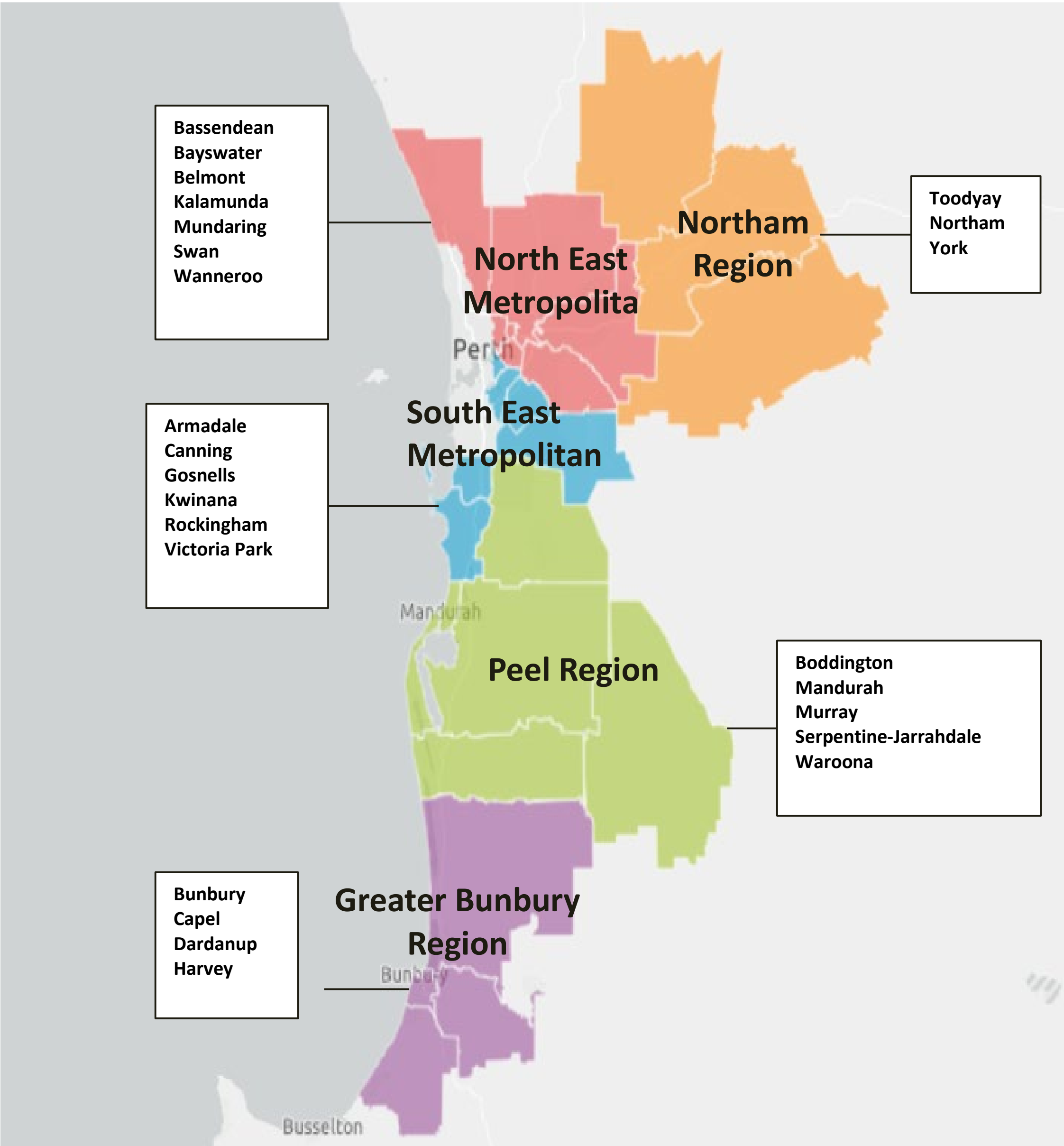
[1] AEC Report, 2016

In association with both the racing and non-racing sector, a large number of supporting occupations are employed for the service of the industry, including such as horse breeders, farriers, veterinarians, trainers, transporters and retailers. Detailed business counts data of these businesses is available for the Peel region only, demonstrating 257 equine businesses: 85 in the racing sector, 66 in the non-racing sector and 106 in the equine support sector (AEC, 2016).

2.4 Project Area

Five regions have been identified in or around the Greater Perth Metropolitan Area where the equine industry is a recognised activity. These regions are shown in Figure 1 and make up the Project Area.

Figure 1 - Map of the regions included in the Project Area



3. Planning Framework

3.1 State Planning

3.1.1 State Planning Strategy 2050

The State Planning Strategy provides the strategic context for planning and development decisions throughout the State. A key challenge recognised by the State Planning Strategy is the fragmentation of rural land due to urban expansion and the provision of smaller rural lifestyle lots resulting in the loss of productive agricultural land. Expansion of the equine industry will need to recognise and balance other rural land uses, while also giving consideration to the impacts of future land uses and development on the impact of nationally significant environmental assets.

3.1.2 State Planning Policy 1: State Planning Framework (SPP 1)

State planning policies provide the overarching level of planning policy control and guidance in Western Australia. Prepared under Part 3 of the *Planning and Development Act 2005*. SPP 1 brings together existing State and regional policies, strategies, plans and guidelines within a central State Planning Framework. It sets the context for decision making on land use and development in Western Australia.

SPP 1 includes general principles for land use planning and development. The most relevant and important principles for this project include:

Community: Enable diverse, affordable, accessible and safe communities

Planning anticipates and responds to the needs of existing and future communities through the provision of zoned and serviced land for housing, employment, recreation and open space, commercial and community facilities. Improved planning for the equine sector will help promote the Peel region as a commercial area as the focus for equine activities at the local, district and regional level. Effective planning will provide opportunities for ongoing community consultation to ensure support for this industry and this land use.

Economy: Facilitate trade, investment, innovation, employment and community betterment

Planning should contribute to the economic well-being of the State, regions and local communities by supporting economic development through the provision of land, facilitating decisions and resolving land use conflicts. Providing suitable zoned and serviced land for equine activities allows for a variety of wealth generating activities; will avoid land use conflicts by separating sensitive and incompatible uses; promotes local employment opportunities and provides tourism opportunities.

Environment: Conserve the State's natural assets through sustainable development

The protection of environmental assets and the wise use and management of resources are essential to encourage more ecologically sustainable land use and development. Planning for the equine industry should consider and preserve natural systems and not detrimentally impact natural resources (particularly land and water). Future expansion of the equine industry will be permissible only with the due preservation of nationally significant environmental assets in the regions.

Infrastructure: Ensure infrastructure supports development

Planning should ensure that physical and community infrastructure by both public and private agencies is coordinated and provided in a way that is efficient, equitable, accessible and timely. This means the equine industry can be supported by logical and efficient infrastructure, can be protected from inappropriate land use and development and utilise existing infrastructure and services.

Regional Development: Build the competitive and collaborate advantages of the regions

Planning responds to the unique characteristics of, and enables the building of, vibrant regional communities and regions with strong economies by guiding land use, development and availability of land to support investment. Supporting the equine industry in the Peel region will:

- Facilitate a strong and resilient regional community and region by promoting a unique land use and developing regional resources through economic diversification and expansion
- Facilitate co-ordination of land uses and related impacts, standards of development and availability of land, recognising the longer term sustainability impacts on communities
- Allow this area to capture investment to create and sustain growth

Governance: To build community confidence in development processes and practices

Governance ensures decision-making processes which are informed by policy and focused on delivering planning and development outcomes that reflect the public interest. Developing a system of good governance will:

- Ensure that the support for equine industry in the Peel region is supported by proper planning principles and practice and is subject to public consultation and regular review to ensure currency
- Ensure decisions articulate the planning instruments and policies relevant to proposals and applied consistently
- Assess planning proposals on merit – applying discretion where justified and clearly articulating any departures from policy
- Promote transparency and public participation

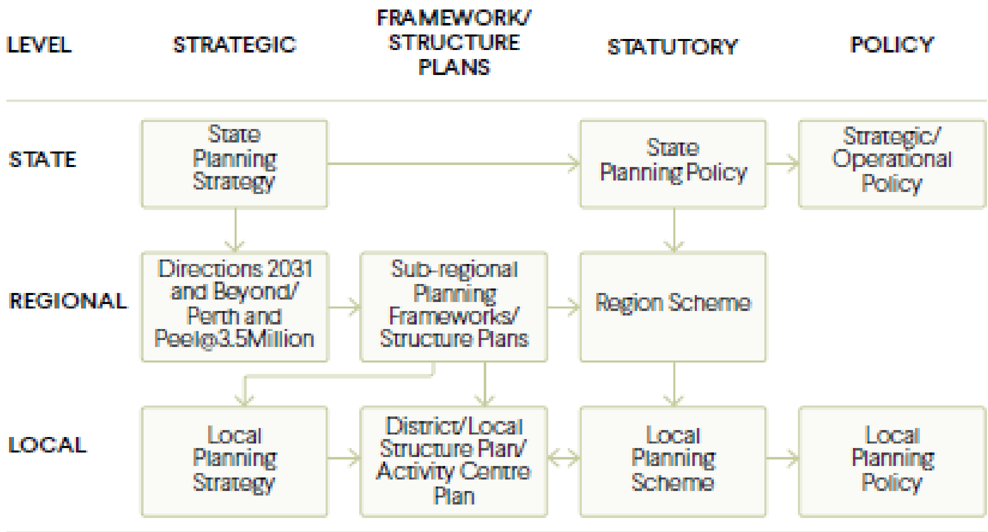


Figure 2 - State Planning Strategy Framework

The utilisation of the Peel Region as the most suitable region for the growth and development of the equine industry is supported by all six general principles of the SPP1 Framework.

3.1.3 State Planning Policy 2.1: Peel-Harvey Coastal Plain Catchment (SPP 2.1)

SPP 2.1 is a state policy for water resource planning. Groundwater resources are of vital importance to the sustainability of the equine industry in the regions. The current SPP 2.1 applies specifically to the Peel-Harvey Catchment, including almost all of the Peel region, one of the key equine industry region's under investigation.

The SPP acknowledges the significant investment made by government, industry and the community to repair and care for the Peel region's environmental assets, particularly in respect to water quality improvement investments. The stated objectives of SPP 2.1 are to:

- improve the social, economic, ecological, aesthetic, and recreational potential of the Peel-Harvey coastal plain catchment
- ensure that changes to land use within the catchment to the Peel-Harvey estuarine system are controlled so as to avoid and minimise environmental damage
- balance environmental protection with the economic viability of the primary sector
- increase high water-using vegetation cover within the Peel-Harvey coastal plain catchment
- reflect the environmental objectives in the draft Environmental Protection Policy (Peel-Harvey Estuarine System) 1992
- prevent land uses likely to result in excessive nutrient export into the drainage system.

It should be noted that the Western Australian Planning Commission has proposed to integrate SPP 2.1 into a single state-wide water policy which will have the same, if not strong, water quality protection targets. The new SPP is proposed to also have a separate section on the Swan-Canning System.

3.1.4 State Planning Policy 2.5: Rural Planning (SPP 2.5)

The purpose of SPP 2.5 is to protect and preserve Western Australia's rural land assets due to the importance of their economic, natural resource, food production, environmental and landscape values. SPP 2.5 will apply to most lands capable of supporting equine activity in the Peel region.

Importantly, SPP 2.5 in the Peel region:

- Does not support rural residential proposals that are inconsistent with the sub-regional planning framework
- Protects rural land uses from urban and rural living encroachment
- Preserves priority agricultural land
- Supports conversion of land from priority agricultural to other uses where required as a matter of State significance.

SPP 2.5 is supported by the Rural Planning Guidelines and Development Control Policy 3.4: Subdivision of rural land. The guidelines explain the intent and interpretations of SPP 2.5. In line with the guidelines, the establishment of an equestrian area or hub should demonstrate the demand for such use, servicing and whether the needs can be achieved within an existing zone.

It is noted that there have been examples of best practice land management case studies undertaken by Peel equestrian industry landowners.

3.2 Regional Planning

3.2.1 Perth and Peel@3.5 Million

The Perth and Peel@3.5million strategic suite of documents clearly spells out what Perth could look like in the future, how we can maintain our valued lifestyle and how we can realistically accommodate a substantially increased population.

Planning and development in the Peel region is guided by the South Metropolitan Peel sub-regional planning framework (which forms part of Perth and Peel@3.5million). The sub-regional planning framework provides guidance on sustainable development over the next three decades to ensure the impact of urban growth on areas of environmental significance is minimised; to protect our heritage; and importantly, to maximise the benefits of available land and existing infrastructure.

A key principle of Perth and Peel@3.5 Million is that support for new rural residential development which accommodates the keeping of horses will be limited. This is important when considering development of an equine industry and facilitating equine land use, as rural residential land is likely to be the most economically attractive form of land zoning. There is a need to modify existing zoning and new structure plans to better delineate agricultural and recreational land use opportunities using a finer grain mapping aligned with the dominant soil typology and sensitive adjacent environments.

3.2.2 Perth and Peel Green Growth Plan for 3.5 million

The State Government has prepared the draft Perth and Peel Green Growth Plan for 3.5 million (Green Growth Plan). Although the proposed Green Growth Plan remains in draft form, the policy could potentially deliver two critical outcomes with potential for material impact on the equine industry:

- Cutting red tape by securing upfront Commonwealth environmental approvals and streamlining State environmental approvals for the development required to support growth to 3.5 million people; and
- Unprecedented protection of our bushland, rivers, wildlife and wetlands through implementation of a comprehensive plan to protect our environment.

The draft Green Growth Plan is a contemporary approach to integrating environmental protection and land use planning and is based on the largest urban-based environmental assessment ever undertaken in Australia. It has allowed the cumulative environmental impacts of growth to 3.5 million people to be considered and minimised.

It will provide certainty in relation to the environmental outcomes that will be delivered, the areas where developed can be contemplated and the environmental obligations that will apply in terms of avoidance, mitigation and conservation actions.

The proposed Green Growth Plan secure approval under Part 10 of the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and deliver streamlined approvals processes under the Western Australian Environmental Protection Act 1986 (EP Act) for the following development actions or 'classes of action':

- Urban and industrial development;
- Rural residential development;
- Infrastructure development;
- Basic raw materials extraction; and
- Harvesting of pine plantations.

The Green Growth Plan delivers a comprehensive environmental program for the protection of both Commonwealth matters of national environmental significance and State environmental values. This includes:

- 170,000 ha of new and expanded conservation reserves in Perth and Peel regions and immediate surrounds, including improved protection and management of Bush Forever sites and establishment of Peel Regional Park;
- Implementation of critical steps to cut nutrient run-off into the Swan Canning and Peel Harvey estuaries and ensure the health of these systems over the long-term; and
- Implementation of a program of on-ground management to improve protection and management of threatened species, wetlands of international significance and threatened ecological communities.

At the centre of the Green Growth Plan is the Strategic Conservation Plan, which sets out the conservation and environmental outcomes and objectives that will be achieved over its 30 year lifespan.

These outcomes and objectives will be delivered through the implementation of:

- The avoidance, mitigation and rehabilitation requirements that will be implemented though the processes set out in Action Plans A to E; and
- The Conservation Framework, which includes the specific conservation and environmental commitments set out in Action Plans F and G and the Conservation Program set out in the Strategic Conservation Plan and Action Plan H.

The suite of draft Green Growth Plan documents provide a comprehensive approach to the avoidance and mitigation of environmental impacts and a committed Conservation Program that will deliver significant improvements to the protection and management of the environment as the Perth and Peel regions grow to 3.5 million people.

It is understood that the State Government has decided to suspend the work on the Strategic Assessment of the Perth and Peel Regions (Perth and Peel Green Growth Plan for 3.5 million) to allow for a critical review of the ongoing costs, risks and benefits to Western Australia to be undertaken and considered by government. The Premier has approved an Independent four member panel to review the Strategic Assessment pursuant to the Terms of Reference.

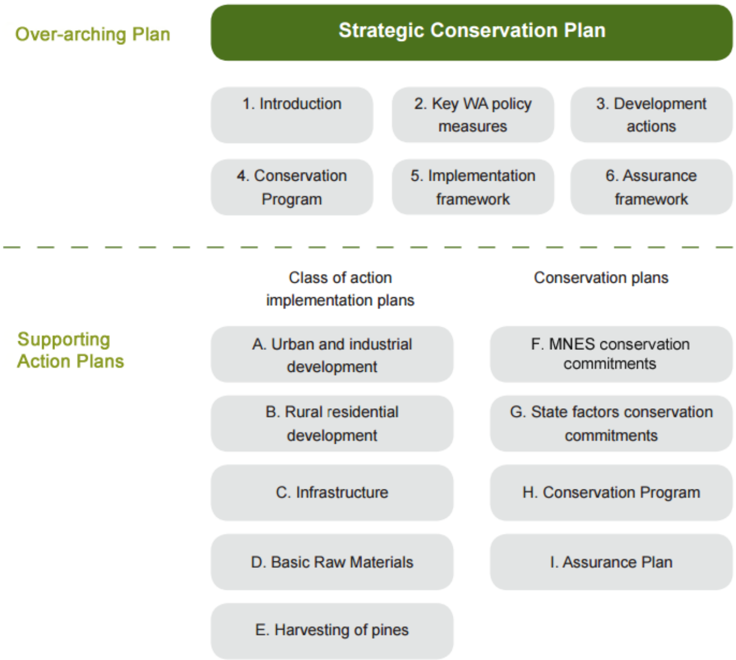


Figure 3 - Perth and Peel Green Growth Plan Framework

3.2.2.1 South Metropolitan Peel Sub-regional Planning Framework

The South Metropolitan Peel Sub-regional Planning Framework establishes a long-term and integrated land use and infrastructure. The framework does not specifically mention the equine industry, however, facilitating the development of this industry will achieve the broader objectives of the planning framework. It is important to ensure that other, potentially competing, objectives are considered such as the protection of agricultural land for food production and protection of the environment.

Rural residential areas provide alternative lifestyle and housing opportunities and provide a transition between urban and rural areas. Rural residential areas are likely to be attractive to hobby horse owners and equestrian businesses. Creation of new rural residential areas beyond those classified within the framework is unlikely to be supported by the Western Australian Planning Commission.

Rural residential land is characterised by lot sizes that are predominantly between 1 and 4 hectares. Areas where permitted lots sizes are predominantly larger than four hectares are considered to have a 'small holdings' character and are classified Rural, even if some lots smaller than four hectares in size are permitted. It is important to consider land zoning and lot size when determining suitable areas where equine development and land use can be supported.

Environmental impact modelling has been undertaken by PRLF officers, indicates that grazing on appropriate land and at appropriate stocking densities can achieve both the land management objectives of Department of Agriculture Food Western Australia (2000), and the nutrient load targets of Department of Water (2002). It also represents a lesser environmental impact than the historical use of the land for beef cattle grazing as N and P rates are reduced.[2]

[2] Information provided by the Shire of Waroona

Other relevant planning principles included in the framework are:

- Facilitate increasing the number of people living close to where they work with the identification of suitable sites for employment within the sub-region, with a focus on attracting strategic economic and employment land use to the sub-region
- Protect employment land from other competing land uses that could limit its ability to be used for employment purposes.
- Provide effective and sustainable management of water resources including public drinking water source areas, drainage, nutrient management and water allocation to minimise environmental impacts particularly in a drying climate
- Avoid, protect and mitigate impacts of environmental attributes (with an emphasis on avoiding and protecting) when allocating proposed land uses, or address impacts through an improved conservation estate where those impacts cannot be avoided or mitigated, especially the Peel-Harvey Catchment area

The sub-regional planning framework for the Peel region is shown in Figure 4 over leaf.

Local Government Authorities can assist in avoiding, protecting and mitigating negative environmental impacts by adopting a standardising and optimised approach to Equine Management Plans. This will balance the need for excellence in land use management and the cost to land/horse owners where the required standard of environmental protection required is not clear and can be subjective. This represents a risk to developers/land owners as purchasers do not have clear guidelines regarding the number of horses that can be kept and under what conditions, typically nutrient management.

Providing consistent/standardised information, templates, guidelines and positive support will assist development and responsible expansion of the industry. This is an opportunity to educate landowners on good practice and sustainability and demonstrate to WAPC that best practice is being followed.

It is noted that the Shire of Murray's submission on this strategic planning document highlighted a gap in the current Rural Planning Policy provision and backed up with supplementary advice from DPIRD that Rural Residential development (1-4 ha sized lots) is inappropriate to accommodate equine type uses due to lack of space for horse keeping and inappropriate soils. A minimum of 3.4 ha of grazing land is required for the keeping of two light horses if unirrigated and Rural Smallholding land parcels in the 4-10 ha lot size range is considered far more suitable with additional environmental management controls deemed necessary.[3]

[3] Shire of Murray advice to GHD November 2019

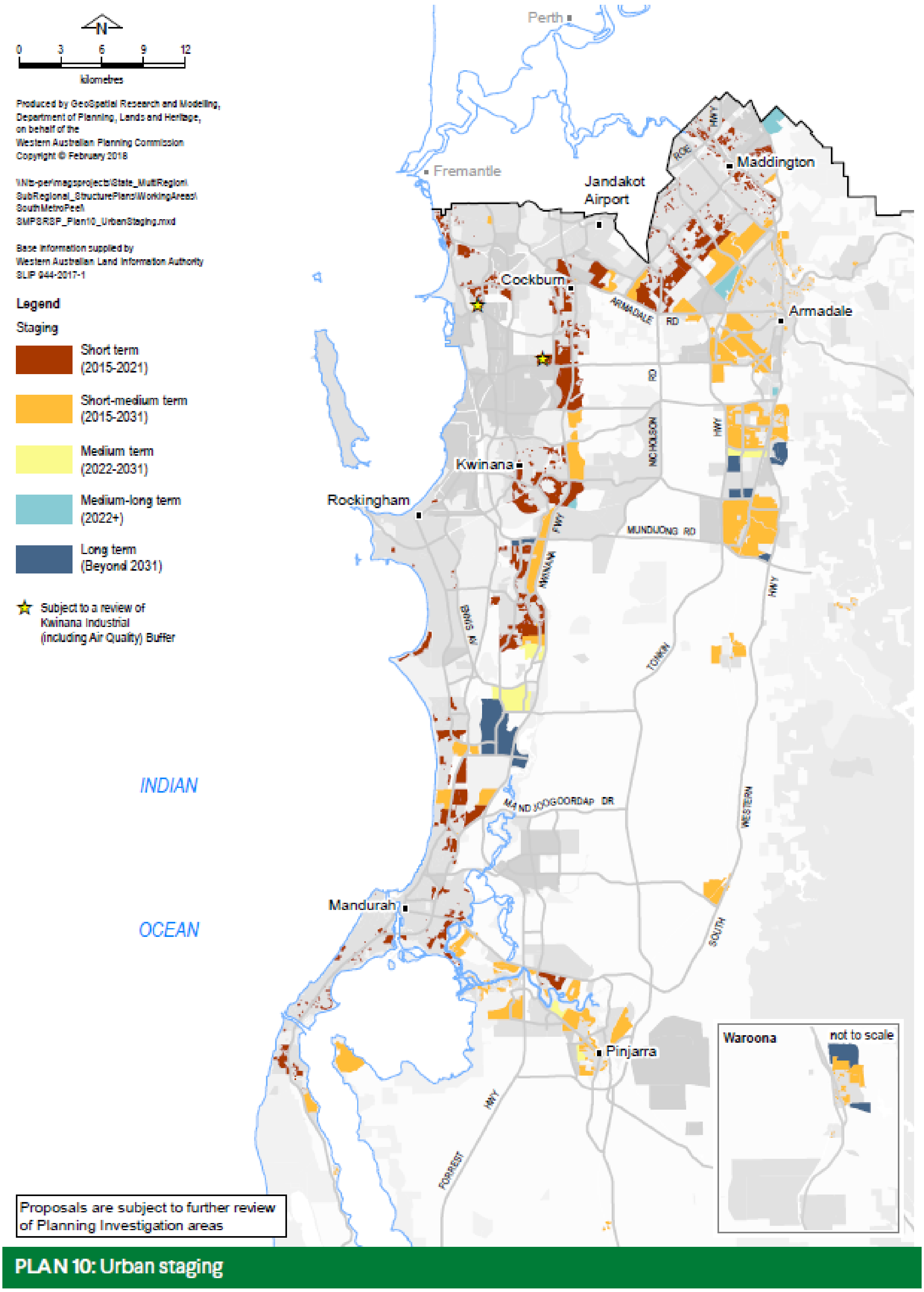


Figure 4 - South Metropolitan Sub-regional Planning Framework (south)

3.2.3 Peel Region Scheme

The Peel Region Scheme (PRS) guides land use and provides the legal basis for planning in the Peel Region. The PRS area includes the local government boundaries of the City of Mandurah and the shires of Murray and Waroona. The PRS defines the future use of land, dividing it into broad zones and reservations. It requires local government town planning schemes to provide detailed plans for their respective parts of the region. These schemes must be consistent with the PRS (www.planning.wa.gov.au, accessed 29 April 2019).

The PRS does not include the Shire of Boddington which is not part of any region scheme and only covered by the local scheme or the Shire of Serpentine Jarrahdale which is included in the Perth Metropolitan Region Scheme.

3.3 Local Planning

3.3.1 City of Mandurah

The draft Local Planning Strategy was adopted by the City in 2013 and it is awaiting approval by WAPC. The draft strategy identifies two main areas for rural living, being Parklands and lots on the western side of Lake Goegrup. These areas generally have lots of 2 hectares or more, are heavily vegetated and have restricted clearing areas for dwelling construction. Due to the large area (586 hectares) occupied by very few lots, services and infrastructure is minimal, however the type of development could be considered an alternative form of sprawling development.

The above draft strategy is largely supported by the following provisions in the Local Planning Scheme:

- There is a general presumption against subdivision in the rural zone
- The rural residential zone requires building envelopes of not more than 2,000 square metres which must encompass the dwelling and outbuildings
- Development approval required for the keeping of horses in the rural residential and rural zones
- No clearing of native vegetation without development approval (unless exempt)

The Department of Primary Industries and Regional Development stocking rates are applied by the City as part of the decision-making process. The Peel Harvey Coastal Plain Catchment Statement of Planning Policy is also applied to ensure the catchment is not negatively impacted.

Given the above restrictions, it is unlikely that the City of Mandurah can support large scale equine enterprise, however, one or two horses on rural residential or rural zoned land may be acceptable.

3.3.2 Shire of Murray

The Shire of Murray does not have a local planning strategy, but uses its commercial and rural strategies to help guide development and growth within the Shire. The rural strategy was last reviewed in 1997 but still applies until superseded by other documents.

The Nambeelup – North Dandalup Local Rural Strategy was endorsed by Council and WAPC in 2012. This document was formulated in response to a number of ad-hoc rezoning proposals and is expected to cater to expected rural settlement patters over a 15-20 year timeframe.

Rural residential areas identified in the Nambeelup – North Dandalup Local Rural Strategy have, to a small extent, been subdivided, however there is still significant capacity.

The Shire released a draft Southern Palusplain Strategy in February 2019. Once endorsed, this strategy will replace the rural strategy in this area. The draft Southern Palusplain Strategy acknowledges and supports the growing equine industry and proposes a number of ways to help promote and manage opportunities for equine based activities and recreational pursuits. Equestrian activities are supported in the rural zone and the proposed special use – equine training facility zone. Further support is proposed around the Murray Regional Equine Centre by increasing commercial land and by allowing short-stay accommodation.

Local Planning Policy Keeping of Livestock in Rural Residential areas guides the approval process for keeping horses in these areas. The Bed and Breakfast Local Planning Policy supports and guides the establishment of short stay accommodation that may be required to support growth of the equine industry.

Local Planning Scheme No. 4 provides statutory restrictions and allowances for keeping horses on specific land zonings within the Shire. For example, the keeping of horses is:

- Not permitted within the Hills Landscape Protection zone
- Permitted within the Farmlet zone (Department of Primary Industries and Regional Development stocking rates apply)
- Permitted in the Special Rural zone with location specific stocking rates

The proposed new Equine Living precinct has been designed to complement the infrastructure and equine activities provided in the Murray Regional Equine Centre. This type of new equine zoning is consistent with Rural Smallholdings in SPP 2.5 and is consistent with recommendations and strategic goals/potential initiatives in the Peel Equine Strategy (PDC 2017) to identify areas suitable for intensification of equine activity and exploring opportunities for policy/town planning scheme recognition of equine land use precincts. Nutrient Export Balance calculations for this proposed Equine Living precinct were prepared which demonstrated adequate land capability capacity for the keeping of horses with approved Equine Management Plan and ongoing nutrient monitoring.

3.3.3 Shire of Waroona

The Shire of Waroona's Local Planning Strategy was endorsed by the Western Australian Planning Commission in August 2009. This document provides the long-term planning direction for the Shire.

The Strategy indicates that the keeping of horses is permissible in Lake Clifton subject to land capability constraints. Lots in this area are zoned for rural residential use and are predominantly around 2 hectares in size. Keeping horses in many of the other settlement areas is not permitted but may be allowable in rural zones (as per the provisions of Local Planning Scheme No.7). For example, in the General Farming zone, rural pursuits are permitted (including the stabling, agistment or training of horses) and equestrian centres are a discretionary use (Council can permit this land use by issuing development approval).

Tourism, including horse riding, is recognised by the strategy as significantly important. There is also support for holiday, bed and breakfast and short-stay accommodation which may be utilised during equestrian events with the Peel region.

3.3.4 Shire of Boddington

The Shire of Boddington's Local Planning Strategy was endorsed by the Western Australian Planning Commission in 2007 to guide land use and activities within the Shire over a 15 year period. Development of an equine industry or keeping horses generally is not a key focus of the Local Planning Strategy, however, it does recognise that rural living development is compatible with surrounding land use where it does not result in loss of productive agricultural land. The importance of not overstocking land is also recognised.

The Shire's Local Planning Scheme No.2 supports the keeping of horses in a number of land use zonings, including:

- In the residential and special residential zones, rural pursuit (including the stabling, agistment or training of horses) is an 'AA' use meaning Council approval is required.
- Rural pursuit is a 'P' use in the rural, rural residential and smallholding land use zones, meaning it is a permitted land use.
- Hobby farm (including the agistment of horses) is an 'AA' use in the special residential zone meaning Council approval is required.
- Hobby farm is a 'P' use in the rural, rural residential and smallholding land use zones.

Further requirements are detailed in specific special use and rural residential areas to prevent overstocking and breeding or keeping animals for breeding or commercial purposes completely or without Council approval (depending on the area).

3.3.5 Shire of Serpentine Jarrahdale

The Shire has a State Government endorsed Draft Local Planning Strategy and Scheme, which as at November 2019 is undergoing community engagement. This is targeted for finalisation in the first half of 2020. Additional land use and strategic guidance is currently provided through the Rural Strategy 2013 and the Equine Strategy, 2018.

The Shire's Town Planning Scheme No.2 guides land use and development within the Shire. The scheme provisions require local government approval for the keeping of horses and stables, and involves considering a range of factors and the creation of equine management plans to help underpin decisions in respect of equestrian uses.

Keeping horses is permitted within parts of the Special Residential, Special Rural, Rural Living and Farmlet zones with location specific provisions regarding number of allowable horses, fencing and building envelopes. Horses are permitted as of right within the rural zone as a 'rural use'.

The Shire's equine strategy identifies two 'residential and stables' areas as key areas to protect the equine identity – the Northern Equine Hub and the Southern Equine Hub. It also identifies the opportunity for a State Equine Centre within the Shire. The Shire of Serpentine-Jarrahdale has a dedicated Equine Strategy[4].

3.4 Other relevant local planning schemes

3.4.1 Greater Perth

The Greater Perth region is described in the Perth and Peel Green Growth Planning Framework via a set of Sub-Regional Plans. When considering the role of the North-East Sub-Region, inclusive of the Swan Valley, the March 2018 version of the North –East Sub-Regional Planning Framework includes an Urban Staging Plan that shows no further urban growth compared to the South Regional Plan.

The Swan Valley is excluded from any further urban development. Also see Section 6 - Swan Valley Planning Review - June 2018 in this report.

[4] sjshire.wa.gov.au

3.4.2 Shire of Northam

The Shire's Local Planning Strategy identifies land adjacent to the Northam Racecourse as having potential for an equestrian themed residential estate. This initiative does not appear to have progressed, however, the 2018-2019 Corporate Business Plan includes an action to "assess opportunities to encourage equine development areas".

The Northam Regional Growth Plan also identifies a strong equine sector between Toodyay, Northam and York. The growth plan also identifies rural edge precincts for equine and farmland use. These are also focussed close to the existing racecourse.

The Shire Local Planning Scheme No.6 includes statutory requirements for keeping horses. The keeping of horses in the rural residential and rural smallholding zones is conditional on an approved Environmental Management Plan and further restrictions may apply in specific locations.

3.4.3 City of Swan

A development application for the keeping of horses is not required on land zoned General Rural, as long as the horses are being kept for domestic, private use only. A development application for the keeping of horses is required in all other rural zones where the proposed number of horses to be kept on a property is greater than the base (dry) stocking rate that applies to the land as defined in the Agriculture Western Australia document titled "Stocking Rate Guidelines for Rural Smallholdings – Swan Coastal Plain and Darling Scarp".

The City of Swan supports the horse industry in a number of ways including:

- Fast tracked approvals for simple applications to keep horses
- Provision of a number of horse exercise areas
- Provision of a network of bridle trails.

It should, however, be noted that in local priority agricultural areas (identified by the Local Rural Planning Strategy 2016), including the Swan Valley Planning Act Area, the primacy of agriculture and primary production activities should be maintained above all other uses.

Whilst supporting tourism that is complementary to the rural character of the area, the Swan Valley Interim Planning Policy, WAPC 2014 also limits equestrian facilities to those for private use, but not for commercial or training purposes, or the accommodation of patrons.

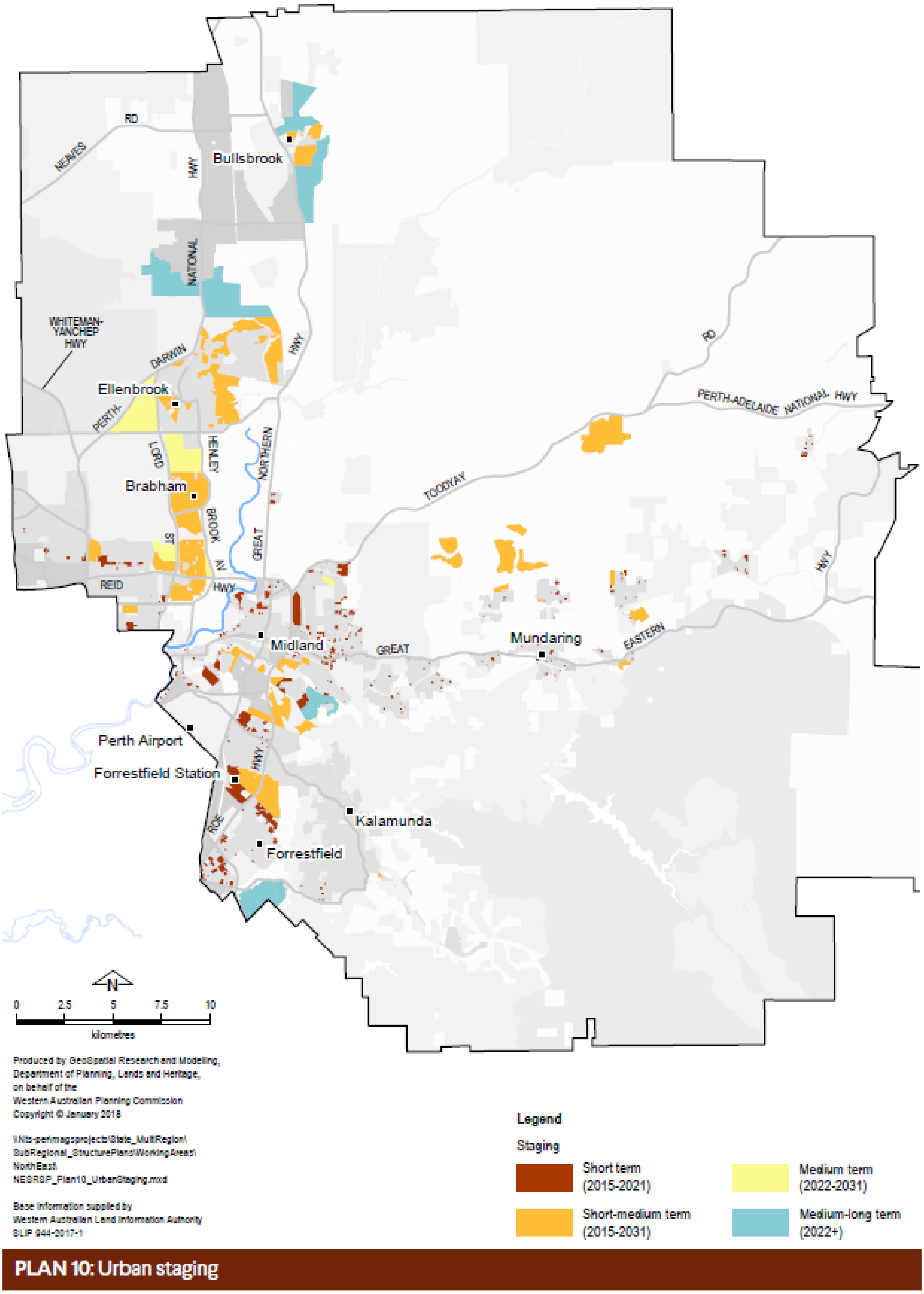


Figure 5 - North - East Sub-Regional Planning Framework

4. Strategic Context

4.1 Peel Regional Investment Blueprint

The Peel Regional Investment Blueprint 2015 was been developed to provide a strategic framework within which economic and regional development priorities can be facilitated and delivered.

Its comprehensive themes, goals and strategies position the Peel as a location with world-class infrastructure, international investment and trade, an innovative agricultural industry, a diverse tourism industry and a place where people want to live, work, visit and play.

The Blueprint focuses on the economic drivers capable of sustaining a forecast regional population growth to 444,000 people by 2050. This will constitute 12.7% of Western Australia's total population. The Peel's potential for economic development and growth is substantial and arguably unique in the Western Australian context due to:

- Proximity to the Perth metropolitan region with good connectivity, which presents opportunities for tourism and options for residential, commercial and industrial expansion;
- Strong and diverse natural resource base which requires careful management and protection, but which holds significant new opportunity in areas such as research, learning, water resource development and renewable energy;
- Proximity to Asian markets through port and airport facilities;
- Strong infrastructure base with well-developed transport systems and access to strategic infrastructure, such as natural gas, electricity, the National Broadband Network and, potentially, recycled water and carbon dioxide from industry;
- Extensive feedstock, notably solid waste, urban green waste, forest residues, and animal wastes to support bio-industrial activity;
- Extensive land holdings suitable for food production (in-ground and hydroponic);
- Large labour force; and
- The city, regional towns and communities within the Peel region provide housing, and comprehensive community, retail and commercial facilities and services.

In order for the Peel to achieve the change it is seeking over the next 20 to 30 years, the Blueprint focuses on goals and strategies encompassed within five themes that are considered pivotal to the Peel's future:

1. Thriving Industry: a broadened and diversified industry base to boost the depth and breadth of jobs and occupations across the region.

2. Agriculture and Food Innovation: increased economic expansion, market base and international competitiveness of the region's agribusiness sector through innovation in production methods and renewable water and energy supplies.

3. Tourism Excellence: a network of adventures that attracts visitors and enables them to engage with the Peel's natural and built attractions in a sustainable manner.

4. Capable People: the availability of an educated and highly skilled workforce with the capacity and capability to flexibly respond to workforce requirements for the future.

5. Strong and Resilient Communities: creation of support services and infrastructure that will ensure the community is strong and resilient and able to increase its participation in, and contribution to, the future development of the Peel.

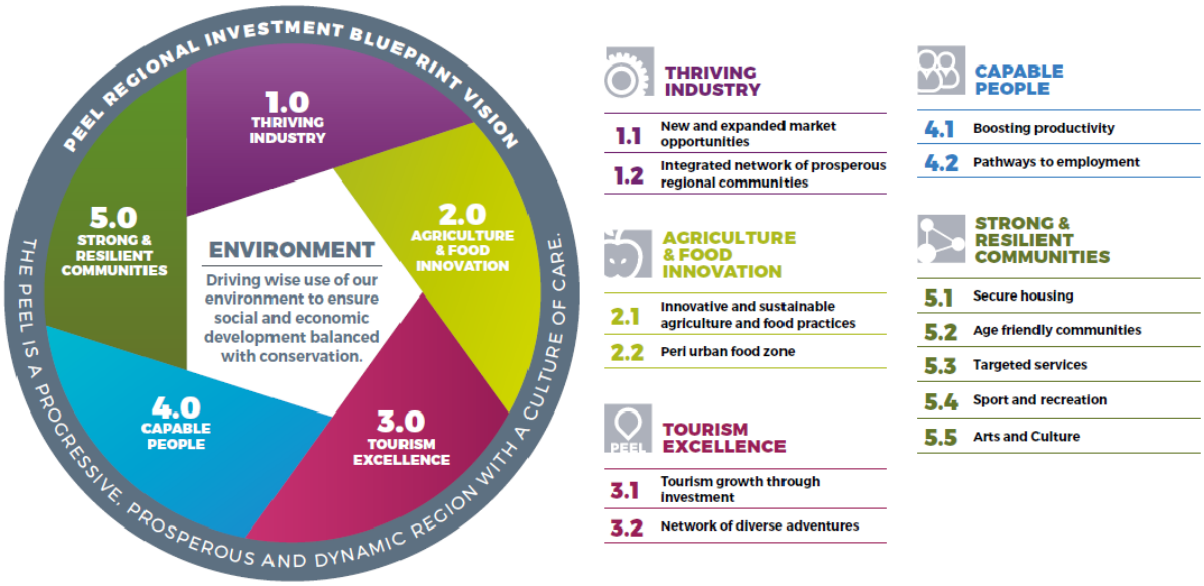


Figure 6 - Peel Regional Investment Blueprint – Vision, Themes and Focus Areas (Updated to 2018)

In 2018 the Peel Regional Development Commission undertook a Blueprint monitoring and review process to gain an understanding of initiatives being pursued that align with Blueprint objectives and to identify areas of potential regional collaboration. In partnership with Regional Development Australia – Peel Region, Commission staff consulted with 18 individual organisations and hosted a combined stakeholder workshop on 20 June 2018.

Through this process the following initiatives were identified as regional priorities in the short term:

• Regional transport planning

• Establishment of a regional grower's group

• Development of a regional capability statement

• Development of cross regional trails

The development of a transport plan will enable a better understanding of the flows of freight and passengers through our region now and into the future, which has a critical impact on efficient economic contribution and development.

Establishment of a regional grower's group was also prioritised to engage existing agriculture and food providers in the development of the industry.

Development of a regional capability statement will focus on creating and promoting a positive narrative of the regions capability to create as well as engage with economic and social development initiatives.

A continued focus on the development of cross-regional trails through a review and regeneration of the Peel Trails Strategy is required to continue to grow Peel's tourism market. The established trails working group has conducted a trails audit which will be utilised to establish collaborative priorities for implementation through the Strategy. The monitoring and review process also enabled the identification 205 initiatives that are either planned or underway in the region, against 73 Blueprint strategies. Of these, 103 are underway and 18 are complete, which demonstrates the level of activity within the region.

The review enabled scorecards to be prepared for each of the Blueprint themes providing an overview of achievements and the short-term plans of regional stakeholders identified during the review process.

As part of the 1.0 Thriving Industry initiative, one of the three objectives includes positioning the Peel region as the logical zone for expansion of the equine industry in Western Australia.

The three objectives are:

- New and expanded market opportunities for industry both locally and in export markets are established.
- An integrated network of regional towns and communities with strong service links to a vibrant city hub is in place.
- The Peel is positioned as the premier region for the expansion of the equine industry in regional Western Australia.

The Peel has long been acknowledged as being a key component of the State's thoroughbred and harness racing industries. The 2016 Racing and Wagering (WA) Economic and Social Impact Report found that the racing industry in the Peel provides $120.3 million in economic value per annum, and contributes 14.7% of the State's total racing industry economic value. This percentage makes the Peel racing equine sector the largest region after the Perth metro area, and twice the of the South West (7.1% and the Wheatbelt (7.0%)

The Peel Development Commission media release date 13 February 2018 noted that the Equine Sector's Economic Contribution was $175.9 million and provides 1,547 jobs, demonstrating the ongoing and sustained growth in the region.

The Peel Region has a vibrant, though more loosely confederated, non-racing equine industry, and the extrapolated value of the non-racing equine industry to the Peel is estimated at $93.5 million per annum.

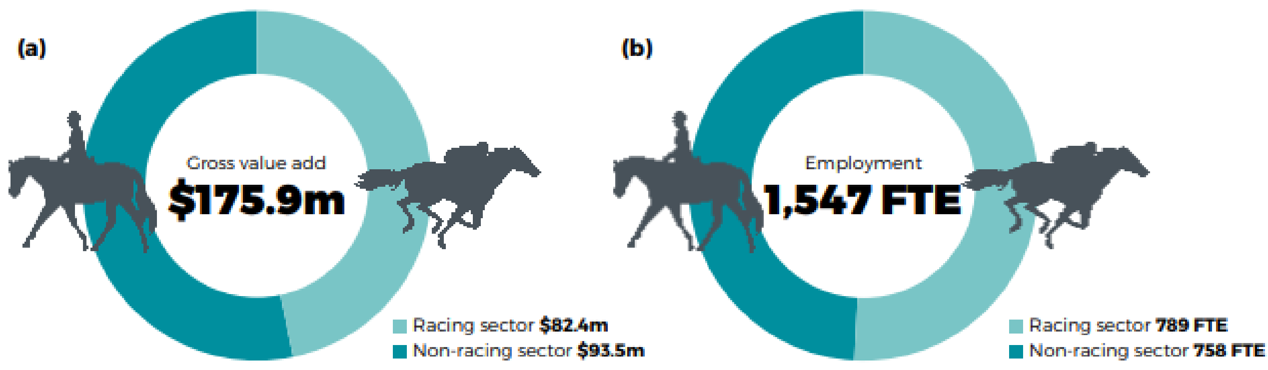


Figure 7 - Peel Equine Gross Value and Employment Snapshot

4.2 Current Strategic Planning Framework for the Equine Industry

The Peel Regional Leaders Forum has prepared a Draft Discussion Document – Current Strategic Planning Framework for the Equine Industry in November 2018 which provides an overview of the issues associated with land planning for the equine industry. The draft position paper articulates the key planning issues, barriers, threats and opportunities for the Equine industry in the Peel Region and need for planning clarity to provide and protect land for both the food production industry and the equine industry.

4.3 Peel Food Zone Implications

The proposed Peel Food Zone (PFZ) report, *Planning for the Proposed Peel Food Zone 2017*, outlines the other major industry in the Peel Region that requires land use protection measures to support the agricultural production potential of the region.

Transform Peel is a $49m Royalties for Regions funded program. This program is broadly regarded as transformational for the Peel region in terms of job creation, sustainable growth and economic development. The Peel Development Commission (PDC) and its partners, intend to implement this program over 35 years where projections estimate that 35 000 jobs will be created generating an approximate $16.2b per annum economic output by 2050. Located in the Shires of Murray and Serpentine Jarrahdale, the program comprises three integrated, strategic elements:

- The Peel Food Zone
- The Peel Business Park
- The Peel Integrated Water Initiative

The Department of Agriculture and Food WA (DAFWA) is the lead agency for planning the Peel Food Zone (PFZ) sub-project. The PFZ project provides the opportunity for DAFWA to undertake a strategic approach to planning for agriculture and its future in the Peel region specifically and Western Australia more broadly.

The proposed PFZ is approximately 42,000 ha and includes land that is both suitable and unsuitable for agricultural development. Land not suited for development included environmental assets (e.g. conservation category wetlands) and urban and rural residences.

This study investigated the feasibility of six land use scenarios that each has the potential to become established in the proposed PFZ. These were:

- Dryland pasture & grazing (Non-Irrigated)
- Soil-based irrigated horticulture (Annual)
- Soil-based irrigated horticulture (Perennial)
- Soil-based irrigated horticulture (Covered)
- Non Soil-based irrigated horticulture (Protected Horticulture)
- Closed loop livestock systems

The suitability of each of these land use scenarios for the PFZ was determined using a range of data sets reflecting the environmental, social, infrastructure and physical values of the region. A multi-criteria assessment of these data generated a series of maps illustrating where in the PFZ each land use scenario was most suited.

The factors most influential in determining the areas within the PFZ most suited to each of the considered land use scenarios were:

- Urban and rural residential zonings
- Environmental assets
- Land capability
- Infrastructure

The Peel Food Zone area was chosen for its agricultural production potential, proximity to population centres to supply the anticipated workforce and access to infrastructure for logistics and communication purposes.

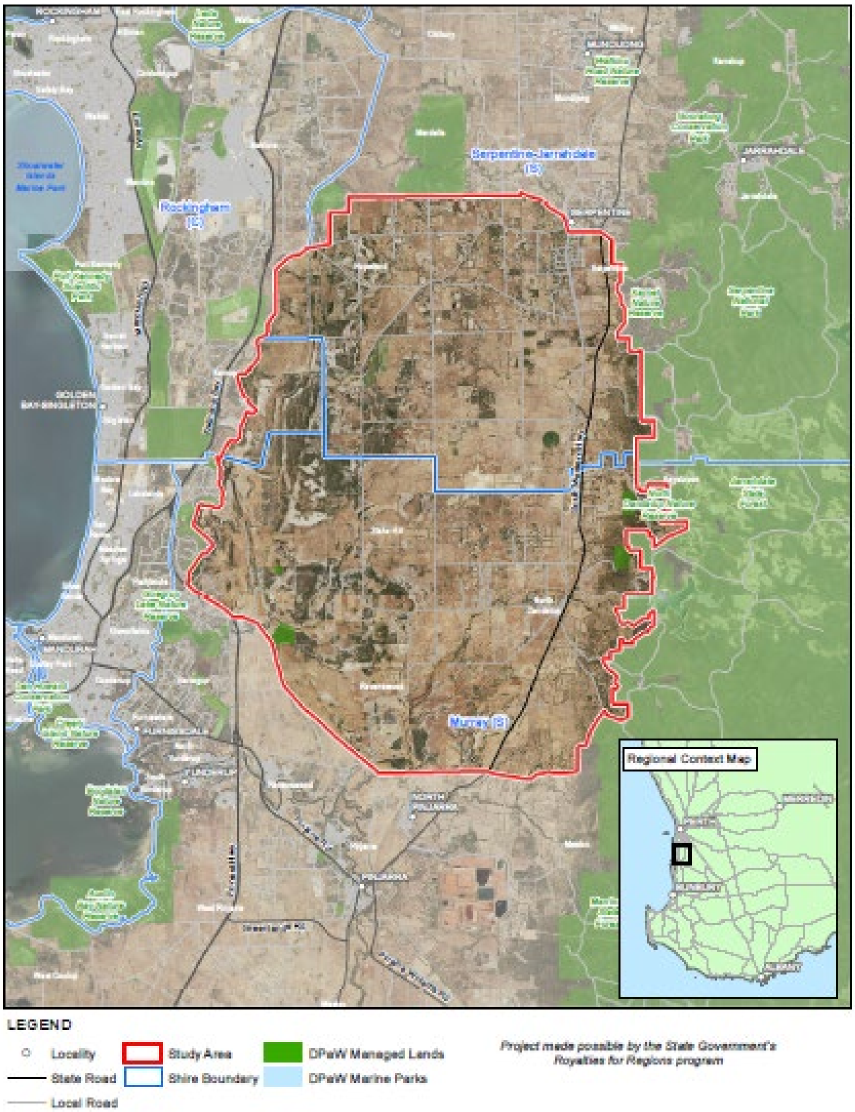


Figure 8 - Peel Food Zone Study Area

The proposed Peel Food Zone is currently dominated by livestock production in cattle and hay cropping, although there are animal intensive industries (piggery and poultry operations) and smaller areas of intensive agriculture relating to the production of turf and fruit trees.

A significant number of equestrian stud and agistment facilities are also located within the study area, particularly in the east and north of the area. The North Dandalup residential estate is centrally located within the study area.

Mining for mineral sands (zircon, rutile and leucoxene) is an important land use in the region with approximately two per cent of the proposed PFZ registered for this land use.

Other land uses in the study area include an airport, wastewater treatment facility, a quarry, dog kennels, public amusement (paint ball), plantations and a timber works. There is also one example of an agriculture cluster involving a piggery, general and specialised mushroom compost facilities.

Future agricultural activities within the study area will be guided by the unique opportunities offered and land capability issues. In particular, the challenges presented by water availability, infrastructure, the environmental importance of the Peel Harvey estuary and wetland systems, biosecurity issues and development of appropriate interfaces that minimise operational and land use conflicts, will need to be considered in any future land use planning.

Stands of remnant native vegetation occur throughout the PFZ and are generally associated with the wetlands and waterways. Their protection will need to be considered in any future planning, as will the existing urban residential land use that is a feature along the majority of the western PFZ boundary.

In addition to identifying areas unsuitable for agricultural development, the Report also considers the factors that potentially constrain agricultural development, such as land capability, separation distances to groundwater and access to infrastructure. These factors may require investment in infrastructure and technology for the food production systems under consideration. Availability and access to water is another example of a constraint whereby investors may be required to enter into a water trade agreement with a third party in order to secure a reliable water supply.

The determination of potential land use for the proposed PFZ was guided by the following features and principles:

- The preservation and protection of the environmental values of the area, including its wetlands, waterways and native vegetation
- Existing land use and infrastructure is the foundation for future agricultural industries
- Food production trends, for example, intensification of agriculture, are applied
- Land use options in the PFZ will be used to attract investment from individuals and organisations to the region.

The study found the eastern area of the proposed Peel Food Zone is suitable for a wide range of agriculture, however western areas are better suited to closed production such as hydroponics. There are specific areas within the proposed Peel Food Zone that are constrained to such an extent that they are unsuitable for agricultural development.

Future agricultural activities within the area will be guided by the opportunities offered by the Peel's road, power and digital networks as well as its land capability and water availability. Challenges presented by the environmental importance of the Peel-Harvey estuary and wetland systems and the need to separate intensive farming from sensitive urban and rural residential areas must also be considered. Transformation of agriculture in the Peel requires changes to established farming practices, alternative ways of managing soil and water and new or different types of farms and production systems.

4.3.1 Soil Typologies

The *Planning for the Proposed Peel Food Zone 2017*[5] identifies the significance of soil typologies in determining land usage in the wider Peel Region.

Of the six Peel Food Zone land use typologies nominated in the Peel Food Zone report, nominally Dryland Pasture and Grazing is the most suitable for large scale equestrian use, with the exception of areas in proximity to major receiving waterbodies, other areas within the PFZ can be suitable for equine activities and domiciling horses providing local environmental management plans are implemented. In locations where phosphorous export risk exists, individual environmental management plans are a necessary mitigation strategy.

Table 3 - Land Use Typologies

Land Use Typology	Features/Description
Dryland pasture and grazing	Rainfall dependent land use for hay production and grazing
Soil based horticulture, annual	Irrigated soil based annual horticultural crops produced in open (uncovered) paddocks
Soil based horticulture, perennial	Irrigated soil based perennial crops produced in open paddocks
Soil based horticulture, covered	Irrigated horticultural crops established in-ground, but covered to manage natural elements particularly temperature, rainfall and wind
Non-soil based horticulture, closed	Engineered, glasshouse/enclosed production system that features water re-use, temperature and nutrient control (i.e. no nutrient export into the natural environment)
Closed loop livestock	Engineered, feedlot and intensive livestock system designed to control water use and prevent nutrient export into the natural environment

Figure 9 shows an overlay of each land constraint that influences equestrian usage and the larger image shows the resulting land suitable for large scale equestrian use.

The green is highly suitable, yellow is suitable and the orange has low suitability. The black areas are highly unsuitable. The suitable areas are predominately along the eastern edge of the PFZ and toward the centre in the southern half of the zone.

Most of the PFZ has adequate lot sizes for grazing with smaller lots (5 ha) associated with special rural living and farmlet zones. Suitability for grazing is strongly influenced by land capability with higher fertility soils more common in the east of the PFZ on the Forrestfield and Pinjarra soil-landscape units. The major constraint in determining the sites most suitable for this land use system is the phosphorous export risk.

On the Bassendean soil-landscape units in the western half of the PFZ, deep sandy, infertile soils with minimal capacity to retain soil phosphorus and located close to the sensitive waterways and wetlands, means these areas have a high risk of phosphorus export. Research undertaken in the Peel region has provided evidence to show that grazing properties make relatively large contributions to elevated phosphorus, poor water quality, algal blooms and fish deaths in the Peel-Harvey waterways. As grazing is a permitted land use on rural land in the Peel-Harvey, there is no suggestion that grazing will be restricted on these soil types, except where condition of use requires an environmental management plan. Reducing the

[5] https://www.agric.wa.gov.au/land-use/planning-proposed-peel-food-zone-report

volume of phosphorous exported to the waterways is an important environmental imperative for this region as has been expressed by state and local government and the broader community.

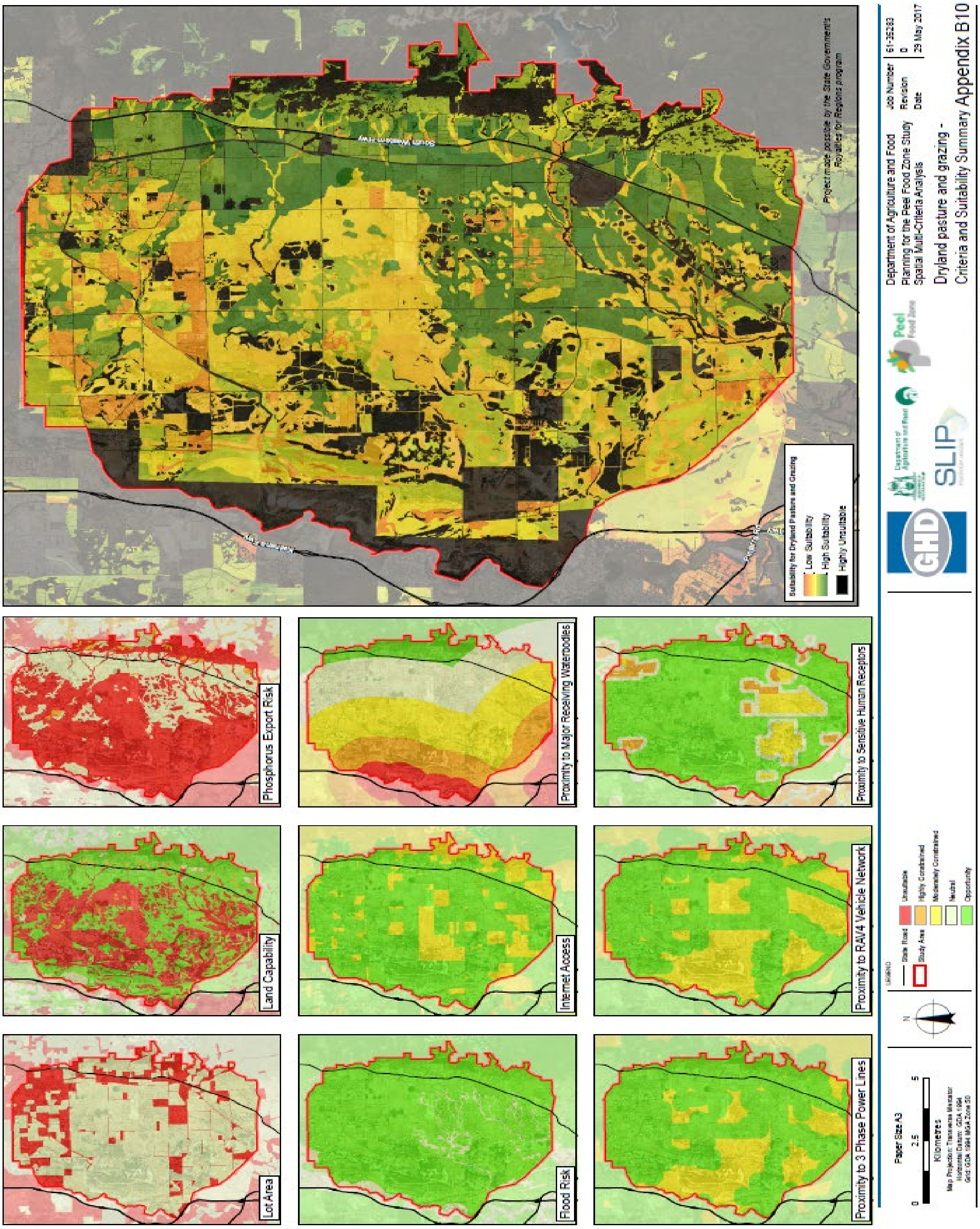


Figure 9 - Dry Land Pasture and Grazing Constraints and Suitability[6]

[6] https://www.agric.wa.gov.au/land-use/planning-proposed-peel-food-zone-report

4.4 Swan Valley Planning Review - June 2018

As a recognised equestrian region, the Swan Valley Planning Review 2018 provides pivotal information for the comparative analysis. The Review was prepared by John Kobelke in June 2018 in response to concerns that the Swan Valley *is under increasing pressure from incompatible development and land use, putting at risk the attributes and characteristics that make the Swan Valley an attractive and desirable place*[7].

The Swan Valley's location just 23 kilometres from the Perth CBD has created a land planning conflict as the rural nature and viticulture land is being threatened by invasive residential land development and incompatible land use. The location makes it the closest land to the CBD for a rural setting, and is a highly desirable location for residents seeking larger blocks.

Swan Valley is recognised not only for its heritage and viticulture, but also for its rural character, its varied agriculture, and its attraction to visitors and tourists as a welcome escape from the city.

In 1995, the State Government established the Swan Valley Planning Act to protect these characteristics and ensure the area is preserved for future generations. It is now estimated that the Swan Valley attracts more than 2 million visitors per year and contributes $350 million annually to the Western Australian economy.

The Swan Valley Panning Review recognises equestrian usage as an important contributor to what makes the Swan Valley special and highlights that land devoted to pasture for horses has increased and is creating an economic contribution to the local area. However, supporting viticulture and tourism are the top priorities for the Valley. For example, the review includes a guiding statement to maintain appropriate aquifer levels, recharge and surface water for beneficial uses – equine uses are listed as a beneficial use but are the lowest priority.

The Review identified a nine key recommendations to preserve the Valley's attributes and characteristics, the three most pertinent being:

2. Establish a water licensing regime specific to the Swan Valley Statutory Planning Area.

- a. Create a standalone Water Management Plan for the Swan Valley.
- b. Establish a priority for viticulture in all water allocation and management in the Swan Valley.
- c. Water licencing provisions for grape growers to be flexible in recognition of the variations in demand due to seasonal conditions.
- d. Align management priorities for water licencing in the Swan Valley by:
    - i. Expediting the metering of all bores with annual water allocations of 10,000 kilolitres or more;
    - ii. Realignment of the Groundwater Subarea Boundaries to the Swan Valley Statutory Planning Area, to the extent possible in keeping with best practice and good ground water science;
    - iii. Work with all water licence holders to introduce water efficiency measures in the Swan Valley;
    - iv. The Department of Water and Environmental Regulation (DWER) should undertake a compliance campaign to check for any unlicensed ground water usage in the Swan Valley; and
    - v. Investigate enhancing water availability with water reuse from the new residential developments adjacent to the western boundary of the Swan Valley (e.g. Brabham).

[7] John Kobelke 2018 – Swan Valley Planning Review – Overview Page 6

3. Right to Farm

a. Establish in the Swan Valley Planning Act the principle of “Right to Farm”. This is to inform and educate all land owners of the pre-existing rights of farmers to continue their farming practices in accordance with established agricultural standards.

b. Require all future land transfers to place a notification on the title, advising purchasers that the Swan Valley is a designated agricultural region where standard farming practices are permitted and encouraged.

9. Equine Industry and Residents with Horses

Work with the equine industry and horse owners to establish:

a. A strategy for developing bridle trails in the SVPA Area.

b. Operational planning policies for the establishment and management of such structures as stables, sheds and fences.

c. Best practice for watering pasture.

The Swan Valley has an estimated population of 7,034 persons (Australian Bureau of Statistics 2016).

Since 2011, its population has grown 6.5% from 6,603 people. Population by age figures suggest that the Swan Valley has an ageing population as demonstrated by the lower percentage of children younger than 15 compared to State averages as well as almost all age categories above 45 years being a greater percentage than State averages. The exception is the 20-29 year old age group which makes up a higher proportion of the Swan Valley population than State averages. The largest age group category for the Swan Valley is the 50-54 year age group making up 8.3% of its population (the State average is 6.6%) whereas the largest age category for the State is the 30-34 year age group with 7.9% (6.4% for Swan Valley).

The unique rural environment within a major city makes it a most attractive place to live. The residents are close to all the amenities available in the city, yet enjoy the peace and quiet of a rural setting providing them with a very special lifestyle. The rural zoning allows people to keep horses and access the State Equestrian Centre which is just to the north. The land devoted to pasture for horses has grown significantly along with the equine industry’s contribution to the economy of the area.

The Valley is not without growing pains, as the greatest tourism drawcard, viticulture, has been impacted by residential area ingress. Vines in the Swan Valley at their peak covered some 4,000 hectares. With market changes and the demise of the currant industry, the area under vines is now only approximately 1,000 hectares.

Most grape growers presently have adequate water licenses to produce their crops. The drying climate with falling ground water levels is of concern to growers. They have little ability to apply for an additional allocation as water licences are fully allocated. The DWER is undertaking a review of water licences with every likelihood that water allocations will need to be reduced for all licence holders. The present policy provides for water licences to be traded. Recent prices paid for water trades make it uneconomic for grape growers to purchase more water to expand their area under vines.

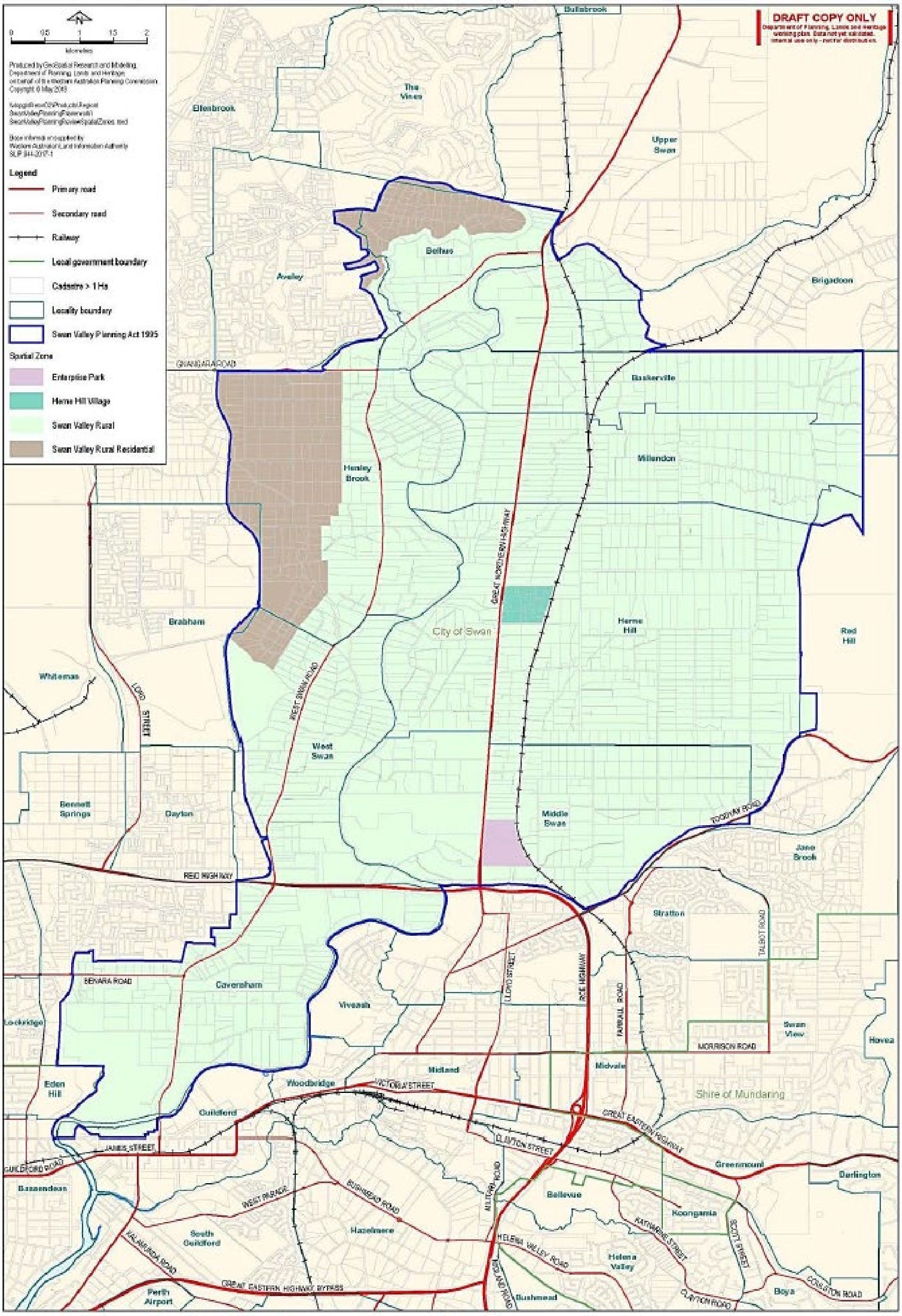


Figure 10 - Swan Valley Planning Review Study Area

4.5 Peel Equine Strategy

The Peel Equine Strategy, prepared by the Peel Development Commission, provides a broad social and economic analysis of the equine industry in the Peel Region, and identifies strategic initiatives for future investment and policy development to support the future growth of the industry. The Strategy notes that the combination of rural land located in close proximity to urban centres, and Perth, makes Peel an ideal location for the expansion of the equine industry in regional Western Australia. The document provides strategic direction for the coordination of the industry to facilitate participation and expansion, and investment opportunities to stimulate economic growth and job creation.

The Peel Equine Strategy fulfils the intent of an Industry Development Plan, and aligns with the strategies of the Regional Investment Blueprint for Peel.

The Strategy identifies six strategic goals as being essential to strengthening Peel's position as a premier equine destination in Western Australia.

These are:

1. Develop the industry's regional and local influence
2. Improve facilities and stimulate industry through infrastructure investment
3. Improve quantity and quality of breeding stock
4. Enhance linkages between industry and education
5. Increase participation in sporting and recreational equine activities
6. Enhance the equine-tourism potential of the region

The document provides a profile of the equine industry in the Peel Region, a SWOT analysis, a constraints and opportunity summary, and information regarding the number of participants and activities, horse population data and economic metrics.

4.6 Serpentine-Jarrahdale Equine Strategy

The Equine Strategy prepared by the Shire of Serpentine-Jarrahdale dated February 2019 provides a detailed view of the equine industry within the Shire. It includes a range of relevant metrics and identifies two distinct hubs within the Shire, nominated simply as the Northern and Southern Equine Hubs. The former being characterised as the Training and Racing hub and the latter the Events and Tourism hub with facilities supporting each characteristic identified.

The Strategy identifies the Shire of Serpentine-Jarrahdale as having significant equine capital, with the industry's economic value to local equine businesses totaling $168 million[8]. More than 400 equine events are hosted in the shire annually, attracting over 43,000 riders, 54,000 horses and 75,000 spectators. The estimated value of equine events alone to the local economy is $12 million.

Research by independent consultants[9] was used to inform the Shire's Equine Strategy, which highlights the industry's true scale and diversity.

[8] Equine Strategy Shire of Serpentine Jarrahdale 2018

[9] AEC

It found equine activities fell into four categories – racing, equestrian, leisure and trail riding, and stabling of retired and companion horses. Key findings were:

- The Shire is home to 3,876 registered horses - more than any other WA Local Government area;
- The Shire has twice the number of registered racing horses (harness and Thoroughbred) than the next largest Local Government area, making it easily WA's biggest racing hub;
- Around 30% of the state's active Standardbred (harness) horses are stabled in the Shire;
- The Shire is home to the second largest number of registered equestrian and pony club members, and the third highest number of polocrosse members;
- A further 4,500 unregistered horses kept for leisure or as companion animals are stabled in the Shire.

The Shire's Equine Strategy supports investment in, and development of, the local equine industry by:

- Strengthening the Shire's identity and reputation as WA's leading equine region;
- Supporting and enhancing the diversity of equine activities in the Shire;
- Planning and protecting key equine assets and improving facilities;
- Creating partnerships and advancing economic development.

The Shire has easy access to bush riding trails, training facilities such as the Byford Trotting Complex, the state's largest polo club and equestrian and pony clubs. There are over 80 local businesses directly linked to the equine industry.

The Equine Strategy identifies five opportunities to further develop the Shire's equine industry. These include:

- Equine Business Network - to encourage collaboration between local equine businesses;
- Equine Festival - an annual equine event to showcase and celebrate all things equine;
- Equine Tourism - development of equine tourism opportunities in the Shire;
- Equine education and skills training - establishment of a Centre of Excellence to offer training for equine-related skills.
- Equine Branding and Positioning - development and active promotion of the Shire's equine brand.

4.7 Metropolitan Equine Asset Review

Racing and Wagering Western Australia commissioned a report in 2015 to identify the asset needs of the racing industry in the medium (20 year) and long (40 years) terms. The most significant finding of the report was the recommendation *Future Location of the Racing Industry – Moving South* [10] in which the report identified the Greater Peel Region as the preferred location, being roughly bounded by the southern boundary of the Perth urban area, the foot of the Darling escarpment, Pinjarra and Mandurah in the south and the Indian Ocean.

The Metropolitan Equine Asset Review's recommendation *Future Location of the Racing Industry – Moving South* implies an equivalent strategy for the eventing and recreational equine industry, in that State and

[10] https://www.rwwa.com.au/about/corporate/corporate-reports/meart-report/

competition equine facilities are best located in the Greater Peel Region to service the broader south west region and the Greater Perth Metropolitan area equally. Equine clubs and competitors, particularly those based in the south west towns, are 1 to 2 hours drive from the Peel equine hub, compared to 3 to 4 hours drive to the Perth equine hub in Brigadoon.

4.8 Environmental Sensitivity

Further to the Peel Food Zone Report information (see Section 4.3 Peel Food Zone Implications) the Department of Primary Industries and Regional Development website includes Natural Resources (NR) Info for Western Australia, a digital mapping and information for natural resources across Western Australia.

The NR Info maps on the following pages show the Land Capability for each region and the adjacent legend provides interpretation of suitability.

4.8.1 North East Metropolitan

The dominant gazing area in this region is the Swan Valley which has a variety of capabilities ranging from greater than 70% capable to 50% capable. An approximate average is 70%.

The central area (coloured purple has very low capability whilst the western side is very high but zoned for urbanisation.

4.8.2 South East Metropolitan

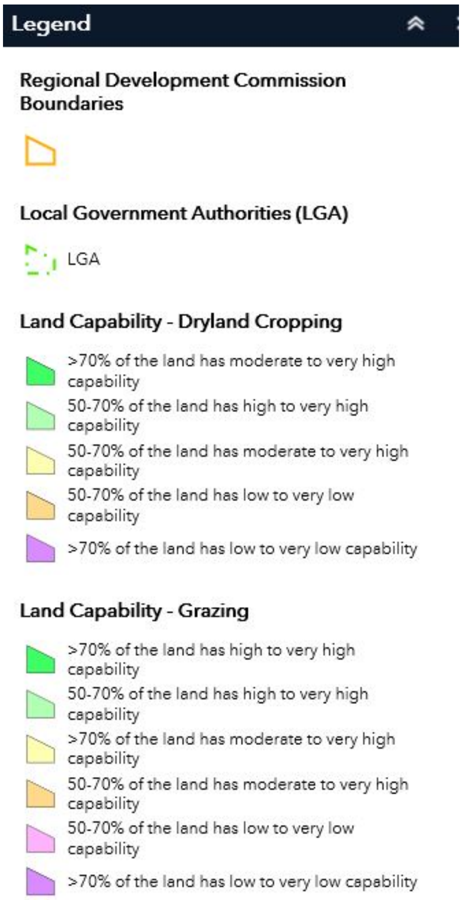
The Darling Escarpment to the east creates a natural boundary between the hills and the coastal plain. The coastal plain is almost totally zoned for urban use and becomes increasingly less capable further south.

4.8.3 Shire of Serpentine-Jarrahdale

The large portion of the Shire has low to very low capability, with a north-south band following the base of the Darling Scarp which moderate to very high cropping and grazing suitability.

4.8.4 Shire of Murray

The base of the Darling Scarp has a wide band of moderate to very high land that extends further westward, particularly along the Murray River.



4.8.5 Shire of Waroona

The north south band along the base of the Darling Scarp is narrower through the Shire, but is largely deemed to have low to very low capability. An indication of the environmental sensitivity of the regions under comparative assessment.

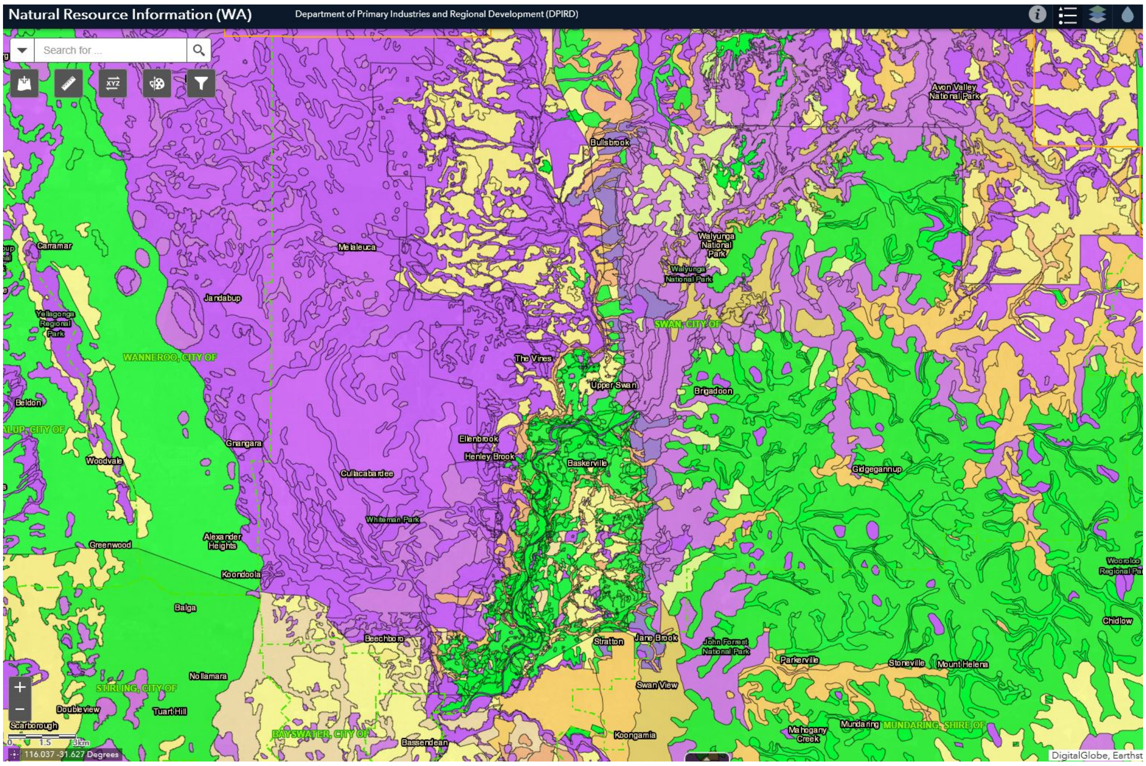


Figure 11 - North East Metropolitan – Land Capability Map

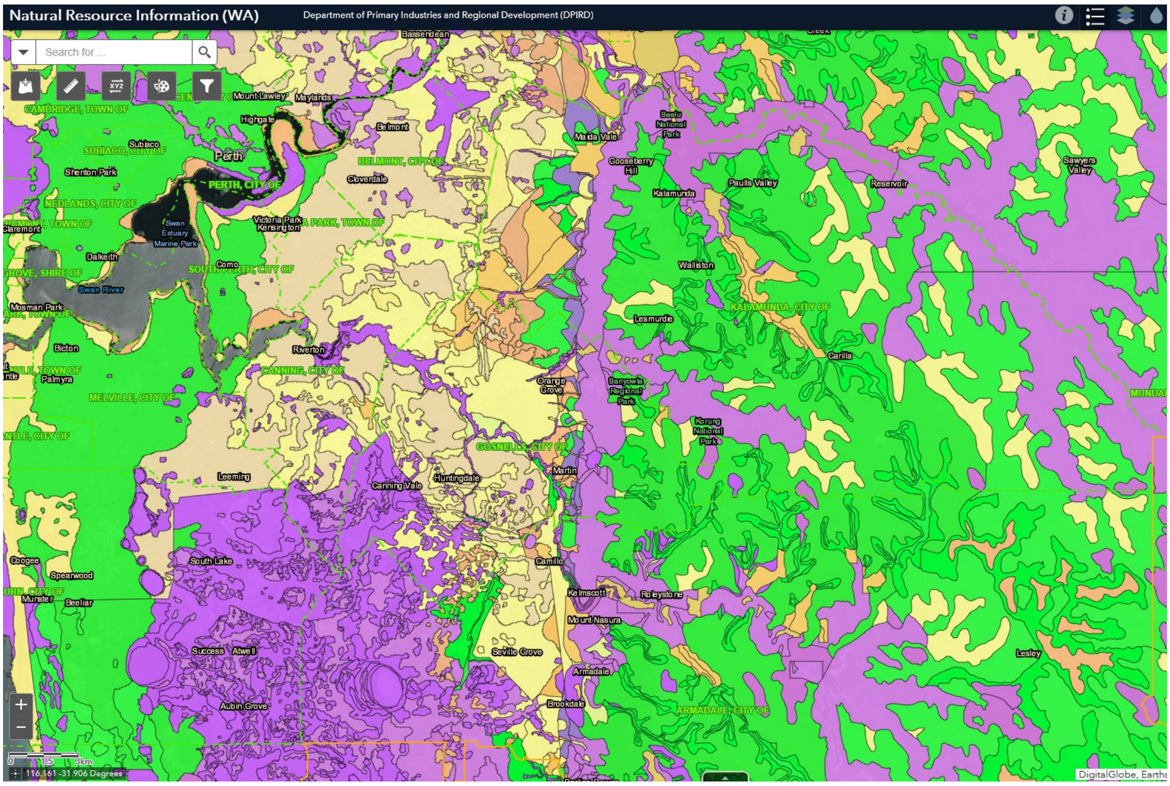


Figure 12 - South East Metropolitan – Land Capability

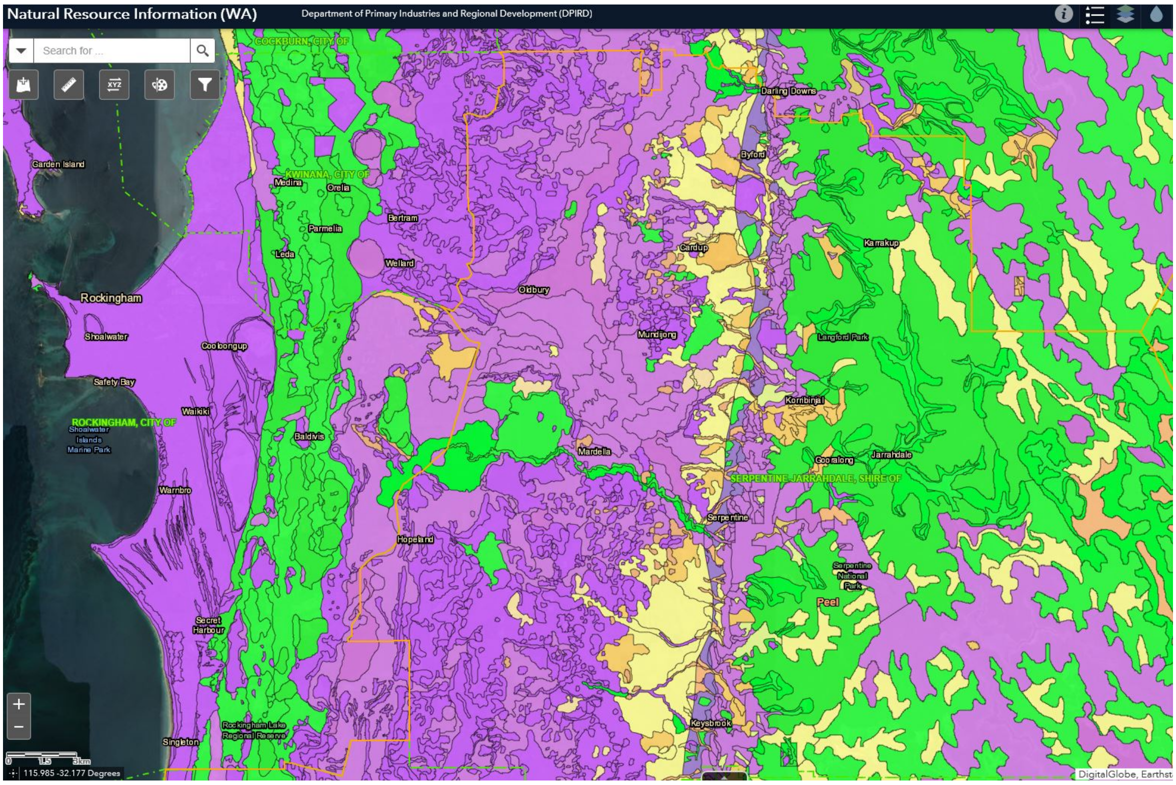


Figure 13 - Shire of Serpentine-Jarrahdale – Land Capability

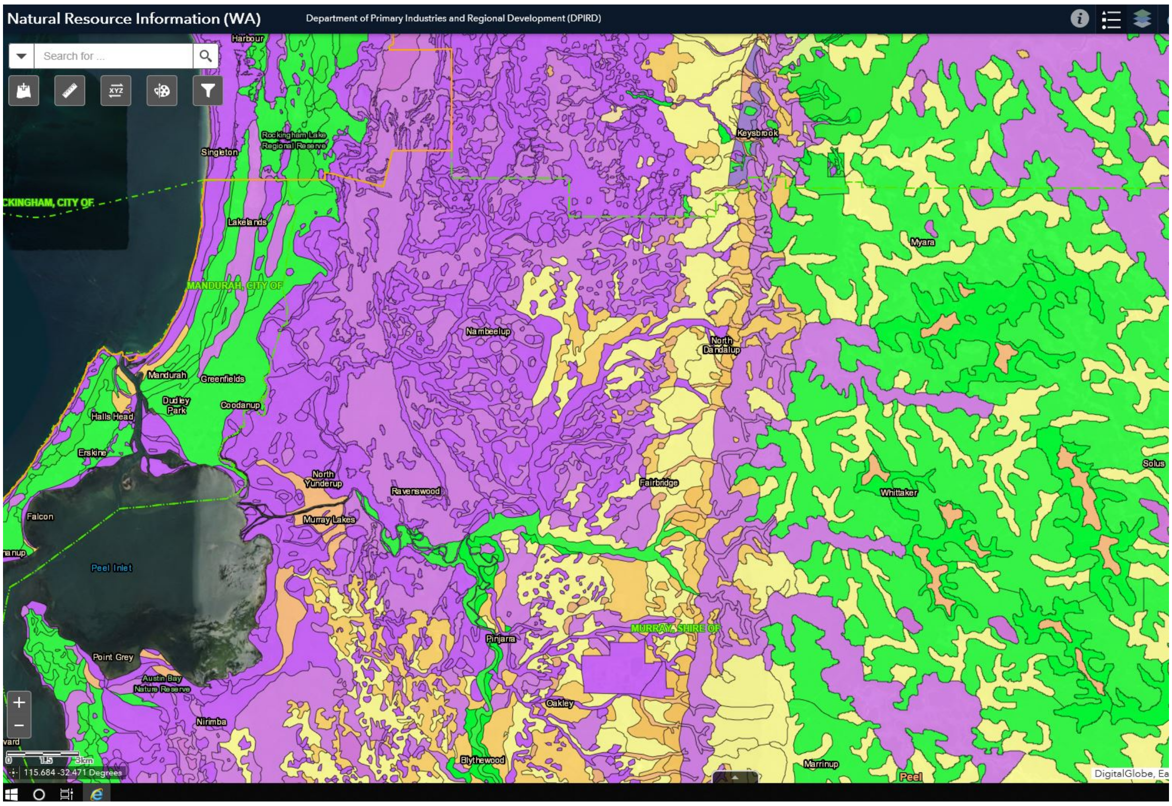


Figure 14 - Shire of Murray – Land Capability Map

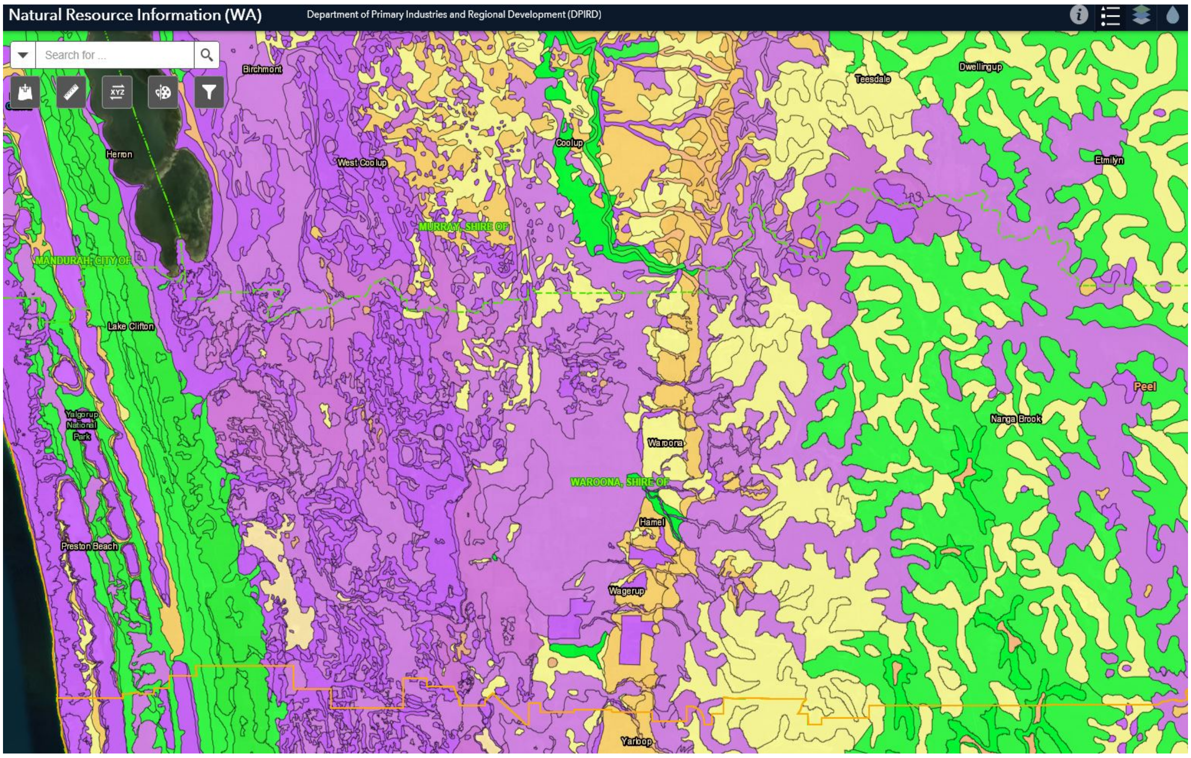


Figure 15 - Shire of Waroona – Land Capability Map

5. Comparative Analysis

The comparative analysis delineates the equine industry regions in and around the Perth Greater Metropolitan Area and identify the most appropriate region for the intensification of equine industry land use. GHD has utilised a Multi-Criteria Analysis to provide the comparative and competitive analysis between the five regions: Peel, North East Metropolitan, South East Metropolitan, Greater Bunbury, and Northam.

The criteria used for the Multi-Criteria Analysis were selected based on relevance to the comparative forces in the equine industry and subject to data availability. The analytical criteria used to compare and contrast the equine industry in the five regions are summarised below in Table 4.

Table 4 - Summary of comparative analysis criteria, data availability and sources.

Item	Criteria	Data Used	Source
1	Overall strategic direction	Local and Regional Equine Strategies, Planning and Research	Region and LGA websites
2	Current population and population density	Total population Population density	ABS: Data by Region
3	Forecasted population	Population forecasts	Department of Planning, Lands and Heritage: WA Tomorrow
4	Proximity to urban populations	Total population Mapping	ABS: Data by Region Maps
5	Employment	Employment data	ABS: Census of Population and Housing
6	Horse registrations	Thoroughbred and standardbred (harness) horse registrations by postcode	RWWA
7	Non-racing equine clubs	Club registry counts	Equestrian Australia WA
8	Allied commercial activity	Business counts	Various
9	Land use planning	Local planning schemes	Various
10	Land affordability	Land sales data	RP Data
11	Groundwater and soil	Local planning schemes	Various
12	Local economic benefits	Employment data Maps	Various
13	Environmental sensitivity	NR Info Mapping – Grazing and Cropping	DPIRD

The following sub-sections evaluate the above criteria on a region by region basis using what is believed to be the best available data. Where quantitative data is available, a ranking system is described. Data gaps have been highlighted which indicate areas of potential future research. Other criteria without detailed quantitative data are ranked with qualitative analysis.

5.1 Overall strategic direction

5.1.1 Overview

The overall strategic direction of the equine industry in each region is signified by a willingness of the local government authority/ies to undertake regional and local research and to develop strategic planning for the equine sector. Strategy and planning are vital tools for securing the sustainability of regional areas and as documents they express the intentions and desires of the author local governments. These strategies typically include detailed research into local equine activities, events, employment, contributions of the sector to the local economy and aspirations for the sector going forward.

5.1.2 Data

Recognising the comparative advantage of strategic direction involves comparing the body of planning, strategy and research conducted in each region to date. The following table provides an overview of the dedicated equine strategy documentation in each region.

Table 5 - Regions with dedicated equine planning strategy

Peel	North Metro	South Metro	Greater Bunbury	Northam
Peel Equine Strategy Shire of Serpentine-Jarrahdale Equine Strategy	*None*	*None*	Bunbury Racecourses Local Area Plan	*None*
State: Western Australian Recreational Horse Trail Strategy (2014)				

5.1.3 Ranking

Region Rankings: Population and Population Density				
1st	**2nd**	**=3rd**	**=3rd**	**=3rd**
Peel*	**Greater Bunbury***	**South East Metro**	**North East Metro**	**Northam**

*The Peel region is the clear benchmark for equine industry strategy, planning and local research. With a regional equine strategy (and an equine strategy at the local level in the case of Serpentine-Jarrahdale), and detailed economic impact research into both racing and non-racing industries, the region demonstrates its desire to sustainably grow its equine industry into the future.

**The Greater Bunbury Region provides a dedicated Bunbury Racecourses Local Area Plan.

5.2 Current population and population density

5.2.1 Overview

The current population and population density in the regions under investigation explain many of the trends currently being experienced by the equine industry in Western Australia. It is essential that the industry operates in close proximity to population centres which supply it with employees, participants and spectators.

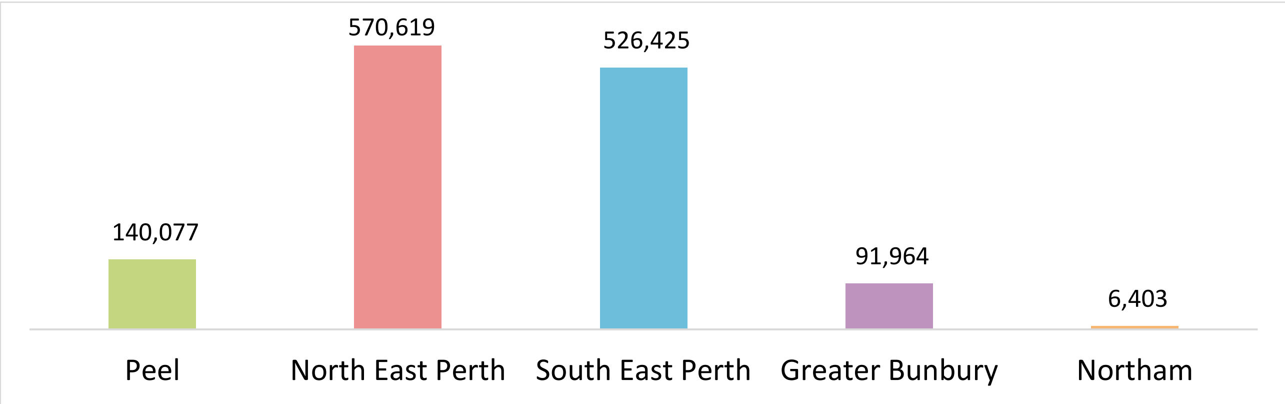
Despite this, inner-city locations of the equine industry are under increasing pressure to shift outwards to areas where population density is lower and land values are lower in turn. Areas with large populations that are close to the urban fringe and have a low population density are the most desirable for the equine industry. This pressure to move outwards is impacting the human association with horses sought by industry participants who wish to locate close to their activity areas.

The other critical factor in the proximity of encroaching residential land use is the need to continually disrupt industry participants with the need to move the ever expanding urban-rural edge. Regions that have established planning schemes that provide some permanency of the interface are highly desirable for locating the equine industry.

5.2.2 Data

Quantitative data was obtained relating to current population and population density from the Australian Bureau of Statistics. Current population and population density data is shown below and is current as of 2018.[11]

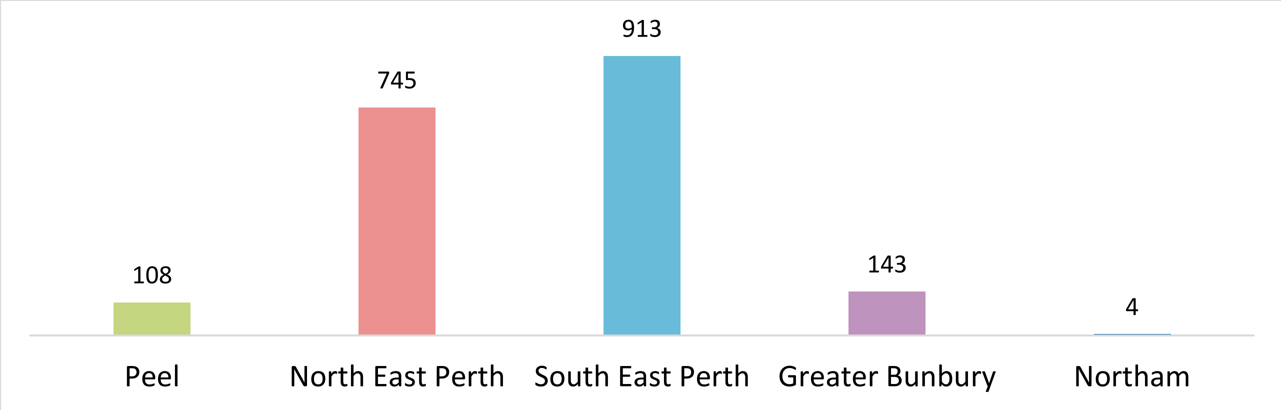
Figure 16 - Total population by region, 2018



Source: Australian Bureau of Statistics, Data by Regions, 2018

[11] Australian Bureau of Statistics, Data by Region, 2018.

Figure 17 - Population density by region, persons per km, 2018



Source: Australian Bureau of Statistics, Data by Regions, 2018

5.2.3 Ranking

Regions are ranked by weighted population and population density from lowest to highest.

Region Rankings: Population and Population Density				
1st	2nd	3rd	4th	5th
Peel	Northam	Greater Bunbury	North East Metro	South East Metro

Comparing overall population and population density, the Peel region is deemed to be the most accommodative of the five regions. This is due to the region's low population density and close proximity to the Greater Perth Metropolitan Area. The Northam region is similar, but has ranked lower than Peel due to the region's own very low population. The Greater Bunbury Region ranks after the Northam region due to its higher population density and subsequent pressure on equine lands.

The North East Perth and South East Perth regions are subject to large infill residential development targets, with density planned to increase even further than current levels, placing pressure on the demand for open space and pushing equine land uses to the urban fringe.

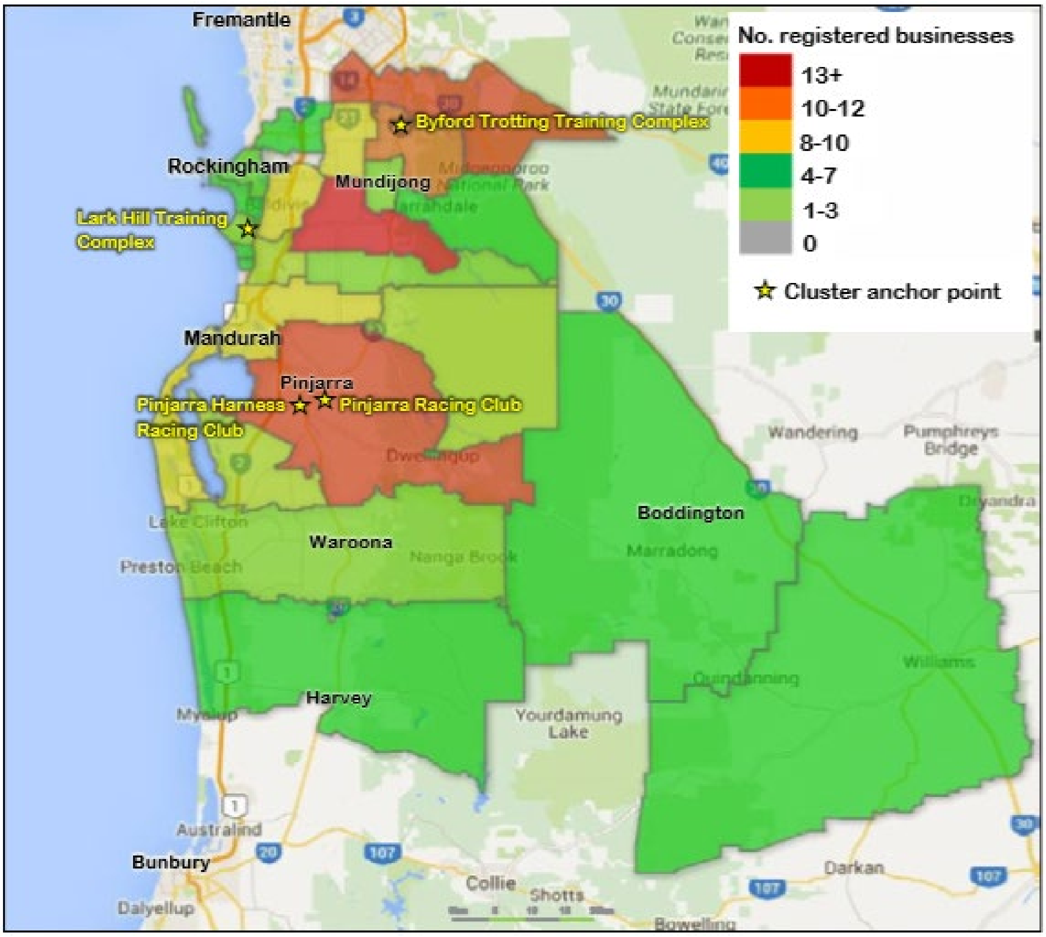
5.2.4 Data Gaps

The following data gaps were uncovered while investigating population:

- Detailed participation data, e.g. total number of participants, participation rate
- Racing vs non-racing participation rates across all regions

Data relating to the number of registered equine businesses was presented by AEC (2016) as shown below in Figure 18 however comparative information for other regions is not publically available making it impossible to assess the regions comparatively.

Figure 18. Equine cluster anchor points and current distribution of equine businesses



5.3 Forecasted population

5.3.1 Overview

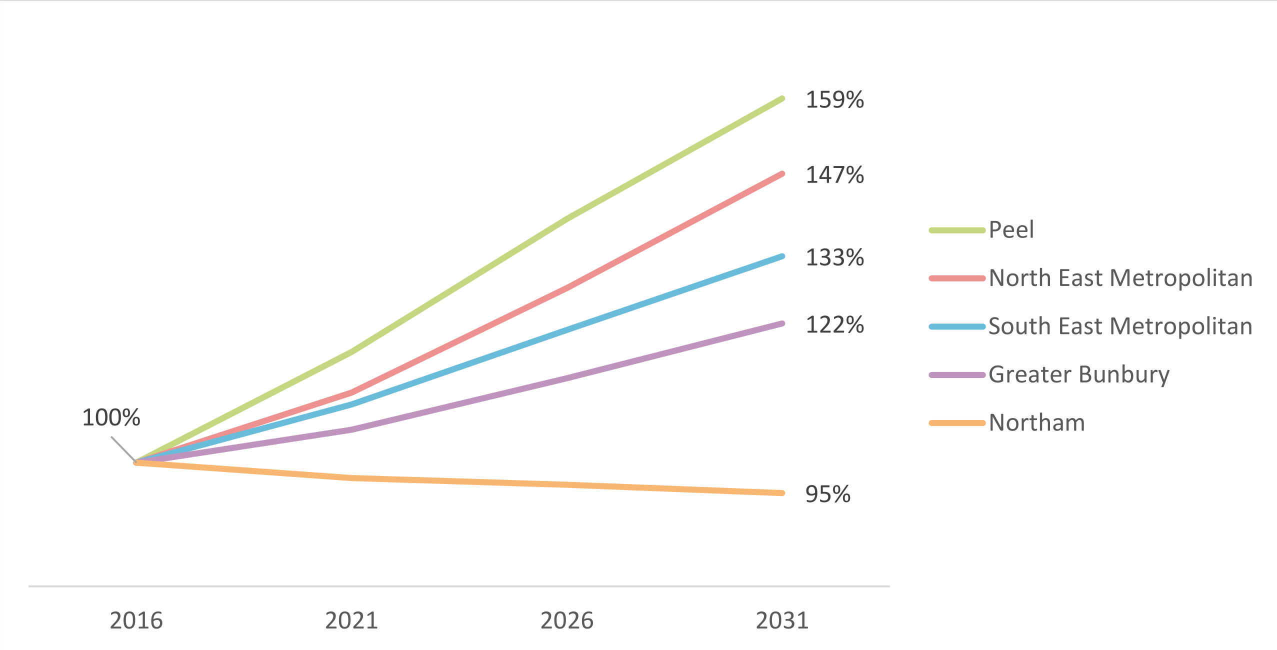
The forecasted population in the regions under investigation is an important indicator for the future areas where the equine industry will be most viable. It is essential that the industry operates in close proximity to population centres which supply it with employees, participants and spectators, however it must balance these needs with the availability of land. The tendency for the inner-city equine locations to densify and shift their equine land uses outwards to the urban fringe is demonstrated through the forecasted population growth.

5.3.2 Data

Quantitative data was obtained relating to current population and population density from the Australian Bureau of Statistics. Current population and population density data is shown below and is current as of 2016.[12]

[12] Western Australian Department of Planning, Lands and Heritage, WA Tomorrow, 2016.

Figure 19 - Forecasted Population Growth, from 2016 levels



Source: WA Tomorrow 2016

5.3.3 Ranking

Regions with land areas adjacent to high population growth areas are ranked highly.

Region Rankings: Forecasted population				
1st	2nd	3rd	4th	5th
Peel	North East Metro	South East Metro	Greater Bunbury	Northam

Comparing the forecasted population growth of each region it can be seen that Peel is forecasted to experience the highest level of population growth to 2031. Peel ranks highest in this category, as forecasted growth in the Peel region is predominantly contained to the northern areas abutting the Perth metropolitan area and maintains lands suitable for equine land use to the south.

The forecasted population growth in the North East Metropolitan region does not benefit the equine industry in the same way, as accommodating this population growth will require a crowding out of lands suitable for equine land use. The Swan Valley is an example of an area where urban creep is absorbing rural land availability. Population in the Northam region is forecasted to shrink, eroding the growth potential for the equine industry in the area.

5.3.4 Data Gaps

The *WA Tomorrow* population forecasts are a readily available source of information out to 2031. Further research will need to be undertaken to investigate population growth beyond this year.

5.4 Proximity to urban populations

5.4.1 Overview

The proximity of the equine industry areas to urban populations is indicative of the potential for community and spectator engagement. Proximity is a good indicator for the levels of participant engagement and the potential demand for racing and non-racing outputs from the equine industry. This is supported by the opposite scenario where equine industry activity in further out country regions have poor attendance and participation levels.

5.4.2 Qualitative Region Analysis

The ranking for proximity to urban populations was based on a qualitative assessment of the distance of the population centres in each region to the Greater Perth Metropolitan Region and the size of the population in these centres.

Region Rankings: Proximity to urban populations				
1st	2nd	3rd	4th	5th
South East Metro	North East Metro	Peel	Greater Bunbury	Northam

The South East Metropolitan and North East Metropolitan regions ranked highest due to their central location in the Perth Greater Metropolitan Area. Large populations in these areas are indicative of the high levels of demand that can be expected for the equine industry. Premium race meetings will continue to be held in these regions into the future.

The Peel region is directly adjacent to the Greater Perth Metropolitan Area but does not yet have significant population as compared to the central regions. The Greater Bunbury region is at a great distance to the Greater Perth Metropolitan Region and has therefore ranked comparatively lower.

The Northam region ranked last. While less distant to the Greater Perth Metropolitan Area than the Greater Bunbury Region, the area has a very low existing and projected population and is therefore thought to exhibit a lower overall demand for the equine industry.

5.4.3 Data Gaps

Proximity to urban populations was based on a qualitative assessment. More detailed analysis outside the scope of this report could include for example, detailed modelling of traffic flows to examine origin and destination for equine industry participants, or gravity modelling of participants and activity areas to demonstrate the relative importance of each region.

5.5 Employment

5.5.1 Overview

Employment in the equine industry is an indicator of the relative importance of the equine industry in each of the regions. Employment in each region relating to the equine industry is generally made up of horse farmers[13] (breeders), farriers, veterinarians, trainers, transporters, feed merchants, retailers and other businesses.

5.5.2 Data

Quantitative data for employment in the equine industry was obtainable for horse racing only. As such, the figures presented below underestimate the total number of equine employees. Regions published in data made available from RWWA differ from those in this report but are relied upon as the best available source of data and due to the fact that many of the equine facilities are located within the study regions. To account for this, the values for each region are attributed as follows:

Figure 20 - Employment Summary by Region

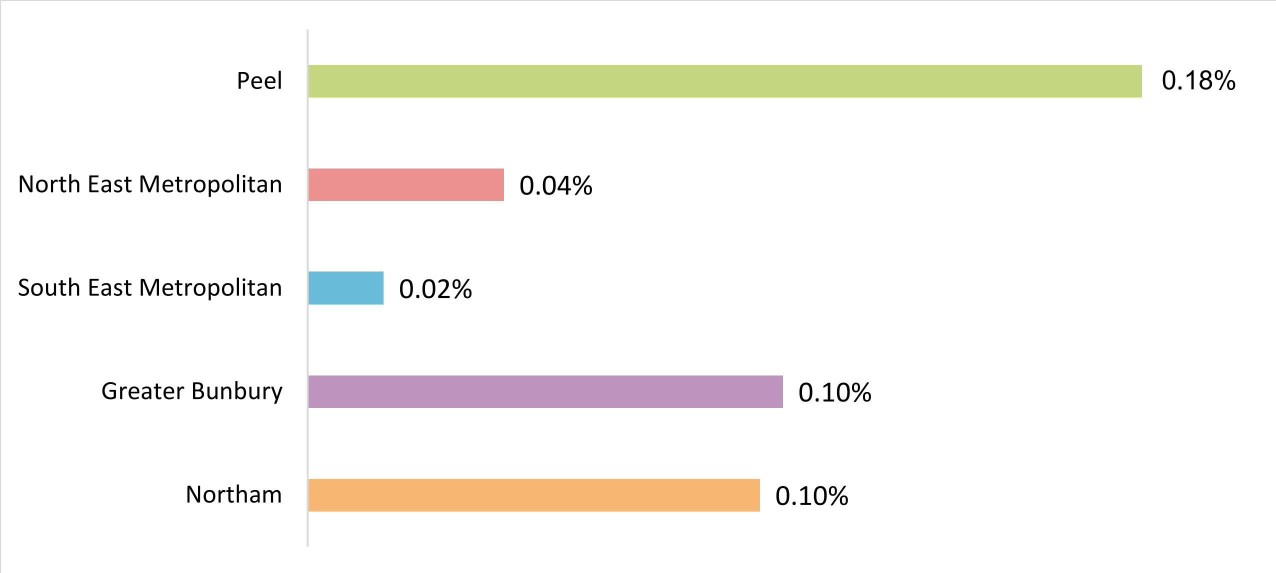
Study Region	RWWA Region	Racing Sector Employment (2016)	Total Employment (2016)	Equine Employment (%)
Peel	Peel	2,179	35,592	6.1%
North East Metropolitan	Perth * 0.5	4,022	187,192	2.1%
South East Metropolitan	Perth * 0.5	4,022	167,512	2.4%
Greater Bunbury	South West	2,224	35,693	Not assessable
Northam	Wheatbelt	1,706	6,252	Not assessable

The percentage of equine employment in the Greater Bunbury and Northam regions was not assessable due to the misalignment of the study regions and RWWA regions.

Employment in horse farming was obtained from the Australian Bureau of Statistics. This data provides a second lens through which to analyse the study regions which is better adapted for a holistic view of the industry. Data was obtained and examined as a proportion of overall employment by region.

[13] ABS terminology

Figure 21 - Employment in Horse Farming versus overall employment by region, 2016



Source: Australian Bureau of Statistics, Census of Population and Housing 2016

5.5.3 Ranking

Regions were ranked based on the proportion of employment dedicated to horse farming, considered to be the best available proxy for employment in the wider equine industry.

Region Rankings: Employment				
1st	2nd	3rd	4th	5th
Peel	Greater Bunbury	Northam	North East Metropolitan	South East Metropolitan

Peel was the highest ranking industry for the employment criteria, with 0.18 percent of the region's overall workforce dedicated to horse farming. Furthermore, reporting from AEC Group (2016) shows that 2.5 percent of the overall jobs in the Peel region are employed in the wider equine industry.

Greater Bunbury and Northam were roughly equal in terms of employment, with the North East Metropolitan and South East Metropolitan regions having very little employment in the equine industry. What employment does exist in these regions is likely to contribute to the racing sector facilities centred in the inner-city areas.

5.5.4 Data Gaps

The Peel region has previous studies suggesting that the equine industry contributes over 1,500 jobs to the regional economy, however a data gap exists for detailed employment data from other regions with which to compare it against. As such, this study relied on Australian Bureau of Statistics employment data.

Employment data is available from the Australian Bureau of Statistics at the ANZSIC4 level for Horse Farming, Horse and Dog Racing Administration and Track Operation, Other Horse and Dog Racing Activities and Horse and Dog Racing Activities. Given the combined nature of horse and dog racing activities in these categories, only Horse Farming could be relied upon as a source of dedicated equine employment data. This naturally presents a very narrow view of an industry which involves many other support services and operators than these numbers indicate alone.

5.6 Thoroughbred and Harness Registrations

5.6.1 Overview

The number of thoroughbred and standardbred (harness) horses registered in each region is a useful indicator of the intensity of equestrian activities in each region.

5.6.2 Data

Data relating to thoroughbred horse registrations was obtained from the GHD's previous MEART High Level Options Paper Report for RWWA. The data demonstrates thoroughbred horse registered locations for Ascot, Belmont Park and Gloucester Park in 2014/15 and is shown in Figure 22, Figure 23, and Figure 26.

Figure 22 - Registered location of thoroughbred horses starting at Ascot races

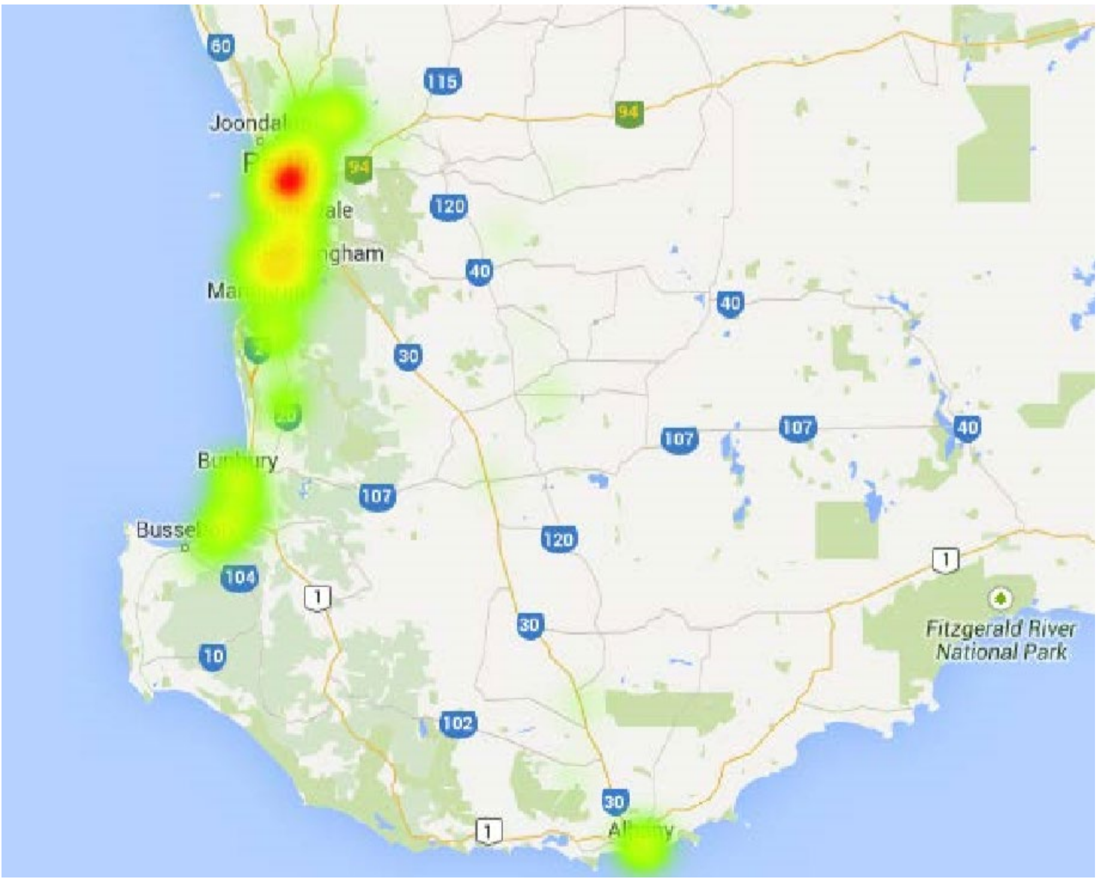


Figure 23 - Registered location of thoroughbred horses starting at Belmont Park races

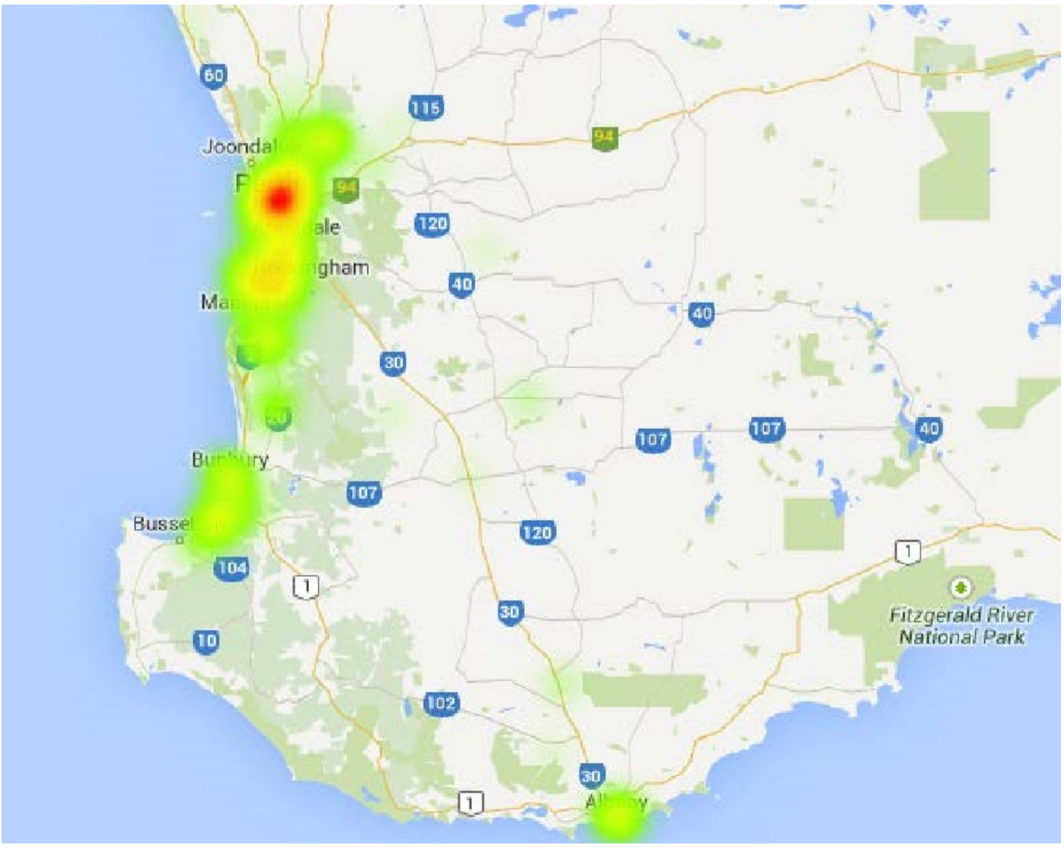
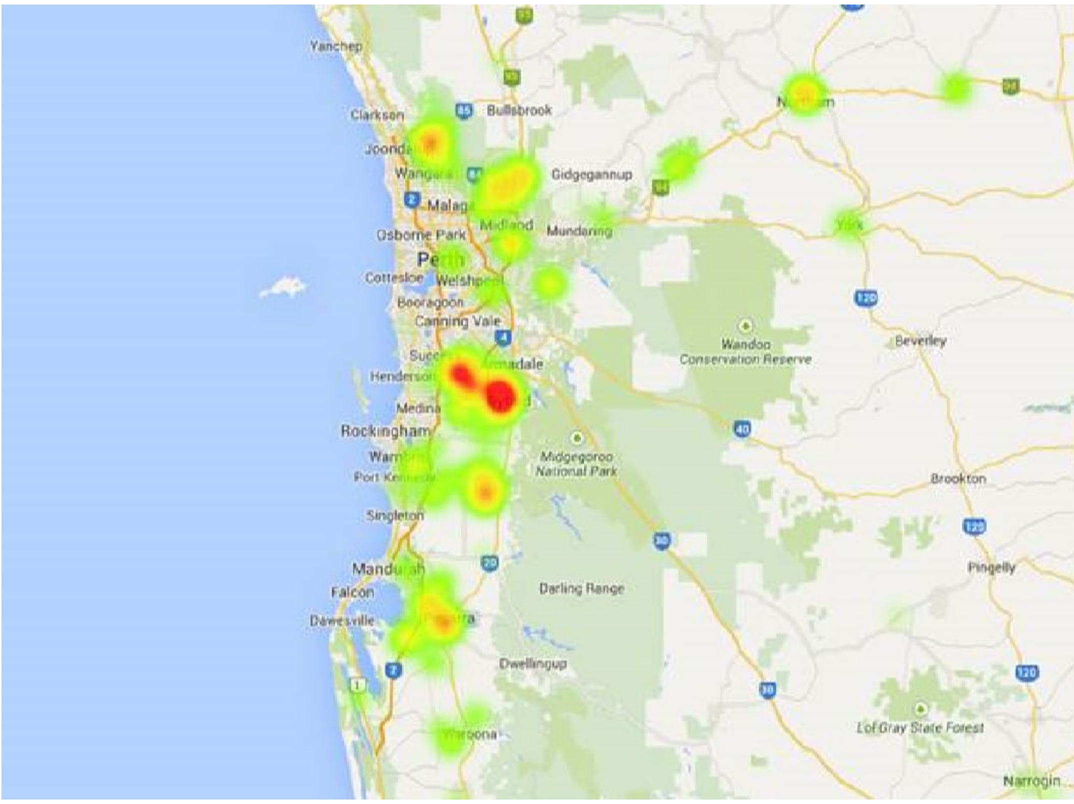


Figure 24 - Registered location of standardbred (harness) horses starting at Gloucester Park



5.6.3 Ranking

Regions were ranked based on the intensity of horse registrations in the area, as shown in the heat maps.

Region Rankings: Employment				
1st	2nd	3rd	4th	5th
South East Metropolitan	North East Metropolitan	Peel	Northam	Greater Bunbury

The South East Metropolitan Region was found to have the largest number of horse registrations a non-racing equine clubs, followed by the North East Metropolitan Area, Peel, Northam and Greater Bunbury.

5.6.4 Data Gaps

The data relating to the registration locations of the thoroughbred and standardbred horses in 2014/15 is comprehensive, but somewhat dated. Although the general distribution of these registered horses is not expected to have significantly changed in the years since, future detailed studies could consider more up to date statistics.

5.7 Non-Racing Equine Clubs

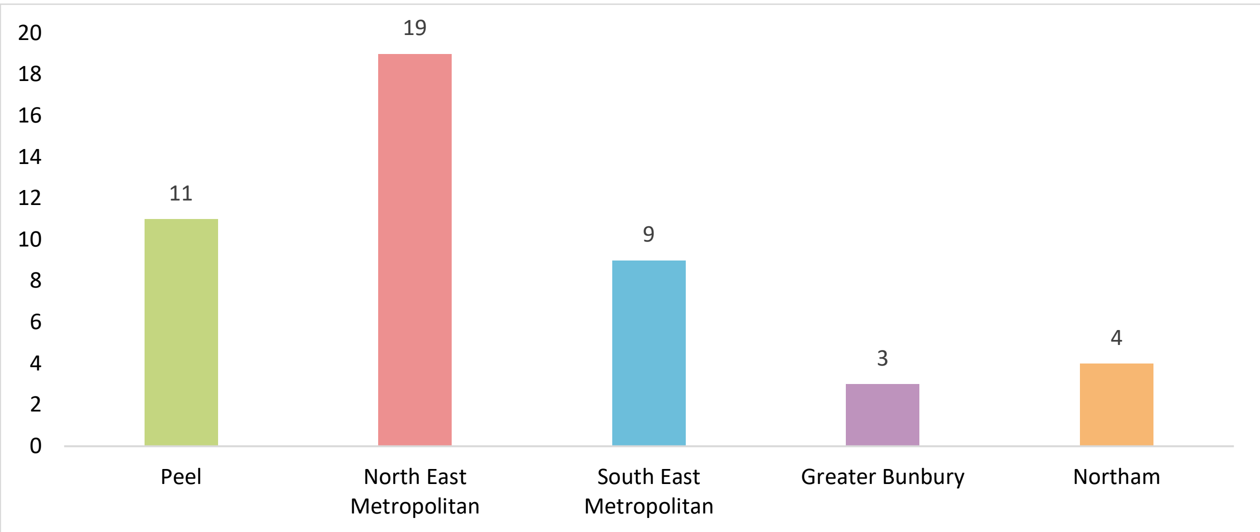
5.7.1 Overview

The number of non-racing equine clubs such equestrian clubs, dressage clubs, riding clubs and pony clubs provide an indication of the intensity of the non-racing equine sector in each region.

5.7.2 Data

Data relating to non-racing equine clubs was obtained from the Equestrian Australian WA website which hosts a directory of registered clubs across Australia. The list of clubs was extracted and tallied for each study region as shown below.

Figure 25 - Count of non-racing equine clubs by region, 2019



Source: Equestrian Australia, 2019

5.7.3 Ranking

Regions were ranked based on their number of non-racing equine clubs.

Region Rankings: Employment				
1st	2nd	3rd	4th	5th
North East Metropolitan	Peel	South East Metropolitan	Northam	Greater Bunbury

The North East Metropolitan Region was found to have the largest number of Equestrian Australia non-racing equine clubs, followed by Peel, the South East Metropolitan Area, Northam and Greater Bunbury.

5.7.4 Data Gaps

The data relating to the non-racing equine clubs on the Equestrian Australia was found to be comprehensive. Further research could be conducted to determine the membership numbers on an individual club basis in order to demonstrate the overall participation rate in non-racing equine clubs across the study regions.

5.8 Allied commercial activity

5.8.1 Overview

The level of allied commercial activity related to the equine industry in a region signifies the broader equine activity in the region. Business counts of allied commercial participants were investigated to determine the level of activity in each region.

5.8.2 Data

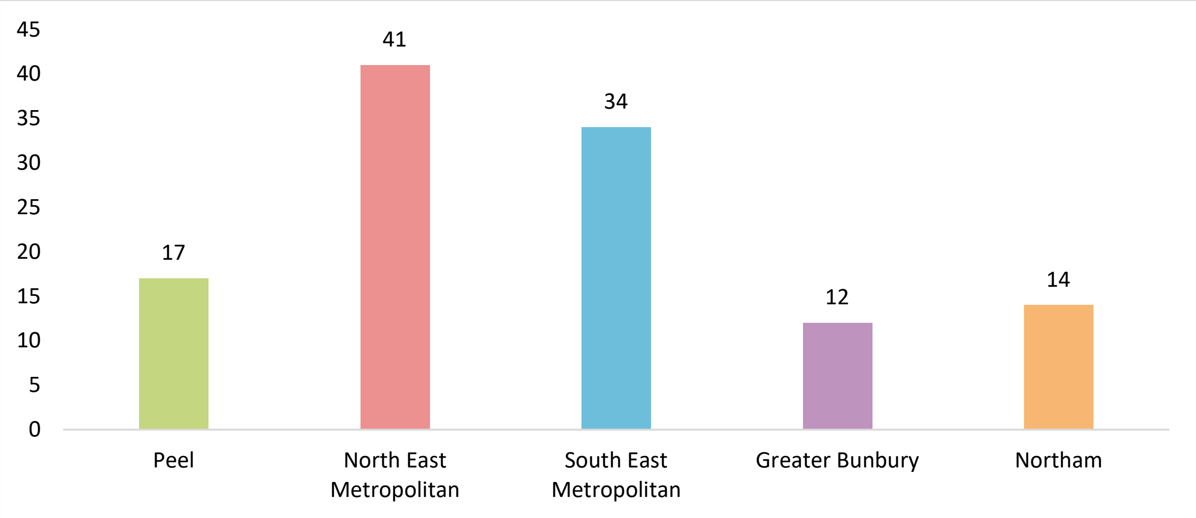
Detailed business counts data exists for the Peel region, as documented in the Shire of Murray Equine Strategy (AEC, 2016). A review of the available literature was unable to show comparable detailed data for the other regions, so a comparative analysis utilising detailed business cases is not possible with currently available data.

The research by AEC (2016) demonstrated that of the 257 equine businesses in the Peel region:

- 85 business were in the racing sector,
- 66 businesses were in the non-racing sector, and
- 106 business were in the equine support sector.

In the absence of comparable data in each region, allied commercial activity was measured by counting the number of equine services businesses arising in a localised desktop search. Data was obtained through this desktop search was available for veterinary services, retail services and feed services. The data obtained does not count every business in the area but represents a good proxy for the full business count when viewed comparatively across the regions. In this way, the ordinal relationship between the areas presented below is able to be relied upon and represents the best readily-available comparative data.

Figure 26 - Count of equine businesses by region, 2019



Source: Google, 2019

5.8.3 Ranking

Regions were ranked based on their number of equine businesses.

Region Rankings: Data Gaps				
1st	**2nd**	**3rd**	**4th**	**5th**
North East Metropolitan	**South East Metropolitan**	**Peel**	**Greater Bunbury**	**Northam**

The North East Metropolitan and South East Metropolitan regions produce the highest number of equine business results through an online search, followed by Peel, Northam and Greater Bunbury.

5.8.4 Data Gaps

Comprehensive business counts similar to that undertaken by AEC (2016) will need to be undertaken in order to increase the confidence of the business counts findings.

5.9 Land use planning

5.9.1 Overview

Land use planning policies are a vital criteria for comparing the suitability of each region for equine land use. These policies have been demonstrated in detail in Section 3 on planning policies in the regions under examination. Particular focus was placed on the individual Local Government Area's planning schemes and these are reflected in the assessment below.

5.9.2 Qualitative Region Analysis

Qualitative data relating to land use planning was obtained from the various local planning schemes in the regions under examination. The regions were ranked based on qualitative evaluation of their current suitability for equine use and their recognition of equine industry land uses as an important activity going forward.

Region Rankings: Land use planning				
1st	2nd	3rd	4th	5th
Peel	Northam	Greater Bunbury	North East Metropolitan	South East Metropolitan

Peel ranked highest out of the regions due highly supportive local planning schemes in relation to equine industry land uses in the Shire of Boddington, Shire of Murray, Shire of Serpentine-Jarrahdale and Shire of Waroona. In particular, the Shire of Murray also has a proposed special use equine training facility zone and an area around the Murray Regional Equine Centre in Coolup. Serpentine-Jarrahdale's equine strategy identifies two 'residential and stables' hubs as key areas to protect the equine industry, being the Northern and Southern Equine Hubs.

The Northam Region ranked second, with all three shires in the region (Northam, Toodyay and York) having local planning schemes that are supportive of equine industry land uses. Northam's Local Planning Strategy identifies land adjacent to the Northam Racecourse as having potential for an equestrian themed residential estate but this has not yet been realised after many years. York's draft planning strategy recognises the potential for a regional equestrian centre.

The Greater Bunbury Region's four shires (Bunbury, Capel, Dardanup and Harvey) all have supportive local planning schemes. Bunbury is in the process of developing a local area plan for the area surrounding the Bunbury racecourse which includes a 'stables' residential area.

The North East Metropolitan region's local government areas are not all supportive of equine industry land uses. For example, the City of Bayswater does not permit the keeping of horses and the City of Bassendean only permits equine keeping in general and light industrial zones. The City of Belmont has a specific residential and stables zone in proximity to the Ascot Racecourse to support equine uses in proximity to these facilities. Kalamunda, Mundaring and Wanneroo have supportive equine planning schemes in rural, rural residential and agriculture zones. The City of Swan is highly supportive of equine land use, predominantly in the Swan Valley, and has a fast track planning process for the keeping of horse applications.

The South East Metropolitan region's Cockburn, Gosnells and Kwinana local government areas have equine supportive planning schemes in specific areas. The City of Armadale's planning scheme permits equine uses in the general rural zone subject to stocking rates, but much of this land is earmarked for urban expansion. The rural living zone allows discretionary use with specific local government approval. The City of Rockingham has deleted 'stables' from its local planning scheme.

5.10 Land affordability

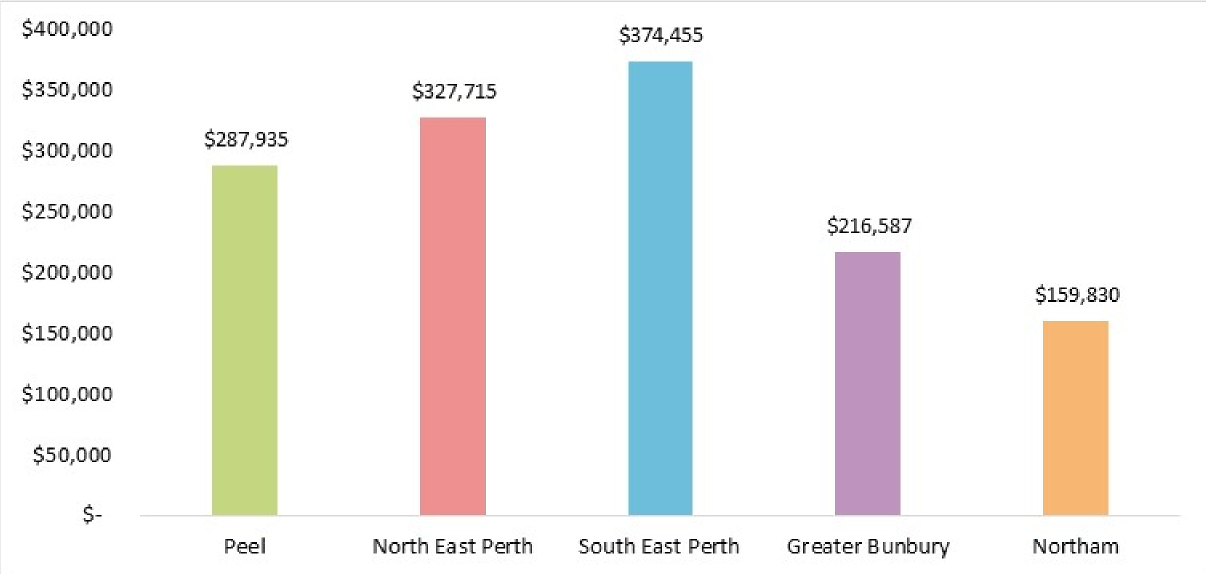
5.10.1 Overview

As densification increases, the need for affordable rural land to satisfy the needs of the equine industry will become increasingly important. Along with land use planning and land conditions, land affordability is an important indicator of the types of land use expected to occur in an area. High value land signifies high demand for residential development, whilst lower value land is in lower demand and can be affordable for the low intensity rural land uses required by the equine industry.

5.10.2 Data

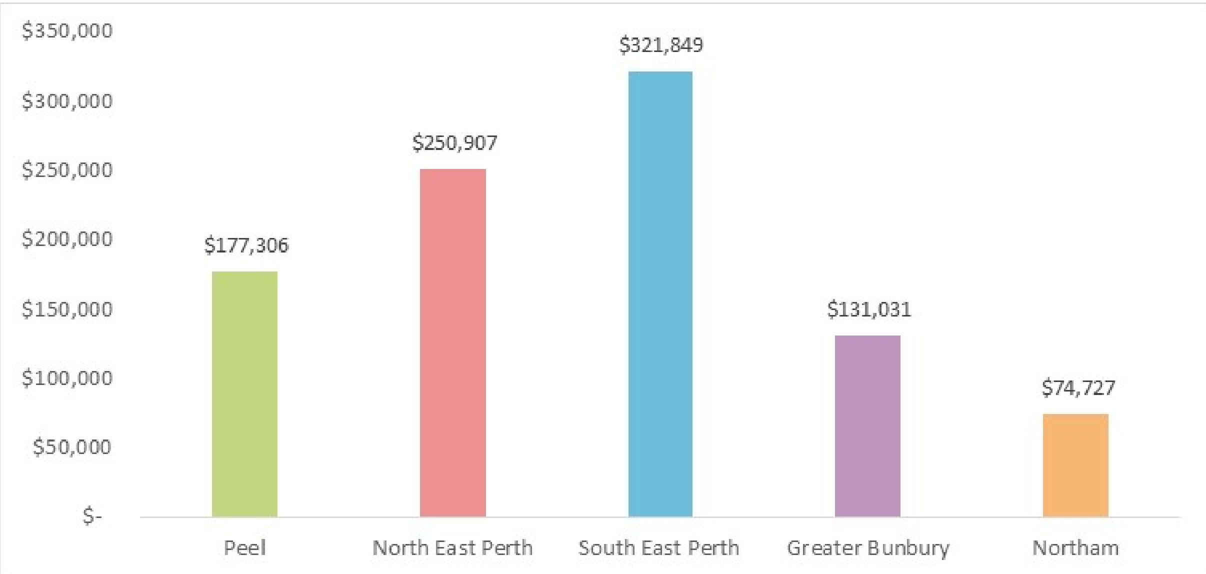
Qualitative data relating to land affordability was obtained from RP Data CoreLogic at the Local Government Area level and averaged across each region. The data obtained related to the most recent house and vacant land sales for 2 Ha – 5 Ha sized blocks. The mean house and land sales prices across each region are displayed below.

Figure 27 - Average 2ha – 5ha house sale prices, $/ha, 2019



Source: RP Data CoreLogic, Recent Sales, Houses, 2 Ha – 5 Ha 2019

Figure 28 - Average 2ha – 5ha vacant land sale prices, $/ha, 2019



Source: RP Data CoreLogic, Recent Sales, Vacant Land, 2 Ha – 5 Ha 2019

5.10.3 Ranking

Regions with the lowest mean prices were ranked highest.

Region Rankings: Land affordability				
1st	2nd	3rd	4th	5th
Northam	Greater Bunbury	Peel	South East Metro	North East Metro

Low land values in Northam mean that the region has received the highest ranking for this criteria. This result coincides with the region's extremely low population density statistic and demonstrated the high availability of rural land suitable for equine land use. Land values in Peel and Greater Bunbury are roughly equal, signifying the region's mix of residential and rural land uses.

The North East Metropolitan and South East Metropolitan regions of Perth have the highest average land values and this is indicative of the shortage of available land, an issue that will only worsen for the equine industry and other land intensive industries in these regions going forward.

5.10.4 Data Gaps

The data provided gives a comprehensive view of equine-suitable land value and is current to 2019.

5.11 Groundwater and soil

5.11.1 Overview

Groundwater permit availability and soil conditions are generally vital for the sustainable functioning of equine industry lands and have been selected as a comparative criteria for the analysis. These characteristics were also examined in detail in Section 3.

5.11.2 Qualitative Region Analysis

Qualitative data relating to groundwater and soil typologies were obtained from various sources in the regions under examination. The regions were ranked based on qualitative evaluation of their current groundwater availability and the favourability of soil typologies in the region.

Region Rankings: Groundwater and soil				
1st	2nd	3rd	4th	5th
Peel	Greater Bunbury	Northam	South East Metropolitan	North East Metropolitan

The Peel region ranked highest in the groundwater availability and soil typologies assessment. This is due to the high availability of groundwater extraction licences in the Shire of Murray's south and west regions, the Shire of Waroona, and in the Keysbrook, Serpentine, Mardella and Cardup localities in the Shire of Serpentine-Jarrahdale. In addition, the Peel Region has well defined soil identification as a result of the Department of Food and Agriculture Western Australia Peel Food Zone research program, with Bassendean sands suitable for equine industry activities across the Guildford geological formation. These sands are highly suitable for equine activities providing phosphorous mobility is managed.

The Greater Bunbury region ranked second, despite a full allocation of groundwater extraction licences in the Bunbury local government area. Groundwater extraction permits in the shires of Capel, Dardanup and Harvey are approximately half allocated. In particular, the region has Bassendean sands over the Guildford formation with many swampy areas inland which are mostly suitable for equine activities providing phosphorous mobility is managed.

There is a lack of information available for groundwater extraction permissions, however given that groundwater is likely to be deep and cost prohibitive to extra, the area is not considered particularly viable for equine industry land uses. Surface water options are the predominant source for existing uses. Residual granite soils with granite and laterite outcrops are present, with clayey soils accelerating phosphorous mobility which is problematic for equine land uses.

The South East Metropolitan and North East Metropolitan areas generally have groundwater extraction licences at full allocation, with some possibilities for availability only beyond the Perth Coastal Plain. The City of Rockingham has limited groundwater extraction licences areas available however none of these are in equine approved planning zones. The soil typologies of these areas are typically Bassendean sands over the Guildford geological formation which is suitable for equine land use. Unfortunately, some areas such as the Swan Valley have experienced significant erosion, leaving the formation exposed. Phosphorus mobility is accelerated in the Swan River and tributaries and downstream algal problems are already a problem.

5.12 Local economic benefits

5.12.1 Overview

The equine industry supports employment in the communities that it operates and provides local economic value added from its activities. In addition, the clustering of the equine industry and supporting commercial activity in the regions provides significant advantages to infrastructure, mobility and efficiency which lead to economic benefits in their local economies. These local benefits are realised through the collocation of racing and non-racing land uses and efficiencies that arise from a large number of uses occurring in the same area. Resulting from this collocation, local economic benefits are thought to be directly derived from:

- Reduced frequency of horse transportation,
- Reduced distance for horse transportation,
- Reduced distance for equine industry participants including employees and spectators, and
- Changing industry participation.

These local economic benefits lead to cost savings and allow for a more efficient allocation of expenditure within local economies.

Additional economic data has been provided in summary form in Appendix A.

5.12.2 Data

Racing and Wagering WA has recently published economic impact data relating to the racing industry. It is important to note however that this data is the sum total of thoroughbred, harness and greyhound racing. As such, actual economic contributions are likely to be less in the published figures. Regions published under this study differ from those in this report but are relied upon as the best available source of data and due to the fact that many of the equine facilities in these regions are located within the study regions. To account for this, the values for each region are attributed as follows:

Table 6 - Regional Value Added Economic Benefits from the Equine Industry

Analysis Region	RWWA Region	Economic Value Added (Racing), 2019	Economic Value Added (Non-Racing)
Peel	Peel Region	$120.3m	$93.5m in 2018
North East Metropolitan	Perth Region * 0.5	$252.0m	*unknown*
South East Metropolitan	Perth Region * 0.5	$252.0m	*unknown*
Greater Bunbury	South West Region	$58.3m	*unknown*
Northam	Wheatbelt Region	$57.6m	*unknown*

5.12.3 Ranking

Regions are ranked based on the economic contribution to WA (Value Added) as defined by Racing and Wagering and the aforementioned attribution on this value.

Region Rankings: Local economic benefits				
=1st	=1st	2nd	3rd	4th
North East Metropolitan	South East Metropolitan	Peel	Greater Bunbury	Northam

The North East Metropolitan and South East Metropolitan regions of Perth rank highest in terms of the local economic benefits delivered from their equine industry. It should be noted however that these figures relate only to racing activities which naturally places the more rural Peel, Greater Bunbury and Northam regions at a disadvantage by not accounting for the large amount of non-racing activity in these areas. This is made evident by the fact that the Peel region generated even more economic value added from non-racing activities than racing activities in 2018.[14]

5.12.4 Data Gaps

The research published in 2019 by RWWA demonstrates the economic contributions of the industry but does not make a distinction between horse and dog activities. Furthermore, the regional breakdown of the findings differs from the study areas in this report.

No data is available to study in detail the efficiency of transport and collocation in the equine sector. Development of this dataset and modelling across the regions would rely on a much more comprehensive survey of the equine sector with research into, for example, locations of participants, businesses, travel routes, and changes to participation and activity over time.

[14] Peel Equine Strategy, 2018

5.13 Environmental Sensitivity

5.13.1 Ranking

Regions are ranked based on the extent of land designated as having significant areas of land capable of grazing or cropping use after allowing for residential or urban constraints.

Greater Bunbury[15] and Northam both have significant grazing land which is likely to remain available in to the future.

The three main Shires that make up the grazing lands of the Perth coastal plain have available land along the base of the Darling Scarp.

The North East Metropolitan area has various land use constraints that yield the most suitable land unavailable due to planed urban zoning. The Swan Valley area being the largest suitable are is subject to residential and urban encroachment, evidenced by the need for a special planning review to ensure the remaining rural land is protected.

South East Metropolitan area is either currently or planned to be fully urbanised and hence unsuitable for grazing and cropping.

Region Rankings: Local economic benefits				
3rd	4th	2nd	=1st	=1st
North East Metropolitan	South East Metropolitan	Peel	Greater Bunbury	Northam

[15] Bunbury NR Info sighted but not available for printing.

5.14 Comparative Analysis Summary

In summary, the comparative characteristics of the analysis have been tabulated below in Table 7. In order to evaluate the most suitable regions for equine land uses, the unweighted rankings were totalled, with the lowest total rank indicating the most suitable region for equine industry land use.

Table 7 - Comparative analysis summary, lower total signifies higher suitability for equine land use

Assessment Criteria	Peel	South East Metropolitan	North East Metropolitan	Greater Bunbury	Northam
Overall Strategic Direction	1	3	3	2	3
Demographics: Current Population	1	5	4	3	2
Demographics: Future Population	1	3	2	4	5
Proximity to Urban Populations	3	1	2	4	5
Employment in the Equine Industry	1	5	4	2	3
Horse Registrations	3	2	1	4	5
Non-Racing Equine Clubs	2	3	1	5	4
Allied commercial activity	3	2	1	5	4
Land Use Planning	1	5	4	3	2
Land Affordability	3	4	5	2	1
Groundwater and Soil	1	4	5	2	3
Local Economic Benefits	2	1	1	3	4
Environmental sensitivity	2	4	3	1	1
Totals	**24**	**42**	**36**	**40**	**42**

Final rankings indicate that Peel is the most suitable region for equine industry land use followed by Greater Bunbury, Northam and the North East Metropolitan region and the South East Metropolitan region.

6. Conclusion and Recommendations

6.1 Conclusion

The equine industry in Western Australia adds key economic and social contributions to the community through its various racing and non-racing disciplines enjoyed by people of all ages. Achieving the maximum benefit to the community and best value-for-money from State and Local Government funded projects is made possible by correctly identifying key drivers for change. Through the Peel Equine Strategy Competitive and Comparative Analysis Report, these key drivers for change in the equine industry have been identified as:

Population growth: The equine industry is well positioned to cater to the employment requirements of a growing workforce demanding career pathways with a low barrier to entry.

Land availability: The equine industry requires affordable and accessible land that is suitable for current equine industry activity and future growth of the industry into areas increasingly distant from the Perth inner-metropolitan area.

Infrastructure gaps: Gaps in high quality facilities required by the equine industry in some areas that will require funding in order to facilitate future growth of the industry.

Collocation of assets and facilities: The competitive advantages of clustered equine industry participants and related infrastructure is increasingly leading to their collocation.

Environmental suitability: The equine industry requires access to groundwater and soil conditions appropriate for the domiciling of horses.

Planning frameworks: Equine industry participants are located in areas which continue to allow for equine activity and the domiciling of horses generally.

The material impact of these drivers is already evident in the distribution of equine activity around the Greater Perth Metropolitan Area and adjacent equine regions. Local Planning Strategy must adapt accordingly. Areas where this is most appropriate are those that can easily respond to the drivers listed above. These are those which have a competitive advantage in the equine industry as they:

- are not earmarked for future urban expansion,
- predominantly consist of low density, semi-rural and rural lands with comparatively low land values,
- Are directly adjacent to major population centres which provide significant demand for equine industry activities and supply the workforces required to sustain an industry cluster in the area,
- have equine supportive land use planning schemes already in place,
- have sufficient availability of groundwater extraction permits and favourable soil typologies, and
- can achieve economic efficiencies from the collocation of complementary equine industry activities.

These competitive factors have been considered in the construction of the comparative assessment presented in this report. The Peel region has been determined to be the most appropriate region for the intensified development of an equine industry cluster servicing the Greater Perth Metropolitan Area, followed by the Northam region and the Greater Bunbury region, the North East Metropolitan region, and the South East Metropolitan region.

Overall, the Peel region exhibits the most ideal characteristics for equine industry growth and is best able to capitalise on demand drivers ahead of other regions because the region:

- is expected to maintain significant areas of rural lands going forward,
- has a favourable combination of proximity to densely population urban areas in the north of the region and low density, rural lands in the south which are low cost and highly suitable for equine industry development,
- is highly supportive of equine industry land uses in the Boddington, Murray, Serpentine-Jarrahdale and Waroona local planning schemes, with significant equine hubs already in planning,
- has a high availability for groundwater extraction permits and well defined soil typologies, and
- can achieve significant local economic benefits through the agglomeration of the equine industry and subsequent infrastructure, mobility and efficiency benefits that would be expected to arise.

Other findings established during the preparation of this report included the following:

- an inconsistency in the need and extent of Equine Management Plans required by Local Planning Schemes as part of permitting horses to be domiciled on rural or semi-rural land in the Peel Region.
- The longer term impact of the extension of the Perth Metronet rail network to Byford will place pressure on land planning and usage. The northern ‘hub’ may need to be reviewed as residential encroachment expands around the new Byford rail station. The southern ‘hub’ in Serpentine Jarrahdale will continue to provide an ideal location for equine industry intensification.

6.2 Recommendations

Capitalising on the Peel region’s suitability for increased equine industry activity and growth will involve a number of coordinated investment initiatives across the region. These recommendations for investment initiatives are as follows:

1. Improving and expanding state level equestrian facilities in the Peel region to attract and service growing populations from the southern Perth metropolitan area and broader south west region of Western Australia
2. Encouraging participation in sporting and recreational equine activities amongst the next generation of industry participants, including equine assisted therapy and opportunities for people with disabilities
3. Amending zoning and structure plans to provide a standardized and optimised approach to equine management plans to simplify usage and land purchase processes for the average land /horse owner
4. Enhancing the region’s industry linkages with the educational sector and small to medium enterprises that form key parts of the industry supply chain to encourage employment development and participation (industry means racing, recreation and supporting supply chains)
5. Enhancing tourism promotion, marketing and amenities to increase levels of visitation for equine events and activities
6. Alignment of environmental planning conditions for the domiciling of horses across all Peel Regional local government authorities, to achieve a high level of environmental protection

7. Development of on-course and on-facility stabling to encourage increased racing, pacing, eventing and recreating industry participation, particularly from nearby densely populated urban areas

7. References

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Western Australian Department of Planning, Lands and Heritage – *WA Tomorrow* 2016 – Government of Western Australia

Appendices

Appendix A – Supporting Comparative Data

The following data was obtained from the Australian Bureau of Statistics throughout the course of the comparative analysis and has been provided for additional context.

Source Data: https://itt.abs.gov.au/itt/r.jsp?databyregion#/

ABS Category	Year	Rate	PEEL REGION						NORTH EAST PERTH REGION							
			Boddington	Mandurah	Murray	Serpentine-Jarrahdale	Waroona	Total	Bassendean	Bayswater	Belmont	Kalamunda	Mundaring	Swan	Wanneroo	Total
POPULATION AND PEOPLE																
Estimated Resident Population																
Persons -Total	2018	No.	1,833	85,302	17,653	31,120	4,169	**140,077**	15,739	68,232	41,510	58,946	39,139	143,374	203,679	**570,619**
Working Age Population (aged 15-64 years)	2017	%.	65	59	60	67	61	**62**	66	68	71	64	66	68	67	**67**
Population Density																
Population Density (ERP at 30 June)	2018	persons/km2	1	488	10	34	5	**108**	1,521	1,971	1,042	182	61	138	298	**745**
ECONOMY & INDUSTRY																
Building Approvals																
Total dwelling units	2018	No.	4	751	118	387	21	**21**	67	393	511	197	56	1,736	1,631	**4,591**
Residential Property Prices - Year Ended 30 June																
Houses median sale price	2016	$	330,000	400,000	426,000	455,000	315,000	**385,200**	515,000	575,000	506,000	510,000	540,000	445,000	465,000	**508,000**
INCOME																
Estimates of Personal Income																
Employee Income Earners	2016	No.	913	38,227	7,479	14,003	1,902	**62,524**	8,718	38,772	23,325	31,253	19,635	71,263	99,311	**292,277**
Employee Income Earners - median age		Years	43	41	43	37	44	**42**	39	36	34	41	44	38	37	**38**
Mean employee income			84,000	66,129	67,389	66,128	66,687	**70,067**	64,161	63,578	61,752	65,858	67,679	62,032	61,643	**63,815**
Own unincorportaed business income earners	2016	$	160	5,441	1,402	2,318	374	**7,217**	1,198	5,790	3,023	4,560	3,472	9,772	15,017	**42,832**
Own unincorportaed business income earners - median age	2016	Years	54	48	51	46	54	**51**	44	43	38	48	51	44	43	**44**
Mean Own unincorportaed business income		$	18,507	25,182	8,049	23,841	66,687	**28,453**	25,841	11,041	19,652	22,896	21,424	21,886	26,445	**21,312**
Investment income earners	2016	No.	768	29,617	5,942	9,945	1,444	**47,716**	6,259	29,599	15,615	24,925	16,038	47,685	67,122	**207,243**
Investment income earners - median age	2016	Years	46	49	50	42	50	**47**	44	42	38	47	49	42	42	**43**
Mean investment income		$	4,747	7,356	7,883	7,934	6,566	**6,897**	5,578	6,151	3,620	8,490	7,974	5,007	4,382	**5,886**
EDUCATION AND EMPLOYMENT																
Youth Engagement																
Fully Engaged	2016	%	79	73	72	77	21	**64**	78	82	75	81	79	79	79	**79**
Total persons aged 15-19 yrs	2016	No.	70	4,849	1,005	1,697	245	**7,866**	822	3,210	1,774	3,906	2,508	8,921	13,436	**34,577**
Labour Force Status																
Labour Force	2016	No.	905	34,823	7,103	13,884	1,781	**58,496**	7,863	35,845	20,393	29,326	18,665	68,402	97,377	**277,871**
Unemployed	2016	No.	49	3,787	685	988	155	**5,664**	621	2,782	1,794	2,071	1,275	5,699	8,285	**22,527**
Unemployment rate	2016	%	5	11	10	7	9	**8**	8	8	9	7	7	8	9	**8**
Participation rate	2016	%	63	53	52	68	53	**58**	64	64	61	63	59	66	67	**64**
FAMILY AND COMMUNITY																
Household by Type - Census																
Average household size	2016	No. of persons	3	2	3	3	3	**3**	2	2	2	3	3	3	3	**3**
Rent and Mortagage Payments																
Average monthly household rental payment	2016	$	1,126	1,365	1,282	1,562	1,021	**1,271**	1,387	1,499	1,484	1,559	1,475	1,478	1,607	**1,498**
Average monthly household mortagage payment	2016	$	1,759	1,910	1,952	2,207	1,764	**1,918**	1,960	2,070	2,012	2,068	2,068	2,046	2,118	**2,049**
Dwelling Structure																
Separate house	2016	No.	597	24,879	5,423	8,272	1,323	**40,494**	4,649	17,859	9,854	18,871	12,283	37,863	54,880	**156,259**
Semi-detached	2016	No.	13	4,049	346	85	29	**4,522**	981	5,188	3,191	1,006	470	5,283	6,244	**22,363**
Flat or apartment	2016	No.	13	1,254	17	11	64	**1,359**	244	2,342	1,559	47	30	479	125	**4,826**
Other dwelling	2016	No.	6	222	185	19	22	**454**	3	16	17	107	40	265	167	**615**
Socio-Economic Indices - State Deciles																
SEIFA - Relative Socio-Economic Disadvantage (IRSD)	2016	No.	7	4	4		3	**4**	7	8	5	9	9	7	8	**8**
SEIFA - Relative Socio-Economic Advantage and Disadvantage (IRSAD)	2016	No.	7	4	3		2	**3**	8	9	6	9	9	7	8	**8**
SEIFA - Education and Occupation (IEO)	2016	No.	4	2	1		1	**2**	8	9	7	7	8	4	5	**7**
SEIFA - Economic Resources (IER)	2016	No.	9	6	8		6	**6**	5	6	2	10	10	9	9	**7**
Commuting to Work																
Average communting distance to place of work	2016	kms	83	13	23	17	37	**34**	15	12	20	14	16	16	13	**15**
Median communting distance to place of work	2016	kms	100	7	20	12	26	**33**	12	9	17	11	10	13	9	**11**
LAND AND ENVIRONMENT																
Land Area	2018	ha	190,448	17,490	170,346	90,476	83,223	**551,983**	1,035	3,462	3,983	32,430	64,320	104,299	68,326	**277,854**

ABS Category	SOUTH EAST PERTH REGION							GREATER BUNBURY REGION					NORTHAM REGION			
	Armadale	Canning	Gosnells	Kwinana	Rockingham	Vic Park	Total	Bunbury	Capel	Dardanup	Harvey	Total	Northam	Toodyay	York	Total
POPULATION AND PEOPLE																
Estimated Resident Population																
Persons -Total	87,634	92,965	132,325	43,511	133,389	36,601	**526,425**	31,776	18,022	14,368	27,798	**91,964**	11,190	4,427	3,591	**6,403**
Working Age Population (aged 15-64 years)	66	69	67	68	65	73	**68**	64	65	63	66	**64**	63	62	56	**60**
Population Density																
Population Density (ERP at 30 June)	157	1,433	969	363	518	2,040	**913**	486	32	27	27	**143**	8	3	2	**4**
ECONOMY & INDUSTRY																
Building Approvals																
Total dwelling units	1,124	468	566	487	990	244	**3,879**	78	76	60	187	**401**	48	47	11	**106**
Residential Property Prices - Year Ended 30 June																
Houses median sale price	425,000	600,000	445,500	360,000	417,000	647,500	**482,500**	340,000	400,700	388,000	384,000	**378,175**	250,500	360,000	315,000	**308,500**
INCOME																
Estimates of Personal Income																
Employee Income Earners	42,703	51,629	62,518	20,352	66,034	20,963	**44,033**	16,832	9,020	7,435	13,909	**47,196**	4,901	2,026	2,103	**9,030**
Employee Income Earners - median age	36	36	37	36	38	34	**36**	40	41	39	40	**40**	43	47	40	**43**
Mean employee income	61,475	59,573	58,417	61,303	68,514	65,363	**62,441**	58,856	66,156	64,849	65,804	**63,916**	50,328	51,537	68,751	**56,872**
Own unincorportaed business income earners	5,322	6,724	8,238	2,113	7,302	2,720	**32,419**	2,521	1,537	1,172	2,291	**7,521**	964	561	623	**2,148**
Own unincorportaed business income earners - median age	42	43	41	40	43	40	**42**	48	48	48	49	**48**	52	56	53	**54**
Mean Own unincorportaed business income	22,290	20,771	20,501	18,681	23,081	20,840	**21,027**	29,300	33,694	11,593	21,024	**23,903**	20,623	8,804	24,537	**53,964**
Investment income earners	28,341	39,848	41,844	11,471	43,023	15,305	**179,832**	12,308	6,639	5,464	10,424	**34,835**	3,488	1,670	2,262	**7,420**
Investment income earners - median age	41	43	42	38	44	38	**41**	48	45	45	46	**46**	50	54	46	**150**
Mean investment income	4,212	5,015	2,951	2,133	2,803	5,609	**3,787**	9,382	7,223	5,244	6,140	**6,997**	6,774	4,939	7,894	**19,607**
EDUCATION AND EMPLOYMENT																
Youth Engagement																
Fully Engaged	76	88	80	71	74	82	**78**	70	81	77	74	**75**	73	73	75	**74**
Total persons aged 15-19 yrs	4,691	6,227	7,713	22,996	8,213	1,614	**51,454**	1,757	1,425	917	1,867	**1,492**	622	225	159	**1,006**
Labour Force Status																
Labour Force	39,941	46,911	58,644	18,831	60,778	19,144	**244,249**	15,062	8,601	6,904	12,662	**43,229**	4,742	2,007	1,489	**8,238**
Unemployed	3,655	4,777	5,174	2,029	5,941	1,655	**23,231**	1,333	582	479	978	**3,372**	405	161	88	**654**
Unemployment rate	9	10	10	11	10	9	**10**	9	7	7	8	**8**	9	8	6	**7**
Participation rate	65	63	63	62	63	63	**63**	57	66	63	61	**62**	53	53	50	**52**
FAMILY AND COMMUNITY																
Household by Type - Census																
Average household size	3	3	3	3	3	2	**3**	2	3	3	3	**3**	2	3	3	**3**
Rent and Mortagage Payments																
Average monthly household rental payment	1,403	1,558	1,470	1,349	1,467	1,551	**1,466**	1,228	1,363	1,369	1,299	**1,315**	1,041	1,134	956	**3,131**
Average monthly household mortagage payment	1,983	2,035	1,902	1,886	1,989	2,193	**1,998**	1,692	1,998	1,889	1,911	**1,873**	1,575	1,707	1,616	**4,898**
Dwelling Structure																
Separate house	23,905	24,461	34,319	11,648	38,479	7,320	**140,132**	9,324	5,293	4,493	8,417	**27,527**	3,661	1,671	1,292	**6,624**
Semi-detached	3,192	5,292	3,930	10,285	2,798	3,645	**29,142**	2,173	138	246	363	**2,920**	64	15	43	**122**
Flat or apartment	220	935	468	1,513	954	2,542	**6,632**	710	119	-	52	**881**	80	37	28	**145**
Other dwelling	80	18	185	?	191	19	**493**	147	15	69	90	**321**	45	-	6	**51**
Socio-Economic Indices - State Deciles																
SEIFA - Relative Socio-Economic Disadvantage (IRSD)	6	8	5	4	6	8	**6**	3	8	7	7	**6**	2	6	4	**4**
SEIFA - Relative Socio-Economic Advantage and Disadvantage (IRSAD)	6	9	6	4	6	9	**7**	3	8	6	6	**6**	2	5	4	**3.67**
SEIFA - Education and Occupation (IEO)	4	9	4	2	4	9	**5**	3	6	2	2	**3**	1	4	5	**3.33**
SEIFA - Economic Resources (IER)	8	6	7	6	8	3	**6**	2	9	9	9	**7**	3	8	5	**5.33**
Commuting to Work																
Average communting distance to place of work	13	17	13	20	14	16	**15**	15	14	14	20	**16**	25	21	16	**21**
Median communting distance to place of work	9	13	9	17	10	13	**12**	9	7	9	10	**9**	5	10	3	**6**
LAND AND ENVIRONMENT																
Land Area	55,953	6,488	12,730	12,001	25,750	1,794	**114,716**	6,542	55,790	52,580	172,761	**287,672**	143,122	169,165	213,159	**525,446**

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https://projects.ghd.com/oc/Advisory2/peelregionequinestra/Delivery/Documents/911103-RPT-5.2_Peel Equine Strategy Competitive and Comparative Analysis Report.docx

Rev.No.	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
Rev 5	P Tilley	P Tilley		P Tilley		07/02/2020

GHD Advisory