



Avon Sub-Regional Economic Strategy

Prepared by RPS in collaboration with the Wheatbelt Development Commission

Funded by Royalties for Regions, State Government of Western Australia



Special thanks to following people:

- Dee Ridgway – President, Shire of Beverley
- Jacky Jurmann – Manager Planning Services Shire of York,
- Graeme Fardon – CEO Shire of Quairading,
- Steve Pollard – President Shire of Northam and
- Dacre Alcock - CEO, Shire of Dowerin
- Wendy Newman – CEO, Wheatbelt Development Commission

Valuable support and input to the project was provided by the Avon local governments including:

- Shire of Beverley
- Shire of Cunderdin
- Shire of Dowerin
- Shire of Goomalling
- Shire of Koorda
- Shire of Northam
- Shire of Quairading
- Shire of Tammin
- Shire of Toodyay
- Shire of Wyalkatchem
- Shire of York

Prepared by:

RPS

38 Station Street, SUBIACO WA 6008

PO Box 465, SUBIACO WA 6904

T: 618 9211 1111

F: 618 9211 1122

E: planning@rpsgroup.com.au

W: www.rpsgroup.com.au

Prepared for:

**THE WHEATBELT DEVELOPMENT
COMMISSION**

298 Fitzgerald Street

NORTHAM WA 6401

Report No: [VPE04038.00](#)

Version/Date: [FINAL v1.1 February 2013](#)

Document Status

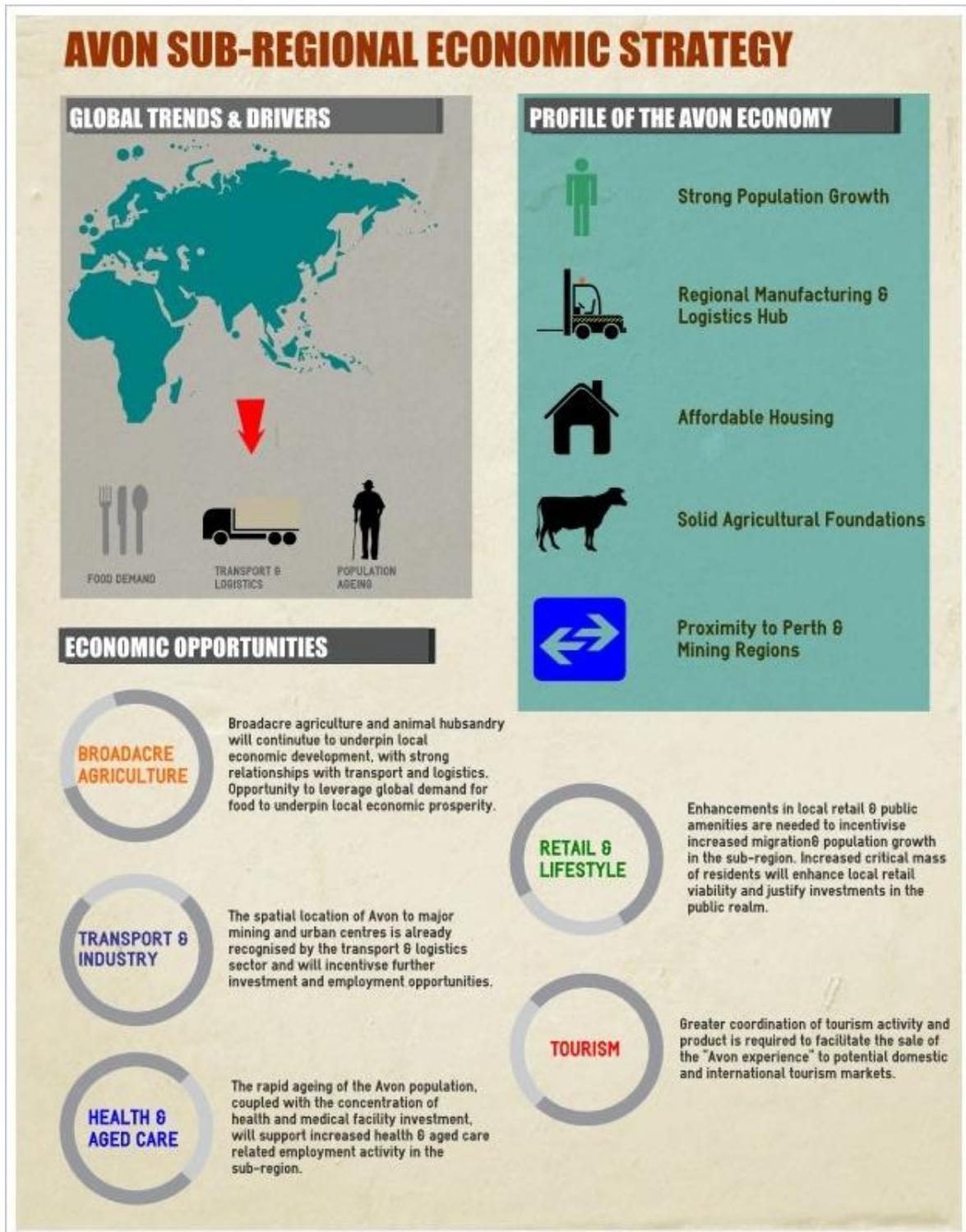
Version	Purpose of Document	Orig	Review	Review Date	Format Review	RPS Release Approval	Issue Date
Draft v1	Draft report for client review	SD	WO	23.10.12	23.10.12	23.10.12	23.10.12
Final v1	Final report for release	SD	WO	21.11.12	21.11.12	21.11.12	21.11.12
Final v1.1	Final report for website	SS	WO	25.02.13	25.02.13	25.02.13	25.02.13
Final v1.2	Final report for website (amended)	SS	WO	23.09.13	23.09.13	23.09.13	23.09.13

Disclaimer

This document is and shall remain the property of RPS. The document may only be used for the purposes for which it was commissioned and in accordance with the Terms of Engagement for the commission. Unauthorised copying or use of this document in any form whatsoever is prohibited.

SUMMARY

The Avon Sub-Region of Western Australia is a one billion dollar (\$1b), export-oriented economy. Home to 27,384 people in 2011, or some 4.5% of Western Australia's non-metropolitan population, the Avon is a dynamic region with an increasingly diversified economy. The key findings of this Strategy, developed by collaboratively RPS and the Wheatbelt Development Commission and in consultation with the Avon LGAs, are illustrated below.



The centrality of the Avon relative to major mineral resource and population regions (Pilbara, Mid West, Goldfields and South West), proximity to the metropolitan Perth region (the fastest growing metropolitan region in the country), and access to major national and state significant transport infrastructure will continue to underpin the sub-region's role as a transport and logistics hub. This will continue to be supported locally by increased and diversified agricultural production which will be driven by structural macro-economic changes of commodity demand.



This Sub-Regional Economic Strategy for the Avon provides economic analysis and evidence based guidance to assist in investment and decision making and can therefore make a major contribution to sub-regional and whole-of-region planning. This Strategy also establishes a framework for the promotion and facilitation of economic and population growth across all towns in the sub-region.

TABLE OF CONTENTS		Page
1.0	INTRODUCTION	1
1.1	Background	1
1.2	Project Purpose	1
1.3	Avon Sub-Region	1
1.4	Strategy Structure.....	2
1.5	APPROACH.....	3
1.6	Glossary and Abbreviations	4
2.0	AVON AND THE GLOBAL ECONOMY	5
2.1	Agriculture	5
2.2	Transport and Logistics	6
2.3	Population Ageing	7
2.4	Conclusions	8
3.0	PROFILE OF THE AVON ECONOMY	9
3.1	Population and Socio-Demographics.....	9
3.2	Labour Force and Skills.....	10
3.3	Employment, Industry and Investment.....	11
3.4	Housing and Affordability	13
3.5	Community Services and Facilities.....	15
4.0	KEY ECONOMIC OPPORTUNITIES.....	19
4.1	Broadacre Agriculture & Animal Husbandry	19
4.2	Transport, Logistics & Mining-Support Industry	22
4.3	Health & Aged Care	26
4.4	Retail & Lifestyle.....	28
4.5	Tourism	32
5.0	OPPORTUNITY NETWORK ANALYSIS	35

5.1	Outline	35
5.2	Network Matrix	35
5.3	Spatial Analysis	36
6.0	ECONOMIC DEVELOPMENT ACTIONS	40
	APPENDIX A – LOCAL GOVERNMENT PROFILES	42
	APPENDIX B – INDUSTRY VALUE ADD	79
	APPENDIX C – SOCIO-ECONOMIC INDICATORS MATRIX	80

TABLES

Table 1:	Hospital Separations and Population, Western Australia, 2010/11	26
Table 2:	Economic Development Actions, Avon Sub-Region	41
Table 3:	Industry Value Add and Gross Regional Product, Avon Sub-Region, 2006/07 to 2010/11	79

FIGURES

Figure 1:	Sub-Regions and LGAs, Wheatbelt	2
Figure 2:	Economic Strategy Structure	3
Figure 3:	Production per Hectare, Wheat, WA	5
Figure 4:	Index of Export Prices, Select Major Commodities in WA, 1998/99 to 2010/11	6
Figure 5:	Employment, by Select Industry Sector, WA.....	7
Figure 6:	Current and Future Residential Population.....	10
Figure 7:	Unemployment and Participation Rate, Avon Sub-Region LGAs, 2011	11
Figure 8:	Industry Value Add, Avon Sub-Region, 2010/11	12
Figure 9:	Share of Locally Registered Businesses, Agriculture and Retail, Avon Sub- Region LGAs, 2009.....	13
Figure 10:	Median House Prices, Avon Sub-Region, 2006 and 2011	14
Figure 11:	Median Multiples, Avon Sub-Region, 2011	15

Figure 12:	Fertility Rate, Avon Sub-Region and Perth SD, 2011	16
Figure 13:	Share of Residential Population Aged 0-14, Avon Sub-Region, Perth SD and WA, 2011	16
Figure 14:	65+ Pop and Aged Care Beds, LGA Share of Avon, 2011/12.....	18
Figure 15:	Predicted Shire Wheat Yields, Select LGAs in Regional WA	20
Figure 16:	Agricultural Land Holdings and Value of Production, Avon Sub-Region, WA, 2006/07	21
Figure 17:	Road and Rail Networks, Asia.....	23
Figure 18:	Connection to Major Transport/Logistics Regions, Avon.....	24
Figure 19:	Credit Card Limits per Capita, Australia, 1994 to 2011	28
Figure 20:	Expenditure Category Share of Total Household Expenditure, WA, 1986 to 2011	29
Figure 21:	Median Household Incomes, Avon Sub-Region and WA, 2011	30
Figure 22:	Breakdown of Visitors to Avon Sub-Region, by Type, 2006 to 2011	32
Figure 23:	Opportunity Network Matrix, Avon Sub-Region.....	36
Figure 24:	Spatial Distribution, Broadacre Agricultural & Animal Husbandry, Avon Sub-Region.....	37
Figure 25:	Spatial Distribution, Transport, Logistics & Mining-Support Industry, Avon Sub-Region.....	37
Figure 26:	Spatial Distribution, Health & Aged Care, Avon Sub-Region.....	38
Figure 27:	Spatial Distribution, Retail & Lifestyle, Avon Sub-Region	39
Figure 28:	Spatial Distribution, Tourism, Avon Sub-Region.....	39

1.0 INTRODUCTION

1.1 Background

In 2011, Northam was identified as one of nine “SuperTowns” by the Department of Regional Development and Lands under the Royalties for Regions, Regional Centres Development Plan. The SuperTowns program was established to assist diversify and decentralise Western Australia’s projected population growth by providing attractive alternate residential locations outside of metropolitan Perth.

Approximately \$5.5m was allocated to fund the preparation of Growth Plans for all SuperTowns, with a further \$80m allocated for catalyst projects. In late 2011 and early 2012, a draft Growth Plan was prepared for the Northam SuperTown, which included economic analysis relating to retail, commercial and government office planning. In May 2012, Northam received funding for enhancement works for the Avon River and for the first stage of the Avon Emergency Services Precinct, which were identified as priority projects for the SuperTown.

The Wheatbelt Development Commission sees merit in researching regional centres and their sub-regions in context to each other, highlighting how the Avon functions as a distinct economic unit. Detailed investigation at the sub-regional level is fundamental given the spatially-dispersed population and industry profile of the Wheatbelt region.

A sub-regional plan is to be prepared by the Wheatbelt Development Commission for the Avon. This plan is to provide regional context and strategic planning supporting economic and population growth in the sub-region.

1.2 Project Purpose

RPS was engaged to work collaboratively with the Wheatbelt Development Commission to prepare a Sub-Regional Economic Strategy for the Avon. This Strategy is to provide economic analysis and evidence based guidance to assist in investment and decision making and will therefore make a major contribution to sub-regional and whole-of-region planning. This Strategy also establishes a framework for the promotion and facilitation of economic and population growth across all towns in the sub-region.

1.3 Avon Sub-Region

For the purpose of this Strategy, the Avon Sub-Region includes the following Local Government Areas:

- Beverley
- Cunderdin
- Dowerin
- Goomalling
- Koorda
- Northam
- Quairading
- Tammin
- Toodyay
- Wyalkatchem
- York

- **Key Economic Opportunities** – identification and summary of key economic opportunities for the sub-regional strategy including rationale, drivers and trends and sub-regional characteristics.
- **Opportunity Network Analysis** – identification and analysis of the distribution of economic competitive advantages and opportunities across towns and LGAs in the Avon.

In addition, concise Local Government profiles, distilling the results of the Strategy for each local area have been developed and included in the Appendix.

The Strategy's structure is illustrated in the following diagram.



Figure 2: Economic Strategy Structure

This structure ensures the flexibility of the Strategy, recognising the various roles and audiences of the document. These include:

- Providing an overall strategy for the economic development of the sub-region;
- Informing sub-regional and regional land use and strategic planning activities;
- Providing an evidence base for investment prospectuses and funding business cases; and
- Providing content for marketing and branding material for the sub-region; and
- Informing and guiding all levels of Government in major investment and expenditure decisions.

To meet the requirements of these various audiences, this Strategy has been structured to allow key sections and analysis to be read and utilised independently of the broader document.

1.5 APPROACH

This Sub-Regional Economic Strategy has been developed by RPS in partnership with the Wheatbelt Development Commission. This project has applied the principles of “collaborative consulting” where the project client is actively involved in the development of the report including data collection, strategic overview and stakeholder consultation tasks.

This approach is highly advantageous for a number of reasons:

- Draws upon the Commission's existing resources to support data collection and consultation tasks;
- Allows the Commission's unique understanding of the region to be incorporated into the Strategy;
- Ensures value for money for the client by allowing RPS to concentrate on more detailed modelling and strategic analysis tasks; and
- Enables strategic and objective analysis to be undertaken by RPS, ensuring the Strategy's evidence base is rigorous and suitable to inform investment decision and funding business cases.

1.6 Glossary and Abbreviations

ABS	Australian Bureau of Statistics
ABARES	Australian Bureau of Agricultural and Resource Economics and Services
BREE	Bureau of Resource and Energy Economics
BOM	Bureau of Meteorology
GFC	Global Financial Crisis
GRP	Gross Regional Product
LGA	Local Government Area
Median Multiple	Ratio measure of housing affordability. Represents the number of years of median household income require to equate to median house prices in an area.
RBA	Reserve Bank of Australia
Separation	Instance where an individual is admitted to hospital for medical treatment.
T/Ha	Tonnes per Hectare
WAPC	Western Australian Planning Commission
WDC	Wheatbelt Development Commission

2.0 AVON AND THE GLOBAL ECONOMY

The Avon Sub-Region of Western Australia is a one billion dollar (\$1b), export-oriented economy. Home to 27,384 people in 2011², or some 4.5% of Western Australia's non-metropolitan population, the Avon is a dynamic region with an increasingly diversified economy.

2.1 Agriculture

The Avon Sub-Region has strong links with the global economy. Founded on agriculture, farmers in the Avon and broader Wheatbelt region have contributed to Western Australia's role as one of the world's largest wheat exporters. Agriculture continues to play a critical role in the Avon economy to this day, accounting for over 15% of industry value-add over the past 5 years. According to the ABS, the Avon sub-region had 2,650,045 hectares of agricultural holdings (2.7% of holdings in WA) in 2006 with a gross production value of \$668m (11.5% of value in WA)³. The difference between the Avon's share of holdings and value illustrates the fact that the region's agricultural production is primarily centred around intensive cropping.

Global food demand has increased in recent years in response to accelerating population growth and growing incomes in developing countries⁴. This has led to a spike in food prices over the past 10 years following decades of real price declines in response to technology and land management-based productivity increases⁵. This productive increase is evident in WA's wheat production (tonnes per hectare) illustrated in the following figure.

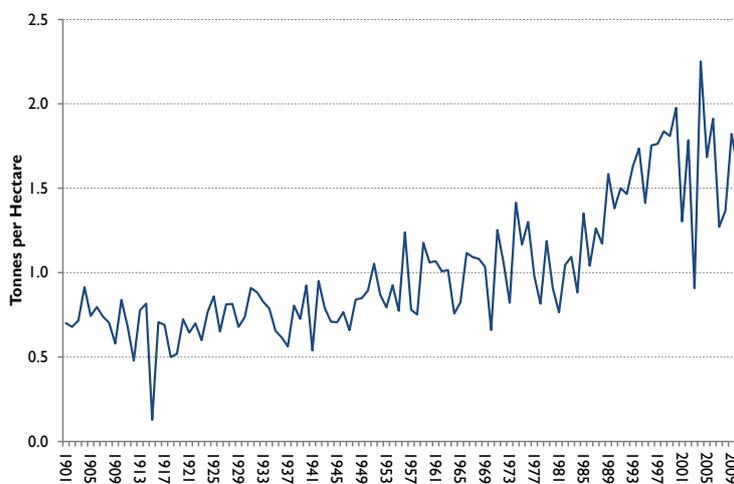


Figure 3: Production per Hectare, Wheat, WA ⁶

² ABS (2012), Estimated Residential Population, Cat No 3218.0, Australian Bureau of Statistics, Canberra

³ ABS (2007) Agricultural Commodities, Small Area Data Cat No 7125.0, Australian Bureau of Statistics, Canberra

⁴ RBA (2011), Bulletin March 2011, Reserve Bank of Australia, Melbourne

⁵ FOA(2012), OECD – FAO Agricultural Outlook 2012-2021, Food and Agricultural Organisation, Rome Italy

⁶ ABS (2012), Historical Selected Agricultural Commodities, Cat No 7124.0, Australian Bureau of Statistics, Canberra

Australia is the fourth largest exporter of wheat in the world⁷ and Western Australia accounts for approximately 40% of national production⁸. Australia's competitive advantage in broadacre crops positions major agricultural regions like the Avon well to reap the reward of structural uplifts in global agriculture commodity prices.

2.2 Transport and Logistics

Agricultural production in the Avon facilitated the establishment of a robust transport and logistics sector in the sub-region. Over the past 5 years, the transport, postal and warehousing industry accounted for 11.7% of industry value add. Adding manufacturing to this base, takes the total industrial activity's share of value-add to 18% or almost one fifth of the local economy.

However, in recent years, industrial activity in the Avon has diversified as a result of the sub-region's strategic location in Western Australia. The sub-region is directly adjacent the metropolitan Perth region and on major east-west rail and road and north-south road freight routes. This position provides the Avon with affordable and strategic access to both a critical mass of urban population and major mining regions of the Pilbara, Mid West Goldfields and South West.

The Avon's position, as a transport, logistics and manufacturing hub is unique in that it has the capacity to service multiple mining and urban regions. This diversity of access, coupled with local agricultural production is critical to the Avon's long-term sustainability as it provides the sub-region with the ability to minimize its exposure to individual commodity cycles.

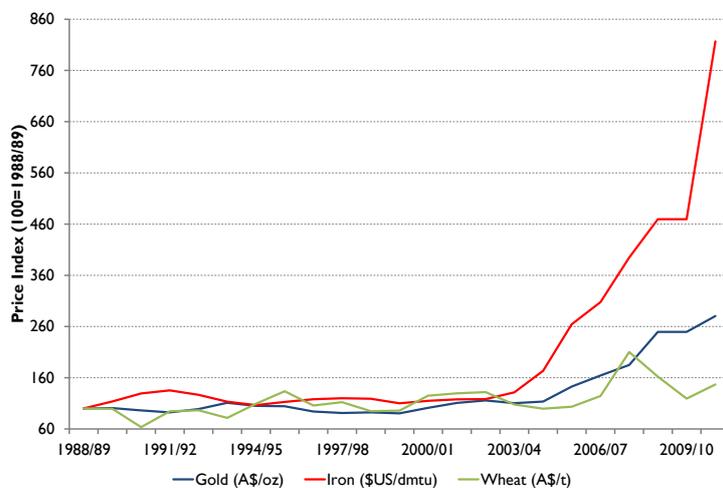


Figure 4: Index of Export Prices, Select Major Commodities in WA, 1998/99 to 2010/11

The sectors associated with the main commodities that Avon is exposed to and services – wheat, iron ore and gold – rarely experience simultaneously depressed global market conditions. This is illustrated in the figure above. For example, while iron ore has traditionally been a pro-cyclical commodity (though less so in recent years), gold as a safe haven investment tends to be counter

⁷ ABARES (2012), Agricultural Commodities Statistics, March 2012, Commonwealth Government, Canberra

⁸ ABS (2012), Historical Selected Agricultural Commodities, Cat No 7124.0, Australian Bureau of Statistics, Canberra

cyclical. Additionally, export-oriented agricultural production and prices are influenced more by seasonal factors as well as structural changes in global production, population and income growth.

Recent investments in the Avon have illustrated this competitive advantage. The attraction of Hutchinson Builders' modular housing construction plant, as part of the Avon Industrial Park, was in direct response to the strategic location of the Avon region, availability of affordable serviced industrial land, accessible transport infrastructure and proximity to skilled local and metropolitan labour forces.

This responsive to market drivers demonstrates the inherent flexibility and dynamism of the Avon economy. This flexibility is critical to enabling local employment, business and investment to respond to cyclical and structural changes in international and national demand.

2.3 Population Ageing

The growth of the local Avon economy has resulted in very low unemployment across the sub-region. As of March 2012, most Local Government Areas have unemployment rates at or below the State average, declining sharply from the highs of the Global Financial Crisis (GFC) period⁹. This low unemployment rate is likely to be exacerbated over coming years with the ageing of the labour force and general population in the region.

In 2011, people aged 65+ accounted for 17.1% of the Avon population¹⁰. This is above the average in metropolitan Perth (11.9%) and Western Australia (12.3%), highlighting the older population profile of the region. This ageing is in line with trends in the western world, reflecting the impending retirement of the Baby Boomer generation (1946 to 1964). The local impacts of this global trend are already starting to reveal themselves. Employment in the health care and social assistance recently overtook retail as the largest employment sector in the WA economy. This is illustrated figure below.

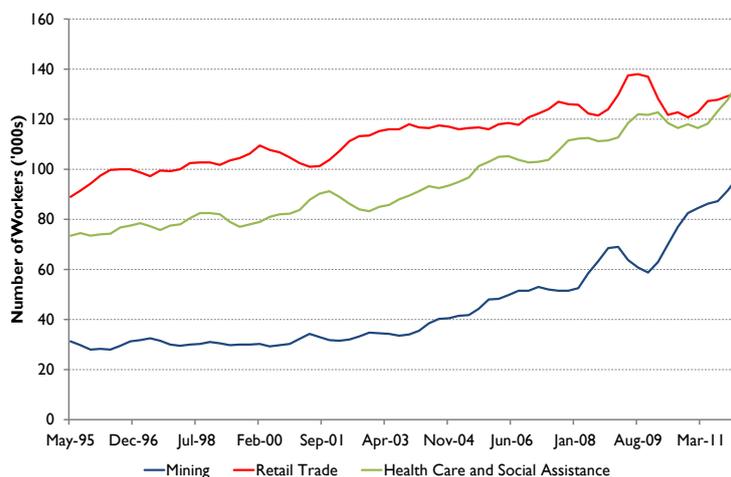


Figure 5: Employment, by Select Industry Sector, WA¹¹

⁹ DEEWR (2012), Small Area Labour Market Model, Commonwealth Government, Canberra

¹⁰ ABS (2012), Census of Population and Housing, Australian Bureau of Statistics, Canberra

¹¹ ABS (2012), Labour Force, Australia Cat No 6291.0.55.003, Australian Bureau of Statistics, Canberra

With the first of the Baby Boomer generation retiring in 2012, and an existing older population profile, the Avon region is expected to experience a surge in demand for health-related services.

2.4 Conclusions

The Avon sub-region and its economic growth and development are inexorably linked to global trends. Increased demand for food products due to rising population and income levels in developing countries will underpin the future of agriculture in the region. Similarly, the strategic position of the Avon on major rail and road freight transport routes to metropolitan Perth and major mining regions provides the sub-region with a distinct, nationally recognized competitive advantage. Finally, the ageing of the western world and its impacts on service demand will invariably influence the development of the Avon sub-region, which currently has an older population profile than State and national averages.

The Avon sub-region is and will continue to be an export-oriented sub-regional economy generating quality employment opportunities and providing a high and affordable standard of living for current and future residents alike.

3.0 PROFILE OF THE AVON ECONOMY

3.1 Population and Socio-Demographics

The Avon Sub-Region was home to 27,384 people in 2011, making it one of the most populous sub-regions of Western Australia outside of metropolitan Perth¹². This population is primarily concentrated in the major townships of Northam, Toodyay and York, the Local Government Areas (LGAs) of which collectively account for almost three in every four Avon residents.

The sub-region has experienced only moderate population growth over the past decade, averaging 0.9% per annum compared to 2.1% for Western Australia as a whole. The WA Tomorrow Population Estimates from the Western Australian Planning Commission project that this trend will continue, with only another 3,500 residents predicted to call the Avon home by 2021¹³. However, this likely understates the population and residential growth potential of the region for a range of factors:

- The WA Tomorrow projections do not take into consideration the recent identification of Northam as a SuperTown by the Department of Regional Development and Lands and the associated planning and funding support designed to facilitate increased residential population in the town;
- The identification of Northam as a SuperTown is likely to have second round impacts, incentivising increased residential migration to other towns in the Avon sub-region, particularly Toodyay and York;
- Major recent investments in the Avon sub-region, namely the Federal Government's Yongah Hill Immigration Detention Centre, Ausplow and Hutchinson Builders modular housing plant at the Avon Industrial Park, will increase demand for labour at a time when local unemployment rates are decreasing fast; and
- Affordability and proximity factors make the Avon sub-region highly attractive to Baby Boomers seeking to downsize the family home, case-out their equity to fund their retirement and relocate to a more rural setting.

Instead, the Avon sub-region is expected to experience a more robust and sustained rate of population growth over the next decade. expected to experience a more robust and sustained rate of population growth over the next decade. The economic analysis undertaken in the SuperTowns planning justifies a sub-regional population exceeding 41,000 by 2021¹⁴. In light of the socio-demographic, economic, policy and market drivers of the region, such growth is readily supportable.

¹² ABS (2011), Estimated Residential Population, Cat No 3218.0, Australian Bureau of Statistics, Canberra

¹³ WAPC (2012), WA Tomorrow Population Estimates, Western Australian Planning Commission, Perth

¹⁴ SoN (2011), Draft Northam SuperTown Growth Plan, Shire of Northam, Northam

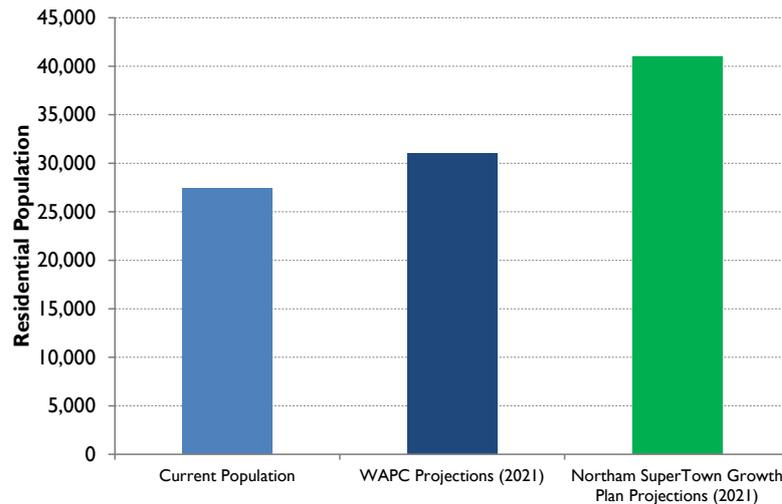


Figure 6: Current and Future Residential Population

The population of the Avon sub-region is also expected to age rapidly over the next decade. This reflects the fact that the sub-region and associated population centres already possess comparatively older population profile. According to the results of the 2011 Census of Population and Housing, the residential populations of all LGAs in the Avon sub-region have higher proportions of people aged 65+ than the State Average (12.3%). And towns such as Wyalkatchem (27.3%), Beverley (24.5%) and Quairading (21.4%) all have more than one fifth of their current populations aged 65 and over¹⁵.

3.2 Labour Force and Skills

A significant driver of current and future residential population growth in the Avon is the increasingly constrained nature of local labour markets. In 2011, the Avon region had an average annual unemployment rate of 3.6%, below the comparative state average of 4.1%¹⁶. In fact, no LGA in the Avon sub-region had an unemployment rate above 6% in 2011 and 7 LGAs had rates below the sub-regional average.

¹⁵ ABS (2012), Census of Population and Housing, 2011, Australian Bureau of Statistics, Canberra

¹⁶ DEEWR (2012), Small Area Labour Market Model, Commonwealth Government, Canberra

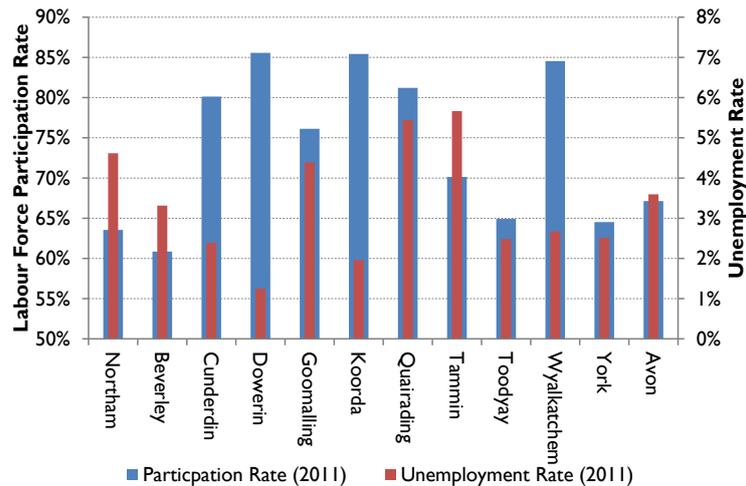


Figure 7: Unemployment and Participation Rate, Avon Sub-Region LGAs, 2011

This low unemployment has supported a labour force participation rate comparable with the State average (67.7%). Labour force participation rate is the share of the population aged 15 and over actively participating in the workforce (either employed or unemployed). However, a number of towns have rates above 80%, which is a common characteristic among smaller, agricultural communities. With a low unemployment rate and solid participation rate, any major employment growth in the Avon sub-region in the future will need to be accommodated by migration.

3.3 Employment, Industry and Investment

The Avon sub-region had a Gross Regional Production in 2010/11 of approximately \$1.1b¹⁷. The major drivers of this economic activity are industrial uses, professional services, agriculture and construction, which collectively accounted for 54% of local industry value add¹⁸. This is illustrated in the figure below.

¹⁷ RPS (2012), RPS Economics Gross Regional Product Model, RPS, Gold Coast

¹⁸ RPS (2012), RPS Economics Gross Regional Product Model, RPS, Gold Coast

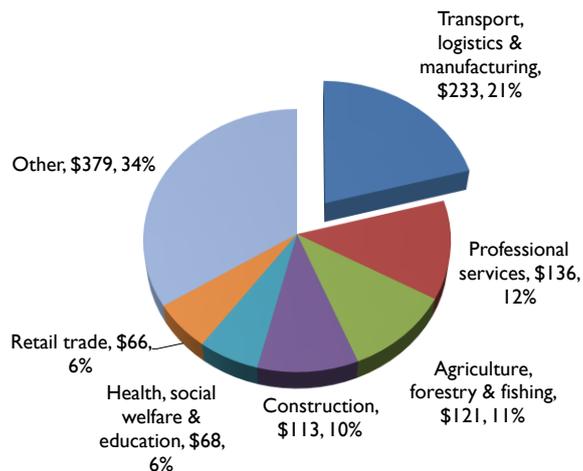


Figure 8: Industry Value Add, Avon Sub-Region, 2010/11¹⁹

This economic activity has underpinned local employment and business activity. In 2006, there were 8,290 jobs in the Avon sub-region, representing an employment self-sufficiency rate (ESS - ratio of local jobs to local workers) of 81%²⁰. This is a strong ESS rate for a region located directly adjacent the metropolitan Perth area with its associated economic gravity. Employment in the Avon is highly concentrated with approximately 45% located in Northam and a further 20% in Toodyay and York. This concentration of employment mirrors the distribution of population in the sub-region.

A review of business registrations data for the sub-region reveals a slightly different industry composition than indicated by Gross Regional Product analysis. In 2009, agriculture businesses accounted for 39% of locally registered businesses, despite accounting for 11% of industry value add²¹. In contrast, the Transport, logistics & manufacturing sector accounts for 6.8% of locally registered businesses but collectively contributes 21% of sub-regional value add. This is illustrated in the following figure.

¹⁹ Industry Value Added, rather than Total Output, is utilised as a measure of local economic activity as it removes the value of inputs to production and therefore prevents double counting.

²⁰ ABS (2007), Census of Population and Housing 2006, Australian Bureau of Statistics, Canberra

²¹ ABS (2010), Count of Businesses, Cat No 8165.0, Australian Bureau of Statistics, Canberra

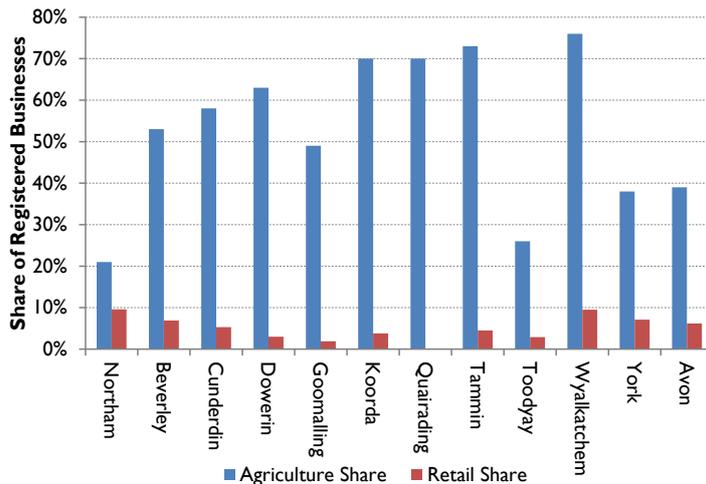


Figure 9: Share of Locally Registered Businesses, Agriculture and Retail, Avon Sub-Region LGAs, 2009

This relationship between business registrations and industry value added reflects two main factors:

- Agricultural businesses tend to be registered locally, reflecting the predominance of family businesses, while larger manufacturing, transport and retail businesses tend to be registered centrally (in capital cities) with local operations not captured as part of the data;
- Manufacturing and transport businesses tend to be larger and therefore contribute more per business to industry value add; and
- Per worker industry value added varies across industry types. For example, value add per worker in the agricultural sector in the Avon in 2010/11 was \$64,605 while for transport was \$185,170²².

The figure above reveals that the distribution of agriculture businesses in the Avon is not uniform. While agriculture accounts for smaller shares in Northam and Toodyay, the sector represents the vast majority of the businesses in towns like Wyalkatchem, Tammin, Quairading and Koorda.

The Avon sub-regional economy over the next decade will be driven by a range of major investments including the recent Immigration Detention Centre, Ausplow and Hutchinson Builders Modular Housing Plant at Avon Industrial Park. These activities are not only major generators of local employment in their own right but are already generated second-round expenditure benefits for businesses across the Wheatbelt region.

3.4 Housing and Affordability

The Avon sub-region housing market is comprised of almost 12,000 dwellings, of which approximately 80% are occupied²³. This indicates that there is currently capacity in the existing housing market to absorb increased residential population in the short-term. The current housing stock is predominantly comprised of detached housing, which accounted for 94.4% in 2011.

²² ABS (2012), State Accounts, Cat No 5206.0, Australian Bureau of Statistics, Canberra

²³ ABS (2012), Census of Population and Housing 2011, Australian Bureau of Statistics, Canberra

Over the past five years, the Avon Sub-Region and the broader Western Australian housing market have experienced volatile conditions, with prices rising and falling during the period. This reflects the impact that the GFC and subsequent depressed level of consumer confidence has had on housing market activities and therefore prices. Despite this the Avon market experienced price growth over the period, with median house prices increasing from \$191,000 in 2006 to \$235,000 in 2011²⁴. This represents growth of 22.5% over the period, ahead of the State average growth of 15.2%. This is illustrated in the figure below.

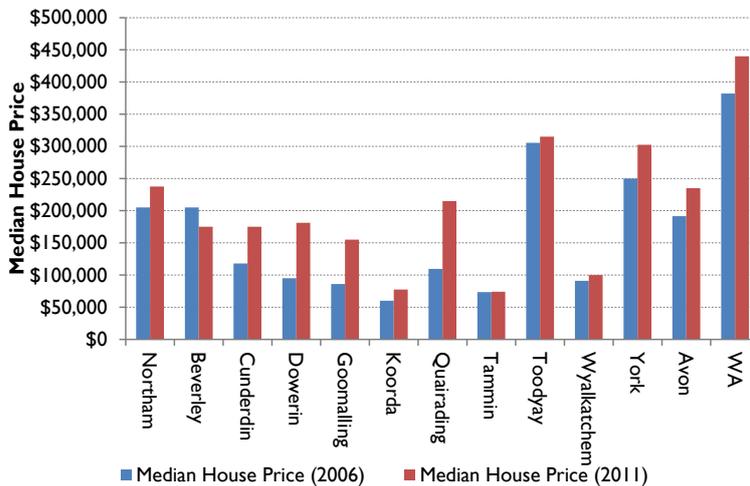


Figure 10: Median House Prices, Avon Sub-Region, 2006 and 2011

Almost all towns over this period experienced positive price growth, though the level of growth varies dramatically. Towns like Quairading and Dowerin experienced an almost doubling in prices over the period, while Toodyay and Northam experienced more moderate growth (albeit off higher price bases).

Moderate price growth is generally regarded as positive as it contributes to the wealth and affluence of a region. However, for the Avon sub-region, with its relative proximity to Perth, maintaining affordable housing options is critical to underpinning employment and lifestyle based migration required to increase local population critical mass. A simple and effective measure of whole-of-market affordability is the Median Multiple – the ratio of median house prices to median household income²⁵. In other words, the Median Multiple illustrates the number of years of household income required to equal current prices. This approach is effective in that it allows for differences in local income levels within a region – like the Avon – to be considered, ensuring that variations in purchasing power and relative affordability are determined.

²⁴ RPDData (2012), Online Data Subscription, RPDData, Brisbane

²⁵ Demographia (2012), International Affordable Housing Report 2012, Demographia, USA

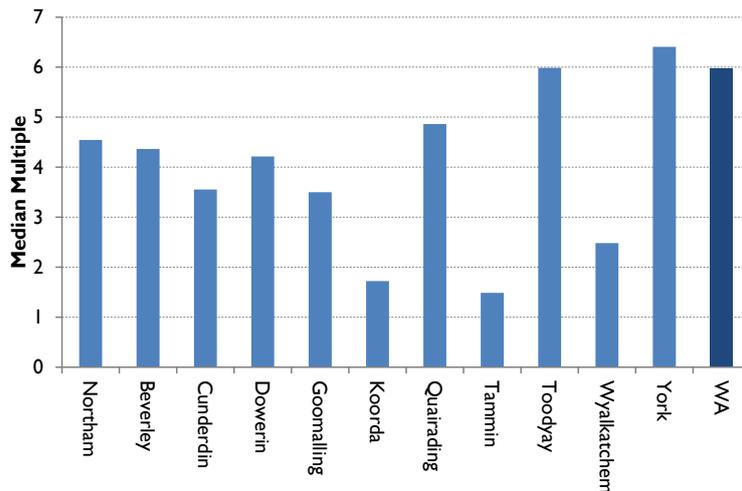


Figure 11: Median Multiples, Avon Sub-Region, 2011

RPS calculated the Median Multiple for each LGA in the Avon Sub-Region and found that, with the exception of Toodyay and York, all towns have a Median Multiple less than the WA average of 6.0. This reflects the fact that while house prices are relatively low by State standards, local household incomes are more favourable, meaning local buyers have relatively greater purchasing power in the market. Note that the current state average is regarded as seriously unaffordable by international standards, with the Reserve Bank of Australia considering a ratio of 4.0 to 4.5 affordable in Australia.

3.5 Community Services and Facilities

The growth in the residential population in the Avon has and will continue underpin demand for community services and facilities in the sub-region. This includes, but is not limited to:

- Child care services;
- Primary, secondary and tertiary education;
- Community Resource Centres and Libraries;
- Aged Care and Retirement Villages; and
- Hospitals and health services.

The current offering and drivers of these community services and facilities are examined below.

3.5.1 Child Care

Fertility rate data is an effective leading indicator of the level of demand for child care services. In 2010, all towns in the Avon sub-region had fertility rates above replacement levels (2.1 children) and were well above the average for Perth SD (1.9²⁶). Interestingly, the fertility rates of the major Avon population centres – Northam, Toodyay and York – are among the lowest for the sub-region. In contrast, Wyalkatchem, Tammin and Quairading all have fertility rates approaching 4. This is illustrated in the figure below.

²⁶ ABS (2011), Births Australia, Cat No 3301.0, Australian Bureau of Statistics, Canberra

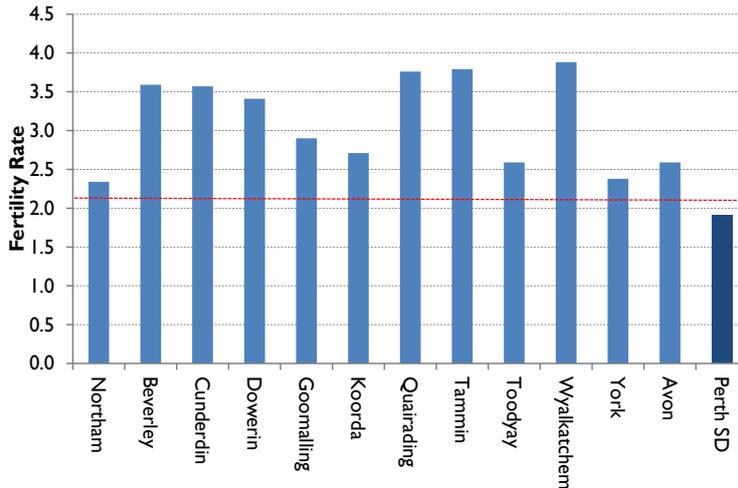


Figure 12: Fertility Rate, Avon Sub-Region and Perth SD, 2011

This high fertility rate, coupled with low unemployment and strong labour force participation, will generate demand for child care services. There are currently 15 Child Care centres in the Avon sub-region, with over half (8) located in Northam. This distribution appears to be more concentrated than the distribution of population, potentially reflecting the agglomeration of employment and business activity in Northam. However, as the population of the Avon grows, increased demand for child care outside of Northam will necessitate a more distributed network, particularly in Toodyay and York.

3.5.2 Primary, Secondary and Tertiary Education

Despite the ageing of the population in the Avon, many towns in the sub-region also have above average shares of residents aged 0-14. This reflects the long-term impact on the Avon's demographic profile of structurally high fertility rates. A review of the results of the recent Census reveals that, with the exception of Beverley, Toodyay and York, all other towns in the sub-region have 0-14 shares above the average for Perth SD.

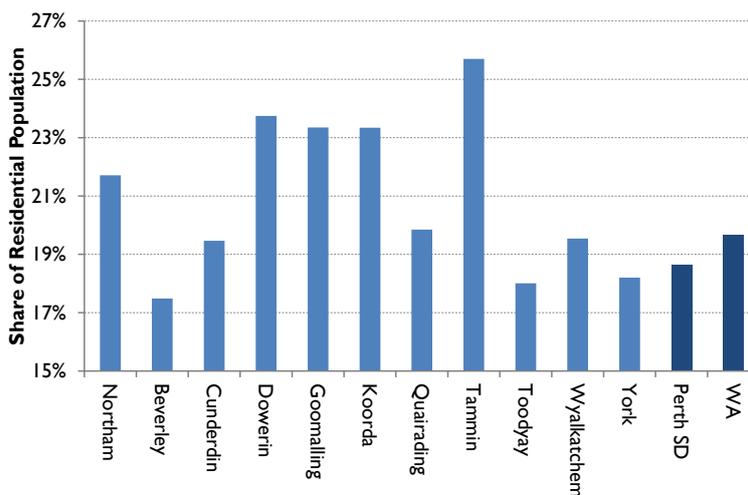


Figure 13: Share of Residential Population Aged 0-14, Avon Sub-Region, Perth SD and WA, 2011

There are currently 20 primary schools in the Avon sub-region, comprised of 17 public schools and 3 private schools. Primary school distribution is relatively dispersed, with all major towns having a primary school, though school sizes vary considerably (e.g. 47 students in Koorda to 390 students in York).

Secondary school distribution is similarly dispersed, with 10 secondary and district high schools comprising 8 public schools and 2 private schools. Anecdotal evidence from consultation with the Avon community indicates the existence of two travel trends:

- That secondary students in the eastern half of Avon regularly attend secondary school in Northam; and
- that local secondary school demand, particularly in the western areas of the sub-region is tempered by the propensity for some parents to send their children to metropolitan Perth for their secondary education, either in the form of boarding school or daily travel.

The provision of secondary schooling in the Avon is critical to the attraction and retention of working age families necessary to support local economic development. Increased residential population will underpin demand for increased size and diversity of local secondary education provision.

The labour force in the Avon sub-region is characterised by an expected concentration of applied tertiary education qualifications (i.e. formal training and TAFE). This is reflected both in the local employment mix but also local tertiary education provision. The C.Y. O'Connor Institute is the primary tertiary education and training facility in the Avon and the Wheatbelt region with locations in Northam, Merredin Moora, Narrogin and Muresk²⁷. A wide range of practical courses are offered with a strong focus on administration, tourism, agricultural and manufacturing related qualifications. Opportunities exist to strategically diversify offerings into mining-related occupations to support increased cross-industry mobility of the Avon labour force, in response to macro-economic opportunities and decreased unemployment levels.

3.5.3 Libraries and Community Resource Centres

In 2011 in metropolitan Perth, there was one library for every 22,582 residents equating to a total supply of 77 libraries. The provision of libraries and associated facilities in the Avon is more considerable with one library for every 2,282 residents²⁸. There are a number of potential explanations for this apparent over-provision:

- The decentralised and distributed population of the Avon has required a more dispersed library network than in metropolitan Perth;
- The number of libraries doesn't comment on the size and service capabilities of those libraries. Metropolitan libraries tend to be larger and therefore have the capacity to service larger population catchments; and
- Libraries are most often provided by local governments. Every LGA in Avon is home to a library, even Tammin which has only 446 residents.

Growth in the Avon's population over the next decade will therefore not necessitate increased numbers of libraries. However, it will necessitate expansions in the size and diversity of service offering of existing libraries. This will include the increased utilisation of library and CRC facilities

²⁷ C.Y. O'Connor Institute accessed via <http://www.cyoc.wa.edu.au> on 23 August 2012

²⁸ SLWA (2012), List of Libraries in Western Australia, State Library WA, Perth

to anchor improvements in local technology and communication networks and provision of support for local community groups and associations and small businesses.

3.5.4 Aged Care, Hospitals and Health Services

The older age profile of the Avon will underpin continued demand for aged care and retirement village offerings. In 2012, there were 16 registered Aged Care facilities offering 159 dedicated aged care beds (residential high and low care only). The distribution of these beds is concentrated in Northam and York, though Beverley, Cunderdin, Goomalling, and Quairading also provided aged care services.

There appears to be some misalignment between the distribution of aged care facilities in the Avon and the concentration of people aged 65+ in the sub-region. The figure below highlights that Cunderdin currently plays a greater role in aged care facility distribution than its local 65+ population would indicate, while Toodyay which is home to 16.1% of people aged 65+ currently has no local aged care bed capacity.

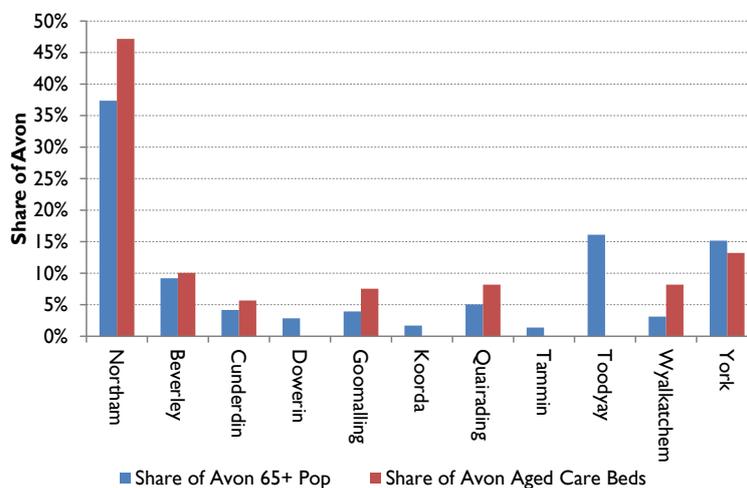


Figure 14: 65+ Pop and Aged Care Beds, LGA Share of Avon, 2011/12

A possible explanation for this is the propensity for aged care capacity to be delivered in close proximity to hospital and health service provision. In 2012, there were 92 public hospital beds in the Avon²⁹, spread across Northam, Beverley, Cunderdin, Goomalling, Quairading, Wyalkatchem and York. All hospital facilities in the Avon are small, with Northam home to the largest facility with 30 beds. This facility is expected to undergo significant growth as a result of recent announcements of both SuperTown's funding for the Avon Health and Emergency Services Precinct and Federal Government funding for a GP Super Clinic.

The concentration of health and medical services in Northam likely explains the current concentration of aged care services in the town and its servicing of older populations in surrounding communities (such as Toodyay). However, current hospital bed distribution and accelerated population ageing, presents opportunities for aged care bed capacity to be increased in locations such as York Goomalling, Toodyay and Wyalkatchem going forward.

²⁹ AIHW (2012), Australian Hospital Report, 2010/11, Australian Institute of Health and Welfare, Canberra

4.0 KEY ECONOMIC OPPORTUNITIES

RPS has identified a series of key economic themes for the Strategy, which will define the future economic growth and dynamism of the Avon sub-region. These themes represents areas where the Avon has a distinct competitive advantage or where socio-demographic, investment or infrastructure-based drivers underpin current and future demand.

The key themes identified for the Avon Sub-Regional Economic Strategy include:

- Broadacre Agriculture and Animal Husbandry;
- Transport, Logistics and Mining-Support Industry;
- Health and Aged Care;
- Retail and Lifestyle; and
- Tourism.

These themes and associated actions and locations are explored in the sections below.

4.1 Broadacre Agriculture & Animal Husbandry

4.1.1 Rationale

Avon, as part of the Wheatbelt region, is one of the major wheat producing areas in the country. Wheat production, along with animal husbandry, is likely to continue to underpin agricultural activity in the Avon along with associated storage and processing activity.

4.1.2 Drivers and Trends

The global market is projected to experience an increased demand for food, particularly from the developing countries where increased urbanisation and disposable incomes are driving greater per capita food consumptions³⁰. At the same time, global food production is projected to grow at only 1.7% per annum over the next 10 years, as a combination of increased resource competition from biofuel sectors and increased environmental protections constraining production. This rate of growth is insufficient to meet the 60% increase in food production required to meet global demand by 2050³¹. Bulk food commodity producers like Australia are therefore uniquely positioned to meet the needs of domestic and international markets, through continued and increased production of crops like wheat.

Yet, the largest increase in food consumption expected as a result of the emergence of a middle class in Asian, Eastern European and Latin American developing countries is expected in protein. Animal husbandry, including the raising of beef cattle, sheep (lamb and mutton) and goats, is well suited to Australia due to the large expanses of grazing land. Overstocking, poor land management and short-term market volatility in the past have undermined the sustainability of this industry and reduced its contribution to the overall agricultural mix.

Increased seasonal volatility as a result of climate change is expected to undermine production certainty in the Australian agricultural sector. Enhanced farm management techniques (such as

³⁰ FAO (2012), OECD-FAO Agricultural Outlook 2012, Food and Agriculture Organisation, Rome Italy

³¹ FAO (2012), OECD-FAO Agricultural Outlook 2012, Food and Agriculture Organisation, Rome Italy

Yield Prophet WA, Innovation Forums and farm resilience practices) will be required to allow farmers to adjust operational and input expenses to seasonal changes in predicted yields³².

4.1.3 Sub-Regional Characteristics

The Central Wheatbelt, which includes the Avon sub-region, is characterised as mainly plateau approximately 250 and 350 m in elevation. It has a temperate climate with hot, dry summers and predominantly winter rainfall in the south and a hot grasslands with summer drought in the north. This is reflected in rainfall patterns with 800mm annual average rainfall in the south west of the region (comprising the bulk of the Avon) and only 250mm in the north east³³.

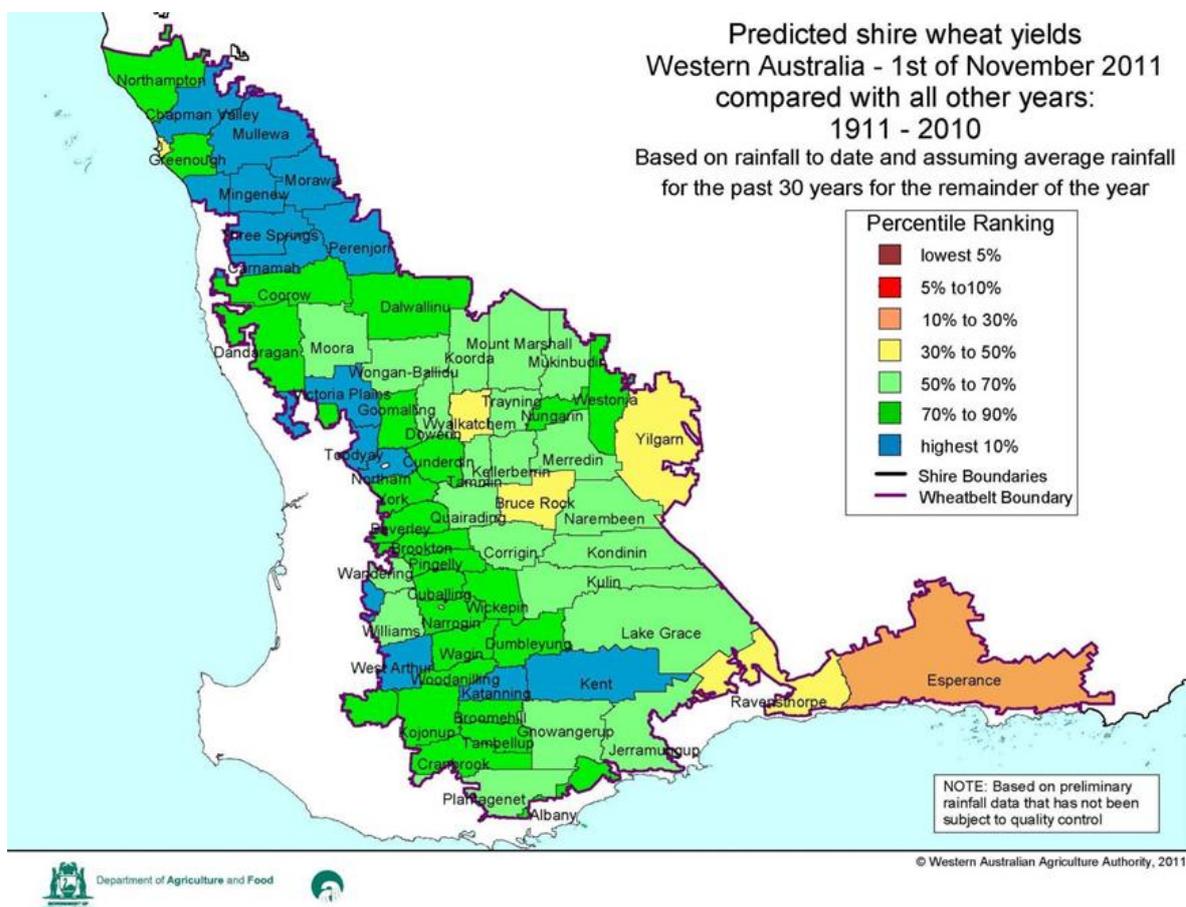


Figure 15: Predicted Shire Wheat Yields, Select LGAs in Regional WA

According to the latest Agricultural Production data from the ABS, the largest concentration of agricultural holdings is in Koorda LGA with a total 250,000ha of land or 15% of the sub-region total. In contrast, Northam (106,000ha or 6%), Toodyay (90,500ha or 5%) and Tammin (109,800ha or 6%) represent the smallest concentrations of agricultural land holdings in the sub-region. In the case of Northam and Toodyay, this may reflect the more urban nature of the LGAs, local topography and competing land uses (i.e. State Forests) though this is not reflected with

³² DAFWA(2012), A Year in Grains 2011, Department of Agriculture, Perth

³³ BOM (2012), Climate Data, Bureau of Meteorology, Canberra

York which has 136,100ha or 8% of the sub-region's holdings³⁴. This is illustrated in the figure below.

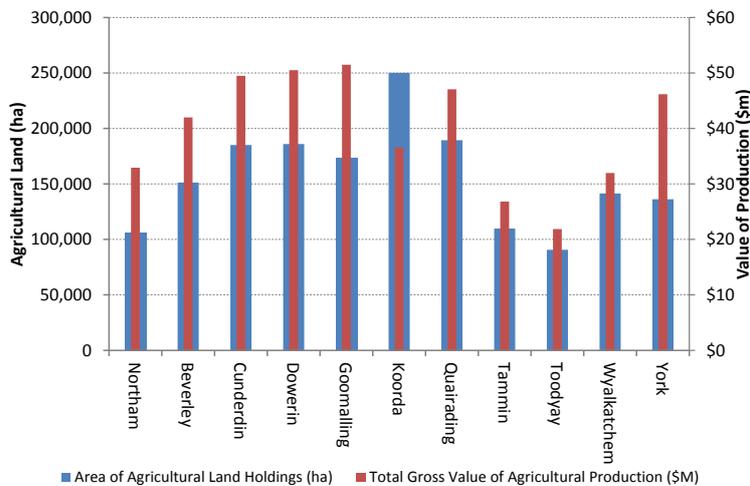


Figure 16: Agricultural Land Holdings and Value of Production, Avon Sub-Region, WA, 2006/07

However, the size of agricultural land holdings does not necessarily translate to production value. For example, Cunderdin, Dowerin, Goomalling, Quairading and York all have proportionally higher production values than areas under crop. This reflects a combination of different crops and varying yields.

The Avon sub-region is primarily located within Agricultural Zone 2 of the Greater Wheatbelt (with the exception of York which is in Agricultural Zone 3 and Wyalkatchem which is in Agricultural Zone 5). Agricultural Zone 2 has a moderate average yield (2.74 t/ha for Wyalkatchem variety³⁵), though yield varies dramatically across the region.

For example, based on National Variety Testing (NVT) trials in Zone 2 in 2011, the following wheat yield results were achieved:

- Wyalkatchem (2.14t/ha Wyalkatchem);
- Beverley (2.63t/ha Wyalkatchem);
- Cunderdin (3.35t/ha);
- Goomalling (4.25t/ha); and
- York (5.25t/ha).

The concentration of wheat production raises issues as to the diversity of agricultural activity in the sub-region. Opportunities to leverage continued research and development (R&D) investments to diversify crops mix need to be investigated to help improve the sustainability of the agricultural production in the region. In addition, continued trials of dry and heat conducive and frost tolerant crop species, improved farm management practices and integrated distribution and export networks will further enhance the region's competitive advantage.

³⁴ ABS (2008), Agricultural Commodities: Small Area Cat No 7125.0, Australian Bureau of Statistics, Canberra

³⁵ DAF (2012), Wheat Variety Guide for WA 2012, Bulletin 4832, Department of Agriculture and Food, Perth

4.2 Transport, Logistics & Mining-Support Industry

4.2.1 Rationale

The strategic location of the Avon relative to metropolitan Perth, major mining regions and inter and intrastate transport infrastructure, positions the sub-region as an ideal location for transport and logistics activities. This can include leveraging the proximity to the mining investment activity to attract and retain mining-support manufacturing and fabrication industries.

4.2.2 Drivers and Trends

The globalisation of the world economy, continued population growth and increased prosperity and affluence in the developing world are expected to significantly increase the international flow of goods and people. Since 1991, world trade exports (in constant \$US) has increased from \$350b to \$1,000b value³⁶ in spite of recent economic volatility.

Infrastructure investments (particularly in Road and Rail transport) in Asia are increasing the connectedness of the region and reducing costs for the transport of goods across the region. The transport network in Asia is improving rapidly and expanding through South East Asia towards Australia.

Additionally, the proximity of Australia to the developing economies of East Asia means comparative transport costs, relative to other major trading partners (e.g. Europe, US, South America), provides Australia with a comparative advantage that is further enhanced by the fact that Western Australia shares a time zone with much of the region.

³⁶ WTO (2012), World Trade Statistics Online, World Trade Organisation, Geneva



Figure 17: Road and Rail Networks, Asia

The complementarity of Australian and Asian economies is currently optimised, with increased industrialisation, population growth and prosperity being fuelled by Australian energy, resource and food production. This will underpin growth in transport and logistics investment in this country, with activity clustering in locations of strategic accessibility.

4.2.3 Sub-Regional Characteristics

The centrality of Avon relative to major mineral resource and population regions (Pilbara, Md West, Goldfields and South West, proximity to the metropolitan Perth region (the fastest growing metropolitan region in the country), and access to major national and state significant transport infrastructure will continue to underpin the sub-region's role as a transport and logistics hub. This will continue to be supported locally by increased and diversified agricultural production though will be increasingly driven by structural macro-economic drivers of commodity demand.

Within the Avon, the Avon Industrial Park represents the largest concentration of zoned industrial land, with 203ha of land either occupied or available for development. This is complimented locally by industrial land provision adjacent to or in close proximity to the Northam township which currently accommodates service, light industry and agricultural transport activities.

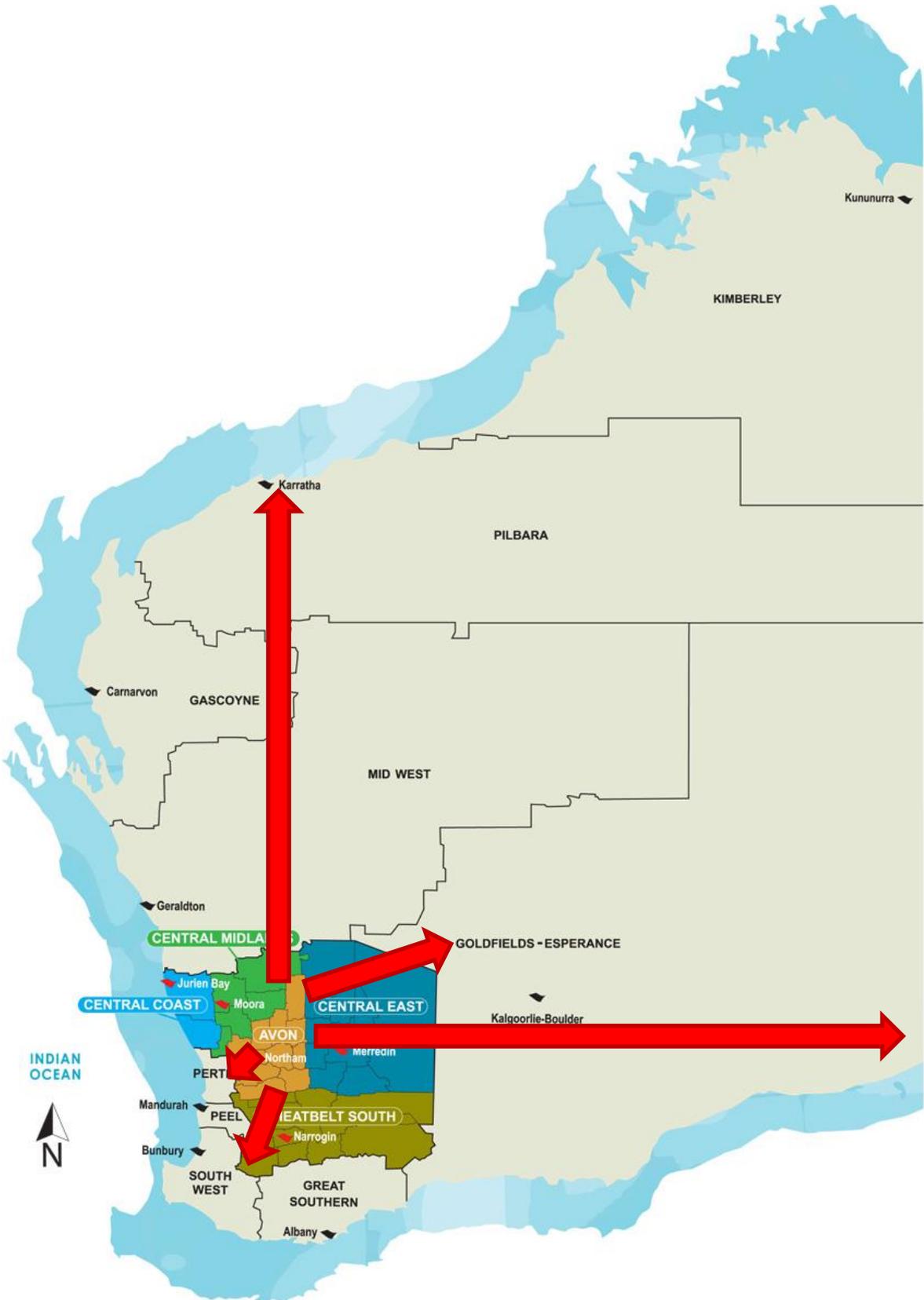


Figure 18: Connection to Major Transport/Logistics Regions, Avon

Cunderdin represents the next largest concentration of industrial land in the sub-region. LandCorp and other private parties are currently active in the market, supplying small lot volumes. In the future, the role of Cunderdin in the sub-region industrial land network will likely be enhanced by greater integration of land supplies with the Cunderdin Airport – the future major airport of the sub-region. Increased regional airport and activity investment, given growing worker mobility associated with the mining boom, is likely to support future development of the airport precinct and provide additional choice and diversity of industrial land supply in the sub-region.

Secondary nodes of zoned industrial land supply already exist in Dowerin, Goomalling, Quairading and Toodyay, with small tertiary nodes in Wyalkatchem and Koorda. In the case of Dowerin, the active development of this land is likely constrained by infrastructure and development costs as well as local labour availability which limit inward investment attraction opportunities.

Goomalling has current industrial land supply being developed up to Cemetery Rd along Goomalling Wyalkatchem Road. This is being developed by Council and current houses Council Supply Depots. The Shire of Goomalling has identified an area for further expansion of their light industry area and is processing the land assembly, including dealing with Aboriginal Heritage and Native Title issues. Further planning will be required to finalise lot sizing and sub division design.

Toodyay's industrial activity appears to be accommodated wholly in land zoned for mixed use commercial activity, making supply identification and analysis difficult. However, activity seems to be split between in-town (with local servicing and warehousing activity predominant) and out-of-town. The out-of-town industrial activity (comprising 22 lots developed by Council), includes construction support (landscaping, earthmoving, cement) and fabrication, though almost half of lots remain vacant. The Shire of Toodyay has indicated that they wish to grow their light industry development in town only to service the growing local population and that which complements the shire's focus on sustainability, heritage and natural amenity. The Shire of Toodyay support greater light industry development in Goomalling. This is partly to do with topography and suitable land availability, as well as a concentration on tourism and lifestyle development.

In the future, zoning activity is scheduled to increase supply in Beverley and elevate its role in the sub-regional industrial land network. This is being facilitated in the short-term by the release of approximately 14 lots on De Lisle St and in the long-term by the development of Crown land south of the townsite.

Additionally, Wyalkatchem appears to be developing new industrial land supplies in town and adjacent to the airport in an attempt to diversify away from current agricultural-oriented activity. The airport subdivision offers opportunities for general light industry as well as expansion of aviation related activity. Infrastructure capacity in the short-to-medium term appears sufficient to meet expanding industrial needs though long-term planning will be required with respect to power supplies for further development.

It should be noted that in many cases, CBH Group operations, which are prevalent in the sub-region, are not located on zoned industrial land. This is despite the industrial nature of many of the storage, processing and transport operations.

4.3 Health & Aged Care

4.3.1 Rationale

The population of Australia is projected to age over the next several decades, with the share of residents aged 65+ to increase from one in eight in 2010 to one in five in 2040³⁷. The ageing of the population presents economic opportunities in the health care and social services. Health recently overtook retail as the largest employing sector in the WA economy, generating tertiary qualified and knowledge intensive employment opportunities in primary, general and acute health care and social service delivery.

4.3.2 Drivers and Trends

The Avon currently has an older population, with 17.1% of the residential population aged 65+, which is well above the State average of 12.3%. However, not all towns have uniformly aged populations with towns such as Wyalkatchem (27.3%), Beverley (24.5%) and Quairading (21.4%) having more than one fifth of their current populations aged 65 and over³⁸.

There exists a strong correlation between population ageing and health services demand. For example, in 2010/11 there was an average hospital separation rate in Western Australia of 431 per 1,000 residents. However, the hospitalisation rate of people aged 65-74 is almost 250% that of the average, while people aged 75-84 have a hospitalisation rate 350% of the average. This is illustrated in the following figure.

Table I: Hospital Separations and Population, Western Australia, 2010/11³⁹

Age	Separations	Population	Separations per 1,000 Pop
0-4	38,315	151,262	253
5-14	27,918	288,810	97
15-24	66,318	307,219	216
25-34	94,056	324,098	290
35-44	107,573	328,257	328
45-54	130,301	310,224	420
55-64	164,159	254,423	645
65-74	157,804	152,541	1,035
75-84	129,606	88,115	1,471
85+	49,982	34,221	1,461
Total	966,032	2,239,170	431

³⁷ Treasury (2010), Intergenerational Report 2010, Commonwealth Government, Canberra

³⁸ ABS (2012), Census of Population and Housing, 2011, Australian Bureau of Statistics, Canberra

³⁹ ABS (2012), Census of Population and Housing, 2011, Australian Bureau of Statistics, Canberra and AIHW (2012), Hospital Statistics 2010/11, Australian Institute of Health and Welfare, Canberra

In addition to general and acute hospitalisation, population ageing also increases the intensity of local demand for pharmacy, radiation oncology, cardiology, pathology and other primary and ancillary support services. This includes residential aged care services.

4.3.3 Sub-Regional Characteristics

Hospital and aged care bed capacity is currently concentrated in Northam, with the Avon Health and Emergency Services Precinct. This Precinct has recently secured funding for expansion from both the State Government's Royalties for Regions program (Southern Inland Health Initiative and SuperTowns) and from the Federal Government (for the establishment of a GP Super Clinic).

However, other towns within the sub-region are also home to local level health care facilities including but not limited to Beverley, Cunderdin, Goomalling, Quairading, Wyalkatchem and York.

The distribution of hospital and aged care facilities are highly aligned, reflecting the interrelationship between the different levels of health care provision in the sub-region. This distribution does appear to align with those towns with above average 65+ populations, though total population size within a town's broader catchment appears to be the major driver of facility location.

The growth of the population in the Avon sub-region over the next decade will support increased health care provision. This will be coupled by a rapidly ageing population, which will increase the demand for more diverse health care services, including expanded dementia care facilities. While it is expected that the expanded Avon Health and Emergency Services Precinct will fulfil the primary role in health care provision in the sub-region, the geographical size and distribution of population and ageing in the Avon supports a dispersed health care delivery model, with local facilities tailored to the needs of their catchments.

The affordability of the sub-region relative to metropolitan Perth, coupled with the ageing of the population and regionally significant health care provision, will also underpin demand for retirement housing. The provision of quality, affordable lifestyle villages in the region, particularly in centres with strong health care provision and strong natural amenity, is required. Targeting niche village types, like recreational vehicle-conducive villages, that leverage existing comparative advantages of the sub-region will help differentiate the Avon from outer metropolitan and regional markets.

4.4 Retail & Lifestyle

4.4.1 Rationale

The need to increase residential population of the Avon, to provide increased workforce capacity for major industries, necessitates an enhancement in the sub-region's lifestyle. While blessed with natural lifestyle characteristics and affordable housing options, improvements are required to the diversity and quality of retail offering, public realm, housing mix and social infrastructure. These improvements will have the secondary benefit of enhancing the local tourism offering, by increasing the attractiveness of the sub-region as a tourism destination.

4.4.2 Drivers and Trends

The attraction of a residential population to a local area has traditionally been dependent on two factors – availability of employment opportunities and local amenity and lifestyle. The latter includes natural amenity (rivers, lakes, public open spaces etc.), social infrastructure (schools, libraries, sports and recreation facilities, creative arts facilities) and the quality and diversity of retail offering. Retail is particularly important as quality local retail can minimise travel time and costs for local residents and is also a destination for experiential expenditure, including cafes and restaurants.

The retail sector has undergone a transformation in recent years. The credit card fuelled expenditure of the late 1990's and early 2000's – when credit card limits grew by 3.7% per annum or more than three times the population growth rate⁴⁰ – halted with the onset of the GFC and the associated change in consumer spending patterns. Since that time, credit card growth has slowed to a third of previous levels as consumers decreased overall expenditure, increased savings rates and generally lived within their means.

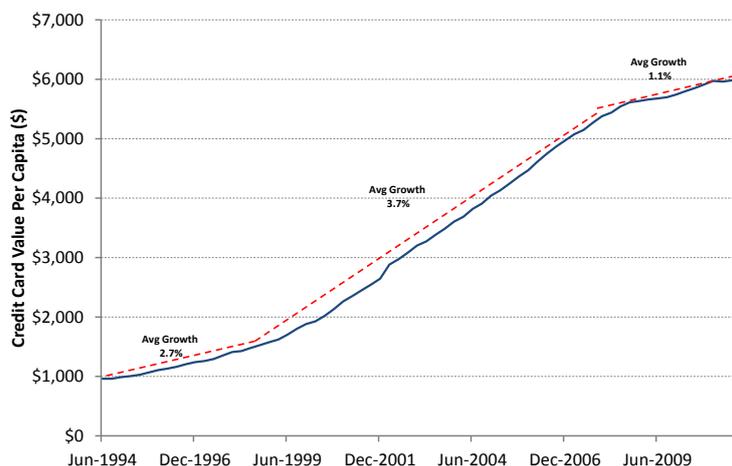


Figure 19: Credit Card Limits per Capita, Australia, 1994 to 2011

Since the GFC, overall household expenditure levels have rebounded but a combination of changing expenditure patterns and increased competition from online retail has continued to impact shop-based retail performance. Over the past 25 years, non-discretionary retail (e.g. food)

⁴⁰ RBA (2012), Online Data Sets, Reserve Bank of Australia, Melbourne

share of household expenditure declined as household incomes and purchasing power grew at a faster rate than core retail demand. In contrast, the share of household expenditure allocated to discretionary retail (bulky goods, clothing, cosmetics etc.), housing and utilities and transport have remained broadly flat over the past decade, growing proportionally with income. The exception was the increase in discretionary retail in recent years, fuelled in the early part of the 2007-2011 period by higher levels of credit-based purchases. However, the standout growth in share of household expenditure has been in entertainment and personal services. Both of these categories have increased in their shares consistently over the past two decades as the maturing of the Western Australian consumer market has accelerated demand for more experiential services (like cafes, restaurants, entertainment, sport and recreation and education). This is illustrated in the figure below.

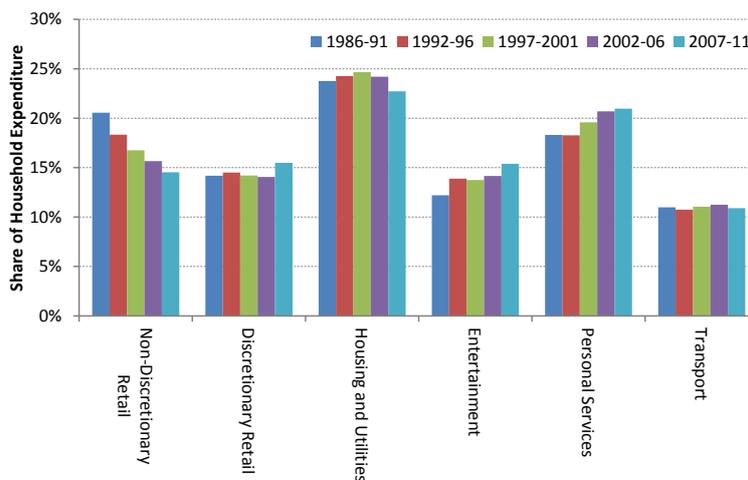


Figure 20: Expenditure Category Share of Total Household Expenditure, WA, 1986 to 2011⁴¹

Coupled with the increase in online shopping –estimated to account for up to 7% of discretionary and non-discretionary shopping in Australia 2011 and growing by between 10-15% per annum⁴² - the changes in household expenditure patterns means that simple provision of additional retail floorspace is insufficient. The composition, location and quality of offering will be increasingly important in Australia’s future retail network.

In all locations, retail viability and sustainability can be enhanced through improvements to local public realm amenity. Improvements in pedestrian permeability and amenity can assist to promote greater retention of local retail expenditure and help leverage increased visitor expenditure through improvements to the consumer environment. It can also enhance the work environment for service workers, which improves the attractiveness of the location for professional services sector businesses. Local amenity improvements, including land and street scaping can be augmented through consolidation of land parcels and uses in the town centre, to provide for the logical collocation of uses and activities. This can enhance the viability of centre uses, by decreasing visitor travel and providing a single concentration of activity.

Housing diversity is also an important contributor to local lifestyle. Regional communities traditionally have low housing diversity levels, instead exhibiting a concentration of separate detached housing. This is normally due to the availability of lower cost service residential land. However, with elevated construction and engineering costs, and improved construction methods,

⁴¹ ABS (2012), Retail, Australia Cat No 5625.0 Australian Bureau of Statistics, Canberra

⁴² PC (2011) Trends and issues related to online retailing, Productivity Commission, Canberra

medium density development is becoming more viable in regional communities as the benefits of lower land costs dissipate. The ability of towns to attract and retain younger age groups, students, retirees and key workers is increasingly dependent on the diversity of housing offered in the local market. Providing greater levels of exposure to different housing product can also assist in increasing local community acceptance of higher density living, providing genuine choice to existing and new residents.

4.4.3 Sub-Regional Characteristics

Towns in the Avon sub-region have experienced below average growth in household incomes over the past decade. According to the most recent Census, income growth has varied between 2.2% in Wyalkatchem to 5.5% per annum in Toodyay⁴³. These rates are well below the State Average of 6.1% per annum since 2001. As a result of this growth, household income levels in the Avon in 2011 remained below the State average of \$73,580. This is illustrated in the following figure.

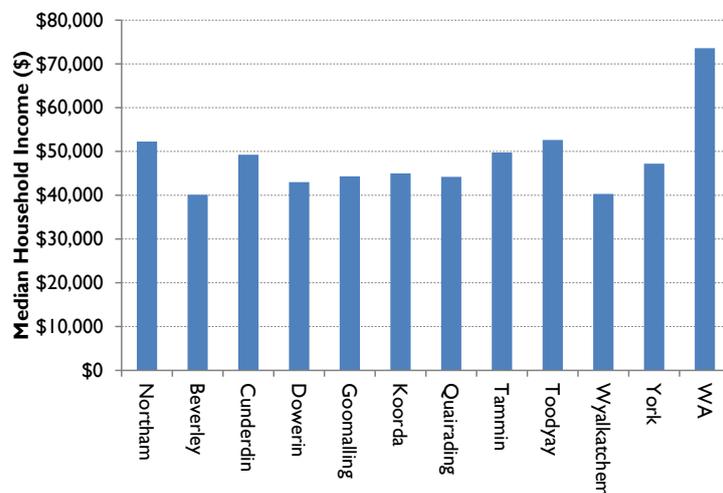


Figure 21: Median Household Incomes, Avon Sub-Region and WA, 2011

Lower incomes however do not necessarily translate to lower retail expenditure levels if local costs of living are below average. This appears to be the case for the Avon. In 2011, all towns in the sub-region had house prices below the median for Perth and, with the exception of Toodyay and York, were more affordable relative to local income levels. This lower housing cost level means proportionally greater levels of disposable income for Avon households.

Anecdotal evidence suggests the existence of two distinct expenditure patterns in the Avon. Those communities west of Northam, including those in the Perth hinterland, generally fall within the gravity well of Midland and associated concentration of district and sub-regional expenditure. Conversely, those communities to the east of Northam rely primarily on Northam for sub-regional shopping.

Analysis by AEC Group indicated that there was sufficient demand in Northam's primary and secondary catchments to support an increase in the town's retail offering of 28,000 sq.m by 2031⁴⁴. This is supported by increased household expenditure and incomes as well as population

⁴³ ABS (2012), Census of Population and Housing 2011, Australian Bureau of Statistics, Canberra

⁴⁴ AECgroup (2011) Retail and Commercial Investment Strategy, Northam SuperTown Growth Plan, AECgroup, Brisbane

growth. In addition to this, increased retail floorspace supply is expected in Toodyay and York, in response to both local and visitor expenditure pool increases, particularly with the introduction of Sunday Trading.

Outside of these major population centres, increased retail offering will respond to growth in residential population and incomes. The concentration of higher order retail in Northam will mean other communities will likely accommodate mostly convenience, niche and local servicing retail offerings. The mix and scale of such offerings will also be dependent on the local market critical mass, with larger towns like Beverley, Cunderdin and Quairading able to sustain larger retail offerings than smaller communities.

4.5 Tourism

4.5.1 Rationale

Tourism activity can provide economic benefits to a local community by leveraging existing infrastructure and amenity and subsidising a higher quality of retail, accommodation and public infrastructure that would not otherwise be supported by local residential expenditure alone.

4.5.2 Drivers and Trends

Between 2006 and 2011, the Avon region attracted an average 638,000 tourists/short-term visitors per year⁴⁵ representing an average 23 visitors per resident. This is well above the State average of 8 visitors per resident, highlighting the strong performance of the sub-region in spite of the small population. This reflects the fact that tourism in the Avon is characterised predominantly by day trip visitors. Between 2006 and 2011, approximately 80% of visitors to the Avon were day trip visitors, with the domestic overnight visitors accounting for 19%⁴⁶. This is illustrated in the figure below.

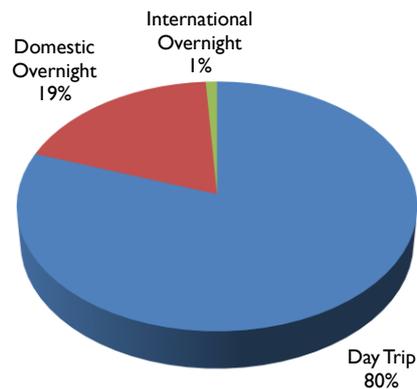


Figure 22: Breakdown of Visitors to Avon Sub-Region, by Type, 2006 to 2011

The proximity of the Avon to metropolitan Perth, its primary domestic market, means the predominance of day trip visitation is likely to continue in the future. However, maximising the sub-region's exposure to overnight and multi-day visitation is critical to increasing the economic value of tourism in the local market.

Tourism Research Australia forecasts for tourism visitation activity in regional WA are for almost flat growth in domestic overnight visitation over the next decade⁴⁷. The exception to this domestic visitation is likely to be that related to older populations, referred to as "Grey Nomads". The Avon sub-region, with its proximity to metropolitan Perth and nature-based tourism offering is ideally positioned to capture a proportional share of this growing market. This

⁴⁵ TRA (2012), Online Data Sets NVS and IVS, Tourism Research Australia, Canberra

⁴⁶ TRA (2012), Online Data Sets NVS and IVS, Tourism Research Australia, Canberra

⁴⁷ TRA (2011), Tourism Projections, Tourism Research Australia, Canberra

includes the Avon's potential role as both a point of origin and a destination for "Grey Nomad" travel. Caravan and recreational vehicle parks are required to attract this tourism cohort.

International tourism visitation is expected to continue to grow strongly, as structural increases in affluence in Asian economies and improved connectivity underpins overseas visitation. The proximity of the Avon to metropolitan Perth and the Perth international airport raises the opportunity for the share of total visitors to the sub-region accounted for by international visitors to be increased. The higher average expenditure profile of international tourists means only a small increase in visitation levels from the current base will provide a significant increase in local tourism value add to the economy.

This segment of the market requires quality (4 and 5 star accommodation) and structured and packaged experiential tourism activities. Improved multi-lingual skills among workers and culturally-sensitive practices also facilitate increased international visitation.

4.5.3 Sub-Regional Characteristics

The Avon sub-region already possesses a diverse offering of tourism attractions and activities including, but not limited to:

- Avon Descent;
- Mainpeak Multisport Challenge;
- Wyalkatchem CBH Museum;
- Golden Pipeline Heritage Trail across the Wheatbelt
- Winery and Olive Farms – Toodyay and York;
- Newcastle Gaol – Toodyay;
- Avon Valley National Park
- Toodyay International Food Festival;
- TargaWest Stage in Toodyay;
- Ettamogah Pub in Cunderdin;
- York Motorcycle Festival;
- Northam Flying 50;
- Skydiving and Balloon Rides;
- Avon Discovery Farm in Beverley; and
- Heritage buildings and historical landmarks

The Avon was one of the earliest settled regions of Western Australia, with early migrants taking advantage of the area's high agricultural fertility to produce exports crops for the British market. The pioneering heritage of the sub-region is reflected local architecture, attractions (e.g. Newcastle Gaol) and a number of historical and agricultural museums (e.g. York Town Hall, Avon Discovery Farm, Cunderdin Pumping Station Museum, Wyalkatchem CBH Museum, Wheatbelt Heritage Trail).

The varied agricultural production of the region also provides tourism attractions, particularly relating to wine and olive production in Toodyay and York and the Toodyay International Food Festival. Farm stays are also increasingly common.

The outdoor lifestyle of the sub-region is a competitive advantage, with the Avon Valley National Park and rural setting supporting a range of activities. This includes the Avon Descent, which is the most prominent event in the sub-region with the largest overnight, interstate and international visitor attraction. The TargaWest also leverages the outdoor lifestyle of the area, with a stage undertaken in Toodyay. Other formal outdoor attractions include skydiving and

balloon rides, as well as gliding, which celebrates the aviation heritage of the region. The outdoor lifestyle also supports a range of passive activities including motorsports, bushwalking, camping and caravanning.

There are limited tourism accommodation establishments in the sub-region and current offerings are concentrated in Northam, Toodyay and York. This in part reflects the recent consolidation of Avon-wide tourism events from smaller Towns to the larger centres. Additionally, accommodation mix and quality is also limited, with convenience-level accommodation (e.g. motels, caravan parks) the most common. The proximity of the Avon-sub-region to metropolitan Perth generally incentivises high levels of daytrip travel which reduces overall demand for overnight visitation. Nevertheless, it is highly likely that a lack of diversity of accommodation in the Avon is constraining the capture and/or conversion of travellers into overnight visitors, with associated increases in local expenditure and economic impacts.

5.0 OPPORTUNITY NETWORK ANALYSIS

5.1 Outline

The Avon sub-regional economy possesses a range of competitive advantages and opportunities, as identified in section 4.0. However, these advantages and opportunities manifest themselves differently across the Local Government Areas of the sub-region with each major town possessing a unique set of demographics, business and infrastructure characteristics and therefore playing a different role in the sub-regional economy.

RPS has reviewed and analysed the characteristics of each LGA to develop a Network Matrix. This Network Matrix illustrates the spatial distribution of the Key Economic Opportunities identified in Section 4.0 of the Strategy across the major Towns/LGAs of the sub-region.

Each town can have three possible relationships with the whole-of-sub-region opportunities:

- The town already has an above average competitive advantage in the relevant industry/sector and/or has existing activity leveraging this opportunity (represented as a solid circle in the matrix);
- The town has the **potential** to have an above average competitive advantage in the relevant industry/sector (due to either changing or emerging drivers) over the next decade (represented as a dotted circle in the matrix); or
- The town does not have an above average competitive advantage in the relevant sector.

5.2 Network Matrix

The Network Matrix results are illustrated in the diagram below.

As expected, Northam has competitive advantages in all economic opportunities identified, reflecting its central role in the broader Avon sub-regional economy. However, other towns – namely Beverley, Cunderdin, Goomalling and York also exhibit a strong diversity of current and potential economic drivers, leveraging similar whole-of-sub-region drivers to that of Northam.

In contrast, the Koorda, Tammin and Wyalkatchem LGAs have more specialised competitive advantages, with broadacre agriculture forming the base of local economic activity and supporting increased medium term activity in transport, logistics and light industry. However, the small size of residential populations in these communities, coupled with very low unemployment rates, means that greater economic diversification will require significant increases in migration to these communities.

Koorda in particular exhibits characteristics that differentiate it from other LGAs in the sub-region. While anecdotal evidence suggests that local residents draw primarily on facilities and services in Northam in the broader Avon, the local characteristics of the town means its competitive advantages are more akin with the communities in the Central East sub-region. It is therefore recommended that Koorda also be included in sub-regional economic analysis for that sub-region, allowing for more detailed and targeted actions and recommendations to be developed.

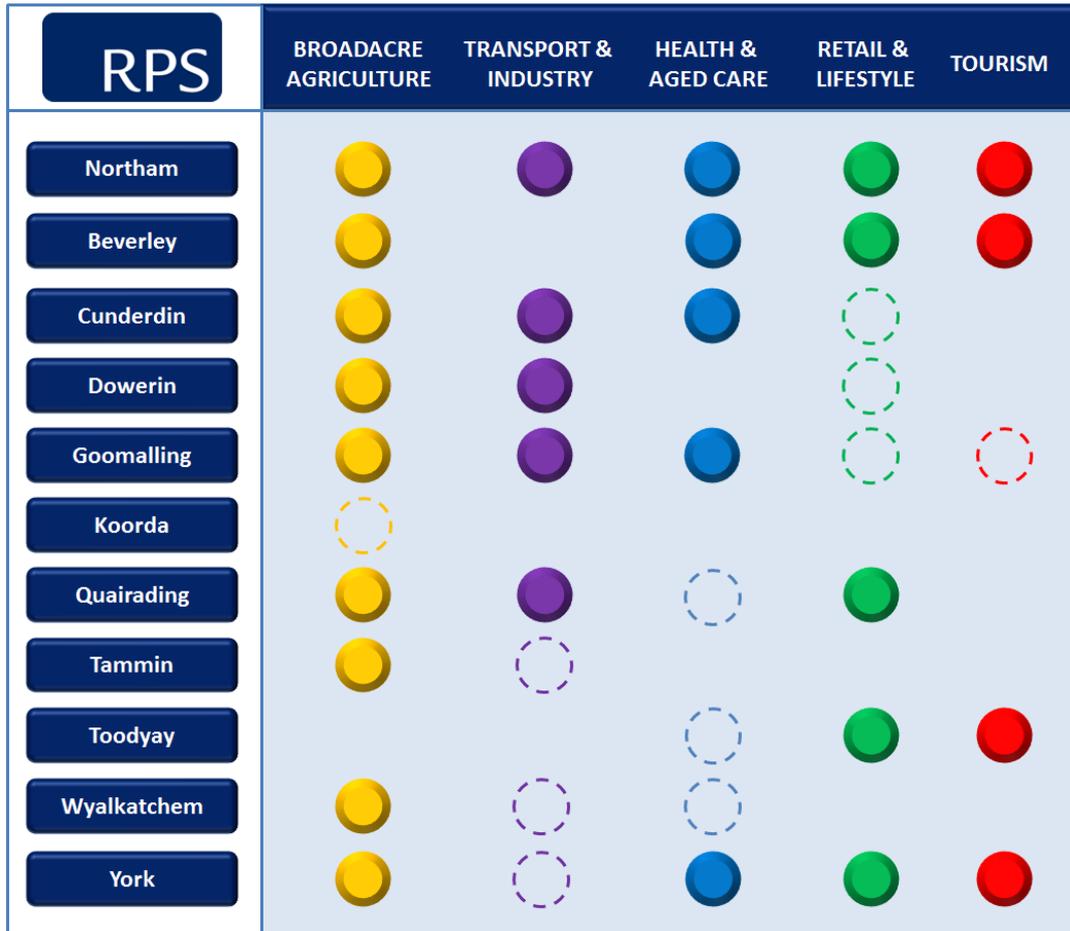


Figure 23: Opportunity Network Matrix, Avon Sub-Region

Toodyay is also comparatively unique in the region in that it lacks a genuine competitive advantage in broadacre agriculture. While increasingly involved in horticultural activities – such as wine and olive production – Toodyay possesses a distinct lifestyle and amenity offering that has and will continue to attract older residents seeking a “green change”. This partly explains higher housing costs in the region, as well as future economic opportunities in daytrip tourism, retail and amenity and health and ageing. This mix of opportunities means that Toodyay has a local economy which is highly complementary to that of Northam, helping to further diversify sub-regional economic drivers and activity.

5.3 Spatial Analysis

The results of the Network Matrix have also been analysed for the spatial distribution of economic opportunities across the Avon sub-regions. This approach allows the relative distribution and concentration of economic opportunities to be identified

5.3.1 Broadacre Agriculture & Animal Husbandry

As expected, broadacre agriculture represents the most distributed economic opportunity in the Avon and is likely to remain the foundation industry of the sub-region in the medium and long-term. Local reliance on the industry is greatest in the east part of the region, with towns closer to

metropolitan Perth playing greater roles in the storage, transportation and administration of agricultural product.

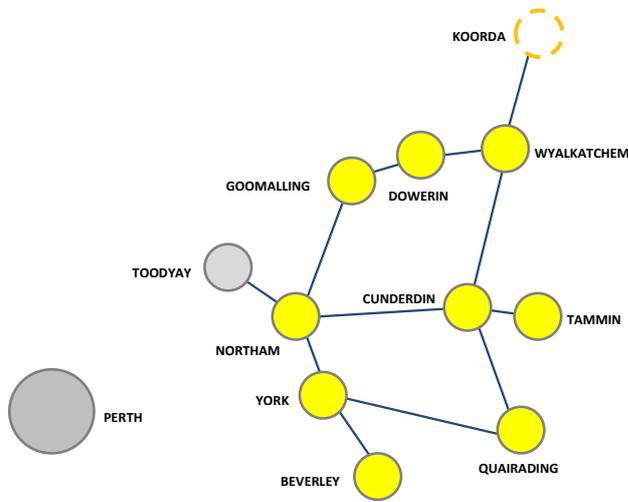


Figure 24: Spatial Distribution, Broadacre Agricultural & Animal Husbandry, Avon Sub-Region

5.3.2 Transport, Logistics & Mining-Support Industry

There exist strong drivers supporting transport, logistics and light industry investment and activity in the Avon sub-region, with spatial analysis identifying a “ring” of industrial opportunities comprising Northam, York, Quairading, Cunderdin, Dowerin and Goomalling. Enhancements and expansions of industrial land offering in York in particular is critical to maximising local industrial land choice and allowing the sub-region to accommodate all major market segments – agricultural production transport, sub-regional heavy and light manufacturing and regional transport and logistics.

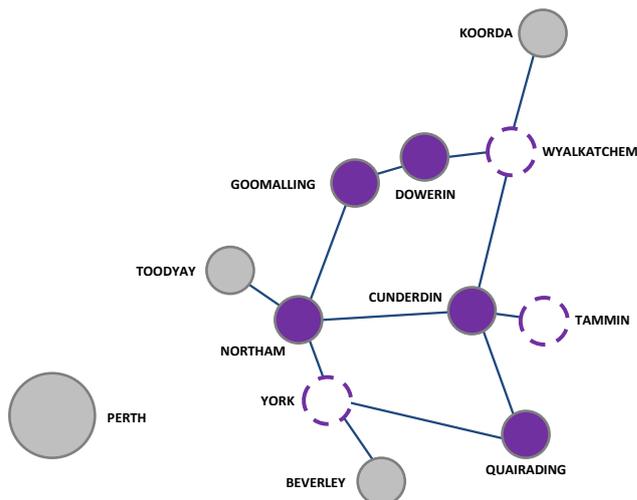


Figure 25: Spatial Distribution, Transport, Logistics & Mining-Support Industry, Avon Sub-Region

5.3.3 Health & Aged Care

The distribution of economic opportunities in health and aged care is primarily determined by a combination of current and short-term population ageing and the distribution of existing health facilities. The expansion of the Avon Emergency Services and Health Precinct will reinforce Northam's role as the primary centre of health and aged care in the sub-region.

However, there are opportunities to leverage the existing health network to provide convenient and flexible health services to all age cohorts, but particularly older residents in other locations. This will include specialised health services such as dementia care (in Goomalling). Toodyay's population is increasingly ageing but currently lags the rest of the Avon due to the lifestyle-based nature of local migration patterns. As this population ages further, the opportunity for local health and aged care opportunities will increase the need for a combination of local services in addition to strong transport connectivity to Northam. Further planning for health and aged care is required in the Avon to ensure an efficient and coordinated approach.

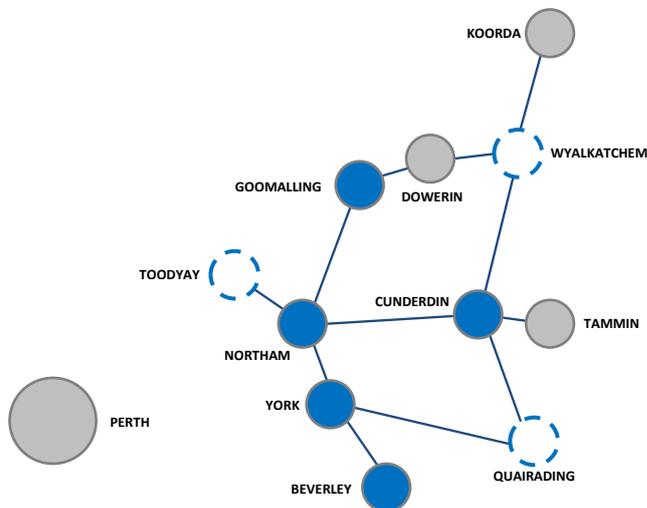


Figure 26: Spatial Distribution, Health & Aged Care, Avon Sub-Region

5.3.4 Retail & Lifestyle

The sub-regional retail network is and will continue to be centred on Northam, representing the largest concentration of population and floorspace in the Avon. York, Beverley and Toodyay will continue to experience both population and visitor led increases in local retail demand, with lifestyle and tourism drivers underpinning growth. Outside of these areas, the size and quality of convenience retail offering will be dependent on population critical mass.

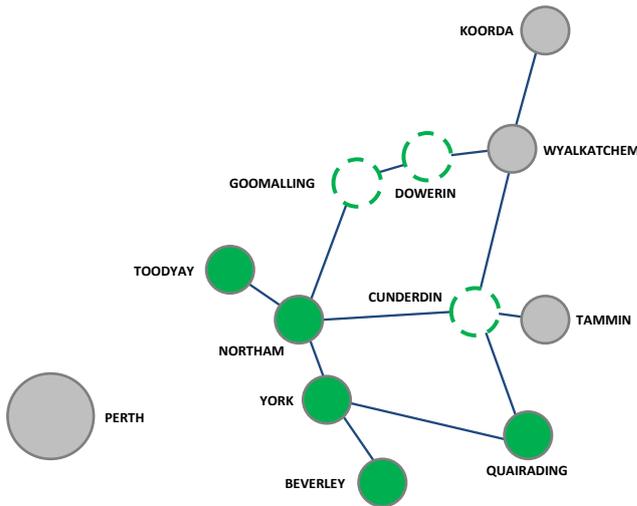


Figure 27: Spatial Distribution, Retail & Lifestyle, Avon Sub-Region

5.3.5 Tourism

There is a strong spatial relationship between retail and tourism opportunities, reflecting the role that lifestyle and amenity drivers and proximity to Perth play in the distribution of this economic activity. While it is expected that the daytrip market will continue to dominate local tourism activity, the sub-region possesses a strong current and potential exposure to “Grey Nomad” based domestic tourism. This will underpin opportunities in Goomalling particularly, but also in other local towns. The whole Avon possesses a diverse range of tourism offerings that collectively provide considerable choice for local visitors and should therefore be managed and promoted in a single cohesive fashion.

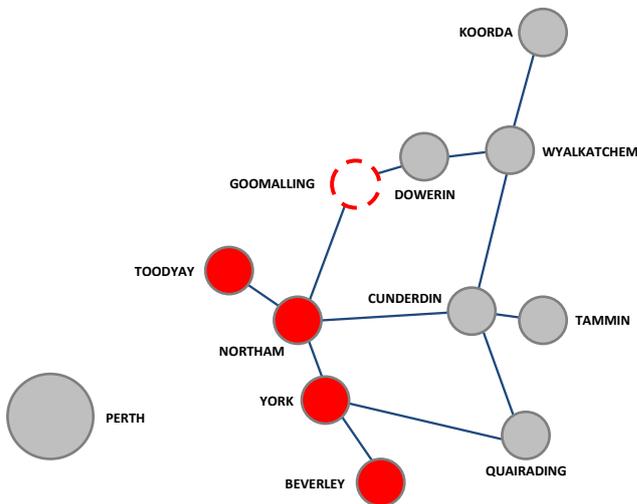


Figure 28: Spatial Distribution, Tourism, Avon Sub-Region

6.0 ECONOMIC DEVELOPMENT ACTIONS

RPS, in collaboration with the WDC, has compiled a list of actions and initiatives required to facilitate, support and underpin the realisation of key economic opportunities for the Avon sub-region identified in section 4.0 of this Strategy. These Actions have been identified through consultation with Local Government, and refined within the Spatial Distribution Framework outlined in section 5.3.

The Actions identified represent a short-list of initiatives for which business cases should be prepared for funding applications. This includes both State and Federal Government funding opportunities as well as potential private sector investment.

Further details on the individual Actions are contained in the Local Government Area Profiles, included in Appendix A of this Strategy.

Note that the identified Actions have been categorized under individual Economic Opportunities. However, it is acknowledged that some Actions will have enabling and supporting effects for a range of opportunities and for the Avon economy generally.

Table 2: Economic Development Actions, Avon Sub-Region

LOCAL GOVERNMENT AREA	BROADACRE AGRICULTURE & ANIMAL HUSBANDRY	TRANSPORT, LOGISTICS & MINING-SUPPORT INDUSTRY	HEALTH & AGED CARE	RETAIL & LIFESTYLE	TOURISM	OTHER
Northam	Refer to Northam SuperTown Growth Plan					
Beverley		<ul style="list-style-type: none"> Release of light industrial land by LandCorp in late 2012 	<ul style="list-style-type: none"> Development of Independent Living Units planning by Verso Consulting 	<ul style="list-style-type: none"> Gravity fed sewerage in town to support residential land availability and housing diversity. Increased portable water infrastructure investment in line with population growth. 	<ul style="list-style-type: none"> Preparation of Avondale Master Plan (COMPLETED) Feasibility assessment of onsite tourist accommodation at Avondale. Preparation and packaging of adventure-oriented tourism activities for visitors (dirt bike and gliding particularly). Market assessment of tourist accommodation (caravan parks and self-contained units) requirement. 	<ul style="list-style-type: none"> Enhanced mobile telephone coverage 10-15km outside of town
Cunderdin	<ul style="list-style-type: none"> Expansion of CBH infrastructure. 	<ul style="list-style-type: none"> Release of new industrial land blocks. Upgrading of mandatory emergency water systems at Cunderdin Airfield. Pavement analysis and upgrading at Cunderdin Airfield. 	<ul style="list-style-type: none"> Consolidation of Shire landholdings for centralized healthy aged accommodation. 	<ul style="list-style-type: none"> Collocation and upgrade of Cunderdin's sports facilities. 	<ul style="list-style-type: none"> Investment in Town Approaches and Stopping Points in town for passing travelers and "Grey Nomads" along the Great Eastern Highway 	<ul style="list-style-type: none"> Investigation of current and future power requirements for both industrial development and residential expansion.
Dowerin		<ul style="list-style-type: none"> Construction of three industrial workshops to attract businesses. Potential rezoning of freehold land north of town for industrial lots. 	<ul style="list-style-type: none"> Construction of two aged persons units in line with completed feasibility study. Further aged care planning to be undertaken 	<ul style="list-style-type: none"> Strategic Planning of Retail Sites in town to enhance quality of offering. Collocation of Community Club Facilities (Tennis, Bowls, Cricket and Football) 	<ul style="list-style-type: none"> Continued participation in Wheatbelt Heritage Rail Project as a tourism initiative. 	<ul style="list-style-type: none"> Establishment of Prison Work Camp (COMPLETED)
Goomalling		<ul style="list-style-type: none"> Preparation of Land Assembly Strategy for zoned industrial land including Native Title and Servicing Cost. 	<ul style="list-style-type: none"> Planning for aged care, including consideration of expanded dementia Services 	<ul style="list-style-type: none"> New residential housing stock in James St and Throssell St (COMPLETED) Attraction of residential population to support 	<ul style="list-style-type: none"> Investment in Goomalling Caravan Park (Stage 1 COMPLETED) Expansion of Caravan Park focusing on RV. Continued participation in Wheatbelt Heritage Rail Project as a tourism initiative. 	<ul style="list-style-type: none"> Local implementation of <i>Living Communities Economic Development Program</i>
Koorda		<ul style="list-style-type: none"> Industrial Land servicing and construction of light industry units 		<ul style="list-style-type: none"> Residential development and affordable housing promotion suite. 		<ul style="list-style-type: none"> Include Koorda in economic planning for Central East
Quairading		<ul style="list-style-type: none"> Identification, development and release of industrial lots for future light industry expansion. Urgent expansion of power supply to enhance reliability and facilitate increased industrial activity. 	<ul style="list-style-type: none"> Prepare Aged Accommodation Investment Strategy to position Quairading as a high quality affordable destination for older regional and metropolitan populations. 	<ul style="list-style-type: none"> Planning for expansion of current recycling facilities to cover more Wheatbelt towns. Retail floorspace redevelopment required. Infill of mains sewerage system to connect remaining 20-40% of town current on septic. 	<ul style="list-style-type: none"> Assessment of redevelopment or relocation options for the Quairading Caravan Park. 	<ul style="list-style-type: none"> Investigation and improvement of mobile coverage to the east of the town.
Tammin		<ul style="list-style-type: none"> Investigation of development options and servicing requirements (namely power connections) for zoned industrial land current used for farming. 		<ul style="list-style-type: none"> Deep sewerage feasibility study Worker accommodation study 	<ul style="list-style-type: none"> Include consideration of tourism short stay options in worker accommodation study 	
Tooday		<ul style="list-style-type: none"> Expansion of aged care services to include respite care and pathways to healthy living. Includes identification of appropriate sites. 		<ul style="list-style-type: none"> Recreation Centre Facility Funding Options Analysis and Business Case Deep sewerage feasibility study Investment in Potable Water Infrastructure to facilitate residential land release and development of the education and recreation precinct. 	<ul style="list-style-type: none"> Town Bypass Route Study 	<ul style="list-style-type: none"> Commercial Office Floorspace Consolidation and Development Feasibility Analysis
Wyalkatchm		<ul style="list-style-type: none"> Upgrade of Airport (COMPLETED) Release of 7 Fully Serviced Lots at airport. Discussions with Air Services Australia. Power and water upgrades to address seasonal power outages. Confirm further land parcels for future light industrial development 	<ul style="list-style-type: none"> Hospital and aged care bed expansion. 		<ul style="list-style-type: none"> Continue to develop a coordinated approach to tourist and worker accommodation 	
York		<ul style="list-style-type: none"> Funding and delivery of southern bypass road. Upgrade of energy distribution infrastructure. Completion of preliminary surveying and business planning of Light Industrial Area. 	<ul style="list-style-type: none"> Investment Prospectus to encourage expansion of Aged Care offering. 	<ul style="list-style-type: none"> Attraction of local Child Care operator. Attraction and expansion of retail offering in town. Expansion of sewerage infill in line with population growth. 	<ul style="list-style-type: none"> Preparation of Tourism Development Strategy Redevelopment of the Town Hall. 	
Whole of Sub-Region		<ul style="list-style-type: none"> Avon Aviation Investment Strategy Heavy haulage route to the north Identification of strategic power transmission infrastructure investments Plan for improved intra sub regional public transport planning 		<ul style="list-style-type: none"> Sub Regional Investment Trust for, amongst other things, housing and infrastructure 	<ul style="list-style-type: none"> Plan for sub regional tourist information and promotion servicing 	<ul style="list-style-type: none"> Establish a process for coordinating activity on workforce development for key new investments Develop a marketing program for labour force and industry investment attraction

APPENDIX A – LOCAL GOVERNMENT PROFILES

Beverley

Context

The Shire of Beverley covers an area of approximately 2,370 km and has a population of 1,749 people (6.4% of the Avon population). The Shire contains the localities of Beverley, Flint, Mount Kokeby, Mount Dale, Talbot West, and West Dale. The administrative centre of the Shire is the town of Beverley, which is located approximately 140 km east of Perth. Beverley is centrally situated between the service centres of Northam, Narrogin and Kelmscott/Armadale and Midland (all approximately 1 – 1.5 hour's drive).

The clearing of the area for farming in Beverley progressed over a long time period, beginning in the 1860s and continuing on until the 1970s. Today Beverley is strongly linked to broadacre agriculture, however it is becoming more widely known for its tourism attractions and activities, and its high-quality health facilities. Being close to Perth and with cheaper land and housing prices, Beverley's aged population is estimated to increase.

Beverley's visions for the future include an increased regional role as a tourist destination for Perth visitors with the Avondale Farm as a significant regional heritage and agri-tourism attraction. A growing arts and cultural precinct, including an outdoor Platform Theatre at the Heritage Railway station, will service local and regional communities and support the developing Wheatbelt Rail project. To support these aspirations, consolidation and growth of tourist accommodation facilities is considered a priority for Beverley.

Characteristics

The Shire of Beverley LGA has the following characteristics:

- An estimated residential population of 1,749 persons in 2011 – 11.2% higher than the estimated 1,573 residents in 2001. The WA Planning Commission forecasts this trend to continue (albeit at a slower pace) over the next decade, growing a further 2% to 1,800 people in 2021. The economic analysis undertaken in the SuperTowns planning justifies a sub-regional population of 50,000 by 2030 subject to favourable economic conditions. Analysis of existing capacity of individual communities to grow as well as their competitive advantage has resulted in a proposed population distribution of 1,900 residents in Beverley (equating to an annual growth rate of 0.8%).
- A significant proportion of the population (17.5%) is aged 14 years or younger – not dissimilar to the Perth Metropolitan Region (18.6%) and the WA (19.7%) average. However, 24.6% of Beverley's population is aged over 65 years, which is double that of the WA average (12.3%). Beverley had a relatively high fertility rate of 3.59 children in 2010 – much higher than replacement levels (2.1) and the sub-regional average (2.59).
- Median personal income levels for Beverley (\$29,628) are above the sub-regional average (\$24,851), but below the Perth (\$34,788) and WA (\$34,424) averages.
- From a price base of \$205,000 in 2006, median house prices in Beverley decreased by 14.6% to \$175,000 in 2011. This goes against the trend of increasing housing prices for the Avon (22.5%) and the State (15.2%), although significant variation was experienced across the different LGAs depending on base price levels. This negative house price growth, coupled

with negative income growth, has seen Beverley remain relatively affordable (with a house price to income ratio of 3.55) in the Avon (3.92).

- Broad acre agriculture is Beverley's primary economic contributor, accounting for 53% of businesses and some 151,269 ha of land (representing 9% of the Avon total area of agricultural holdings).
- Manufacturing, Transport and Logistics, along with Retail, are secondary industries in Beverley, with each accounting for 6.9% of local businesses. There are 114,345 sqm of available zoned industrial land supply in Beverley (representing 4% of the Sub-Regional total).
- Beverley's economy is also underlined by an employment self-sufficiency rate of 105% (in 2006). This, coupled with a low unemployment rate, indicates that there are more jobs than employed residents in the LGA highlighting a drive-in/drive-out interconnectedness with neighbouring Avon communities and Perth.
- The Beverley Hospital (8 beds) and District High School (149 students) provide important health and educational services for local residents. The Shire of Beverley is keen to explore greater youth and childcare options for the area.

Economic Opportunities

The following economic opportunities have been identified:

Broadacre Agriculture

Broadacre agriculture represents the most distributed economic opportunity in the Avon and is likely to remain the foundation industry of the sub-region in the medium and long-term. For Beverley the traditional primacy of agriculture as the economic driver of the shire has been reduced, with agricultural businesses making up just over half of all businesses. Although reduced in prominence, Beverley's large agricultural land holdings, local infrastructure and above average yields will see the continuation of the industry as a large constituent of Beverley's local economy.

Health and Aged Care

The distribution of economic opportunities in health and aged care is primarily determined by a combination of current and short-term population ageing and the distribution of existing health facilities. Beverley's distance from Northam and York, allows the opportunity for Beverley to lever of its relatively large and extensive aged care services as a rural aged care centre.

Retail and Lifestyle

The sub-regional retail network is and will continue to be centred on Northam; however the role of Beverley is significant as its retail offering is supported by a critical mass of population to both service and support this activity. As such Beverley has a demand generated by visitor growth which has allowed for localised retail activity. The rising demand generated by increasing visitor and aged population growth will provide opportunities to further expand Beverley's retail activity.

Tourism

These is a strong spatial relationship between retail and tourism opportunities, reflecting the role that lifestyle, amenity and proximity to Perth play in the distribution of this economic activity. Beverley's proximity to the Perth and availability of motorsports and recreational aviation facilities (now increasingly scarce in Perth) has encouraged daytrip tourists to the shire. As such, the

daytrip market is expected to continue to dominate local tourism activity (Daytrip Share of Visitor Numbers, 83% for 2006-2011). Beverley's spatial distribution relative to Toodyay, Northam and York allows the shire to collectively provide a considerable choice of tourist activities in this Avon arc. The Shire is also eager to explore the benefit of a local and regional arts and cultural coordinator.

Actions

A series of actions require implementation for the Shire of Beverley to effectively leverage the economic opportunities identified above. The actions listed below are related to increasing Beverley's attractiveness to tourists and permanent residents, and removing constraints to population expansion.

- LandCorp will be releasing light industrial land at the end of 2012. Although the industrial sector has not been identified as an immediate strategic economic opportunity, it is important that Beverley has adequate serviced industrial land to cater for sub-regional population and industry growth. The Shire's strategic planning does identify land appropriate for future industrial development.
- The development of Independent Living Units for aged persons is currently in planning stages with VERSO Consulting. This development offers potential for the future with an aging population and the affordability of the area creating demand. The Shire of Beverley is keen to focus on developing and promoting the town as an aged friendly community in terms of inter and intra town accessibility (e.g. town design, network of footpaths, public transport).
- The gravity fed deep sewerage in town is required to be expanded to increase residential land availability and housing diversity.
- Mobile phone coverage is unreliable 10-15kms from town. A black spot audit is therefore required to assist with developing solutions.
- Despite recent improvements to the potable water infrastructure, further development will be required in line with population growth.
- Due to unreliability of power supply, particularly in summer, a staged investment plan for power provision will be required as population grows.
- The Avondale Master Plan is complete. The community continues to pursue funding and revenue options to foster a sustainable iconic heritage tourism asset for the subregion. One of the first improvements currently under investigation is improved tourism and visitor facilities and amenities.
- The growing interest in adventure-type activities such as the Gliding Club and motorsports present an opportunity for Beverley to package and promote expansion in pursuits of this kind. With many of these activities relocating from the metropolitan area for appropriate space and land use compatibility, Beverley's offerings value add at the sub-regional level to ballooning in Northam and skydiving in York.
- Development of tourist accommodation has been identified as a priority for Beverley with the requirement of additional caravan park spaces and self contained units. Further planning will be undertaken to determine the mix and location of such developments.

These identified economic opportunities are well aligned with the Shire's vision for its future. Beverley is concentrating on tourism, arts and culture, and attraction of healthy aged population to the area is very closely linked with lifestyle and population attraction.

Cunderdin

Context

The Shire of Cunderdin has a population of 1,280 people (4.7% of the Avon population). It contains the localities of Cunderdin, Meckering, Warding East, Wyola West and Younegin. The administrative centre of the Shire is the town of Cunderdin, which is located approximately 158km east of Perth.

The Shire is historically a broadacre agricultural region which was supported with the development of a major east-west railway line and the C.Y. O'Connor water pipeline to Kalgoorlie. The Shire continues to be an area focused on farming, although other sectors such as manufacturing and transport and logistics are gaining prominence.

Recent developments in Cunderdin's light industry development include subdivision of industrial zoned land, expansion of CBH infrastructure and activity, and emergence of new light industrial businesses in the town. The Shire of Cunderdin's active role in the development of light industry further cements the town's competitive advantage in light industry.

The Shire of Cunderdin sees its advantage in the region as its proximity to Northam and to Perth, its position on the Great Eastern Highway and its established and growing light industrial sector. The town also has the largest airstrip in the subregion, and upgrading and further utilisation of the airstrip is a major focus for the town and will play an important role in terms of transport and logistics in the Avon region. Recent private sector interest in the Cunderdin airfield has strengthened the Shire's vision of utilising this asset as an economic driver.

Characteristics

The Shire of Cunderdin LGA has the following characteristics:

- An estimated residential population of 1,280 persons in 2011 – an 11.8% decrease in population relative to the estimated 1,452 residents in 2001. The WA Planning Commission forecasts this trend to continue (and greatly accelerate) over the next decade, with population decreasing by a further 42% to 740 people in 2021. However, the economic analysis undertaken in the SuperTowns planning justifies a sub-regional population of 50,000 by 2030 subject to favourable economic conditions. Analysis of existing capacity of individual communities to grow as well as their competitive advantage has resulted in a proposed population distribution of 1,700 residents in Cunderdin (equating to an annual growth rate of 2.9%).
- A significant proportion of the population (19.5%) is aged 14 years or younger – similar to the Perth Metropolitan Region (18.6%) and the WA (19.7%) average. 15.3% of the population is aged over 65 years, which is higher than the WA average (12.3%). Cunderdin had a relatively high fertility rate of 3.57 children in 2010 – much higher than replacement levels (2.1) and the sub-regional average (2.59).
- Median personal income levels (\$26,468) for Cunderdin are slightly above the sub-regional average (\$24,851), but below the Perth (\$34,788) and WA (\$34,424) averages.
- From a price base of \$175,000 in 2006, median house prices grew by 48.3% to \$294,000 in 2011. This is significantly higher than the average growth rates of the wider Avon Sub-Region (22.5%) and the State (15.2%), although significant variation was experienced across the different LGAs depending on base price levels. This house price growth, coupled with

moderate income growth, has seen a slight reduction in housing affordability, whilst remaining relatively more affordable (with a house price to income ratio of 3.55) compared to a number of other sub-regional LGAs such as York (6.41) and Toodyay (5.99).

- Broad acre agriculture is Cunderdin's primary economic contributor, accounting for 58% of businesses and some 185,084 ha of land (representing 11% of the Avon total area of agricultural holdings). The shire of Cunderdin generates approximately \$49.5 Million in agricultural production value per annum (approximately 11% of the sub-region total). When considered on a per hectare basis, Cunderdin generates slightly more production value (\$267/ha) than the sub-regional average (\$254/ha), which can be attributed to variations crop types and yield volumes.
- Manufacturing, Transport and Logistics, along with Retail, are secondary industries in Cunderdin, with each accounting for 5.3% of local businesses. There is 325,804ha of available zoned industrial land supply in Cunderdin (representing 12% of the Sub-Regional total), with new subdivisions of industrial zoned land currently being developed in order to address demand for light industrial lots in the town.
- Cunderdin's economy is also underlined by an employment self sufficiency rate of 92% (in 2006) and a 18.7% small businesses share of the local labour force (in 2009/10).
- The Cunderdin Hospital (8 beds), District High School (186 students) and Agricultural College (121) all provide important health and educational services for local and other Wheatbelt residents.

Economic Opportunities

The following economic opportunities have been identified:

Broadacre Agriculture

Broadacre agriculture represents the most distributed economic opportunity in the Avon and is likely to remain the foundation industry of the sub-region in the medium and long-term. For Cunderdin, agricultural production will continue to be a primary economic driver for the shire, due to its distance from Perth, large agricultural land holdings, above average yields per hectare and extensive network of local supporting industries and infrastructure.

Transport and Industry

There exist strong drivers supporting transport, logistics and light industry investment and activity in the Avon sub-region, with spatial analysis identifying a "ring" of industrial opportunities comprising Northam, York, Quairading, Cunderdin, Dowerin and Goomalling. In the case of Cunderdin, the opportunity exists to develop its role in the subregion as a primary industrial node by capitalising on its strong transport links (road rail and air), existing grain storage and logistics infrastructure and industries, large supply of industrial zoned land and proposed new residential subdivisions. This will assist in providing further industrial land choice, attraction and retention of a workforce and offering localised agricultural production transport and logistics services.

Recent private interest in the Cunderdin airfield suggests an opportunity to develop this facility as a major economic driver for this Shire. The promise of businesses being established in the area to support activity at the airport justifies further planning and development of light industry and residential land.

Health and Aged Care

The distribution of economic opportunities in health and aged care is primarily determined by a combination of current and short-term population ageing and the distribution of existing health facilities. Although relatively close to Northam and its health and aged care facilities, there are opportunities to leverage Cunderdin as a lifestyle centre for aging residents of the Wheatbelt, due to the town's existing health and aged care services and access to public transport (bus and rail). Provision of aged care units will be considered in plans for a potential caravan park expansion.

Actions

A series of actions require implementation for the Shire of Cunderdin LGA to effectively leverage the economic opportunities identified above. The actions listed below are related to increasing Cunderdin's potential as a transport and light industry centre in the Avon region.

- New industrial blocks are currently being developed and the expansion of CBH infrastructure and activity is planned. With increasing investment at the nearby Avon Industrial Park, Cunderdin is well placed to absorb some follow-on growth locally.
- Linked to consolidation of light industrial land, grants and Council funding are in place to co-locate and upgrade Cunderdin's sporting facilities. This is expected to be completed by 2014.
- Grants are in place for upgrading mandatory emergency water systems at the airfield. Funding is also being sought for pavement analysis and upgrading. While the airfield is currently used for sports and light aircraft services, there is potential for extensive large freight operations and this is supported in the Northam SuperTowns Growth Plan and Cunderdin Airport Master Plan.
- The Shire is investing in town approaches and stopping points for those travelling on Great Eastern Highway.
- Consolidation of Shire land holdings will provide opportunities for further development of healthy aged accommodation in a central location. Private investment will be required to develop these areas.
- Investigation of current and future power requirements is needed for Cunderdin. Anecdotal evidence indicates that there are some power constraints to industry development in Cunderdin and that substation upgrades may be required in Cunderdin to expand services to communities north and south of this town.
- Similarly, investigation of current and future water requirements is necessary for Cunderdin and neighbouring towns. Anecdotal evidence indicates that any increase in water provision to Cunderdin will impact towns connected by feeder pipes (e.g. Wyalkatchem). Water pressure for emergency services in Cunderdin and connected towns will need to be included in this investigation. There are also opportunities to increase efficiency of water harvesting and reuse in the Shire of Cunderdin to enhance community facilities.

The Shire's focus on light industry land development, residential land development, improvement to its airfield and enhancement of the town centre are all consistent with the results of economic modelling and its position on major transport routes.

Dowerin

Context

Dowerin is situated 156 kilometres north east of Perth, approximately 2 hours drive. The first settlement for agriculture was in 1897, although the town was not established until 1906 when the railway line was extended from Goomalling.

Dowerin is home to the Dowerin GWN Field Days - a two day annual event showcasing agricultural and associated equipment which attracts on average in excess of 600 exhibitors. Dowerin also hosts an annual motor and military festival, incorporating 'Theo's Run' – a vintage car run from Perth to Dowerin commemorating the town's history and association with WA motor racing.

The Shire of Dowerin sees its regional role in the Avon as focusing on its potential for modest population increase and lifestyle improvement. Dowerin is seeking to capitalise on partnering with Northam to provide improved education services and fostering a drive-in/drive-out population. It is also keen to expand its aged care accommodation, expand its tourist base (e.g. Wheatbelt Heritage Rail Trail tourism project), and make improvements to its recreation and sporting grounds.

Characteristics

The Shire of Dowerin LGA has the following characteristics:

- An estimated residential population of 752 persons in 2011 - 10% lower than the estimated 837 residents in 2001. The WA Planning Commission forecasts this trend to continue (and accelerate) over the next decade, falling a further 24% to 570 people in 2021. However, the economic analysis undertaken in the SuperTowns planning justifies a sub-regional population of 50,000 by 2030 subject to favourable economic conditions. Analysis of existing capacity of individual communities to grow as well as their competitive advantage has resulted in a proposed population distribution of 1,000 residents in Dowerin (equating to an annual growth rate of 2.9%).
- A significant proportion of the population (23.7%) is aged 14 years or younger – much higher than in the Perth Metropolitan Region (18.6%) and WA (19.7%) average. This indicates a higher number of young families. 17.8% of the population is aged over 65 years, which again is higher than the WA average (12.3%). Consistent with other sub-regional LGAs and the majority of WA, Dowerin is expected to experience significant ageing in the population over the coming decades, with 30% of the population aged over 65 years in 2021, and 37% in 2031.
- Relatively high levels of median personal income (\$26,936) compared to the sub-regional average (\$24,851), but lower than average levels of median total household income (\$43,004). An annual income growth rate of just over 3% over the period 2001 to 2011 was typically lower than other sub-regional LGAs, and much lower than the WA average (over 6%).
- From a relatively low price base of \$95,000 in 2006, median house prices almost doubled over to \$181,250 in 2011. This is significantly higher than the average growth rates of the wider Avon Sub-Region (22.5%) and the State (15.2%), although significant variation was experienced across the different LGAs depending on base price levels. This rapid house price growth, coupled with lower than average income growth, has seen housing affordability come into line with many other sub-regional LGAs (with a house price to income ratio of 4.86), although remaining more affordable than York (6.41) and Toodyay (5.99).

- Dowerin's economy is primarily driven by agricultural production, which accounts for 63% of registered businesses (2009). The Shire comprises some 185,912 ha of agricultural land holdings (accounting for 11% of the Sub-Regional total area of agricultural holdings), generating approximately \$50.5M in production value per annum (approximately 12% of the sub-region total). On a per hectare basis, Dowerin generates slightly more production value (\$272/ha) than the sub-regional average (\$254/ha), owing to variations in crop types and yield volumes.
- There is approximately 257,164 sqm of zoned industrial land currently available in the Shire of Dowerin, representing 9% of the Sub-Regional total, although it remains largely undeveloped due to constraints in infrastructure availability, development costs and local labour availability. Industrial activity is therefore not a key economic contributor at present, but has the potential to play a bigger role in the future should these constraints be overcome.
- Dowerin labour force is characterised as having the highest average number of workers per household (1.77), highest participation rate (86%) and the lowest unemployment rate (1.25%) in the Avon sub-region. Small business share of the Dowerin's labour force is 30% compared to a sub-region average of 14%.

Economic Opportunities

The following economic opportunities have been identified:

Broadacre Agriculture

Broadacre agriculture represents the most distributed economic opportunity in the Avon and is likely to remain the foundation industry of the sub-region in the medium and long-term. This is particularly the case for Dowerin, which will continue to serve a primary production role given its location in the north east of the sub-region, large prevailing property sizes and reduced ability to attract the number of workers necessary to support more labour-intensive industries.

Transport & Industry

There exist strong drivers supporting transport, logistics and light industry investment and activity in the Avon sub-region, with spatial analysis identifying a "ring" of industrial opportunities comprising Northam, York, Quairading, Cunderdin, Dowerin and Goomalling. In the case of Dowerin, the opportunity exists to develop as a secondary industrial node by capitalising on the existing supply of industrial zoned land, providing further industrial land choice and offering localised agricultural production transport and light/heavy manufacturing services.

Retail & Lifestyle

Whilst the sub-regional retail network is and will continue to be centred on Northam (representing the largest concentration of population and floorspace in the Avon), increasing demand generated by population and visitor growth, will provide opportunities for further localised retail activity. In this regard, Dowerin's ability to enhance its retail offering will be dependent on reversing population decline and achieving a critical mass sufficient to generate local demand. The expansion of local transport and industrial activity in Dowerin, and attraction of a labour force required to support it, is crucial in this regard.

Dowerin's vision of its future includes a growth in tourism but at this stage tourism has not been identified as a potential economic opportunity. There is a lack of good accommodation in the town which inhibits growth in this area. Developing unit style accommodation is being considered

in the Shire of Dowerin's strategic planning. This would provide a complementary and alternative visitor accommodation option from that offered in the neighbouring town of Goomalling.

The Shire of Dowerin, in partnership with the shires of Goomalling and Wyalkatchem, are implementing the Wheatbelt Heritage Rail Project. This involves relocating historic locomotives, passenger carriages, dining carriages, and other rolling stock linked to Wheatbelt and grain carting activities to the area to form a permanent, interpretative display. In conjunction to this, the three shires are working with Bassendean Rail Heritage Museum, ARG, Westnet Rail, the Office of Rail Safety and Public Transport Authority to gain accreditation to operate a fully operational steam train between Goomalling, Dowerin and Wyalkatchem.

Actions

A series of actions require implementation for the Shire of Dowerin LGA to effectively leverage the economic opportunities identified above. The actions listed below are related to increasing Dowerin's potential to attract and retain population.

A series of actions require implementation for the Shire of Dowerin LGA to effectively leverage the economic opportunities identified above. The actions listed below are related to increasing Dowerin's potential to attract and retain population.

- Three industrial workshops are scheduled to be built on Council owned land in 2014/2015 with the aim of attracting new residents and businesses to the town. Further industrial expansion is currently limited with very few lots available. There is suitable freehold land north of the town and re-zoning may need to be considered.
- Better quality retail space is required in town as many aging buildings require upgrading. This will complement the recent expansion of the IGA and investment in office accommodation. The shire is in the strategic planning stages of redeveloping the only vacant site - the corner of Stewart Street and the main highway.
- The Wheatbelt Work Camp has been established with 2 staff and 20 inmates. The shire acknowledges the positive economic multipliers this is producing for Dowerin and neighbouring towns, including community work at the cemetery, golf club, museum, church gardens, and Dowerin Field Days.
- Finalise co-location of community club facilities (includes tennis, bowls, cricket and football)
- Continue to participate with project partners to progress the Wheatbelt Heritage Rail Project as a tourism initiative.

GOOMALLING

Context

Goomalling is situated approximately 130km north east of Perth via Toodyay, and enjoys a high level of connectivity to surrounding sub-regional centres by virtue of its location at the junction of a number of key road routes (including Goomalling Road, Goomalling-Toodyay Road, Wongan Road and Goomalling-Wyalkatchem Road). The shire currently has a population of 1,063 which is 3.9% of the Avon total.

It was gazetted as a township in 1903, a year after the railway line from Northam was officially opened. A unique local feature is the town's four large grain storage domes - the only ones of their type in the Southern Hemisphere.

Goomalling is actively involved with the tourism sector, and has joined with other towns to assist with the development of the Wheatbelt Heritage Rail Trail tourism project. The shire has invested in its caravan park which has resulted in its auspicious reputation amongst caravan and motorhome clubs. This has led to a large increase in numbers of tourists to the town.

The Shire of Goomalling sees its role in the Avon as providing complementary health and accommodation services to Northam and the Avon Sub-Region. The Shire is working on maintaining and adding to its current health care services and aged care accommodation. It is also supporting light industry attraction and leveraging off the Wheatbelt Heritage Rail Trail project and further developing its popular caravan park.

Characteristics

The Goomalling LGA has the following characteristics:

- An estimated residential population of 1,063 persons in 2011 - 10% higher than the estimated 966 residents in 2001. The WA Planning Commission forecasts this trend to continue (and accelerate) over the next decade, growing a further 13% to 1,200 people in 2021. The economic analysis undertaken in the SuperTowns planning justifies a sub-regional population of 50,000 by 2030 subject to favourable economic conditions. Analysis of existing capacity of individual communities to grow as well as their competitive advantage has resulted in a proposed population distribution of 2,000 residents in Goomalling (equating to an annual growth rate of 6.5%).
- A significant proportion of the population (23.4%) is aged 14 years or younger – much higher than in the Perth Metropolitan Region (18.6%) and WA (19.7%) average. 17.4% of the population is aged over 65 years, which again is significantly higher than the WA average (12.3%). Consistent with other sub-regional LGAs and the majority of WA, Goomalling is expected to experience significant ageing in the population over the coming decades, with 22% of the population predicted to be aged over 65 years in 2021, and 24% in 2031.
- Median personal income levels (\$24,804) are in line with the sub-regional average (\$24,851). A household income growth rate of just over 4.6% per annum over the period 2001 to 2011 was higher than a number of other sub-regional LGAs, although much lower than the WA average (at over 6% per annum).
- From a relatively low price base of \$86,000 in 2006, median house prices grew by over 80% to \$155,000 in 2011. This is significantly higher than the average growth rates of the wider Avon Sub-Region (22.5%) and the State (15.2%), although significant variation was experienced

across the different LGAs depending on base price levels. This rapid house price growth, coupled with moderate income growth, has seen a slight reduction in housing affordability whilst remaining relatively more affordable (with a house price to income ratio of 3.5) compared to a number of other sub-regional LGAs

- Goomalling's economy is largely driven by agricultural production, which accounted for 49% of registered businesses in 2009. The Shire comprises some 173,092 ha of agricultural land holdings (accounting for 10% of the Sub-Regional total area of agricultural holdings), generating approximately \$51.5M in production value per annum (approximately 12% of the Sub-Region total). On a per hectare basis, Goomalling generates slightly more production value (\$297/ha) than the sub-regional average (\$254/ha), owing to variations in crop types and yield volumes.
- Manufacturing, transport & logistics accounts for 9.6% of local businesses (the highest percentage share in the Avon), and the 199,535ha of zoned industrial land in the LGA represents 7% of the sub-regional total. This industrial land supply is currently being developed by the Shire up to Cemetery Rd along Goomalling Wyalkatchem Road. Timing and coordination of land release is dependent on land assembly, lot sizing and target industries.
- Goomalling also plays a local health and community service role, with Goomalling Hospital (12 beds) and Goomalling Primary School (60 students) providing local public services in addition to the privately operated Sacred Heart Catholic School and Goomalling Gumnuts Child Care Centre.

Economic Opportunities

The following economic opportunities have been identified:

Broadacre Agriculture

As expected, broadacre agriculture represents the most distributed economic opportunity in the Avon and is likely to remain the foundation industry of the sub-region in the medium and long-term. This is the case for Goomalling, which will continue to serve a primary production role given the large amount of agricultural land available, high cropping yields, and local support infrastructure (e.g. grain storage domes).

Transport & Industry

There exist strong drivers supporting transport, logistics and light industry investment and activity in the Avon sub-region, with spatial analysis identifying a "ring" of industrial opportunities comprising Northam, York, Quairading, Cunderdin, Dowerin and Goomalling. In the case of Goomalling, the opportunity exists to further develop its role as a secondary industrial node by capitalising on its strong transport links, existing grain storage and logistics infrastructure, and existing supply of industrial zoned land. This will assist in providing further industrial land choice and offering localised agricultural production transport and logistics services.

Health & Aged Care

The distribution of economic opportunities in health and aged care is primarily determined by a combination of current and short-term population ageing and the distribution of existing health facilities. Although relatively close to Northam, there are opportunities to leverage Goomalling's existing health facilities to provide convenient and flexible health services to all age cohorts, particularly older residents (including specialised health services such as dementia care).

Retail & Lifestyle

Outside of Northam, York, Beverley and Toodyay, the size and quality of convenience retail offering will be dependent on achieving a critical mass of population to both service (labour) and support (product demand) this activity. Goomalling is projected to continue and accelerate the population growth experienced over the last decade, and in this regard, opportunities may present themselves (particularly if local industrial/logistics and health/aged care activity increases) to further develop Goomalling as a secondary centre of local convenience retail. There has been recent interest and investment in the main street of town with a local furniture producer making home and office furniture from Australian timbers soon moving their showroom to the main street. This business already has a considerable international market.

Tourism

There is a strong spatial relationship between retail and tourism opportunities, reflecting the role that lifestyle, amenity and Perth proximity drivers play in the distribution of this economic activity. While it is expected that the daytrip market will continue to dominate local tourism activity (particularly in Toodyay, Northam, York and Beverley), there are good opportunities for Goomalling to capture a greater share of “Grey Nomad” domestic tourism due to its level of accessibility and existing accommodation facilities.

The Shire of Goomalling, in partnership with the shires of Dowerin and Wyalkatchem, are implementing the Wheatbelt Heritage Rail Project as discussed above. As part of the restoration of historic steam locomotives and rolling stock, this project linked to the Alternative Learning for Youth program. This involved a number of youth from across the Wheatbelt participating in the restoration of rail infrastructure and completing a Certificate I in Leadership.

Actions

A series of actions require implementation for the Shire of Goomalling LGA to effectively leverage the economic opportunities identified above. The actions listed below are related to increasing Goomalling’s attractiveness to tourists and permanent residents, and removing constraints to population expansion.

- There is zoned industrial land available in Goomalling, however land assembly is required, including addressing Native Title. Analysis of costs associated with expanding utility services is also required.
- The shire is working with government agencies to expand their dementia services. With an already strong competitive advantage, aged care is seen to be a strong opportunity for Goomalling. Sub-regional aged care planning will identify opportunities for Goomalling.
- New housing stock has been built by Council in James St and Throssell St in order to attract new residents. These are all leased and occupied. There are further lots available for development, which is being considered by Council, particularly for independent aged accommodation.
- The shire supports the *Living Communities Economic Development Program*. Development and training of young people in governance and leadership is a priority.
- Approximately \$1m has already been invested in improvements to the caravan park, which is has growing occupancy rates. 20 acres of land has been set aside for further

development of not only chalet type accommodation, but more area and facilities for the RV market that Goomalling has captured.

- Continue to participate with project partners to progress the Wheatbelt Heritage Rail Project as a tourism initiative.

Goomalling has a very clear vision of projects in tourism, aged care and light industry development, all of which are consistent with the economic analysis for this area. This analysis supports investment in these sectors as providing the greatest value add for Goomalling.

Koorda

Context

Koorda is located 236 kilometres northeast of Perth, approximately two and a half hour's drive, and is situated at the north eastern end of Cowcowing Lakes. A railway north and east from Wyalkatchem was gazetted in 1917 to serve the farmers settling in the area, with a townsite eventually growing around the Koorda railway siding and workers' camp.

Now a community of approximately 480 people, the area hosts a number of community events throughout the year and is a popular destination for viewing wildflowers, particularly between July and October, with the small red *Darwinia Rosea* commonly referred to as the 'Koorda Rose'.

In the future Koorda sees potential for small growth due to the affordability of houses in the area. The Shire is keen to attract new businesses to the town and is investigating light industrial land development for agriculture or transport related industries. Koorda is also earmarked for investment in telecommunications including a new mobile phone tower and NBN fixed wireless.

Characteristics

The Koorda LGA has the following characteristics:

- An estimated residential population of 480 persons in 2011 – 1.6% lower than the estimated 488 residents in 2001. This represents approximately 1.8% of the total Avon Sub-Region, and is the second smallest LGA population behind Tammin (404). The WA Planning Commission forecasts slight population growth over the next decade, growing some 4% to 500 people in 2021. The economic analysis undertaken in the SuperTowns planning justifies a sub-regional population of 50,000 by 2030 subject to favourable economic conditions. Analysis of existing capacity of individual communities to grow as well as their competitive advantage has resulted in a proposed similar population growth rate for Koorda (with an annual growth rate of 0.4%).
- 23.3% of the estimated residential population is aged 14 years or younger – much higher than the Perth Metropolitan Region (18.6%) and WA (19.7%) average. 16.5% of the population is aged over 65 years, which again is higher than the WA average (12.3%). Although many other sub-regional LGAs are expected to experience significant population ageing over the coming decades, Koorda is set to see a reduction in the proportion of people aged over 65 years, stabilising at 15% in 2021. The proportion of persons aged under 15 years however, is set to increase significantly, to 27% in 2021 and 28% in 2031.
- Median personal income levels (\$26,104) are slightly higher than the sub-regional average (\$24,851). A household income growth rate of just over 3.8% per annum over the period 2001 to 2011 was broadly in line with the sub-regional average, although much lower than the state average (at over 6% per annum).
- From a price base of \$60,000 in 2006, median house prices grew by 29.2% to \$77,500 in 2011 (the second lowest median house price in the sub-region after Tammin). This is somewhat less than average growth rates across the wider Avon Sub-Region (22.5%) but higher than the State average (15.2%), although significant variation was experienced across the different LGAs depending on base price levels (with Koorda starting from much lower base than many other LGAs). Current household income levels and house prices indicate that Koorda is the second most affordable LGA in the sub-region, with a house price to income ratio of only

1.72 (the lowest being Tammin at 1.49). This ratio is significantly lower than the WA average of 5.98.

- Agriculture remains the primary driver of Koorda's economy, accounting for 70% of registered businesses in 2009. The Shire has the largest area of agricultural land holdings in the sub-region with some 250,065 ha (accounting for 15% of the Sub-Regional total area of agricultural holdings), which generates approximately \$36.6M in production value per annum (approximately 8% of the Sub-Region). On a per hectare basis however, Koorda has the lowest rate of agricultural production value in the sub-region (\$146/ha), owing to variations in crop types and yield volumes.
- Koorda also plays a tertiary industrial role in the sub-region, with manufacturing, transport & logistics accounting for 3.8% of local businesses. The 182,001ha of zoned industrial land in the LGA represents 7% of the sub-regional total.
- Given its peripheral location, small population and relative distance to other centres, Koorda is not a key supplier of sub-regional health and other community services. Local services and facilities include Koorda Primary School (45-50 students), swimming pool, men's community shed and local sporting facilities.

Economic Opportunities

The following economic opportunities have been identified:

Broadacre Agriculture

Broadacre agriculture represents the most distributed economic opportunity in the Avon and is likely to remain the foundation industry of the sub-region in the medium and long-term. Given its current agricultural role and location/distance relative to Perth and other towns, Koorda will most likely continue to rely on agricultural production as its primary economic driver (as opposed to other Avon LGAs that draw advantage from closer proximity to Perth). Opportunities to leverage continued R&D investments to diversify crops mix need to be investigated to help improve the sustainability of agricultural production, particularly in Koorda where production rates are significantly lower other LGAs.

(Note: Given Koorda's peripheral location in the Avon and local characteristics, its competitive advantages are considered more akin with communities in the Central East Sub-Region of the Wheatbelt. It is therefore recommended that Koorda also be included in sub-regional economic analysis for the Central East sub-region, allowing for more detailed and targeted actions and recommendations to be developed).

Actions

A series of actions require implementation for the Shire of Koorda LGA to effectively leverage the economic opportunities identified above. The Shire's vision of pursuing small growth around agriculture and transport related small businesses is supported by this economic analysis. Pursuing creative population attraction initiatives to capitalise on affordable housing is also consistent with these findings.

The actions listed below are related to increasing Koorda's offering of broadacre agriculture and related agriculture support industries, as well as removing constraints to expansion in these areas:

- Industrial land in Koorda is not serviced will need to be addressed if industry investment is to expand.

- Further development of initiatives to maximise the benefits of affordable housing.

Northam

Context

The Shire of Northam is a local government area located in the Wheatbelt region of Western Australia. The shire covers an area of approximately 1430km² and has a population of 11,516 people, (42.1% of the Avon population). The Shire of Northam contains the localities of Bakers Hill, Clackline, Grass Valley, Northam, Spencers Brook and Wundowie. The administrative centre of the shire is the town of Northam which is located approximately 96km north east of Perth.

The townsite of Northam was first gazetted in 1836 and is the focal point for important rail and road links to Eastern Australia. Northam was established originally as a farming area, and was further developed with the advent of the Kalgoorlie pipeline and construction of rail linkages. Large army bases were established in Northam during World War I & II and an Australian General Hospital was built in 1941 to accommodate wounded troops from both Australia & America. This hospital provided temporary accommodation for thousands of European migrants and refugees, many of which settled in Northam following the war. Today the Shire of Northam is the most populous shire in the Wheatbelt and as such plays an important role in the sub-region, acting as a service centre for surrounding towns and communities in the Avon.

The Shire of Northam has a comprehensive Growth Plan that resulted from the SuperTowns planning process with a vision to be the Avon's regional service centre. Northam has identified professional services and light/medium industry as key focus areas to drive population growth and economic development.

Characteristics

The Shire LGA has the following characteristics:

- An estimated residential population of 11,516 persons in 2011 – 12.4% higher than the estimated 10,243 residents in 2001. The WA Planning Commission forecasts this trend to continue (and accelerate) over the next decade, increasing a further 19% to 13,700 people in 2021. The economic analysis undertaken in the SuperTowns planning justifies a sub-regional population of 50,000 by 2030 subject to favourable economic conditions. Analysis of existing capacity of individual communities to grow as well as their competitive advantage has resulted in a proposed population distribution of 16,000 residents in Northam (equating to an annual growth rate of 3.3%).
- A significant proportion of the population (21.7%) is aged 14 years or younger – higher than in the Perth Metropolitan Region (18.6%) and WA (19.7%) average. 15.2% of the population is aged over 65 years, which again is higher than the WA average (12.3%).
- Median personal income levels (\$26,884) are above the sub-regional average (\$24,851).
- From a higher than average price base of \$205,000 in 2006, median house prices grew by 15.9% to \$237,500 in 2011. This growth is lower than the average rates experienced in the wider Avon Sub-Region (22.5%) and approximately on par with the State growth (15.2%), although significant variation was experienced across the different LGAs depending on base price levels. This house price growth, coupled with moderate income growth, has seen a reduction in housing affordability, though it remains relatively affordable (with a house price to income ratio of 4.54) compared to a number of other sub-regional LGAs such as York (6.41) and Toodyay (5.99).

- Broadacre agriculture is a significant economic contributor in Northam, however not to the degree to which it is in other shires in the subregion, with Northam relying on a number of sectors contributing to the local economy. Agricultural businesses in Northam account for 21% of businesses and some 106,159 ha of land (representing 6% of the Avon total area of agricultural holdings). Northam generates approximately \$32.9M in agricultural production value per annum (approximately 8% of the sub-region total). When considered on a per hectare basis, Northam generates a higher production value (\$310/ha) than the sub-regional average (\$254/ha), owing to variations in crop types and yield volumes.
- Manufacturing, Transport and Logistics, along with Retail, are secondary industries in Northam, with each accounting for 7.6% and 9.6% respectively of local businesses. There is 1,260,013ha of available zoned industrial land supply in Northam, which represents 46% of the industrially zoned land available in the sub-region.
- The Northam Hospital (30 beds), Primary Schools (1,086 students), Secondary School (589 students) and C.Y. O'Connor Institute all provide important regional health and educational services for residents in the subregion.

Economic Opportunities

The following economic opportunities have been identified:

Broadacre Agriculture

Broadacre agriculture represents the most distributed economic opportunity in the Avon and is likely to remain the foundation industry of the sub-region in the medium and long-term. For Northam, agricultural production as an economic driver will reduce in significance as the Shire augments its role as the sub-regional service centre for the Avon. Broadacre agriculture whilst reducing in prominence as an economic driver is anticipated to continue as a significant contributor to the economy, given the large amount of agricultural land available, high cropping yields, and local support infrastructure.

Transport and Industry

There exist strong drivers supporting transport, logistics and light industry investment and activity in the Avon sub-region, with spatial analysis identifying a “ring” of industrial opportunities comprising Northam, York, Quairading, Cunderdin, Dowerin and Goomalling. Northam is placed to take best advantage of this, with a large area of light industrial land available in the town, and the close proximity of the Avon Industrial Park (general industrial land). The Avon Industrial Park is anticipated to be a major economic driver in the area into the future, with the potential of attracting a large number of businesses to the sub-region and creating employment opportunities for more than 2,500 people.

Health and Aged Care

Northam is expected to become the primary health and aged care centre for the Avon, following on from its role as the service centre of the sub-region. The expansion of the Avon Emergency Services and Health Precinct will allow for greater level of regional health services, as well as allowing for specialist services to be available in the region.

Retail & Lifestyle

As the centre of the sub-regional retail network Northam has the largest retail offering, and will be increasingly able to provide a variety of retail offerings unavailable outside of Perth. The size and quality of convenience retail offering will be able to increase as Northam grows, and will support the sub-regional retail network's ability to cater for needs of the population of the Avon and the broader Wheatbelt region. Northam's ability to enhance its retail offering will be dependent on the continuing expansion of population, and particularly the attraction of working age people to the town.

Tourism

There is a strong spatial relationship between retail and tourism opportunities, reflecting the role that lifestyle, amenity and proximity to Perth play in the distribution of this economic activity. Northam as one of the closest towns in the sub-region to Perth, has capitalised on its proximity to Perth by encouraging a high level of daytrip visitors to the area. While it is important for Northam to continue encouraging daytrip visitors to the area, the increasing quality and quantity of accommodation in the town allows Northam the opportunity to increase its capture of overnight visitors.

Actions

A series of actions require implementation for the Shire of Northam LGA to effectively leverage the economic opportunities identified above. There are a large range of projects highlighted in the SuperTowns Growth Plan (available from: www.northam.wa.gov.au). The first two funded through this process relate to developing the first stage of a new Avon Health and Community Services Precinct on the land adjacent to the existing Northam Regional Hospital site and undertaking environmental improvements to the Avon River, specifically drainage and run off management associated with the Avon River Town Pool revitalisation. Development of light industry and land assembly in Northam's west end are current priorities along with consolidation of the town's office space. Northam's priority projects are all consistent with the economic analysis, resulting from extensive local and regional planning.

Quairading

Context

The Shire of Quairading covers an area of approximately 2,040 km² and has a population of 1,108 people, which is 4.0% of the Avon population. Included in the Shire of Quairading are the localities of Quairading, Pantapin, Yoting, Badjaling, South Caroling, Wamenusking, Dangin, Balkuling and Doodennanning. The town of Quairading is the administrative centre of the Shire, and is located approximately 170km east of Perth on the York-Merredin Road.

The Shire of Quairading was first recognised as an agricultural area in the early 1860's and developed as a rural centre for the wheat and sheep industry. The town of Quairading was gazetted in 1907, with rail transport infrastructure developed a year later which facilitated further development of the Shire for farming.

The local economy of the Shire of Quairading has retained its reliance on agriculture as its primary economic driver, with much of the light industrial activity there based on supporting the agricultural industry. The Shire and community is also looking towards development of Quairading as a centre for health and aged care services, which will support the movement of the shire's aging population from rural farming properties into serviced retiree accommodation. Quairading has also been popular with self funded retirees from other areas seeking a country lifestyle.

Visions for the future of Quairading include further development of agricultural service industries, development of high quality and regionally significant health and aged care services to build on its current attractiveness for the healthy aged and encourage waste recycling for the surrounding sub-regions.

Characteristics

The Shire of Quairading LGA has the following characteristics:

- An estimated residential population of 1,108 persons in 2011 – 2.4% lower than the estimated 1,135 residents in 2001. The WA Planning Commission forecasts the population to decrease by 1% to 1,100 people in 2021. The economic analysis undertaken in the SuperTowns planning justifies a sub-regional population of 50,000 by 2030 subject to favourable economic conditions. Analysis of individual communities' existing capacity to grow as well as their competitive advantage has resulted in a proposed population distribution of 1,600 residents in Quairading (equating to an annual growth rate of 3.7%).
- A significant proportion of the population (19.8%) is aged 14 years or younger – consistent with the Avon (20.9%), Perth Metropolitan Region (18.6%) and WA (19.7%) averages. 21.4% of the population is aged over 65 years, which almost double that of the WA average (12.3%), and considerably greater than the sub-regional average (17.1%). Quairading had a relatively high fertility rate of 3.76 children in 2010 – much higher than replacement levels (2.1) and the sub-regional average (2.59). Quairading also has a significantly higher indigenous population percentage of total population when compared to the State average.
- Median personal income levels (\$25,324) are slightly higher than the sub-regional average (\$24,851).
- From a low price base of \$109,500 in 2006, median house prices grew by 96.3% to \$215,000 in 2011. This is drastically higher than the average growth rates of the wider Avon Sub-Region (22.5%) and the State (15.2%), although significant variation was experienced across the

different LGAs depending on base price levels. This large house price growth, coupled with negative income growth, has seen Quairading become more unaffordable (with a house price to income ratio of 4.86) when compared to the sub-regional average (3.92). This may be related to an increasing self-funded retiree population.

- Broad acre agriculture is Quairading's primary economic contributor, accounting for 70% of businesses and some 189,393 ha of land (11% of the Avon's total area of agricultural land holdings). Quairading generates approximately \$47M in agricultural production value per annum (approximately 11% of the Sub-Region's total). When considered on a per hectare basis, Quairading generates slightly less production value (\$248/ha) than the Sub-Regional average (\$254/ha), owing to variations in crop types and yield volumes. The economic importance of agriculture in Quairading is also underlined by an employment self sufficiency rate of 90% (in 2006).
- Manufacturing, Transport and Logistics is a secondary industry in Quairading, accounting for 4.1% of local businesses. Quairading is seeking to attract manufacturing and fabrication industry that supports its agricultural base.
- The Quairading Hospital (14 beds including aged care), Frail Aged Lodge (7 beds), Shire of Medical Centre and District High School (169 students) provide important health and educational services for local residents.

Economic Opportunities

The following economic opportunities have been identified:

Broadacre Agriculture

Broadacre agriculture represents the most distributed economic opportunity in the Avon and is likely to remain the foundation industry of the sub-region in the medium and long-term. This is the case for Quairading, which will continue to serve a primary agricultural production role given its relative distance from Perth, (compared to other Avon LGAs that draw advantage from closer proximity to Perth), local support infrastructure and large area of productive agricultural land holdings. Opportunities to leverage Quairading's broadacre agriculture include continued R&D investments to improve sustainability of agricultural production in the region.

Transport and Industry

There exists strong drivers supporting transport, logistics and light industry investment and activity in the Avon sub-region, with spatial analysis identifying a "ring" of industrial opportunities comprising Northam, York, Quairading, Cunderdin, Dowerin and Goomalling. Quairading's position as part of this "ring" provides it with the opportunity to further develop its transport and logistics sector, and to work in coordination with the other shires connected in the "ring". Quairading's large industrial zone landholdings (9% of the Avon's total) provide opportune conditions for the development of the transport and industry sector within the LGA. Recent interest in agricultural equipment manufacturing has created a focus for Quairading.

Health and Aged Care (Potential Opportunity)

The distribution of economic opportunities in health and aged care is primarily determined by a combination of current and short-term population ageing and the distribution of existing health facilities. Quairading's distance from Northam (which will become the primary provider of health and aged care in the sub-region), provides the opportunity to expand its existing extensive

healthcare facilities to provide convenient and flexible health services to all age cohorts, particularly older residents (including specialised aged care accommodation, such as aged care lodges and independent living units). Quairading has proven attractive for the healthy aged and needs to plan now to cater for these residents as they age over the next 10 years.

The economic analysis supports Quairading's vision of attracting agriculture support industries and aged care developments.

Actions

A series of actions require implementation for the Shire of Quairading LGA to effectively lever the economic opportunities identified above. The actions listed below are related to increasing Quairading's attractiveness to potential residents, and allowing for industrial activity to develop unhindered.

- A shortage of industrial land in Quairading has been identified and as such, development of industrial lots is required in order to cater for future light industry expansion and investment in the agricultural support sector.
- Expansion of the current recycling facilities should be planned, and funding sought, in order to increase the reach and economic viability of the recycling services offered in Quairading to include more towns, thereby reducing reliance on landfill services in the Wheatbelt. The facility currently services Quairading, Corrigin, Kondinin, Kulin, Hyden, Narembeen and once a fortnight, Merredin. Stage 2 would look to expand regular services to Cunderdin, Tammin, Bruce Rock, Beverley and Merredin.
- Restoration of current retail floor space is required to attract businesses to open in the available premises, and to improve the overall retail offering of the town.
- Planning for the redevelopment and upgrade of the Quairading caravan park needs to be undertaken, with consideration given towards providing independent living units to cater towards semi-permanent workers style accommodation. The concept design phase is complete and the Shire of Quairading is now proceeding to design costings for business case preparation.
- The unreliability of the power supply in Quairading requires investigation, with the town experiencing a number of blackouts and surges each year, especially in summer. A capacity survey and staged plan for infrastructure investment is recommended to allow for appropriate improvements in infrastructure in line with population and industry expansion. There is a current issue with power costs for a large industry investor.
- An investigation of mobile coverage to the east and south of the town is required, with a feasibility plan recommended to identify the merits of the introduction of an additional phone tower to improve poor coverage, thought to be the result of undulating topography.
- Increased infill of the sewerage system is required in order to connect the remaining 20-40% of the town currently connected to septic sewerage systems.
- Development of a retiree style independent living accommodation should be maximised to cater not only to retiree population in the shire, but to cater for retirees in the wider region and even Perth who are seeking high quality affordable retirement accommodation

- Work with aged care providers to minimise constraints to private investment in this sector.

Tammin

Context

The Shire of Tammin covers an area of approximately 1,090km² and has a population of 446 people (1.6% of the Avon population). The shire contains the localities of Bungulla, Tammin and Yorkrakine. The administrative centre of the shire is the town of Tammin which is located approximately 184km east of Perth.

Tammin was first settled in 1893 and was gazetted in 1899. Settlement of the area for farming increased upon Tammin's connection onto the Goldfields water pipeline and the railway line to Kalgoorlie. Tammin has remained a farming area and has relied upon broadacre farming as its primary economic driver.

Tammin's vision as a future transport and logistics hub involves the development of industries and business which capitalises on Tammin's geographic advantage relative to transportation routes (Great Eastern Highway and the east-west standard gauge rail). This has recently included interest by a grain exporting company and expansion of an abattoir business in the area. The Shire of Tammin is undertaking an industrial land subdivision and is investigating ways to provide cost effective worker accommodation to ensure labour force does not become a constraint to any development

Characteristics

The Shire of Tammin LGA has the following characteristics:

- An estimated residential population of 446 persons in 2011 – 1.6% higher than the estimated 441 residents in 2001. The WA Planning Commission forecasts the population to decrease by 28% to 320 people in 2021. However, the economic analysis undertaken in the SuperTown's planning justifies a sub-regional population of 50,000 by 2030 subject to favourable economic conditions. Analysis of existing capacity of individual communities to grow as well as their competitive advantage has resulted in a proposed population distribution of 500 residents in Tammin (equating to an annual growth rate of 1.1%).
- A significant proportion of the population (25.7%) is aged 14 years or younger – much higher than in the Avon (20.9%), Perth Metropolitan Region (18.6%) and WA (19.7%) average. 14.4% of the population is aged over 65 years, which slightly higher than the WA average (12.3%) but smaller than the subregional average (17.1%). Tammin had a relatively high fertility rate of 3.79 children in 2010 – much higher than replacement levels (2.1) and the sub-regional average (2.59).
- From a low price base of \$73,500 in 2006, median house prices grew by only 0.7% to \$74,000 in 2011. This is exceptionally lower than the average growth rates of the wider Avon Sub-Region (22.5%) and the State (15.2%), although significant variation was experienced across the different LGAs depending on base price levels. This house price growth, relative to income growth, has seen Tammin become one of the most affordable areas for housing (with a house price to income ratio of 1.49) when compared to the sub-regional average (3.92) and especially so when compared with other much less affordable LGAs such as York (6.41) and Toodyay (5.99).
- Broadacre agriculture is Tammin's primary economic contributor, accounting for 73% of businesses and some 109,799ha of land (representing 6% of the Avon total area of agricultural holdings). Tammin generates approximately \$26.8M in agricultural production value per

annum (approximately 6% of the sub-region total). When considered on a per hectare basis, Tammin generates slightly less production value (\$244/ha) than the sub-regional average (\$254/ha), owing to variations in crop types and yield volumes. The economic importance of agriculture in Tammin is also underlined by an employment self sufficiency rate of 111% (in 2006).

- Manufacturing, Transport and Logistics, along with Retail, are secondary industries in Tammin, with each accounting for 4.5% of local businesses.

Economic Opportunities

The following economic opportunities have been identified:

Broadacre Agriculture

Broadacre agriculture represents the most distributed economic opportunity in the Avon and is likely to remain the foundation industry of the sub-region in the medium and long-term. This is the case for Tammin, which will continue to serve a primary agricultural production role given its relative distance from Perth (compared to other Avon LGAs that draw advantage from closer proximity to Perth). Opportunities to lever continued R&D investments to diversify crops mix need to be investigated to help improve the sustainability of agricultural production in the region.

Transport and Industry (Potential Opportunity for Advantage)

There exist strong drivers supporting transport, logistics and light industry investment and activity in the Avon sub-region, with spatial analysis identifying a “ring” of industrial opportunities comprising Northam, York, Quairading, Cunderdin, Dowerin and Goomalling. Although Tammin is outside of this ring, the shire has potential to further develop transport and logistics due to its geographic location on the Great Eastern Highway, access to freight railway lines and the ‘Prospector’ passenger railway line. These transport advantages may assist Tammin to attract small to medium industry to the area. The abattoir located in the Shire of Tammin has recently expanded its operations and operates with a local and international (457 visa) workforce. There is also recent private interest in grain export investment. Such ventures (e.g. feedlot, abattoir, grain export) support growth in the secondary agricultural processing sector in Tammin.

Actions

A series of actions require implementation for the Shire of Tammin LGA to effectively lever the economic opportunities identified above. The actions listed below are related to increasing Tammin’s potential to expand as a transport and logistics hub, potential for population expansion and potential for development of servicing industries for the agricultural industry.

- Investigation of residential and industrial development options and servicing requirements (e.g. capacity for additional power connections) for the 50 ha site currently used for fundraising farming.
- Deep sewerage and waste water management feasibility study needs to be undertaken to identify the economic viability of connecting the town to deep sewerage. There are opportunities to explore innovative water treatment options for commercial and industrial areas in partnership with the Department of Environment and Conservation, Water Corporation, and the Department of Health.
- Further investigation and development of worker accommodation options is required particularly given the high itinerate workforce associated with the secondary agricultural

processing sector. There may be options associated with future expansions of Tamma Village and caravan park.

The determined economic drivers are consistent with Tammin's vision to make serviced land available for industry development and worker housing.

Shire of Toodyay

Context

The Shire of Toodyay covers an area of approximately 1,680km² and has a population of 4,767 people (17.4% of the Avon population). The shire contains the localities of Bejoording, Bindoon Training Area, Coondle, Culham, Dewars Pool, Dumbarton, Hoddy's Well, Julimar, Moondyne, Morangup, Nunile, Toodyay, Wattening and West Toodyay. The administrative centre of the shire is the town of Toodyay which is located approximately 85km north east of Perth.

Though the shire of Toodyay was originally established as a farming area dating back to 1830, over time broadacre agriculture has become less significant in Toodyay's overall economic profile in comparison to the Avon as a whole. The local economy is now primarily based on the tourism, retail and lifestyle sectors. The appeal of Toodyay's heritage buildings and natural amenity has resulted in large visitor numbers and 'tree changers' moving to the area. Localised retail developments have ensued in response to visitation to the town and increasing population.

Toodyay's visions for the shire's future include increased tourism activity, improved lifestyle for residents with a focus on recreation amenities, and the promotion of the town as a naturally beautiful and environmentally sensitive 'green' shire. There has been a heavy emphasis on triple bottom line in regards to development within the shire, with consideration of environmental protection especially prominent. The Shire of Toodyay does not see larger/higher use industrial activity being prominent in the town (which could be directed to neighbouring communities e.g. Goomalling) and is actively promoting the attraction of local service industries which compliment the Shire's focus on sustainability, heritage value and natural beauty.

Characteristics

The Shire of Toodyay LGA has the following characteristics:

- An estimated residential population of 4,767 persons in 2011 – 17.2% higher than the estimated 4,068 residents in 2001. The WA Planning Commission forecasts this trend to continue (and accelerate slightly) over the next decade, increasing a further 22% to 5,800 people in 2021. The economic analysis undertaken in the SuperTowns planning justifies a sub-regional population of 50,000 by 2030 subject to favourable economic conditions. Analysis of existing capacity of individual communities to grow as well as their competitive advantage has resulted in a proposed population distribution of 8,000 residents in Toodyay (equating to an annual growth rate of 5.3%).
- A significant proportion of the population (18%) is aged 14 years or younger, which is similar to averages in the Avon (20.9%), Perth Metropolitan Region (18.6%) and WA (19.7%). 15.8% of the population is aged over 65 years, which is higher than the WA average (12.3%).
- From a high price base of \$305,500 in 2006, median house prices grew only by 3.1% from 2006 to 2011 to reach a median house price of \$315,000 in 2011. This is far lower than the average growth rates of the wider Avon Sub-Region (22.5%) and the State (15.2%), which may be attributed to the high base price in 2006, and large quantity of unoccupied dwelling stock (494 dwellings or 23.1% of dwelling stock). There has seen a significant reduction in housing affordability (house price to income ratio of 5.99) in Toodyay, compared to the sub-regional average (3.92). York (6.41) is the only other Avon LGA with comparatively low affordability.

- Toodyay generates approximately \$21.9M in agricultural production value per annum (approximately 5% of the Sub-Region). When considered on a per hectare basis, Toodyay generates slightly less production value (\$241/ha) than the sub-regional average (\$254/ha), owing to variations in crop types and yield volumes.
- Manufacturing, Transport and Logistics, along with Retail, are secondary industries in Toodyay, with each accounting for 9.5% and 2.9% of local businesses respectively. The shire Council supports locally servicing light industry, with the majority of light industry development in this area being based in Goomalling.

Economic Opportunities

The following economic opportunities have been identified:

Retail and Lifestyle

The sub-regional retail network is and will continue to be centred on Northam; however the role of Toodyay is highly significant due to its large retail offering supported by a critical mass of population to both service (labour) and support (product demand) this activity. As such Toodyay has a demand generated by population and visitor growth which has allowed for a substantial level of localised retail activity. The rising demand generated by increasing population and visitor growth will provide opportunities for further expand Toodyay's retail activity. Toodyay is actively pursuing and promoting itself as a lifestyle destination and has a significant drive-in/drive-out population both working in Perth and living in Toodyay, and working in Toodyay and living in Perth. Toodyay is also the closest town in the Avon to Perth serviced by passenger rail. There is also a considerable commuter population with neighbouring Avon communities.

Tourism

There is a strong spatial relationship between retail and tourism opportunities, reflecting the role that lifestyle, amenity and proximity to Perth play in the distribution of this economic activity. Toodyay's proximity to the Perth has encouraged daytrip tourists to the shire (daytrip share of visitor numbers are 84% for 2006-2011). As such, the daytrip market is expected to continue to dominate local tourism activity in coordination with Northam, York and Beverley. Toodyay is committed to taking advantage of the natural amenity, increasing environmental awareness and heritage of the town to attract tourists to the shire.

Health and Aged Care (Potential Opportunity for Advantage)

The distribution of economic opportunities in health and aged care is primarily determined by a combination of current and short-term population ageing and the distribution of existing health facilities. Although relatively close to Northam and its facilities, there are opportunities to develop health and aged care services in Toodyay in order to provide for the aging population, and also to support retiree aged 'tree changers' moving into the shire.

Actions

A series of actions require implementation for the Shire of Toodyay LGA to effectively leverage the economic opportunities identified above. The actions listed below are related to increasing Toodyay's attractiveness to visitors, 'tree changers' and current residents.

- Investigation of funding options for the coordinated development of recreation facilities. The development of plans for the recreation centre have been undertaken and extensively researched in terms of the demands in the shire.

- Investigation of office space availability and feasibility of construction is required to address strong demand for office space in Toodyay. This will need to also include opportunities for consolidation of office space currently occupied as well as refurbishment possibilities of suitable spaces currently being used.
- Development of a 'green focused' policy and planning for the town in order to facilitate the establishment of an environmentally sensitive town. This needs to include the feasibility study of Toodyay's capacity to provide regional recycling services, drainage capacity and also possibility of processing and reusing waste water.
- Investigation of feasibility of expansion of the town's sewerage scheme is required to increase the deep sewerage allocation.
- Investigation of possible routes for a bypass of the town to protect heritage and environmental value of the town.
- Strategic investment in potable water infrastructure to facilitate residential land release and to provide areas for the development of an education and recreation precinct.
- Expansion of aged care services to include modest respite care (potential joint venture with a partnering organisation) and pathways for healthy living. Appropriate sites will need to be identified for expansion of this sector taking into consideration proximity to town centre, topography, and existing local and regional wellness plans.

WYALKATCHEM

Context

Wyalkatchem is situated 194 kilometres from Perth, and approximately 35 kilometres east of Dowerin. The townsite was gazetted along with the opening of the railway from Dowerin in 1911, with its importance growing following the addition of a north eastern branch to the rail line. The extensive railway barracks in Wyalkatchem represent one of the few intact examples of its kind in Australia and are currently used as accommodation during Dowerin Field Days and as the headquarters of a hang-gliding club.

Wheat and sheep farming are the primary industries in the district, with gypsum mining and tourism the main secondary industries. The town is home to a Cooperative Bulk Handling (CBH) receival point (which can hold nearly 120,000 tonnes of grain and crops) along with the Wyalkatchem CBH Agricultural Museum. Wyalkatchem won the WA Tidy Town award in 2000 and 2002, and was voted Australia's Tidiest Town in 2003.

The future vision for Wyalkatchem is based on the expansion of the Wyalkatchem airport, with significant investment in infrastructure envisioned as a way to anchor further industrial development and leverage potential aviation school activity. Modest entrance of younger aviation and service business workers related to its planned development are also envisioned to decrease the median age of the town and encourage young people to stay in town. Wyalkatchem is keen to contribute to the Wheatbelt Heritage Rail Project with the shires of Goomalling and Dowerin, which it hopes will encourage more visitors to the area.

Characteristics

The Wyalkatchem LGA has the following characteristics:

- An estimated residential population of 535 persons in 2011 - 20% lower than the estimated 675 residents in 2001. The WA Planning Commission forecasts this trend to continue (and accelerate) over the next decade, falling a further 35% to 350 people in 2021. The economic analysis undertaken in the SuperTowns planning justifies a sub-regional population of 50,000 by 2030 subject to favourable economic conditions. Analysis of existing capacity of individual communities to grow as well as their competitive advantage has resulted in a proposed population distribution of 800 residents in Wyalkatchem (equating to an annual growth rate of 4.1%).
- A much older demographic than many other sub-regional LGAs and WA in general, with 27.3% of the population aged over 65 years (compared to a sub-regional average of 19.3% and state average of 12.3%). Consistent with other sub-regional LGAs and the majority of WA, Wyalkatchem is expected to experience significant ageing in the population over the coming decades, with 30% of the population aged over 65 years in 2021, and 33% in 2031.
- Wyalkatchem had a relatively high fertility rate of 3.88 children in 2010 – much higher than replacement levels (2.1) and the sub-regional average (2.59).
- Wyalkatchem has experienced below average growth in household incomes over the last decade, with an average annual growth rate of just 2.2% between 2001 and 2011. This is the lowest average annual growth rate of all Avon LGAs, and is significantly lower than the State average of 6.1%.

- From a relatively low price base of \$91,000 in 2006, median house prices grew by only 9.9% to \$100,000 in 2011 (some \$370,000 lower than the Perth Metro median house price). This is significantly lower than average growth rates experienced across the Avon Sub-Region (22.5%) and the State (15.2%), although rates vary significantly across LGAs. This low to moderate house price growth, coupled with relatively low rates of income growth, has seen housing affordability levels remaining relatively strong (with a house price to income ratio of only 2.48) compared to a number of other sub-regional LGAs such as York (6.41) and Toodyay (5.99).
- Broadacre agriculture is Wyalkatchem's primary economic contributor, accounting for 76% of businesses and some 141,418ha of land (representing 8% of the Avon total area of agricultural holdings). Wyalkatchem generates approximately \$32M in agricultural production value per annum (approximately 7% of the Sub-Region total). When considered on a per hectare basis, Wyalkatchem generates slightly less production value (\$226/ha) than the sub-regional average (\$254/ha), owing to variations in crop types and yield volumes.
- Manufacturing, Transport and Logistics, along with Retail, are secondary industries in Wyalkatchem, with each accounting for 9.5% of local businesses. There is 51,776ha of available zoned industrial land supply in Wyalkatchem, with new supply currently being developed in an attempt to diversify away from current agricultural-oriented activity (although similar to Goomalling, this is currently subject to Native Title constraints).
- Wyalkatchem is also underlined by an employment self sufficiency rate of 95% (in 2006) and a 20.6% small businesses share of the local labour force (in 2009/10).
- The Wyalkatchem Hospital (13 beds) and District High School (95 students) provide important health and educational services for local residents.

Economic Opportunities

The following economic opportunities have been identified:

Broadacre Agriculture

Broadacre agriculture represents the most distributed economic opportunity in the Avon and is likely to remain the foundation industry of the sub-region in the medium and long-term. This is the case for Wyalkatchem, which will continue to serve a primary agricultural production role given its relative distance from Perth (compared to other Avon LGAs that draw advantage from closer proximity to Perth). Opportunities to leverage continued R&D investments to diversify crops mix need to be investigated to help improve the sustainability of agricultural production in the region.

Transport & Industry

There are strong opportunities for transport, logistics and light industry investment and activity in the Avon Sub-Region, with spatial analysis identifying a "ring" of industrial opportunities comprising Northam, York, Quairading, Cunderdin, Dowerin and Goomalling. In addition to these towns, opportunities also exist for Wyalkatchem to develop new industrial land supplies in an attempt to diversify away from current agricultural-oriented activity. This, however, will require resolution of existing land tenure constraints, long-term infrastructure planning (although short-to-medium term capacity appears sufficient to meet demand) and attraction of a sufficient labour force to generate activity. Investment at the Wyalkatchem airport could also provide a potential anchor for further industrial development and leverage potential aviation school activity.

Health & Aged Care

The distribution of economic opportunities in health and aged care is primarily determined by a combination of current and short-term population ageing and the distribution of existing health facilities. Although Northam is expected to be the primary health and aged care service centre in the sub-region (and in this regard strong transport links will be crucial), current hospital bed distribution and projected rates of population ageing present an opportunity to leverage Wyalkatchem's existing health facilities and provide additional aged care capacity.

Actions

A series of actions require implementation for the Shire of Wyalkatchem LGA to effectively leverage the economic opportunities identified above. Wyalkatchem's vision is supported by the economic analysis. This analysis would recommend the concentration on economic diversity around industry development and aviation coupled with continuous improvement in aged servicing. The actions listed below are related to increasing Wyalkatchem's offering of tourist activities, health and aged care services and industrial lots in order to cater for tourists and permanent residents, as well as removing constraints to expansion of light industry.

- The number of hospital beds available as dedicated aged care beds needs to be increased. An aging population will increase demand for such services in the near future. The Shire of Wyalkatchem is participating in the planning activities of the Central East Aged Care Alliance and aims to engage an architect to design 12 units for aged accommodation.
- \$3.5m has already been invested in upgrading of the airport. Along with the Sport Aviation Academy, it is hoped that with 6 fully serviced lots available in the near future, more recreational aviation companies and commercial flight schools will be attracted to the area. There are also discussions with Air Services Australia for Wyalkatchem to become a venue for pilot navigation training, and with the Department of Education regarding the ability to offer an aviation course at Wyalkatchem District High School. These discussions need to be pursued to ensure that the desired airport expansion occurs.
- A long term plan for power and water upgrades is required to enable industry expansion and to address seasonal power outages. A strategic approach to power infrastructure planning is required given the issues surrounding capacity in Wyalkatchem and a number of communities in the Avon Sub-Region.

York

Context

York is situated approximately one and a half hour's drive, or 97 kilometres, from Perth. The historic town was founded on the banks of the Avon River in 1831, and was the first inland European settlement in WA.

Many of York's opulent Victorian and Federation buildings have been restored and it is one of the few towns in WA to enjoy historic town classification. This heritage, along with its natural rural amenity and proximity to Perth, makes York a popular visitor destination in addition to its agricultural service centre role. Indeed York was one of the early Wheatbelt "tree-change" destinations. It also hosts a number of annual events and festivals focusing on a range of topics including music, arts and crafts, vintage motor vehicles, cultural sporting events and historical gardens. Further to this, there are aspirations to develop a high quality equine precinct to meet regional and metropolitan demand with appropriate land zoning currently in place.

York is located on the crossroads of a State road network and is on the alternative route to the Eastern States of Australia. The State road network is used extensively from inter and intra State freight when Great Eastern Highway is closed. York also has a major CBH grain receival point, a District High School, demand for childcare places from surrounding areas and aged accommodation and care. York also sees a role in providing services to surrounding Shires and attracting more drive-in/drive-out between Perth and the Avon (Northam and York particularly).

Characteristics

The York LGA has the following characteristics:

- An estimated residential population of 3,688 persons in 2011 – 14.1% higher than the estimated 3,233 residents in 2001. This represents some 13.5% of the total Avon Sub-Region, and is the third largest LGA population behind Northam (11,516) and Toodyay (4,767). The WA Planning Commission forecasts population growth to continue (and accelerate) over the next decade, growing a further 33% to 4,900 people in 2021. The economic analysis undertaken in the SuperTowns planning justifies a sub-regional population of 50,000 by 2030 subject to favourable economic conditions. Analysis of individual communities' existing capacity to grow as well as their competitive advantage has resulted in a proposed population distribution of 7,000 residents in York (equating to an annual growth rate of 6.6%).
- 18.2% of the estimated residential population is aged 14 years or younger – consistent with that of the Perth Metropolitan Region (18.6%) and WA (19.7%) average. 19.3% of the population is aged over 65 years, which is significantly higher than the WA average (12.3%). Consistent with other sub-regional LGAs and the majority of WA, York is expected to experience significant ageing in the population over the coming decades, with 22% of the population aged over 65 years in 2021, and 25% in 2031.
- Median personal income levels (\$24,856) are in line with the sub-regional average (\$24,851). A household income growth rate of just over 4.5% per annum over the period 2001 to 2011 was higher than a number of other sub-regional LGAs, although much lower than the WA average (at over 6% per annum).
- From a price base of \$250,000 in 2006, median house prices grew by 21% to \$302,500 in 2011 (the second highest median house price in the sub-region behind Toodyay). This is broadly in line with average growth rates of the wider Avon Sub-Region (22.5%) but higher

than the State average (15.2%). It is noted however, that significant variation was experienced across the different LGAs depending on base price levels (with York starting from a higher base than many other LGAs). Current household income levels and house prices indicate that York is the least affordable LGA in the Sub-Region, with a house price to income ratio of 6.41 and the next highest being Toodyay at 5.99. This ratio is also higher than the WA average at 5.98.

- Agriculture remains a significant contributor to York's economy, accounting for 38% of registered businesses in 2009. The Shire comprises some 136,135 ha of agricultural land holdings (accounting for 8% of the Sub-Regional total), generating approximately \$46.2M in production value per annum (approximately 11% of the Sub-Region). On a per hectare basis, York generates the highest rate of production value (\$339/ha) than the Sub-Regional average (\$254/ha), owing to diversity in crop types with higher yield volumes and price returns (e.g. wine and olive production in addition to grain crops).
- Tourism plays a significant role in the York economy, with some 172,505 tourists visiting the Shire every year on average – the second highest average annual visitor count behind Northam which attracts 207,099 visitors (although York has more than double the rate of tourists per head of population - 53.4 in York compared to 20.2 in Northam). 79% of the Shire's visitors are comprised of day trippers, reflecting York's relatively close proximity to Perth, although this figure is lower than other major sub-regional visitor destinations such as Toodyay (84%) and Northam (83%), suggesting that York is a more attractive destination for overnight stays.
- Manufacturing, transport & logistics accounts for 5.2% of local businesses in York, and the 109,606ha of zoned industrial land in the LGA represents 4% of the Sub-Regional area total. York also has a secondary retail role, given its relatively large residential population base, with 7.1% of locally registered businesses operating in the retail sector.
- Given its role as a sub-regional population centre and proximity to Perth, York has a relatively good provision of community services and facilities. There are currently 15 public hospital beds provided in the town (16% of the sub-regional total), along with 28 aged care beds (18% of the sub-regional total). Primary and secondary public education services are provided by York District High School (390 primary and 84 secondary students), whilst the town also has a library and child care centre.

Economic Opportunities

The following economic opportunities have been identified:

Broadacre Agriculture

As expected, broadacre agriculture represents the most distributed economic opportunity in the Avon and is likely to remain the foundation industry of the sub-region in the medium and long-term. York will continue to serve a primary production role given the amount of agricultural land available, high cropping yields, and local support infrastructure. Given its close proximity to Perth and strong transport connections to other sub-regional centres, York has an opportunity to play a greater role in the storage, transportation and administration of agricultural products.

Health & Aged Care

The distribution of economic opportunities in health and aged care is primarily determined by a combination of current and short-term population ageing and the distribution of existing health facilities. Although relatively close to Northam, York is projected to experience considerable

population growth and there are opportunities to leverage the town's existing health facilities to provide convenient and flexible health services to all age cohorts, particularly for older residents given the projected ageing of the local population.

Retail & Lifestyle

Whilst the sub-regional retail network is and will continue to be centred on Northam (representing the largest concentration of population and floorspace in the Avon), York will continue to experience both population and visitor led increases in local retail demand, with lifestyle and tourism drivers underpinning growth. The projected ageing of the local population will also reinforce the need for local retail activity, given the reduced ability and/or willingness of older residents to travel on a regular basis to other towns for shopping and lifestyle activities.

Tourism

There is a strong spatial relationship between retail and tourism opportunities, reflecting the role that lifestyle, amenity and Perth proximity drivers play in the distribution of this economic activity. In addition to its proximity to Perth, York's well documented heritage significance and local rural amenity are key advantages for the further development of local tourism activity. While it is expected that the daytrip market will continue to dominate local tourism activity in York, there are also opportunities to capture a greater share of "Grey Nomad" domestic tourism due to its level of accessibility and existing accommodation facilities.

Transport and Industry

There exist strong drivers supporting transport, logistics and light industry investment and activity in the Avon sub-region, with spatial analysis identifying a "ring" of industrial opportunities comprising Northam, York, Quairading, Cunderdin, Dowerin and Goomalling. In the case of York, the opportunity exists to further develop its role as a secondary industrial node by capitalising on its strong transport links and relative proximity to Perth, offering support and distribution/logistics services for wider sub-regional agricultural activity.

Actions

A series of actions require implementation for the Shire of York LGA to effectively leverage the economic opportunities identified above.

- A southern bypass road has been identified as required to optimise York's geographic and industrial role in the transport "ring" mentioned above and cater for increased heavy transport traffic. This will also be essential to preserve the town's heritage infrastructure and increase residential and commercial amenity.
- Upgrade of energy distribution infrastructure to facilitate industrial, residential and commercial development
- Expand local tourism offerings and provide development flexibility for investment in the sector to optimise current sub-regional competitive advantage in York's tourism profile. This includes, but certainly is not limited to, the Town Hall redevelopment and improved visitor servicing.
- Given the current demand, high percentage of young families, low unemployment rate, and opportunities to have underemployed share of the population enter the workforce (e.g. parents) there is a need to offer increased child care services.

- Investment in preparing development-ready and serviced light industrial land to optimise increasing private investment interest (preliminary surveying and business planning is underway for a 130 ha light industrial area in York).
- Expansion of current aged care offerings to complement an existing local economic driver, service a significant and growing aged proportion of the population, and to complement the greater Avon health and aged care sector.
- Provision of greater retail space in the town centre to allow for expansion of a number of existing businesses and to accommodate external investment interest.
- Expand sewerage infill infrastructure in a timely and cost effective implementation model.

APPENDIX B – INDUSTRY VALUE ADD

Table 3: Industry Value Add and Gross Regional Product, Avon Sub-Region, 2006/07 to 2010/11

Industry	2006/07	2007/08	2008/09	2009/10	2010/11
Agriculture, forestry & fishing	\$125,647,081	\$143,772,810	\$169,190,695	\$167,708,417	\$120,650,773
Mining	\$21,021,903	\$21,080,420	\$20,173,306	\$23,003,121	\$25,786,308
Manufacturing	\$57,884,663	\$61,167,715	\$57,246,577	\$61,589,540	\$67,087,594
Electricity, gas, water & waste services	\$48,617,587	\$49,097,039	\$46,152,273	\$51,680,572	\$60,301,988
Construction	\$96,565,203	\$100,182,002	\$96,225,225	\$102,221,444	\$113,265,067
Wholesale trade	\$44,830,944	\$43,040,242	\$38,922,198	\$42,724,008	\$44,528,266
Retail trade	\$62,050,083	\$62,648,415	\$57,402,375	\$61,777,700	\$66,491,464
Accommodation & food services	\$17,005,617	\$17,448,735	\$16,069,481	\$15,781,713	\$16,645,032
Transport, postal & warehousing	\$99,544,321	\$102,376,548	\$98,469,413	\$104,359,830	\$111,927,449
Information media & telecommunications	\$6,932,112	\$7,265,409	\$6,767,455	\$7,598,845	\$9,111,466
Financial & insurance services	\$39,583,820	\$42,420,693	\$39,110,907	\$41,329,270	\$44,943,860
Rental, hiring & real estate services	\$16,797,470	\$16,495,356	\$15,928,352	\$17,473,183	\$19,332,072
Professional, scientific & technical services	\$26,983,333	\$28,966,695	\$29,857,006	\$35,530,360	\$42,214,961
Administrative & support services	\$15,190,238	\$16,505,207	\$14,823,943	\$15,711,240	\$20,268,559
Public administration & safety	\$50,689,107	\$50,979,111	\$51,120,514	\$54,256,198	\$57,990,296
Education & training	\$53,792,306	\$54,551,685	\$52,366,000	\$56,726,997	\$61,998,567
Health care & social assistance	\$56,013,328	\$57,821,427	\$55,869,979	\$62,794,479	\$68,443,380
Arts & recreation services	\$4,452,192	\$4,551,652	\$4,300,168	\$4,771,103	\$5,305,077
Other services	\$21,458,331	\$20,598,396	\$18,317,810	\$19,032,980	\$20,705,274
Industry Value Added	\$865,059,640	\$900,969,557	\$888,313,675	\$946,070,999	\$976,997,453
Ownership of Dwellings	\$58,492,448	\$60,511,522	\$59,544,392	\$62,690,825	\$64,343,910
Gross Value Added	\$923,552,088	\$961,481,079	\$947,858,067	\$1,008,761,825	\$1,041,341,363
Taxes Less Subsidies	\$46,137,063	\$46,538,324	\$44,184,805	\$44,451,774	\$45,718,023
Statistical Discrepancy	\$172,367	\$156,917	\$65,480	\$0	-\$184,712
Gross Regional Product	\$969,861,517	\$1,008,176,320	\$992,108,352	\$1,053,213,599	\$1,086,874,673

APPENDIX C – SOCIO-ECONOMIC INDICATORS MATRIX

Attached.