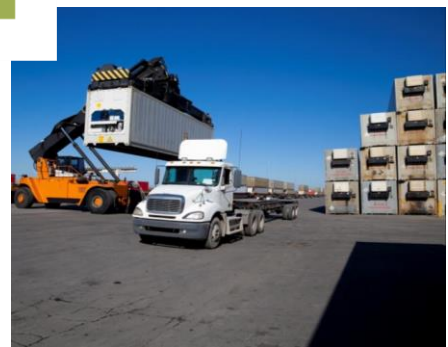
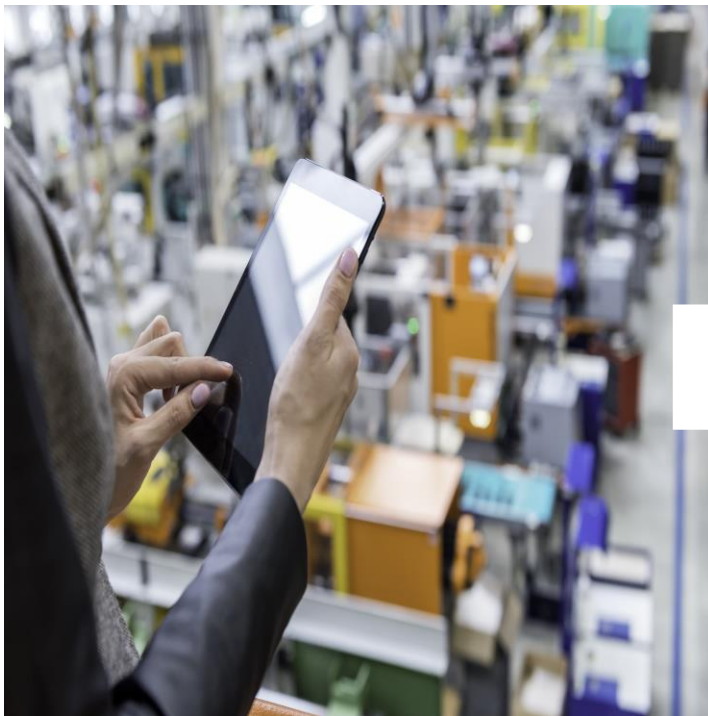


TAMWORTH

Industrial lands review



Prepared for Chan Abbey Holdings

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This document is for discussion purposes only unless signed and dated by a Principal of HillPDA.

Reviewer

Signature



Dated

20/12/18

Report Details

Job Number	C18152
Version	Final
File Name	Tamworth Industrial lands review
Date Printed	20 December 2018

EXECUTIVE SUMMARY

Chan Abbey Holdings Pty Ltd (the Client) is preparing a planning proposal to rezone around 30 hectares of land located in Tamworth Township (the township), from its current RU4 - Primary Production Small Lots zoning to IN1 General Industrial and B5 Business Development. HillPDA was commissioned to provide an understanding of the likely future demand for industrial floorspace and its implication on the amount of land required.

As stated, the planning proposal seeks to rezone around 30 hectares of land located approximately a ten minute drive west of Tamworth CBD. The subject site adjoins an existing industrial precinct known as Taminda and is broadly bounded to the south by Wallamore Road and light industrial properties along Kingsford Smith Street, to the north by rural land and Peel River, and to the east by Dampier Street and the Tamworth Racecourse (Figure 1).

In 2008, the Taminda Revitalisation and Economic Development Strategy provided Council with a strategy to effectively manage, both from an urban design and economic viewpoint, the future development of the Taminda industrial precinct. Recommendations in the strategy were to ensure that the precinct maintains its regional significance as an industrial precinct while also protecting the ongoing economic viability of the area.

The subject site was previously identified as being an appropriate location for an expansion of Taminda industrial precinct in order to meet the townships needs for additional industrial and bulky goods zoned land. Specifically, the Strategy recommended that part of the subject site be zoned for bulky goods retailing and industrial uses. However, this recommendation has not yet been initiated.

In light of this, the following undertakes a high level assessment of Tamworth's economic profile and existing industrial precincts in order to forecast the likely demand for industrial zoned land. It then further projects the demand for IN1 General Industrial and B5 Business Development land and the appropriateness of the subject site to meet this forecast need.

Population and employment profile

Industries associated with 'blue collar' occupations¹ have historically been a major component of Tamworth's local economy and employment generator, with this trend likely to continue into the future. These industries make up a quarter of Tamworth economy and generate over 5,000 jobs (almost one fifth of all jobs generated in the LGA).

Tamworth also enjoys rates of low unemployment, high self-sufficiency and high job self-containment. These economic factors, combined with 4,700 new working age residents forecast to reside in the LGA over the next 25 years, demonstrates the need to provide increased employment opportunities and the need to plan for appropriate zoned land to accommodate them.

Furthermore, Tamworth is in a strategic position being a regional employment hub and service provider for the region. Over the coming years there would likely be an increased demand for additional industrial land to be provided in close proximity to the town centre and transportation nodes. This will be required to both support and service Tamworth's growing population and its strategic position.

¹ Defined for the purpose of this study as including the industries of mining; manufacturing; electricity, gas, water and waste services; wholesale trade; and transport, postal and warehousing.

Tamworth industrial lands review

Currently, the LGA provides just over 763 hectares of land zoned for industrial purposes (heavy industrial, general industrial and business park zoning) with 416 hectares or 55% being vacant. The majority of this vacant land is located outside the town, near the airport.

Thirty nine per cent (39%) of the employment area (299 hectares) is zoned IN1 General Industrial. The largest and most developed of these precincts is Taminda. 8 hectares of Taminda was recently rezoned and the amount of vacant land in the precinct has increased to around 32 hectares (26 hectares of IN1 General Industrial and 6 hectares of B5 Business Development). However removing the Showground site and the Greyhound racecourse reduces the vacancy to 14 hectares – 5.5% of the whole estate.

Total industrial land needs assessment

In order to project the demand for industrial land we forecasted employment growth in the LGA under a low and high scenario.

Under a low growth scenario employment in the LGA is forecast to increase to around 33,220 by 2036. This represents an increase of around 6,690 jobs or 25% from 2016. Under this scenario, employment increases proportionally with population growth, while workforce participation rate remains steady at around 55%.

Under a high growth scenario employment in the LGA is forecast to increase to around 35,990 jobs by 2036. This represents an increase of around 9,462 jobs or 36% from that recorded in 2016. Under this scenario, employment increases proportionally at a higher rate assuming the intermodal terminal proceeds.

Under these two scenarios, it was estimated that between 1,365 and 2,778 additional jobs would be accommodated in Tamworth's industrial precincts. This increase in employment would generate demand for an additional 140,000sqm to 285,000sqm of industrial floor space. Between 34 hectares and 114 hectares of industrial zoned land would be required to accommodate the extra floor space.

Currently, the LGA contains around an estimated 416 hectares of industrial zoned land which is vacant. This is sufficient to accommodate the projected growth in demand over the next 20 years.

However, the bulk of this land is not suitable or, at a minimum, not ideal to accommodate the future growth in urban services. Some of these sites are in isolated locations and may incur significant additional capital investment to service the land and provide necessary infrastructure. Other precincts rely heavily on proposed or anticipated investment with lead times difficult to factor or provide market certainty to. The geographic location of some precincts lends to more specialised tenants that either have a relationship with the airport or require relative isolation to other uses, for example a poultry abattoir / processing plant.

General Industrial land needs assessment

The Taminda estate is uniquely positioned to provide land for the expansion of urban services and light industries that support the growing township. It is superior to any alternative areas given the area is generally free of land use conflicts, is adequately serviced, enjoys agglomeration with existing businesses and has proximity to labour, capital and consumer markets. Our market research has shown that typical buyers show a strong preference for these attributes and that Taminda is preferred to alternative locations.

If we assumed that 50% of future demand for industrial land is directed towards general industrial zoned land and light industries, then around 17 to 57 hectares of additional land would be required to accommodate the growth over the next 20 years. There is currently around 32 hectares of vacant IN1 and B5 zoned land in

Tamworth Township or only 14 hectares net of the Showground and Greyhound racecourse. This is insufficient to meet long-term demand - say over the next 20 years.

The subject site is currently the most appropriate location to meet short-term demand for IN1 zoned land in the Township given:

1. The uncertainty in timeframes surrounding the proposed expansion areas
2. Proximity to the Township and existing infrastructure
3. Strong market appeal for light industries and urban services
4. The fact that the subject site was previously recommended for rezoning for bulky goods or general industrial purposes in Council's *Taminda Revitalisation + Economic Development Strategy 2008*.

INTRODUCTION

1.0 INTRODUCTION

Chan Abbey Holdings Pty Ltd (the Client) is preparing a planning proposal to rezone around 30 hectares of land located in Tamworth Township (the township), from its current RU4 - Primary Production Small Lots zoning to permit B5 Business Development uses (around 5 hectares), solar farm (around 7 hectares) and General Industrial (around 18 hectares).

The Client has commissioned HillPDA to undertake a study that provides an understanding as to the likely future demand for industrial floorspace within Tamworth local government area (LGA) and the implications that this demand would have upon on the current and future supply of land zoned for industrial purposes.

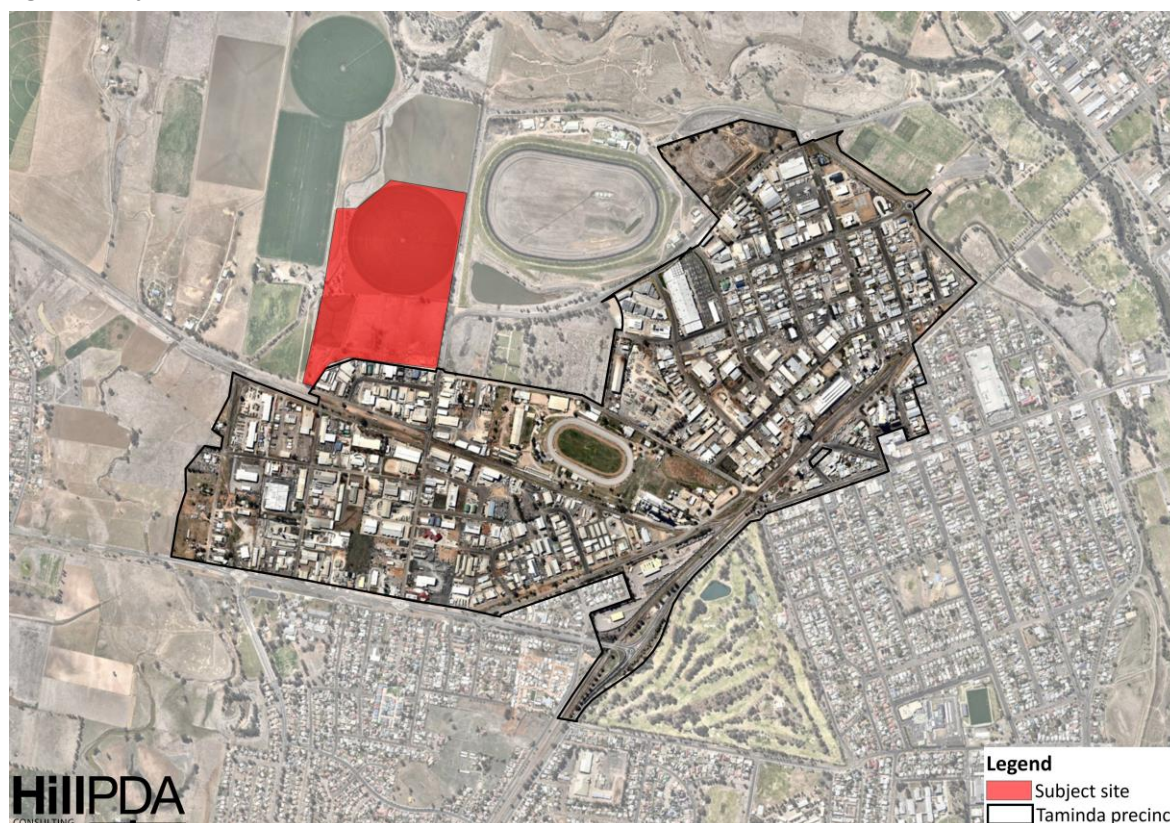
1.1 Planning Proposal

As stated the Client is preparing a planning proposal to rezone around 102 hectares of land located approximately a ten minute drive west of Tamworth CBD in an area known as Taminda.

The subject site is bounded to the south by Wallamore Road and light industrial properties along Kingsford Smith Street, to the north by rural land and Peel River, and to the east by Dampier Street and the Tamworth Racecourse.

The subject site is currently vacant, however if rezoned it could provide around 72 industrial lots, giving capacity for a range of industrial like uses. The site benefits from proximity to the town, existing industrial uses and residential populations. These locational attributes and increased efficiencies through the increased synergy of uses elevate the subject site's attractiveness for industrial development. The site also straddles the proposed bypass providing additional potential for increased accessibility and connectivity in the future.

Figure 1: Subject site



Source: HillPDA

1.2 Report structure

To meet the requirements of the brief, the study has been structured in the following manner:

- **Chapter 2: Contextual review** | undertakes a high-level review of recent planning policies that guide and promote the development of industrial land in the locality
- **Chapter 3: Economic profile** | undertakes an analysis of economic trends in the LGA, with a particular focus on those trends that impact the demand for additional industrial land
- **Chapter 4: Industrial precinct profiles** | undertakes an assessment of the current state of each industrial precinct, locational attributes, other characteristics and capacity to accommodate additional growth
- **Chapter 5: Industry engagement** | undertakes engagement with local industry representatives to understand the key drivers, constraints, buyers' locational preferences and any long term trends in demand
- **Chapter 6: Demand & gap analysis** | undertakes an assessment of the likely demand for additional floorspace in the township. The chapter also undertakes a gap analysis to determine the quantum of additional employment lands required to accommodate forecast growth.

2.0 CONTEXTUAL REVIEW

This Chapter undertakes a review of background planning policies of relevance to industrial land provision and development within Tamworth Township.

2.1 New England North West Regional Plan 2036

The New England North West Regional Plan 2036 is a 20-year blueprint for the future of the New England North West region, commissioned in 2015. The Plan outlines a vision to create a leading and diverse regional economy in NSW through the delivery of four goals:

1. A strong and dynamic regional economy
2. A healthy environment with pristine waterways
3. Strong infrastructure and transport networks for a connected future
4. Attractive and thriving communities.

Of relevance to this study are the following excerpts:

- Armidale and Tamworth will accommodate over half of the region's population by 2036. Each city has assets that support a growing population and the provision of services to the wider region
- Well-located employment land is a key component to a successful centre. Employment land supply will be encouraged in locations supported by freight access and protected from encroachment by incompatible development
- New international freight opportunities through the Brisbane West Wellcamp Airport and expanded Tamworth Regional Airport
- The region is uniquely positioned to leverage opportunities associated with growing global and domestic markets
- Narrabri, Moree and Tamworth support existing and proposed intermodal terminals and will continue to be significant areas for outbound containerised freight.

Page 31 of the Plan identifies a future industrial investigation area flanking each side of the existing heavy industrial zoning adjoining Tamworth Airport. However, any possible expansion in this area would likely be related to and dependent on the development of an intermodal hub. In November of 2017, Tamworth secured \$7.4 million from Growing Local Economies fund for the project. This money would go towards repairing and then re-instating the Barraba branch line from West Tamworth to Westdale along Wallamore Road. If fully developed the intermodal hub would increase Tamworth's profile for investment and attract a number of industrial businesses. Tamworth Council has bought a large land holding in this area.

2.2 Lower North West Regional Economic Development Strategy 2018-22

This Strategy has been developed for the Lower North West Region which encompasses the Tamworth Regional, Gunnedah Shire and Liverpool Plains Shire Local Government Areas (LGAs). The Strategy has four categories of strategies and actions being:

- Delivery key infrastructure as a foundation for growth
- Provide a positive, supportive environment to facilitate business growth and investment
- Support and leverage key sectors

- Position and promote the region as a location of choice

Specific strategies include “investing in key road and road transport infrastructure such as upgrading New England highway to reduce transportation costs” and improving and leveraging “airport Infrastructure such as the upgrade of Tamworth Airport to support greater capacity”. Of particular relevance is the strategy to “plan for and provide suitable land for business expansion and growth”.

The planning proposal is consistent with these policies.

2.3 Tamworth Tomorrow 2016-2021

Tamworth Tomorrow is a strategy focussed on driving the economic growth of the Tamworth region through increasing the region’s population base, which fuels the economy, driving innovation, investment, cultural activity and entrepreneurial spirit. The Strategy notes the importance that manufacturing provides to Tamworth’s local economy.

Of relevance to this study are the following action(s) and excerpts:

- The Strategy states that the uptake of advanced manufacturing will support existing manufacturers to enter new markets, devise new products and improve productivity. It will also help establish innovative local industries by creating new business models, products and processes
- The Strategy states that approximately 70 hectares of unconstrained industrial land can be developed and Tamworth Regional Council has strategically planned to expand the industrial zone exponentially. However, the location of the ‘unconstrained developable or expansion areas’ are not identified in the Strategy nor has allocation been given to the composition of these areas, in terms of zonings
- **Action 4.5** | Encourage regional collaboration between researchers and the advanced manufacturing sector centred on commercial outcomes to generate new global growth markets for the sector.

2.4 Taminda Revitalisation + Economic Development Strategy 2008

The Taminda Revitalisation + Economic Development Strategy provided Council with a strategy to effectively manage, both from an urban design and economic viewpoint, the future development of the Taminda industrial precinct. Recommendations in the strategy were to ensure that the precinct maintains its regional significance as an industrial precinct while also protecting the ongoing economic viability of the area.

The strategy identified six precincts that could provide additional industrial and bulky goods zoned land to accommodate the projected demand. The precincts are identified in the figure below.

Figure 2: Taminda Revitalisation – precinct identification



Source: Taminda Revitalisation + Economic Development Strategy 2008

Of relevance to this study are the following key findings and recommendations:

- Precinct 6 as shown in the figure above, comprises a proportion of the subject site, and was identified as being suitable for both bulky goods retailing and industrial uses. With the precinct being large enough to support up to twenty-two 5000sqm lots, or up to fifty smaller lots
- The strategy identified that improved access could be achieved through the development of a “thoroughfare” along Jewry Street southward to Gunnedah Street, it states:

The Masterplan proposes the possible extension and reinforcement of Jewry Street at the major thoroughfare through Taminda. Jewry Street would continue due west along an elevated flood levee from its current western most point at the intersection with Dampier Street; lying within an existing road easement, it would sweep southwards briefly intersecting with Bass Street before meeting Gunnedah Road at a major intersection.

This would have the benefit of removing unnecessary traffic from internal streets; provide the opportunity to create well defined entrance points to the estate; and increase traffic movement along Jewry Street to support development of adjacent land parcels.

The capital works program could be funded through a mix of s.94 contributions and developer agreements over new land releases within Taminda, funds raised from the sale of Council land, and Council’s usual capital works budget.

- Future demand for industrial land ranged between a low of an additional 21 hectares to a high of 77 hectares of land with a likely level of 47 hectares over the next 20 years (assumed to be 2028).

Recommendations and proposed land use by precinct are provided below:

Table 1: Recommendations by precinct

Precinct	Description	Proposed Use	Total area (ha)	Probable development footprint (ha)	Proposed average lot size (sqm)	Lots Created no.
1	Belmore Street	Light Industrial	3.74	3.18	2,000	16
4	Jewry & Dampier	Light Industrial	3.88	3.29	2,500	13
2	Jewry Road	Bulky Goods	10.01	8.51	3,000	28
3	Showground	Heavy Industrial	17.25	14.66	4,000	37
5	Racecourse	Tourism/Commercial	7.87	3.94	5,000	8
6	Jewry Road Extension	Light Industrial/Bulky Goods	12.92	10.98	5,000	22
Total Land Area			55.67	44.56		
Total Industrial and Bulky Goods			47.8	40.62		

Source: Taminda Revitalisation + Economic Development Strategy 2008

The above recommendations were implemented except for:

- Precinct 3 - remains undeveloped for industrial purposes, with it being zoned as light industrial rather than the recommended heavy industrial
- Precinct 5 - 8 hectares of land was rezoned in 2018 providing an additional 6.4 hectares of B5 and 1.6 hectares of IN2 zoned land.
- Precinct 6 – was not zoned for industrial or bulky goods purposes rather RU4 - Primary Production Small Lots.

3.0 ECONOMIC PROFILE

The following Chapter undertakes a review of economic data and trends in Tamworth LGA which are likely to influence the demand for additional industrial land.

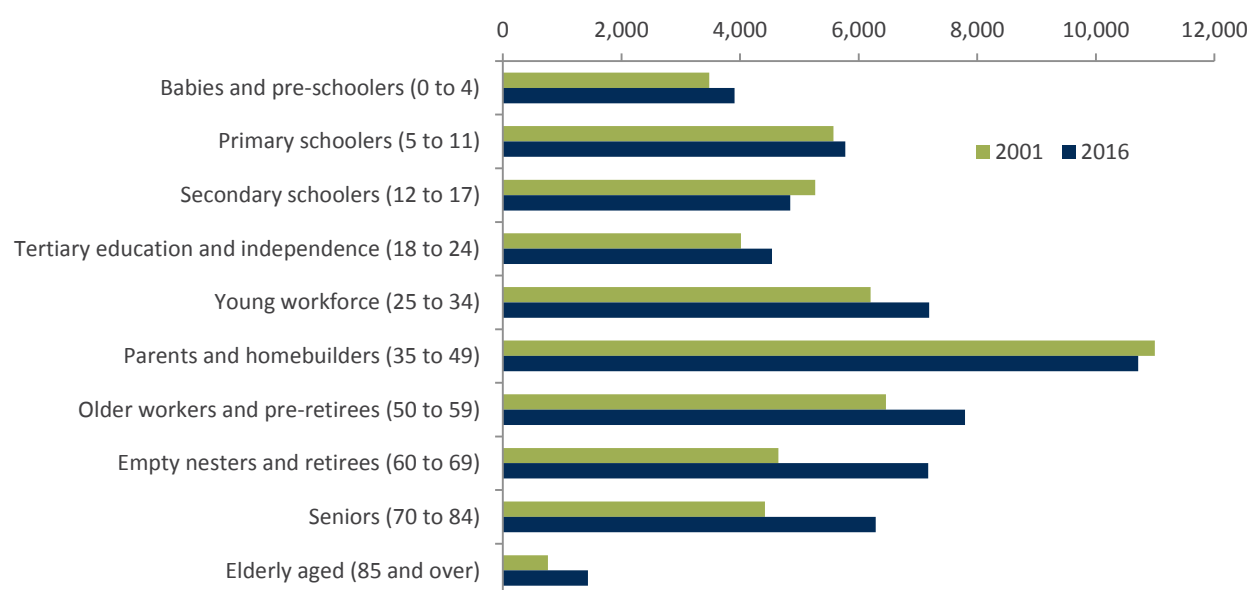
3.1 Resident population characteristics

Over a 15 year period from 2001, the population of Tamworth LGA increased by 7,832 persons or 15%. This represents an annual compound growth of 0.94% which was higher than Regional NSW (0.75%) over the same period.

Over the same period Tamworth’s population aged, evident in persons over 60 years comprising 25% of the population in 2016 compared to 19% in 2001. The proportion of persons aged 18 to 59 years declined from 53% to 51% in 2016 and persons aged less than 18 years decreased from 28% of the population in 2006 to 24% of the population in 2016.

Despite this, persons in the working age bracket of 18 to 59 years increased over the period by 2,566 persons. Persons in this age bracket would drive demand for increased employment opportunities while the overall increase in the population would increase demand for industrial and urban services.

Figure 3: Population growth by age composition (LGA)



Source: Community id, HillPDA

3.1.1 Population projections

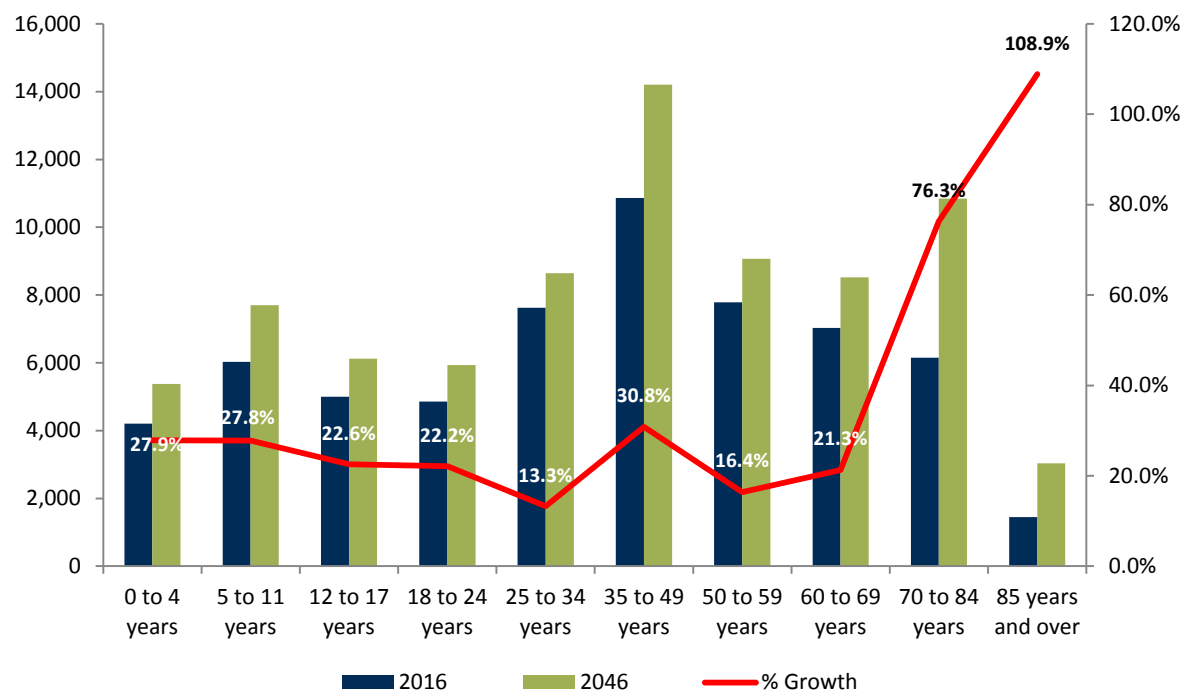
Over the next 25 years, Tamworth is expected to experience relatively strong population growth – more than the previous 15 years. The population is expected to increase from around 61,000² in 2016 to 79,470 in 2041, an increase of around 18,465 or 30%. This represents an annual compound growth rate of 1.06%.

² Forecast id estimated the resident population in Tamworth LGA at 61,003 residents in 2016. The Census is generally considered an undercount

Over this period the population is expected to continue to age, a trend reflective of Regional NSW. By 2026 it is forecast that just over a quarter of the population would be aged 60 years and over.

Despite the ageing of the population, persons in the working cohort of 18 to 60 years are expected to experience strong growth, with an additional 6,720 residents in this cohort expected to reside in the LGA by 2041.

Figure 4: Population projection by age cohort 2016-2041



Source: Community id, HillPDA

3.1.2 Employment by industry

The top four industries that residents of Tamworth were employed in remained relatively stable over the last five years. These were health care and social assistance; retail trade; and education and training. Interestingly manufacturing was the third largest employment industry in 2011. However, by 2016 it had dropped two places with construction replacing it in 2016 as the fourth largest employment industry.

Over the period, the top three industries that experienced the greatest growth in employment were health care and social assistance (357 more jobs); education and training (178 more jobs); and construction (173 more jobs).

The top two industries that experienced the largest contraction over the period were manufacturing (a decrease of 369 jobs) and financial and insurance services (a decrease of 115 jobs). Manufacturing is predominantly located in industrial precincts. A decline in employment in this industry could lead to a reduced demand for industrial floorspace and zoned land.

Despite a decline in residents seeking employment in manufacturing, total employment generated by ‘blue collar’ industries which are typically located in industrial precincts³ accounted for 17% of the resident workforce. This indicates that manufacturing was still an important employment generator for residents of Tamworth.

³ This includes the industries of manufacturing; electricity, gas, water and waste services; wholesale trade; and transport, postal and warehousing.

As of 2016, the combined blue collar industries accounted for around a quarter of the total jobs that residents of Tamworth were employed in. This provides an understanding of the significant contribution these industries provide to the local economy and workforce.

Table 2: Resident employment by industry 2011-2016

Industry	2011	2016	Growth	% growth 11-16
Agriculture, Forestry and Fishing	1,661	1,727	66	4.0%
Mining	193	281	88	45.6%
Manufacturing	2,322	1,953	-369	-15.9%
Electricity, Gas, Water and Waste Services	288	246	-42	-14.6%
Construction	1,863	2,036	173	9.3%
Retail Trade	2,863	2,879	16	0.6%
Wholesale trade	879	749	-130	-14.8%
Accommodation and Food Services	1,748	1,761	13	0.7%
Transport, Postal and Warehousing	1,266	1,254	-12	-0.9%
Information Media and Telecommunications	283	257	-26	-9.2%
Financial and Insurance Services	594	489	-105	-17.7%
Rental, Hiring and Real Estate Services	363	364	1	0.3%
Professional, Scientific and Technical Services	881	956	75	8.5%
Administrative and Support Services	651	817	166	25.5%
Public Administration and Safety	1,491	1,581	90	6.0%
Education and Training	2,152	2,330	178	8.3%
Health Care and Social Assistance	3,543	3,900	357	10.1%
Arts and Recreation Services	249	257	8	3.2%
Other Services	1,088	1,070	-18	-1.7%
Inadequately described or not stated	517	1,079	562	108.7%
Total	24,895	25,986	1,091	4.4%

Source: Community id, HillPDA

3.1.3 Unemployment

The unemployment rate in Tamworth decreased from 8.8% in 2001 to 5.8% in 2016. This rate has remained lower than that recorded for Regional NSW which decreased from 9.2% to 6.6% over the same period.

3.1.4 Resident workforce industry location quotient

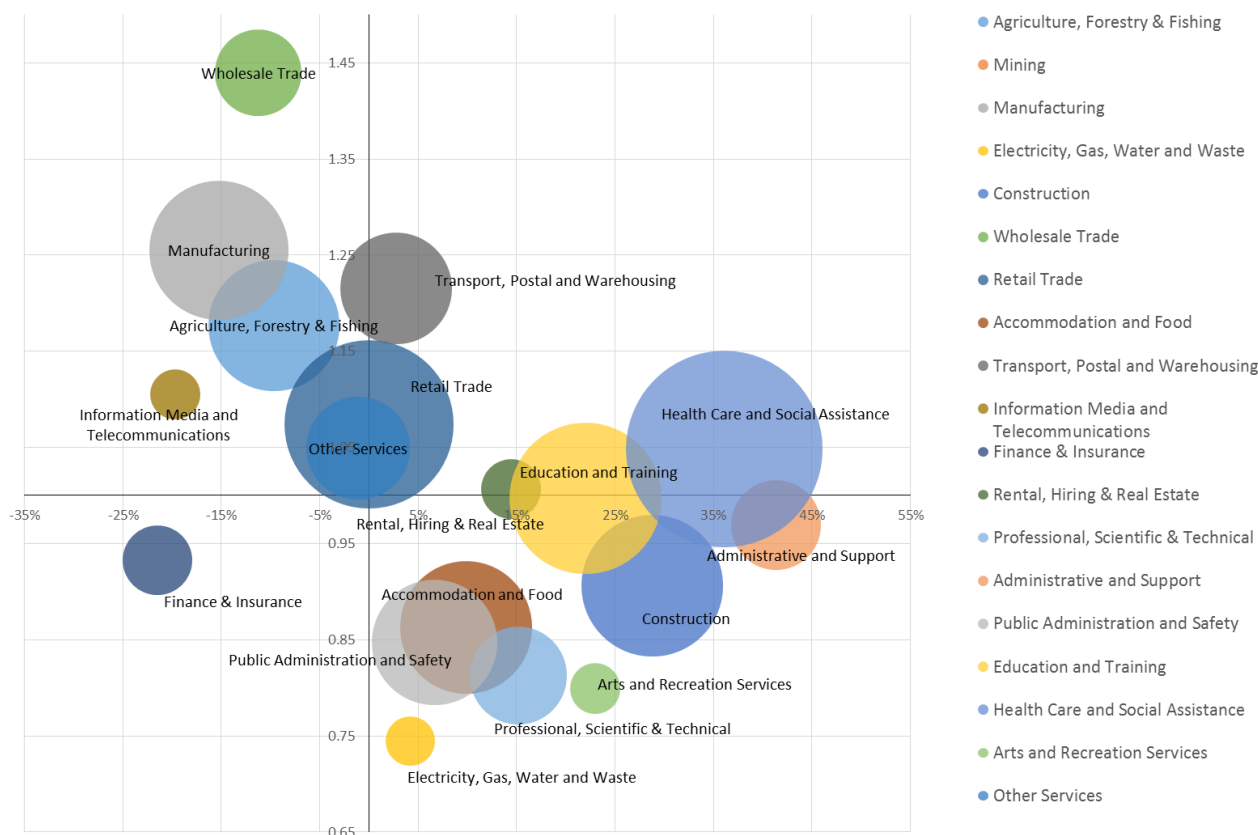
Location quotient (LQ) is a valuable way of quantifying how concentrated a particular industry is in a region as compared to a benchmark, in this case, Regional NSW. A LQ of greater than 1 reveals that there is an above representation of production in that industry.

The LQ is shown on the vertical axis while the change in employment from 2006 to 2016 is on the horizontal axis.

Interpreting the graph:

1. The size of the circle represents the relative size of the industry
2. Industries to the right of the origin are growth industries
3. Industries to the left of the origin are declining
4. Industries above the origin have high specialisation (above representation relative to Regional NSW)
5. Industries below the origin have low specialisation.

Figure 5: Resident workforce growth-share matrix (2006-2016)



Source: Community id, ABS 2016 Community Profiles, HillPDA

In the graph above the following industries were in the following quadrants

Quadrant	Indication	Industries
North eastern	High industry specialisation and growth “industries likely experiencing an expanding stage”	Wholesale Trade ; Rental, Hiring and Real Estate Services; Education and Training; Health Care and Social Assistance; and Transport, Postal and Warehousing
South eastern	Low industry specialisation and high growth “industries likely to be at the emerging stage”	Mining ; Electricity, Gas, Water and Waste Services ; Construction; Accommodation and Food Services; Professional, Scientific and Technical Services; Administrative and Support Services; Public Administration and Safety; and Arts and Recreation Services
North western	High industry specialisation but low growth	Agriculture, Forestry and Fishing; Wholesale Trade ; Manufacturing ; Information Media and Telecommunications; and Other Services
South western	Low industry specialisation and low growth	Financial and Insurance Services

3.2 Businesses and industry characteristics

As of 2017, there were 5,426 businesses located within Tamworth which was a slight increase from that recorded in 2013 (5,393 businesses).

Industries that have recorded positive growth over the period and that are relevant to this study include: transport, postal and warehousing (+4 businesses); and mining (+2 businesses).

Businesses that generally locate in the industrial areas but recorded negative growth and relevant to this study include: manufacturing (-14 businesses); electricity, gas, water and waste services (-5 businesses); and wholesale trade (-18 businesses).

Table 3: Counts of businesses – Tamworth LGA

Industry	2013	2017	Change #	Change %
Agriculture, Forestry and Fishing	1363	1369	6	0%
Mining	8	10	2	25%
Manufacturing	208	194	-14	-7%
Electricity, Gas, Water & Waste Services	19	14	-5	-26%
Construction	830	845	15	2%
Wholesale trade	146	128	-18	-12%
Retail trade	320	284	-36	-11%
Accommodation and food services	211	213	2	1%
Transport, Postal and Warehousing	331	335	4	1%
Information media and telecommunications	14	17	3	21%
Financial and insurance services	367	404	37	10%
Rental, Hiring, & Real Estate Services	435	432	-3	-1%
Professional Scientific & Technical Services	316	309	-7	-2%
Administrative and support services	148	158	10	7%
Public administration and safety	14	12	-2	-14%
Education and training	48	50	2	4%
Health care and social assistance	260	276	16	6%
Arts and recreation services	68	58	-10	-15%
Other services	256	264	8	3%
Currently unknown	49	36	-13	-27%
Total	5,393	5,426	33	1%

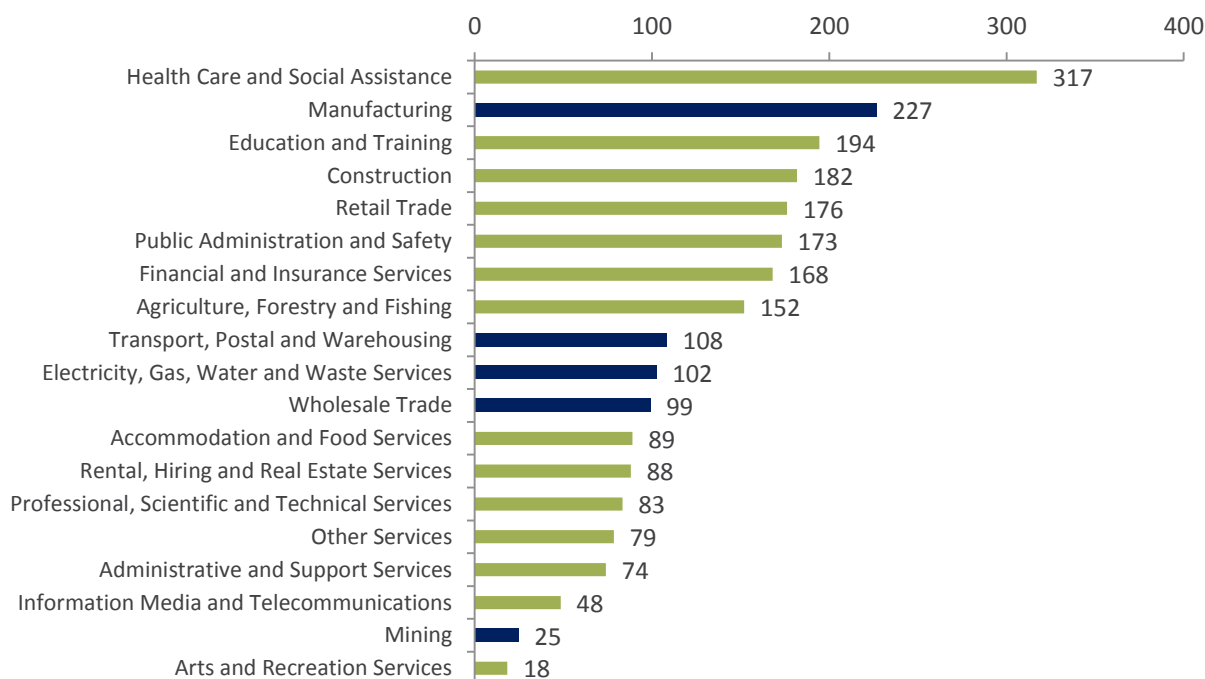
Source: ABS Regional Summaries

3.2.1 Industry value added

As of 2016 local industries contributed \$2.4 billion to Tamworth’s local economy. Of this, manufacturing was the second most productive industry, generating \$227 million.

Combined, ‘blue collar’ industries contributed almost a quarter of the value added by all industries in Tamworth. This highlights the significant contribution these businesses provide to the local economy and the importance of providing appropriately located land for their continued growth and expansion.

Figure 6: Industry value added 2015/2016 (\$million)



Source: Economy id

3.3 Employment characteristics

In 2016, Tamworth generated around 26,530 jobs, a 19% increase from 2001 (around 22,325 jobs). The top four employment industries in 2016 were:

1. Health care and social assistance – generating 3,963 or 15% of jobs
2. Retail trade – generating 3,107 or 12% of jobs
3. Manufacturing - generating 2,513 or 9% of jobs
4. Education and training – generating 2,419 or 9% of jobs.

Although manufacturing has recently witnessed a decline in the total number of businesses present in the LGA, it still remains a significant employment generator. Also, as of 2016 manufacturing generated more jobs than the total number of Tamworth residents employed in the industry. This implies that the industry provides enough jobs for Tamworth residents while also attracting additional employees from surrounding LGA's, further increasing its importance across the region.

The top four growth industries over the last 16 years, by total employment, were as follows:

1. Health Care and Social Assistance - generating an additional 1,362 jobs
2. Construction - generating an additional 871 jobs
3. Education and Training - generating an additional 6,99 jobs
4. Manufacturing - generating an additional 542 jobs.

Although manufacturing has generated an additional 542 jobs over the last 16 years, it must be noted that over the last five years there has been a 31 job retraction. Combined, 'blue collar' industries generated around one-fifth of all jobs generated in the LGA over the last 16 years.

The change of employment, over the last 16 years, by individual industry is provided in the table below.

Table 4: Employment generation by industry 2001-2016

Industry	2001	2006	2011	2016	2001-16 Growth #	2006-16 Growth #	2011-16 Growth #
Agriculture, Forestry and Fishing	2,315	2,300	1,985	1,959	-356	-341	-26
Mining	18	29	53	57	39	28	4
Manufacturing	1,971	2,491	2,544	2,513	542	22	-31
Electricity, Gas, Water and Waste Services	215	262	309	389	174	127	80
Construction	1,308	1,808	2,271	2,179	871	371	-92
Wholesale Trade	1,084	943	935	869	-214	-73	-65
Retail Trade	2,864	3,010	3,022	3,107	243	97	85
Accommodation and Food Services	1,931	1,649	1,838	1,794	-136	145	-44
Transport, Postal and Warehousing	1,164	1,259	1,311	1,255	91	-5	-56
Information Media & Telecommunications	356	325	345	320	-36	-5	-25
Financial and Insurance Services	577	606	613	598	21	-8	-16
Rental, Hiring and Real Estate Services	290	339	425	418	128	78	-7
Professional, Scientific & Technical Services	860	842	962	894	34	52	-69
Administrative and Support Services	581	601	704	690	109	89	-14
Public Administration and Safety	1,164	1,527	1,633	1,565	400	38	-68
Education and Training	1,720	1,980	2,312	2,419	699	439	107
Health Care and Social Assistance	2,601	3,033	3,623	3,963	1,362	930	340
Arts and Recreation Services	232	202	256	256	24	54	0
Other Services	1,074	1,157	1,225	1,285	211	128	60
Total	22,325	24,363	26,367	26,530	4,205	21,66	162

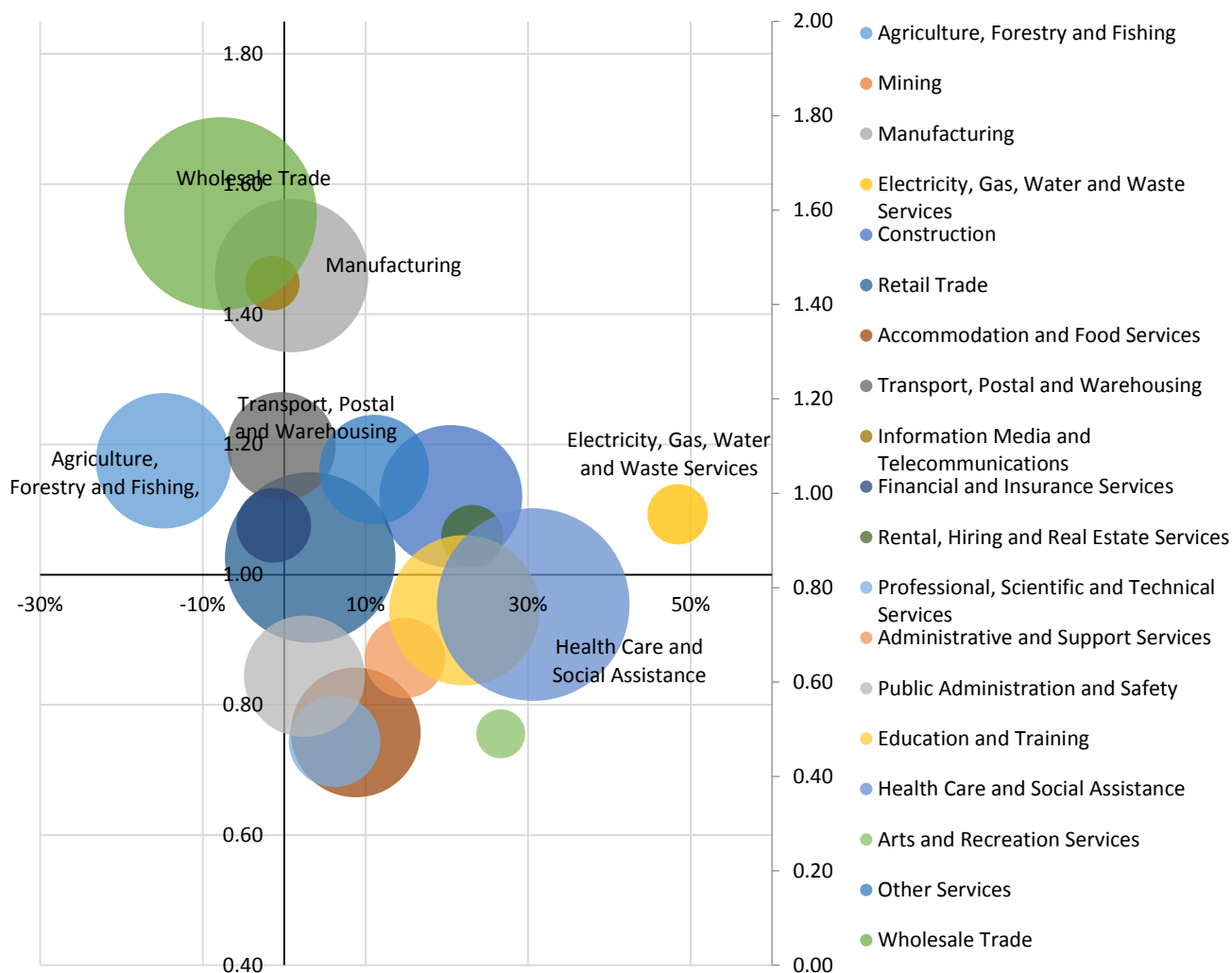
Source: Economy id

3.3.1 Local employment industry location quotient

Location quotient (LQ) is a valuable way of quantifying how concentrated a particular industry is in a region as compared to a benchmark, in this case, Regional NSW. A LQ of greater than 1 indicates that that industry is more concentrated in Tamworth compared to Regional NSW.

The LQ is shown on the vertical axis while the change in employment generation from 2006 to 2016 is on the horizontal axis.

Figure 7: Employment growth-share matrix (2006-2016)



Source: Community id, ABS 2016 Community Profiles, HillPDA

In the graph above the following industries were in the following quadrants

Quadrant	Indication	Industries
North eastern	High industry specialisation and growth "industries likely experiencing an expanding stage"	Manufacturing; Electricity, Gas, Water and Waste Services; Construction; Retail Trade; Rental, Hiring and Real Estate Services; and Other Services
South eastern	Low industry specialisation and low growth "industries likely to be at the emerging stage"	Mining; Accommodation and Food Services; Professional, Scientific and Technical Services; Administrative and Support Services; Public Administration and Safety; Education and Training; Health Care and Social Assistance; and Arts and Recreation Services
North western	High industry specialisation and low growth	Agriculture, Forestry and Fishing; Wholesale Trade; Transport, Postal and Warehousing; Information Media and Telecommunications; and Financial and Insurance Services
South western	Low industry specialisation and low growth	

3.3.2 Tamworth self-sufficiency

Self-sufficiency is calculated by dividing the number of jobs located in Tamworth LGA by the number of employed residents.

Tamworth had a self-sufficiency rate of 97% indicating that there were 0.97 jobs provided for every employed resident. This rate was the third largest rate, with only to Walcha and Narrabri LGA's when comparing the surrounding LGAs self-sufficiency rates.

Note that Tamworth generated significantly more employment opportunities in 2011 than the surrounding LGAs, further highlighting the LGAs importance as a regional economic generator.

Table 5: Self-sufficiency rate 2011

LGA	Jobs (a)	Employed residents (b)	Self-sufficiency rate (a/b)
Walcha	1,490	1,443	1.03
Narrabri	5,891	5,791	1.02
Tamworth Regional	23,958	24,746	0.97
Liverpool Plains	2,855	3,068	0.93
Gunnedah	4,834	5,195	0.93
Upper Hunter Shire	4,986	6,498	0.77
Gwydir	1,489	1,979	0.75
Uralla	1,688	2,722	0.62

Source: TPA 2011 JTW, HillPDA

3.3.3 Tamworth self-containment

Self-containment measures the proportion of local residents that live and work within the same geographical area.

Of the 24,746 jobs generated in Tamworth, around 22,789 lived and worked within the LGA. This indicates a high self-containment rate of 92%, which has the highest rate when comparing surrounding LGAs.

The high containment rate is typical of regional areas where the longer travel distances, when compared to capital city rates, tend to influence local residents to live and work in the same LGA.

Table 6: Self-containment rate 2011

LGA	Live and work in LGA (a)	Employed residents (b)	Self-containment (a/b)
Tamworth Regional	22,789	24,746	92%
Narrabri	5,279	5,791	91%
Walcha	1,254	1,443	87%
Gunnedah	4,347	5,195	84%
Liverpool Plains	2,398	3,068	78%
Gwydir	1,329	1,979	67%
Upper Hunter Shire	4,312	6,498	66%
Uralla	1,148	2,722	42%

Source: TPA 2011 JTW, HillPDA

3.3.4 Self-containment by individual industry 2011

The majority of industries have a high self-containment rate of 90% and above. The industry of mining had the lowest rate probably owing to the fly in fly out nature of its employment base.

Excluding mining, 'blue collar' industries combined had a containment rate of 92% with 4,329 residents living and working in the LGA.

Table 7: Self-containment rate by industry 2011

Industry	Live and work within the LGA	Employed residents	Self-containment
Accommodation and Food Services	1,705	1,740	98%
Financial and Insurance Services	578	592	98%
Electricity, Gas, Water and Waste Services	274	281	98%
Retail Trade	2,778	2,851	97%
Health Care and Social Assistance	3,402	3,540	96%
Rental, Hiring and Real Estate Services	351	366	96%
Manufacturing	2,191	2,310	95%
Education and Training	2,033	2,150	95%
Public Administration and Safety	1,400	1,482	94%
Other Services	1,023	1,084	94%
Arts and Recreation Services	231	245	94%
Professional, Scientific and Technical Services	822	873	94%
Information Media and Telecommunications	263	285	92%
Wholesale Trade	804	880	91%
Agriculture, Forestry and Fishing	1,455	1,639	89%
Administrative and Support Services	561	652	86%
Transport, Postal and Warehousing	1,060	1,237	86%
Construction	1,345	1,847	73%
Mining	51	186	27%
Inadequately described	204	232	88%
Not stated	258	274	94%
Total	22,789	24,746	92%

Source: TPA 2011 JTW, HillPDA

3.4 Key findings

- There would be demand for additional urban services and appropriate land to accommodate these services as the resident population increases
- Tamworth's population is forecast to continue to age over the coming decade, leading to a possible increase in demand for health care and social assistance businesses
- Despite this forecast ageing, persons within the primary working age cohort of 18 to 60 years are forecast to increase by just over 6,700 residents. Indicating that increased employment opportunities would be required over the coming years
- Combined, 'blue collar' industries generated around one-fifth of all jobs generated in Tamworth as of 2016
- Manufacturing was the second most productive industry in Tamworth, contributing \$227 million to the local economy
- Combined, 'blue collar' industries contributed almost a quarter of the value added by all industries in Tamworth
- Tamworth's benefits from a low unemployment rate, high self-sufficiency rate and high self-containment rate – implying that increases in the primary working age cohorts would likely see a corresponding increase in employment opportunities and demand for employment lands.

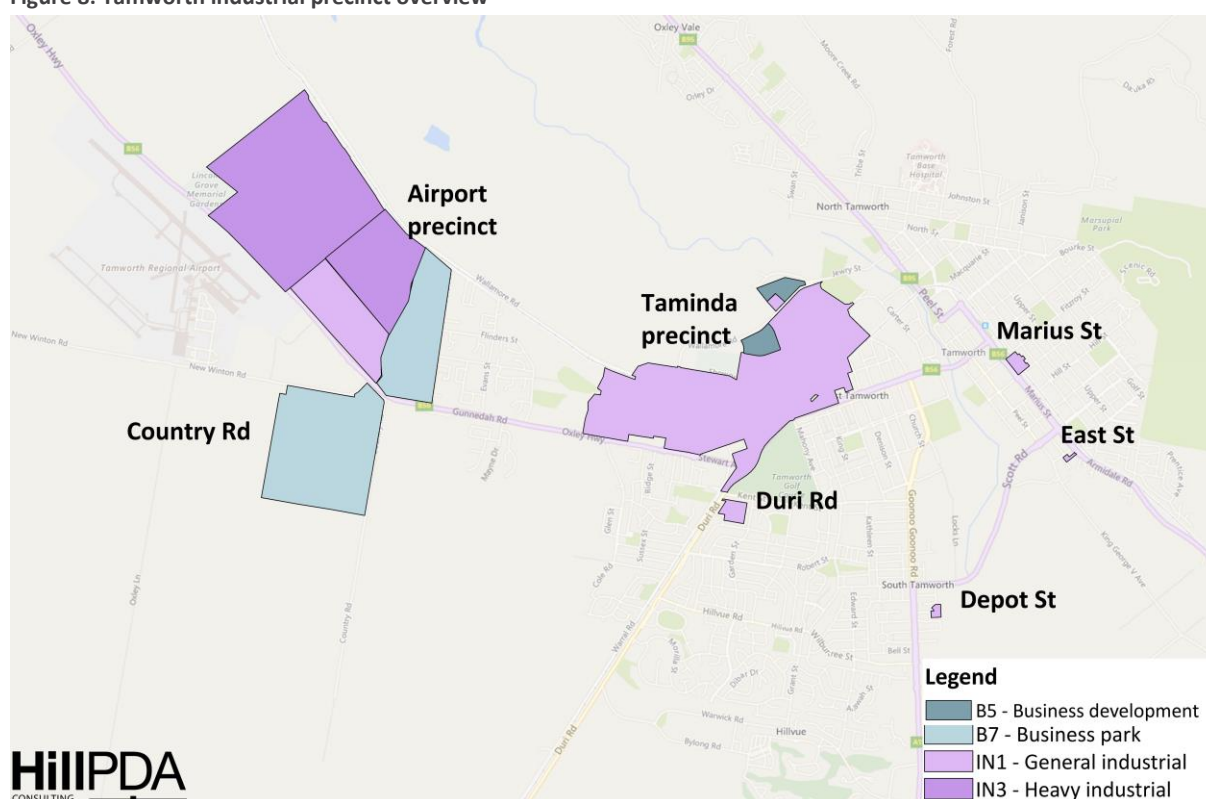
4.0 INDUSTRIAL PRECINCTS

The following provides an overview of industrial precincts in the Tamworth Township. The chapter identifies attributes, such as the total size, developed and vacant land and other locational attributes.

To assess the amount of undeveloped land we have measured vacant lots in each precinct. Lots that seemed to be used for storage by an adjoining lot or within a lot were excluded while large lots which could be subdivided were included, where appropriate.

The figure below provides an overview of the industrial precincts within Tamworth Township.

Figure 8: Tamworth industrial precinct overview



4.1 Tamworth airport industrial precinct

Tamworth airport industrial precinct is located adjacent to Tamworth regional airport around 8.3 kilometres west or a 12 minute drive from Tamworth city centre⁴. The precinct is approximately 375 hectares in size and is zoned as IN3 - heavy industrial (~258 hectares), IN1 – General Industrial (~50 hectares) and B7 – Business Park (~67 hectares).

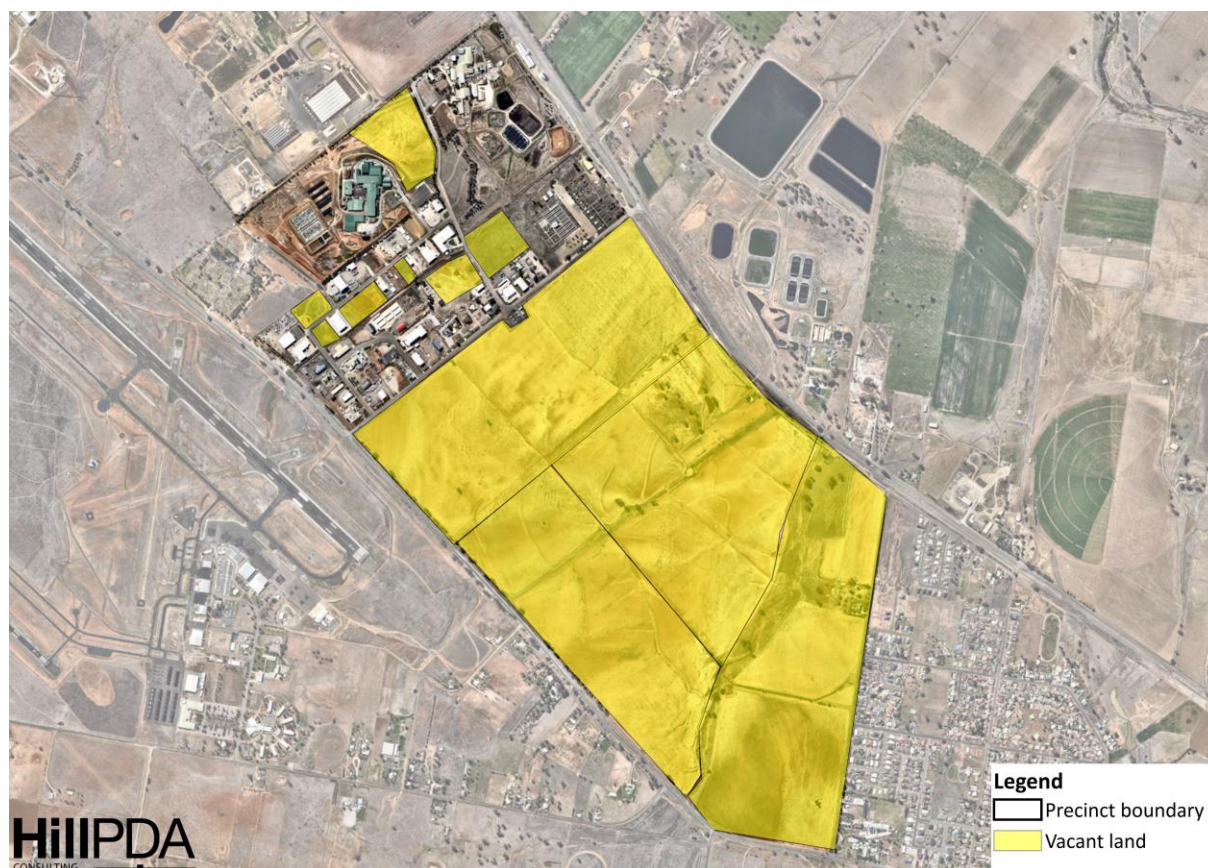
The location near the airport and distance from Tamworth city centre provide the opportunity for businesses associated with the airport to co-locate nearby, while also providing a suitable area for those industries that need to be separated from other more sensitive land uses, such as light industrial, residential and retail in Taminda.

⁴ Google drive times

The precinct has good access to heavy vehicles and is not surrounded by conflicting land uses. We have estimated that there is around 260 hectares of vacant land remaining in the precinct although 69 hectares of this has been identified as a possible site for the development of an intermodal facility and there is also a water course through the site (Murroon Creek).

Future uses to the precinct are likely to be heavy industrial uses or those directly associated with the airport/intermodal facility. In contrast, urban support services and other various industrial uses would still prefer a location closer to urban populations such as the Taminda industrial precinct.

Figure 9: Tamworth airport industrial precinct



Source: HillPDA – vacant land either vacant lots or a large proportion of a lot that is vacant and not being utilised

4.2 Country road precinct

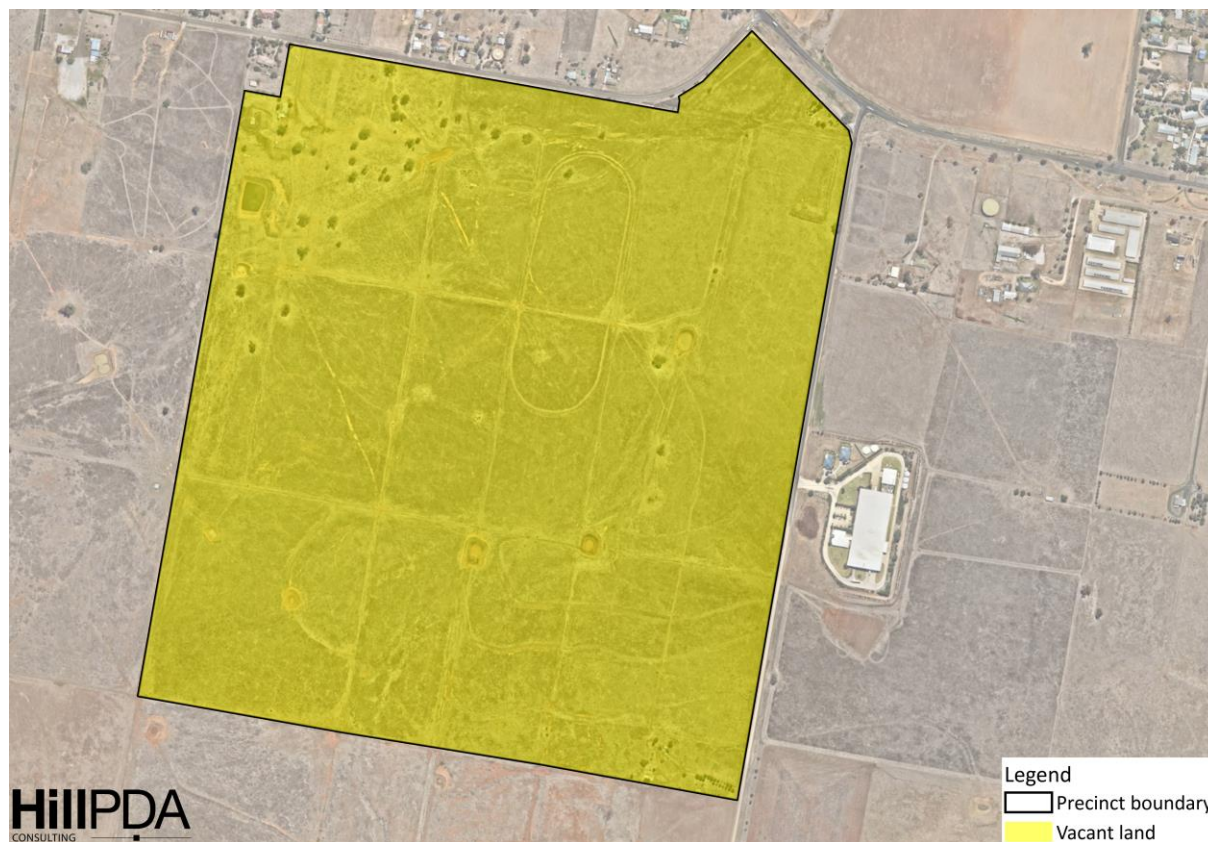
The country road precinct is located just to the south of Tamworth regional airport 6.1 kilometres west or a 10 minute drive from Tamworth city centre⁵. The precinct is somewhat isolated geographically, being quite detached from Taminda and the airport. The precinct is approximately 123 hectares in size and is zoned as B7 - business park.

The precinct has good access for heavy vehicles and is not surrounded by conflicting land uses. The entire precinct is currently vacant except for one residential building. Also there would be infrastructure costs to service the land - particularly water and sewer.

The land has remained undeveloped. We understand that development approval has been given for commercial and industrial uses, however development has not commenced.

⁵ Google drive times

Figure 10: Country Road industrial precinct



HillPDA
CONSULTING

Source: HillPDA

4.3 Taminda industrial estate

The Taminda precinct is located just to the south of Tamworth Jockey Club. It is 1.1 kilometres west or a 3 minute drive from Tamworth city centre⁶. The precinct is approximately 255 hectares in size and is mostly zoned as IN1 – general industrial (~240 hectares). Around 14 hectares is zoned B5 including the recently rezoned parcel of land around Federation Park north of Jewry Street immediately east of the Racecourse. The B4 – mixed use zoning has been excluded from the above figures.

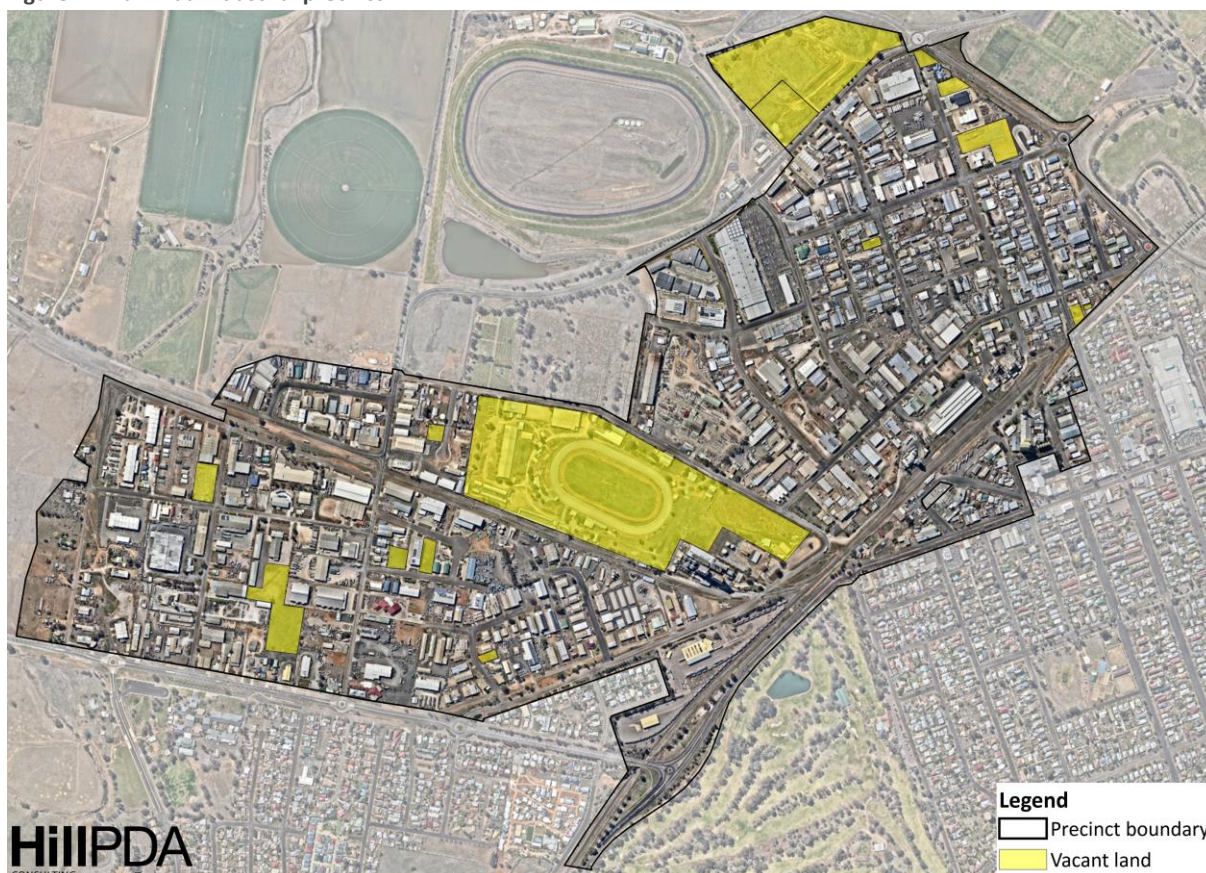
The precinct has good access to heavy vehicles and is separated from surrounding sensitive land uses, although some residential properties are located in the precinct. Land uses are predominantly related to urban services, transport and warehousing, storage, building supplies and bulky goods. These land uses support and provide urban services for the Tamworth residents and businesses.

We have estimated that there is around 32 hectares of vacant land remaining in the precinct, of this around 26 hectares is zoned for general industrial purposes. This includes the Showground and the Greyhound racecourse. If we remove these properties then vacant land is 14 hectares (5.5% of the total estate) of which 8 hectares are IN1 (3.3% of total IN1 land in the estate).



Around eight hectares has recently been zoned north of Jewry Street leaving around 24 hectares vacant south of Jewry Street. Three hectares of this land is Precinct 6 as identified in the Taminda Revitalisation Strategy (Section 2.3 of this study). This area has remained largely un-used and undeveloped since its recommendation for rezoning for industrial purposes.

⁶ Google drive times

Figure 11: Taminda industrial precinct



HillPDA
CONSULTING

Legend
 Precinct boundary
 Vacant land

Source: HillPDA – vacant land either vacant lots or a large proportion of a lot that is vacant and not being used as storage

4.4 Smaller township industrial precincts

There are four smaller industrial precincts located in the township, these are:

East Street precinct | is located on the southern extreme of Tamworth City Centre and could provide around 0.5 hectares of IN1 – general industrial zoned land. A substation is located in the precinct with the remaining 0.2 hectares being vacant land. Residential uses do adjoin a proportion of its border.

Marius Street precinct | is located on the border of Tamworth City Centre and could provide around 3 hectares of IN1 – general industrial zoned land. Agricultural and warehousing uses are located in the precinct. Expansion options are limited due to residential uses bordering the precinct and uses in place already.

Duri Street precinct | the precinct is located just to the south of Taminda precinct around 3.1 kilometres southwest or a 5 minute drive from Tamworth city centre⁷. The precinct is approximately 4.8 hectares in size and is zoned as IN1 – general industrial. The precinct is occupied by a single use and contains no vacant land. There are no expansion options for the precinct and it is surrounded by residential uses.

Depot Street precinct, South Tamworth | the precinct is located around 3.1 kilometres west or a 5 minute drive from Tamworth city centre⁸. The precinct is approximately 1 hectare in size and is zoned as IN1 – general industrial. The site is occupied by a Council depot. There are no expansion options for the precinct, as it is surrounded by residential homes and access is through the residential area.

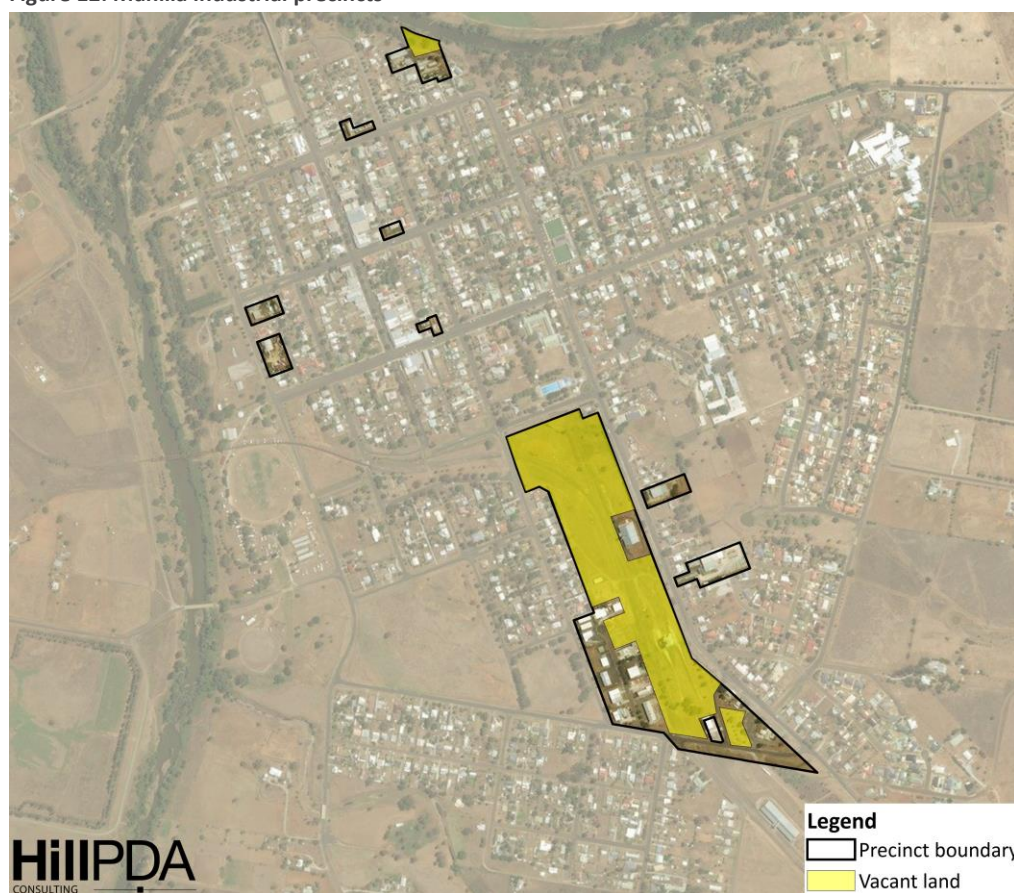
⁷ Google drive times

⁸ Google drive times

4.5 Manilla industrial precincts

Additional land zoned for industrial purposes exists in the town of Manilla located around 43 kilometres or a 34 minute drive to the north of Tamworth Township. The town contains one large industrial precinct and eight smaller precincts. Combined these precincts provide around 19 hectares of zoned land of which around 11 hectares is estimated to be vacant.

Figure 12: Manilla industrial precincts



Source: HillPDA

4.6 Assessment of Tamworth Township industrial precinct summary

The table below provides a high level summary of the above analysed precincts zonings, land area and vacant land.

Table 8: Industrial precinct summary

Precinct	Zoning	Land area (ha)	Vacant land (ha)
Airport precinct	IN3	375	260
Country Rd	B7	123.0	123.0
Taminda	IN1 and B5	254.6	32.4
Duri Rd	IN1	4.8	
Marius St	IN1	2.8	
East ST	IN1	0.5	0.2
Depot St	IN1	1.1	
Total		761.8	415.6

Source: HillPDA

The following provides a summary of the assessment of each precinct in terms of market appeal. The evaluation of each category has been given a high, medium or low ranking based on value judgements with a “High” rating being positive towards high market appeal and “Low” rating being negative.

Table 9: Industrial precincts locational or site specific characteristics

Category	Airport	Country Rd	Taminda	Duri St	Marius St	East St	Depot St
Access for heavy vehicles	High	High	High	Medium	High	High	High
Free of Land use conflicts	High	Medium	High	Low	Low	Medium	Low
Possible expansion areas	High	High	Medium	Low	Low	Low	Low
Flood free	High	High	High	High	High	High	High
Existing Business Agglomeration	Medium	Low	High	Low	Medium	Medium	Low
Proximity to Town Centre	Medium	Medium	High	Low	High	High	Low
Proximity to Labour	Medium	Medium	High	Low	High	High	Low
Total Score	18	16	20	10	16	17	11

Source: HillPDA

In the above table the “Total Score” row refers to the sum of the above with a “High” rating achieving a score of 3 and a “low” rating achieving a score of zero. Clearly the Taminda precinct scores the highest due largely to its high level of existing business agglomeration and proximity to the town centre and surrounding residential areas.

The airport precinct also scores quite well in its own right but it doesn’t score as well as Taminda due to its lack of proximity to the town centre and supporting, established labour and consumer markets. The other precincts are relatively inferior largely due to their location, small scale and in some cases adjoining residential land resulting in potential land use conflicts.

5.0 MARKET APPRAISAL

This Chapter is an analysis of recent sales data within Tamworth’s industrial precincts. Industry engagement was undertaken to understand the local market demand.

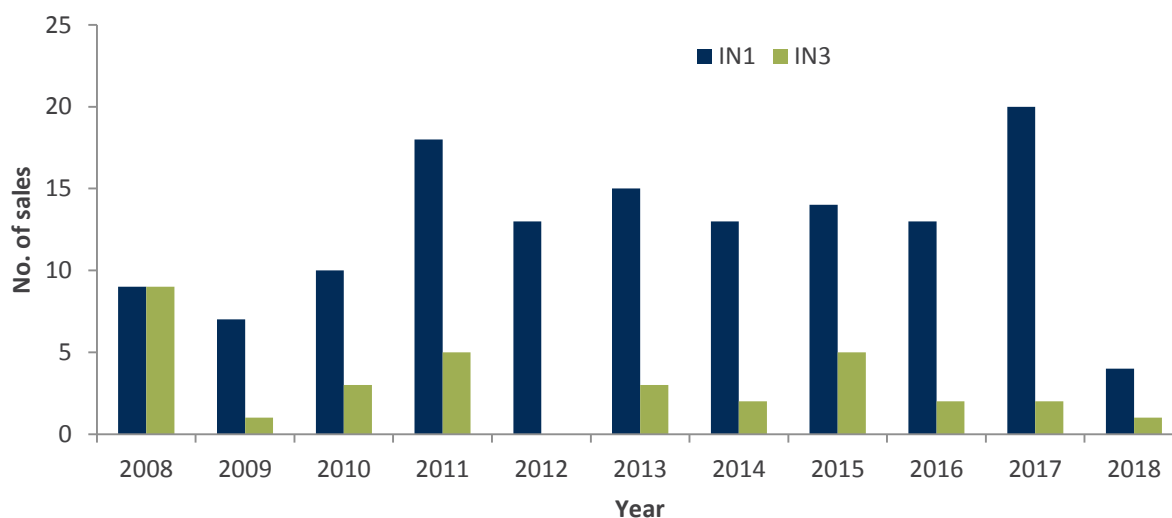
5.1 Industrial market research

5.1.1 Industrial sales volume

An analysis of industrial property sales within the Tamworth locality over the past ten years highlights a consistent low transactional activity for properties particularly in the IN3 Heavy Industrial zoned lands. There has been a reasonable level of transactional activity between 2011 and 2017 with the number of sales peaking in those years. More recently, IN1 Light Industrial zoned land peaked in 2017 which saw 20 properties sold in the calendar year while on average 10 to 15 properties are usually sold in any one calendar year. Heavy industrial properties range from one to five properties per calendar year but peaked in 2008 which saw nine property transfers.

There have been few sales of Strata Titled properties in our findings.

Figure 13: Sales volume for IN1 & IN3 zoned properties between years 2008-2018



There appears to be no direct correlation between median sale prices for either light or heavy industrial properties and the volume of sales transactions.

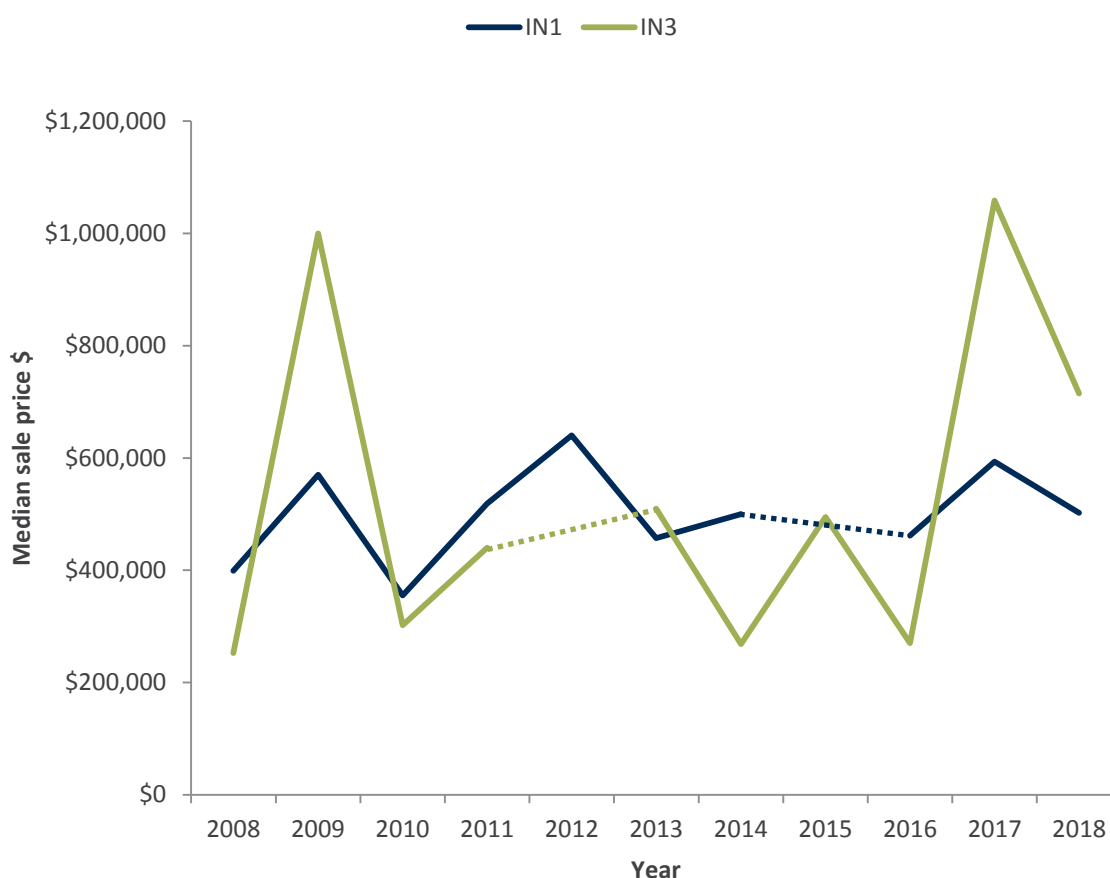
5.1.2 Industrial median sales prices

The figure below provides an indication of the volatility in median sales prices for industrial properties within the Tamworth locality. This is mainly due to the varying age and quality of improvements.

Given the small data set, it is challenging to draw definitive conclusions regarding the trend but we are able to derive that the median sale price for IN1 Light Industrial property has been consistent, peaking in 2009, 2012 and 2017 with median sale values ranging between \$570,000 and \$640,000 on a median lot size of 2,314 sqm. Sale prices fell slightly in the post GFC years from 2010 and between 2013 to 2016. Median sale prices between 2010 to 2016 ranged from \$355,000 to \$462,000 on an median lot size of 2,207sqm.

The peak in median sale price in 2017 for IN3 zoned land is due to only two sale transactions in the year and is not a reliable indication of an increase of median sale prices.

Figure 14: Median sale prices of IN1 & IN3 zoned properties between years 2008-2018



We have also analysed land sales (or minimally improved land) over the past ten years that shows significant fluctuations in the median land sale rates. The below figure shows that the median sale rate of IN1 land has increased from \$104 to \$115/sqm of site area reflecting a 10% increase over a seven year period (averaging a growth trend equivalent to CPI). However, the median sale rate of IN3 land has increased significantly from \$45 to \$94/sqm reflecting a 108% increase over a seven year period.

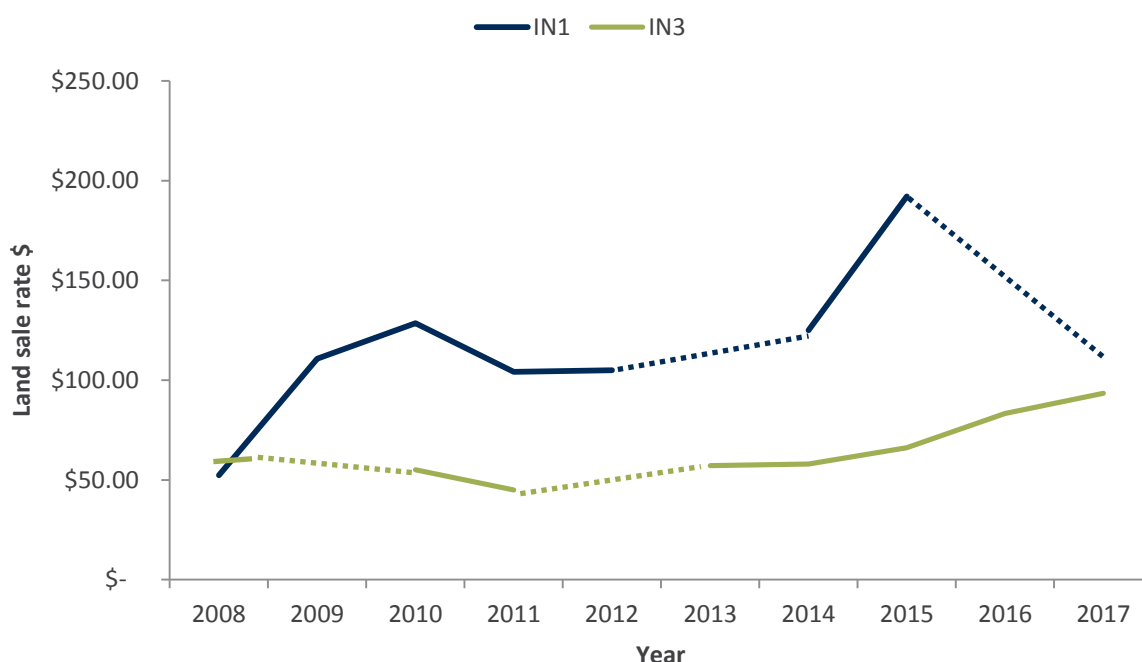
In 2015, 29 Belmore Street was sold for \$192/sqm of site area to the adjoining property owner to potentially provide a secondary street access. A premium appears to have been paid and has caused an unusual peak in median land values and is not reflective of typical land values for this locality.

There has been consistent growth (in line with CPI) in land values for IN1 zoned land, although IN2 land appears to have strengthened. The figure below highlights an increase in values for both light and heavy industrial however experienced a marginal drop within the period of 2011 to 2013 and strengthening in 2017.

An alternative source is the Valuers General which reported a 10.2% increase over the 2016/2017 FY, driven by a recent increased demand for industrial land.

Discussions with three local selling agents have indicated that serviced unimproved IN1 zoned land would have a market land value rate of \$100-\$125/sqm and serviced IN3 zoned land would have a market land value rate of \$80-\$100/sqm.

Figure 15: Land sales rate for IN1 and IN3 zone between years 2008-2017



Dashed line indicates that there had been no sales in the year.

5.1.3 Industrial Rents

Agents have reported that industrial rents range from \$100 to \$150/sqm gross of GLA (average building size of 250sqm). On average, a 1-3 month rent free period is negotiated and is dependent on the length of the lease term.

5.2 Industrial market commentary

5.2.1 Location preference

The Tamworth Industrial market comprises a mixture of older style industrial warehousing and workshops with a number of newer stock interspersed throughout.

There are two main distinct precincts; Taminda (East Tamworth) and the Airport or Intermodal Precinct.

Taminda (East Tamworth) is an established industrial precinct located west of the CBD area. Bounded by the Peel River, rural acreages (to the north) and residential (to the south) and is considered to be fully-developed. The precinct is desirable for light industrial operators such as trades, bulky goods, yards, manufacturers, engineering and mechanical businesses and workshops.

The Intermodal Precinct (Airport) is considered to be a growth area and lies adjacent to Tamworth Airport. The land is currently partly zoned IN3 Heavy Industrial, RU4 Primary Production Large Lots and RU5 Large Lot Residential. This precinct caters for heavy industries such as livestock, agriculture, logistics and mining which will benefit from the soon to be completed freight rail project. The Glen Artney estate was recently expanded to include additional IN1, IN3 and B7 zones. This area will be desirable for large multi-national companies that require road access and the airport.

5.2.2 Competing stock

In our investigation we have found limited unimproved industrial land holdings. The most notable site with similar potential is Tamworth Regional Council's land that lies adjacent to the proposed multi-user Rail Freight Intermodal Terminal.

Another notable site is a parcel of land zoned B7 and is situated south of the Intermodal Precinct (Airport) precinct, more particularly on the southern corner of the intersection of New Winton Road, Oxley Highway and Country Road. The parcel is owned by Hunter Land Holding Pty Ltd which has subsequently gained development consent for a staged 26 lot industrial subdivision with new roads. To date there has been no construction or sale activity and the project has been put on hold.

5.2.3 Land characteristic and constraints

The Intermodal Precinct (Airport) is considered to be a growth area but extending services to it is undermining development feasibility. The proximity to the airport, main road and proposed freight rail are strong positive attributes.

Taminda (East Tamworth) is located closer to the town centre and is bounded by residential properties to the south. It is affected by surrounding flood prone land but is located within an established precinct with services to the road boundary. Lower civil work costs are anticipated comparatively to land in the Intermodal Precinct (Airport).

5.2.4 What types of businesses are likely to locate to the subject site?

- In the current market, the industrial market is dominated by owner-occupiers.
- The subject site has direct and quick access to Wallamore Road from Dampier Street and is positioned on the fringe of Taminda (East Tamworth). Current occupiers in Taminda are light industrial users comprising urban services such as auto repairers, hardware and bulky goods, building and landscaping supplies, pet stores, engineering and mechanical businesses and workshops. Similar operators are anticipated if the subject site is rezoned and redeveloped.
- The Airport site is likely to attract wholesalers, livestock, agriculture, logistics and mining industries with the completion of multi-user Rail Freight Intermodal Terminal.
- Agents have reported an increased in the level of enquires from institutional and national companies for industrial space for warehousing and processing.
- Agents have reported a lack of willingness by some business operators and clients to travel 5 kilometres for work and business. Business precincts such as those located in an Intermodal Precinct (Airport) and are considered to be too isolated. Taminda currently provides light industrial urban services and proximity to the town centre and residential areas is a strong attribute for these businesses.

5.2.5 What size lots are the most being demanded?

- At present, 1,000 – 1,500sqm lots in the Taminda precinct with older industrial warehouses of 200-400sqm are highly sought after.
- Larger lots of 5,000sqm plus are highly sought in the Intermodal Precinct (Airport) by multi-national companies.
- Average size lot in the IN3 precinct is 6.3 hectares (or 2.0 hectares after removing the largely undeveloped land between Marathon Street and Goddard Lane). Median size is 5,665sqm.

- Average size lot in the Taminda precinct is 4,124sqm – less than a quarter of the average size lot in the Westdale IN3 precinct. The median size lot in Taminda is 2,023sqm – almost one third the median size lot in the Westdale IN3 precinct.
- The smaller lots in Taminda are suitable for urban services such as auto repairs, home improvements, engineering services and the like.

5.2.6 Is there adequate appropriately zoned land? Should there be more industrial land?

- Real estate agents have reported an increased level of enquires and the leading indicator is the short selling period of land/stock averaging one to two months.
- They have also reported purchases' intentions to knock down older industrial sheds on 1,000 to 1,500sqm lots for redevelopment in Taminda which indicates a lack of new stock on the market.
- As heavy industries expand or new businesses establish headquarters in Tamworth, an increase of demand from supporting businesses will require industrial land resulting in additional strain on current low supply. The best example of the effect of a new transport hub is located in Wagga Wagga, the Riverina intermodal Freight and Logistics (RiFL) hub which comprises new major rail and road infrastructure and a freight terminal. This has attracted new enterprises to the area and has generated considerable employment and economic activity.

6.0 DEMAND & GAP ANALYSIS

The following Chapter projects the additional demand for industrial land in the township, with a particular focus on the demand for IN1 – general industrial land.

6.1 Supply and demand methodology

The following methodology has been applied to project the amount of additional industrial land the township would require to accommodate the forecast growth in employment.

1. Analyse the growth in employment by industry type in the LGA over the last 15 years
2. Project employment generated in the LGA by industry type over the next 20 years
3. Quantify the increase in employment for industries typically located in industrial precincts
4. Project the amount of floorspace to accommodate the increase in employment based on typical full-time equivalent employment densities
5. Project the amount of land required to accommodate the additional employment floorspace
6. Examine whether the amount demanded is greater than the current and potential future employment lands total in the Tamworth Township.

6.2 Employment projections

6.2.1 Historic employment growth trends

As noted in Chapter 3, the number of jobs generated in Tamworth LGA reached 26,530 jobs in 2016. This represented an increase of 19% or just over 4,200 job over that recorded in 2001 (22,325 jobs). Of this net growth, 631 jobs or 15% were related to ‘blue collar’ industries.

The right three columns provide the annual compound growth rate for a particular industry over a certain time over in the last 15 years.

These compound growth rates are used to project out three possible employment growth scenarios.

Table 10: Employment growth and annual growth rates

Industry					Annual growth rate		
	2000/01	2005/06	2010/11	2015/16	2001-16	2006-16	2011-16
Agriculture, Forestry and Fishing	2315	2300	1985	1959	-1.1%	-1.6%	-0.3%
Mining	18	29	53	57	8.0%	7.0%	1.5%
Manufacturing	1971	2491	2544	2513	1.6%	0.1%	-0.2%
Electricity, Gas, Water & Waste Services	215	262	309	389	4.0%	4.0%	4.7%
Construction	1308	1808	2271	2179	3.5%	1.9%	-0.8%
Wholesale Trade	1084	943	935	869	-1.5%	-0.8%	-1.4%
Retail Trade	2864	3010	3022	3107	0.5%	0.3%	0.6%
Accommodation and Food Services	1931	1649	1838	1794	-0.5%	0.8%	-0.5%
Transport, Postal and Warehousing	1164	1259	1311	1255	0.5%	0.0%	-0.9%
Information Media & Telec.	356	325	345	320	-0.7%	-0.2%	-1.5%
Financial and Insurance Services	577	606	613	598	0.2%	-0.1%	-0.5%
Rental, Hiring and Real Estate Services	290	339	425	418	2.5%	2.1%	-0.3%

Professional, Scientific & Technical Ser.	860	842	962	894	0.3%	0.6%	-1.5%
Administrative and Support Services	581	601	704	690	1.1%	1.4%	-0.4%
Public Administration and Safety	1164	1527	1633	1565	2.0%	0.2%	-0.9%
Education and Training	1720	1980	2312	2419	2.3%	2.0%	0.9%
Health Care and Social Assistance	2601	3033	3623	3963	2.8%	2.7%	1.8%
Arts and Recreation Services	232	202	256	256	0.7%	2.4%	0.0%
Other Services	1074	1157	1225	1285	1.2%	1.1%	1.0%
Total Industries	22325	24363	26367	26530	1.2%	0.9%	0.1%
'blue collar' industries	4452	4984	5152	5083	0.9%	0.2%	-0.3%

Source: Economy id, HillPDA

6.2.2 Employment projections

Projecting the above compound growth rates to 2036 formed the basis of our three employment growth scenarios:

- **Scenario 1 – low growth** | extrapolated the individual industry annual growth rate experienced over the last 10 years (from 2006 to 2016) to project employment growth to 2036.
- **Scenario 2 – high growth** | extrapolated the individual industry annual growth rate experienced over the last 15 years (from 2001 to 2016) to project employment growth to 2036.

Using the above methodology the following employment projections were derived:

6.2.2.1 Scenario 1 – low growth employment projection

Under Scenario 1 employment generated in the LGA increases to around 33,220 jobs by 2036. This represents an increase of around 6,690 jobs or 25% from that recorded in 2016.

Under this scenario, employment increases proportionally with population growth, while workforce participation rate (ratio of workers to residents above 15 years old) remains steady at around 55%.

Table 11: Scenario 1 – low growth employment projections

Industry	2016	2021	2026	2031	2036
Agriculture, Forestry and Fishing	1959	1808	1669	1540	1429
Mining	57	80	112	157	223
Manufacturing	2513	2524	2535	2546	2597
Electricity, Gas, Water and Waste Ser.	389	474	577	703	856
Construction	2179	2392	2626	2882	3213
Wholesale Trade	869	835	802	770	734
Retail Trade	3107	3157	3208	3259	3319
Accommodation and Food Services	1794	1871	1952	2036	2096
Transport, Postal and Warehousing	1255	1253	1250	1248	1253
Information Media and Telec.	320	317	315	312	308
Financial and Insurance Services	598	593	589	585	583
Rental, Hiring and Real Estate Services	418	464	515	572	637
Professional, Scientific & Technical Services	894	921	949	978	1004
Administrative and Support Services	690	739	791	848	906
Public Administration and Safety	1565	1584	1603	1623	1671

Education and Training	2419	2674	2956	3267	3621
Health Care and Social Assistance	3963	4531	5179	5920	6777
Arts and Recreation Services	256	288	324	365	404
Other Services	1285	1355	1428	1505	1589
Total Industries	26530	27859	29380	31117	33219
'blue collar' industries	5083	5133	5184	5235	5323

Source: HillPDA

6.2.2.2 Scenario 2 – high growth projection

Under Scenario 2, employment generated in the LGA increases to around 35,990 jobs by 2036. This represents an increase of around 9,462 jobs or 36% from that recorded in 2016.

Under this scenario, employment increases proportionally at a higher rate (~11% higher with population growth, while workforce participation rate increases to 60%).

Table 12: Scenario 2 – high growth employment projections

	2016	2021	2026	2031	2036
Agriculture, Forestry and Fishing	1959	1853	1753	1658	1569
Mining	57	84	123	181	265
Manufacturing	2513	2725	2955	3204	3474
Electricity, Gas, Water and Waste Ser.	389	474	577	703	856
Construction	2179	2583	3062	3629	4302
Wholesale Trade	869	808	751	697	648
Retail Trade	3107	3193	3281	3371	3464
Accommodation and Food Services	1794	1751	1708	1667	1627
Transport, Postal and Warehousing	1255	1286	1319	1352	1387
Information Media and Telec.	320	308	298	287	277
Financial and Insurance Services	598	605	612	619	626
Rental, Hiring and Real Estate Services	418	472	533	602	680
Professional, Scientific and Technical Ser.	894	905	917	929	941
Administrative and Support Services	690	730	773	819	867
Public Administration and Safety	1565	1727	1906	2103	2321
Education and Training	2419	2711	3037	3403	3812
Health Care and Social Assistance	3963	4561	5248	6039	6949
Arts and Recreation Services	256	265	273	282	292
Other Services	1285	1365	1449	1538	1633
Total Industries	26530	28404	30574	33085	35991
'blue collar' industries	5083	5312	5552	5803	6065

Source: HillPDA

6.3 Employment directed towards industrial precincts

The next step is to allocate the amount of employment directed towards Tamworth's industrial precincts based on individual industry types, composition and land use requirements. The first second column in the table below is the proportion of an industry's total employment typically directed accommodated in industrial precincts.

Table 13: Employment directed to industrial precincts

Industry	% directed to Industrial zoned land	Scenario 1		Scenario 2	
		2016	2036	2016	2036
Mining	70%	40	156	40	186
Manufacturing	100%	2,513	2,597	2,513	3,474
Electricity, Gas, Water & Waste Ser	100%	389	856	389	856
Construction	50%	1,089	1,607	1,089	2,151
Wholesale Trade	70%	609	514	609	454
Retail Trade	10%	311	332	311	346
Accommodation and Food Services	30%	538	629	538	488
Transport, Postal and Warehousing	90%	1,129	1,127	1,129	1,248
Rental, Hiring & Real Estate Services*	20%	84	127	84	136
Other Services**	40%	514	635	514	653
Total		7,215	8,580	7,215	9,993

Source: HillPDA, *includes agricultural farming equipment's sales and renting, **includes automotive repairs

6.4 Industrial floorspace demand

We have applied industry standard employment densities⁹ to the growth in employment directed to Tamworth's industrial precincts in order to quantify the amount of additional floorspace required.

Under the two scenarios an additional 141,390sqm to 285,165sqm would be required in the LGA's industrial precincts to meet employment growth over the next 20 years.

Table 14: Industrial floorspace demand (2016-2036)

Industry	Industrial employment density (sqm/worker)	Scenario 1	Scenario 2
Mining	200	23,192	29,180
Manufacturing	100	8,378	96,100
Electricity, Gas, Water and Waste Services	150	70,086	70,149
Construction	75	38,792	79,635
Wholesale Trade	150	-14,198	-23,261
Retail Trade	80	1,692	2,854
Accommodation and Food Services	60	5,430	-3,015
Transport, Postal and Warehousing	200	-347	23,757
Rental, Hiring and Real Estate Services	80	3,511	4,198
Other Services	40	4,851	5,565
Total		141,387	285,163

Source: HillPDA

6.5 Demand for industrial land

We have applied average floorspace ratios (FSRs) typically developed in regional industrial precincts to the above total floorspace demand under each scenario in order to estimate the amount of additional land required.

⁹ Number of employees per square metre

Typically, the building area of industrial developments does not encompass the entirety of the developable land of the parcel they reside within. This is as a result of the specific site requirements of typical industrial occupiers which require setbacks from property boundaries and the need for truck turning areas, parking areas, loading and unloading, etc. As such HillPDA has applied a ratio of 0.3 and 0.5 to the projected additional industrial floorspace demand.

Using this methodology it is forecast that Tamworth LGA is likely to absorb an additional 28 hectares to 95 hectares of industrial zoned land to accommodate the projected demand in employment floorspace over the next 20 years.

It is prudent to provide an additional supply of land (or contingency) above that projected in the interest of maintaining a healthy market through consumer choice, price competition and futureproof. Without some level of vacancies, land values could be inflated undermining further economic growth and investment. A healthy positive supply of land (or contingency level) is considered to range between 20% and 40% and we have adopted a contingency level of 20%.

With this taken into account, a minimum of 34 hectares to 114 hectares of industrial zoned land would be required to meet demand over the next 20 years.

Table 15: Forecast demand for additional industrial zoned land by 2036

	Scenario 1	Scenario 2
Total additional floorspace	141,387	285,162
Land required @ 0.3 FSR (ha)	47	95
Land required @ 0.5 FSR (ha)	28	57

Source: HillPDA

6.6 Supply and demand

Currently, Tamworth LGA provides around 762 hectares of land that is zoned for industrial purposes with an estimated 416 hectares of this being vacant. Refer to the table immediately below.

Table 16: Current and potential supply of industrial zoned land in Tamworth LGA

Precinct	Zoning	Land area (ha)	Vacant land (ha)
Airport precinct	IN3, IN1 and B7	375	260
Country Rd	B7	123	123
Taminda	IN1 and B5	254.6	32.4
Duri Rd	IN1	4.8	
Marius St	IN1	2.8	
East ST	IN1	0.5	0.2
Depot St	IN1	1.1	
Total		761.8	415.6

Source: HillPDA

The current 416 hectares of vacant land is sufficient to accommodate the projected growth in demand over the next 20 years (Table 16). However the majority of this vacant land is located outside the town, near the airport, and/or on land that would need to be serviced.

Thirty nine per cent (39%) of the employment area (299 hectares) is zoned IN1 General Industrial. The largest and most developed of these precincts is Taminda. Around 240 hectares of Taminda is zoned IN1 and a further 14 hectares is zoned B5. Only 32 hectares or 12.5% of the estate is currently vacant. If we removed the

Showground and greyhound race track it brings the amount of vacant land down to 14 hectares – only 5.5% of the total estate.

6.7 Implications for general industrial zoned land

A closer look at the amount of industrial land in the LGA reveals that of the 584 hectares currently zoned, 267 hectares or 46% is zoned for general industrial purposes with only 7% of this being vacant.

This is compared to heavy industrial zoned land, which comprises 194 hectares or 33% of industrial land stocks, of which 79 hectares or 41% is vacant.

Land zoned for business parks purposes, which permits light industrial uses, comprises 123 hectares of land or 21% of all industrial related zoned land. Of this total, 100% is vacant land.

This highlights the high demand for general industrial land to accommodate local services, indicated by the low level of vacancies.

If we assumed that 50% of the future demand for industrial land is directed towards light and general industrial zoned land, then around 17 to 57 hectares of additional land would be required to accommodate the growth in urban services over the next 20 years.

With only 26 hectares of vacant general industrial land currently present in the Tamworth Township (or 8 hectares net of the Showground and Greyhound racetrack), additional land zoned for general industrial purposes will be required over the coming years.

The subject site is currently the most appropriate location to meet the immediate future demand within the Township given:

1. The uncertainty in timeframes surrounding the proposed expansion and rezoning of further lands
2. Proximity to the Township and existing infrastructure
3. Its high market appeal
4. The fact that the subject site was previously recommended for rezoning for general industrial purposes in Council's *Taminda Revitalisation + Economic Development Strategy 2008*.

6.8 Implications for the subject site

Notwithstanding the large potential supply of land, there remain a few other issues to consider. Taminda achieved the highest score for market appeal given it's the most developed precinct and its proximity to the town centre and established residential areas.

The other precincts that are in proximity to the township are in isolated locations and may incur significant additional capital investment due to costs associated with servicing the land or the provision of infrastructure.

Some other precincts rely heavily on proposed or anticipated investment with lead times difficult to factor or provide market certainty to. The geographic location of some precincts lends to more specialised tenants that either have a relationship with the airport or require relative isolation to other uses, for example a poultry processing plant. Taminda is uniquely positioned to provide land for the expansion of urban services in line with the growing community of the township.

7.0 SUGGESTED LAND USE MIX

This chapter explores the idea of alternate uses for the subject site in Taminda by exploring a number of case studies or example estates. Due to the evolving nature of existing industrial areas experiencing an increase in demand for commercial uses the case studies examined includes commercial focused business parks where a hybrid of industrial and commercial uses are visible. Note that these examples do not include out-of-centre retail and commercial businesses that potentially compete with the traditional existing town centres.

7.1 Case Studies

The case studies explored are:

- Norwest Business Park;
- Riverside Corporate Park, North Ryde;
- Wetherill Park Employment Area; and
- West Byron Employment Area

Each of these is explored below.

7.1.1 Norwest

Norwest Business Park is located off Windsor Road in the outer suburbs the Baulkham Hills Local Government Area (The Hills Shire), approximately 36km to the northwest of Sydney CBD¹⁰. It covers approximately 377ha¹¹ of land (equivalent in size to Sydney CBD), of which around 172 hectares (say 135ha net of internal roads) is zoned for employment uses. The balance was developed as the Bella Vista residential estate. The Norwest Business Park is located immediately to the east of Old Windsor Road and approximately 1km north of the M2 Motorway.

Today Norwest Business Park contains more than 450,000sqm of business floorspace space which predominately constitutes commercial floorspace¹². 800 companies are located in the park employing around 23,000 people¹³. The complex consists of a mix of commercial, professional & health care services and a number of mixed tenanted office buildings. Business tenants within Norwest are diverse, ranging from information technology (e.g. Alltech, Cathay Pacific) and pharmaceuticals (e.g. Douglas, Rhone Polenc, Sigma Pharmaceuticals, Wyeth, ResMed), to manufacturing (e.g. Schneider Electric, Bullivants), construction (e.g. AV Jennings, Clarendon Homes) and financial and service companies (e.g. AAMI Insurance, The Reserve Bank of Australia, Capital Finance). The Hills Shire Council also recently moved into the park and Woolworths established their headquarters here employing over 4,000 workers in one building.

The primary employment function of Norwest is supported by two shopping centres:

- Marketown Shopping Centre which provides 8,300sqm (gross lettable area or GLA) of retail floorspace including a 4,000sqm Coles supermarket. It is a single level shopping centre on a site of 4.4 hectares with 53 shops including 20 restaurants and take-away food stores¹⁴.

¹⁰ Source: Googlemaps

¹¹ Source: Invest Sydney Hills, The Hills Shire Council (2011)

¹² Source: Potential Locations for a Business Park in the South West, Hill PDA 2011

¹³ Source: <http://norwestbusinesspark.com.au/>, Wikipedia, NSW TPA

¹⁴ Source: Property Council of Australia Shopping Centres Directory (2018)

- Circa Retail Shopping Centre was opened recently in 2009 and provides approximately 21 shops totalling 5,200sqm¹⁵ (GLA) shopfront floorspace including a Woolworths supermarket of 3,045sqm. Site area is 1.14 hectares.

These retail facilities provide important support services to employees on site and residents in the surrounding area. Clustering appropriate retail uses on-site is consistent with the principles of sustainable development by reducing the need for workers to travel to access such facilities and diversifying job opportunities. The two centres comprise 4.2% of the total area of the business park. Combined with the ice rink and the three main hotels these facilities comprise more than 9% of the area of the business park.

Norwest was very slow to develop in the first 10 years of its life. Despite much investment in roads and services businesses were reluctant to locate there. Perhaps the three strongest catalysts that attracted businesses were:

- The construction and opening of the M2 motorway, which gave much more rapid access to other main parts of Sydney such as Sydney CBD, Macquarie Park and the Airport;
- The development of the Bella Vista housing estate which provided executive style living right next to the business park; and
- The Marketown which gave it a centre for providing retail and commercial services to workers in the business park and also to the residents of Bella Vista.

In 2005, the Woolworths Limited head office was constructed, and now employs several thousand staff. Norwest became more than just a place to work. It became a place to live, shop and work. Since then the development was vastly more rapid and today there are few remaining development sites. The estate now accommodates a range of other uses including a private hospital, Hillsong mega-Church and a second shopping centre. There are also several hotels – Novotel, Adina Apartments and Quest Bella Vista. Employment by occupation type is shown in the table below

Table 17: Norwest – Employment by Occupation Type 2016

Occupation	No.	% of Total
Managers	4,082	17.3%
Professionals	7,583	32.1%
Technicians and Trades Workers	2,124	9.0%
Community and Personal Service Workers	1,739	7.4%
Clerical and Administrative Workers	4,209	17.8%
Sales Workers	1,688	7.2%
Machinery Operators and Drivers	596	2.5%
Labourers	1,149	4.9%
Inadequately described/ Not stated	419	1.8%
TOTAL	23,589	100.0%

Source: ABS Working Population Profile for Bella Vista SA2 2016

Construction of the Northwest Rail Line commenced in 2014, with two railway stations being built in the Norwest Business Park - Bella Vista Station and Norwest Station. The North West Rail Link is scheduled to open to the public in 2019. There are a number of planning proposals relating to the redevelopment of sites in

¹⁵ Source: Property Council of Australia Shopping Centres Directory (2018)

proximity to train stations for considerably higher density living and employment uses including the Marketown Shopping Centre. Norwest continues to expand and by 2031 it is expected to house 32,000 jobs¹⁶.

7.1.2 Riverside Corporate Park

The Riverside Corporate Park is located in the suburb of North Ryde, approximately 14 kilometres to the north east of the Sydney Central Business District, immediately to the east of the intersection of Epping Road, Delhi Road and the M2 Motorway.

The Riverside Corporate Park is located on the former site of the CSIRO. Its development was initiated by the CSIRO in the early 1990s through the sale of surplus parcels of land to private enterprise. The intention was to foster the development of commercial activity which complemented the research based activities of the CSIRO. Initially it was slow to attract business essentially because the locality lacked the identity, facilities and support services sought by potential investors and occupants.

CSIRO developed the “Central Services Facility” – now called the Village – in the middle of the estate. Later came several substantial office complexes, notably those of Oracle, Microsoft, Fujitsu and Quest Serviced Apartments, which has made it become one of Sydney’s most prominent business locations. Today the Park occupies 26.6 hectares (excluding the residential sites and the area of internal roads). It accommodates an estimated 220,000 square metres of business floor space employing around 10,000 workers and is now serviced by the new train station at North Ryde. Employment by industry type is provided in the table below:

Table 18: Riverside Corporate Park – Employment by Industry Type 2016

Industry	No.	% of Total
Primary	72	0.7%
Manufacturing	1561	15.7%
Utilities	25	0.3%
Construction	1,239	12.5%
Wholesale Trade	1,253	12.6%
Retail Trade	301	3.0%
Accommodation and Food Services	147	1.5%
Transport, Postal and Warehousing	62	0.6%
Information Media and Telecommunications	118	1.2%
Financial and Insurance Services	111	1.1%
Rental, Hiring and Real Estate Services	45	0.5%
Professional, Scientific and Technical Services	3,837	38.6%
Administrative and Support Services	682	6.9%
Public Administration and Safety	34	0.3%
Education and Training	85	0.9%
Health Care and Social Assistance	218	2.2%
Other	152	1.5%
TOTAL	9,942	100.0%

Source: Transport for NSW TPA 2018

The site of the Village is approximately one hectare and accommodates a tennis court, A 25m swimming pool, 2 financial services, a newsagency, two medical services, three food services (restaurant and take-away), an

¹⁶ Source: Wikipedia

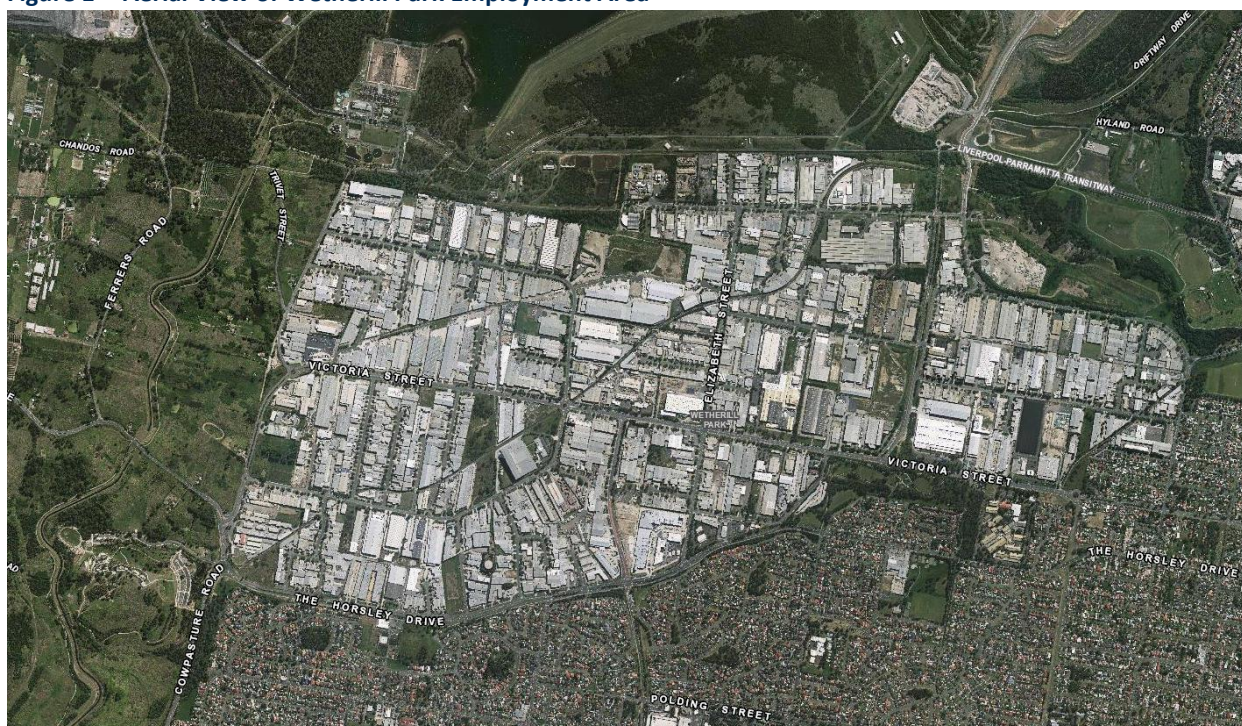
animal pharmacy, printing services, a telecommunications service provider and a child care centre. The village occupies around 4% of the total area of the business park. The Village and Quest apartments combined make up 6.5% of the business park area.

Riverside Corporate Park is more a business park filled with A and B-grade commercial buildings rather than an industrial park like Taminda. Nevertheless it provides a good case study of the importance of a central services facility to the marketing and economic success of an employment area. In this case The Village is the only example of a retail and commercial services centre which captures its entire revenue from workers and businesses in the estate and none from residents in the locality.

7.1.3 Wetherill Park Employment Area

The Wetherill Park industrial area is bounded by Prospect Reservoir and the LGA boundary with Holroyd to the North, Cowpasture Road to the West, The Horsley Drive and Victoria Street to the South and Hassall Street to the East. This is shown on the aerial photo below.

Figure 1 - Aerial View of Wetherill Park Employment Area



Source: NSW Department of Lands Six Viewer

The area is also defined by employment zones under Fairfield LEP 2013. The predominant zone is IN1 but there are also areas of IN2, B5 along Horsley Drive and a small pocket of B1 which accommodates a McDonalds restaurant.

Total area is 600 hectares of which around 43 hectares (7%) is zoned B5.

The area accommodates almost 21,000 workers. Job density is 35 workers per hectare which is considerably lower than more traditional industrial areas with densities at around 70 to 80 jobs per hectare. This reflects the nature of the employment zone which is large warehouses for storage and transport related industries. Whilst manufacturing businesses are quite predominant they are larger and more automated.

Table 19: Wetherill Park Industrial Area – Employment by Industry Type 2016

Industry	No.	% of Total
Primary	72	0.3%
Manufacturing	8,010	38.3%
Utilities	270	1.3%
Construction	2,380	11.4%
Wholesale Trade	3,259	15.6%
Retail Trade	830	4.0%
Accommodation and Food Services	385	1.8%
Transport, Postal and Warehousing	2,378	11.4%
Information Media and Telecommunications	76	0.4%
Financial and Insurance Services	257	1.2%
Rental, Hiring and Real Estate Services	270	1.3%
Professional, Scientific and Technical Services	471	2.3%
Administrative and Support Services	766	3.7%
Public Administration and Safety	170	0.8%
Education and Training	57	0.3%
Health Care and Social Assistance	206	1.0%
Other	1,030	4.9%
TOTAL	20,887	100.0%

Source: Transport for NSW TPA 2018

Within the B5 zone is a shopping centre called Greenway Plaza on the corner of Horsley Drive and Elizabeth Street. Site area is 6.385 hectares. Greenway Plaza has a leasable floor area of approximately 28,000sqm (of which around 20,000sqm is occupied). Large format stores include:

- Three gymnasium/fitness centres,
- Spotlight (2,500sqm),
- Officeworks (2,100sqm),
- The Good Guys (2,200sqm),
- Supercheap Auto,
- BCF (bulky goods),
- Intersport (sportswear and equipment),
- Petbarn, Beds-R-Us, Rugs and flooring and Service NSW
- Joe's Fruit shop (700sqm)
- Four specialty food stores (bakery, butcher, seafoods, cakes)
- 14 restaurants and take-away food stores
- five non-food specialty stores
- two personal services (hair and dry cleaners).
- There are also 10 non-retail commercial premises providing a range of services including legal, financial, medical and real estate services.

There are a number of large format retailers (lighting, hardware, bridal, etc) along Horsley Drive in the B5 zone but the area never developed as a destination bulky goods centre.

In the middle of the industrial estate, at 447 Victoria Street, a small multi-function commercial building was recently constructed on a 7,400sqm site. It comprises a single level tavern, an occupation health centre and four levels of commercial suites providing a range of services including real estate, legal, financial, accountancy, travel, employment and food (café and restaurant).

Wetherill Park is a more direct comparable being mostly industrial with lower than typical job density ratios (at around 35 jobs per hectare) with industries that are mainly manufacturing, warehousing and transport related. However its retail and commercial centre is on the boundary of the precinct and it is likely to capture a fair proportion of its trade from the adjacent residential area – not just from workers in the industrial area. Furthermore the employment area is very large at 600 hectares and hence few workers would be walking to

7.1.4 West Byron Employment Area

The West Byron Employment Area also known as the “Byron Arts and Industry Employment Precinct” is the largest industrial estate in Byron LGA, comprising over 140 industrial premises (not including individual strata allotments). The precinct has a number of employment zonings, being IN2 General Industrial, B1 Neighbourhood Centre, B4 Mixed Use and B7 Business Park. Uses in the precinct are highly variable, including urban support services. Services support the strong tourist retail market with a number of retail outlets and internet businesses operating out of the precinct.

Total areas by zone are as follows:

■ IN2 Light Industrial zone:	30.0 ha
■ B7 Business Park zone:	9.8 ha
■ B1 Neighbourhood centre:	0.9 ha
■ B4 Mixed Use:	7.3 ha
■ TOTAL	48.0 ha

The precinct is located 4.5 kilometres to the west of Byron Bay town centre along one of the two entry corridors into the town. This close proximity to Byron Bay Town Centre and significant clustering of commercial, retail and industrial businesses in the precinct have contributed to the success of the precinct. The precinct has experienced very strong increases in land values – almost doubling from 2013 to 2017 – driven by strong demand, limited supply and very strong increases in rents (Valuers Australia, 2017).

Figure 16: Byron Arts and Industry employment precinct



At the northern end of the employment precinct is the Sunrise Boulevard Centre which comprises the Byron West Shopping Fair and the “Habitat”.

Figure 17: Byron Bay Sunrise Boulevard Centre



The Byron West Shopping Fair is a 2,700sqm shopping centre anchored by a 1,600sqm supermarket. Specialty shops include two cafes/restaurants, liquor store, medical services and a pharmacy. The remaining retail space scattered throughout the industrial area is bulky goods such as lighting, furniture, hardware and the like as well as a few cafes and fast food stores and a petrol/auto-service station. There is a range of other services in the industrial area to support workers including a couple of gymnasiums. There are 1,200 residents that live immediately to the northeast of the industrial area that patronise the shopping centre, but that number is insufficient to support the centre which means that a significant level of its trade comes from workers in the locality.

The Habitat is a mixed use business hub currently under construction. It will combine live and work, commercial office, retail and cafe spaces. The site is 7.3ha and zoned B4 Mixed Use.

As shown in the table below the floor space audit identified the following employment uses as occupying the greatest proportion of gross floor area: retail trade (23%); manufacturing (13%) and wholesale trade (12%). The precinct has a floor space vacancy rate of 4.6% and approximately 85,554sqm of vacant land. Fifteen per cent of properties in the precinct incorporated some form of sustainability element.

Table 20: Byron Arts and Industry employment precinct floor space audit

Industry	Floor space (sqm)	(%)
Manufacturing	20,385	13.3%
Electricity, Gas, Water and Waste Services	60	0.0%
Construction	2,022	1.3%
Wholesale Trade	18,096	11.8%
Retail Trade	34,900	22.8%
Accommodation and Food Services	1,223	0.8%
Transport, Postal and Warehousing	12,630	8.3%
Information Media and Telecommunications	449	0.3%
Financial and Insurance Services	241	0.2%
Rental, Hiring and Real Estate Services	11,715	7.7%
Professional, Scientific and Technical Services	5,689	3.7%
Administrative and Support Services	4,184	2.7%
Public Administration and Safety	1,859	1.2%
Education and Training	1,402	0.9%
Health Care and Social Assistance	2,336	1.5%
Arts and Recreation Services	11,924	7.8%
Other Services	14,498	9.5%
Inadequately described	446	0.3%
Residential	1,862	1.2%
Vacant Floor Space	6,990	4.6%
TOTAL FLOOR SPACE	153,000	100%
Vacant land	85,554	57%

Source: HillPDA Survey 2017

The range of retail, commercial, medical and recreational services in the locality has assisted the employment area to be one of the most successful in the far north coast region. Other factors have been the location between the highway and the Byron Town Centre with direct access in all directions. The estate has developed and continues to develop in an interest mix of creative industries and support services.

7.2 Suggestions for Taminda

Commercial services, retail and human support services including accommodation, food services and childcare facilities are important components in successful employment precincts whether they are predominantly white-collar office precincts or blue-collar industrial estates. Two of the above cases studies (Norwest and Riverside Corporate Park) are commercial business parks which differ from the more traditional industrial area of Taminda. Nevertheless the support service demand of workers is similar particularly given the shift towards a more quasi-commercial role observed in many traditional precincts. Wetherill Park is a good benchmark being mostly industrial with lower than typical job density ratios and industries that are mainly manufacturing, warehousing and transport related. However its retail and commercial centre is on the boundary of the precinct and it is likely to capture a fair proportion of its trade from the adjacent residential area.

Riverside Corporate Park is more of a business park than an industrial area but its retail and commercial centre is more modest in scale. It is almost entirely dependent on the workers and businesses in the estate getting no trade from residents in the surrounding suburbs.

Byron Bay provides a good benchmark given that it is a regional employment area, is of similar size to Taminda and has similar employment numbers. However the jobs are a little more weighted towards the creative and boutique industries.

Overall the proportion of total workers in these estates that work in retail and hospitality services is between 6% and 16% - around 20% in the case of West Byron. The site area occupied by these uses ranges generally between 8% and 15% of the total employment precinct.

Taminda is around 255 hectares of zoned employment land predominantly IN1. Around 7 hectares south of Jewry Street is zoned B5 but this is already developed. Bunnings occupies around 4 hectares of this land and existing industrial units occupies the balance. The estate lacks a central services facility to support businesses and workers.

There is a parcel of land of 6.4 hectares on the north side of Jewry Street just to the east of the Racecourse that was recently rezoned to B5 but this site is not central (middle of the estate or at a main entry point). It's likely to be developed in the future for bulky goods or industrial uses rather than for commercial services.

With direct frontage on the collector road through the estate No. 55 Dampier Street is a reasonable location for a B5 zone. We would recommend a site area of around 5 hectares. Notwithstanding employment density in Taminda is around 30-35 jobs per hectare – similar to Wetherill Park but considerably lower than business parks. Wetherill Park however has more than 20,000 workers and more than 6,000 residents supporting the Greenway Plaza. The advantage of the B5 zone is that it will allow more traditional industrial services should commercial and retail services fail to be delivered due to lack of market interest.

8.0 ECONOMIC OUTPUT

This chapter quantifies the likely economic output from the development of the estate assuming full occupancy. Economic output can be measured in a number of ways including gross output (revenue), employment and gross value added (contribution to gross regional product) both direct (production on site) and indirect (production and consumption off site).

8.1.1 Direct Impacts

Assuming all 30 hectares is developed and based on an average density 70 jobs per hectare over 5 hectares in the B5 zone, 3 jobs per hectare on the solar farm and 35 jobs per hectare over the IN1 zone then we estimate total employment on site to reach 1,000. Gross revenue is likely to be \$384m, total salaries \$57m and gross value added (GVA) to be \$119m every year. The performance indicators by a likely mix of industry type are shown in the table below.

Table 21: Direct Economic Impacts of the Planning Proposal

Industry	No. of Workers	Revenue (\$m)	Salaries (\$m)	GVA (\$m)
Manufacturing	284	123.2	18.8	34.0
Electricity, Gas, Water and Waste Services	37	38.2	4.0	17.4
Construction	148	53.6	7.8	16.2
Wholesale trade	109	35.0	3.6	6.3
Retail Trade	62	52.3	4.6	7.5
Accommodation and Food Services	38	4.1	1.0	1.6
Transport, Postal and Warehousing	182	50.8	10.4	23.1
Information Media and Telecommunications	8	3.5	0.7	1.7
Financial and Insurance Services	10	3.9	0.4	2.1
Rental, Hiring and Real Estate Services	8	1.7	0.6	0.9
Professional, Scientific and Technical Services	14	1.5	0.7	0.9
Administrative and Support Services	12	1.6	0.6	0.9
Public Administration and Safety	23	1.4	1.1	1.5
Health Care and Social Assistance	42	6.9	1.3	2.6
Other Services	23	6.4	1.2	2.4
Total	1,000	384.0	56.8	118.9

Source: HillPDA from ABS Australian Industry 2016-17

8.1.2 Indirect Impacts

Industries have strong linkages with other sectors of the economy so their impacts go further than direct contribution. “Multipliers” refer to the level of additional economic activity generated by a source industry.

There are two types of multipliers:

- Production induced: which is made up of:

- First round effect: which is all outputs and employment required to produce the inputs for construction;
- An industrial support effect: which is the induced extra output and employment from all industries to support the production of the first round effect; and
- Consumption induced: which relates to the demand for additional goods and services due to increased spending by the wage and salary earners across all industries arising from employment.

The source of the multipliers adopted in this report is ABS Australian National Accounts: Input-Output Tables 2015-16 (ABS Pub: 5209.0). These tables identify first round effects, industrial support effects and consumption induced multiplier effects in respect of gross revenue, employment and gross value added.

The table below quantifies associated economic multipliers resulting from the construction process. This table illustrates with economic multipliers from the Australian National Accounts that the likely industries occupying the site would have the following indirect impacts in terms of GVA (contribution to national GDP):

- Production induced GVA of \$145m; and
- Consumption induced GVA of \$152m

Table 22: Indirect Economic Impacts of the Planning Proposal

Industry	Direct GVA (\$m)	Production Induced	Consumption Induced	Total GVA
Manufacturing	34.0	55.9	52.6	142.5
Electricity, Gas, Water and Waste Services	17.4	21.8	16.9	56.1
Construction	16.2	28.4	26.4	70.9
Wholesale trade	6.3	5.0	7.2	18.6
Retail Trade	7.5	4.2	7.7	19.4
Accommodation and Food Services	1.6	1.3	1.9	4.7
Transport, Postal and Warehousing	23.1	21.3	25.7	70.0
Information Media and Telecommunications	1.7	1.7	1.7	5.1
Financial and Insurance Services	2.1	1.1	1.3	4.5
Rental, Hiring and Real Estate Services	0.9	0.4	0.3	1.6
Professional, Scientific and Technical Services	0.9	0.7	1.2	2.8
Administrative and Support Services	0.9	0.5	1.1	2.5
Public Administration and Safety	1.5	0.7	1.8	4.1
Health Care and Social Assistance	2.6	0.8	3.0	6.5
Other Services	2.4	0.8	2.8	5.9
Total	118.9	144.5	151.6	415.0

Source: HillPDA and ABS Input Output Tables 2015-16

Total direct and indirect contribution to the Australian economy every year from businesses on the site would amount to \$415m every year.

Note that the multiplier effects will occur over a national reach and are not necessarily local. The ABS states that:

“Care is needed in interpreting multiplier effects; their theoretical basis produces estimates which somewhat overstate the actual impacts in terms of output and employment. Nevertheless, the estimates illustrate the

high flow-on effects of construction activity to the rest of the economy. Clearly, through its multipliers, construction activity has a high impact on the economy.”

In particular the multiplier impacts can leave the impression that resources would not have been used elsewhere in the economy had development not proceeded. In reality many of these resources would have been employed elsewhere. It should also be noted, as stated in the NSW Treasury guidelines, that:

“Direct or flow on jobs will not necessarily occur in the immediate vicinity of the project – they may be located in head office of the supplier or in a factory in another region or State that supplies the project”¹⁷.

Notwithstanding these limitations, economic multiplier impacts represent considerable added value to the local and broader Australian economy.

¹⁷ Source: Office of Financial Management Policy & Guidelines Paper: Policy & Guidelines: Guidelines for estimating employment supported by the actions, programs and policies of the NSW Government (TPP 09-7) NSW Treasury

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