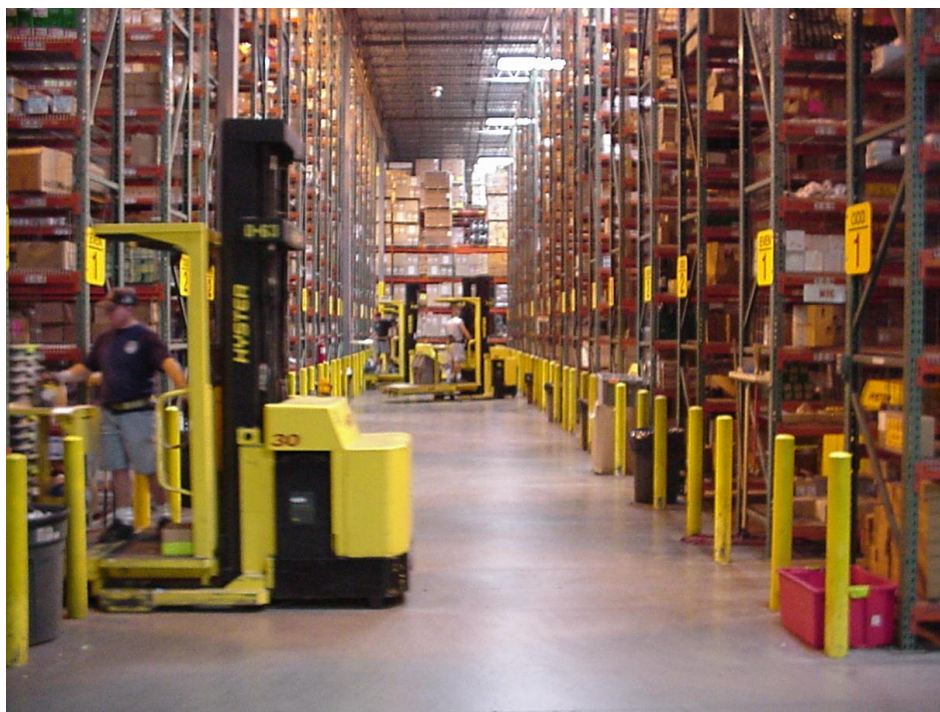


PENRITH

Employment land use study



Prepared for Penrith City Council

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Executive summary

The purpose of the employment land use study is to inform council's strategic planning and economic development in line with the objectives of the 2018 Greater Sydney Region Plan and Western City District Plan. Specifically it helps guide decisions to adhere to Objective 23 of the Western City District Plan (2018), where Penrith has been identified as needing to 'retain and manage' all industrial and urban services land within the LGA. The study:

- establishes a baseline of the current capacity, uses, business types and jobs by industry within Penrith's employment land; and
- provides advice on whether the quantum of employment land is sufficient and the permissible land uses are appropriate to achieve the job targets and fulfil Penrith's role in line with Greater Sydney Commission's (GSC) Greater Sydney Region Plan and Western City District Plan (2018).

The Review will complement other studies and strategy development to help Council respond effectively to the challenges and opportunities of growth and change within the LGA, and it represents the first stage in developing a future Employment Land Strategy.

The study will improve knowledge of the local economic base, identifying the issues, opportunities and challenges and providing strategic directions for Penrith LGA.

Scope of the study

The employment land use study encompasses all employment zoned land across Penrith local government area (LGA), that is, land zoned for retail, business/commercial and industrial purposes. Employment land uses have been categorised into three broad categories being:

- Commercial centres (B1 to B4 zone). However this study was limited to the commercial centres of Penrith CBD, St Marys and Kingswood town centres

- Employment precincts (as IN1 General Industrial, IN2 Light Industrial, B5 Business Development, B6 Enterprise Corridor and B7 Business Park)
- Special use zones (SP2 Infrastructure and SP3 Tourist).

Strategic Plans

The study was informed by a comprehensive review of current policy, literature and market trends to ensure alignment with the broader strategic context and an appropriate response to the local context and market need.

There is a hierarchy of plans that govern the management of employment lands from State and metropolitan level to local precinct level. The main instruments are:

- Greater Sydney Region Plan
- Western City District Plan
- Local Strategic Planning Statement
- Penrith Economic Employment Development Strategy.

In terms of implementation the Western Sydney City Deal was signed – a collaboration between Commonwealth Government, NSW State Government and Western Sydney Councils – to support the growth in the region with appropriate infrastructure and other resources.

These policies and instruments state the need for Penrith LGA to house more residents – around 60,000 over the next couple of decades. More importantly for this study they target the need for an additional 55,000 jobs to address the current low job containment ratio. Furthermore, Penrith City Council must retain and manage its employment lands to ensure that it can provide essential urban services and deliver on the 30 minute city through transport sustainability.

These targets for employment growth are being supported by the Western Sydney City Deal. The Western Sydney City Deal is a partnership between the Australian Government, NSW Government, and local governments of the Blue Mountains, Camden, Campbelltown, Fairfield, Hawkesbury, Liverpool, Penrith and Wollondilly. It establishes a collaborative approach across three tiers of government to create world-class jobs and a great quality of life through the vision of the Western Parkland City and has set a number of core goals including creating 200,000 jobs by supercharging the Aerotropolis and agribusiness precinct as catalysts.

Economic profile

Population: Over a 12 year period to 2018, the population in Penrith City increased by more than 33,000 or 19%, reaching a total of around 209,210. From 2016 over the next 20 years the resident population of Penrith City is projected to increase by almost 57,000 or 28%, reaching a total of 258,200 by 2036. Expected proportional growth is double the rate of last ten years (14%).

Resident employment: In 2016 there were 66,700 jobs in Penrith and a resident workforce of 94,824 people, meaning that a significant number of Penrith residents leave the LGA to go to work. Only 38.6% of Penrith’s working residents work in Penrith LGA, resulting in a job containment ratio of around two thirds.

Job generation: Over a ten-year period to 2018, total jobs in Penrith increased by around 20,000 or 34% (compared to 19% growth in Greater Sydney), reaching a total of around 86,400 jobs. The standout growth industries were those in construction (83% compared to 38% for Greater Sydney), health care and social assistance (68% compared to 39% for Greater Sydney) and education and training (55% compared to 34% for Greater Sydney). Growth in professional, scientific and technical services has been low in Penrith at 17% compared to 32% for Greater Sydney. Growth in arts and recreational services at 8% has also been low in Penrith compared to 37% for Greater Sydney.

The highest concentration of jobs in Penrith city were in Penrith CBD followed by Kingswood (Nepean Hospital), Erskine Park, Jamisontown, North Penrith and Emu Plains. Penrith has a considerable economic diversity but relative to Greater Sydney it has significant specialisation in the industries of agriculture, utilities, mining, construction and

manufacturing. The LGA had economic opportunity for growth in the industries of wholesale trade; information media and telecommunications; financial and insurance services and professional, scientific and technical Services.

Employment precincts

There are 14 main industrial employment precincts spread across the Penrith LGA, varying in size and land zonings. As of 2019, there was around 1,810 hectares of industrial and employment zoned land (excluding B1-B3 and SP zoned lands) which equates to 13.2% of Greater Sydney Total. Land areas by zone and by precinct are shown immediately below.

Precinct	IN1	IN2	B5	B6	B7	Total
Cambridge Gardens				2.4		2.4
Colyton				1.9		1.9
Emu Plains	142.8	1.6				144.5
Erskine Park	715.5					715.5
Jamisontown	14.2		62.6			76.9
Kingswood	15.3	5.2				20.6
North Penrith	245.0	16.4				261.3
South Penrith				2.3		2.3
St Clair				11.6		11.6
St Marys	303.7	3.3				307.0
St Marys (Great Western Hwy)	0.1			2.7		2.8
Sydney Science Park					162.6	162.6
Werrington (WSU campuses)		18.0			70.9	88.9
Werrington Rd				11.4		11.4
Total	1,430.1	33.8	62.6	31.7	233.5	1,809.8

As at December 2019 around 1,120.3 hectares of the total employment lands (62%) was developed, 12.2 hectares (1%) had buildings under construction, 36.4 hectares (2%) was vacant land being used for storage, parking purposes or any other ancillary uses for a business and the remaining 640.3 hectares was vacant (or 478.3 hectares net of Sydney Science Park). A further 78.1 hectares of developed sites was considered to be significantly under-developed – this being the B7 zoned Werrington campuses of Western Sydney University. Existing FSR on these sites is less than 0.05:1.

Status	Hectares	% of Total
Developed Land	1,042.2	58%
Under-developed (WSU Werrington)	78.1	4%
Under Construction	12.2	1%
Vacant but being used	36.4	2%
Vacant and not being used	640.3	35%
Total	1,809.2	100%

Penrith LGA employment precincts (including Penrith, St Marys and Kingswood CBDs) provided just over 5.3 million square metres of employment and residential floor space.

Of this total floorspace space, just over 5.1 million square metres was used for employment uses with the majority of 4.3 million square metres or 85% in the industrial estates. The remaining 759,174sqm or 15% was located in the centres zoned B3 commercial core and B4 mixed use zoned precincts.

The largest industries by total floorspace occupied were:

- Transport, Postal and Warehousing – occupying 1,450,774sqm or 27%
- Manufacturing – occupying 887,927qm or 17%
- Retail Trade – occupying 552,487sqm or 10%
- Health Care and Social Assistance – occupying 295,888sqm or 6%
- Wholesale Trade – occupying 246,629sqm or 5% of all employment space.

Across all 17 employment precincts, there was a total of around 233,329sqm of vacant floorspace – equivalent to 4.4% of total floor space.

Forecast Demand

Transport for NSW forecasts just over 56,000 more jobs in Penrith LGA from 2016 to 2041. This forecast is reasonably consistent with Council’s target of 55,000 more jobs by 2036. Transport for NSW forecasts were adopted to forecast demand for further floorspace and allocated to the zones and precincts based on journey to work data, industry standard employment densities and job targets under various planning strategies. Required floor space to meet future jobs is as follows:

- 345,000sqm more employment floor space in Penrith CBD (78% increase)
- 80,000sqm more employment floor space in St Marys town centre (68% increase)
- 335,000sqm more employment floor space in the Health and Education precinct (216% increase); and
- 2.3 million square metres more employment floor space in the industrial employment precincts (55% increase).

Accommodating the additional floor space in Penrith and St Marys commercial centres will require redevelopment of existing sites given that there are few vacant sites available. The campuses in Kingswood and Werrington have ample space to accommodate the increase in floor space. The additional 2.3m sqm of industrial and employment floor space in the industrial areas would require around 400 to 450 hectares of land but there is currently around 462 hectares that are vacant and available.

INTRODUCTION

1.0 INTRODUCTION

HillPDA was commissioned by Penrith City Council (Council) to undertake a review of employment land in the Penrith local government area (LGA). The purpose of the employment land use study is to inform council’s strategic planning and economic development in line with the objectives of the 2018 Greater Sydney Region Plan and Western City District Plan. Specifically it helps guide decisions to adhere to Objective 23 of the Western City District Plan (2018), where Penrith has been identified as needing to ‘retain and manage’ all industrial and urban services land within the LGA. This study:

- establishes a baseline of the current capacity, uses, business types and jobs by industry within Penrith’s employment land
- quantifies the amount of employment land is test if the level is sufficient and the permissible land uses are appropriate to meet future demand
- provides advice on whether the quantum of employment land is sufficient and the permissible land uses are appropriate to achieve the job targets and fulfil Penrith’s role in line with Greater Sydney Commission’s (GSC) Greater Sydney Region Plan and Western City District Plan (2018)

The Review will complement other studies and strategy development to help Council respond effectively to the challenges and opportunities of growth and change within the LGA, and it represents the first stage in developing a future Employment Land Strategy.

For the purpose of this report, ‘employment land’ relates to all industrial and business zoned land within the LGA. It also provides high level consideration for some special purpose land associated with the hospital, universities and tourism. For the purpose of the study the employment lands include land in the following zones:

- IN1 General Industrial
- IN2 Light Industrial
- B3 Commercial Core
- B4 Mixed Use
- B5 Business Development
- B6 Enterprise Corridor

- B7 Business Park
- SP1 The Quarter Health and Education Precinct
- SP2 Infrastructure (where appropriate)
- SP3 Tourist
- Penrith Lakes (potential development).

For the purpose of this study, smaller commercial centres (including land zoned under the Standard Local Environmental Plan as B1 Neighbourhood Centre, B2 Local Centre and RU5 Rural Village) were excluded from this study.

1.1 Background

Penrith Local Government Area (LGA) is in a period of transition and significant change, catalysed by major infrastructure investments such as the Western Sydney Airport and transport projects including the Outer Sydney Orbital, North South Rail, Western Sydney Freight Line and M12 motorway. It’s status as a Metropolitan Cluster and the Western Sydney Aerotropolis means that Penrith will experience transformational change with increased demand for jobs, services and housing.

In 2018, the Greater Sydney Commission (GSC) released a number of District Plans. The *Our Greater Sydney 2056 – Western City District Plan* sets strategic directions for the Western City District to manage future growth and the social, environmental and economic issues associated with the projected growth.

The *Environmental Planning and Assessment Act 1979* (the Act), amended in March 2018, requires local councils to prepare *Local Strategic Planning Studies* (LSPS) as part of their planning controls. LSPS are to provide a 20 year vision to guide land use planning and development within respective LGAs, identifying the unique character, identity and values of the place, and strategies for managing growth and change into the future.

The Penrith LSPS, which was on public exhibition as a draft document in late 2019, is consistent with the directions of the Western City District Plan and reflective of the Penrith’s Community Plan (2017) Outcome 1: ‘We can work close to home’ and Penrith City Council’s

Economic Development Strategy (2017). It also provides the strategic framework to implement relevant state and regional objectives at a local level and to give direction to facilitate the desired land use, social, economic and environmental outcomes for the local community.

To plan for future growth and change, Penrith City Council is preparing an *Employment Land Strategy* (ELS) to guide and inform planning and development across the LGA. Specifically, the ELS will respond to the actions in the Greater Sydney Commission's (GSC) Greater Sydney Region Plan and Western City District Plan (2018) regarding the planning for centres and the industrial and urban services lands. The outcomes of the ELS will allow Council to update the *Penrith Local Environmental Plan* (LEP) to be consistent with these Plans. This study is intended to inform the development of an ELS, and possible future amendments to the Penrith LEP and comprehensive the Development Control Plan (DCP).

1.2 Employment land uses

The study encompasses all employment zoned land across Penrith LGA, that is, land zoned for retail, commercial and industrial purposes. For the purpose of this study, employment land uses have been categorised into three broad classifications, these being commercial centres, employment precincts and special use zones.

1.2.1 Commercial centres

Centres are generally higher density employment areas containing concentrations of businesses involved in population serving, retail, knowledge intensive and health related uses. They are important employment generators, provide for the daily/weekly shopping needs for local residents/workers and are an important focal point for the local community where they can meet and interact.

For the purpose of this study, small commercial centres (including land zoned, under the Standard Local Environment Plan as B1 Neighbourhood Centre, B2 Local Centre and RU5 Village) were excluded from this study.

1.2.2 Employment precincts

As defined by the Department of Planning, Industry and Environment's (NSW DPIE) Employment Lands Development Monitor (ELDM), employment lands are:

"land zoned for industrial or similar purposes in planning instruments. They are generally lower density employment areas containing concentrations of businesses involved in: manufacturing; transport and warehousing; service and repair trades and industries; integrated enterprises with a mix of administration, production, warehousing, research and development; and urban services and utilities.

They are vital to the functioning of our urban areas, providing space for:

- *Essential services such as waste and water management, repair trades and construction services*
- *Warehousing, logistics and distribution centres*
- *Areas for businesses that design, manufacture and produce goods and services".*

Employment precincts primarily encompass land zoned, under the Standard Instrument Local Environment Plan, as IN1 General Industrial, IN2 Light Industrial, IN3 Heavy Industrial, IN4 Working Waterfront, B5 Business Development, B6 Enterprise Corridor and B7 Business Park.

1.2.3 Special Use Zones

There are also special use precincts that are included in this study. These precincts primarily relate to land zoned for or occupied by health/hospital, education and tourism activities. This category includes land zoned as SP2 Infrastructure and SP3 Tourist.

1.3 Study structure

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

- **Chapter 2 | Strategic context** - undertakes a review of the local context of Penrith, highlighting key drivers that influence economic activity and development within and around the LGA
- **Chapter 3 | Policy and literature context** - This section provides an overview of the relevant state and local government policy and legislation that can influence employment land uses within the Penrith LGA's centres and employment precincts
- **Chapter 4 | Market trends** - documents historic and emerging trends in the commercial/retail/industrial markets and resultant implications in planning/demand for such land uses into the future

- **Chapter 5 | The Penrith economy** - undertakes a review of the current and historic economic and employment trends within the LGA and wider locality
- **Chapter 6 | Penrith centre and precinct review** - undertakes a review of each centre and precincts within Penrith LGA
- **Chapter 7 | Centre capacity assessment** - undertakes an assessment of a centre/precinct's ability to accommodate the projected demand in employment space over the next 18 years
- **Chapter 8 | Employment floorspace demand** - projects the demand for retail and employment space, in each employment precinct, that is required to support the surrounding resident, worker and visitor community to 2036
- **Chapter 9 | Capacity assessment** – provides an assessment on the ability of the LGA and the employment lands to accommodate forecast growth to 2036 and meet job targets.

POLICY AND LITERATURE CONTEXT

2.0 POLICY AND LITERATURE CONTEXT

This section provides an overview of the relevant state and local government policies and legislation as well as relevant studies that have guided and influenced employment land uses. There is a hierarchy of plans that govern the management of employment lands from State and metropolitan level to local precinct level. The main instruments are:



These policies and instruments state the need for Penrith LGA to house more residents – around 60,000 over the next couple of decades. More importantly for this study they state the need for an additional 55,000 jobs to address the current low job containment ratio. Furthermore, Penrith Council must retain and manage the employment precincts to ensure that it can provide essential urban services and deliver on the 30 minute city through transport sustainability.

2.1 Western Sydney City Deal (March 2018)

The Western Sydney City Deal was signed in March 2018, by the Australian Government, NSW Government and eight local governments of Western Sydney. The City Deal signifies a 20 year agreement between the three levels of government to catalyse investment, development and job opportunities in the ‘Western Parkland City’.

Six priority domains categorise the commitments from all levels of government including:

- Connectivity – connecting the Western City by world-class road, rail, aviation and digital infrastructure
- Jobs for the future – building on the unique opportunity of the Western Sydney Airport to drive business investment and employment growth
- Skills and Education – coordinated approach to education, skills and training to ensure all people have the opportunity to equip themselves with the skills to take advantage of the substantial job opportunities now and into the future
- Planning and Housing – a package of reform across the whole planning spectrum to improve housing supply and affordability
- Liveability and Environment – working together to ensure the Western City is a great place to live, with inclusive and welcoming communities and celebrated natural assets
- Governance – a shared vision and implementation plan for the Western City.

Centrepiece commitments of the City Deal includes:

- the delivery of the first stage of the Western Sydney Rail, a north-south rail link from St Mary’s to Western Sydney Airport by 2026
- creating 200,000 jobs by supercharging the aerotropolis and agribusiness precinct as catalysts; and
- skilling residents in the region and initiating an Aerospace Institute.

2.2 Greater Sydney Region Plan (October 2018)

By 2031, Sydney’s economic output will almost double to \$565 billion a year, with this economic growth being fuelled partly by an additional 817,000 new jobs over the period.¹ Sydney will also experience population growth of about 1.7 million persons, with 900,000 of this population growth expected to occur in Western Sydney. An additional 725,000 new dwellings will need to be constructed to accommodate this anticipated growth.

¹ World Trade Centre Sydney – Concept Business Case

To meet the needs of a growing and changing population the Sydney Region Plan – *A Metropolis of Three Cities* (Region Plan) was finalised in March 2018 by the Greater Sydney Commission (GSC). The vision of the Region Plan is to create a metropolis of three cities, known as the Western Parkland City, Central River City and the Eastern Harbour City. Penrith is in the Western Parkland City. The Western Parkland City aims to “*establish the framework for the development and success of an emerging new city*”.



A core intent of the Region Plan is to give people more housing choice and establish more jobs closer to where people live, to develop a more accessible and walkable city and create conditions for a stronger economy. These jobs and essential services will be concentrated within the following centre hierarchy identified in the Region Plan:

- **Metropolitan Centre** – the economic focus of Greater Sydney, fundamental to growing its global competitiveness and where government actions and investment, including transport, will be focussed
- **Strategic Centre** – enable access to a wide range of goods, services and jobs. Strategic centres are expected to accommodate high levels of private sector investment, enabling them to grow and evolve
- **Local Centre** - collections of shops and health, civic or commercial services.

Specific objectives of relevance to Penrith City include the following.

Objective 14 - A Metropolis of Three Cities – integrated land use and transport creates walkable and 30-minute cities

The plan encourages increasing the percentage of dwellings located within 30 minutes by public transport of a metropolitan centre/cluster or strategic centre.

Objective 15: The Eastern, GPOP and Western Economic Corridors are better connected and more competitive

Apart from improving the job containment ratio in Western Sydney the Region Plan aims to improve transport connections through the region in order to improve accessibility to job markets.

Objective 20: Western Sydney Airport and Badgerys Creek Aerotropolis are economic catalysts for Western Parkland City

The Sydney Region Plan identifies Penrith, Liverpool, Campbelltown and Badgerys Creek Aerotropolis as Metropolitan Clusters. The designation of the metropolitan cluster recognises the opportunity to build on the strengths of the three established centres and deliver a 30-minute city.

Amongst other tasks the Western Sydney City Deal is about:

- realising the 30-minute city by delivering the North South Rail Link
- creating 200,000 jobs by supercharging the aerotropolis and agribusiness precinct as catalysts
- skilling residents in the region and initiating an Aerospace Institute.

The first stage of a North South Rail Link will support the delivery of a Western Economic Corridor (Objective 15). It will connect the Western Sydney Airport and Badgerys Creek Aerotropolis as well as the Sydney Science Park to St Marys, and potentially to Marsden Park and Rouse Hill in the north and to Oran Park, Narellan and Campbelltown-Macarthur in the south and create opportunities for new centres.

Currently Western Sydney has a low ratio of jobs to working residents whereas the Harbour CBD has a high ratio. There is a strong need to address this imbalance to ensure equity and sustainability (30 minute city).

Objective 21: Internationally competitive health, education, research and innovation precincts

This objective identifies several major health, education research and innovation precincts in the Sydney Region and that the GSC should “facilitate whole-of-government place-based outcomes through collaboration”. It specifically states that areas for targeted centres include Liverpool, Greater Penrith and Randwick.

Objective 23: Industrial and urban services land is planned, retained and managed

The retention, growth and enhancement of industrial and urban services land should reflect the needs of each of Greater Sydney’s three cities, and their local context. It should provide land for a wide range of businesses that support the city’s productivity and integrated economy. The Plan classifies the employment areas across Greater Sydney by the importance of retention of the employment lands.

The existing position in Penrith is to **‘retain and manage’** all existing industrial and urban services land. This means industrial land should be safeguarded from competing pressures, especially residential and mixed-use zones. This approach has the objective to retain land for economic activities required for Greater Sydney’s operation, such as urban services. As industrial and urban services land in parts of Sydney is highly constrained, due to the development of residential dwellings (which are higher-return land uses), and due to the lack of opportunities for new supply capacity, industrial and essential urban services must be retained. The GSC’s thought leadership paper *‘A Metropolis that Works’* also advocates for caution in allowing additional permissible uses, which in the longer-term might impact the productivity of industrial and urban services areas.

2.3 Future Transport Strategy 2056 (March 2018)

Future Transport Strategy 2056 (the strategy) provides an update of the NSW’s Long Term Transport Master Plan. The strategy outlines the vision, strategic directions and customer outcomes desired over the next 40 years. The strategy identifies six state-wide outcomes, two of which are of particular importance to employment lands:



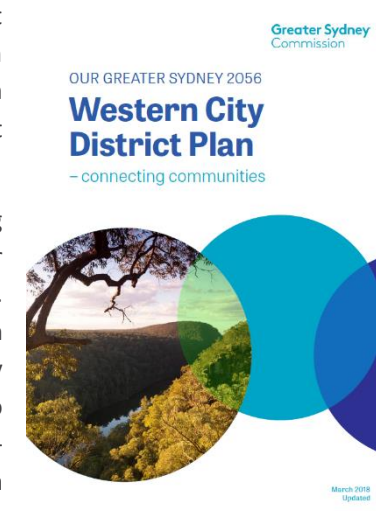
1. Successful places – The liveability, amenity and economic success of communities and places are enhanced by transport
2. A strong economy – The transport system powers NSW’s future \$1.3 trillion economy and enables economic activity across the state.

The strategy establishes intent to balance the need for movement and efficient transport corridors with the desire for attractive places. This is something to consider when determining the hierarchy and vision for centres.

2.4 Western City District Plan

By 2036 it is projected that the Western City District will have a population of 1.5 million, representing an additional 464,450 people over the 20 years from 2016. To house this growth, the GSC estimates that 184,500 additional dwellings will be required.

The Western City District is Sydney’s fastest growing District. The Western City District Plan maps a 20-year vision for the Western City District of Greater Sydney. This plan identifies the land surrounding the Western Sydney Airport as the core of the Western Sydney Airport aerotropolis area. The long-term vision is to focus development on agglomerating knowledge-intensive airport-related industries to transform regions like Western Sydney by bringing together high-quality job opportunities while achieving strong environmental outcomes.



The plan establishes four *‘Metropolitan Clusters’* being Greater Penrith, Western Sydney Airport and Badgerys Creek Aerotropolis, Liverpool and Campbelltown Macarthur as the Western City’s foundational major urban centres. These centres will support urban infrastructure and jobs and be places where people can access services and lifestyle.

Greater Penrith is a critical metropolitan cluster for the Western City. As part of the emerging Western City, Greater Penrith will receive the strategic advantages of job diversity and social opportunities. The vision by 2056 is that Greater Penrith will transform into:

- A trade, logistics, advanced manufacturing, tourism, health and science hub
- A city with well-designed, highly functioning and vibrant centres and local places
- A protected and valued parkland city.

As a Collaboration Area, Greater Penrith’s growth will be supported by a whole-of-government approach and work Penrith Council to:

- Facilitate opportunities for a diverse economy that delivers jobs of the future, strong employment sectors and improves access to education and training
- Activate primary and secondary streets and deliver contemporary urban public spaces
- Connect and activate the Nepean River as a focal point and a destination
- Retain a commercial core in Penrith as required for long-term employment growth
- Improve walking and cycling connections between Penrith and the Nepean River
- Strengthen Greater Penrith as the regional hub for office, retail, administration, recreation and culture.

The Plan highlights the importance of industrial activity and urban services to Greater Sydney’s economy and continuous demand for employment land since “the District’s new communities need jobs and services close to home. It is therefore important to retain the existing sites and plan for more industrial and urban services land”.

Objectives of the plan which are relevant to this study are outlined below.

Objective 16: Freight and logistics network is competitive and efficient

Action 29- Optimise the efficiency and effectiveness of the freight handling and logistics network by:

- a. protecting current and future freight corridors and shared freight corridors
- b. balancing the need to minimise negative impacts of freight movements on urban amenity with the need to support efficient freight movements and deliveries
- c. identifying and protecting key freight routes
- d. limiting incompatible uses in areas expected to have intense freight activity.

Objective 21: Internationally competitive health, education, research and innovation precincts

Action 45- Facilitate health and education precincts that:

- a. create the conditions for the continued co-location of health and education facilities, and services to support the precinct and growth of the precincts
- b. have high levels of accessibility
- c. attract associated businesses, industries and commercialisation of research
- d. facilitate housing opportunities for students and workers within 30 minutes of the precinct.

Objective 22: Investment & business activity in centres

Action 44- Strengthen Penrith by carrying out the following:

- a. support the transformation of the City Centre to grow to its ultimate potential
- b. support and enhance a viable commercial core
- c. reinforce, capitalise and support the expansion of the Penrith health and education precinct
- d. facilitate the attraction of a range of uses that contribute to an active and vibrant City Centre
- e. facilitate opportunities for a diverse economy that delivers jobs of the future, strong employment sectors and improves access to education and training
- f. capitalise on opportunities associated with the Western Sydney Airport including Western Sydney City Deal initiatives
- g. encourage new lifestyle, tourist and cultural uses to activate streets and grow the tourism and nighttime economies
- h. activate primary and secondary streets and deliver contemporary urban public spaces
- i. improve transport connectivity, walkability and safe cycling connections within and to the Penrith City Centre
- j. connect and activate the Nepean River as a focal point and a destination
- k. promote urban living by improving amenity within the City Centre and activating public spaces
- l. support and demonstrate innovation.

Objective 23: Industrial and urban services land is planned, retained and managed

Actions 51 and 53- Retain and manage industrial and urban service land, in line with the principles for managing industrial and urban services land by:

- a. Safeguarding all industrial zoned land from conversion to residential development, including conversion to mixed-use zones
- b. Creating additional industrial and urban services land where required in land release areas to service the growing population
- c. Conducting a strategic review of industrial land when updating local environment plans or planning for release areas.

The Western City District Plan (2018, p90) states:

“This approach retains this land for economic activities required for Greater Sydney’s operation, such as urban services.

Specifically, these industrial lands are required for economic and employment purposes. Therefore, the number of jobs should not be the primary objective – rather a mix of economic outcomes that support the city and population.

The management of these lands should accommodate evolving business practices and changes in needs for urban services from the surrounding community and businesses.”

Other relevant actions include the following:

Action 53 requires Council to plan for additional industrial and urban services land where required in land release areas to service the growing population. In updating planning for release areas, relevant agencies are to conduct a strategic review of industrial land.

Action 54 requires Council to consider office development in industrial zones where it does not compromise industrial or urban services activities

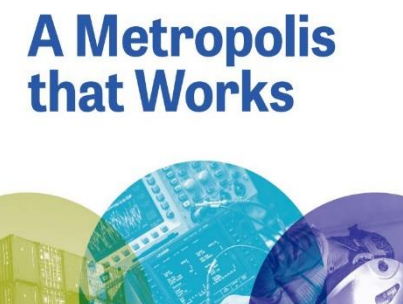
Action 55 requires Council to facilitate the contemporary adaptation of industrial and warehouse buildings through increased floor to ceiling heights

Penrith is recognised as a Metropolitan Cluster – development and growth would assist in meeting the directions of the District Plan by providing employment lands closer to where people live. There is also the added opportunity to support the economic strength of the city centre and help address liveability and sustainability within the area.

2.5 Thought Leadership Paper: A Metropolis that Works (October 2018) GSC

Greater Sydney Commission released the thought leadership paper A Metropolis that Works to provide some key considerations for managing and supporting industrial and urban services land. A summary of considerations includes:

- Provide spaces for creating and making and those that offer capacity for innovation, adaptability and resilience in preparing for future needs, opportunities and challenges
- Base the value of industrial and urban services land on the volume and types of jobs generated and the operational role and function it plays throughout the city
- Ensure sufficient provision of industrial land with access to markets, customers and users and identify and protect this in local environmental plans
- Apply a ‘no regrets’ approach when making decisions affecting industrial and urban services land understanding the ramifications of displacement
- Flexible planning controls and increased densities can allow existing industrial sites to evolve to support emerging industries. Caution should be exercised in allowing small-scale live/work permissible uses, or more pervasive actions such as rezoning to B4 mixed use that can act as a stepping stone to uses, which in the longer term, are not in the best interests of maintaining a productive industrial and urban services area.



The above considerations have guided the review of employment land and development of the study.

2.6 Building Momentum – State Infrastructure Strategy 2018-2038 (2018) Infrastructure NSW

Building Momentum – State Infrastructure Strategy establishes the NSW Government’s priorities for the next 20 years in terms of infrastructure delivery and investment. It identifies priorities associated with transport, energy, water, health, education, justice and culture, sport and tourism sectors.

Regarding Penrith and the Western Parkland City, the strategy sets out a plan to Develop a new city built on new knowledge industries with the following objectives;

- Prioritise intercity road connections to support access from all directions
- Provide a north-south mass transit connection, for example the T1 Western Line to Western Sydney Airport
- Prioritise sustainable transport connections, particularly walking and cycling infrastructure within the city
- Facilitate high quality digital connectivity infrastructure as part of all development
- Provide social infrastructure, such as schools, social housing and hospitals, to support population growth
- Provide additional cultural and recreational infrastructure
- Encourage local council and private investment in recreation infrastructure
- Facilitate South Creek catchment to become an enabler of world class water management, urban greening and climate control
- Deliver a freight network to support a growing city, including container imports into Sydney.

These objectives have guided this review of the employment lands.

Penrith LGA has 9% of Greater Sydney’s supply of developed employment lands, 23% of its undeveloped employment lands and 12% of its total. Penrith has 61% of potential future employment lands (more than 4,000sqm) but the bulk of this land lies in the Western Sydney Employment Area extension.

2.7 Penrith Local Strategic Planning Statement

The purpose of the Local Strategic Planning Statement (LSPS) is to outline Penrith’s economic, social and environmental land use needs over the next 20 years. It highlights those characteristics that make Penrith LGA special and outlines how growth and change will be managed into the future. The LSPS is in draft and was on public exhibition late 2019.

The LSPS targets an additional 60,000 people in Penrith and 24,000 new dwellings by 2036.

In terms of jobs and economic development there is a strong emphasis on innovation, Sydney Science Park and the Aerotropolis. The draft LSPS also recognises the East-West economic corridor from Penrith to St Marys identified under the NSW Government’s three cities concept. The following planning priorities identify what Council will do to grow the local economy, attract investment into the City and ensure more jobs are provided closer to home:

- *Planning Priority 11: Support the planning of the Western Sydney Aerotropolis*
- *Planning Priority 12: Enhance and grow Penrith’s economic triangle*
- *Planning Priority 13: Reinforce the Quarter as a specialised health, education, research and technology precinct*
- *Planning Priority 14: Grow our tourism, arts and cultural industries*
- *Planning Priority 15: Boost our night-time economy*



**LOCAL STRATEGIC
PLANNING
STATEMENT**
PLANNING FOR A BRIGHTER FUTURE

PENRITH
CITY COUNCIL

penrith.city

2.8 Penrith Economic Development Strategy 2017

Penrith Council prepared the Economic Development Strategy (Strategy) in January 2017 to provide a strategic framework for how Council should best support economic development, foster investment and grow jobs. The strategy targets an increase in jobs in Penrith by between 42,000 to 55,000 by 2031, with the target growth sectors being health, education, tourism, arts and culture, advanced manufacturing, and advanced logistics.

The Strategy also identifies complementary employment opportunity through growth in service activities associated with the night-time economy, small business and residential services.

2.9 Penrith Night Time Economy Strategy

The Penrith Night Time Economy Strategy (NTE Strategy), prepared by Urbis, identifies a vision and a number of principles to support the development of a safe, diverse and busy night time economy in Penrith. A literature review undertaken to support the strategy identified that, *mixed use areas help diversify night time activities, increasing demographic range of participants and acting as a deterrent to antisocial behaviour*. The study also identified the higher education institutes as major drivers to growth of the night time economy, particularly in the city centre.

2.10 The Quarter Penrith Action Plan 2017-2021

In 2011 a Penrith Health and Education Precinct Strategic Vision (PHEP Vision) was prepared by a taskforce of representatives for the major health and education institutes, Council and business alliances in the precinct. It established a strategic vision for the Penrith Health and Education Precinct, guided future land uses in the precinct and identified vision statements and target services sectors. It was superseded by the 2016 Quarter Penrith Action Plan (QPAP) but inherited many of its strategies including:

- Improvements in health outcomes, better quality health care and reduced waiting times
- Creation of an additional 12,000 to 13,000 new jobs by 2036 in health, education, knowledge-intensive industries and local services
- New job opportunities in a diverse range of areas; medical researchers, scientists, clinicians, doctors, nurses and allied health staff
- A critical mass of activities in health, education and associated health related business
- Catalyst to grow investment opportunities in Penrith centre including health insurance, medical software and wellbeing firms
- Establishing a health and medical research and knowledge hub in one of Australia's most rapidly growing regions

- Attraction of new talented researchers, educators, clinicians and other health specialists to Penrith as an attractive living environment
- Adding to Sydney's global reputation as a centre for health and medical research in key areas
- Creating a diverse range of living environments with quality housing, shopping and entertainment
- Creating an integrated health technology, collaboration and education sub-precinct, including ancillary retail uses
- Developing a new north-south orientated Precinct train station at Werrington and associated town centre
- Attract knowledge workers which are now concentrated in the eastern half of Sydney.

“To become an international destination for investment in health services, education, research and related technology.” (PHEP Leadership Committee, 2016)

Four precinct themes were established within the QPAP including:

1. Centre of excellence in education
2. Health care innovation
3. Research and technology
4. Business and lifestyle.

Consistent with the previous vision in 2011, it identifies that the precinct has capacity to create up to 12,000 jobs, with the potential for this number to increase with the delivery of a north south rail connection.

Key actions are defined in the Plan with items of relevance to this study including:

- Expanding the role and presence of academic and education facilities within the Precinct
- Growing further opportunities in Telehealth and eHealth through leveraging existing collaborations and seeking private sector participation
- Funding for a new Nepean Medical Research Institute site and building, along with growing local research capacity
- Building a vibrant health technology business ecosystem that will see the Precinct become a leader in starting, growing or attracting specialist health technology enterprises
- Connecting the Precinct’s research strengths in health and wellbeing with Penrith’s excellence in elite sports and training
- Exploration of a wide range of potential economic and investment opportunities that could be secured in the Precinct, such as medical tourism
- Integrating the Precinct within Western Sydney’s innovation ecosystem and with game changing infrastructure such as Sydney Science Park, Western Sydney Airport and north south rail
- Developing smart, high quality urban settings across the Precinct to support the attraction of talented workers and innovative enterprises to Penrith.

2.11 Employment Land Development Monitor (2019) NSW Government

The Employment Lands Development Monitor (ELDM) overviews the supply of industrial and business zoned land across the Sydney, Central Coast, Illawarra-Shoalhaven and Hunter Regions. It includes information relating to land stocks and availability, whether employment lands are serviced, where new or pipeline development is occurring, and the location of potential future employment lands identified in local and state government planning policies.

As of January 2018, there were 15,000 hectares of IN and B5 to B7 zoned employment lands in Greater Sydney, a decrease of 100 hectares from 2017. Greater Sydney has a further 6,654 hectares of potential future but unzoned employment lands.

Around 73 per cent of Greater Sydney’s employment lands are located west of the Parramatta CBD in the Central City and Western City Districts. All of Greater Sydney’s potential future, but unzoned employment lands, including the Aerotropolis, are located in the Western City District. As of January 2018, 1,518 hectares of the Western City District’s industrial zoned land was undeveloped.

Penrith City has 1,778 hectares of zoned employment lands. 1,039 hectares of this is developed and occupied. Around 739 hectares is available (zoned) but almost two thirds of that land is in the Erskine Park / Kemps Creek area. Penrith has 30% of Western City’s zoned lands and 12% of Greater Sydney’s stock.

Relative to its population Penrith has a high share of industrial zoned land – 88sqm per capita compared to 56sqm for Western City and 33.3sqm for Greater Sydney.

The full table of lands by LGA by zone by developed versus undeveloped land is provided in Appendix B and a summary immediately below.

Table 1: Employment Lands in Greater Sydney by LGA in January 2019

District	LGA	Undeveloped	Developed	Total
Central City	Blacktown	915.7	1,715.3	2,631.1
	Cumberland	72.4	1,157.0	1,229.4
	Parramatta	46.7	718.6	765.3
	The Hills	230.1	299.4	529.5
Eastern City	Bayside	16.4	409.2	425.6
	Burwood	0.1	8.7	8.7
	Canada Bay	0.4	48.2	48.6
	Inner West	4.7	249.0	253.7
	Randwick	3.7	67.6	71.3
	Strathfield	32.5	258.7	291.2
	Sydney	4.5	206.9	211.4
	Waverley	-	-	-
	Woollahra	-	-	-
	North	Hornsby	18.9	168.7
Ku-Ring-Gai		-	12.8	0.2
Hunters Hill		-	0.2	12.8
Lane Cove		5.9	55.4	61.4
Mosman		-	2.9	2.9
North Sydney		0.9	4.5	5.4
Northern Beaches		5.2	314.2	319.3
Ryde		17.5	115.6	133.1
Willoughby		2.8	101.8	104.7
South	Canterbury-Bankstown	37.5	990.4	1,027.9
	Georges River	3.3	97.8	101.1
	Sutherland	123.8	484.3	608.1
Western City	Blue Mountains	44.9	71.8	116.7
	Camden	254.0	251.4	505.4
	Campbelltown	105.0	660.8	765.8
	Fairfield	88.4	943.9	1,032.2
	Hawkesbury	38.2	186.9	225.0
	Liverpool	323.0	922.1	1,245.1
	Penrith	739.3	1,038.8	1,778.1
	Wollondilly	172.4	120.8	293.2
Greater Sydney Total		3,308.0	11,683.8	14,991.9

Source: NSW Department of Planning, Industry and Environment

2.12 Summary

The above studies, strategies and policies demonstrate an evolution of thinking and planning for Western Sydney and Penrith LGA. Common in these studies is the desire to attract more jobs into Penrith LGA and improve the job containment ratio.

Furthermore the aim is to widen the job types and industries and attract new industries, particularly in professional, scientific, health, education and innovation. The planning and real estate solutions will involve more than just expanding industrial zones over new areas. It will also involve redeveloping existing sites, infrastructure delivery and improving services and amenity to attract businesses.

MARKET TRENDS

3.0 MARKET TRENDS

The following Chapter documents historic and emerging trends in the commercial, industrial and retail markets and implications in planning/demand for such land uses in Penrith LGA into the near future.

3.1 Recent commercial industry trends

Between 2008 and 2014, over 1 million new jobs in NSW came from just 6% of businesses: new or growing small and medium enterprises (SME). Of that, around 60% of these jobs came from existing firms that grew from less than 20 people to up to 199 people.

Figure 1 shows that 12,778 higher-profile medium and large businesses shed around 600,000 jobs over the same period, largely due to productivity improvements in their very large workforces. In the remaining small businesses, which make up 93% of all companies in NSW, jobs in new businesses simply replaced those in shrinking ones².

NSW’s experience is similar to that observed in Europe and the US. A 20-year analysis of net job growth in the US revealed that firms less than five years old were the only cohort of firms that were net job creators. Every other cohort shed more jobs than they created.

There are four challenges to future job creation in NSW, these include:

- Increasing global trade in the knowledge economy
- New challenges in faster-changing industries
- Increased automation of the manufacturing line
- An ageing population³.

NSW’s ability to respond and adapt to these challenges or ‘disruptions’ will play a key role in determining the state’s success in being able to compete on a global platform for the jobs of the future.

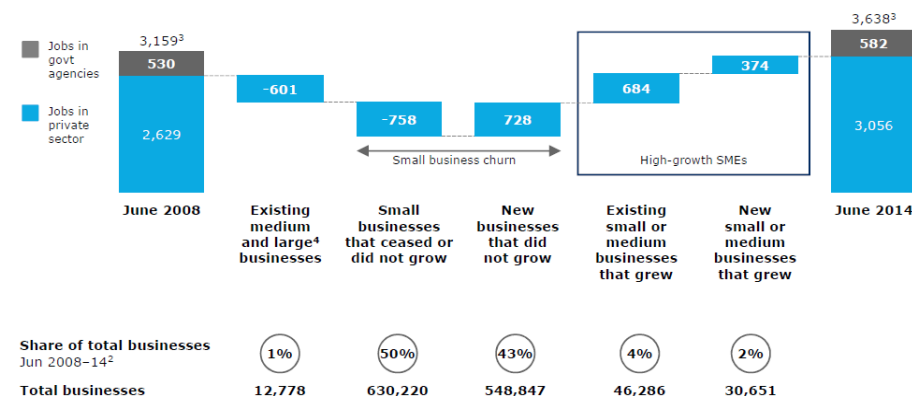
² Jobs for the Future NSW, 2016

³ Ibid.

⁴ Coleman, J 2019, ‘3 big trends in Australian tech’ startupdaily viewed at: <https://www.startupdaily.net/2019/07/3-big-trends-in-australian-tech/>

Figure 1: Business characteristics of job growth in NSW

Contribution to jobs growth (June 2008–2014), NSW¹
Jobs, Thousands



SOURCE: Calculations based on bespoke data provided by Australian Bureau of Statistics, based on Counts of Australian Businesses database, public sector employment from ABS Cat 6428

Source: Jobs for the Future NSW 2016

Start-ups have great disruptive potential because of the ease with which they can reach global audiences through the use of technology. Local and federal government have recognised this potential and are playing a big role in facilitating growth in emerging industries and start-ups. Co-working spaces and technology incubators are also emerging across all regions. Australian start-ups have received a total of \$1.8 billion in the 2018-19 financial year, establishing a record high⁴. With high labour productivity and lower capital requirements than industry incumbents, these businesses can exploit a competitive advantage in price⁵.

In terms of the spaces (i.e. floor plates) in which people work these are also changing, with the traditional purpose-built office space increasingly giving way to more flexible options

⁵ PwC (Commissioned by Google, 2013): The Startup Economy; How to support tech startups and acceleration innovation

like co-working spaces. These spaces act as a shared workspace for a highly diversified workforce of small businesses, start-ups, freelancers, and entrepreneurs. Co-working providers are estimated to account for 25 to 30 per cent of sub 300 square metre market space⁶. The rise in demand for co-working space has grown by 6% per annum in the five years up to 2017, with approximately 50,000sqm of space existing in Sydney in that year⁷. That said, there is still demand for larger floor plates >2,000sqm to accommodate international or domestic corporations. Although these tenants would likely be more attracted to Parramatta, Sydney CBD and Inner Sydney locations, improved connectivity, commercial/ retail services and lifestyle attractors in Penrith may increase the attraction of such tenants.

The initial demand for these spaces has been focussed around urban cores, with 53% of Australian co-working spaces located in CBD or metro areas in 2017. However, there has been growth in other areas, with 32% of spaces in suburban locations away from metropolitan centres⁸. This growing demand for flexible workspaces away from the metropolitan core echoes trends in the US market⁹. In Australia, SMEs are more commonly adopting a form of flexible working options to reduce overheads and encourage work life balance¹⁰.

Co-working is well suited for comparatively small office spaces (<300sqm) with evidence suggesting faster take-up by co-working tenants compared to traditional tenancy arrangements. While the demand from co-working space operators is primarily domestic at present, it is predicted that the imminent entry of international operators will increase demand for spaces suited for co-working¹¹.

JLL has predicted that 30% of all office space will be classed as flexible by 2030⁶. The demand for these types of spaces is continuing to grow, most notably in suburban locations. Commercial spaces, like those in Penrith LGA, would be viable candidates for this type of use.

The impact of technology is fundamentally changing the way in which people work, adding flexibility to when and how they allocate their time. The traditional concept of the workplace being a fixed space is changing, with telecommuting and remote working now commonplace. While research has found that there has been an overall decrease in regular

work from home since 2001, it remains highly prevalent amongst managers and professionals, with 41% of managers and 38% of professionals regularly working at home in 2016¹². Over the last twenty years the proportion of employed professionals has expanded rapidly, now comprising the largest occupational grouping, at almost 24%. Consequently, telecommuting is set to continue expanding⁹.

This is playing out in the changing nature of contemporary workplaces, and therefore the type of spaces that are in demand. This translates into people working from home or other suitable spaces. Naturally, this will have a flow-on effect on the way commercial space is used in Penrith LGA, influencing the times when offices are active and the total floorspace required by different industries.

3.2 Industrial trends

The demand for industrial floorspace is influenced by trends such as globalisation and the use of information technology. The New Economy comprises sophisticated linkages between businesses, which are adept in the efficient sharing of information and the delivery of goods through a global supply chain. This supply chain once thought of as the flow of goods through production to the end user, is now seen as an alignment of firms that design, develop, market and produce goods and services, and deliver them to the customer when needed.

The globalisation and the free movement of people, goods and services have increased the amount of competition and resulted in a decline in the proportion of jobs within manufacturing industries.

Industrial floorspace used primarily for business related storage is in secular decline, whereas space built for the transferral of goods is increasing. This 'high throughput distribution' space is essentially designed to facilitate the rapid movement of goods through the supply chain. Businesses with low inventory turnover are gravitating to inexpensive land and low-cost buildings.

⁶ Cushman and Wakefield 2019

⁷ Knight Frank, 2017

⁸ Sydney Business Insights 2017

⁹ JLL (2017), *Bracing for the Flexible Space Revolution*

¹⁰ Allwork.Space-Press 2019, 'Demand for coworking spaces continues to rise in Sydney'

¹¹ Cheung, A. (2018), *Overseas Companies Set to Rock Australia's 'Sleeping' Coworking Market, Expert Says*, Commercial Real Estate

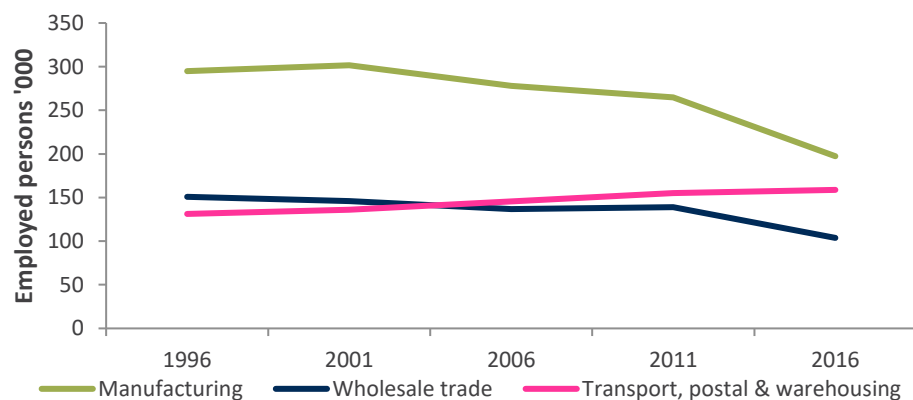
¹² Bankwest Curtin Economics Centre 2018

In contrast, businesses that have high inventory turnover and high value products, and typically provide value added functions (including product customisation, packaging and customs) are more prepared to pay a premium for excellent access to a large customer base and proximity in time and space to roads, ports and airports.

As a result of the industrial trends described above, over the past three decades, the development of industrial land and floorspace in NSW has generally occurred at a rate slower than employment growth. This, however, has varied considerably between specific sectors of activity. In manufacturing and wholesale trade, employment growth has steadily decreased over the last 20 years (overall employment down 33% and 31% respectively). Contrasting this pattern has been the performance of transport and storage, which has shown strong growth with a 21% increase in employment. This is partly a result of increased demand for “last mile” delivery and storage spaces close to where customers reside.

This economic trend may be summarised by the fact that traditional manufacturing is changing and becoming more efficient in its processes as a result of the use of new technologies and equipment (see section 3.2.3). These greater efficiencies in many cases have not resulted in a decline in output, but rather a reduction in the number of staff required.

Figure 2: Employed persons by selective industry, NSW



Source: ABS

¹³ CBRE - Motorway access drives rental shift in Sydney's industrial powerhouse market, Natasha Pierson 2018

3.2.1 Non-traditional uses within industrial precincts

In addition to the more traditional industrial and urban service uses, employment precincts are increasingly being occupied by other non-traditional uses such as knowledge intensive, large format retailers and factory outlets, education, health, medical, religious (places of public worship) and recreational services (such as ten-pin bowling, fitness centres and laser skirmish).

This is evident in our land use audit indicating that around 17% of the occupied floorspace across all of Penrith's employment precincts was attributed to non-traditional uses. In particular, Jamisontown has a large proportion of such uses at 57% of its total floor space. Much of this is bulky goods / large format retail stores but there is also a significant number of entertainment venues and learning studios such as performing art schools, gymnasiums, ten-pin bowling, wall climbing, electric model car racing, laser skirmish and soft plays.

Typically, these uses are attracted to industrial precincts given their relatively lower land values and market rents when compared to commercial centres and the need for large lots with good access to the local road network. The presence of these uses, however, can increase market rents and land values in employment precincts as available space becomes limited and these types of uses are typically more willing and capable of paying higher rent.

3.2.2 Motorway accessibility

The proximity of employment precincts to key transport routes has recently emerged as a key concern and priority for industrial occupiers. The preference for industrial tenants to be located close to a motorway was evident in recent CBRE research which found that for every additional minute drive closer to a motorway equated to a 2.1% spike in rent. With occupiers paying on average \$3 per square metre more than those further away from a motorway¹³.

The reasons for this locational preference stems from transport costs typically comprising a large share of an industrial businesses' operational cost base compared to its rental cost. As such, an industrial business makes costs savings by locating themselves nearer to key infrastructure.

Penrith's employment precincts are uniquely positioned to leverage off this trend with several of them being located in close proximity to existing and planned transport corridors.

3.2.3 An increasingly automated workplace

The impact that automation will have upon the labour force has been a topic of discussion since the start of the industrial revolution. Commentators argue it will either cause mass unemployment or continue a natural evolution of human based employment, with replaced employees being “up skilled” into more complex jobs that automation and technology cannot (presently) undertake or the creation and employment in new industries which we cannot imagine/conceive today.

This “up skilling” or transference of employment into more complex or knowledge-based industries can be seen in the agricultural industry. At the start of the twentieth century, agriculture comprised a significant proportion of employment however, with increased mechanisation of farm equipment scores of people were able to move from the land into cities for employment. Other industries such as retail, professional and financial grew as a result.

This trend has continued with the creation of new industries which 30 years ago most people could not conceive such as employment within IT services, coding, web design or android application development.

A recent report by the Committee for Economic Development of Australia (CEDA) found that almost 40% of Australian jobs could be replaced by technology by 2025¹⁴. If this prediction comes to fruition, there would be a need for significant employment re-shifting and the need for “upskilling” of the workforce. A way to mitigate this impact is for employees, companies and institutions to remain agile embracing life-long learning and re-education to stay competitive and skilled.

Currently, industries associated with manufacturing and transport, warehousing and distribution are at the forefront of this change. The impact that automation is likely to have upon these industries is a reduction in overall employment generated. However, it is important to note that this does not directly translate into a reduction in the amount of floorspace or land required. As such, although these industries require fewer people for their operation needs they still would require appropriate floorspace and land for their increasingly automated factories/warehouses.

¹⁴ “Australia’s Future Workforce”, Committee for Economic Development of Australia, 2015

3.2.4 Changing nature of industrial development

Historically, industrial developments typically have been single level, on large lots, with at grade parking and/or relatively level ground. However, this development model has been challenged in recent years resulting from limited land stocks, high land values and rents.

These market trends have resulted in “vertical” industrial development being explored within Sydney, particularly developments by Goodman. This model has been successfully delivered in Asia by Goodman with a company spokesperson discussing, *“Scarcity of sites in infill areas close to urban centres and consumers, combined with competing demand for quality locations is creating land use intensification. We are increasingly seeing a shift towards multi-storey industrial facilities or changes of use to commercial and residential”*¹⁵.

While it is desirable to encourage vertical industrial development, it is unlikely that Penrith will be leading this change due to environmental limitations. Some lower density sites may be redeveloped to higher density, but it is more realistic that the built form will remain fairly similar to what is presently being achieved as land costs are low relative to the marginal costs of developing multi-storey.

3.2.5 Implications for Penrith

Demand for industrial space will continue to grow in Penrith from several sources:

- Firstly from population growth and the need for urban services to serve the additional population and businesses in the LGA;
- Secondly from State and regional wide markets and the need for proximity to major transport infrastructure – which in Penrith means the M4, the M7, the future M12, the future airport and metro line and the Western Railway Line. Growth in Eastern Creek (WSEA) and aerotropolis areas will be driven by this market;
- Thirdly from ‘wild cards’ which could be a new innovation precinct or high technology park (bio-medical and pharmaceutical, computers, telecommunications, media, etc) could stimulate considerable interest. The new airport and Sydney Science Park are clear examples of this. Werrington is another potential candidate.

¹⁵ Goodman looks to go vertical, Carolyn Cummins – the Sydney morning herald

3.3 Recent retail industry trends

The future of retail is shifting strongly towards experience and convenience, with technology driving the change. Consumers are also changing in their demands with more environmentally conscious, time poor and price savvy customers. Retailers are being forced to adapt to changing consumer expectations such as:

- **Trend 1** – Hyper-personalisation – retailers are forensically analysing data to deliver hyper-personalised experiences and products
- **Trend 2** – Price savvy consumers – price no longer encompasses the product alone but the whole user experience
- **Trend 3** – Automation – customers are more accepting of automatic checkouts and technological advancements
- **Trend 4** – Experiential retailing – the promotion of experience and placemaking through various platforms to drive customers to sales
- **Trend 5** – Environmentally conscious – growing sentiment towards environmentally friendly products
- **Trend 6** – Social currency – social media is a component of the purchasing journey for many customers¹⁶
- **Trend 7** – Buy local – growing support for local design and manufactured products to support Australian businesses.

The retail industry’s innovative nature is driven largely by the need to anticipate and respond to its customers’ needs and desires and changing socio-demographics and lifestyles. Now more than ever, individual retailers are required to constantly monitor shifts in demand and reposition their offer, and in some instances, their mode of operation and distribution.

Emerging retail trends:

- Full line supermarkets (over 3,000sqm) are increasingly anchoring smaller centres
- Reduced traction for discount department stores, such as Big W, due to online competition and reduced demand for physical stores

- Transitioning bulky-good or traditional out-of-centre retailers seeking opportunities in local shopping
- Integration of residential and other commercial and community uses above shopping centres¹⁷
- Strengthening ‘retail placemaking’ with a stronger focus on community, dining, events and entertainment¹⁸
- Greater integration of indoor and outdoor environments¹⁹
- Continued expansion of new international retailers entering the market
- Pop-up, creative and market style uses that generate higher-turnover and ‘destination’ factor in their own right²⁰
- The emergence of ‘dark’ and “last mile” stores for online sales. Dark and last mile stores are warehouses or distribution centres that cater to online shopping. They do not require sales areas and are designed for easy product collection
- Growing online grocery market and specialised food stores
- Reinvesting in shopping centre to reinvent offering and overhaul purpose and way they interact with customers and wider community.

Since the 1980’s, all retail industry groups have recorded positive growth in turnover, however, food retailing has outperformed all other industries.

From 1982 to 2019, food retailing has recorded a growth of \$3025 million or 727% in turnover. Of this growth, around \$2580 million was attributed to supermarket and grocery stores with this subcategory comprising 84% of the turnover recorded for food retailing in 2019.²¹

Strong growth has also been recorded in the industry of household goods retailing, especially circa 2000. This industry is closely linked to the property market where the purchase of new white goods and other furnishings go hand and hand with the purchase of a new dwelling or redevelopment/refurbishment of an existing dwelling. This linkage can be seen in the slight decline in turnover experienced by the industry between 2009

¹⁶ KPMG 2019, ‘Retail Trends 2019 – Global Consumer & Retail’ February 2019

¹⁷ Taylor, K 2019, ‘Community and togetherness’, Shopping Centre News, Vol. 37. Number 2

¹⁸ CBRE 2016, ‘Global Retail Placemaking Report’

¹⁹ Taylor, K 2019, ‘Community and togetherness’, Shopping Centre News, Vol. 37. Number 2

²⁰ Prpic, M 2019, ‘Reinventing Space’, Shopping Centre News, Vol. 37. Number 2

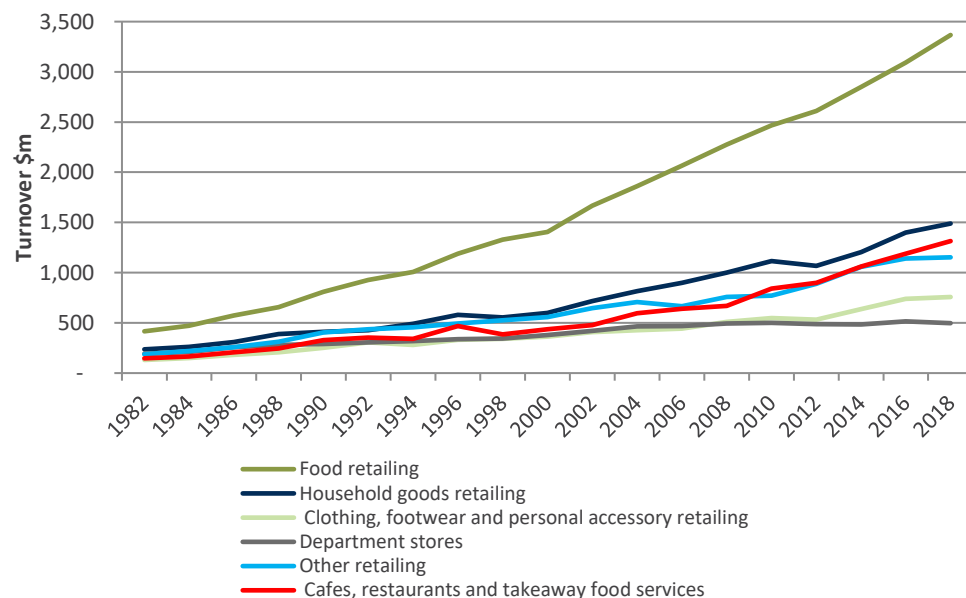
²¹ ABS Cat. 8501.0 Retail Trade, Australia Table 13 – August 2019

and 2012. This is likely a result of the global financial crisis where uncertainty subdued development and retail expenditure.

The growth in leisure shopping and the rise of the café culture in NSW have witnessed strong growth in the provision and turnover of the cafes, restaurants and takeaway food services industry in recent years. This is evident in the industry experiencing a \$531 million or 64% increase in turnover over the last eight years.²²

Turnover of department stores has been variable and subdued over recent years, recording only a \$38.4 million (8%) increase in turnover over the last eight years²³. Recently department stores have experimented with new innovative sales and in-store experiences to attract shopper and reverse this trend, while also shrinking in size. Innovation in new technologies, niche markets and unique experience will need to be constantly provided and examined for this industry type to remain relevant and profitable.

Figure 3: Growth in retail turnover, NSW 1982-2019 by industry group



Source: ABS Cat. 8501.0 Retail Trade, Australia Table 13

²² ABS Cat. 8501.0 Retail Trade, Australia Table 13 – August 2019

- Demand for supermarket and grocery stores will continue to experience strong growth in the coming years, with the possible provision of neighbourhood supermarkets in smaller centres
- The growth in the café culture will continue to increase demand for new cafés and restaurants. Demand for outdoor dining options will also increase which may require amenity improvements in some commercial centres
- The attraction of new or expanded department stores is unlikely in the near future, as their market share has been relatively flat, even declining, over recent years. Existing stores will continue to consolidate, evolving and innovating to reflect the changing trends in shopper preferences and habits
- Any renewal of shopping centres should be done so with consideration of integration with the broader centre and strengthening of placemaking elements
- Effective integration of residential and commercial office uses above shopping centres can improve the appeal and viability of centres.

3.3.1 New format supermarkets in smaller village and neighbourhood centres

A recent trend, which is likely to continue to influence the retail market, is the demand for larger format retail space and other new format supermarkets in smaller centres (i.e. greater than the traditional retail small centre floor plates of 400-600sqm). This trend would see an increase in proposals seeking to develop supermarkets of around 1,000sqm to 1,500sqm in smaller retail centres where previously smaller supermarkets or convenience stores may have prevailed. It is anticipated that this trend will continue, owing to:

- Growing demand for additional supermarket facilities as a result of urban infill development
- Accommodating full-line supermarkets is difficult due to site amalgamations and increasing land scarcity
- Full-line supermarkets implementing their market share growth strategy via targeting smaller centres
- Consumer habits increasingly favouring multiple smaller convenience shopping trips during the week rather than one large trolley load

²³ ABS Cat. 8501.0 Retail Trade, Australia Table 13 – August 2019

- Increasing desire from consumers for walkable, convenient access to food and grocery shopping reflecting declining vehicle ownership/usage and expectations for access to retail facilities outside of traditional trading hours
- Strong activity from smaller supermarket operators including ALDI and Harris Farm with Coles and Woolworths increasingly competing at this end of the market.

This trend has been reflected in the NSW DP&E's recent amendments to the definition of a neighbourhood supermarket in the standard local environmental plan template. This change in land use definition permits the development of small-scale supermarkets up to 1,000sqm in size in the B1 - Neighbourhood Centre zones.

The restricted size of a maximum gross floor area (GFA) of 1,000sqm is intended to ensure compatibility with the scale and nature of the surrounding, predominately residential, area while also allowing for the development of essential services to serve the needs of people who live and work in the surrounding neighbourhood.

The attraction of larger supermarkets (up to and over 1,000sqm) into smaller centres can have both a negative and positive impact. On the one hand, a larger supermarket can directly compete with smaller speciality shops, such as bakeries, butchers and fruit and vegetable shops. On the other hand, the presence of a supermarket can increase the attractiveness of a centre to its surrounding community, thereby increasing the number of times they choose to shop there. This increased foot traffic or number of persons visiting the centre has positive effects for other shops in the centre. This is mainly through increased opportunity for capturing passing trade.

3.3.2 The continued evolution of online retail

A major topic of debate regarding the future of retail in Australia is the continued growth of online retailing and the likely impacts this may have to 'bricks and mortar' retail stores.

The latest data from the National Australia Bank (NAB) estimates that Australian online spend was at around \$29.33 billion over the 12 months to July 2019²⁴. This is equivalent to a level that is just over 9.0% of the traditional bricks and mortar retail sector²⁵, and around

11.5% higher than the same time in the previous year. By 2021, the market indicates around \$35.2 Billion²⁶ will be generated through online retail sales, with approximately 8 out of 10 Australians shopping online, whether it be browsing or purchasing²⁷. In Australia, department and variety stores are the fastest growing ecommerce segment with Kmart, Myer and Target all in the top ten for online retailers. Woolworths and Coles topped the list with more people choosing to do their weekly grocery shops online²⁸.

Some groceries and fashion continue to be the most popular online shopping sectors; however variety stores and marketplaces are gaining greater traction. Health and beauty recorded the strongest year on year growth at 29.4%²⁹.

The growth of online retail is changing the way shoppers interact with physical retail stores, both expanding the opportunity for smaller boutique retailers in smaller local centres to access larger customer markets and creating competition for established bricks and mortar premises. To compete, bricks and mortar retailers are joining the online market and enhancing the physical premise to give customers the full experience.

While online shopping is unlikely to replace traditional bricks and mortar retail, there is a growing trend that shoppers seek out online sources to compare prices, review variety and for convenience. The opportunity for online markets and the promotion of unique brands has also seen the emergence of local entrepreneur retailers and local product manufacturing. This is a market that could continue to evolve, particularly through local product manufacturing.

Despite the growth, a number of barriers in online retailing are preventing some business owners from fully leveraging this market to the greatest potential. These include:

- Slow or limited internet connectivity
- Unfamiliarity with the internet or web design
- Limited vacancy in warehouse and distribution space.

The emergence of online retailing has affected land use and building requirements. Sydney is seeing a growing demand for warehousing and distribution facilities, particularly in Western Sydney and now in inner city and fringe locations. These locations ensure that

²⁴ McDonald, B 2019 'NAB Online Retail Sales Index – Monthly Update – July 2019', NAB Sept 2019 viewed at: <https://business.nab.com.au/nab-online-retail-sales-index-monthly-update-july-2019-36366/>

²⁵ Australian Bureau of Statistics, June 2019

²⁶ Statista 2019, Digital Market Outlook - eCommerce

²⁷ Australia Post Inside Australian Online Shopping 2019

²⁸ Australian Ecommerce in 2019, WebAlive viewed at: <https://www.webalive.com.au/ecommerce-statistics-australia/#references>

²⁹ Australia Post Inside Australian Online Shopping 2019

consumers get same-day delivery, with some stores opting for "within an hour", which is termed "last mile delivery". CBRE has estimated that across Australia *the growth in e-commerce sales will generate demand for an additional 350,000sqm of distribution space annually*³⁰. The growth in online retailing will affect the traditional brick and mortar stores. However, traditional retailing will not become obsolete. Instead, retailers in Penrith LGA will need to adapt and evolve becoming or providing either display spaces, showrooms or increased experience as destinations that represent a brand's story or objective³¹.

Overall, it is likely that continued growth in online retail will impact on shopper's interactions with physical stores. However, current industry forecasts suggest this may not lead to a significant decline in demand for high street floorspace (with particular regard to supermarket floorspace), due largely to forecast population growth in areas such as Sydney. Even with increased market share of online retail, anticipated population growth and associated retail expenditure, is forecast to increase the demand for additional retail shop front space to be provided in local centres into the future.

While online shopping will continue to strengthen, it will not replace traditional bricks and mortar retail. Bricks and mortar retail will instead need to adapt to provide more experiences and retail placemaking elements to maintain customer patronage.

Online shopping may influence passing trade in business centres if more people opt to utilise online deliveries for weekly goods, rather than travel to a centre. Centres will need to adapt and integrate more placemaking outcomes that encourage people to travel to and shop within the centre.

The increasing number of home-based deliveries and package distribution may have a flow on consequence on the efficiency of the road network and demand for loading zones.

3.3.3 Changes in food services

The food offering is increasing, largely as a result of changes in consumer behaviour – less cooking at home, increasing consumption of meals out and a desire for entertainment and socialisation whilst eating. Food is also diversifying resulting in a broadening of consumer

choices and palates and an increased diversity in ethnicity of the population. More and more consumers are expecting high-quality food and a wide choice anywhere, at any time.

Cooking shows have had a significant impact on consumer behaviour. They have changed the way people eat out and prepare their own meals from simple meals to fine dining. With such an intense focus on fine food and the unique ingredients used to create it, the general public has developed a taste for gourmet foods that were once exclusively targeted at affluent consumers who had the knowledge and the means³².

Speciality food stores, take-away and restaurants are changing, and new formats are emerging. Supermarkets are also changing their formats. Certain discount format supermarkets such as BI-LO and Flemings have disappeared, while Coles and Woolworths have introduced more metro style and upmarket formats that offer pre-prepared meals³³. The new Coles supermarket in East Village, Zetland is a good example. These formats look more and more like fresh food halls than traditional supermarkets with several long aisles.

There are a number of overseas examples of emerging trends and new retail formats which have recently made their way on to the Australian market or are likely to make their way into the Australian market over the next decade or so.

These include the following:

- Amazon markets with no checkouts where the shopper can eat-in or take-out and have the items automatically billed to their credit account
- Adaptation of heritage buildings such as Mercado da Ribeiro Timeout Market in Lisbon and the Chelsea Markets in New York
- 3-D printed food designed by the customer themselves
- Pop-up kitchen and restaurants
- Pre-prepared food options in supermarkets or fresh food home delivered such as Marley Spoon and Hello Fresh
- Restaurants combined with cooking classes
- Uber eats, Deliveroo etc. where traditional restaurant options are delivered.

³⁰ Sydney Morning Herald, Omni-channel retail the new fix for quick service, By Carolyn Cummins 2018

³¹ Sydney Morning Herald, Omni-channel retail the new fix for quick service, By Carolyn Cummins 2018

³² The democratisation of food, SCN

³³ Loughran, F 2019, 'Prepared food is driving traffic in malls, mixed use and supermarkets', Shopping Centre News, Volume 37, Number 3

Internet shopping and social media are being used increasingly in food services. However, when it comes to food services, the impact on bricks and mortar retail is not as significant as it potentially is for non-food retail. This is because when food is ordered online it is prepared, in most cases, by the same store or restaurant that people sit down in.

3.3.4 Better designed eating experiences

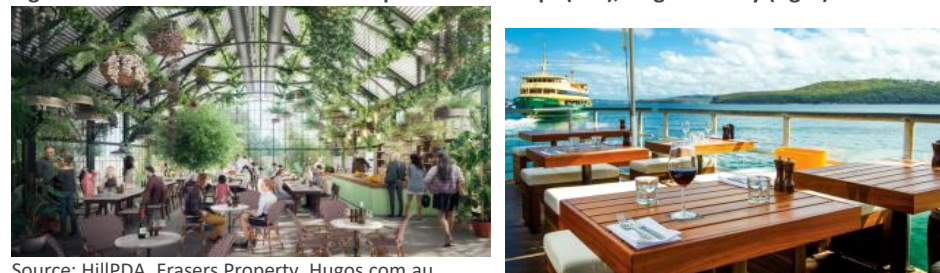
With the rise of the café culture and increased food awareness, the eating experience has become increasingly important. With customers seeking an experience where it is not just about the food but also the environment they eat in, creating the needs for designing venues that also enhance and excite a customer’s sense of touch, smell, sight and taste. Venues that create this “point of difference” or unique experiences can evoke an emotional response and attachment from customers that will have them talking and referring friends and family.

This “experience” has seen increased demand for comfortable outdoor dining options with centres needing to respond through providing improved centre amenity. Venues can also extend their trading hours, provide natural themes or take advantage of existing natural assets or open space, where venues open onto scenic views or green spaces can also create a connection to the land, increasing dining experience.

The food offering in Penrith is relatively limited and is in need of strengthening to encourage a stronger night-time economy. Expansion of home delivered meals, groceries and dining options is also a potential threat to passing and dining-out trade. Strategies to improve the offering in Penrith include:

- Improving ‘placemaking’ outcomes can help support and grow the food offering
- Effective integration and encouragement of outdoor dining and indoor-outdoor dining opportunities can improve the sense of place and experience
- Consider reviewing outdoor dining charges and policy to encourage greater activation.

Figure 4: Burwood Brickworks Rooftop Garden concept (left), Hugo’s Manly (right)



Source: HillPDA, Frasers Property, Hugos.com.au

3.3.5 Virtual reality

Virtual reality using VR headsets or 3D “holorooms” and holograms give the customer a virtual experience as well as the ability to design, decorate and view live. Lowe’s Innovation Lab in the USA is an example of this technology in DIY renovation stores. In the future, this technology will also become increasingly useful for other retailers and services such as real estate and travel agents, car dealerships and clothing stores.

The virtual change rooms are also a recent technology that aims to enhance the shopper experience, enabling the shopper to see themselves with numerous full-scale virtual outfits in a short space of time without leaving the change room.

Myer and eBay have recently created the world’s first virtual reality department store enabling consumers with a VR headset, iOS or Android device to browse and choose the departments of interest and navigate through the product range with their gaze. By simply hovering over a certain product, customers can view a 3D model and are given the option to hover over information icons, which give more details in regard to full product specifications, price, availability and shipping details.

These technologies increase the shopper experience, save time and attract shoppers into the store. This technology coupled with the potential impacts of driverless cars and last mile delivery services allow retailers to downsize while still offering the same range of services and products.

3.3.6 Out-of-centre retailing

The continuing high level of demand for floorspace from bulky goods operators and other retailers such as supermarkets will lead to continued pressure to develop on out-of-centre

industrial and employment sites, given the constraints in in-centre development. Factors and constraints that contribute to the attractiveness of out-of-centre developments have been the lack of appropriate and sizable sites in established centres and the relatively low land values when compared to the high street.

The development of out-of-centre retailing, especially those with supermarkets, has the potential to affect the continued economic viability of the established centres across Penrith LGA. For example, an international study found that the presence of out-of-centre retailing can negatively affect retail activity in nearby centres by around 12%³⁴.

Although new centres should be allowed to form and develop, especially in areas of high growth and where demand is shown, existing centres should be the primary location for new commercial and retail floorspace. This could be achieved by tightening the sequential approach assessment, reducing barriers to in centre development such as development contribution levels, adherence to certain design requirements and retail demand and impact assessments, as well as providing disincentives for out-of-centre investment.

3.3.7 Implications for Penrith

While many of the above trends in retail, particularly in food services, are observed in inner metropolitan and higher socio-economic areas of Greater Sydney the trends are expected to ripple their way across the region – although affordability will remain important in Penrith. Areas with high amenity, such as Nepean River, will become increasingly popular for food offering.

The diminishing performance of department stores resulting in some closures in the metropolitan and Regional NSW may be a concern. However it's likely that Penrith's large trade area and strong population growth will provide some counter balance to this trend.

3.4 Increasing demand for residential uses in centres

Demand for housing within centres is increasing as a result of:

- Increasing population and demand for the residential stock

- Demand for smaller dwellings in accessible locations with public transport to support affordable living
- Lifestyle changes with residents increasing favouring the accessibility, retail and service provision of centres
- Improvement to the viability of redevelopment as residential values outperforms other land use types in many situations.

In some cases, providing residential development in centres can improve business conditions by increasing the population in the retail catchment. There is an increasing preference by younger households to live in highly accessible and well-served locations. At the same time, retirees are seeking to remain in their local neighbourhoods and downsize their dwelling. This is a key dynamic influencing centre development and planning can benefit from taking this into account.

Until the recent upturn in the residential market from 2015 to 2017 high density housing in the Penrith and St Marys CBDs was not viable. While the market has slowed down a little more recently it is expected that demand for high density will continue. Penrith CBD achieves higher prices than anywhere else in the LGA largely because of its retail and services offering and public transport services. St Marys is likely to become increasingly attractive over time due to the metro rail and the likelihood of express train services.

3.5 The future of car parking

The coming age of autonomous vehicles and drones will eliminate many of the inconveniences of shopping and potentially convert thinking around centre design. While the future of a shopping centre without car parks is possible, it will take a while to come to fruition. It does bring to light the need to consider disruptive technologies when preparing long term strategies.

Autonomous vehicles will increase avenues for car sharing and reduce the need for parking on site. There is also the potential that the lifecycle of driverless cars will be limited with Uber Elevate, in partnership with Scentre Group, exploring opportunities for an urban

³⁴ Land Use Policy, The impact of out-of-town shopping centres on town-centre retailers and employment: The case of the Region of Murcia. Armando Ortuño Padilla; Antonia Alarcón Hermosillab; and Olga Tomás Ozoresc 2017

aviation rideshare network. Melbourne is proposed as a testing group with current plans looking for this service to begin commercial operations as early as 2023 in Australia³⁵. Underutilised/remnant carparks, driverless trucks and cars will also create new opportunities for centres, retailers and logistics companies, through:

- **Reduced costs and increased efficiencies associated with deliveries:** the cost associated with the transport and delivery of goods has long been a negative economic factor to retailers. Despite an initial investment cost, driverless cars and trucks, in the long run, will benefit retailers and the transport industry through increased efficiencies and decreased costs associated with driver wages, other costs associated with employees, human error, fuel costs and servicing
- **Increased redevelopment and expansion options:** as driverless cars become the norm, the need for large carparks will become obsolete. This will create opportunities within existing centres, where the redevelopment or repurposing of existing carparks can occur. There is also the potential for increased public realm improvements, such as better landscaping opportunities, though the repurposing of on-streetcar parking spaces.

Underground parking areas are a little more difficult. However, such spaces could be potentially transitioned into alternative uses such as storage, retail, entertainment or new-age light manufacturing area. There is a need to allow for greater flexibility in the design of any new car parking areas to ensure that they can easily and efficiently be transitioned into alternative uses that either enhances the productivity of the centre or its community identity

- **Improved high street amenity:** High streets can be busy and noisy places that can deter or make outdoor dining or social interactions difficult. The introduction of the driverless car may play a significant role in the evolution of the high street through decrease congestion, reducing noise and air pollution. This can benefit retailers by making the area more attractive for social interactions, outdoor dining and increased foot traffic, further increasing the opportunity for the capture of passing traffic for shops

- **The willingness to travel further:** there could be a downside to driverless cars in regard to smaller local centres. Driverless cars could increase the willingness of customers to travel further in order to undertake shopping activities or access services. This could be a result of reduced traffic congestion and time spent searching for a park, allowing people to travel further in a shorter amount of time. This could lead some customers to bypass their local centre in order to access the greater range of services provided in larger centres. Local centres will need to maintain a high level of innovation, appropriate retail mixture, outdoor dining, increased shopper experience and offer other community benefits such as good public domain and playgrounds/parks in order to combat this potential negative effect of the driverless car.

³⁵ Taylor, K (2019), The Connectivity Revolution, Shopping Centre News, Vol. 37, Number 3, pg. 10-12

THE PENRITH ECONOMY

4.0 THE PENRITH ECONOMY

The following Chapter undertakes a review of the current and historic economic and employment trends in the Penrith LGA and wider locality. Information in this Chapter has been sourced from the Australian Bureau of Statistics (ABS), Transport, Performance Analytics (TPA) and community/economy id.

Where relevant, economic performance indicators of Penrith have been benchmarked against Greater Sydney to further identify any industry specialisation or opportunities for the LGA.

4.1 Working residents' characteristics

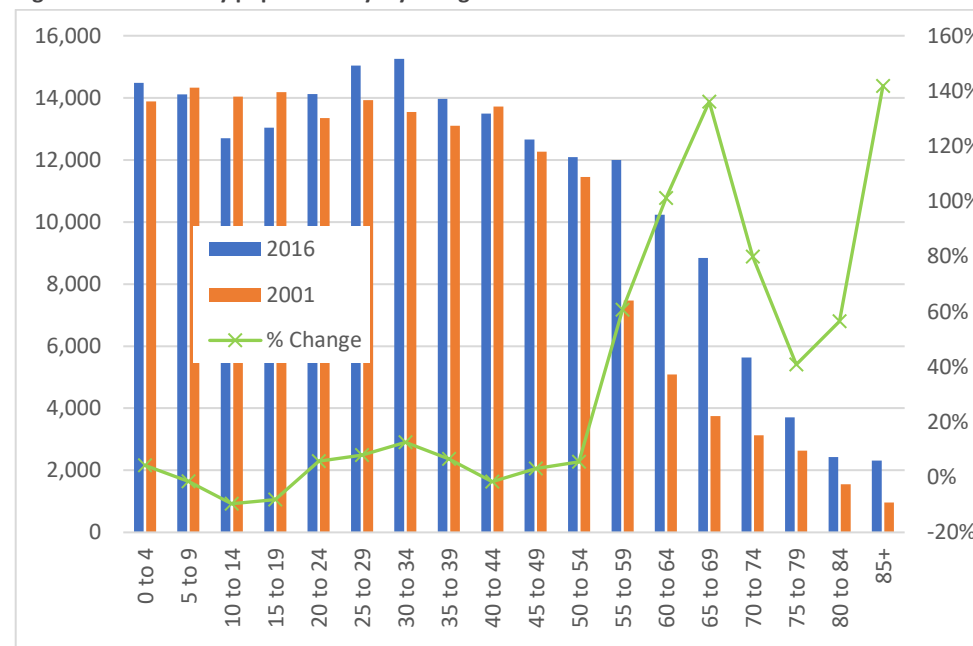
4.1.1 Resident population and age composition

Over a 12 year period to 2018, the population in Penrith City increased by more than 33,000 or 19%, reaching a total of around 209,210.

From 2001 to 2016 (15 years) Penrith experienced an ageing of its population, with persons aged 50 years and over comprising 90% of the net growth. This results in an increase in demand for aged care and health-related services in and around the commercial centres and the Nepean Hospital precinct.

Despite this ageing, the largest representation of Penrith's population by age cohort are the parents and homebuilders group (25 to 49 years), with 36% of the population being in this group at 2016. This proportion was in line with that of Greater Sydney (37%). However this age group is declining from 38.6% of total population in 2001.

Figure 5: Penrith City population by 5 year age cohort



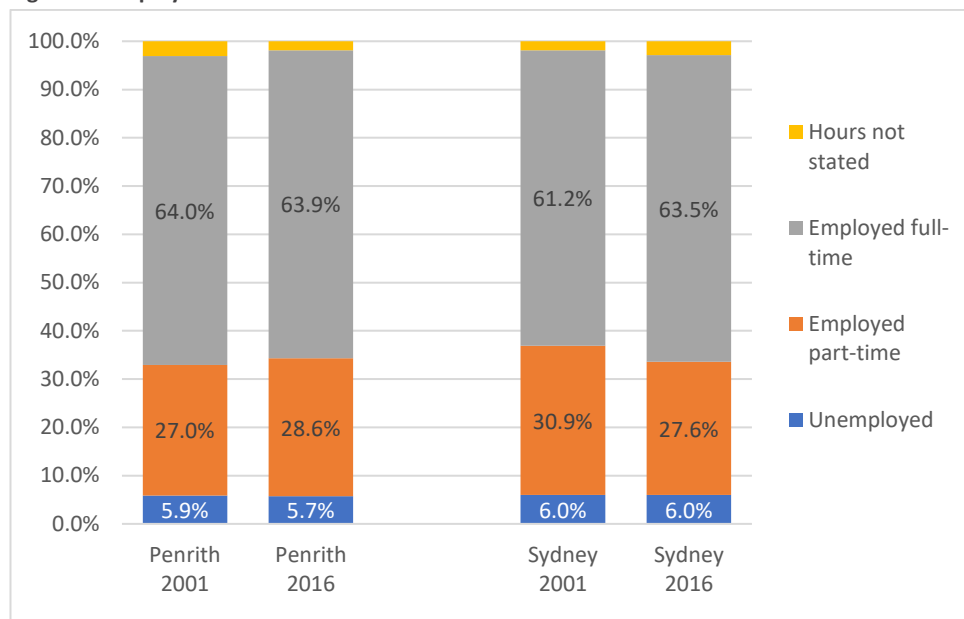
Source: Community id

4.1.2 Employment status

In 2016, around 100,600 people living in Penrith were in the labour force which was 65% of the City's population over 15 years old. Of the residents in the workforce 64% worked full-time and 29% part-time. A further 5,744 residents or 5.7% of the workforce were unemployed, slightly lower than 5.9% in 2001. Penrith's unemployment rate is a little lower than Greater Sydney at 6.0%.

Over the last ten years, there has been a growing proportion of people being employed part-time (+1.3%) with a corresponding decrease in the proportion of full-time employed residents (-1.3%).

Figure 6: Employment status



Source: ABS Census 2016 and 2001

4.1.3 Industry of employment and location quotient

Over ten years to 2016 employed residents in Penrith increased by 11,380 – a 14% increase. Some industries experienced a decrease in workers over this period – particularly manufacturing which lost 32% of its workers. The main growth areas have been:

- Construction – 3,180 additional jobs (40% increase)
- Health Care and Social Assistance – 2,945 additional jobs (40% increase)
- Education and Training – 1,727 additional jobs (34% increase).

Location quotient (LQ) is a simple way of assessing which are the main industries of employment for Penrith residents relative to a wider area, which in this case Greater Sydney was selected.

Table 2: Resident employment by industry and location quotient

Industry	Penrith LGA				LQ Sydney	
	2006	2016	Change#	Change%	2006	2016
Agriculture, Forestry & Fishing	583	725	142	24%	1.8	2.0
Mining	196	183	-13	-7%	1.0	1.0
Manufacturing	10,988	7,483	-3,505	-32%	1.4	1.4
Electricity, Gas, Water & Waste	1126	1349	223	20%	1.6	1.8
Construction	7,865	11,045	3,180	40%	1.3	1.4
Retail Trade	4,639	3,674	-965	-21%	1.0	1.1
Wholesale trade	10,172	10,012	-160	-2%	1.2	1.1
Accommodation & Food Services	4,621	5,592	971	21%	0.9	0.9
Transport, Postal & Warehousing	5,951	6,714	763	13%	1.3	1.4
Information Media & Telecom.	1,344	1,213	-131	-10%	0.5	0.5
Financial and Insurance Services	3,749	4,061	312	8%	0.7	0.7
Rental, Hiring & Real Estate Ser.	1,302	1,522	220	17%	0.8	0.8
Professional, Scientific & Technical	3,484	4,092	608	17%	0.5	0.4
Administrative & Support Services	2,404	3,124	720	30%	0.9	0.9
Public Administration and Safety	5,868	6,735	867	15%	1.3	1.3
Education and Training.	5,114	6,841	1,727	34%	0.8	0.9
Health Care and Social Assistance	7,439	10,384	2,945	40%	0.9	0.9
Arts and Recreation Services	952	1,285	333	35%	0.8	0.8
Other Services	3,456	3,748	292	8%	1.1	1.1
Inadequately described/ not stated	2,212	5,063	2,851			
Total employed persons aged 15+	83,465	94,845	11,380	14%		

Source: ABS 2016

Table LQ key:

Economic Weakness	Similar in importance	Moderate specialisation	Strong specialisation
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In the above table:

- Where LQ=1, the identified industry is as prevalent as in the comparable area
- An LQ greater than 1.2 indicates a significant specialisation of the industry in Penrith – indicating possibly a key economic strength. Higher numbers indicate a greater specialisation with anything exceeding 2 being a major specialisation
- An LQ between 0.8 and 1.2 means the industry is broadly similar in importance in Penrith compared to the comparison region and could be seen as representative
- An LQ under 0.8 indicates an industry which is more important in the comparable area than Penrith and may represent an economic weakness or opportunity for growth³⁶.

From the above table we can see that Penrith has:

- A significant specialisation in agriculture, forestry and fishing and electricity, gas, water and waste services when compared to Greater Sydney – although these are small industries in terms of job numbers
- Penrith also has moderate to high specialisation in manufacturing, transport and warehousing and public administration and safety
- Penrith has a moderate weakness in financial and insurance services, real estate services, accommodation, food services, arts and recreation services
- Penrith has a strong weakness in telecommunications and in professional, scientific and technical services compared to Greater Sydney.

Note that despite strong growth in Penrith in the industries of construction, health care and education the trend was not significantly different to Greater Sydney as shown by the very small movements in LQ between 2006 and 2016.

Note also that this analysis refers to resident occupations by industry type and not jobs located in the LGA. Location quotient analysis of industries in Penrith is given in Section 5.2 below.

³⁶ Economy id

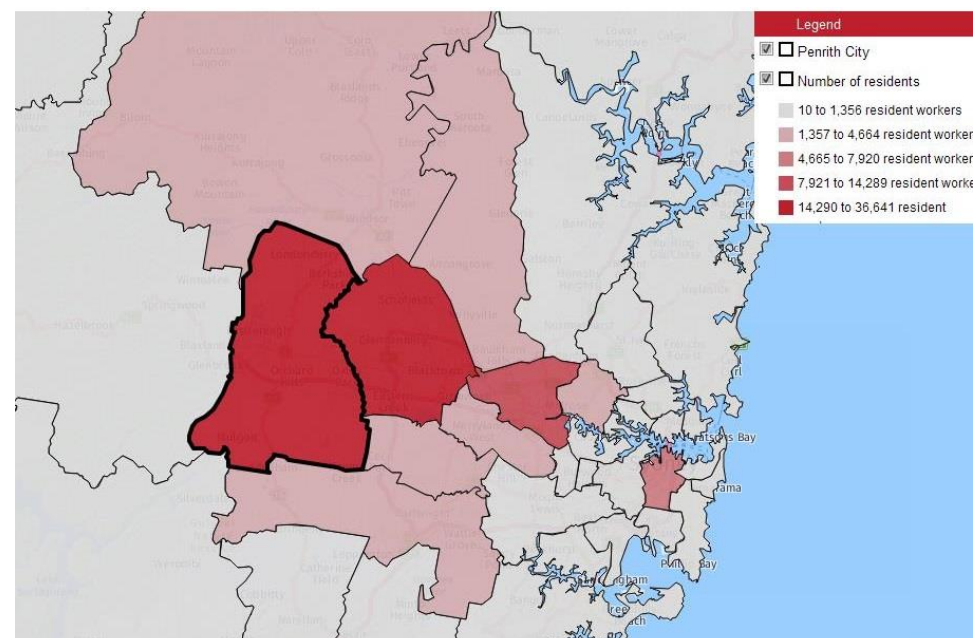
³⁷ ABS Census 2016

4.1.4 Where residents work

In 2016 there were only 66,700 jobs in Penrith meaning that the job containment ratio was around two thirds.³⁷

Around 30,100 people working in the Penrith LGA live outside the LGA of which almost half of them live in Blacktown and The Blue Mountains. A significant number of Penrith residents leave the LGA to go to work. Only 38.6% of Penrith’s working residents work in Penrith LGA. 15% go to work in Blacktown, 8.4% travel to Parramatta and 6.3% to Sydney City.³⁸ The balance work mostly across Western Sydney.

Figure 7: Where Penrith residents work 2016



Source: Australian Bureau of Statistics, Census of Population and Housing 2016. Compiled and presented in profile.id by .id, the population experts.

.id
the population experts

Source: Profile.id

³⁸ Profile.id

4.1.5 Population projections

From 2016 over the next 20 years the resident population of Penrith City is projected to increase by almost 57,000 or 28%, reaching a total of 258,200 by 2036. Expected proportional growth is double the rate of last ten years (14%).

The highest growth cohort will be aged persons – persons over the age of 70 will more than double over this period. This will increase the demand for aged care and health services.

There will also be an increase in population in the working cohorts between the ages of 20 and 64 – an additional 23,234 persons. Increased employment opportunities would need to be provided for these new residents.

Table 3: Penrith population projections by Age Cohort

Age Cohort	2016	2026	2036	2016-36	% Change
0 to 14	43,084	49,452	53,491	10,407	24%
15 to 29	44,761	49,307	54,135	9,374	21%
30 to 44	43,779	49,799	53,966	10,187	23%
45 to 59	36,935	40,365	44,663	7,728	21%
60 to 74	24,481	29,803	32,276	7,795	32%
75+	8,365	14,027	19,663	11,298	135%
TOTAL	201,405	232,753	258,194	56,789	28%

Source: Forecast.id

Applying a benchmark provision of 3sqm for industrial/urban service land per person (as identified by the Greater Sydney Commission) the growth in the resident population alone would result in a demand for an additional 170 hectares of land (zoned IN and B5-B7).

4.2 Jobs in Penrith

4.2.1 Employment generation in Penrith

Over the 15 year period to 2017-18 total jobs in Penrith increased by 21,856 to 86,422 – a growth of 34% from 2002-03. Despite this some industries experienced a decline in jobs

including manufacturing which lost more than 1,000 jobs. The table immediately below shows job growth from 2002-03 to 2017-18 by industry type.

Table 4: Penrith jobs 2002 to 2018 by industry

Industry	2002-03	2007-08	2012-13	2017-18	% Growth
Agriculture, Forestry and Fishing	737	658	722	811	10%
Mining	239	243	493	412	72%
Manufacturing	8,335	7,914	7,506	7,319	-12%
Electricity, Gas, Water & Waste	977	1,128	1,042	1,089	11%
Construction	6,492	7,614	7,275	11,849	83%
Wholesale Trade	2,109	2,266	2,505	2,332	11%
Retail Trade	9,693	9,502	8,934	10,322	6%
Accommodation & Food Services	4,840	5,146	5,640	6,833	41%
Transport, Postal & Warehousing	2,719	3,508	4,150	5,102	88%
Information Media & Telecomm.	719	604	633	509	-29%
Financial & Insurance Services	1,056	989	996	1,024	-3%
Rental, Hiring & Real Estate	1,055	1,068	1,154	1,257	19%
Professional, Scientific and Technical Services	2,451	2,343	2,436	2,879	17%
Administrative & Support Services	1,620	1,656	2,130	2,569	59%
Public Administration and Safety	4,171	5,042	5,489	5,768	38%
Education and Training	6,087	6,911	7,533	9,437	55%
Health Care and Social Assistance	7,474	8,434	9,660	12,573	68%
Arts and Recreation Services	957	939	1,095	1,032	8%
Other Services	2,835	2,833	3,081	3,305	17%
Total Industries	64,566	68,798	72,474	86,422	34%

Source: Economy.id

There was a small loss of jobs in information, media and telecommunications and in financial and insurance services. All other sectors had some growth.

There was significant growth in construction –particularly in the past five years with a 63% increase. However construction can be cyclical and we need to be careful in regard to any forecasting using trend extrapolation.

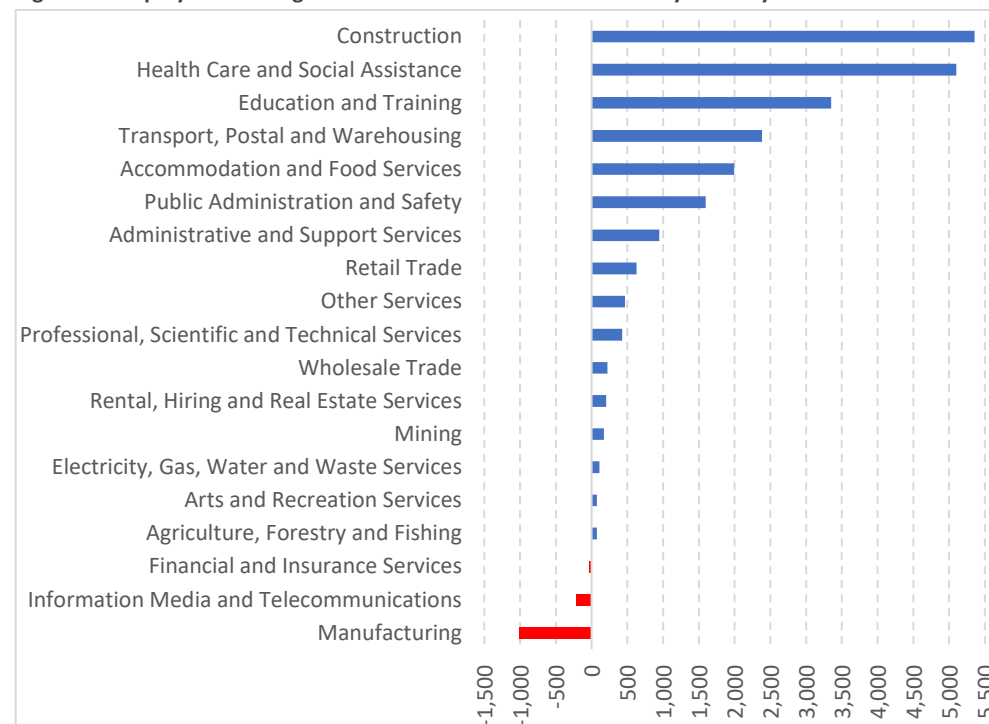
There was also strong growth in transport and warehousing jobs. This is largely due to the decline of manufacturing jobs and its replacement with increased importation and distributional services.

Other industries that have experienced strong growth has been in the ‘white-collar’ areas. Health care and social services in particular has increased 68% followed by education and training with 55%. Hospitalities has also grown considerably at 41% as consumers continue to dine out more.

Administrative and support services (which includes administrative services and building cleaning and property management services) increased by 55%.

Mining experienced a strong growth rate of 72% but the number of jobs remain relatively low (less than half a percent).

Figure 8: Employment change in Penrith LGA from 2003 to 2018 by industry



Source: Economy.id

4.2.2 Manufacturing employment

Although overall employment in manufacturing decreased over the last 15 years, some manufacturing industries grew in terms of jobs. Food manufacturing for instance increased by 240 jobs. There was also growth in transport equipment, furniture, printing and chemical products. Significant losses happened in textiles, wood products, metals and minerals and machinery and equipment manufacturing. Jobs in these areas fell 32% over that period.

Jobs in road transport services increased by 1,518 – almost double. Transport support services increased by 158 – a two and half fold increase. Jobs in Warehousing and storage services increased by 805 – a four-fold increase from 192 jobs in 2002-03.

Table 5: Penrith Jobs in Manufacturing, Transport and Storage

Industry	2002/03	2017/18	Increase No.	Increase %
Food Product Manufacturing	620	860	240	39%
Beverage and Tobacco Products	34	11	-23	-68%
Textile, Leather, Clothing and Footwear	409	144	-265	-65%
Wood, Pulp and Paper Products	1042	787	-255	-24%
Printing (Including Recorded Media)	204	278	74	36%
Petroleum and Coal Products	27	70	43	159%
Basic Chemical and Chemical Products	316	364	48	15%
Polymer Products and Rubber Products	415	294	-121	-29%
Mineral and Metal Products	3229	2837	-392	-12%
Transport Equipment Manufacturing	394	482	88	22%
Machinery and Equipment Manufacturing	1091	544	-547	-50%
Furniture and Other Manufacturing	553	646	93	17%
Total Manufacturing	8334	7317	-1017	-12%
Road Transport	1609	3127	1518	94%
Other Transport	243	156	-87	-36%
Postal, Courier and Delivery Services	612	600	-12	-2%
Transport Support Services	63	221	158	251%
Warehousing and Storage Services	192	997	805	419%
Total Transport and Storage	2719	5101	2382	88%

Source: Economy.id

4.2.3 Location quotient

Location quotient (LQ) is a way of assessing which are the main industries in an area relative to a comparable area, please refer to Section 4.1.3 for a more comprehensive description of LQ definitions.

Table 6: Penrith LGA Employment location quotients

Industry	2017/18			2002/03		
	%	Greater Sydney %	Location Quotient (Greater Sydney)	%	Greater Sydney %	Location Quotient (Greater Sydney)
Agriculture, Forestry and Fishing	0.9	0.4	2.21	1.1	0.6	1.94
Mining	0.5	0.3	1.73	0.4	0.2	2.05
Manufacturing	8.5	6.3	1.34	12.9	11	1.17
Electricity, Gas, Water & Waste	1.3	0.8	1.66	1.5	0.9	1.70
Construction	13.7	9.5	1.45	10.1	7.4	1.35
Wholesale Trade	2.7	3.7	0.73	3.3	5.6	0.58
Retail Trade	11.9	9.6	1.25	15	10.9	1.38
Accommodation and Food Serv	7.9	7.1	1.12	7.5	6.2	1.22
Transport, Postal & Warehousing	5.9	5.2	1.14	4.2	5.5	0.77
Information Media & Telecomm.	0.6	2.8	0.21	1.1	3.5	0.32
Financial and Insurance Services	1.2	6.4	0.18	1.6	6.2	0.26
Rental, Hiring & Real Estate Serv	1.5	1.9	0.77	1.6	1.8	0.89
Professional, Scientific & Tech.	3.3	10.7	0.31	3.8	9.2	0.41
Administrative & Support Serv	3	3.5	0.85	2.5	3.7	0.67
Public Administration & Safety	6.7	5.6	1.19	6.5	5.1	1.27
Education and Training	10.9	8.8	1.24	9.4	7	1.35
Health Care & Social Assistance	14.5	12.3	1.18	11.6	9.6	1.21
Arts & Recreation Services	1.2	1.7	0.72	1.5	1.5	0.98
Other Services	3.8	3.6	1.08	4.4	4	1.09
Total Industries	100	100	1	100	100	1

Source: Economy.id

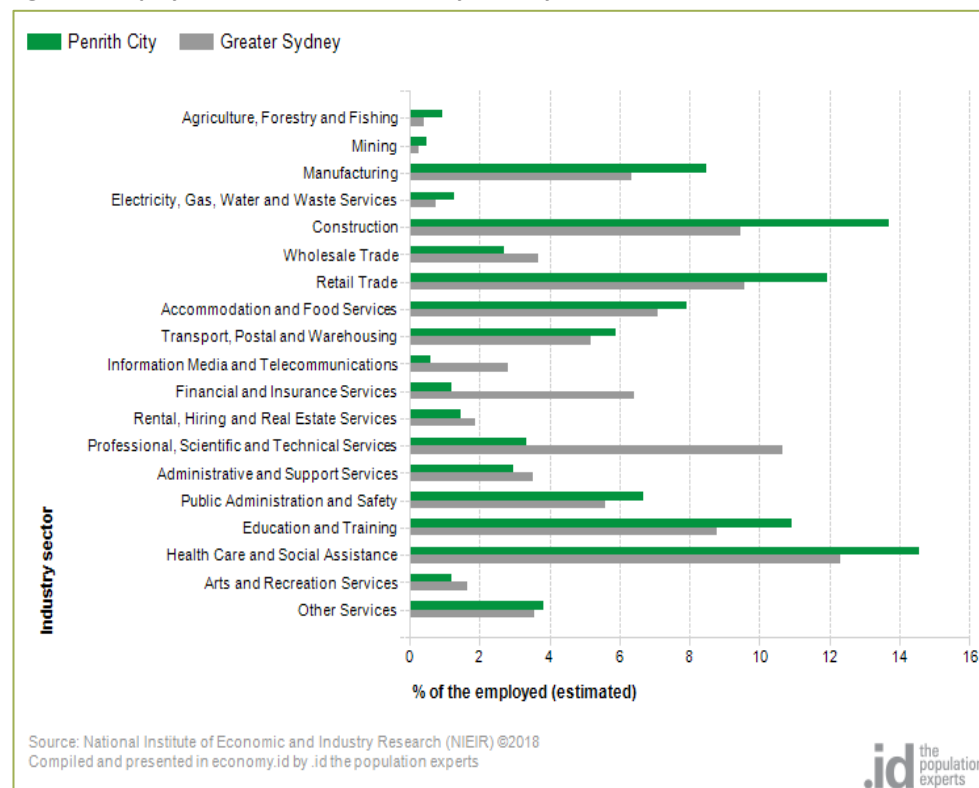
Table LQ key:

Economic Weakness	Similar in importance	Moderate specialisation	Strong specialisation
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From the above table we can see that Penrith has strong specialisation in ‘blue collar’ industries such as manufacturing, transport, warehousing and construction. It is also quite high in education predominantly due to the presence of Western Sydney University and TAFE. It is fairly high in health and social assistance largely due to the Nepean Hospital.

However there is a considerable under representation of jobs in wholesale trade, information and media, financial and other professional and technical services.

Figure 9: Employment in Penrith LGA 2018 by industry



Source: Economy.id

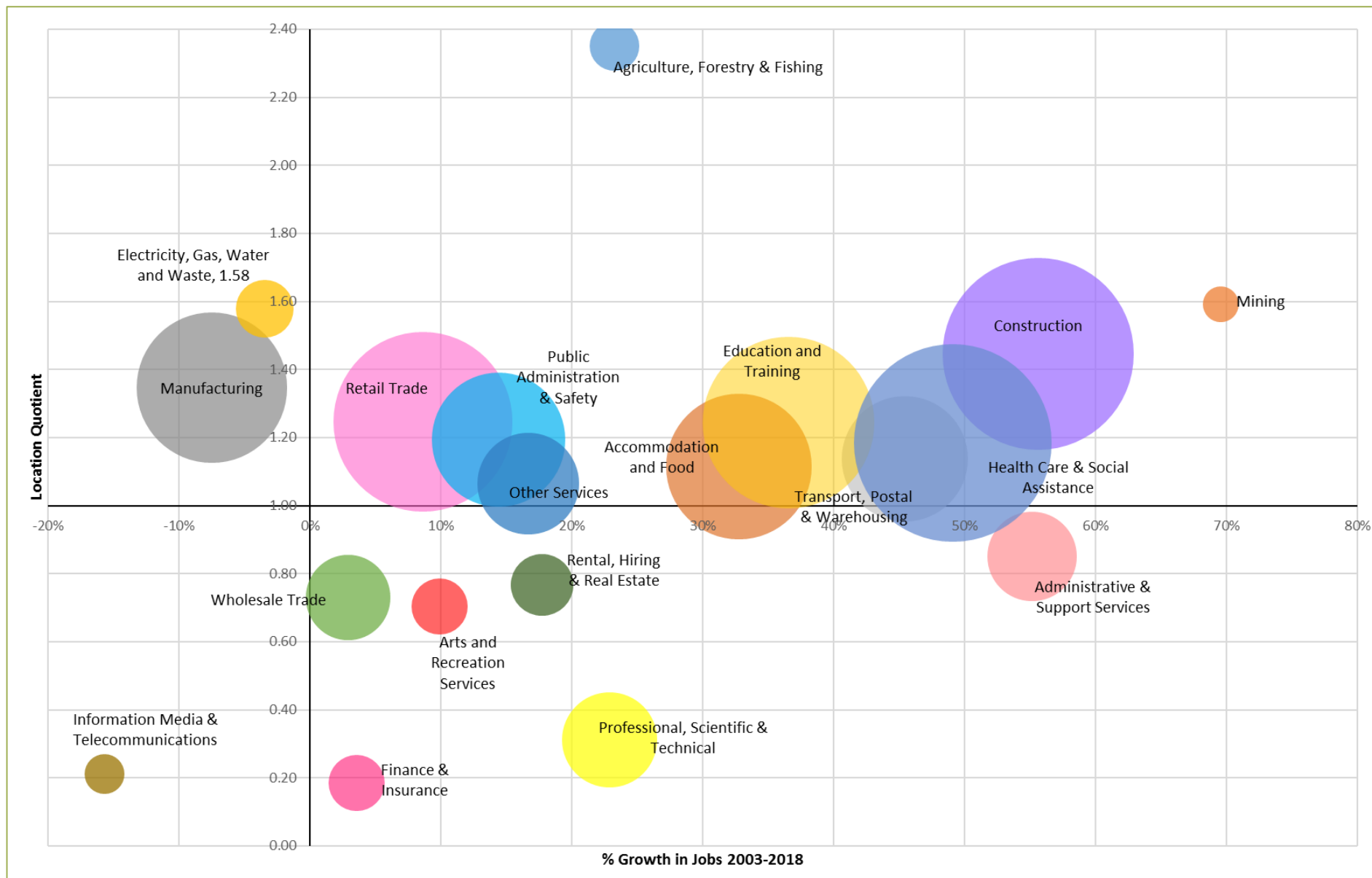
Compared to Greater Sydney, Penrith also has high specialisation in agriculture, mining and utilities (electricity, gas, water and waste services). However, these industries are

relatively small in terms of total employment both in Penrith (2.7% of total jobs) and in Greater Sydney (1.5% of total jobs).

To further understand the main industries in an area relative to a comparable area or wider region or State, the following scatter diagram demonstrates:

- The bubbles represent the size of each industry in Penrith, and so demonstrates the largest industries in the Penrith LGA are 'Health Care and Social Assistance, Construction, Education & Training and the Retail Trade. The smallest industries in the Penrith LGA region are; Arts & Recreation Services, Electricity, Gas, Water & Waste and Information Media & Telecommunications, Agriculture and Mining
- Bubbles to the right of the Y axis (origin) represent growth industries in the area, demonstrating that a large percentage of industries are expanding industries and bubbles to the left of the Y axis (origin) represent declining industries
- Bubbles above the X axis (origin) represent a high specialisation against Greater Sydney and bubbles below the axis demonstrate the industries in the Penrith LGA that are underrepresented compared to Greater Sydney
- Industries which have both high LQ and high total job numbers typically form a area's economic base; the industries in Penrith that demonstrate this are manufacturing, construction, health care and social assistance and transport, postal and warehousing
- Industries that present high employment numbers with a low LQ can indicate a problem for an economy where there is a large labour force with a declining industry. In Penrith's case this represents finance and insurance and information, media and telecommunications.

Figure 10: Penrith LGA Location Quotient by Industry (2018)

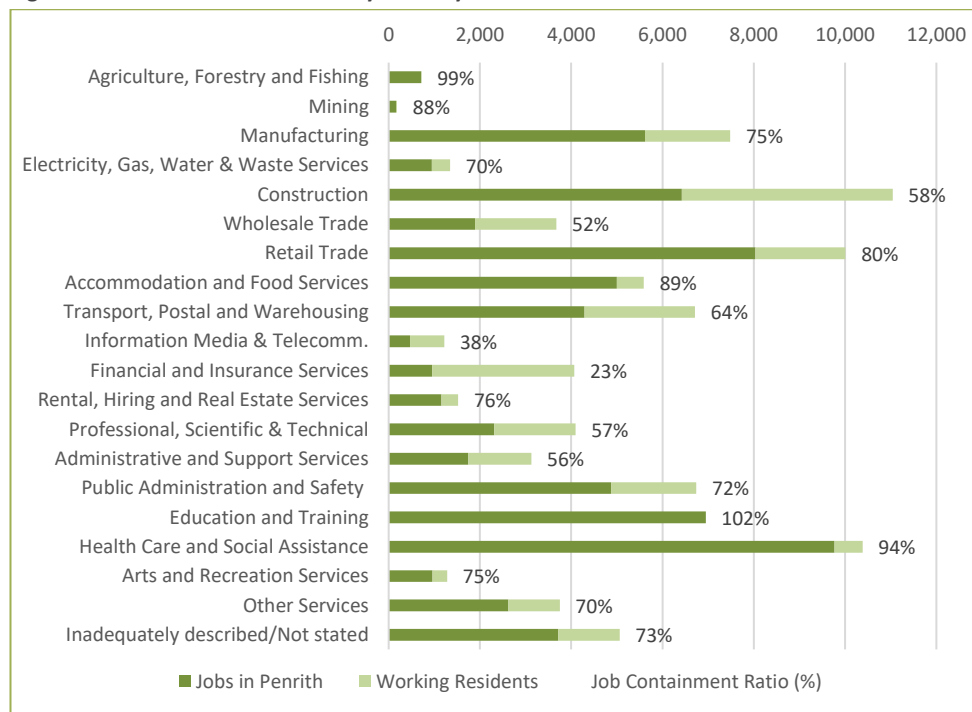


Source: Economy.id

4.3 Job Containment Ratio

The job containment ratio is the ratio of jobs in a geographical area divided by the number of working residents. Job containment ratios by industry type and occupation type are shown in the charts immediately below.

Figure 11: Job Containment Ratio by Industry in Penrith LGA



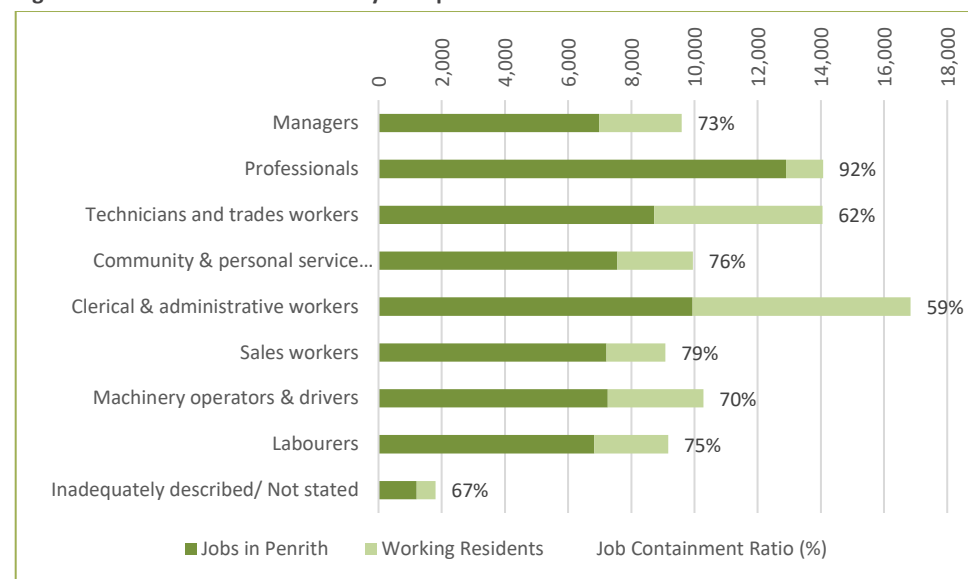
Source: ABS Census 2016

Across all industries the job containment ratio in Penrith City is 73%. However in the industries of education and training and health care and social assistance the ratio is close to 1 to 1. The relatively low provision of jobs are in financial and insurance services (23% of employed residents), information media and telecommunications (38%), wholesale trade (52%), administrative and support services (56%) and professional, scientific and

technical services (57%). The majority of working residents in these industries have to travel outside the LGA to travel to work.

Interestingly the job containment ratio for professionals is reasonably high at 92%. The occupation type with the lowest job containment ratio is clerical and administration workers (59%). This is not surprising given that a high proportion of these workers are on moderate salaries yet work in high value industries such as finance and professional services.

Figure 12: Job Containment Ratio by Occupation in Penrith LGA



Source: ABS Census 2016

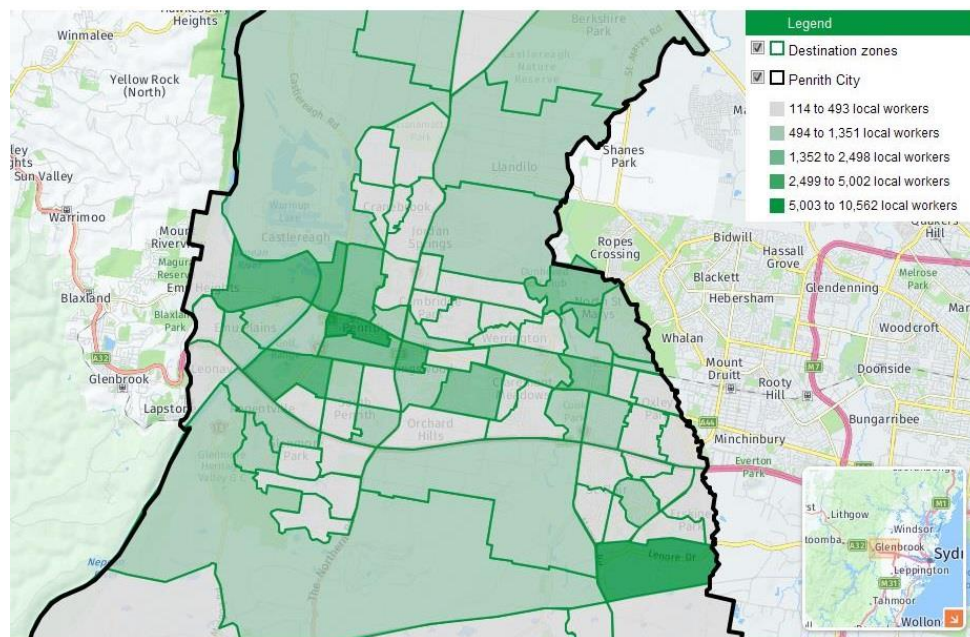
4.4 Employment by location

The figure below shows the distribution of employment across Penrith LGA by destination zone. Destination Zone (DZ) is the smallest boundary that employment journey to work data is provided.

As shown on the map the Penrith CBD in 2016 had the highest number of jobs (over 12,900 including Nepean Village), followed by Erskine Park (5,384 jobs), St Marys industrial area (5,255 jobs), the North Penrith industrial area (5,146 jobs), Nepean Hospital (3,711 jobs)

and Jamisontown (3,264 jobs). The Werrington precincts combined with Nepean Hospital provided 6,138 jobs.

Figure 13: Jobs by destination zone 2016



Source: Australian Bureau of Statistics, Census of Population and Housing 2016. Compiled and presented in economy.id by .id, the population experts.



Source: Economy.id

Please note that the source of the data is Census Working Population Profile 2016 which at an LGA level is around 8.7% lower than Transport for NSW estimate and around 14.5% lower than Economy.id 2016 estimate. Both Economy.id and Transport for NSW considers the Census to be an undercount as location of work is not always clearly stated and/or workers were away from work at the time of Census. Nevertheless this is the most readily available data at small area level and it gives a good picture of the geographical distribution of jobs in the LGA. In each DZ factoring up the number of jobs by around 5%-10% would give a more likely correct indication of jobs.

The data shows that more than half of the jobs in education, health services and social assistance are located along the railway line between Penrith CBD and St Marys. 34% of

jobs in health (3,306 jobs) are in the Nepean Hospital and 22% of jobs in education (1,542) are located on the WSU and TAFE Werrington and Kingswood campuses.

31% of the jobs in retail are in the Penrith CBD (2,506 jobs). A surprising 27% of retail jobs (2,200 jobs) are located in the three industrial areas of Erskine Park, North Penrith and Jamisontown.

23% of jobs (1,161 jobs) in hospitalities (accommodation and food services) are in the Penrith CBD. A further 14% of jobs in that industry (678 jobs) are in the Panthers destination zone.

The largest concentrations of manufacturing jobs in the LGA is St Marys (1,688 jobs being 30% of the LGA total), North Penrith (979 jobs being 17% of the LGA total), Erskine Park (865 jobs being 15% of the LGA total) and Emu Plains (754 jobs being 13% of the LGA total). St Marys also had the largest concentration of transport and warehousing jobs (461 jobs being 25% of the LGA total). Erskine Park had 432 jobs in that industry (23% of the total).

Half of the jobs in finance and insurance services and in public administration and safety are located in the Penrith CBD. Around one third of professional, scientific and technical services, information, media and telecommunications and rental, hiring and real estate services are also located in the CBD. The following diagrams provide an illustration of the concentrations of jobs in nominated industries.

Figure 14: Manufacturing Jobs by destination zone 2016

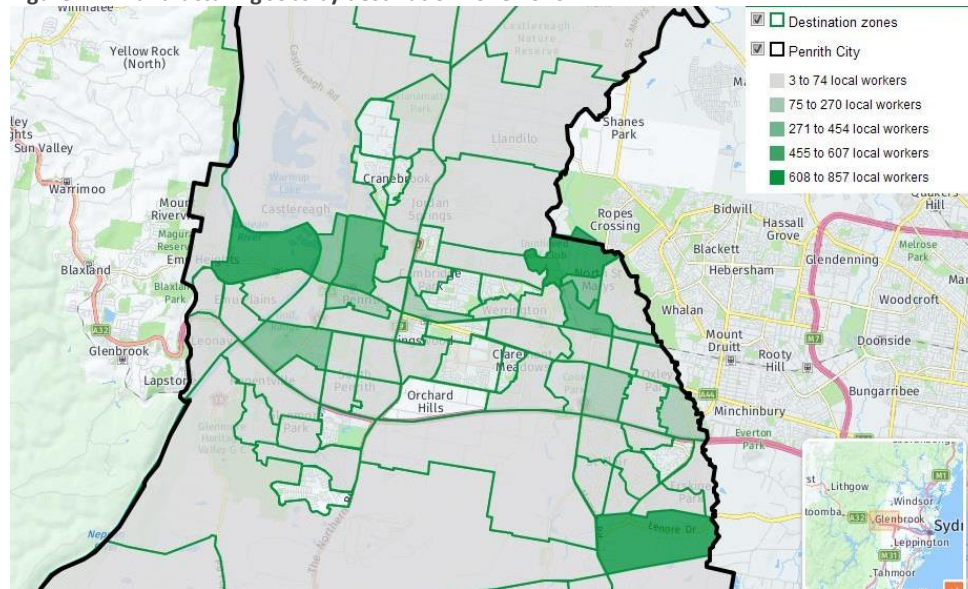


Figure 16: Retail Jobs by destination zone 2016

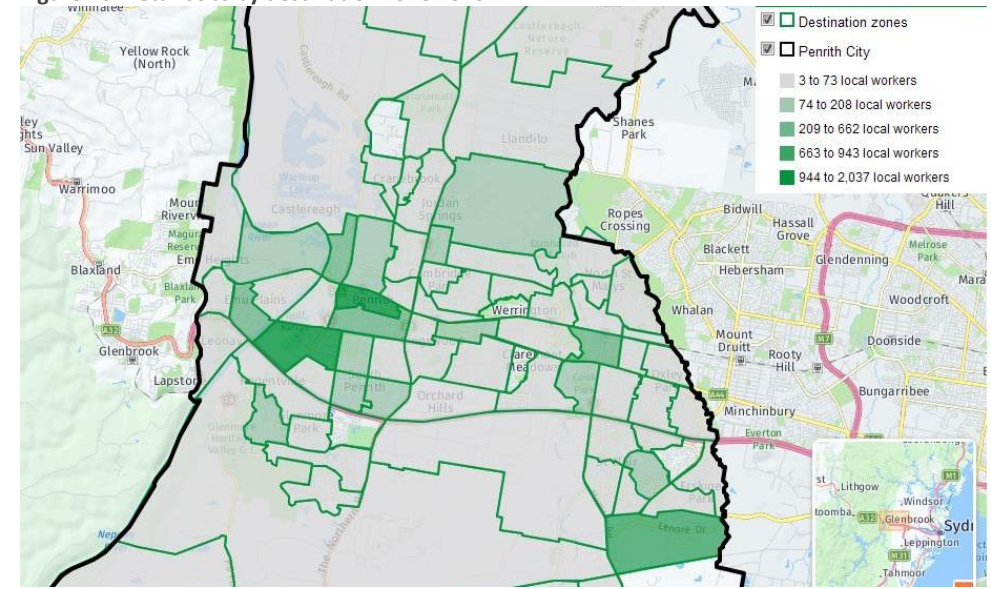
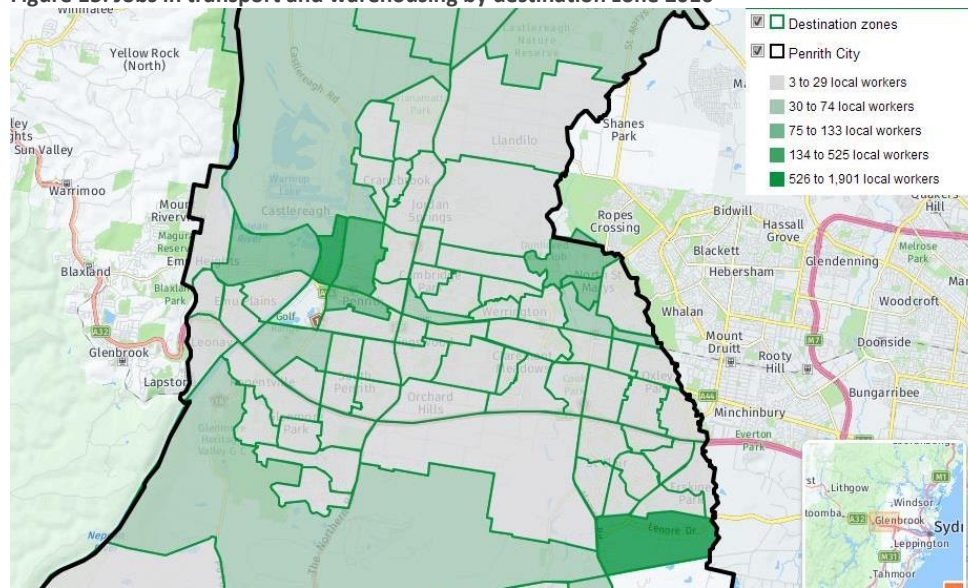
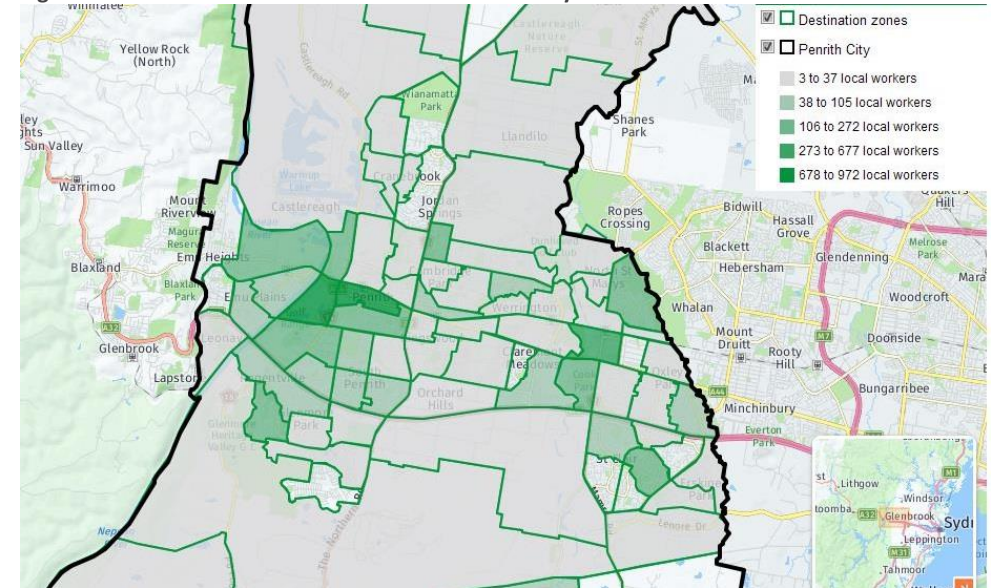


Figure 15: Jobs in transport and warehousing by destination zone 2016



Source: Economy.id

Figure 17: Jobs in accommodation and food services by destination zone 2016



Source: Economy.id

Figure 18: Jobs in Health Care and Social Assistance by destination zone 2016

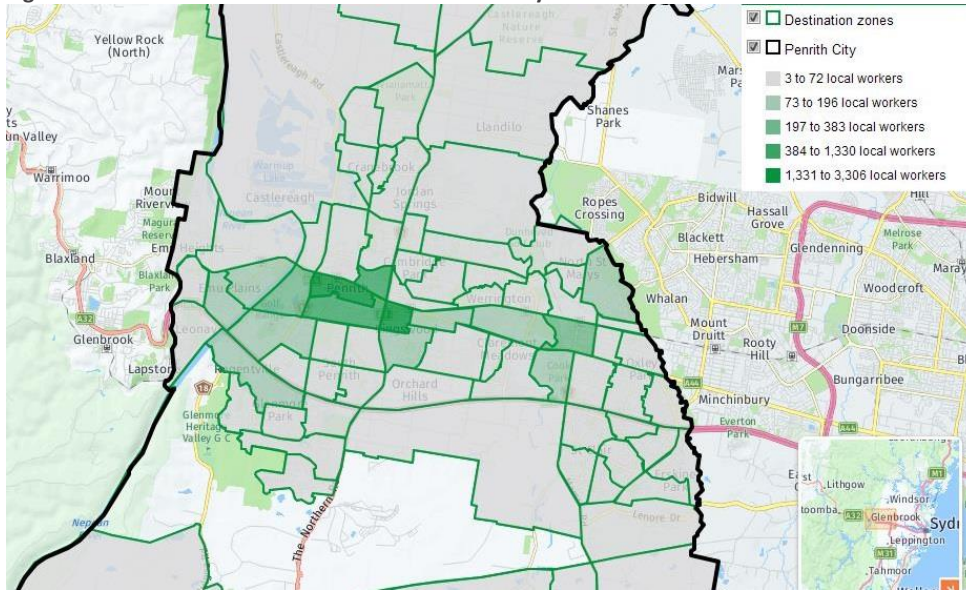


Figure 20: Jobs in public administration and safety by destination zone 2016

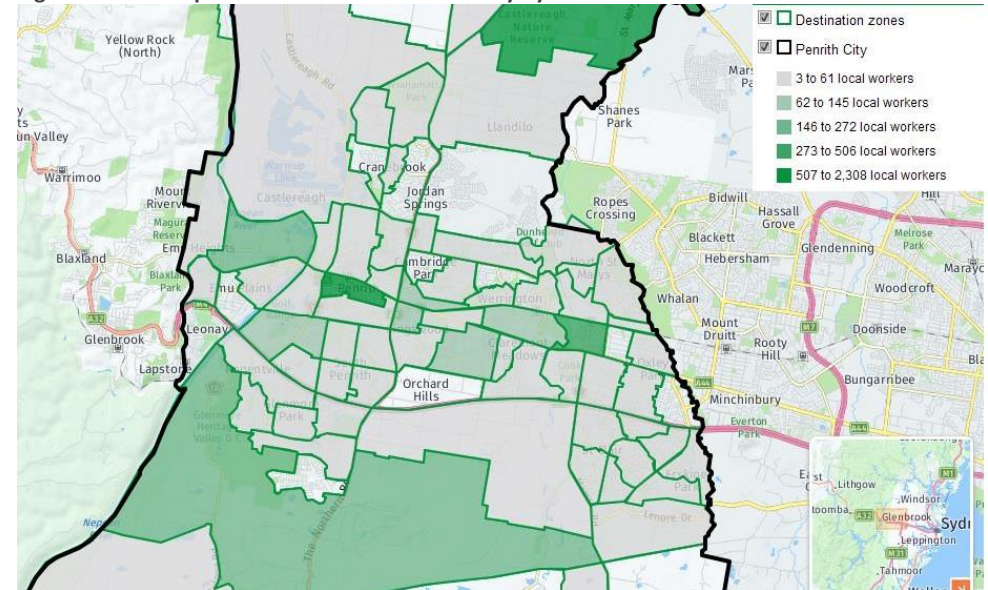
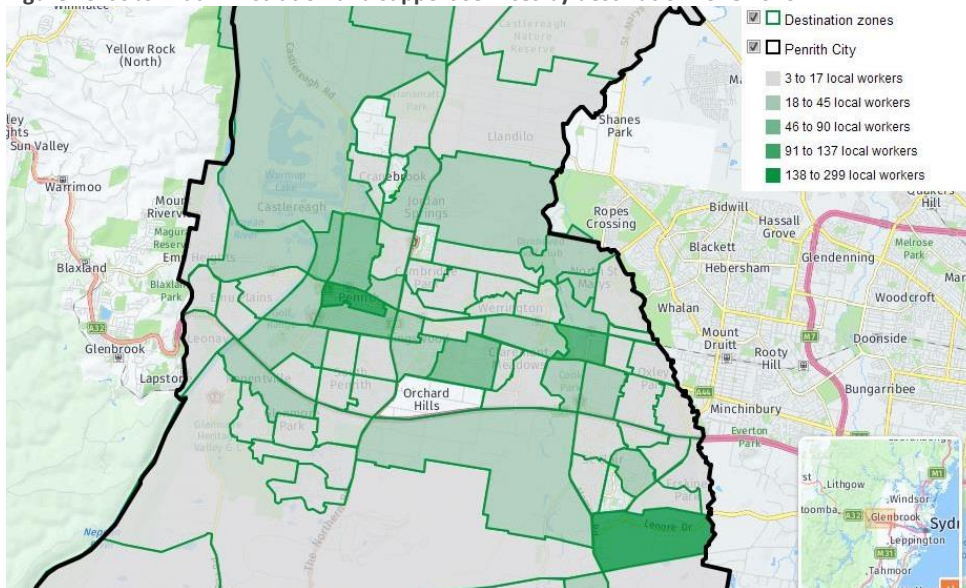
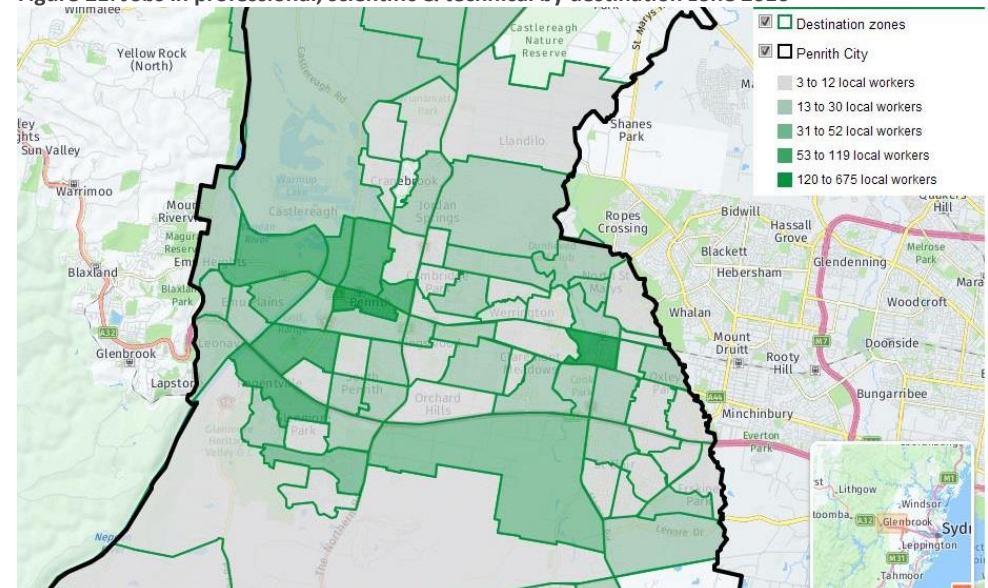


Figure 19: Jobs in administration and support services by destination zone 2016



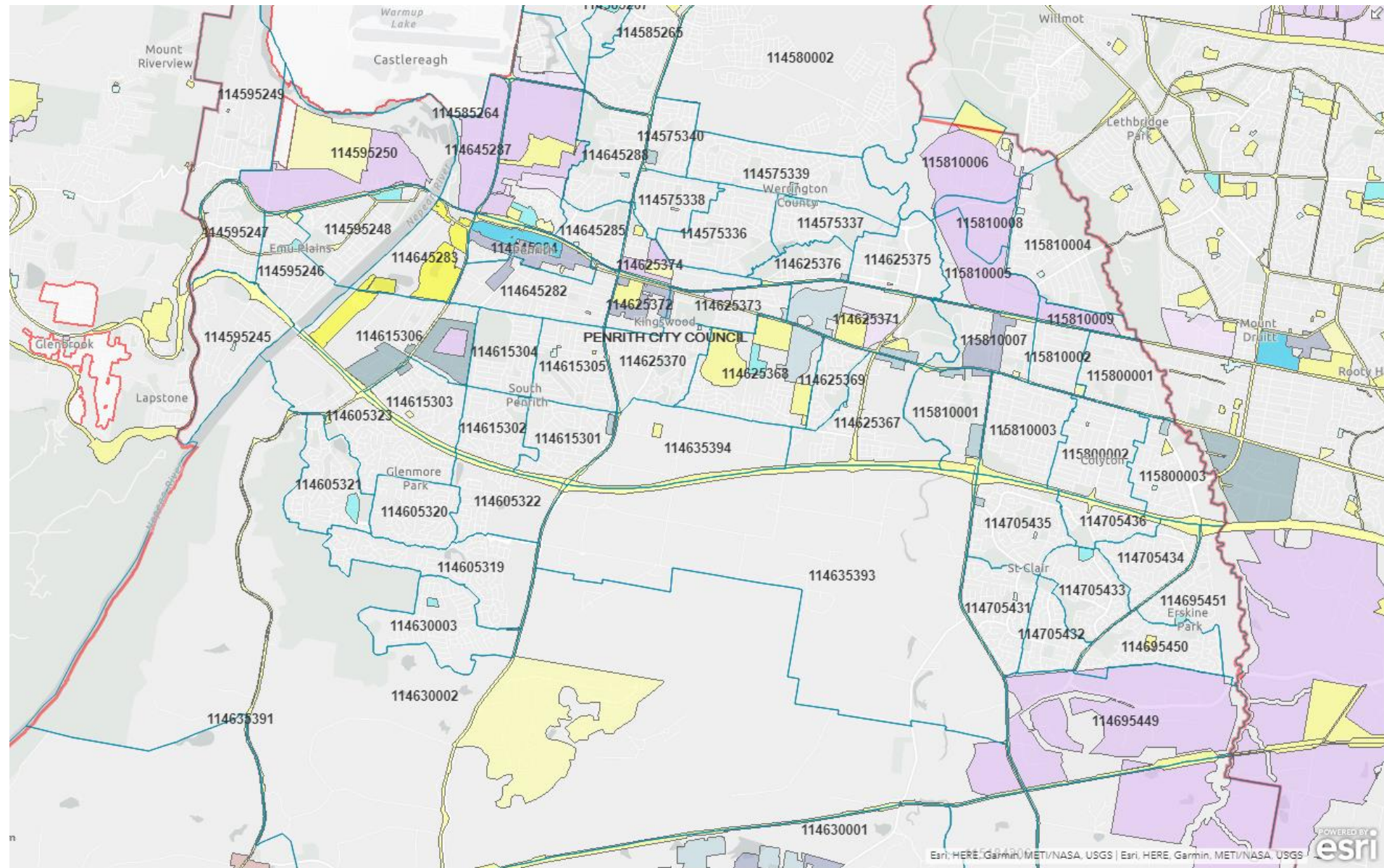
Source: Economy.id

Figure 21: Jobs in professional, scientific & technical by destination zone 2016



Source: Economy.id

Figure 22: Employment Precinct and Destination Zone



Source: Insert

Table 7: Jobs by Destination Zone by Industry of Work, 2016

DNZ	Precinct	Agriculture, Forestry and Fishing	Mining	Manufacturing	Electricity, Gas, Water and Waste Services	Construction	Wholesale Trade	Retail Trade	Accommodation and Food Services	Transport, Postal and Warehousing	Information Media and Telecomm.	Financial and Insurance Services	Rental, Hiring and Real Estate Services	Professional, Scientific & Technical Serv.	Administrative and Support Services	Public Administration and Safety	Education and Training	Health Care and Social Assistance	Arts and Recreation Services	Other Services	Inadequately described	Not stated	TOTAL
114595250	Emu Plains Industrial Area	11	9	754	38	435	131	97	172	115	3	0	19	89	35	146	117	40	7	78	168	35	2,499
114695449	Erskine Park	17	4	857	118	170	424	663	10	1,901	62	73	96	28	138	24	5	40	0	17	260	87	4,994
115184210	Erskine Park	13	0	8	0	41	8	0	0	0	0	0	0	0	6	0	227	71	0	3	10	3	390
114615306	Jamisontown	7	4	271	74	554	124	944	254	54	41	12	32	97	42	62	47	148	93	198	170	36	3,264
114645283	Jamisontown	0	6	5	0	25	0	58	678	0	0	0	0	19	18	8	22	197	125	6	33	9	1,209
114625372	Kingswood CBD / Hospital	0	0	0	0	14	3	25	37	28	0	23	0	15	28	85	40	3,306	0	11	45	51	3,711
114625374	Kingswood Industrial	0	0	96	6	58	11	27	62	53	0	0	0	11	10	128	162	53	3	77	38	17	812
114625373	Kingswood Industrial	0	0	0	0	11	3	190	32	4	0	0	0	22	3	6	13	126	9	29	9	4	461
114645287	North Penrith Industrial	3	3	435	10	586	171	427	191	526	15	11	36	92	73	15	16	22	39	206	160	36	3,073
114645286	North Penrith Industrial	61	49	544	18	382	104	165	28	134	13	5	16	79	46	10	42	39	57	129	125	27	2,073
114645284	Penrith CBD	29	0	75	169	184	94	2,037	972	130	184	418	354	675	299	2,308	488	1,331	60	397	217	148	10,569
114645282	Penrith CBD	0	0	36	0	69	4	469	189	19	8	22	6	16	65	50	58	1,140	31	93	54	24	2,353
114585264	Penrith Lakes	41	11	55	5	155	28	21	7	59	0	11	7	27	23	13	244	25	35	22	49	16	854
115810006	St Marys Industrial	5	14	608	158	299	186	33	17	75	5	0	69	19	20	19	3	10	20	62	225	27	1,874
115810008	St Marys Industrial	6	3	406	131	222	52	46	14	93	0	0	22	21	38	14	6	22	15	53	151	35	1,350
115810005	St Marys Industrial	0	4	455	51	143	67	34	15	69	5	0	54	23	19	8	4	11	6	86	103	11	1,168
115810009	St Marys Industrial	19	0	219	10	81	156	40	4	69	0	30	0	9	4	29	0	33	0	90	56	14	863
115810007	St Marys Town Centre	0	0	36	0	41	4	471	273	24	11	86	129	120	91	273	174	340	71	99	73	40	2,356
115810001	St Marys Town Centre (part)	0	0	14	0	96	7	74	192	21	0	5	0	24	31	15	63	151	27	34	25	12	791
114630001	Sydney Science Park	19	8	11	67	66	0	54	45	15	4	0	4	7	15	0	12	19	28	16	6	3	399
114625368	Werrington	0	3	0	6	14	0	9	20	10	21	27	0	15	54	141	1,094	66	4	52	23	18	1,577
114625371	Werrington	0	0	4	0	9	5	5	4	28	0	5	6	3	25	126	448	125	0	30	15	12	850
114685210		32	0	28	5	88	7	17	3	35	0	0	0	0	8	507	9	19	7	23	29	10	827
114615301		0	0	7	6	72	13	100	88	14	8	12	4	22	12	50	210	49	9	12	27	4	719
114705433		0	0	5	0	34	3	197	106	12	0	13	6	4	26	21	152	67	0	21	13	13	693
114595246		0	0	13	4	33	0	209	52	7	5	7	12	15	15	0	87	149	11	28	13	7	667
114645285		0	0	3	0	24	0	4	13	7	3	24	0	101	28	34	9	384	3	9	9	4	659
114605321		0	0	15	0	37	3	196	158	11	0	13	38	16	17	8	15	52	3	18	21	7	628
114615304		0	0	37	0	77	45	165	46	16	3	4	3	9	14	5	22	21	45	55	35	9	611
115810004		0	0	15	5	28	0	65	206	7	3	0	0	11	7	5	103	96	21	10	19	10	611
114605323		7	0	9	0	65	12	20	41	27	5	5	23	53	29	38	117	91	6	14	25	10	597
114580001		127	0	17	4	100	4	15	7	28	3	3	4	4	17	3	170	24	7	19	27	13	596
114630002		16	4	42	9	59	6	4	3	43	0	0	8	6	3	246	66	0	7	0	30	7	559
114685211		114	6	24	0	119	9	15	8	30	6	0	13	20	20	0	7	16	78	39	18	9	551
114595248		0	0	4	0	53	5	44	63	14	0	11	5	39	7	15	137	73	13	39	14	5	541
114580002		0	0	13	0	132	3	183	23	13	4	3	13	26	18	0	6	49	3	29	14	5	537
115810003		6	0	110	6	52	5	23	12	12	6	3	0	30	21	43	56	66	3	21	29	8	512
114635393		22	4	9	5	109	14	5	9	19	0	0	4	31	19	10	158	53	9	14	3	506	
114625370		6	0	8	0	42	0	18	7	13	5	6	0	10	40	16	177	125	0	15	12	4	504
115800003		0	0	128	0	37	0	43	38	5	0	4	4	3	4	0	133	23	4	4	13	10	453
114605320		0	0	4	0	27	0	5	6	10	0	7	0	11	7	7	257	69	5	18	6	6	445
115184206		62	27	10	19	58	81	22	0	36	0	0	4	16	27	3	0	5	3	31	17	6	427
114695450		0	0	5	0	53	3	21	9	28	0	4	0	20	5	16	163	35	0	18	17	7	404
114705435		0	0	11	3	51	0	35	84	16	0	8	16	19	16	14	73	27	0	15	9	7	404
114615302		0	0	8	0	18	0	144	42	11	0	3	16	17	12	10	13	49	0	25	11	3	382
114575340		0	0	0	0	19	0	114	149	3	0	0	3	4	0	22	43	13	4	0	4	4	382
114635389		39	0	20	0	80	0	17	45	19	0	0	6	4	20	8	37	7	6	21	17	0	346
114615303		0	0	9	0	34	4	58	67	15	4	4	0	12	10	15	37	44	5	5	7	4	334
114635394		4	0	0	0	19	0	23	10	8	4	0	0	3	0	0	182	44	0	23	4	3	327
115800002		0	0	10	0	56	3	17	4	25	0	0	0	7	8	11	89	49	0	14	15	8	316
114685212		30	7	17	4	51	6	10	0	60	5	0	3	16	9	52	8	4	0	15	12	5	314
Remainder		41	0	149	33	1,161	58	413	488	306	31	78	97	384	241	251	1,143	751	86	317	288	76	6,392
TOTAL		737	166	5,619	964	6,443	1,866	8,091	5,003	4,277	467	940	1,132	2,324	1,743	4,890	6,964	9,769	968	2,655	2,784	932	68,734

Source: ABS Census 2016 Table Builder Pro, HIIPDA

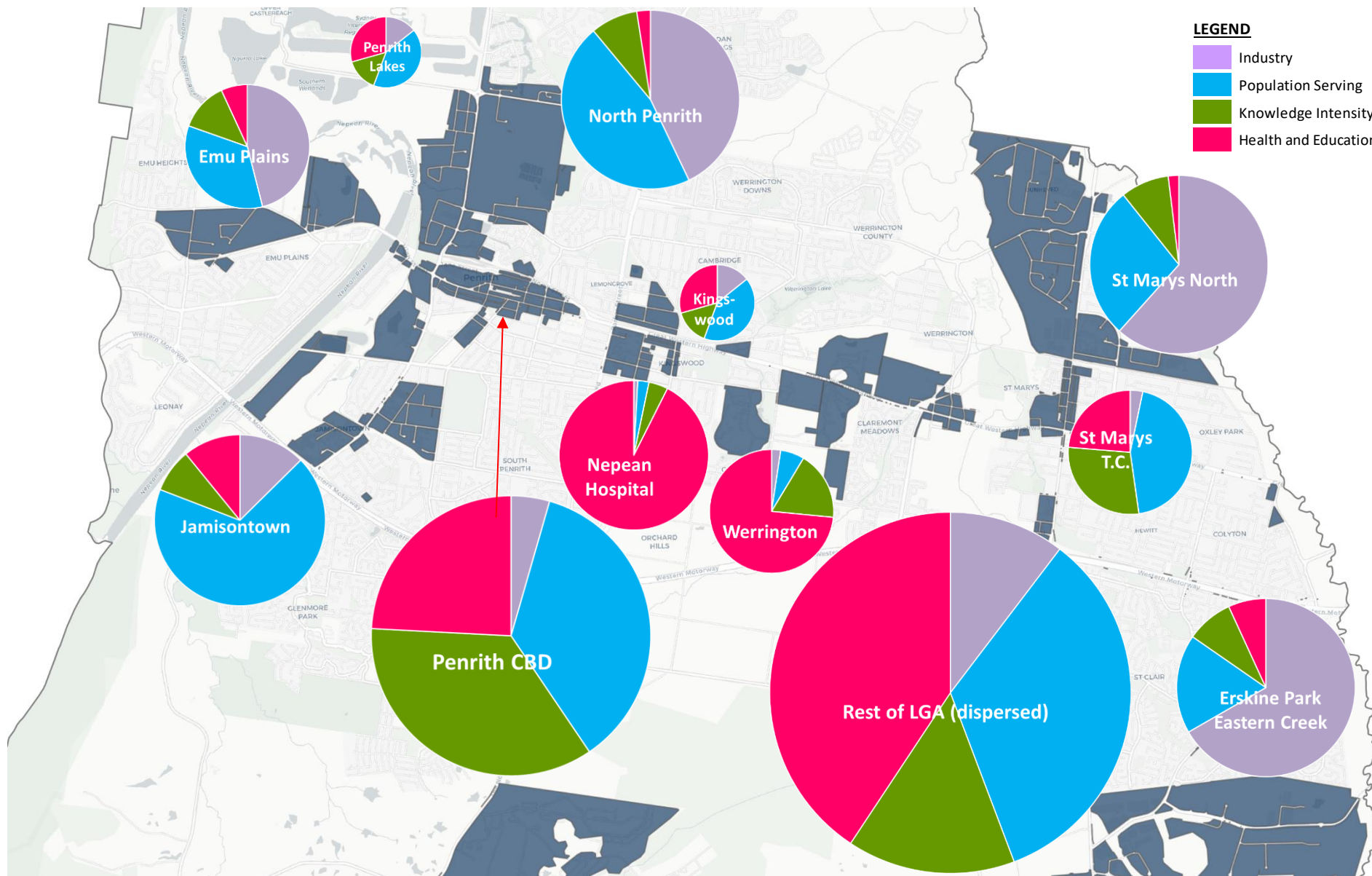
4.5 Greater Sydney Commission Employment Categories

In line with the Greater Sydney Commission’s employment categories industries have been aggregated into four broad employment sectors. These are based on the Australian and New Zealand Standard Industrial Classification (ANZSIC). These four broad job sectors are as follows:

- **Knowledge intensive:** Information, Media and Telecommunications; Financial and Insurance Services; Rental, Hiring and Real Estate Services; Professional, Scientific and Technical Services; and Public Administration and Safety
- **Health and education:** Education; Health Care; and Social Assistance
- **Population serving:** Retail Trade; Accommodation and Food Services; Arts and Recreation Services; Construction; Administrative and Support Services and Other Services
- **Industrial:** Agriculture; Forestry and Fishing; Mining; Manufacturing; Electricity, Gas, Water and Waste Services; Wholesale Trade; and Transport, Postal and Warehousing.

The figure immediately below shows the distribution of jobs by GSC broad industry category by employment precinct. The size of the pie charts reflects the total number of jobs in the precinct. The figure shows a high proportion of ‘Industry’ jobs in the IN zones particularly in St Marys North and Erskine Park. The ‘population serving’ and ‘knowledge intense’ jobs are in the commercial centres. The ‘health and education’ jobs are concentrated in the Werrington and Nepean Hospital precincts. There are also jobs in ‘population serving’ and ‘health and education’ industries dispersed throughout the LGA in other smaller commercial centres and in schools and other institutions.

Figure 23: Jobs in Penrith LGA by Precinct by Type of Industry 2016



Source: ABS Journey to Work 2016

4.6 Gross Value added by industry

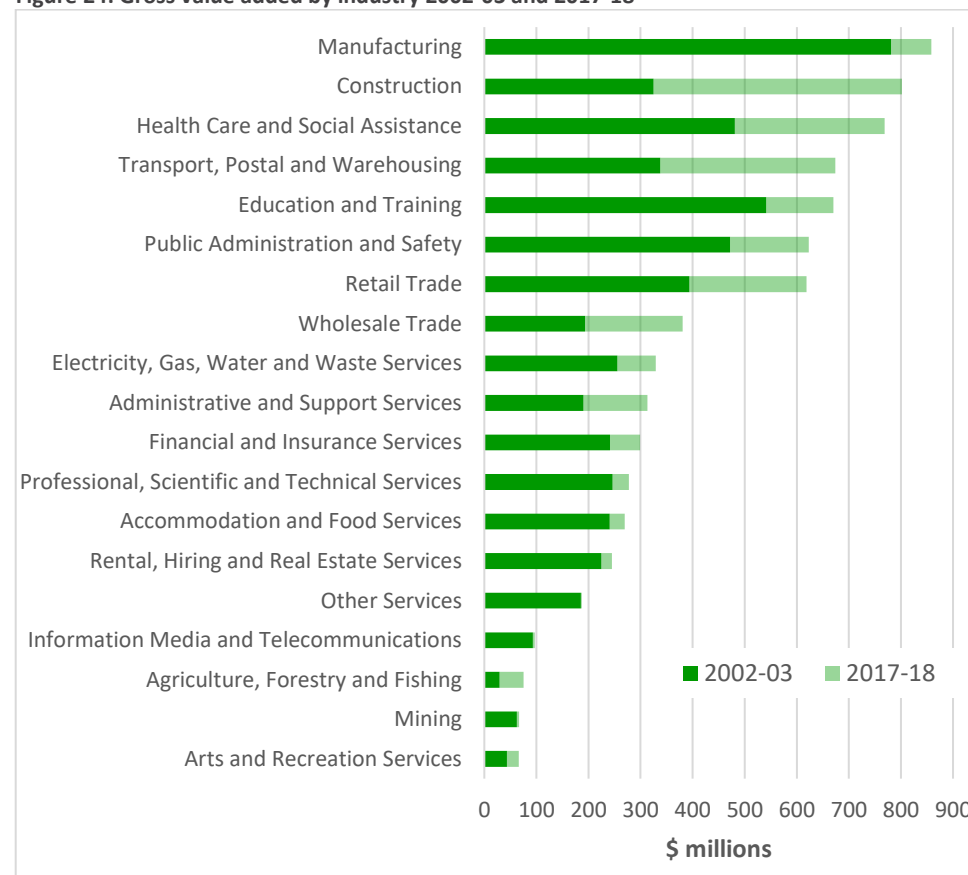
Penrith City’s Gross Regional Product was \$9.40 billion in the year ending June 2018. Gross Regional Product (GRP) is a measure of size or net wealth generated by the local economy. Changes in this figure over time can represent changes in employment, productivity or the types of industries in the area. Penrith’s GRP has increased 40% over the past 10 years from \$6.76m in 2008.

Gross value added (GVA) is similar to GRP. It is a measure of an industry’s productivity – the value of its outputs less the costs of its inputs over time. The main components that make up GVA are workers’ remuneration, company gross profits and tax revenues generated by the industry.

It is estimated that as of 2018, industries in the Penrith LGA contributed around \$7.6 billion to the economy. The top five industries by GVA in Penrith were:

- Manufacturing - \$858m
- Construction - \$801m
- Health care and social assistance - \$769m
- Transport, postal and warehousing - \$674m
- Education and training - \$670m.

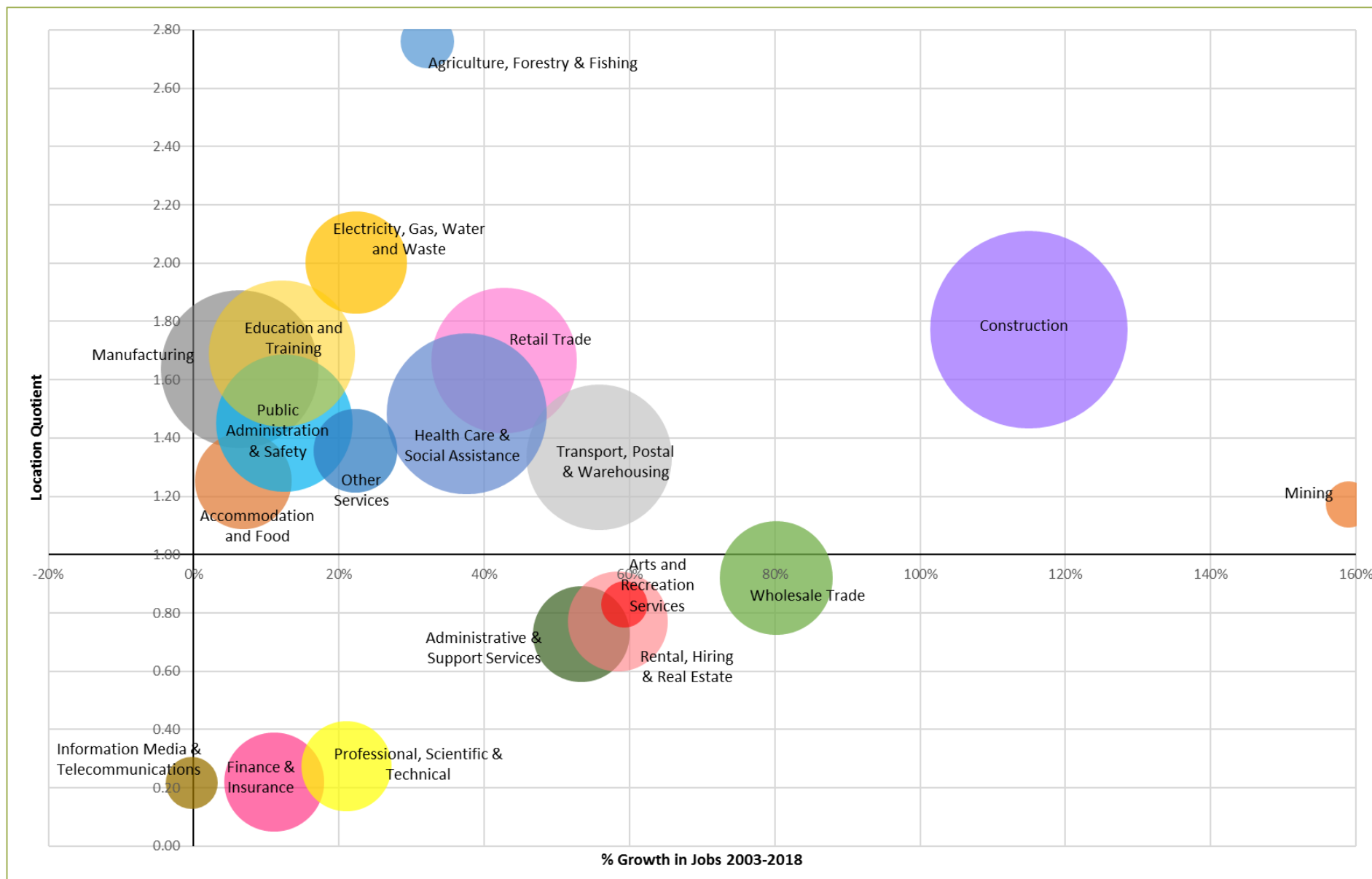
Figure 24: Gross value added by industry 2002-03 and 2017-18



Source: Economy.id

The bubble chart below shows the GVA Location Quotient benchmarked to Greater Sydney. The chart shows that Penrith has strong specialisation in ‘agriculture, forestry and fishing’ although the size of this industry is small. Penrith also has strong specialisation in manufacturing, construction, education and training, retail, health care, public administration and transport, postal and warehousing. There is a considerable under-specialisation in the professional and white collar industries.

Figure 25: Penrith LGA GVA Location Quotient by Industry (2018)



Source: Economy.id

4.7 Employment projections

Over a 20 year period from 2016, the TPA projects employment generated in Penrith to increase by 47,551 jobs (both full time and part time) which is a 60% increase.

Table 8: Penrith employment forecasts 2016-2036

Industry	2016	2026	2036	Change	% change
Agriculture, Forestry & Fishing	665	650	655	-11	-2%
Mining	232	242	253	21	9%
Manufacturing	7,436	7,819	8,889	1,453	20%
Electricity, Gas, Water & Waste Serv.	1,254	1,598	2,033	779	62%
Construction	7,528	8,467	9,810	2,281	30%
Wholesale Trade	2,516	3,835	5,469	2,953	117%
Retail Trade	10,289	12,680	15,176	4,887	47%
Accommodation and Food Services	5,821	7,162	8,717	2,896	50%
Transport, Postal and Warehouse	4,476	7,740	10,133	5,657	126%
Information Media & Telecomm.	476	499	654	178	37%
Financial and Insurance Services	1,080	1,924	2,825	1,745	162%
Rental, Hiring & real estate services	1,322	1,924	2,940	1,618	122%
Professional, Scientific & Tech. serv.	3,268	5,093	8,101	4,833	148%
Administrative & Support Services	2,045	2,890	4,480	2,435	119%
Public Administration and Safety	6,046	7,151	8,288	2,242	37%
Education and Training	7,958	9,703	11,675	3,718	47%
Health Care and Social Assistance	11,728	14,472	17,826	6,098	52%
Arts and Recreation Services	1,311	1,659	2,135	824	63%
Other Services	3,450	4,773	6,393	2,943	85%
Total	78,903	100,280	126,453	47,551	60%

Source: TPA 2016 employment projections

Significant growth is expected in wholesale trade and in transport, postal and warehousing – more than double the number of current jobs. Most of these jobs are expected to locate

in the WSEA (Erskine Park / Kemps Creek area). Significant growth is also expected in professional white-collar areas, particularly in finance, insurance, real estate, scientific and technical services – more than double the number of current jobs. Much of this growth is expected in the Penrith CBD to St Marys corridor.

While considerable job growth is expected in health services and education (around 50% more jobs) this is a little below total job growth across all industries (60%).

Industry	Penrith City		Greater Sydney		Location Quotient	
	2016	2036	2016	2036	2016	2036
Agriculture, Forestry and Fishing	665	655	9,493	9,264	2.3	1.9
Mining	232	253	6,392	7,211	1.2	1.0
Manufacturing	7,436	8,889	183,152	178,076	1.3	1.4
Electricity, Gas, Water & Waste	1,254	2,033	24,759	36,353	1.6	1.5
Construction	7,528	9,810	201,819	268,060	1.2	1.0
Wholesale Trade	2,516	5,469	112,420	127,303	0.7	1.2
Retail Trade	10,289	15,176	251,847	332,269	1.3	1.2
Accommodation and Food Services	5,821	8,717	171,576	225,047	1.1	1.1
Transport, Postal and Warehousing	4,476	10,133	146,560	176,147	1.0	1.6
Information Media & Telecom.	476	654	74,452	83,626	0.2	0.2
Financial and Insurance Services	1,080	2,825	169,293	232,495	0.2	0.3
Rental, Hiring & Real Estate Services	1,322	2,940	50,180	69,819	0.9	1.1
Pro, Scientific & Technical Services	3,268	8,101	286,150	457,800	0.4	0.5
Administrative and Support Services	2,045	4,480	89,960	117,811	0.7	1.0
Public Administration and Safety	6,046	8,288	140,316	192,133	1.4	1.2
Education and Training	7,958	11,675	195,532	285,295	1.3	1.1
Health Care and Social Assistance	11,728	17,826	300,800	442,524	1.3	1.1
Arts and Recreation Services	1,311	2,135	48,212	70,082	0.9	0.8
Other Services	3,450	6,393	104,860	131,411	1.1	1.3
TOTAL	78,903	126,453	2,567,772	3,442,723		

Expected growth in wholesale trade and in transport, postal and warehousing will increase the LQ of these industries benchmarked against Greater Sydney from 0.7 to 1.2 and from 1.1 to 1.6 respectively, increasing specialisation for Penrith City.

Financial and insurance services and professional, scientific and technical services are expected to increase the LQ from 0.18 to 0.33 and from 0.31 to 0.48 respectively. However the levels of specialisation in these industries will remain low. Agriculture, mining and construction are expected to decline. Remaining industries are expected to be similar in LQ over the next 20 years.

EMPLOYMENT
PRECINCTS
OVERVIEW

5.0 EMPLOYMENT PRECINCTS OVERVIEW

The following Chapter provides a short overview of employment precincts located across the Penrith LGA. The overview provides details on a precinct by precinct basis as to their size, planning attributes (zoning and FSR), vacant versus developed land and floorspace provision by broad land use category.

HillPDA undertook a detailed land use survey in October of 2019. This survey included two days of site visits (to each precinct) with a desktop analysis, ABR data and Geoscape building footprint data also being used to inform the audit, where required. Please note that some businesses and uses of land may have changed since the audit. Also note, land areas are based on Councils cadastral GIS layer, as such some employment zoned lots may include footpaths, laneways and some roads, which are zoned as employment lands. These anomalies will be addressed in the capacity assessment.

This Chapter begins with a general overview of the combined employment precincts. It then breaks the Penrith LGA into industrial, retail and special purpose zoned lands and provides an overview of the employment floorspace by broad zoning and industry.

5.1 Industrial employment precinct overview

There are 14 main industrial employment precincts spread across the Penrith LGA, varying in size and land zonings. These precincts are shown on the map below (Figure 26). As of 2019, there was around 1,809.8 hectares of industrial and employment zoned land (13.2% of Greater Sydney Total), this was around 24.5 hectares greater than that estimated in the 2018 ELDM (1,785.3 hectares).³⁹ The 2018 ELDM includes all industrial zoned lands and B5, B6 and B7 zoned lands.

Table 9 below shows the difference between the 2018 ELDM employment lands supply and the land audit data (the ELDM does not include B5, B6 and B7 zoned lands). There are three employment precincts absent from the ELDM, these being Cambridge Gardens, South Penrith, St Clair.

³⁹ IN1, IN2, IN3, IN4, B5, B6 and B7

Of note, a comparison between the 2018 ELDM and the land audit data shows Penrith has 258.4 hectares more zoned land for employment uses than identified in the ELDM.

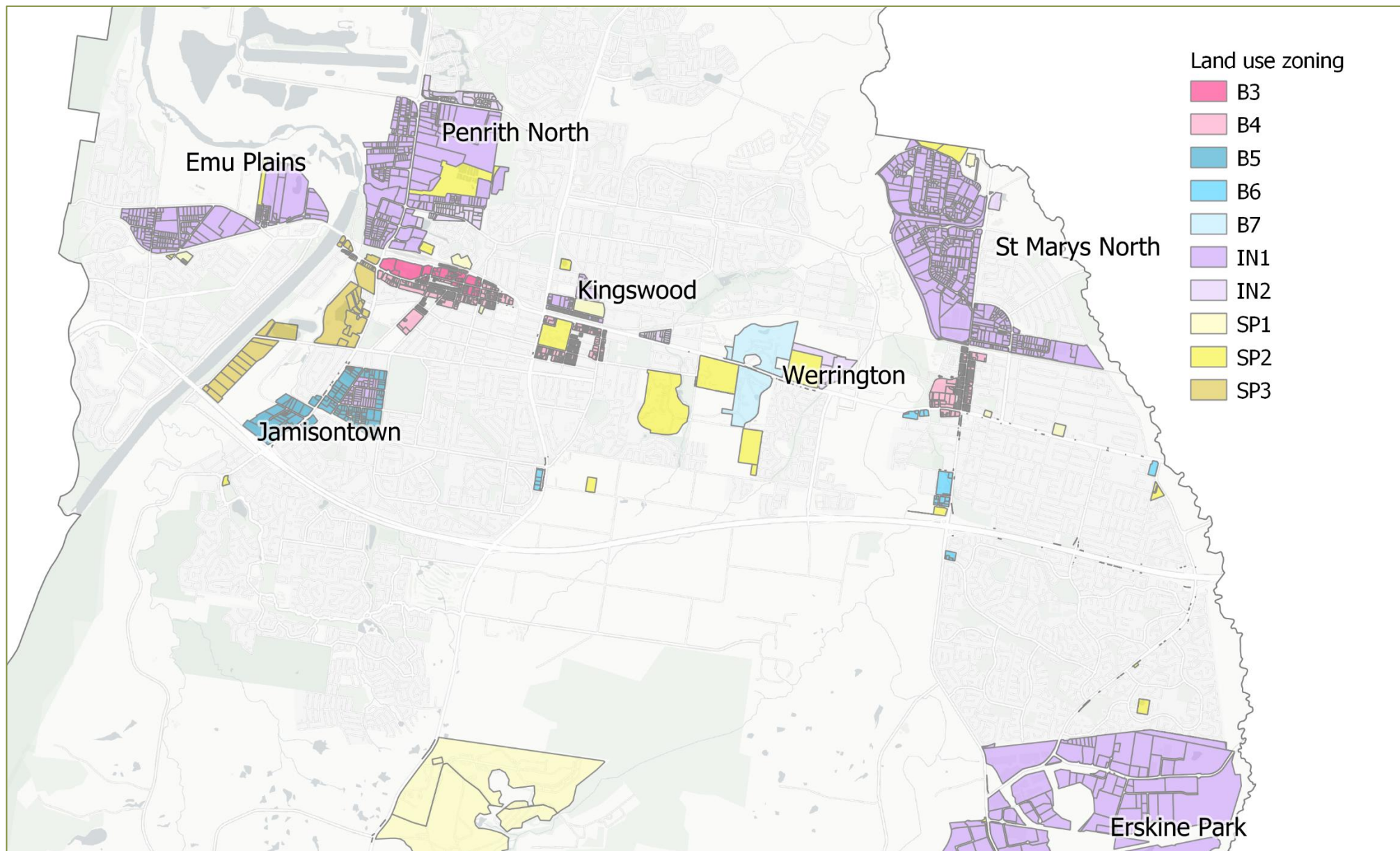
Precincts which have more land zoned for employment uses than that identified in the ELDM include:

- Emu Plains – around 13.4 hectares
- Erskine Park – around 14.6 hectares
- North Penrith – around 3.0 hectares
- St Marys – around 22.4 hectares
- St Marys (Great Western Highway) – around 0.9 hectares
- Werrington – around 71.0 hectares
- Werrington Road – around 1.1 hectares

Erskine Park, St Marys, North Penrith, Sydney Science Park and Emu Plains are the five largest precincts by land area. Combined these precincts comprise 1,590.9 hectares of employment zoned land which equates to around 88% of all appropriately zoned land in the Penrith LGA.

The significant variance between the industrial employment lands audit and from the ELDM is due to the Sydney Science Park lands (162.6 hectares) and the Werrington Western Sydney University lands (88.9 hectares) not being included given they are business zoned lands.

Figure 26: Employment Lands in Penrith City



Source: HillPDA

Table 9: Employment precinct’s total land area by zoning (hectares)*

Precinct	IN1	IN2	B5	B6	B7	Total	ELDM (ha)	Diff
Cambridge Gardens				2.4		2.4	n/a	2.4
Colyton				1.9		1.9	1.9	0
Emu Plains	142.8	1.6				144.5	131.1	13.4
Erskine Park	715.5					715.5	700.9	14.6
Jamisontown	14.2		62.6			76.9	81.6	-4.7
Kingswood	15.3	5.2				20.6	21.3	-0.7
North Penrith	245	16.4				261.3	258.3	3
South Penrith				2.3		2.3	n/a	2.3
St Clair				11.6		11.6	n/a	11.6
St Marys	303.7	3.3				307	284.6	22.4
St Marys (Gt West Hwy)	0.1			2.7		2.8	1.9	0.9
Werrington		18			70.9	88.9	17.9	71
Werrington Rd				11.4		11.4	10.3	1.1
Total	1,436.6	44.5	62.6	32.3	70.9	1,647.1	1,509.8	137.3

* Sydney Science Park excluded (162.6 hectares)

5.1.1 Developed and undeveloped land

The audit found that of the total hectares of employment zoned land across the Penrith LGA around 1,120.3 hectares or 68% was developed. However 71 hectares of this land are the Werrington campuses of Western Sydney University which are significantly under-utilised (FSR of less than 0.05:1). A further 12.2 hectares or 1% of total supply was under construction while the remaining 515 hectares or 31% was vacant.

Of the undeveloped land audited, around 478 hectares was vacant land, being land with no buildings and not being used for storage purposes nor being used for other purposes such as the parking of vehicles.

The remaining 36.4 hectares was vacant land but was also being utilised for some purpose such as storage, parking purposes or other ancillary uses (see figure below).

Figure 27: Example of land being used for storage purposes



Source: HillPDA, Erskine Park Precinct

Figure 28: Developed and undeveloped land

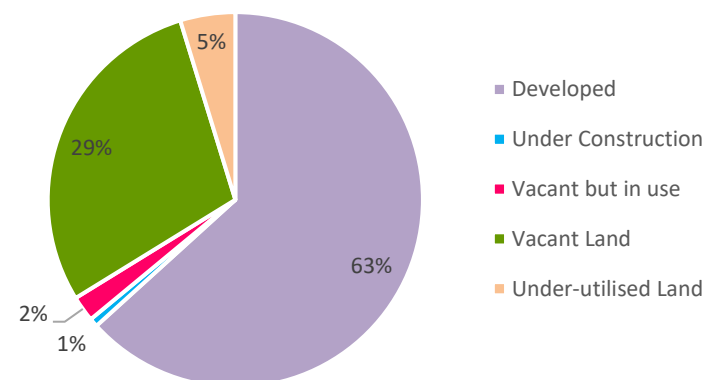


Table 10: Land Area by Development Status (hectares)

Precinct	Developed	Under Construction	Vacant but in use	Vacant Land	Under-utilised Land	Total
Cambridge Gardens	2.4	0.0	0.0	0.0		2.4
Colyton	1.9	0.0	0.0	0.0		1.9
Emu Plains	108.5	0.3	17.1	18.5		144.5
Erskine Park	376.6	6.9	4.7	327.3		715.5
Jamisontown	75.7	0.0	0.0	1.2		76.9
Kingswood	18.4	0.0	0.7	1.5		20.6
Mamre Road	11.4	0.0	0.0	0.2		11.6
North Penrith	188.4	3.4	3.5	66.1		261.3
South Penrith	2.3	0.0	0.0	0.0		2.3
St Marys	247.7	1.5	9.7	48.2		307.0
St Marys (GtWestHwy)	2.8	0.0	0.0	0.0		2.8
Werrington	0.0	0.0	0.0	10.8	78.1	88.9
Werrington Rd	6.0	0.0	0.8	4.6		11.4
Total	1,042.2	12.2	36.4	478.3	78.1	1,647.2

5.1.2 Floorspace by broad zoning and industry

In total, the audit found that the Penrith LGA employment precincts (industrial and retail) provided just over 5.3 million square metres of employment and residential space.

Of this total floorspace, just over 5.1 million square metres was employment space with the majority 4.3 million square metres or 85% being in industrial zoned land. The remaining 759,174sqm or 15% was located within various business zoned land (B4 and B3).

The largest industries by total floorspace occupied were:

- Transport, Postal and Warehousing – occupying 1,450,774sqm or 27%
- Manufacturing – occupying 887,927qm or 17%
- Retail Trade – occupying 552,487sqm or 10%
- Health Care and Social Assistance – occupying 295,888sqm or 6%
- Wholesale Trade – occupying 246,629sqm or 5% of all employment space

Across all 17 employment precincts, there was a total of around 233,329sqm of vacant floorspace. This equates to an overall vacancy rate of around 4.4%. The total amount of vacant space was higher within land zoned for industrial purposes while the vacancy rate for retail zoned land was significantly lower (4.7% and 2.8%, respectively).

There was also around 119,236sqm of residential floorspace spread across the precincts. The majority (99%) of this was located within the business zonings while 655sqm or 1% was located within industrial zonings. Although residential space only comprised 2.3% of the total space audited within the Penrith LGA industrial zoned employment precincts, its presence could reduce the overall attractiveness for investment or viability of development as a result of:

- Increasing land/market values
- Increasing the potential for land use conflicts and objections to certain types of uses.

A further 91,100sqm or 11.9% of the total floorspace surveyed by SGS during their floorspace audit of St Marys and Penrith Town Centres were unidentifiable or had an ANZSIC code not applicable.

Table 11: Floorspace by broad zoning and industry (sqm)

Industry 1-digit ANZSIC Code	Industrial Zones	Retail Zones	Total
Accommodation and Food Services	79,931	63,135	143,066
Administrative and Support Services	14,399	9,112	23,511
Agriculture, Forestry and Fishing	12,689	-	12,689
Arts and Recreation Services	76,652	22,325	98,977
Construction	221,493	773	222,266
Education and Training	141,920	26,586	168,506
Electricity, Gas, Water and Waste Services	94,999	-	94,999
Financial and Insurance Services	1,745	16,583	18,328
Health Care and Social Assistance	35,019	260,869	295,888
Information Media and Telecommunications	3,267	4,481	7,748
Manufacturing	875,498	12,429	887,927
Mining	0	-	0
Other Services	186,701	34,332	221,033
Professional, Scientific & Technical Services	139,709	42,015	181,724
Public Administration and Safety	56,708	64,366	121,074
Rental, Hiring and Real Estate Services	135,741	12,657	148,398
Retail Trade	364,036	188,243	552,279
Transport, Postal and Warehousing	1,449,506	1,268	1,450,774
Wholesale Trade	246,629	-	246,629
Residential	655	118,582	119,237
Vacant	205,482	27,847	233,329
Unidentifiable	-	7,589	7,589
ANZSIC Not Applicable	-	83,511	83,511
Total	4,342,779	996,703	5,339,488

Source: HillPDA

5.1.3 Other Services ANZSIC Code

Given 'Other Services' is an important sector in Penrith we have provided a deeper analysis of the industries that are included in this ANZSIC code.

Industry 2-digit ANZSIC Code

- Repair and Maintenance
- Personal and Other Services
- Private Households Employing Staff and Undifferentiated Goods and Service-Producing Activities of Households for Own Use

Industry 4-digit ANZSIC Code

- Repair and Maintenance, not further defined (nfd)
- Automotive Repair and Maintenance, nfd
- Automotive Electrical Services
- Automotive Body, Paint and Interior Repair
- Other Automotive Repair and Maintenance
- Machinery and Equipment Repair and Maintenance, nfd
- Domestic Appliance Repair and Maintenance
- Electronic (except Domestic Appliance) and Precision Equipment Repair and Maintenance
- Other Machinery and Equipment Repair and Maintenance
- Other Repair and Maintenance, nfd
- Clothing and Footwear Repair
- Other Repair and Maintenance nec
- Personal and Other Services, nfd
- Personal Care Services, nfd
- Hairdressing and Beauty Services
- Diet and Weight Reduction Centre Operation
- Funeral, Crematorium and Cemetery Services
- Other Personal Services, nfd
- Laundry and Dry-Cleaning Services

- Photographic Film Processing
- Parking Services
- Brothel Keeping and Prostitution Services
- Other Personal Services nec
- Civic, Professional and Other Interest Group Services, nfd
- Business and Professional Association Services
- Labour Association Services
- Other Interest Group Services nec
- Private Households Employing Staff and Undifferentiated Goods and Service-Producing Activities of Households for Own Use, nfd
- Private Households Employing Staff
- Undifferentiated Goods-Producing Activities of Private Households for Own Use
- Undifferentiated Service-Producing Activities of Private Households for Own Use

5.1.4 Built floor space ratios

Determining the overall built floor space ratios (FSRs) by precinct is achieved by dividing the amount of floorspace audited by the amount of zoned developed land. This analysis reveals that the average built FSR across all the precincts is around 0.4:1.

The built FSR across business zoned land was slightly higher than that recorded for industrial land (around 0.31:1 and 0.3:1, respectively).

The three precincts with the highest overall built FSR in industrial zoned land were:

- St Marys with an FSR of 0.5:1.
- Jamisontown with an FSR of 0.5:1.
- Kingswood with an FSR of 0.4:1.

The three precincts with the highest overall built FSR in business zoned land were:

- St Marys Great Western Highway with an FSR of 0.5:1
- Jamisontown with an FSR of 0.5:1.
- Werrington Road, Werrington with an FSR of 0.4:1.

Jamisontown consists of business zoned land and industrial zoned land.

This information is used primarily for the capacity modelling section of this report. It is interesting to note the current built floor space ratios by Precinct and compare them to the industry norm of 0.3:1 FSR. While, it is not as relevant to control the FSR in industrial and business zoned lands it is a useful indicator of whether the employment lands within a Precinct or LGA are underdeveloped or overdeveloped.

An indication that employment lands are being utilised to their potential will vary from LGA to LGA given the amount of land supply. Given the Penrith LGA is not constrained by limited land supply an FSR of 0.3:1 is comparable with other LGA's within Greater Sydney.

Table 12: Current built floor space ratios by precinct

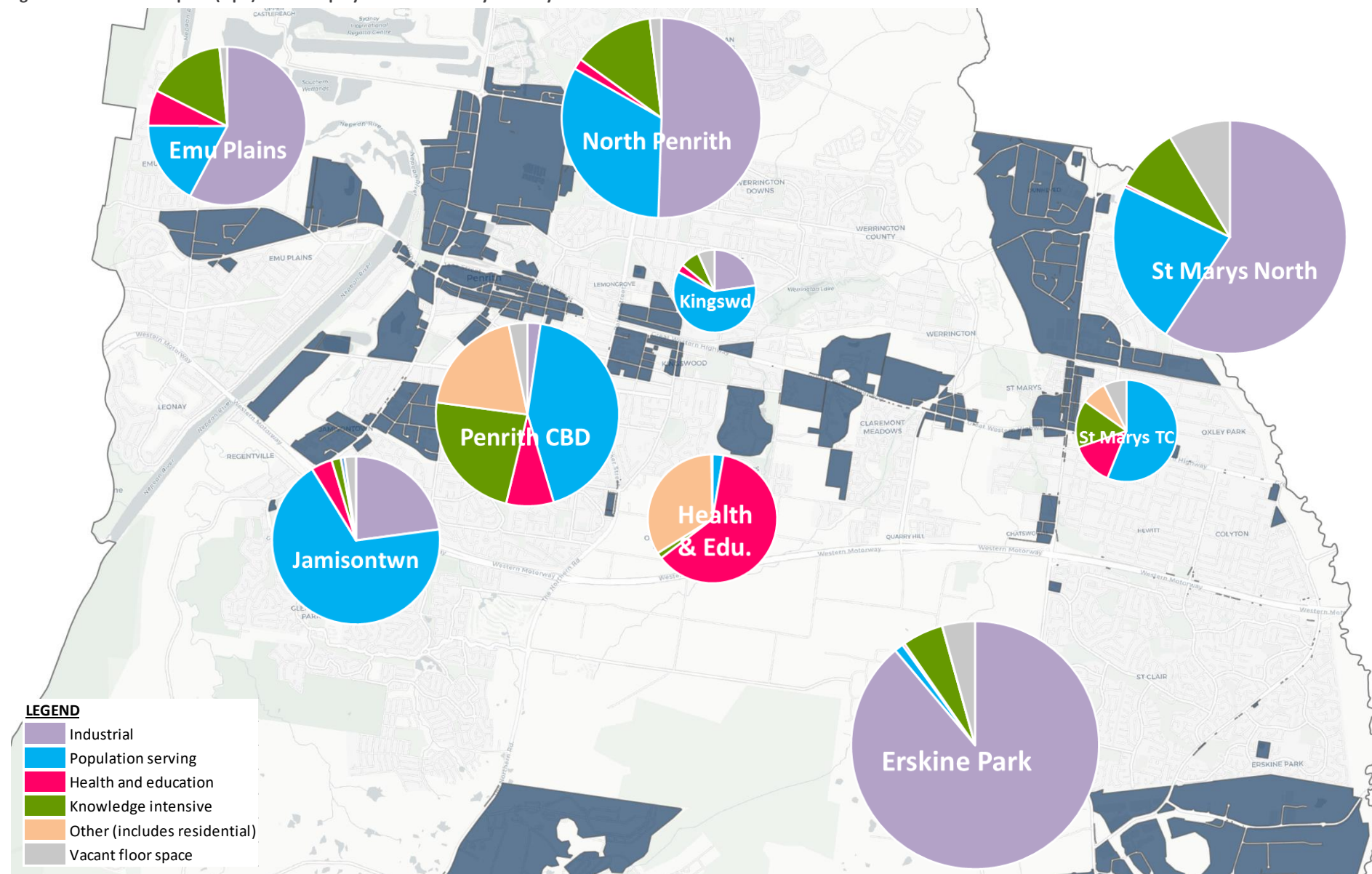
Precinct	Business zoned land	Industrial zoned land
Cambridge Gardens	0.44	
Colyton	0.25	
Emu Plains		0.27
Erskine Park		0.34
Jamisontown		0.47
Kingswood		0.44
North Penrith		0.34
South Penrith		0.23
St Clair	0.15	
St Marys		0.46
St Marys (Great West Hwy)	0.46	
Sydney Science Park		0.00
Werrington*	0.04	
Werrington Rd	0.38	
Total	0.31	0.30

* The low FSR in the Werrington precinct of 0.04:1 reflects the significant underutilisation of the land – particularly the North and South Werrington campuses of Western Sydney University.

Source: HillPDA

The figure immediately below shows the distribution of gross floor space by GSC broad industry category by employment precinct. The size of the pie charts reflects the total floor space in the precinct. The figure shows a high proportion of 'Industry' GFA in the IN zones particularly in St Marys North and Erskine Park. The majority of 'population serving' and 'knowledge intensive' GFA is in the commercial centres. The 'health and education' GFA is concentrated in the Werrington and Nepean Hospital precincts.

Figure 29: Gross Floor Space (sqm) in the Employment Precincts by Industry 2019

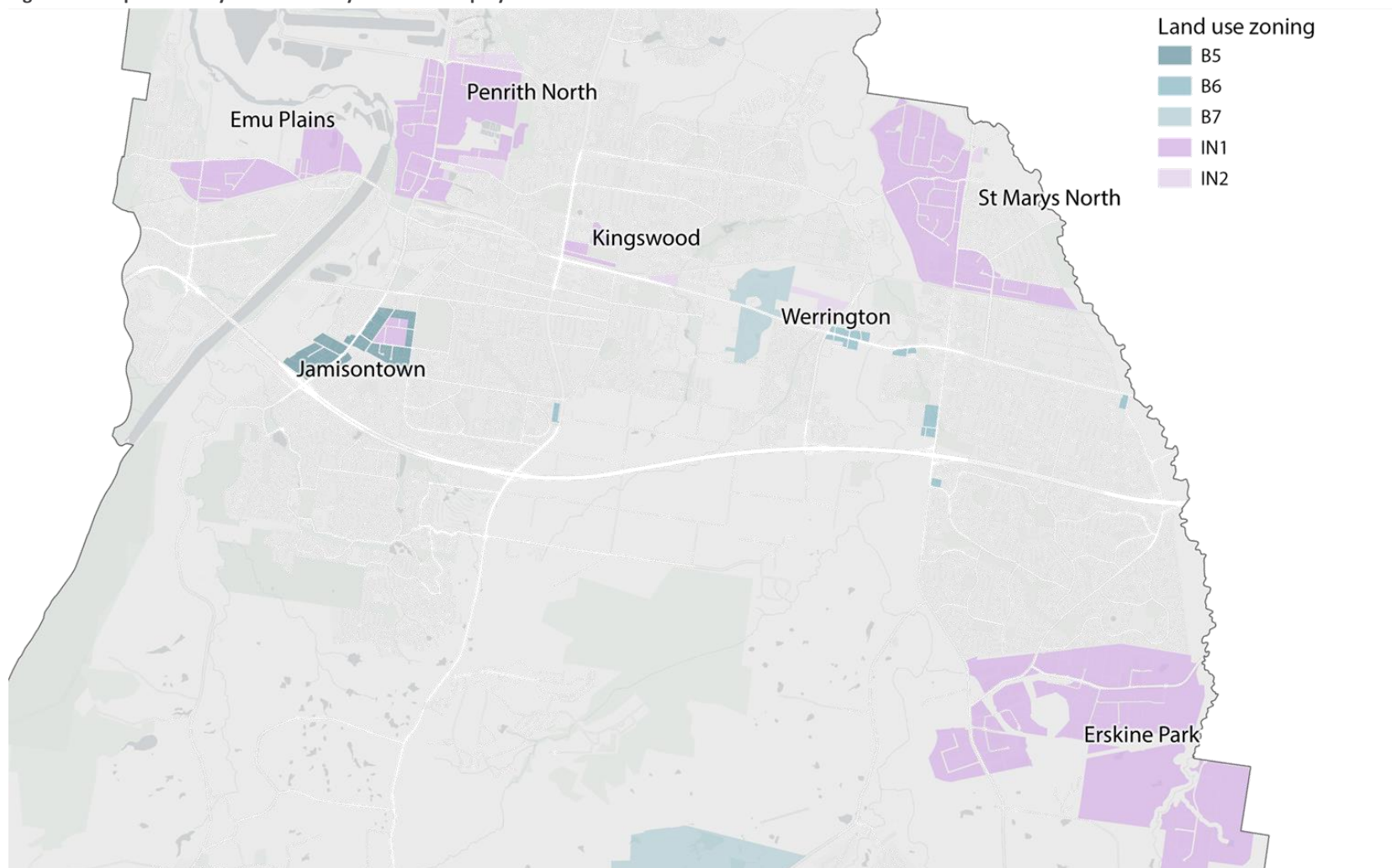


Source: HillPDA land use audit 2019

6.0 INDUSTRIAL PRECINCTS

Industrial land for the purposes of this audit is land zoned IN1, IN2, B5, B6 and B7 under the Penrith LEP 2010. For the purposes of the industrial employment floorspace land audit, seven primary and seven secondary employment precincts were identified in the Penrith LGA as shown the figure immediately below.

Figure 30: Map of Primary and Secondary Industrial Employment Lands



Source: HillPDA

6.1 Erskine Park

Overview

	Erskine Park Precinct	All Precincts
Land area:	715.5 hectares (39.5% of all precincts)	1809.8 hectares
Gross floor area (GFA):	1,515,227sqm (34.9% of all precincts)	4,342,779sqm
Occupied GFA:	1,450,383sqm (95.7%)	4,137,296sqm (95.0%)
Vacant GFA:	64,844sqm (4.3%)	205,482sqm (5.0%)
Key Industry:	Transport, Postal and Warehousing (81.4%) Professional, Scientific and Technical Services (4.4%) Manufacturing (3.7%)	Transport, Postal and Warehousing (33.4%) Manufacturing (20.2%) Retail Trade (8.4%)

Erskine Park Zoning Map



One ANSZIC Code Floorspace Data

Floorspace	Total (sqm)	% of Total	Jobs	% of Total
Accommodation and Food Services	4,148	0.0%	11	0.2%
Administrative and Support Services	-	0.3%	154	2.9%
Agriculture, Forestry and Fishing	-	0.0%	32	0.6%
Arts and Recreation Services	-	0.0%	-	0.0%
Construction	3,638	0.2%	226	4.2%
Education and Training	4,902	0.3%	249	4.6%
Electricity, Gas, Water and Waste Services	5,000	0.3%	126	2.3%
Financial and Insurance Services	-	0.0%	78	1.5%
Health Care and Social Assistance	-	0.0%	119	2.2%
Information Media and Telecommunications	-	0.0%	66	1.2%
Manufacturing	56,416	3.7%	927	17.2%
Mining	-	0.0%	4	0.1%
Other Services	7,115	0.5%	21	0.4%
Professional, Scientific and Technical Services	66,267	4.4%	30	0.6%
Public Administration and Safety	5,000	0.3%	26	0.5%
Rental, Hiring and Real Estate Services	9,701	0.6%	103	1.9%
Retail Trade	2,814	0.2%	711	13.2%
Transport, Postal and Warehousing	1,233,711	81.4%	2,037	37.8%
Wholesale Trade	51,262	3.4%	463	8.6%
Residential	409	0.1%	-	0.0%
Vacant	64,844	4.3%	-	-
Total	1,515,227	100.0%	5,384	100.0%

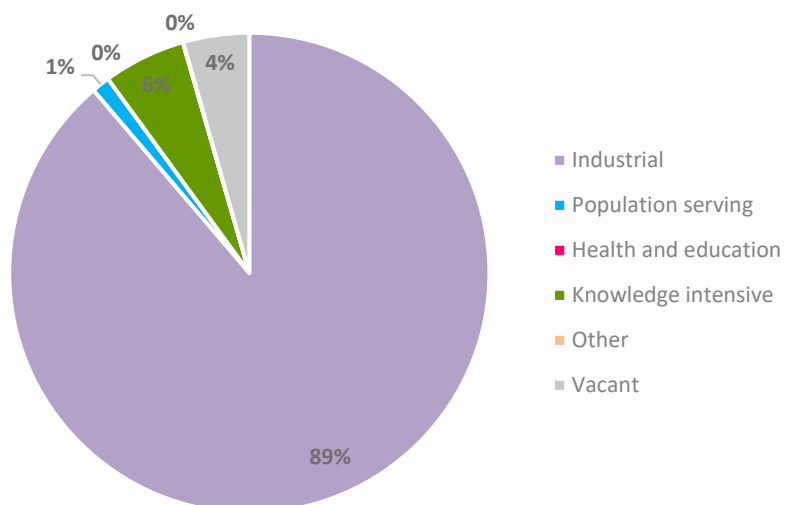
Source: ABS Census 2016 and HillPDA

Erskine Park contains a significant amount of transport, postal & warehousing (distribution companies) and a smaller portion of manufacturing, professional, scientific and technical companies. In total, Erskine Park provides around 1.52 million square metres of floorspace with industrial related uses occupying 88.9% of this floorspace at around 1.35 million sqm. Knowledge intensive uses occupy the second largest amount of space at 80,968sqm or 5.3% followed by population serving uses (17,715sqm or 1.2%). Erskine Park has a vacancy rate of 4.3%.

Erskine Park Land Use Breakdown by GSC Employment Code & Floorspace

Land use	Floorspace (sqm)	% of Total	Jobs	% of Total
Industrial	1,346,389	88.8%	3,590	66.7%
Population Serving	17,715	1.2%	969	18.0%
Health/Education	-	0.0%	368	6.8%
Knowledge Intensive	80,968	5.6%	458	8.5%
Other	409	0.0%	-	0.0%
Vacant	64,844	4.4%	-	0.0%
Total	1,515,227	100.0%	5,384	100%

Erskine Park Predominant GSC Employment Uses

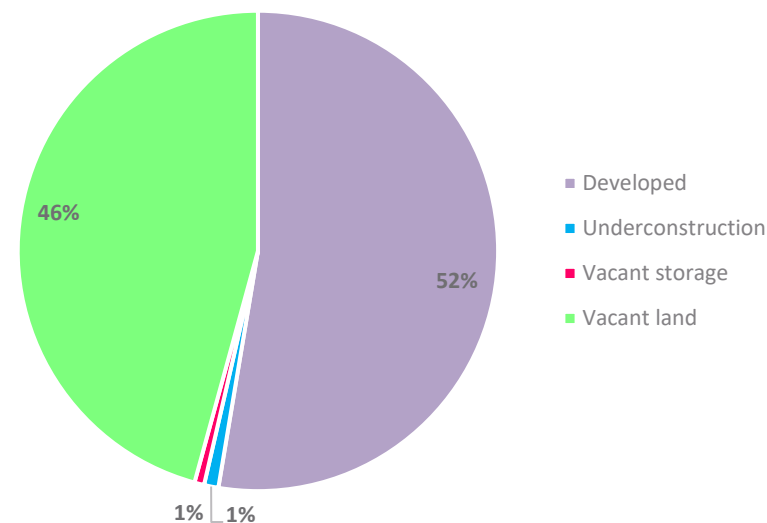


Erskine Park Land Area Breakdown

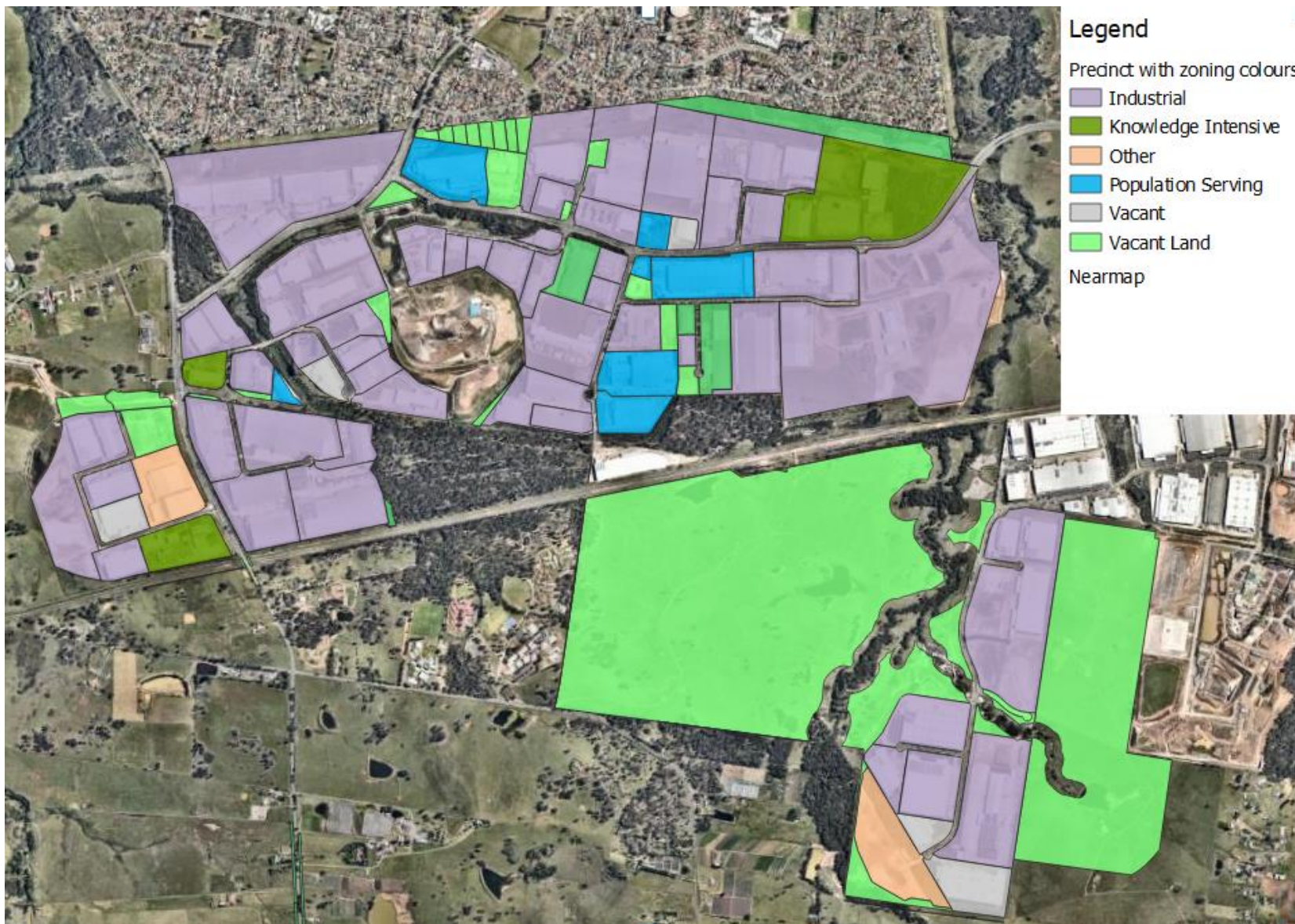
Land area	Hectares	% of Total	% of Penrith Total
Developed	376.6	52.6%	33.6%
Under Construction	6.9	1.0%	56.8%
Vacant Land	327.3	45.7%	51.1%
Vacant Storage	4.7	0.7%	12.9%
Total land area	715.5	100.0%	-

Erskine Park Precinct is the largest precinct by land area located towards the southern portion of the Penrith LGA, with around 716 hectares of employment zoned land. All of Erskine Park is comprised of IN1 – General Industrial zoned land. There is currently 327 hectares of vacant land within the precinct accounting for 46% of the total land area. This ensures the precinct has enough capacity to fulfil needs in the foreseeable future.

Erskine Park Land Area Breakdown



Erskine Park Land Use Map



SWOT Analysis

Size and Agglomeration

The precinct enjoys strong market appeal due to its sheer size (over 370 developed hectares) and agglomeration of business units – 100 in total.

Accessibility

Key assets and opportunities for Erskine Park include its strategic location on the M4 Western Motorway and M7 Westlink Motorway providing good connectivity to other parts of Greater Sydney, Newcastle, Wyong and the wider Region.

The recent construction of Lenore Drive has provided Erskine Park with good connection to the M7 motorway.

Land use conflict

The area is well separated from the residential areas and access for heavy vehicles is well separated from surrounding residential areas resulting in low levels of land use conflict.

Topography

Topography is relatively flat with low levels of site constraints making the area strongly suitable for industrial uses

Amenity

Levels of amenity for workers is low in terms of provision of services including retail, personal, commercial and social services. While there is a significant number of jobs in the precinct the low level of job density (at less than 15 jobs per occupied hectare and less than 8 jobs per hectare gross) means that it is difficult to provide these services feasibly.

Other

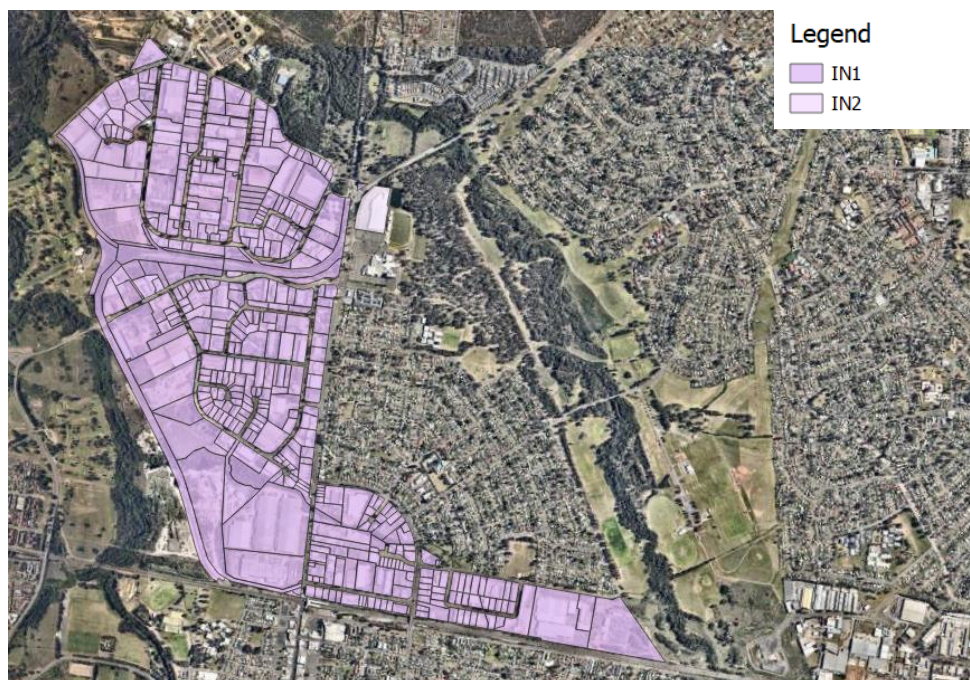
The Precinct has the opportunity for further development, with around 249.2 hectares currently undeveloped.

6.2 St Marys

Overview

	St Marys Precinct	All Precincts
Land area:	307.0 hectares (17.0% of all precincts)	1809.8 hectares
Gross floor area (GFA):	1,165,810sqm (26.9% of all precincts)	4,342,779sqm
Occupied GFA:	1,065,810sqm (91.4%)	4,137,296sqm (95.0%)
Vacant GFA:	100,218sqm (8.6%)	205,482sqm (5.0%)
Key Industry:	Manufacturing (39.9%) Construction (10.7%) Transport, Postal and Warehousing (8.4%)	Transport, Postal and Warehousing (33.4%) Manufacturing (20.2%) Retail Trade (8.4%)

St Marys North Zoning Map



St Marys One ANSZIC Code Floorspace Data

Floorspace	Total (sqm)	% of Total	Jobs	% of Total
Agriculture, Forestry and Fishing	-	0.0%	57	1.1%
Accommodation and Food Services	16,326	1.4%	92	1.7%
Administrative and Support Services	4,362	0.4%	34	0.6%
Arts and Recreation Services	8,836	0.8%	47	0.9%
Construction	125,061	10.7%	845	16.1%
Education and Training	1,738	0.1%	15	0.3%
Electricity, Gas, Water and Waste Services	67,650	5.8%	397	7.6%
Financial and Insurance Services	-	0.1%	34	0.6%
Health Care and Social Assistance	-	0.2%	86	1.6%
Information Media and Telecommunications	-	0.2%	11	0.2%
Manufacturing	463,773	39.9%	1,915	36.4%
Mining	-	0.0%	24	0.5%
Other Services	70,711	6.1%	330	6.3%
Professional, Scientific and Technical Services	28,975	2.5%	82	1.6%
Public Administration and Safety	3,061	0.3%	79	1.5%
Rental, Hiring and Real Estate Services	64,273	5.5%	164	3.1%
Retail Trade	44,555	3.8%	174	3.3%
Transport, Postal and Warehousing	97,918	8.4%	347	6.6%
Wholesale Trade	60,967	5.2%	523	10.0%
Residential	-	0.0%	-	0.0%
Vacant	100,218	8.6%	-	0.0%
Total	1,165,810	100.0%	5,255	100.0%

Source: ABS Census 2016 and HillPDA

St Marys Precinct is the second largest precinct by land area located towards the north-eastern portion of the Penrith LGA, with around 307 hectares of employment zoned land. The majority (99%) of St Marys is comprised of IN1 – General Industrial zoned land with IN2 – Light Industrial making up the remaining (1%).

The precincts size lends it to having a high diversity of uses across 1,165,810sqm of floorspace. It is characterised by long-term manufacturing, urban services, construction, warehousing/distribution and other services.

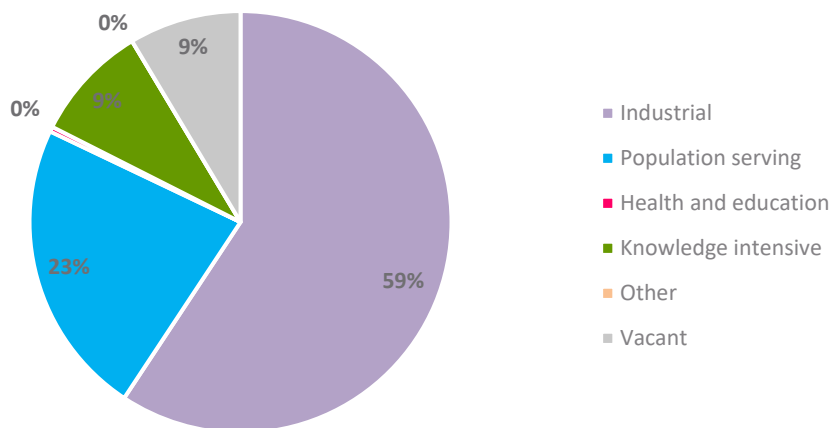
St Marys Land Use Breakdown by GSC Employment Code & Floorspace

GSC Land Use Category	Floorspace (sqm)	% of Total	Jobs	% of Total
Industrial	691,308	59.3%	3,239	61.6%
Population Serving	265,489	22.8%	1,452	27.6%
Health/Education	4,436	0.4%	101	1.9%
Knowledge Intensive	104,360	9.0%	463	8.8%
Other	0	0.0%	-	0.0%
Vacant	100,218	8.6%	-	0.0%
Total	1,165,810	100.0%	5,255	100.0%

Source: HillPDA

Industrial uses occupy the majority of the floorspace with around 691,308sqm or 59.3% being categorised as such. Population serving industries occupy the second largest amount of space at around 265,489sqm or 22.8% followed by knowledge intensive uses (104,360sqm or 9.0%), health/education services occupying 4,436sqm (0.4%). There is quite a high vacancy rate within the centre sitting at around 8.6% when the audit took place.

Predominant GSC Employment Uses

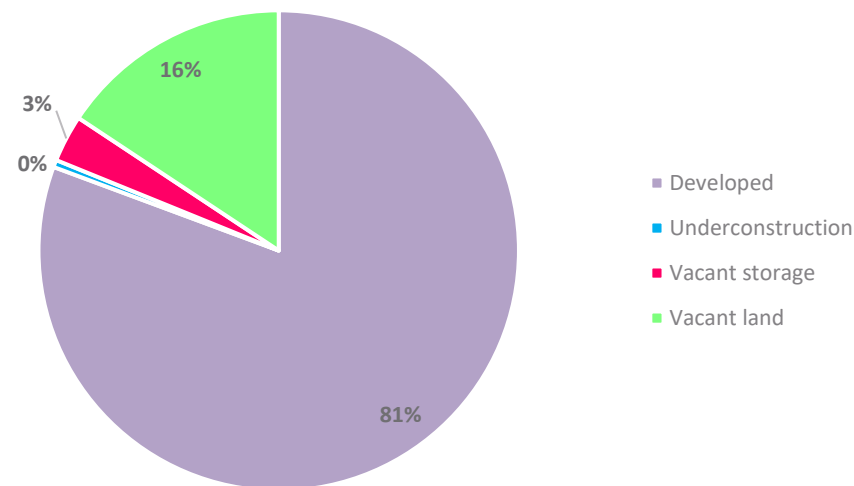


St Marys Land Area Breakdown

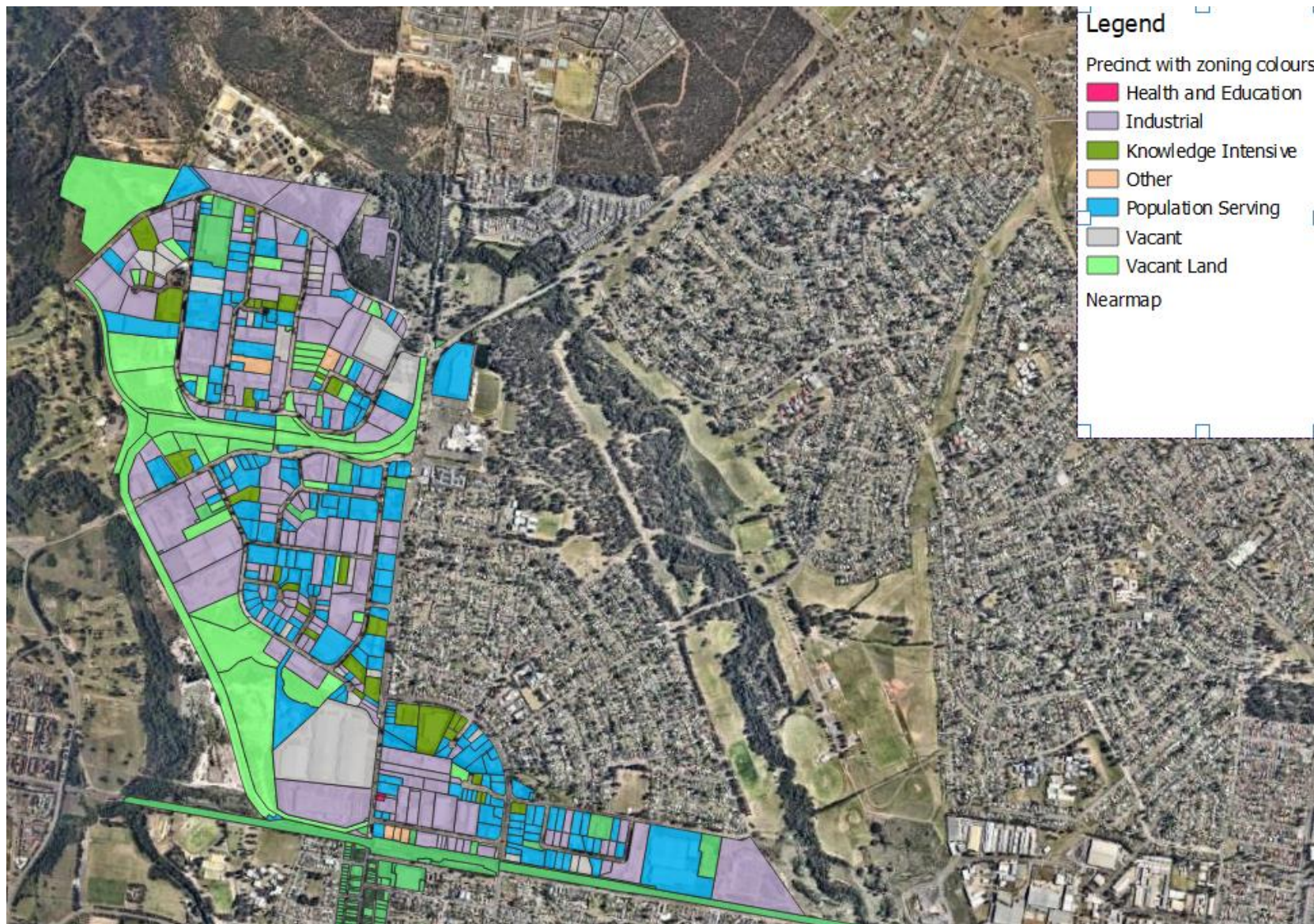
Land Area	Hectares	% of Total	% of Penrith Total
Developed	247.7	80.7%	22.1%
Under Construction	1.5	0.5%	12.4%
Vacant Land	48.2	15.7%	7.5%
Vacant Storage	9.7	3.2%	26.7%
Total land area	307.0	100.0%	100.0%

There is currently 48 hectares of vacant land within the precinct accounting for 16% of the total land area. This ensures the precinct has enough capacity to fulfil needs in the foreseeable future.

Land Area Breakdown



St Marys North Land Use Map



SWOT Analysis

Size and Agglomeration

The precinct enjoys strong market appeal due to its sheer size with around 250 developed hectares of industrial land accommodating a large number of businesses – 604 in total. It is the largest employment precinct outside the commercial centres based on number of business units.

There is some severance between the northern and southern halves of the precinct due to the defunct railway line and lack of internal road access.

Key assets of the precinct include the presence of regional manufacturers that elevate its regional significance.

Accessibility

The precinct is also well located along arterial roads that join to both the M4 Western Motorway and Great Western Highway. The completion of WestConnex will improve connectivity to other parts of Greater Sydney.

Forrester Road becomes congested in peak times reducing travel efficiencies to and from the precinct from the major arterial roads and motorways.

Also St Marys rail station and the future metro to Western Sydney Airport will provide a high level of public transport at the southern end of the precinct.

Land use conflict

The area is well separated from the residential areas and access for heavy vehicles is reasonably separated from surrounding residential areas resulting in low levels of land use conflict.

Topography

Topography is relatively flat with low levels of site constraints making the area strongly suitable for industrial uses

Amenity

Levels of amenity for workers is relatively low in terms of provision of services including retail, personal, commercial and social services. While there is a significant number of jobs in the precinct the low level of job density (at less than 18 jobs per hectare gross) means that it is difficult to provide these services feasibly.

There are however a number of facilities adjacent to the precinct including St Marys Leagues Club and a McDonalds. Immediately south of the precinct is St Marys commercial centre with a wide range of retail, personal, commercial and medical services.

Other

The Precinct has some potential for expansion with around 58 hectares currently undeveloped.

6.3 North Penrith

Overview

	North Penrith Precinct	All Precincts
Land area:	292.7 hectares (14.4% of all precincts)	1809.8 hectares
Gross floor area (GFA):	686,433sqm (15.9% of all precincts)	4,342,779sqm
Occupied GFA:	673,492sqm (98.1%)	4,137,296sqm (95.0%)
Vacant GFA:	12,941sqm (1.9%)	205,482sqm (5.0%)
Key Industry:	Manufacturing (30.9%) Retail Trade (14.2%) Transport, Postal and Warehousing (8.8%)	Transport, Postal and Warehousing (33.4%) Manufacturing (20.2%) Retail Trade (8.4%)

North Penrith Zoning Map



North Penrith One ANSZIC Code Floorspace Data

Floorspace	Total (sqm)	% of Total	Jobs	% of Total
Agriculture, Forestry and Fishing	0	0.0%	235	4.6%
Accommodation and Food Services	6,233	0.9%	128	2.5%
Administrative and Support Services	9,384	1.3%	69	1.3%
Arts and Recreation Services	18,574	2.6%	103	2.0%
Construction	49,565	7.0%	1,038	20.2%
Education and Training	9,306	1.3%	62	1.2%
Electricity, Gas, Water and Waste Services	32,908	4.6%	30	0.6%
Financial and Insurance Services	0	0.0%	17	0.3%
Health Care and Social Assistance	2,603	0.4%	65	1.3%
Information Media and Telecommunications	0	0.0%	30	0.6%
Manufacturing	212,347	30.0%	1,050	20.4%
Mining	0	0.0%	56	1.1%
Other Services	52,962	7.5%	359	7.0%
Professional, Scientific and Technical Services	31,047	4.4%	183	3.6%
Public Administration and Safety	10,871	1.5%	27	0.5%
Rental, Hiring and Real Estate Services	44,286	6.2%	56	1.1%
Retail Trade	97,539	13.8%	635	12.3%
Transport, Postal and Warehousing	60,492	8.5%	708	13.8%
Wholesale Trade	57,771	8.2%	295	5.7%
Residential	0	0.0%	-	0.0%
Vacant	12,941	1.8%	-	0.0%
Total	708,829	100.0%	5,146	100.0%

Source: ABS Census 2016 and HillPDA

North Penrith Precinct is the third largest precinct by land area located towards the north-western portion of the Penrith LGA, with around 293 hectares of employment zoned land. The majority (85%) is comprised of IN1 General Industrial zoned land with IN2 Light Industrial making up 5%. The remaining 10% is the Penrith recycling water plant zoned SP2 Infrastructure.

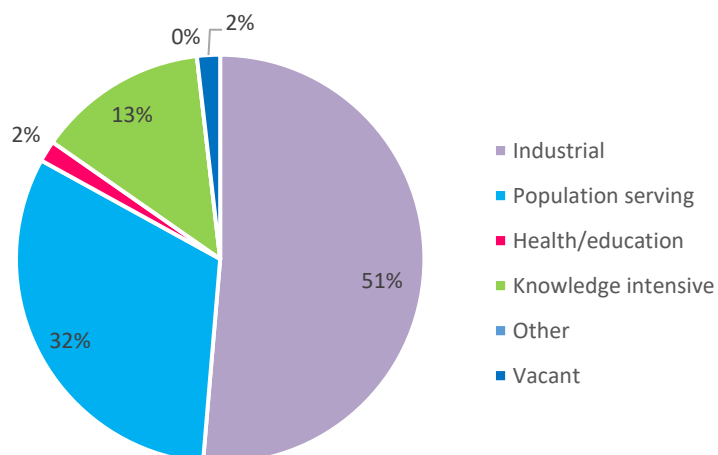
The precincts size lends it to having a high diversity of uses across 686,433sqm of floorspace. It is characterised by manufacturing, retail trade, wholesale trade, urban services, construction, warehousing/distribution and other services.

North Penrith Land Use Breakdown by GSC Employment Code & Floorspace

Land use	Floorspace (sqm)	% of Total	Jobs	% of Total
Industrial	363,952	51.3%	2,207	42.9%
Population serving	224,439	31.7%	2,370	46.1%
Health/education	11,909	1.7%	128	2.5%
Knowledge intensive	95,588	13.5%	441	8.6%
Other	0	0.0%	-	0.0%
Vacant floor space	12,941	1.8%	-	0.0%
Total	708,829	100.0%	5,146	100.0%

Industrial uses occupy a majority of the floorspace with around 363,952sqm or 51% being categorised as such. Population serving industries occupy the second largest amount of space at around 224,439sqm or 32% followed by knowledge intensive uses (95,588sqm or 13%), health/education services occupying 11,909sqm (1.7%). There is a low vacancy rate within the centre sitting at around 1.9% at the time of survey.

Predominant GSC Employment Uses

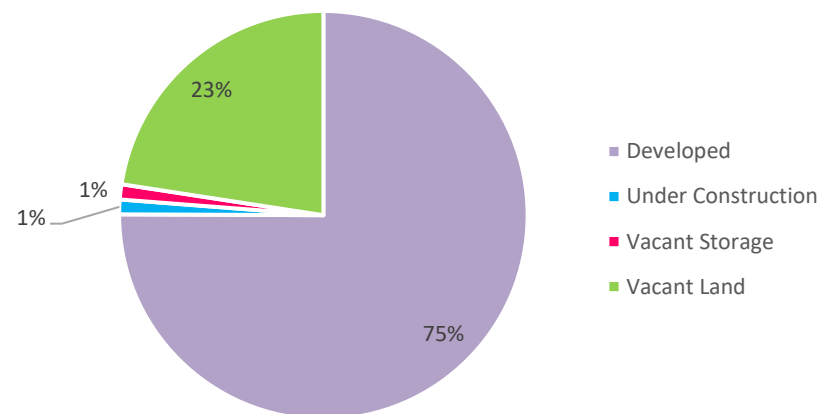


North Penrith Land Area Breakdown

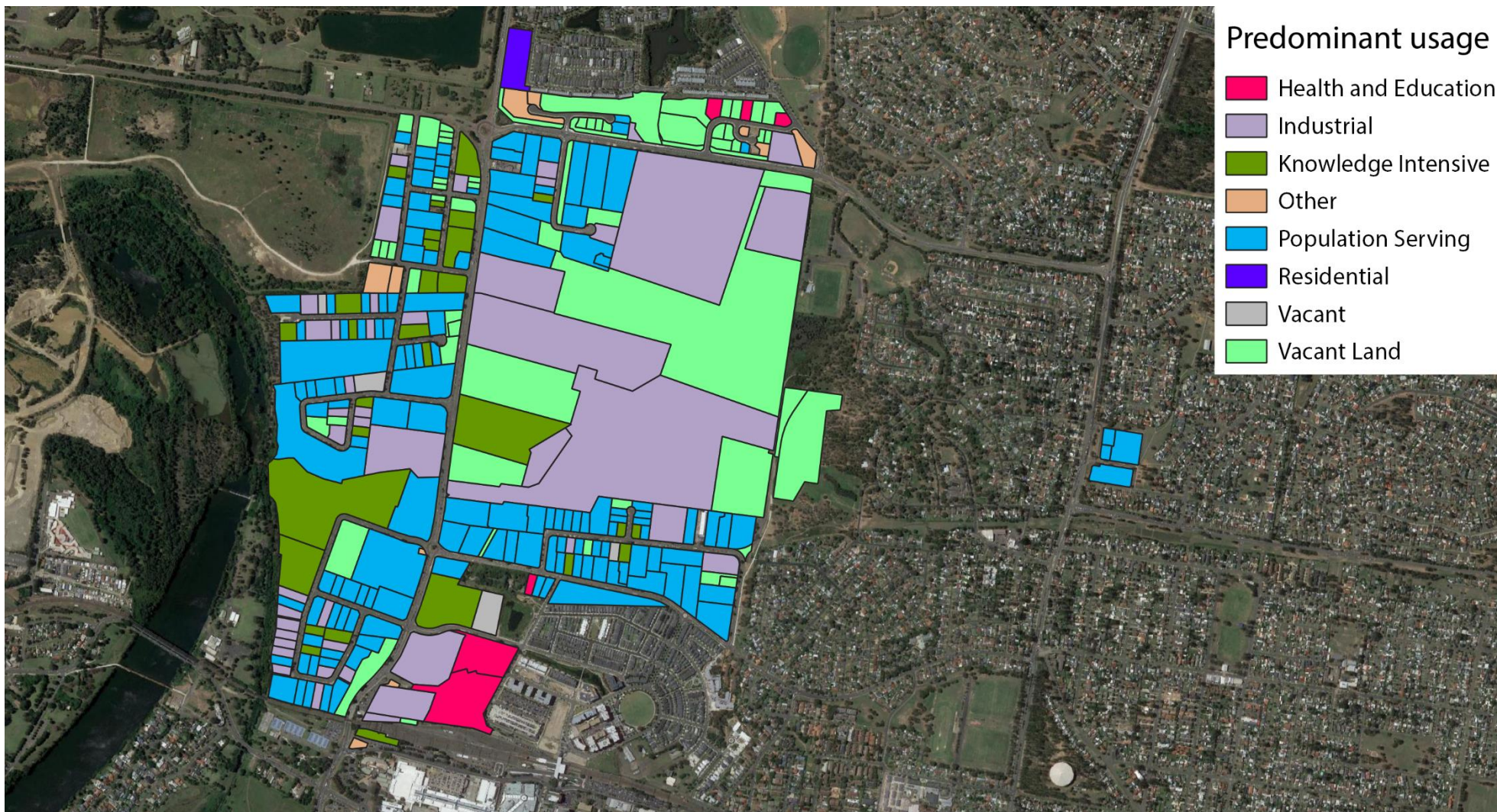
Land Area	Hectares	% of Total	% of Penrith Total
Developed	219.8	75.1%	16.8%
Under Construction	3.4	1.2%	28.0%
Vacant Land	66.1	22.6%	10.3%
Vacant Storage	3.5	1.2%	9.5%
Total land area	292.8	100.0%	100.0%

There is currently 66 hectares of vacant land within the precinct accounting for 23% of the total land area. This ensures the precinct has enough capacity to fulfil needs in the foreseeable future.

Land Area Breakdown



North Penrith Land Use Map



Source: HillPDA Survey 2019

SWOT Analysis

Size and Agglomeration

The precinct enjoys strong market appeal due to its sheer size with around 260 hectares (180ha developed) of industrial land accommodating a large number of businesses – 413 in total. It is the second largest employment precinct outside the commercial centres based on number of business units.

Key assets of the precinct include the presence of a Boral concrete manufacturing plant and a number of regional manufacturers that elevate its regional significance.

Accessibility

The precinct is also well located along arterial roads that join to both the Northern Road and Great Western Highway. The completion of the M4 Smart Motorway will also assist in improving connectivity to other parts of Greater Sydney

Mulgoa / Castlereagh Road becomes congested in peak times reducing travel efficiencies to and from the precinct from the major arterial roads and motorways.

Land use conflict

There are residential uses adjoining the precinct with but only a small portion on the eastern edge of the precinct don't have good buffers present to reduce any potential land use conflict.

Topography

Topography is relatively flat with low levels of site constraints making the area strongly suitable for industrial uses

Amenity

Levels of amenity for workers is relatively low in terms of provision of services. While there is a significant number of jobs in the precinct the low level of job density (at around 20 jobs per hectare gross) means that it is difficult to provide these services feasibly.

Recent rezoning of additional IN2 zoned land towards the northern end of the precinct near Ropes Crossing has allowed for Gymnasium and day-care centres to be established.

The childhood education facilities help to service the local workforce within the North Penrith industrial zone but also for the surrounding residential.

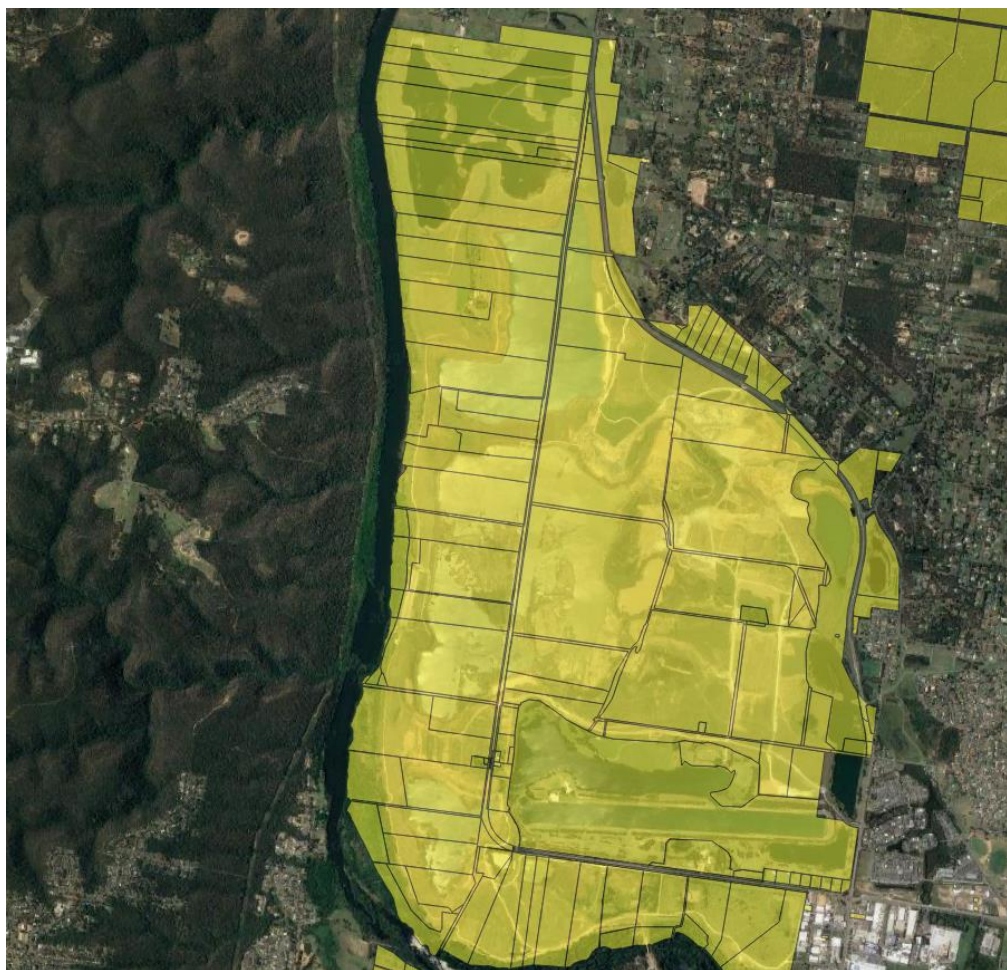
The precinct is reasonably proximate to the Penrith CBD which provides a very wide range of retail, personal, commercial, administrative, medical and social services.

Other

The Precinct has some potential for expansion with around 57 hectares currently undeveloped. A further 47 hectares called '*Nepean Business Park*' is expected to be developed in the near future at the southern end of the Penrith Lakes adjacent to the existing industrial area (see section immediately below).

6.4 Penrith Lakes

Penrith Lakes is a 1,940 hectare site controlled under State Environmental Planning Policy (Penrith Lakes Scheme) Amendment 2017. Much of the site remains unzoned. There are pockets of tourist uses including the Sydney International Regatta Centre and Penrith Whitewater Stadium.



Source: HillPDA

At the southern end of the site, adjoining the Penrith North industrial area, is the proposed Nepean Business Park which will add around 47 hectares to the supply of employment lands. Anecdotal evidence suggests that current demand is strong and that many potential end users have expressed a strong interest in establishing in the park. The park is likely to employ around 3,000 to 4,000 workers at when fully developed at say 60-85 workers per hectare.

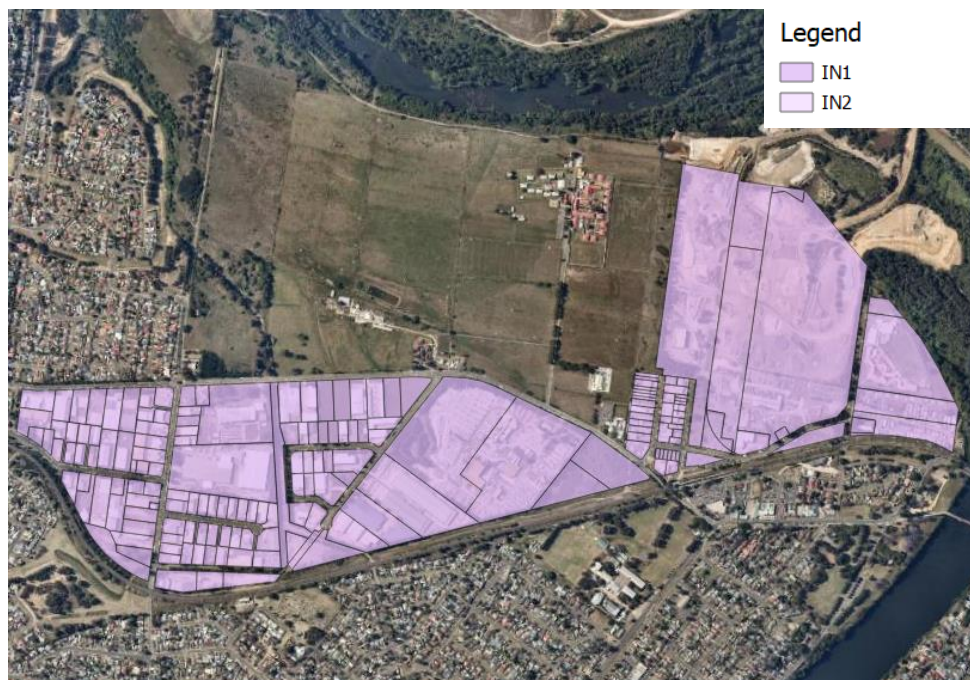
The original vision plan prepared by the Office of Penrith Lakes envisaged mixed uses including lakes, recreational uses, parklands and urban development including residential. However residential is proving to be difficult due to flooding and evacuation. Much of the site remains unzoned.

6.5 Emu Plains

Overview

	Emu Plains Precinct	All Precincts
Land area:	144.5 hectares (8.0% of all precincts)	1809.8 hectares
Gross floor area (GFA):	294,081sqm (6.7% of all precincts)	4,342,779sqm
Occupied GFA:	289,598sqm (98.5%)	4,137,296sqm (95.0%)
Vacant GFA:	4,483sqm (1.5%)	205,482sqm (5.0%)
Key Industry:	Manufacturing (34.1%)	Transport, Postal and Warehousing (33.4%)
	Transport, Postal and Warehousing (14.9%)	Manufacturing (20.2%)
	Public Administration and Safety (7.8%)	Retail Trade (8.4%)

Emu Plains Zoning Map



Emu Plains One ANSZIC Code Floorspace Data

Floorspace	Total (sqm)	% of Total	Jobs	% of Total
Agriculture, Forestry and Fishing	-	0.0%	187	7.5%
Accommodation and Food Services	2,134	0.7%	38	1.5%
Administrative and Support Services	654	0.2%	12	0.5%
Arts and Recreation Services	17,549	6.0%	8	0.3%
Construction	10,207	3.5%	473	18.9%
Education and Training	20,551	7.0%	127	5.1%
Electricity, Gas, Water and Waste Services	1,502	0.5%	41	1.7%
Financial and Insurance Services	165	0.1%	0	0.0%
Health Care and Social Assistance	921	0.3%	44	1.7%
Information Media and Telecommunications	633	0.2%	3	0.1%
Manufacturing	100,360	34.1%	821	32.8%
Mining	-	0.0%	10	0.4%
Other Services	7,996	2.7%	85	3.4%
Professional, Scientific and Technical Services	12,762	4.3%	97	3.9%
Public Administration and Safety	23,081	7.8%	159	6.4%
Rental, Hiring and Real Estate Services	9,741	3.3%	21	0.8%
Retail Trade	13,010	4.4%	106	4.2%
Transport, Postal and Warehousing	43,714	14.9%	125	5.0%
Wholesale Trade	24,374	8.3%	143	5.7%
Residential	246	0.1%	-	0.0%
Vacant	4,483	1.5%	-	0.0%
Total	294,081	100.0%	2,499	100.0%

Source: ABS Census 2016 and HillPDA

Emu Plains Precinct is located on the western side of the Penrith LGA and provides around 145 hectares of employment zoned land. The majority (99%) of Emu Plains is comprised of IN1 – General Industrial zoned land with IN2 – Light Industrial making up the remaining (1%).

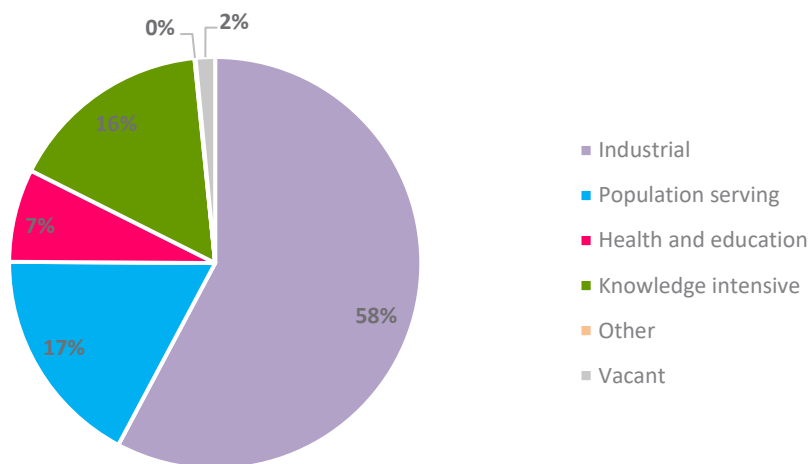
The precinct's size lends it to having a high diversity of uses across its 294,081sqm of floorspace. It is characterised by manufacturing, other services, warehousing/distribution, education/training and arts and recreational services.

Emu Plains Land Use Breakdown by GSC Employment Code & Floorspace

Land use	Floorspace (sqm)	% of Total	Jobs	% of Total
Industrial	169,950	57.8%	1,152	46.1%
Population serving	50,896	17.3%	859	34.4%
Health/education	21,472	7.3%	171	6.8%
Knowledge intensive	47,035	%	318	12.7%
Other	246	0.1%	-	0.0%
Vacant	4,483	1.5%	-	0.0%
Total	294,081	100.0%	2,499	100.0%

Industrial uses occupy a majority of the floorspace with around 126,236sqm or 43.3% being categorised as such. Population serving industries occupy the second largest amount of space at around 115,089sqm or 39.5% followed by knowledge intensive uses (24,002sqm or 8.2%), health/education services occupying 21,472sqm (7.4%). There is a low vacancy rate within the centre sitting at around 1.5% when the audit took place.

Predominant GSC Employment Uses

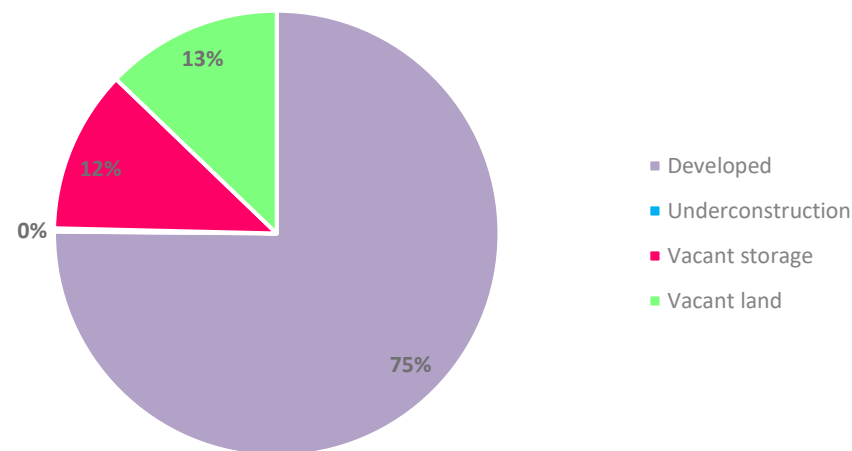


Emu Plains Land Area Breakdown

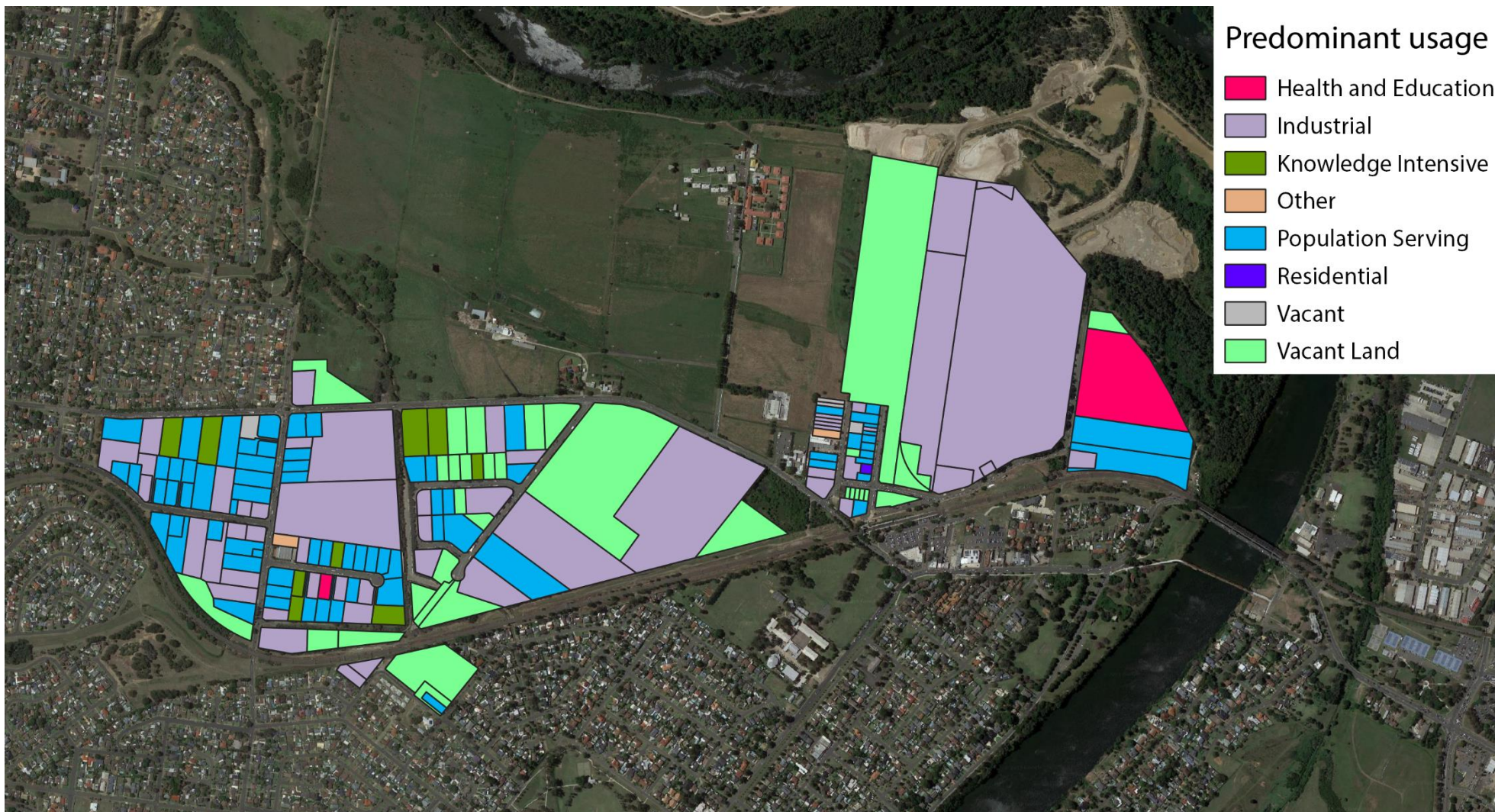
Land Area	Hectares	% of Total	% of Penrith Total
Developed	108.5	75.1%	9.7%
Under Construction	0.3	0.2%	2.9%
Vacant Land	18.5	12.8%	2.9%
Vacant Storage	17.1	11.8%	46.9%
Total land area	144.5	100%	-

There is currently 19 hectares of vacant land within the precinct accounting for 13% of the total land area. This shows there is little are to expand existing industrial uses. While there is limited available vacant land the Special Purpose lands to the north could be rezoned in the future to accommodate industrial lands demand.

Land Area Breakdown



Emu Plains Land Use Map



Source: HillPDA Survey 2019

SWOT Analysis

Size and Agglomeration

The precinct enjoys market appeal due to its size with around 144 hectares accommodating a fairly large number of businesses – 243 in total.

Accessibility

The precinct is reasonably well located near the Great Western Highway and within 1.5km from the M4 Western Motorway. Emu Plains train station is within half a kilometre of the industrial precinct at the eastern side.

Land use conflict

There is limited residential uses adjoining the precinct with good buffers present to reduce any potential land use conflict.

Topography

Topography is relatively flat with low levels of site constraints making the area strongly suitable for industrial uses

Amenity

Levels of amenity for workers is limited. There are several fast food family restaurants in the western end of the precinct as well as a performing arts school and a roller skating rink.

At the eastern end near the train station is a small commercial centre with several restaurants, a medical centre and gymnasium.

Other

6.6 Jamisontown

Overview

	Jamisontown Precinct	All Precincts
Land area:	76.9 hectares (4.2% of all precincts)	1809.8 hectares
Gross floor area (GFA):	393,626sqm (9.1% of all precincts)	4,342,779sqm
Occupied GFA:	383,963sqm (97.5%)	4,137,296sqm (95.0%)
Vacant GFA:	9,663sqm (2.5%)	205,482sqm (5.0%)
Key Industry:	Retail Trade (44.0%) Wholesale Trade (9.9%) Manufacturing (9.6%)	Transport, Postal and Warehousing (33.4%) Manufacturing (20.2%) Retail Trade (8.4%)

Jamisontown Zoning Map



Jamisontown One ANSZIC Code Floorspace Data

Floorspace	Total (sqm)	% of Total	Jobs	% of Total
Agriculture, Forestry and Fishing	12,689	2.9%	271	8.3%
Accommodation and Food Services	48,766	11.0%	45	1.4%
Administrative and Support Services	0	0.0%	7	0.2%
Arts and Recreation Services	23,940	5.4%	99	3.0%
Construction	30,358	6.9%	591	18.1%
Education and Training	1,468	0.3%	50	1.5%
Electricity, Gas, Water and Waste Services	5,049	1.1%	79	2.4%
Financial and Insurance Services	275	0.1%	13	0.4%
Health Care and Social Assistance	16,628	3.8%	158	4.8%
Information Media and Telecommunications	0	0.0%	44	1.3%
Manufacturing	37,738	8.5%	289	8.9%
Mining	0	0.0%	4	0.1%
Other Services	25,970	5.9%	211	6.5%
Professional, Scientific and Technical Services	715	0.2%	104	3.2%
Public Administration and Safety	343	0.1%	66	2.0%
Rental, Hiring and Real Estate Services	6,541	1.5%	34	1.0%
Retail Trade	173,353	39.2%	1,008	30.9%
Transport, Postal and Warehousing	6,969	1.6%	58	1.8%
Wholesale Trade	38,896	8.8%	132	4.1%
Residential	3,266	0.7%	-	0.0%
Vacant	9,663	2.2%	-	0.0%
Total	442,627	100.0%	3,264	100.0%

Source: ABS Census 2016 and HillPDA

Jamisontown Precinct is located towards the south-western portion of the Penrith LGA and provides around 77 hectares of employment zoned land. The majority (91%) of Jamisontown is comprised of B5 – Business Development zoned land with IN1 – General Industrial making up the remaining (9%).

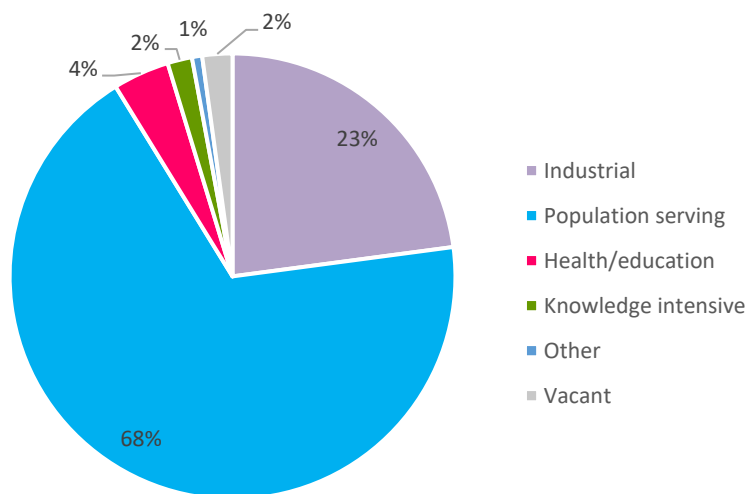
The precincts size and diverse zoning lends it to having a high diversity of uses across is 393,626sqm of floorspace. It is characterised by retail trade, manufacturing, wholesale trade, other services and arts and recreational services.

Jamisontown Land Use Breakdown by GSC Employment Code & Floorspace

Land use	Floorspace (sqm)	% of Total	Jobs	% of Total
Industrial	101,342	22.9%	570	17.5%
Population serving	302,386	68.3%	2,181	66.8%
Health/education	18,096	4.1%	208	6.4%
Knowledge intensive	7,874	1.8%	305	9.3%
Other	3,266	0.7%	-	0.0%
Vacant	9,663	2.2%	-	0.0%
Total	442,627	100.0%	3,264	100.0%

Population serving industries occupy a majority of the floorspace with around 257,998sqm or 65.5% being categorised as such. Industrial uses occupy the second largest amount of space at around 101,053sqm or 25.7% followed by health/education services uses (18,096sqm or 4.6%), knowledge intensive uses occupying 6,816sqm (1.7%). There is low vacancy rate within the centre sitting at around 2.5% when the audit took place.

Predominant GSC Employment Uses

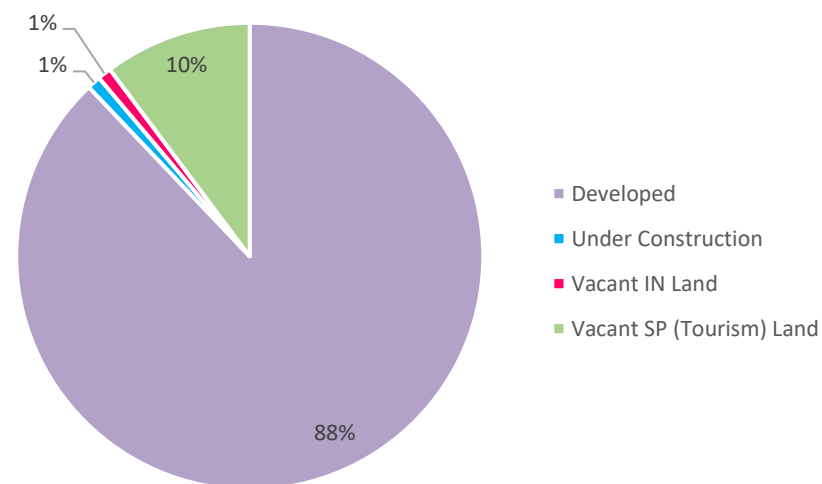


Jamisontown Land Area Breakdown

Land Area	Hectares	% of Total	% of Penrith Total
Developed	112.4	87.9%	6.8%
Under Construction	1.2	0.9%	0.0%
Vacant Land	14.3	11.2%	0.2%
Vacant Storage	0	0.0%	0.0%
Total land area	127.9	100.0%	-

There are currently 13.1 hectares of vacant land in the precinct but only 1.2 hectares of this is in the industrial area – the balance being in the SP3 Tourist zone in the Riverlink precinct. This shows there is little to no room to expand existing industrial uses. Currently there is little industrial or B5-B7 zoned lands in Jamisontown to accommodate growth.

Land Area Breakdown



Jamisontown Land Use Map



Source: HillPDA Survey 2019

SWOT Analysis

Size and Agglomeration

Jamisontown is the main bulky goods or large format retail destination centre serving the Penrith, Hawkesbury and Blue Mountains LGAs. There is a considerable level of agglomeration of retailers as well as businesses and contractors providing services in home improvements and automotive sales and servicing.

The precinct enjoys high visibility and accessibility along Mulgoa Road. The Penrith Homemaker Centre is positioned with good access to surrounding residential uses and takes advantage of the wide-reaching catchment. In total there are 82 retailers in the precinct along with a range of entertainment / recreational and other non-industrial uses. This includes fitness centres, several dance and performing art schools, ten-pin bowling, laser skirmish, mini-golf, a church, slot car and hobby centre and a couple of children amusement centres.

Accessibility

Mulgoa Road is the main arterial through the precinct providing fairly rapid access to the M4 motorway in all directions. However in peak times Mulgoa Road gets fairly heavily congested.

Land use conflict

There is limited residential uses adjoining the precinct with roads buffering to reduce significant potential land use conflict.

Topography

Topography is relatively flat with low levels of site constraints making the area strongly suitable for industrial, bulky retail and entertainment uses.

Amenity

By comparison to other employment areas the level of amenity is quite high due to the range of food and other services for workers (as well as residents, shoppers and visitors). Along Mulgoa Road and York road are a number of smaller retailers and fast food

restaurants. The precinct is also dominated by Penrith Panthers providing one of the largest entertainment venues in Western Sydney.

Other

The Precinct has very limited opportunity for further development, with only 1.2 hectares currently vacant in the bulky goods and industrial area. The bulk of vacant land is SP3 zoned land in the Riverlink precinct.

6.7 Kingswood

Overview

	Kingswood Precinct	All Precincts
Land area:	20.6 hectares (1.1% of all precincts)	1809.8 hectares
Gross floor area (GFA):	84,162sqm (1.9% of all precincts)	4,342,779sqm
Occupied GFA:	78,609sqm (93.4%)	4,137,296sqm (95.0%)
Vacant GFA:	5,553sqm (6.6%)	205,482sqm (5.0%)
Key Industry:	Retail Trade (28.6%) Other Services (19.0%) Wholesale Trade (13.2%)	Transport, Postal and Warehousing (33.4%) Manufacturing (20.2%) Retail Trade (8.4%)

Kingswood Zoning Map



One ANSZIC Code Floorspace Data

Floorspace	Total (sqm)	% of Total	Jobs	% of Total
Agriculture, Forestry and Fishing	-	0.0%	99	7.8%
Accommodation and Food Services	588	0.7%	14	1.1%
Administrative and Support Services	-	0.0%	0	0.0%
Arts and Recreation Services	7,151	8.5%	13	1.0%
Construction	2,664	3.2%	73	5.7%
Education and Training	1,483	1.8%	185	14.5%
Electricity, Gas, Water and Waste Services	-	0.0%	6	0.5%
Financial and Insurance Services	-	0.0%	0	0.0%
Health Care and Social Assistance	1,170	1.4%	189	14.9%
Information Media and Telecommunications	-	0.0%	0	0.0%
Manufacturing	3,864	4.6%	101	8.0%
Mining	-	0.0%	0	0.0%
Other Services	16,029	19.0%	112	8.8%
Professional, Scientific and Technical Services	257	0.3%	35	2.7%
Public Administration and Safety	4,835	5.7%	142	11.1%
Rental, Hiring and Real Estate Services	1,199	1.4%	0	0.0%
Retail Trade	24,042	28.6%	229	18.0%
Transport, Postal and Warehousing	4,206	5.2%	60	4.7%
Wholesale Trade	11,121	13.2%	15	1.2%
Residential	-	0.0%	-	0.0%
Vacant	5,553	6.6%	-	0.0%
Total	84,162	100.0%	1,273	100.0%

Source: ABS Census 2016 and HillPDA

Kingswood Precinct is located towards the centre of the Penrith LGA and provides around 21 hectares of employment zoned land. All of Kingswood is comprised of IN1 – General Industrial zoned land.

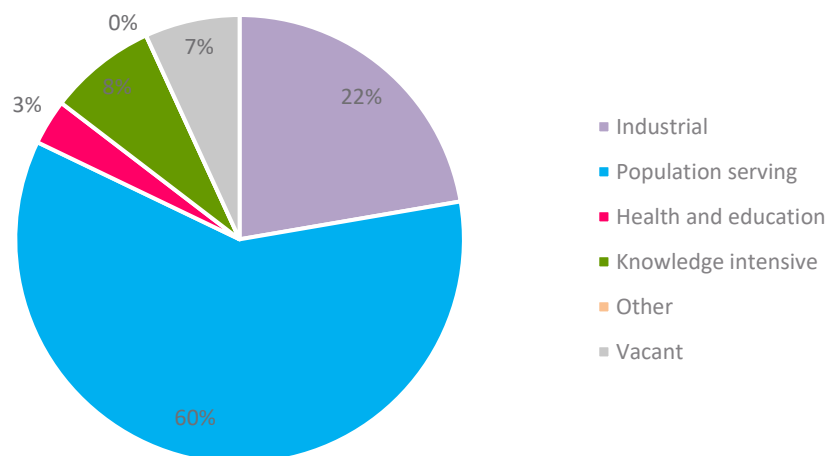
The precinct is characterised by retail trade, urban services (primary auto repair), wholesale trade, arts and recreational services and public administration and safety.

Land Use Breakdown by GSC Employment Code & Floorspace

Land use	Floorspace (sqm)	% of Total	Jobs	% of Total
Industrial	19,191	22.8%	183	14.4%
Population serving	50,474	60.0%	526	41.3%
Health/education	2,653	3.2%	374	29.4%
Knowledge intensive	6,290	7.5%	190	14.9%
Other	0	0.0%	-	0.0%
Vacant	5,553	6.6%	-	0.0%
Total	84,162	100.0%	1,273	100.0%

In total, the precinct provides around 84,162sqm of floorspace with population serving industries occupying a majority of the floorspace with around 50,474sqm or 60.0% being categorised as such. Industrial uses occupy the second largest amount of space at around 19,191sqm or 22.9% followed by knowledge intensive uses occupying 6,290sqm (7.5%) and health/education services uses (2,653sqm or 3.2%). There is a relatively average vacancy rate within the centre sitting at around 6.6% when the audit took place.

Predominant GSC Employment Uses

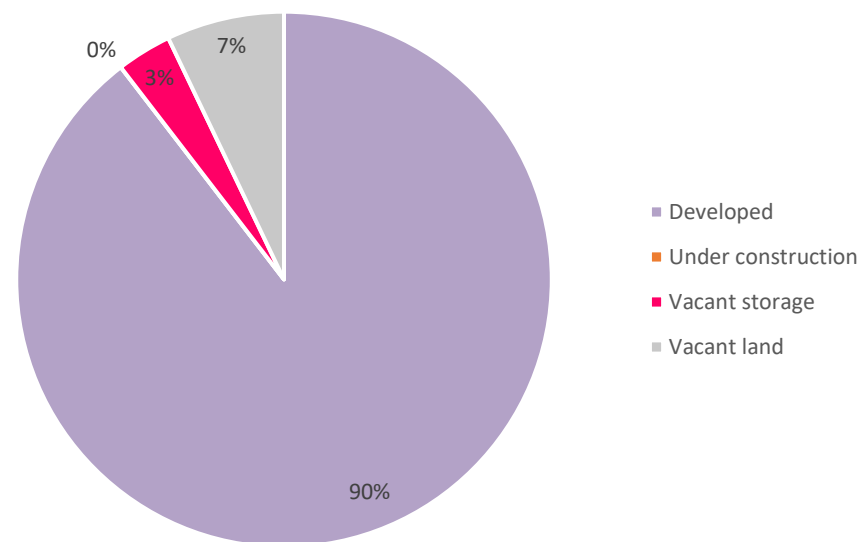


Land Area Breakdown

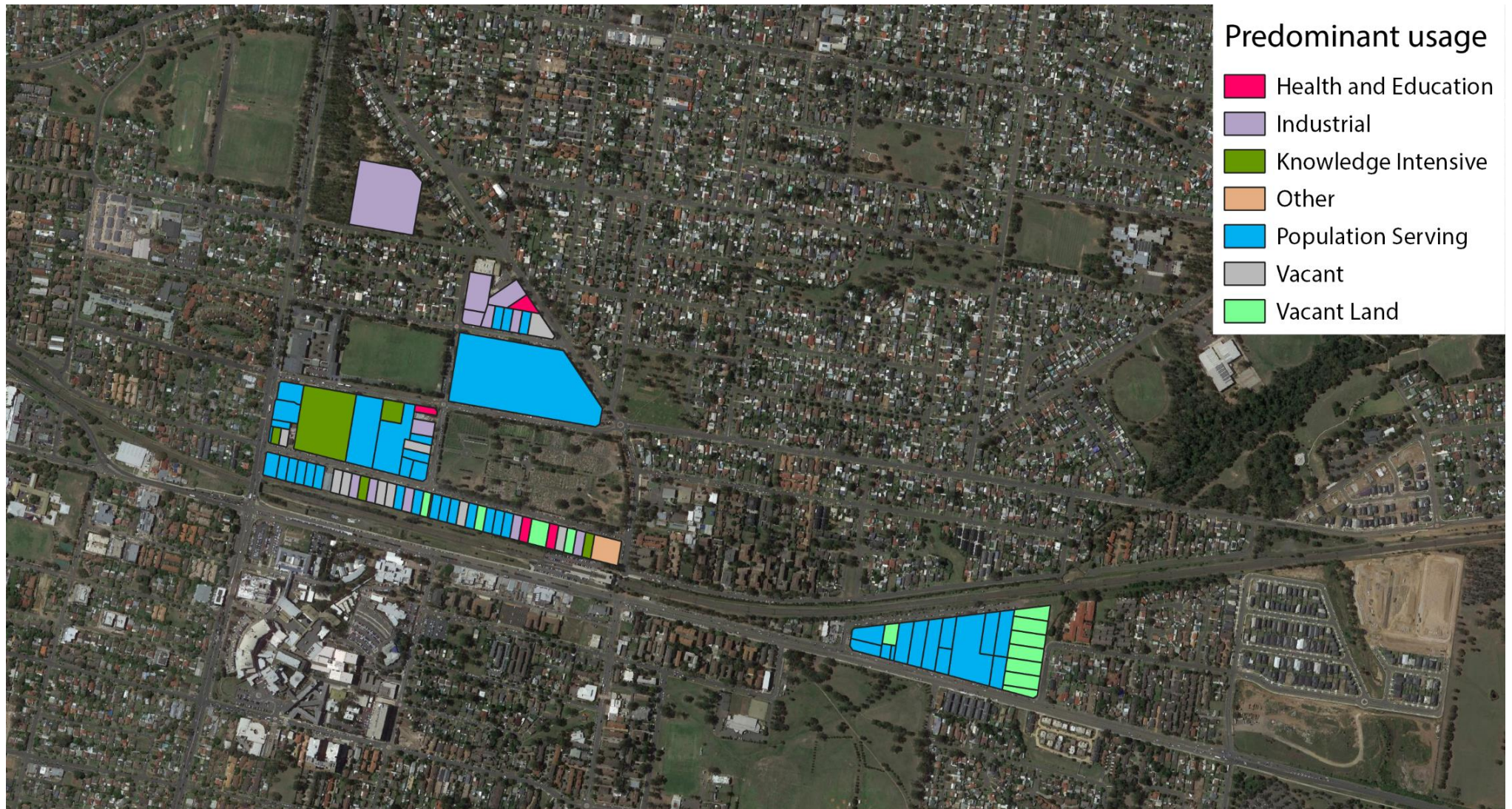
Land Area	Hectares	% of Total	% of Penrith Total
Developed	18.4	89.6%	1.6%
Under Construction	0.0	0.0%	0.0%
Vacant Land	1.5	7.1%	0.2%
Vacant Storage	0.7	3.3%	1.9%
Total land area	20.6	100.0%	-

There is currently only 1.5 hectares of vacant land within the precinct accounting for 7% of the total land area. This shows there is little to no room to expand existing industrial uses. currently there is no industrial zoned lands within Kingswood that could support additional employment lands.

Land Area Breakdown



Kingswood Land Use Map



Source: HillPDA Survey 2019

SWOT Analysis

Size and Agglomeration

Kingswood is the smallest of the industrial precincts being only 20 hectares in size. It does however have a total of 89 businesses. Many of these are in population serving / urban services. A large number of them provide automotive sales and servicing.

Accessibility

The precinct has two distinct and separated parts with the eastern area having direct road frontage to Great Western Highway. The western area is north of the railway line with access to the highway from The Northern Road.

The entire precinct is within 800m walking distance of the Kingswood train station.

Land use conflict

There is limited residential uses adjoining the precinct with roads buffering to reduce significant potential land use conflict.

Topography

Topography is relatively flat with low levels of site constraints making the area strongly suitable for industrial and urban services.

Amenity

Services for workers is limited. The Kingswood village centre is immediately south of the train station. This centre includes several retailers and restaurants, hotel and medical centre.

Other

The Precinct has very limited opportunity for further development, with only 2.4 hectares currently vacant.

6.8 Werrington

Overview

	Werrington Precinct	All Precincts
Land area:	201.5 hectares (5.0% of all precincts)	2154.4 hectares
Gross floor area (GFA):	130,893sqm (0.8% of all precincts)	4,342,779sqm
Occupied GFA:	130,893sqm (100.0%)	4,137,296sqm (95.0%)
Vacant GFA:	0sqm (0.0%)	205,482sqm (5.0%)
Key Industry:	Education and Training (78.3%)	Transport, Postal and Warehousing (33.4%)
	Public Administration and Safety (11.5%)	Manufacturing (20.2%)
	Health Care and Social Assistance (8.4%)	Retail Trade (8.4%)

Werrington Zoning Map



One ANSZIC Code Floorspace Data

Floorspace	Total (sqm)	% of Total	Jobs	% of Total
Agriculture, Forestry and Fishing	0	0.0%	25	1.0%
Accommodation and Food Services	1,621	1.2%	81	3.3%
Administrative and Support Services	0	0.0%	0	0.0%
Arts and Recreation Services	0	0.0%	4	0.2%
Construction	0	0.0%	24	1.0%
Education and Training	102,472	78.3%	1,586	65.4%
Electricity, Gas, Water and Waste Services	0	0.0%	6	0.3%
Financial and Insurance Services	0	0.0%	33	1.4%
Health Care and Social Assistance	0	0.0%	197	8.1%
Information Media and Telecommunications	11,250	8.6%	22	0.9%
Manufacturing	0	0.0%	4	0.2%
Mining	0	0.0%	3	0.1%
Other Services	550	0.4%	84	3.5%
Professional, Scientific and Technical Services	0	0.0%	19	0.8%
Public Administration and Safety	15,000	11.5%	275	11.3%
Rental, Hiring and Real Estate Services	0	0.0%	6	0.3%
Retail Trade	0	0.0%	14	0.6%
Transport, Postal and Warehousing	0	0.0%	39	1.6%
Wholesale Trade	0	0.0%	5	0.2%
Residential	0	0.0%	-	0.0%
Vacant	0	0.0%	-	0.0%
Total	130,893	100.0%	2,427	100.0%

Source: ABS Census 2016 and HillPDA

Werrington Precinct is located towards the centre of the Penrith LGA and provides around 89 hectares of employment zoned land (excluding the SP zones). The majority (90%) of Werrington is comprised of B7 – Business Development zoned land with IN2 – Light Industrial making up the remaining (10%). SP2 – Infrastructure lands are also contained within Werrington. These are discussed in greater detail in Section 8.

The precinct is characterised by education/training and accommodation and food services.

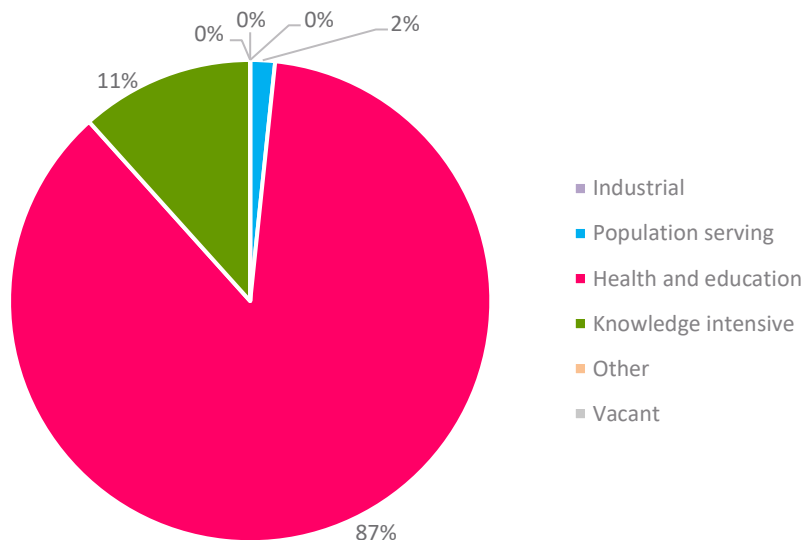
Land Use Breakdown by GSC Employment Code & Floorspace

Land use	Floorspace (sqm)	% of Total	Jobs	% of Total
Industrial	0	0.0%	58	2.4%
Population serving	2,171	1.7%	151	6.2%
Health/education	113,472	86.7%	435	73.5%
Knowledge intensive	15,250	11.7%	1,783	17.9%
Other	0	0.0%	-	0.0
Vacant	0	0.0%	-	0.0
Total	130,893	100.0%	2,427	100.0%

In total, the precinct provides around 34,093sqm of floorspace with health/education industries occupying a majority of the floorspace with around 28,142sqm or 94.6% being categorised as such. Population serving industries make up the remaining 1,621sqm or 5.4% of total floorspace.

During the audit it was found that there was no vacancy rate currently.

Predominant GSC Employment Uses



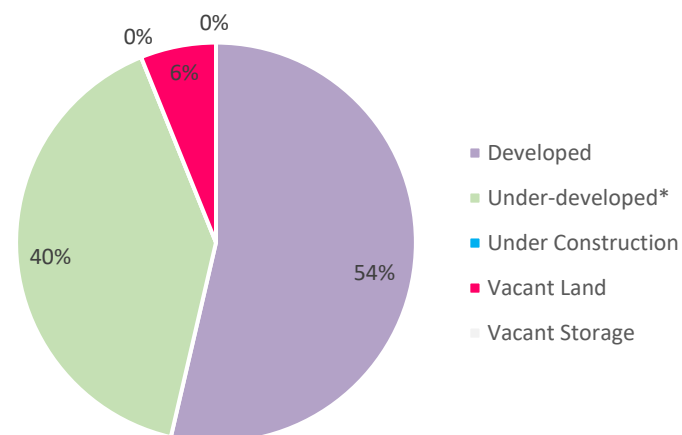
Land Area Breakdown

Land Area	Hectares	% of Total	% of Penrith Total
Developed	94.5	53.6%	7.0%
Under-developed*	70.9	40.3%	0.0%
Under Construction	0	0.0%	1.7%
Vacant Land	10.8	6.1%	
Vacant Storage	0	0.0%	0.0%
Total land area	176.1	100.0%	-

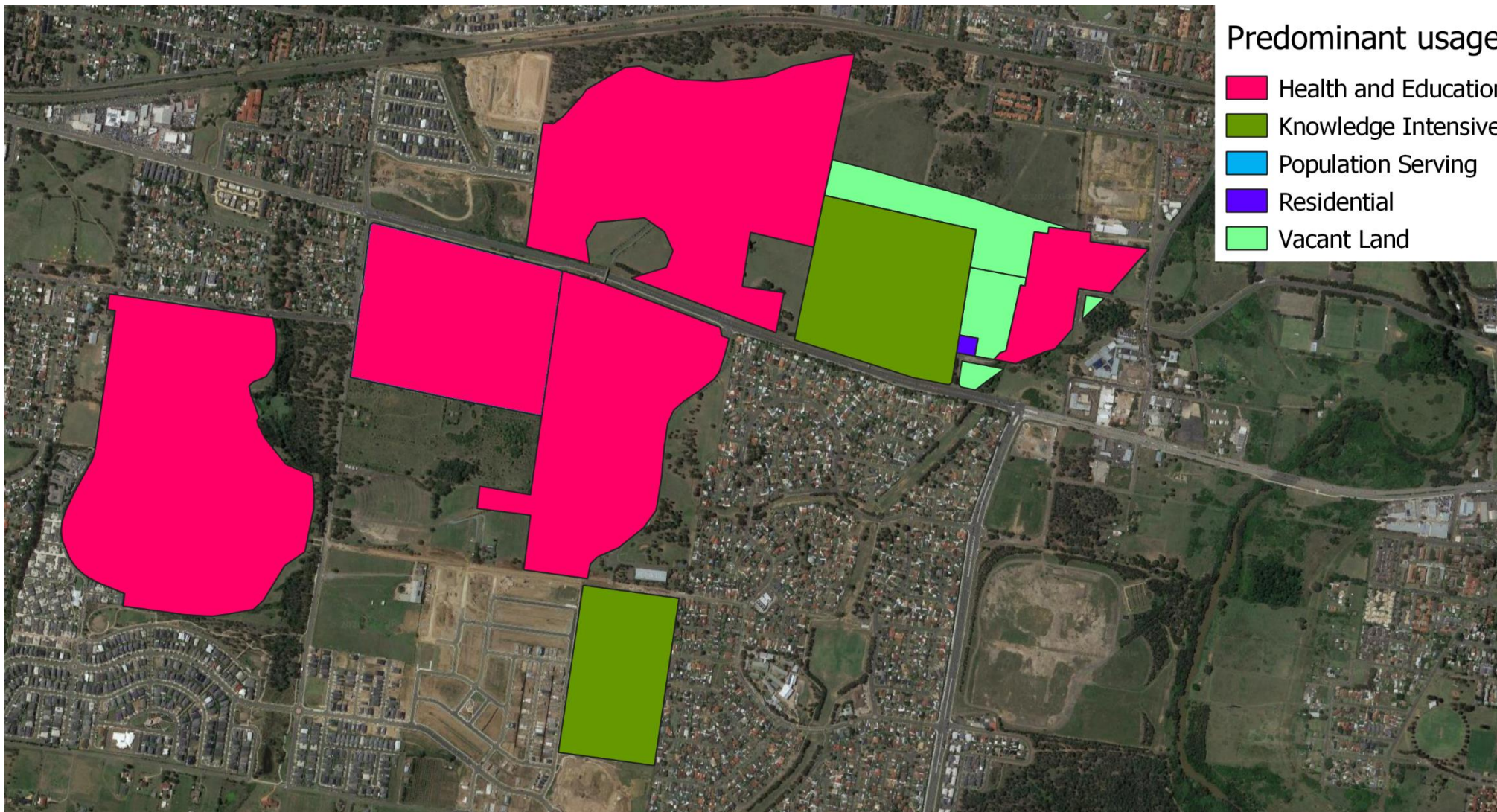
* Refers to the Western Sydney University Werrington campuses which are zoned B7. Whilst they are being used for education purposes the current FSR on the sites is just under 0.05:1 showing strong potential for further development.

There is currently 10.8 hectares of vacant land within the precinct accounting for 12% of the total land area. This shows there is little room to expand existing industrial uses. Currently there is little industrial zoned land in Werrington that could support additional employment lands. There is further potential with development and redevelopment of the WSU Werrington campuses. The current FSR on site is less than 0.05:1 but with 71 hectares of land there is considerable potential for further development with increased densities.

Land Area Breakdown



Werrington Land Use Map



Source: HillPDA Survey 2019

SWOT Analysis

Size and Agglomeration

The Werrington precinct is dominated by tertiary education institutions – North and South campuses of Western Sydney University – predominantly zoned B7. The Kingswood campuses of WSU and TAFE are in the Special Infrastructure zone.

Accessibility

Key assets and opportunities for Werrington include its strategic location on the Great Western Highway providing good connectivity.

Further the site has potential to accommodate a Metro station (subject to State Government regarding alignment and station options)

Land use conflict

There is limited residential uses adjoining the precinct and little land use conflict.

Topography

Topography is slightly undulating with a north-south ridge line through the middle of the campuses.

Amenity

Services for workers is limited. The Kingswood village centre is immediately south of the train station. This centre includes several retailers and restaurants, hotel and medical centre.

There is new centre with a supermarket currently under construction south of the TAFE site on O'Connell Street. This will improve amenity and services for residents, workers, students and visitors in the locality.

Other

The Precinct has the opportunity for further development, with around 10.8 hectares currently vacant around the Cobham Correction Centre.

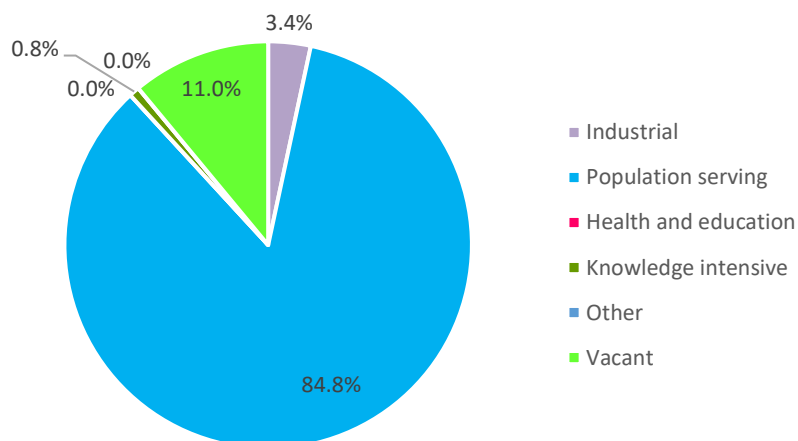
Notwithstanding the modest amount of vacant land there is potential with development and redevelopment of the WSU Werrington campuses. The current FSR on site is less than 0.05:1 but with 71 hectares of land there is considerable potential for further development with increased densities. A possible Metro station on site would stimulate interest even further.

6.9 Secondary Precincts

Overview

	B6 Precincts	All Precincts
Land area:	32.5 hectares (1.8% of all precincts)	1809.8 hectares
Gross floor area (GFA):	48,355sqm (1.1% of all precincts)	4,342,779sqm
Occupied GFA:	43,014sqm (89.0%)	4,137,296sqm (95.0%)
Vacant GFA:	5,320sqm (11.0%)	205,482sqm (5.0%)
Key Industry:	Accommodation and Food Services (38.6%) Retail Trade (24.2%) Arts and recreation (8.2%)	Transport, Postal and Warehousing (33.4%) Manufacturing (20.2%) Retail Trade (8.4%)

Predominant GSC Employment Uses



Land Use Breakdown by GSC Employment Code & Floorspace

Land use	Floorspace (sqm)	% of Total
Industrial	1,626	3.4%
Population serving	40,989	84.8%
Health/education	0	0.0%
Knowledge intensive	400	0.8%
Other	0	0.0%
Vacant	5,320	11.0%
Total	48,335	100.0%
Land area (ha)		
Developed/under construction	65.2 ha	83%
Undeveloped / Vacant	13.3 ha	17%
Total land area	78.6 ha	100%

Profile

For the purposes of the land audit the surrounding small B6 zoned precincts include Cambridge Gardens, Colyton, St Clair, St Marys Great Western Highway, South Penrith, and Werrington Road, Werrington. These precincts in the Penrith LGA make up 78.6 hectares or 1.8% of all industrial zoned lands (IN, B5-B7) across the LGA. The surrounding precincts are made up of mostly local centres with minimal accommodation and food services, retail trade and other services.

SWOT Analysis

Given the small centres land area situated within all but one surrounding centre it is difficult to ascertain additional employment lands being provided within the local centres. A weakness of the smaller centres is given each centres are predominantly located in a residential area they are significantly constrained. Key assets and opportunities for the surrounding centres of Luddenham is the future potential for a thriving business park in close proximity to the Western Sydney Airport and major arterial roads.

Land Use Profiles

Table 13: Surrounding Centres Floorspace Summary

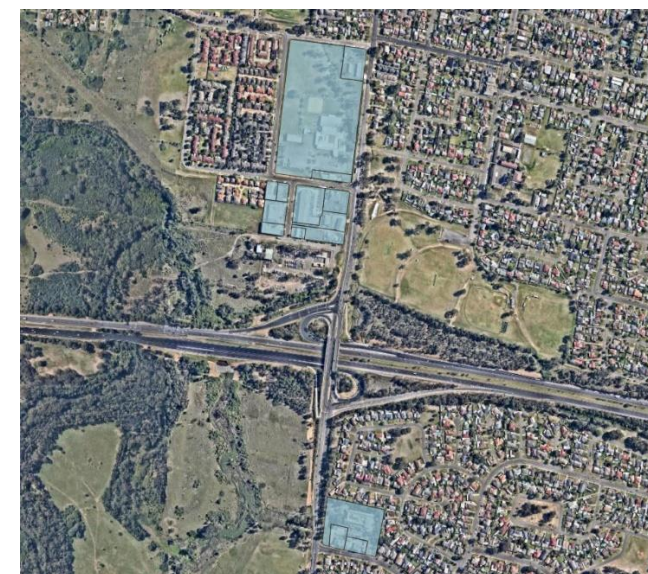
Cambridge Gardens	Colyton	Mamre Road
Land area: 2.4 hectares (B6 Enterprise Corridor)	Land area: 1.9 hectares (B6 Enterprise Corridor)	Land area: 11.6 hectares (B6 Enterprise Corridor)
Gross Floor Area (GFA): 7,871sqm	Gross Floor Area (GFA): 4,699sqm	Gross Floor Area (GFA): 17,374sqm
Key Industries: Retail Trade (59%) Accommodation and Food Services (41%)	Key Industries: Accommodation and Food Services (66%) Retail Trade (34%)	Key Industries: Accommodation and Food Services (57%) Transport, postal and warehousing (13%) Retail trade (8%)



Cambridge Gardens is a small local centre comprising of a supermarket, fast food retailers, a service station and a hotel/tavern. The centre is comprised of 100% population serving floorspace.



Colyton is a small local centre comprising of a liquor shop and a hotel/tavern. The centre is comprised of 100% population serving floorspace.



Mamre Road in St Marys South includes St Marys RSL club and two small local centres comprising a gymnasium, several fast food retailers (McDonalds, Hungry Jacks, Pizza Hut), automotive services, transport services and wholesalers. The small centre in St Clair (corner of Banks Drive) includes a Coles Express service station, KFC and the Blue Cattle Dog Hotel.

St Marys Great Western Highway

Land area: 2.7 hectares (B6 Enterprise Corridor)

Gross Floor Area (GFA): 12,931sqm

Key Industries:

- Vacant floor space (41%)
- Other Services (27%)
- Arts and Recreational Services (21%)



St Marys Great Western Highway is a small local centre comprising of a gymnasium, community church, wholesale car yard, service station and automotive repairs and maintenance floorspace. The centre is comprised of 57% population serving and 41% vacant floorspace.

Werrington Road, Werrington

Land area: 11.4 hectares (B6 Enterprise Corridor)

Gross Floor Area (GFA): 22,942sqm

Key Industry:

- Accommodation and Food Services (79%)
- Vacant floor space (11%)
- Retail Trade (4%)



Werrington Road, Werrington is a small local centre comprising a service station, fast food retailers, automotive repairs and maintenance and car wash. The centre is comprised of 86% population serving, 11% vacant and 4% industrial floorspace.

South Penrith

Land area: 2.3 hectares (B6 Enterprise Corridor)

Gross Floor Area (GFA): 5,460sqm

Key Industries:

Retail Trade (54%)
Accommodation and Food Services (46%)



South Penrith is a small local centre comprising of a tavern, fast food retailers, cloths retailers and a service station. The centre is comprised of 100% population serving floorspace.

Smaller B6 Precincts Floorspace Summary by ANZSIC Code

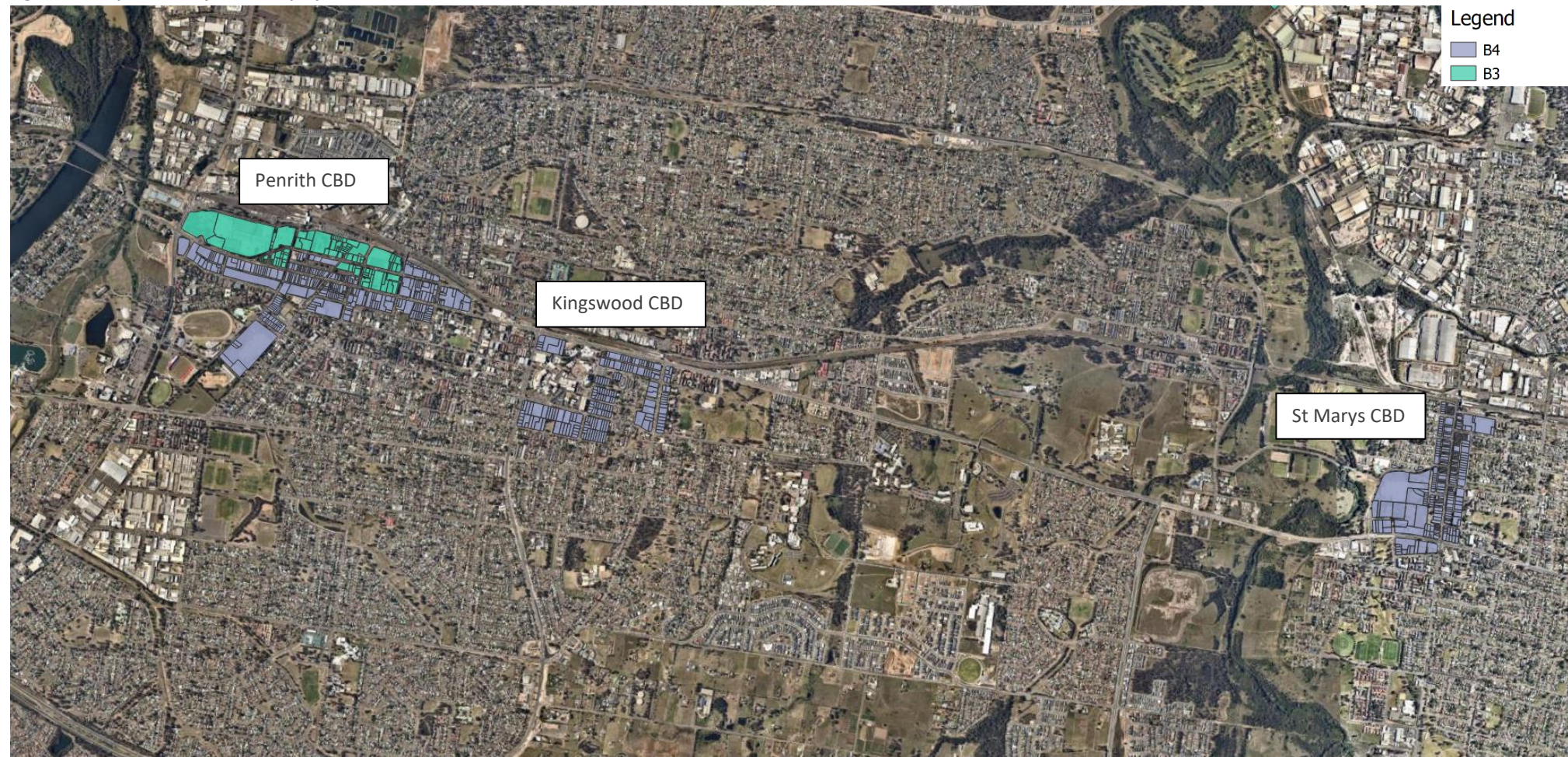
Floorspace	Total (sqm)	% of Total
Agriculture, Forestry and Fishing	0	0.0%
Accommodation and Food Services	18,659	38.6%
Administrative and Support Services	0	0.0%
Arts and Recreation Services	3,952	8.2%
Construction	0	0.0%
Education and Training	0	0.0%
Electricity, Gas, Water and Waste Services	0	0.0%
Financial and Insurance Services	0	0.0%
Health Care and Social Assistance	0	0.0%
Information Media and Telecommunications	0	0.0%
Manufacturing	0	0.0%
Mining	0	0.0%
Other Services	4,370	9.0%
Professional, Scientific and Technical Services	400	0.8%
Public Administration and Safety	0	0.0%
Rental, Hiring and Real Estate Services	0	0.0%
Retail Trade	11,718	24.2%
Transport, Postal and Warehousing	2,289	4.7%
Wholesale Trade	1,626	3.4%
Residential	0	0.0%
Vacant	5,320	11.0%
Total	48,335	100.0%

Source: ABS Census 2016 and HillPDA

7.0 COMMERCIAL CENTRES

For the purposes of this audit the commercial centres were defined as the lands zoned B3 Commercial Core and B4 Mixed-Use under the Penrith LEP 2010. Three such employment precincts have been identified in the Penrith LGA as shown in the figure immediately below.

Figure 31: Map of Primary Retail Employment Lands



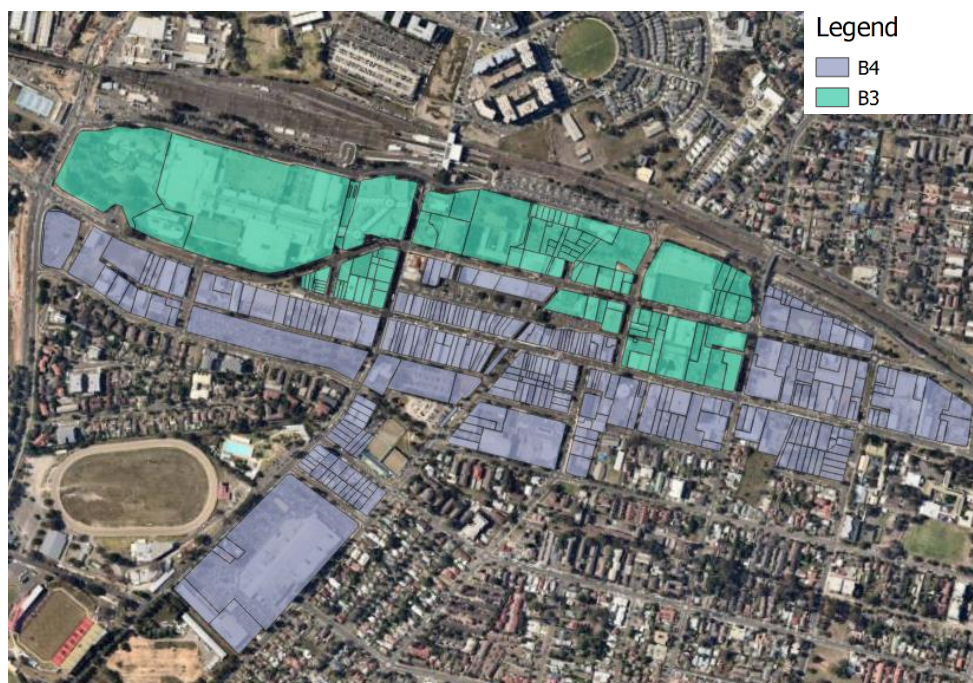
Source: HillPDA

7.1 Penrith CBD

Overview

	Penrith CBD Precinct	All Precincts
Gross floor area (GFA):	539,572sqm (54.1% of all precincts)	996,702sqm
Occupied GFA:	521,811sqm (96.7%)	877,756sqm (88.1%)
Vacant GFA:	17,761sqm (3.3%)	27,847sqm (2.8%)
Key Industry:	Retail Trade (26.3%) Public Administration and Safety (11.2%) Accommodation and Food Services (8.0%)	Health Care and Social Assistance (26.2%) Retail Trade (18.9%) Residential (11.9%)

Penrith CBD Zoning Map



One ANSZIC Code Floorspace Data

Floorspace	Total (sqm)	% of Total	Jobs	% of Total
Agriculture, Forestry and Fishing	-	0.0%	1,202	9.3%
Accommodation and Food Services	43,143	8.0%	377	2.9%
Administrative and Support Services	2,329	0.4%	30	0.2%
Arts and Recreation Services	17,900	3.3%	94	0.7%
Construction	773	0.1%	262	2.0%
Education and Training	11,834	2.2%	565	4.4%
Electricity, Gas, Water and Waste Services	-	0.0%	175	1.4%
Financial and Insurance Services	12,176	2.3%	456	3.5%
Health Care and Social Assistance	33,440	6.2%	2,559	19.8%
Information Media and Telecommunications	4,481	0.8%	199	1.5%
Manufacturing	12,429	2.3%	115	0.9%
Mining	-	0.0%	0	0.0%
Other Services	27,682	5.1%	507	3.9%
Professional, Scientific and Technical Services	36,977	6.9%	716	5.5%
Public Administration and Safety	60,357	11.2%	2,442	18.9%
Rental, Hiring and Real Estate Services	9,637	1.8%	373	2.9%
Retail Trade	141,639	26.3%	2,595	20.1%
Transport, Postal and Warehousing	1,268	0.2%	154	1.2%
Wholesale Trade	-	0.0%	101	0.8%
Residential	15,692	2.9%	-	0.0%
Vacant	17,761	3.3%	-	0.0%
Unidentifiable	6,543	1.2%	-	0.0%
ANZSIC Not Applicable	83,511	15.5%	-	0.0%
Total	539,572	100.0%	12,922	100.0%

Sources: ABS Census 2016, HillPDA and SGS Retail and Commercial Inputs to Penrith City Strategy Study (2017)

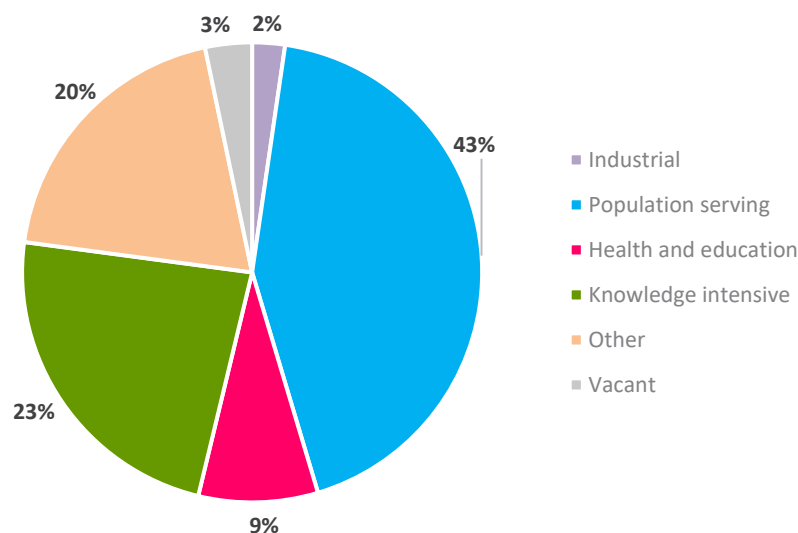
The Penrith CBD is largely zoned as a mixture of B3 – Commercial Core, B4 – Mixed Use and R4 – High Density Residential, arranged in a somewhat radial fashion emanating south from Penrith railway station. The areas outlined in the land use maps figure above were audited as part of the *SGS Retail and Commercial Inputs to Penrith City Strategy Study (March 2017)*. Areas within the B3 – Commercial Core and B4 – Mixed Use zones were specifically used owing to the fact this study is aimed at employment land uses.

Land Use Breakdown by GSC Employment Code & Floorspace

Land use	Floorspace (sqm)	% of Total	Jobs	% of Total
Industrial	12,429	2.3%	576	4.3%
Population Serving	232,405	43.1%	4,661	36.1%
Health/Education	45,274	8.4%	3,124	24.2%
Knowledge Intensive	125,957	23.3%	4,561	35.3%
Other	105,746	19.6%	-	0.0%
Vacant	17,761	3.3%	-	0.0%
Total	539,572	100.0%	12,922	100.0%

Population serving industries occupy a majority of the floorspace with around 232,405sqm or 43.1% being categorised as such. Knowledge intensive uses occupy the second largest amount of space at around 125,957sqm or 23.3% followed by other uses (105,746sqm or 19.6%), health/education services occupying 45,274sqm (8.4%). There is low vacancy rate within the centre sitting at around 3.3% when the audit took place.

Predominant GSC Employment Uses

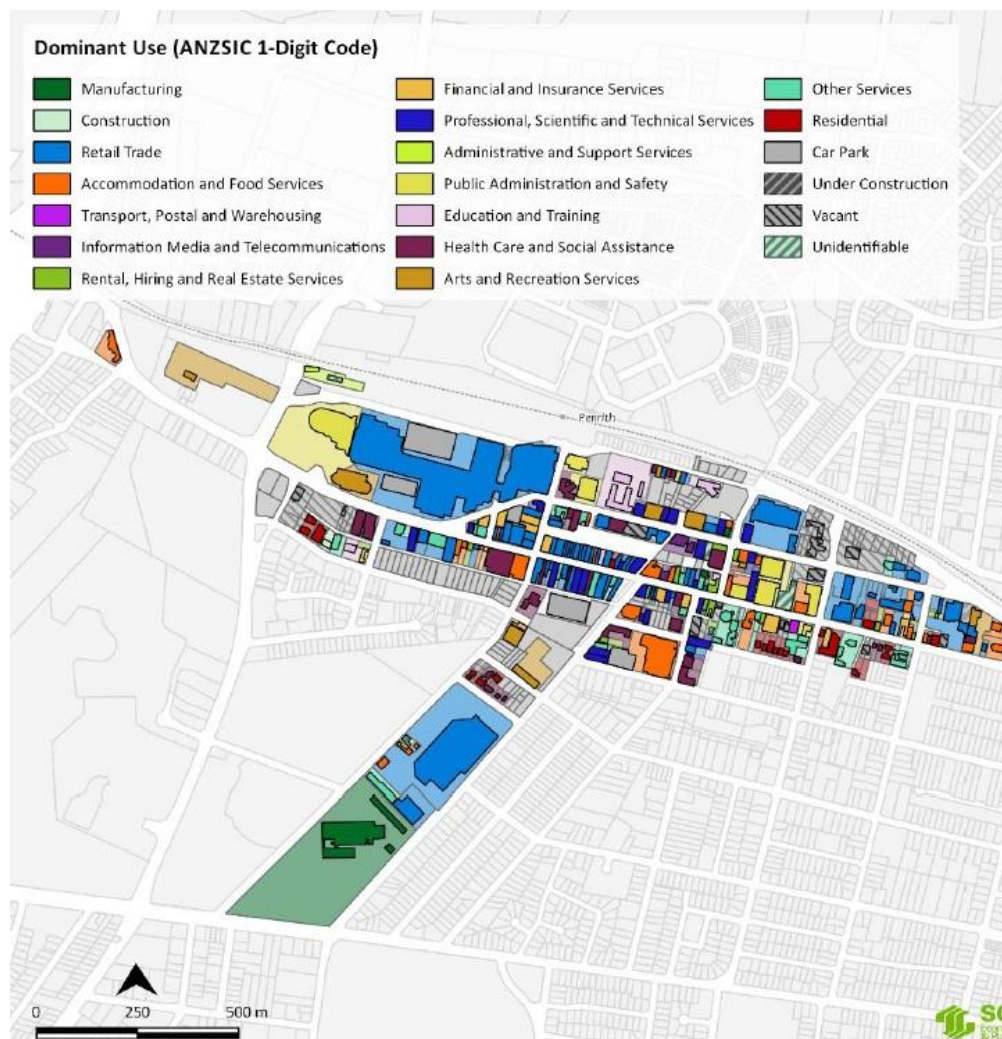


The Penrith CBD contains a significant amount of retail floorspace. There are two shopping malls within the study area, being Westfield Penrith and Nepean Village, with these Big Box Retail developments hosting the majority of the retail floorspace within the CBD. The Westfield alone contains approximately 55% of all floorspace within the Retail Trade 1-digit ANZSIC.

Office floorspace within the CBD is concentrated in several large floorplate buildings adjacent to Penrith Station, largely leased by the State and Federal Governments, as well as several buildings located around the Penrith District Court and Police Station. Lower grade office floorspace is dispersed around the CBD in a number of buildings, and professional services are usually located in the first floor of Main Street Retail premises in certain areas in the CBD and in standalone commercial buildings on the fringe of the retail core.

Overall, vacancy rates typically fall within a range that is considered 'normal' and are neither representative of an undersupply nor an oversupply (2-5%). Spatially, the vacancies are distributed throughout the CBD, however vacancies are slightly more prevalent in the east of the study area, wherein activity on the street level is more dispersed, and is further away from major attractors such as the Westfield mall and the railway station.

Penrith CBD Land Use Map



Source: SGS Retail and Commercial Inputs to Penrith City Strategy

SWOT Analysis

Penrith CBD is the main commercial centre for not only Penrith LGA but for outer-western Sydney which includes the LGAs of Hawkesbury and Blue Mountains and the northern localities of Wollondilly. Its strength includes its sheer size and robustness and is supported by a good level of infrastructure and services. It is home to Penrith Council, Australian Tax Office and State Government agencies. Public transport includes frequent express trains to the Sydney Central as well as regular normal train services.

Sydney West airport and the aerotropolis is expected to improve opportunities for Penrith CBD. There are a strong number of potential redevelopment sites providing good opportunities for a wide range of land uses including commercial space, high density housing and mixed use development.

There are few threats to Penrith CBD but there are a few weaknesses including the lack of activity in the eastern end, the lack of activity in the arcades and the lack of a vibrant night time economy.

There are opportunities for vertical expansion of the CBD including the redevelopment of several car park sites such as Union Road and Soper Place. There are several sites immediately to the north side of the railway line in the Thornton estate still to be developed including the 3.7 hectare multi-user Defence site (zoned SP1) which was a commitment under the Western Sydney City Deal.

7.2 St Marys CBD

Overview

	St Marys CBD Precinct	All Precincts
Gross floor area (GFA):	127,566sqm (12.8% of all precincts)	996,702sqm
Occupied GFA:	126,520sqm (99.2%)	877,756sqm (88.1%)
Vacant GFA:	17,761sqm (0.8%)	27,847sqm (2.8%)
Key Industry:	Retail Trade (33.2%) Accommodation and Food Services (14.3%) Education and Training (7.5%)	Health Care and Social Assistance (26.2%) Retail Trade (18.9%) Residential (11.9%)

St Marys CBD Zoning Map



One ANSZIC Code Floorspace Data

Floorspace	Total (sqm)	% of Total	Jobs	% of Total
Agriculture, Forestry and Fishing	-	0.0%	388	14.1%
Accommodation and Food Services	18,189	14.3%	112	4.1%
Administrative and Support Services	6,783	5.3%	0	0.0%
Arts and Recreation Services	4,425	3.5%	89	3.2%
Construction	-	0.0%	93	3.4%
Education and Training	9,592	7.5%	216	7.9%
Electricity, Gas, Water and Waste Services	-	0.0%	0	0.0%
Financial and Insurance Services	4,407	3.5%	93	3.4%
Health Care and Social Assistance	7,797	6.1%	437	15.9%
Information Media and Telecommunications	-	0.0%	12	0.4%
Manufacturing	-	0.0%	45	1.6%
Mining	-	0.0%	0	0.0%
Other Services	6,650	5.2%	122	4.4%
Professional, Scientific and Technical Services	2,132	1.7%	139	5.0%
Public Administration and Safety	2,822	2.2%	295	10.7%
Rental, Hiring and Real Estate Services	3,020	2.4%	135	4.9%
Retail Trade	42,365	33.2%	534	19.4%
Transport, Postal and Warehousing	-	0.0%	37	1.3%
Wholesale Trade	-	0.0%	8	0.3%
Residential	8,991	7.0%	-	0.0%
Vacant	9,347	7.3%	-	0.0%
Unidentifiable	1,046	0.8%	-	0.0%
Total	127,566	100.0%	2,756	100.0%

Sources: ABS Census 2016, HillPDA and SGS Retail and Commercial Inputs to Penrith City Strategy Study (2017)

The St Marys CBD is largely zoned B4 – Mixed Use.

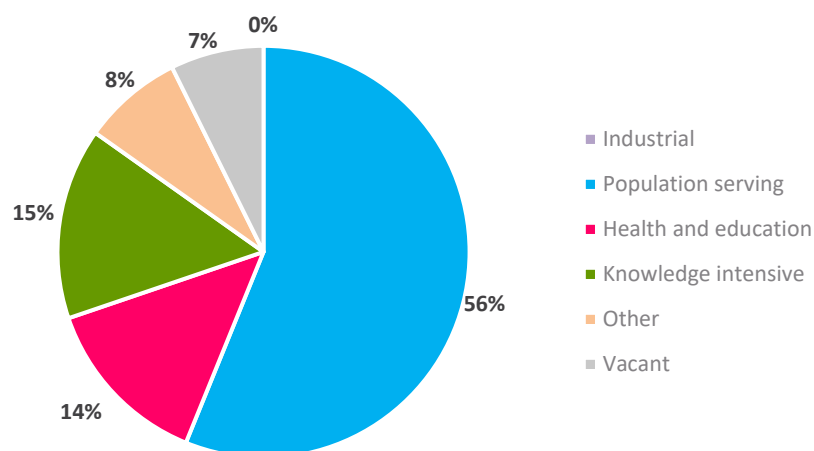
The areas outlined in the land use maps figure above were audited as part of the *SGS St Marys Town Centre – Economic Activity Study (July 2019)*. Areas within the B4 – Mixed Use zones were specifically used owing to the fact this study is aimed at employment land uses. As noted in the SGS report some areas outside of these zones have been included in the audit process.

Land Use Breakdown by GSC Employment Code & Floorspace

Land use	Floorspace (sqm)	% of Total	Jobs	% of Total
Industrial	0	0.0%	90	3.3%
Population serving	71,629	56.2%	1,226	44.5%
Health/education	17,389	13.6%	653	23.7%
Knowledge intensive	19,164	15.0%	787	28.5%
Other	10,037	7.9%	-	0.0%
Vacant	9,347	7.3%	-	0.0%
Total	127,566	100.0%	2,756	100.0%

Population serving industries occupy a majority of the floorspace with around 71,629sqm or 56.2% being categorised as such. Knowledge intensive uses occupy the second largest amount of space at around 19,164sqm or 15.0% followed by health/education (17,389sqm or 13.6%) and other uses (10,037sqm or 7.9%). There is average vacancy rate within the centre sitting at around 7.3% when the audit took place. Overall, vacancy rates typically fall within a range that is considered 'normal', and neither representative of an undersupply nor an oversupply (2-5%).

Predominant GSC Employment Uses



Retail Trade is a significant contributor to the local economy of St Marys. Running the length of Queen Street is a miscellaneous mix of independent stores selling homewares and food goods. There are also numerous stores offering services such as café and restaurants, medical, real estate, personal services such as hair dressing salons and barbers, public administration, employment and social assistance services and recreation businesses such as gym facilities.

Several arcades run east-west off the main retail strip towards the carparks that run parallel to Queen Street. These also contain a variety of retailers including barbers, engineering and financial service offices, beautician and clothing stores. Activity within the arcades tended to be subdued compared to Queen Street and the shopping centres. St Marys Village contains key anchor stores Woolworths, Target and BWS. Other stores include telecommunications, clothing and fresh food retailing. Services in the Village include cafes, fast food, personal services such as hair and beauty. There is also a medical centre and pharmacy.

St Marys CBD Land Use Map



Source: SGS St Marys Town Centre – Economic Activity Study

SWOT Analysis

Retail Trade is the significant contributor to the local economy of St Marys. The main street (Queen Street) includes a miscellaneous mix of independent stores selling food, personal and household goods, cafés and restaurants, medical, real estate and personal services. The large anchor stores supermarkets and discount department stores are in the indoor centres away from the main street.

The Metro line from Sydney West Airport is expected to significantly improve the opportunities for St Marys. Its likely that services on the Western Railway line will improve by adding express trains to the City. Some redevelopment and increased residential densities will benefit the town centre.

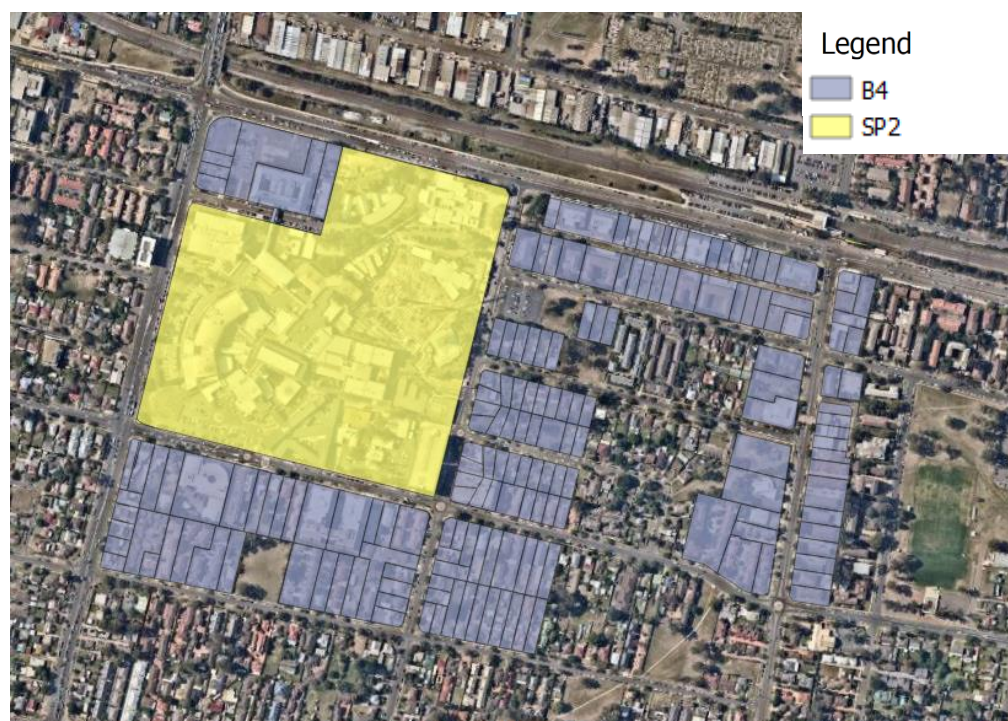
The main weaknesses include the dispersed urban form, the poor integration of the indoor shopping malls to the main street, the lack of a vibrant night time economy and the poor market appetite for commercial office space.

7.3 Kingwood CBD

Overview

	Kingwood CBD Precinct	All Precincts
Gross floor area (GFA):	329,565sqm (33.1% of all precincts)	996,702sqm
Occupied GFA:	328,826sqm (99.8%)	877,756sqm (88.1%)
Vacant GFA:	739sqm (0.2%)	27,847sqm (2.8%)
Key Industry:	Health Care and Social Assistance (66.6%) Residential (28.5%) Education and Training (1.6%)	Health Care and Social Assistance (26.2%) Retail Trade (18.9%) Residential (11.9%)

Land Use Maps



One ANSZIC Code Floorspace Data

Floorspace	Total (sqm)	% of Total	Jobs	% of Total
Agriculture, Forestry and Fishing	0	0.0%	38	1.0%
Accommodation and Food Services	1,803	0.5%	29	0.8%
Administrative and Support Services	0	0.0%	0	0.0%
Arts and Recreation Services	0	0.0%	0	0.0%
Construction	0	0.0%	14	0.4%
Education and Training	5,160	1.6%	41	1.1%
Electricity, Gas, Water and Waste Services	0	0.0%	0	0.0%
Financial and Insurance Services	0	0.0%	24	0.6%
Health Care and Social Assistance	219,632	66.6%	3,394	91.5%
Information Media and Telecommunications	0	0.0%	0	0.0%
Manufacturing	0	0.0%	0	0.0%
Mining	0	0.0%	0	0.0%
Other Services	0	0.0%	11	0.3%
Professional, Scientific and Technical Services	2,906	0.9%	15	0.4%
Public Administration and Safety	1,187	0.4%	87	2.4%
Rental, Hiring and Real Estate Services	0	0.0%	0	0.0%
Retail Trade	4,239	1.3%	26	0.7%
Transport, Postal and Warehousing	0	0.0%	29	0.8%
Wholesale Trade	0	0.0%	3	0.1%
Residential	93,899	28.5%	-	0.0%
Vacant	739	0.2%	-	0.0%
Unidentifiable	-	0.0%	-	0.0%
Total	329,565	100.0%	3,711	100.0%

Sources: ABS Census 2016 and HillPDA

The Kingwood CBD is largely zoned as B4 – Mixed Use and SP2 – Infrastructure. The areas outlined in the land use maps figure above were audited as part of this study. Areas within the B4 – Mixed Use and SP2 – Infrastructure zones were specifically audited owing to the fact this study is aimed at employment land uses. Given the mostly residential uses within the zoning a significant portion of the existing floorspace is non-employment land uses (28.5%).

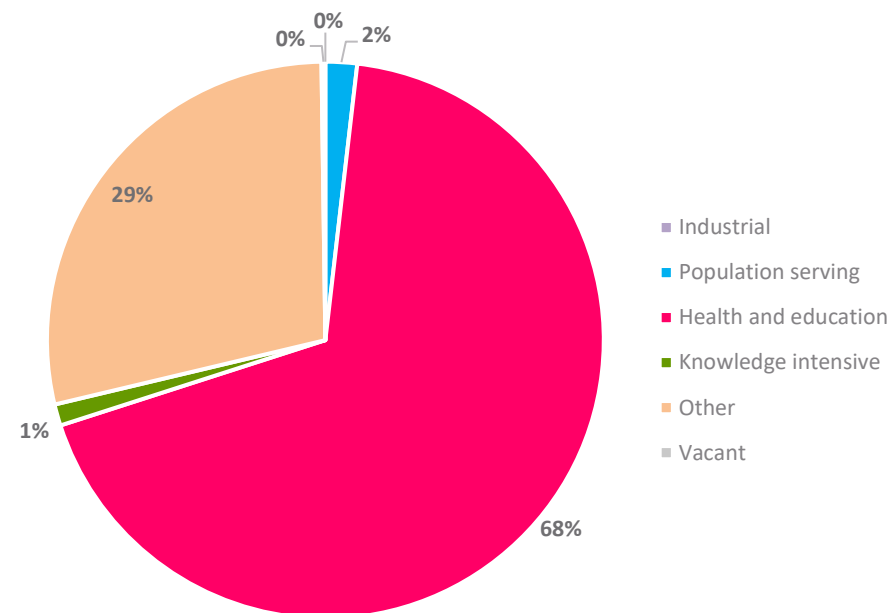
Running the length of the Great Western Highway is a miscellaneous mix of independent stores selling specialty food and non-food goods. There are also numerous stores offering services such as café and restaurants, medical, real estate and personal services such as hair and beauty.

Land Use Breakdown by GSC Employment Code & Floorspace

Land use	Floorspace (sqm)	% of Total	Jobs	% of Total
Industrial	0	0.0%	32	2.4%
Population serving	6,042	1.8%	89	6.2%
Health/education	224,792	68.2%	3,435	73.5%
Knowledge intensive	4,093	1.2%	155	17.9%
Other	93,899	28.5%	-	0.0%
Vacant	739	0.2%	-	0.0%
Total	329,566	100.0%	3,711	100.0%

In total, the precinct provides around 329,566sqm of floorspace with health/education industries occupying a majority of the floorspace with around 224,792sqm or 68.2% being categorised as such. Other uses occupy the second largest amount of space at around 93,899sqm or 28.5% followed by population serving uses occupying 6,042sqm (1.8%) and knowledge intensive services uses (4,093sqm or 1.2%). There is a below average vacancy rate within the centre sitting at around 0.2% when the audit took place.

Predominant GSC Employment Uses



Land Use Map



Source: HillPDA Survey 2019

EMPLOYMENT PRECINCT FLOORSPACE DEMAND

8.0 EMPLOYMENT PRECINCT FLOORSPACE DEMAND

The following Chapter projects the amount of additional industrial and urban support space to be accommodated in Penrith’s employment precincts. This growth in demand is required to support growth in the number of residents, workers and visitors.

8.1 Employment precinct floorspace projections

The methodology for projecting the demand for employment precincts is as follows:

1. Analyse State Government employment projections at the LGA level
2. Identify the net growth/decline in employment at the ANZSIC 1-Digit industry level between 2016 and 2041 and at the LGA level
3. Estimate the amount of employment directed towards the employment precincts by industry type based on zoning of land, land use audit and employment/market trends. This is achieved by applying a distribution proportion to the net growth/decline in employment at the industry level. For example, 83% of jobs in manufacturing would be located in the six major industrial precincts, 3% in the Penrith and St Marys town centres and 14% to other localities.
4. Translate net growth in employment directed towards the employment precincts to floorspace by applying industry standard employment densities (the amount of floorspace required per worker) by industry type
5. Allocate the growth/decline in employment space to each employment precincts at the individual level based on their current market share. For example, an employment precinct with a higher market share of manufacturing space would be allocated a greater market share of the net growth/decline in manufacturing space.

8.1.1 Employment projections analysis

Transport for NSW 2016 employment projections was used as the base case data to project the demand for floor space in the employment precincts. Please note that these forecasts have not been updated from the 2016 Census but nevertheless were the most recent State Government employment projections at the time of this study.

Transport for NSW forecasts more than 56,000 more jobs at an aggregate level for the whole of the LGA to 2041. If we adopt the Census 2016 data as the base case then forecast increase in jobs to 2041 is almost 60,500. This is reasonably consistent with Council’s target for 55,000 new jobs from 2016 to 2036.

Table 14 provides a summary of the total and net growth in employment from 2016 to 2041. Overall, employment in the LGA is forecast to increase from 75,900 jobs or 81% over the period, reaching a total of more than 135,000 jobs.

Table 14: Penrith LGA employment projections

Industry Type	2016	2041	Change	Change (%)
Agriculture, Forestry and Fishing	784	658	-127	-16%
Mining	181	259	78	43%
Manufacturing	6,128	9,296	3,168	52%
Electricity, Gas, Water and Waste Services	1,050	2,180	1,129	108%
Construction	6,941	10,488	3,547	51%
Wholesale Trade	2,032	6,010	3,978	196%
Retail Trade	8,550	15,765	7,215	84%
Accommodation and Food Services	5,299	8,893	3,594	68%
Transport, Postal and Warehousing	4,652	10,772	6,119	132%
Information Media & Telecom.	512	755	243	47%
Financial and Insurance Services	1,041	2,970	1,929	185%
Rental, Hiring and Real Estate Services	1,206	3,185	1,979	164%
Professional, Scientific & Technical Services	2,481	9,304	6,823	275%
Administrative and Support Services	1,951	4,871	2,920	150%
Public Administration and Safety	5,476	8,721	3,245	59%
Education and Training	8,918	12,575	3,657	41%
Health Care and Social Assistance	13,731	19,650	5,919	43%
Arts and Recreation Services	1,028	2,348	1,320	128%
Other Services	2,918	6,658	3,741	128%
TOTAL	74,881	135,358	60,477	81%

Sources: ABS Census 2016, Transport for NSW 2016 and HillPDA

The above employment projections are LGA wide. These jobs will be distributed in different zones and precincts including industrial areas, commercial centres, special use zones (such as health, education precincts and tourism), rural areas and home based work. The proportional distribution to these zones will vary between industries. Based on Journey to Work 2016 data, Transport for NSW projections 2016 to 2041 and relevant State and local planning strategies we have allocated the increase in jobs to the following precincts.

Table 15: Target allocation of future jobs by industry type

Industry	Penrith CBD and St Marys T.C.	Industrial Areas*	Health and Education Precinct**	Other	TOTAL
Agriculture, Forestry and Fishing	0%	7%	0%	93%	100%
Mining	0%	50%	0%	50%	100%
Manufacturing	2%	85%	5%	8%	100%
Electricity, Gas, Water & Waste	17%	65%	1%	17%	100%
Construction	5%	45%	5%	45%	100%
Wholesale Trade	5%	77%	0%	17%	100%
Retail Trade	40%	25%	6%	29%	100%
Accommodation and Food Services	35%	15%	5%	45%	100%
Transport, Postal and Warehousing	5%	75%	2%	18%	100%
Information Media & Telecomm.	40%	30%	5%	25%	100%
Financial and Insurance Services	60%	14%	5%	21%	100%
Rental, Hiring and Real Estate Services	45%	28%	1%	26%	100%
Professional, Scientific & Technical S.	30%	18%	30%	22%	100%
Administrative and Support Services	25%	22%	12%	41%	100%
Public Administration and Safety	55%	9%	12%	24%	100%
Education and Training	10%	8%	40%	42%	100%
Health Care and Social Assistance	25%	5%	40%	30%	100%
Arts and Recreation Services	20%	25%	10%	45%	100%
Other Services	22%	38%	6%	34%	100%
ALL INDUSTRIES	24%	34%	14%	28%	100%

* The six main precincts being St Marys North, Penrith North, Erskine Park, Emu Plains, Kingswood and Jamisontown

** Includes Nepean Hospital, WSU (Kingswood & Werrington campuses), Kingswood TAFE and shops

The net increase in jobs by industry type is forecast in the employment precincts as shown in the table immediately below.

Table 16: Net increase in jobs 2016-2041 by precinct type by industry type

Industry	Penrith CBD and St Marys T.C.	Industrial Areas*	Health and Education Precinct**	Other	TOTAL
Agriculture, Forestry and Fishing	0	-9	0	-118	-127
Mining	0	39	0	39	78
Manufacturing	63	2,693	158	253	3,168
Electricity, Gas, Water & Waste Services	192	734	7	197	1,129
Construction	182	1,596	177	1,592	3,547
Wholesale Trade	215	3,074	16	673	3,978
Retail Trade	2,886	1,804	433	2,092	7,215
Accommodation and Food Services	1,258	539	180	1,617	3,594
Transport, Postal & Warehousing	306	4,590	122	1,102	6,119
Information Media & Telecomm.	97	73	12	61	243
Financial and Insurance Services	1,158	264	105	403	1,929
Rental, Hiring & Real Estate Services	890	554	10	524	1,979
Professional, Scientific & Technical S.	2,047	1,228	2,047	1,501	6,823
Administrative and Support Services	730	643	350	1,197	2,920
Public Administration and Safety	1,785	295	389	775	3,245
Education and Training	366	282	1,463	1,546	3,657
Health Care and Social Assistance	1,480	285	2,368	1,787	5,919
Arts and Recreation Services	264	330	132	594	1,320
Other Services	823	1,435	224	1,259	3,741
ALL INDUSTRIES	14,741	20,448	8,194	17,095	60,477

* The six main precincts being St Marys North, Penrith North, Erskine Park, Emu Plains, Kingswood and Jamisontown

** Includes Nepean Hospital, WSU (Kingswood & Werrington campuses), Kingswood TAFE and shops

Source: Transport for NSW forecasts and HillPDA

Please note that the increase in jobs in Penrith CBD and St Marys town centre (14,741 more jobs) is twice as high as Transport for NSW forecast of just 7,000 more jobs. Also the net increase in the Health and Education precinct (8,194) is more than double than Transport for NSW's forecast (3,454 jobs). We believe Transport for NSW is too conservative in relation to these precincts and probably hasn't reflected the efforts by Council, the District

Plan and the LSPS to provide for growth in these centres. Our forecast for the industrial areas is also a little higher with around 2,800 more jobs than forecast by Transport for NSW.

Please note that above figures should be treated as targets in the sense that these are the numbers that should be planned for. Of course there are no guarantees or certainties that these forecasts would be achieved.

8.1.2 Floorspace demand projections

Employment is translated into floorspace needs by applying industry standard employment densities (floorspace in square metres per worker) to the net increase in workers by industry type in the employment precincts. The data on employment densities was derived from various sources including the study's land use audit, Journey to Work and Transport for NSW employment figures.

Table 17: Assumed Employment Densities (sqm/worker)

	Penrith CBD and St Marys T.C.	Industrial Areas*	Health and Education Precinct**
Agriculture, Forestry and Fishing	23	80	35
Mining	23	80	35
Manufacturing	23	80	35
Electricity, Gas, Water and Waste Services	23	80	35
Construction	23	80	35
Wholesale Trade	23	80	35
Retail Trade	35	80	35
Accommodation and Food Services	30	80	35
Transport, Postal and Warehousing***	23	220	35
Information Media and Telecommunications	23	80	35
Financial and Insurance Services	23	80	25
Rental, Hiring and Real Estate Services	23	80	25
Professional, Scientific and Technical Services	23	80	25
Administrative and Support Services	23	80	30
Public Administration and Safety	23	80	30

Education and Training	35	80	50
Health Care and Social Assistance	35	80	50
Arts and Recreation Services	35	80	30
Other Services	30	80	30
ALL INDUSTRIES	28	111	39

* The six main precincts being St Marys North, Penrith North, Erskine Park, Emu Plains, Kingswood and Jamisontown

** Includes Nepean Hospital, WSU (Kingswood & Werrington campuses), Kingswood TAFE and shops

*** Transport, postal and warehousing in the industrial precincts are predominantly low density employment uses. Much of the space is used for storage and robotics is increasingly utilised. This results in low job densities in the Erskine Park / Kemps Creek area.

Based on the above the forecast of employment floor space is summarised as follows:

Table 18: Required employment floor space to 2041 (sqm)

	Penrith CBD	St Marys Town Centre	Industrial Areas*	Health and Education Precinct**
Existing Occupied Employment Space	431,800	108,200	4,084,400	154,700
Vacant Floor Space	12,900	9,300	197,700	700
TOTAL	444,700	117,500	4,282,100	155,400
Required floor space in 2041	759,500	190,100	6,362,700	471,800
Target vacancy @ 4%	30,400	7,600	254,500	18,900
Required net Increase in floor space	345,000	80,000	2,335,000	335,000

* The six main precincts being St Marys North, Penrith North, Erskine Park, Emu Plains, Kingswood and Jamisontown

** Includes Nepean Hospital, WSU (Kingswood & Werrington campuses), Kingswood TAFE and shops

In approximate figures Penrith CBD will require around 345,000sqm more employment floor space, St Marys around 80,000 more square metres, the Health and Education precinct almost 335,000sqm more and the industrial areas around 2.3 million square metres more floor space.

CAPACITY ASSESSMENT

9.0 CAPACITY ASSESSMENT

The following Chapter undertakes an assessment of the capacity for each employment precinct and commercial centre to accommodate the projected growth in demand. Current land supply levels are shown in the table immediately below:

Table 19: Current land supply by Precinct (hectares)

Precinct	Develpd	Under-const'n	Vacant storage	Vacant land	TOTAL
Kingswood Industrial	18.4	0.0	0.7	1.5	20.6
St Marys Industrial	247.7	1.5	9.7	48.2	307.0
Erskine Park Industrial	376.6	6.9	4.7	327.3	715.5
Jamisontown Industrial	75.7	0.0	0.0	1.2	76.9
Penrith North Industrial	188.4	3.4	3.5	66.1	261.3
Emu Plains Industrial	108.5	0.3	17.1	18.5	144.5
TOTAL	1,015.3	12.2	35.6	462.7	1,525.8
Penrith CBD*					76.0
St Marys Town Centre*					40.0
Health and Education Precinct**					203.9
Other Misc. (includes B6 zones)	26.8	0	0.8	4.8	32.4

* Measured from aerial photography (includes internal roads)

** Werrington and Kingswood tertiary education campuses and Nepean Hospital. 71 hectares of this land is zoned B5 with significant potential for more intense development or redevelopment.

Penrith CBD and St Marys Town Centre have few vacant sites but there is potential to accommodate space through the redevelopment of existing sites. In particular mixed-use development including both commercial uses and residential is an option that may improve the viability of redevelopment.

The six main industrial areas provide around 4.1 million square metres of building area over 10 million square metres of land. We expect future sites to be developed with a little

more efficiency with an FSR of around 0.5 to 0.6:1 gross (including local roads) or FSR 0.65:1 to 0.75:1 on saleable land due to increasing scarcity of land and rising land prices.

With a requirement to accommodate 2.3 million more square metres of industrial floor space this translates to a land requirement of around 400 to 450 hectares.

With 463 hectares of available land, the supply is just sufficient to meet demand to 2041. Nevertheless this should be monitored regularly to ensure that supply remains strong. A strong supply of zoned land is important to maintain affordability. The 463 hectares of vacant land excludes Sydney Science Park and the Aerotropolis and there may be some opportunity for these locations to accommodate some of this demand. There is more than 1,100 hectares of land in Penrith and Liverpool LGAs proposed to accommodate predominantly airport related and other employment uses. These lands could provide a significant contribution towards meeting Penrith's demands for employment lands over the next several decades.

Beyond 2030 we may also see some changes in the existing industrial precincts with under-capitalised sites being redeveloped to provide more efficient work spaces. As land becomes increasingly scarce there may be more efficient real estate solutions to manufacturing, warehousing and new industries. We are seeing the emergence of multi-storey warehousing for example in large cities overseas and also in the inner suburbs of Sydney such as Alexandria.

The Health and Education precinct (Kingswood and Werrington) has few undeveloped sites but the large tertiary education campuses were developed with low FSRs. There is strong potential for staged redevelopment over the next three decades to meet the required growth in demand. The demand for employment space is for a further 335,000sqm to 2041 but with more than 200 hectares of land supply is reasonably strong. 335,000sqm of employment floor space in the precinct requires no more than around 50 hectares of land (gross) or say 40 hectares assuming an FSR of around 1:1.

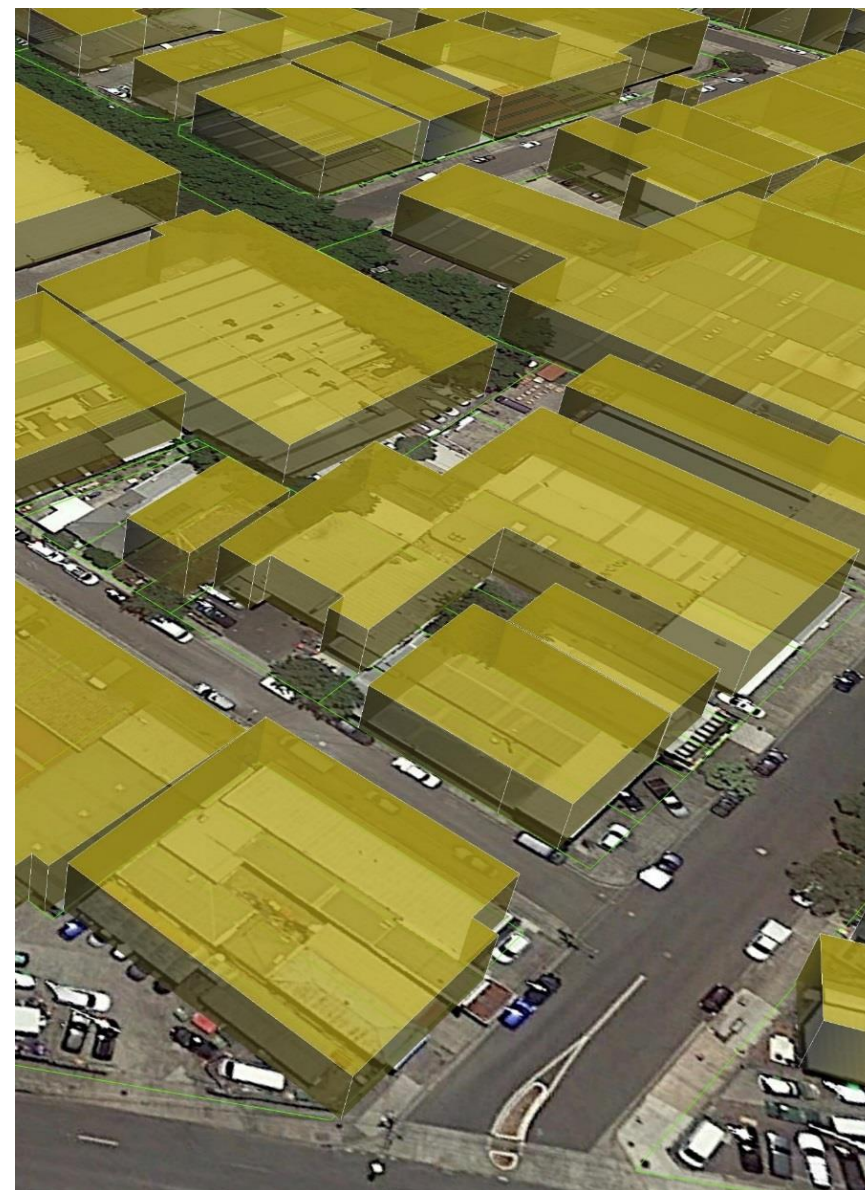
APPENDICES

APPENDIX A: LAND USE AUDIT METHOD

Each employment precinct / commercial centre was visited by one to two HillPDA representatives. For each lot in the corresponding precinct/commercial centre, the surveyor noted down; business name; its industry type at the ANZSIC 1-digit code level or broad retail type; the proportion of the building it was occupying and its level in the building.

Data on building envelope sizes for business and employment areas has been obtained from Geoscape (see example in figure below) and cross-check with Nearmap. The building envelope data was mapped against the cadastre, and total building GFA was calculated per lot. The GFA was then matched against the on-ground audit data, producing GFA for each usage category per lot.

Any difficult or unknown business categories were supplemented using ABR data and internet sources.



APPENDIX B: NSW EMPLOYMENT LANDS DEVELOPMENT MONITOR 2019

District	LGA	IN1 General Industrial (ha)			IN2 Light Industrial (ha)			IN3 Heavy Industrial (ha)			IN4 Working Waterfront (ha)			B5 Business Development (ha)			B6 Enterprise Corridor (ha)			B7 Business Park (ha)			Grand Total		
		Undev.	Developed	Total	Undev.	Developed	Total	Undev.	Developed	Total	Undev.	Developed	Total	Undev.	Developed	Total	Undev.	Developed	Total	Undev.	Developed	Total	Undev.	Developed	Total
Central City	Blacktown	679.7	1,058.2	1,737.9	117.1	328.5	445.6	-	-	-	-	-	-	31.1	184.7	215.8	4.0	1.2	5.1	83.8	142.8	226.6	915.7	1,715.3	2,631.1
	Cumberland	25.4	851.0	876.4	42.8	161.6	204.4	-	-	-	-	-	-	0.2	17.3	17.5	4.0	113.8	117.8	-	13.3	13.3	72.4	1,157.0	1,229.4
	Parramatta	13.1	393.7	406.8	0.9	25.0	25.9	25.9	201.7	227.6	-	-	-	5.8	18.7	24.5	0.9	70.1	71.0	-	9.5	9.5	46.7	718.6	765.3
	The Hills	-	14.7	14.7	54.2	94.3	148.5	-	-	-	-	-	-	2.4	40.8	43.2	80.0	13.0	93.0	93.4	136.6	230.0	230.1	299.4	529.5
Eastern City	Bayside	14.2	258.4	272.6	1.1	56.5	57.6	-	-	-	-	-	-	0.3	36.5	36.9	-	6.2	6.3	0.7	51.5	52.2	16.4	409.2	425.6
	Burwood	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	8.7	8.7	-	-	-	0.1	8.7	8.7
	Canada Bay	0.4	29.3	29.7	-	-	-	-	-	-	-	-	-	-	-	-	-	11.5	11.5	-	7.4	7.4	0.4	48.2	48.6
	Inner West	3.6	113.1	116.7	0.4	65.2	65.5	-	-	-	-	-	-	-	13.6	13.7	0.7	50.1	50.8	-	7.0	7.0	4.7	249.0	253.7
	Randwick	3.3	56.6	59.9	0.4	11.0	11.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.7	67.6	71.3
	Strathfield	29.6	243.5	273.1	-	2.9	2.9	-	-	-	-	-	-	-	-	-	2.9	9.1	12.0	-	3.2	3.2	32.5	258.7	291.2
	Sydney	1.2	48.3	49.5	-	-	-	-	-	-	-	-	-	-	2.8	2.8	1.4	102.9	104.3	1.9	52.9	54.7	4.5	206.9	211.4
	Waverley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Woollahra	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North	Hornsby	17.0	102.6	119.6	1.3	36.0	37.2	-	-	-	-	1.3	1.3	0.1	6.9	7.0	0.5	22.0	22.5	-	-	-	18.9	168.7	187.6
	Ku-Ring-Gai	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	1.1	-	-	-	-	11.7	11.7	-	12.8	0.2
	Hunters Hill	-	-	-	-	-	-	-	-	-	-	0.2	0.2	-	-	-	-	-	-	-	-	-	-	0.2	12.8
	Lane Cove	-	-	-	5.9	47.8	53.7	-	-	-	-	7.7	7.7	-	-	-	-	-	-	-	-	-	5.9	55.4	61.4
	Mosman	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.9	2.9	-	-	-	-	2.9	2.9
	North Sydney	-	-	-	-	2.6	2.6	-	-	-	0.9	1.8	2.7	-	-	-	-	-	-	-	-	-	0.9	4.5	5.4
	Northern Beaches	1.2	123.7	124.9	0.4	51.3	51.7	-	-	-	-	1.5	1.5	-	19.9	19.9	-	11.0	11.0	3.5	106.8	110.3	5.2	314.2	319.3
	Ryde	-	-	-	10.8	22.3	33.1	-	-	-	-	1.6	1.6	-	5.0	5.0	-	5.3	5.3	6.7	81.4	88.1	17.5	115.6	133.1
South	Willoughby	0.5	43.2	43.7	1.1	47.2	48.3	-	-	-	-	-	-	-	8.0	8.0	-	-	-	1.2	3.4	4.7	2.8	101.8	104.7
	Canterbury-Bankst	23.2	610.0	633.2	10.0	310.6	320.6	-	-	-	-	-	-	2.4	42.4	44.8	-	13.7	13.8	1.9	13.7	15.6	37.5	990.4	1,027.9
	Georges River	-	-	-	3.3	95.9	99.2	-	-	-	-	-	-	-	-	-	-	1.9	1.9	-	-	-	3.3	97.8	101.1
Western City	Sutherland	49.1	215.6	264.7	0.2	25.5	25.7	68.1	170.3	238.3	0.2	3.9	4.1	0.5	19.9	20.4	0.9	13.5	14.4	4.8	35.7	40.5	123.8	484.3	608.1
	Blue Mountains	26.7	49.9	76.6	9.8	9.7	19.5	-	-	-	-	-	-	-	-	-	-	-	-	8.4	12.3	20.7	44.9	71.8	116.7
	Camden	83.4	168.6	252.1	69.7	35.6	105.3	-	-	-	-	-	-	31.8	44.2	76.0	-	-	-	69.0	3.0	72.0	254.0	251.4	505.4
	Campbelltown	86.3	512.2	598.6	5.8	86.7	92.5	-	-	-	-	-	-	6.9	61.8	68.7	-	-	-	6.0	-	6.0	105.0	660.8	765.8
	Fairfield	78.6	766.8	845.4	5.6	70.4	75.9	-	-	-	-	-	-	3.8	101.1	104.8	0.4	5.6	6.0	-	-	-	88.4	943.9	1,032.2
	Hawkesbury	27.8	116.0	143.8	1.4	44.0	45.4	-	-	-	-	-	-	8.0	20.9	28.9	0.9	6.0	6.9	-	-	-	38.2	186.9	225.0
	Liverpool	185.7	428.7	614.4	51.2	118.8	170.0	42.1	276.1	318.2	-	-	-	34.7	39.4	74.1	9.2	59.1	68.4	-	-	-	323.0	922.1	1,245.1
	Penrith	550.8	858.1	1,408.9	27.5	15.9	43.4	-	-	-	-	-	-	3.0	68.4	71.4	5.9	23.3	29.2	152.0	73.0	225.1	739.3	1,038.8	1,778.1
Wollondilly	51.8	4.3	56.1	57.3	68.9	126.3	57.6	47.1	104.7	-	-	-	5.7	0.4	6.1	-	-	-	-	-	-	172.4	120.8	293.2	
Greater Sydney Total		1,952.9	7,066.5	9,019.4	478.3	1,834.3	2,312.6	193.7	695.2	888.8	1.2	17.9	19.1	136.8	753.9	890.7	112.0	550.9	662.9	433.3	765.1	1,198.4	3,308.0	11,683.8	14,991.9

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29 April 2020

Dear Paula

Addendum to Penrith Employment Lands Study

HillPDA recently completed the Penrith Employment Land Use Study. Amongst other outcomes the study provided advice on whether the quantum of employment land is sufficient to achieve adopted job targets and fulfil Penrith's role in line with Greater Sydney Commission's (GSC) Greater Sydney Region Plan and Western City District Plan (2018).

The study concluded that 400 to 450 hectares of industrial zoned land would be required to meet projected demand to the year 2041. The supply side is summarised in the table immediately below.

Table 1: Penrith City Employment Lands Existing Supply

Precinct*	Developed	Under-construction	Vacant storage	Vacant land	TOTAL
Kingswood Industrial	18.4	0.0	0.7	1.5	20.6
St Marys Industrial	247.7	1.5	9.7	48.2	307.0
Erskine Park Industrial	376.6	6.9	4.7	327.3	715.5
Jamisontown Industrial	75.7	0.0	0.0	1.2	76.9
Penrith North Industrial	188.4	3.4	3.5	66.1	261.3
Emu Plains Industrial	108.5	0.3	17.1	18.5	144.5
TOTAL	1,015.3	12.2	35.6	462.7	1,525.8
Penrith CBD					76.0
St Marys Town Centre					40.0
Health and Education Precinct**					203.9
Other Misc. (includes B6 zones)	26.8	0	0.8	4.8	32.4

* Excludes Aerotropolis and Sydney Science Park

** Werrington and Kingswood tertiary education campuses and Nepean Hospital. 71 hectares of this land is zoned B7 with significant potential for more intense development or redevelopment

With at least 463 hectares of vacant land the forecast implies that there is sufficient supply to meet demand to 2041. However it is important to maintain a strong supply of land to minimise the problems of increasing land scarcity which results in land price escalations thereby undermining development feasibility and the ability of achieving job targets.

Forecast demand for industrial lands were based on Forecast.ID population projections to 2036, Transport for NSW job projections (at the time of the study) and Council’s target for 55,000 more jobs from 2016 to 2036 under its Penrith Economic Development Strategy 2017 (PEDS).

The primary goal of the ambitious target for 55,000 new jobs under PEDS is to vastly improve the job containment ratio (JCR) where:

$$JCR = \frac{\text{Jobs in the LGA}}{\text{Working residents living in the LGA}}$$

In 2016 the JCR was around 0.71 (ABS Census). If the job target under the PEDS was achieved it would improve the JCR significantly to almost 1.0 based on Forecast.ID population projection (and assuming a constant job participation rate) as shown by the rounded numbers below:

Table 2: Original Jobs Target and Population Projection

	2016	2036
Population	200,000	260,000
Working residents*	95,000	123,500
New Jobs		55,000
Jobs in Penrith	67,000	122,000
Job Containment Ratio	71%	99%

* Assuming a constant job participation rate from 2016 to 2036 (unemployed persons excluded)

Additional demand from increased population

Subsequent to the completion of the study the NSW Department of Planning Industry and Environment (DPIE) revised population forecasts across the State. The new forecast is around 350,000 people by 2036 which is a significantly higher number than Forecast.ID – 90,000 more. By 2041 the population is forecast to reach around 370,000.

To assess the impacts of the revised population forecast we have provided three scenarios being:

- Scenario 1: No change in the target of 55,000 more jobs
- Scenario 2: An increase in the target to 80,000 more jobs
- Scenario 3: An increase in the target to 100,000 more jobs

Note that DPIE’s population forecast includes a forecast by age cohort which shows an ageing of the population is expected. Residents over the age of 75 are expected to make up 9% of the total population compared to 4% in 2016. If the percentage of working residents to population remained constant in every age cohort then the percentage of working residents to total population would decline from the current rate of 48% to 45%. However we can expect people to be working a little longer over time and hence we have not adjusted the overall percentage. This is consistent with the long term trend.

The impact on demand for employment lands is provided below.

Scenario 1: No change in the job target

Without changing the target of new jobs the JCR would like this in Year 2041:

Table 3: Scenario 1 – Current Job Target with Revised Population Forecast

	2016	2041
Population	200,000	370,000
Working residents	95,000	175,750
New Jobs		55,000
Jobs in Penrith	67,000	122,000
Job Containment Ratio	71%	69%

In other words there would be a slight decrease in the JCR. As documented in the study the impacts on demand for floor space and employment lands would be as follows:

Table 4: Scenario 1 – Impact on demand for employment space

Employment Area	Required	Units
Penrith CBD	345,000	sqm
St Marys TC	80,000	sqm
Health & Education Precinct	335,000	sqm
Industrial Floor areas	2,335,000	sqm
Industrial Lands	425	hectares

Scenario 2: Increase the target to 85,000 more jobs

The impact of 85,000 more jobs by 2041 on the JCR would be as follows

Table 5: Scenario 2 – Revised Job Forecast of 85,000

	2016	2041
Population	200,000	370,000
Working residents	95,000	175,750
New Jobs		85,000
Jobs in Penrith	67,000	152,000
Job Containment Ratio	71%	86%

There would be a significant improvement to the JCR from 71% to 86%, however it still falls short of the original target of 99%. If we hold constant the apportionment of new jobs to the various precincts (Penrith CBD, St Marys CBD, the Kingswood & Werrington health and education precinct, and the balance of the LGA) then the impacts on demand for floor space and employment lands under this scenario would be as follows:

Table 6: Scenario 2 – Impact on demand for employment space

Employment Area	Required	Units
Penrith CBD	483,000	sqm
St Marys TC	115,000	sqm
Health & Education Precinct	501,000	sqm
Industrial Floor areas	3,186,000	sqm
Industrial Lands	579	hectares

The table shows a significant increase in required floor space. Furthermore the amount of industrial zoned land required increases to 579 hectares which is 116 hectares more than the amount of suitably zoned vacant land available.

Scenario 3: Increase the target to 109,000 new jobs

The impact of 109,000 more jobs on the JCR is as follows

Table 7: Scenario 3 – Revised Job Forecast of 109,000

	2016	2041
Population	200,000	370,000
Working residents	95,000	175,750
New Jobs		109,000
Jobs in Penrith	67,000	176,000
Job Containment Ratio	71%	100%

109,000 more jobs would improve the JCR to 100%. If we hold constant the apportionment of new jobs to the various precincts (Penrith CBD, St Marys CBD, the Kingswood & Werrington health and education precinct, and the balance of the LGA) then the impacts on demand for floor space and employment lands under this scenario would be as follows:

Table 8: Scenario 3 – Impact on demand for employment space

Employment Area	Required	Units
Penrith CBD	617,000	sqm
St Marys TC	148,000	sqm
Health & Education Precinct	663,000	sqm
Industrial Floor areas	4,019,000	sqm
Industrial Lands	731	hectares

The table shows a significant increase in required floor space. Furthermore the amount of industrial zoned land required increases to 731 hectares which is 268 hectares more than the amount of suitably zoned vacant land available.

Additional Supply

Three further sites have been identified in providing additional supply of land to meet above revised targets being the Western Sydney Aerotropolis, the Nepean Business Park and Sydney Science Park (currently zoned for employment uses but defined as being within the aerotropolis area).

Western Sydney Aerotropolis

The aerotropolis will add considerable supply of employment lands in Penrith which would take some of the pressure of the land market and price rises caused by increasing land scarcity. In assessing the supply side the main document which information was sourced from was the draft Western Sydney Aerotropolis Plan, December 2019.

Supply of land and estimated job numbers when fully developed by precinct are summarised as follows:

Table 9: Western Sydney Aerotropolis Forecast Jobs

Precinct	LGA	Ha	Jobs	Jobs/ha	Residents
Aerotropolis Core	Liverpool	1,382	55,000	40	22,000
Northern Gateway	Penrith	1,616	20,000	12	9,000
Wianamatta South Ck	Penrith and Liverpool	1,392	0	0	0
Badgerys Ck*	Penrith and Liverpool	612	10,000	16	0
Mamre Road	Penrith	1,002	17,000	17	0
Agribusiness**	Penrith and Liverpool	1,572	9,000	6	0
Dwyer Rd	Liverpool	748	12,000	16	
Kemps Ck***	Penrith and Liverpool	906	10,900	12	
North Luddenham	Penrith	490	6,100	12	
Rossmore	Liverpool	1,361	16,300	12	
	Penrith total (approx) #	3,900	52,000	13	9,000
	Liverpool total (approx) #	5,789	104,300	18	22,000
	TOTAL	9,689	156,300	16	31,000

* Approximately 40% of the precinct is in Penrith LGA

** Mostly in Liverpool – Assume 2,000 jobs in Penrith

*** Approx 25% of the potential employment lands is in Penrith LGA

Excludes Wianamatta South Creek which is not developable

Source: Draft Western Sydney Aerotropolis 2019

The aerotropolis will provide around 3,900 hectares of employment lands in the Penrith LGA. This is an enormous increase in the level of supply – more than two and half times the current supply of IN zoned land in the Penrith LGA.

Sydney Science Park

Sydney Science Park is part of the Northern Gateway precinct of the Aerotropolis. It is expected to provide 12,000 new jobs on a site of 163 hectares. The land is already zoned B7 and B4 to accommodate to accommodate the science park.

Nepean Business Park

Nepean Business Park could provide up to 4,000 new jobs on a site of 47 hectares.

Summary of Supply

The table below provides a summary of available lands and job capacity (possible additional jobs)

Table 10: Penrith City Supply of Future Employment Lands

Precinct	Hectares	Jobs Capacity	Jobs/ha
Current IN1, IN2, B5 and B6 Vacant Lands	463	20,835	45
Werrington Campuses	71	5,000	70
Nepean Business Park	47	3,995	85
Western Sydney Aerotropolis (including Sydney Science Park)	3,900	52,000	13
New Total	4,481	81,830	18

Allocation of New Jobs

If Council was to set a target JCR to say 90% in 2041 then it would need to target 90,000 more jobs. We forecast the distribution of those jobs to be as follows:

Table 11: Allocation of New Jobs by 2041

Precinct	Jobs
Penrith & St Marys CBD	21,000
Existing Industrial Areas	15,000
Sydney Science Park	10,000
Aerotropolis Balance	17,000
Health & Education Precinct	10,000
Other (dispersed)	17,000
TOTAL	90,000

It is likely that all the lands in the IN1, IN2, B5, B6 and aerotropolis will provide ample supply to meet demand for new jobs over decades. To rephrase, we would expect that around half the available land in the existing industrial estates and in the Aerotropolis combined will be developed by 2041 and that there will be ample supply to keep the market satisfied for years after. Note however that this analysis is at an LGA level. In the past few years agents and businesses have expressed difficulties in securing a site or procuring industrial space in the St Marys / Penrith area. The Aerotropolis is not necessarily the solution for businesses that have a particular need to be located in say St Marys or Penrith as these businesses need to be located close to supply chains or markets and/or serving population and local businesses.

Apart from generating more jobs there is a need for Penrith to diversify the jobs and the industries that provide those jobs. Penrith currently has an under specialisation (or under representation of jobs) in wholesale trade; information media and telecommunications; financial and insurance services and in professional, scientific and technical Services. More jobs in these industries would widen the base and make the Penrith economy more resilient and robust.

Also Penrith has strong specialisation in manufacturing compared to Greater Sydney but unfortunately job numbers have been declining. The economic development strategy needs to address the trends in the industry, target new industries with higher value inventory and components of a wider international supply chain.

Finally, Penrith has shown considerable growth in education and health industries. There is the opportunity to capitalise further on this trend – particularly in relation to Penrith’s role as a metropolitan cluster serving a wider

sub-regional area that includes the local government areas of Hawkesbury and Blue Mountains and even Lithgow and the northern localities of Wollondilly.

The important consideration is that the supply of land is able to accommodate, not just the growth, but the changing nature of work in Penrith. The strong positive take on this is that the mix of Erskine Park and the Aerotropolis, Sydney Science Park, the Werrington/Kingswood health and education precinct and the Penrith and St Marys commercial centres provide a diverse land portfolio to meet that potential growth in diversification.

Yours sincerely,



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