Industrial Lands Snapshot

On Behalf of the Greater Sydney Commission

3 July 2018

Blacktown City Council
Cumberland Council
Fairfield City Council
City of Parramatta Council
The Hills Shire Council
Hornsby Shire Council
Liverpool City Council

mecone JLL

Project Director

Ben Hendriks

Contributors

Jeremy Dwyer

Tim Brown

Bennett Campbell

Winston Yang

Joseph Bell

Luke Zajac

Revision	Revision Date	Status	Authorised	
			Name	Signature
1	03 July 2018	Final Draft	JD	

* This document is for discussion purposes only unless signed and dated by the persons identified. This document has been reviewed by the Project Director.

Contact

Mecone

Level 12, 179 Elizabeth Street
Sydney, New South Wales 2000

info@mecone.com.au
mecone.com.au

Table of Contents

Schedule of Figures and Tables

Appendix Figures

Executive Summary

The Greater Sydney context for employment lands is one which recognises the role that these land play in the function of the city as a key link in supply chains, service provider for residential populations and the location of a significant proportion of jobs. As Greater Sydney grows, there is noted pressure on employment lands to evolve to higher order employment uses or transitions to highest and best uses.

The Greater Sydney Commission (the Commission) has sought specialist advice on the development and refinement of an evidence base for employment lands, known as the Industrial Lands Snapshot. This included a review of employment lands (also known as industrial and urban services lands) identified within the Greater Sydney Region Plan as “Review and Manage”.

The evidence base will inform the Commissions industrial and urban services land review, outlined in the Greater Sydney Region Plan and District Plans. A key purpose of this process was to refine, test and process data relating to employment lands, then detail findings and recommend further refinements.

The Snapshot incorporates 32 measures across 27 criteria. These criteria fall under the broad categories of Investment and Business; Location, Functionality and Connections; and, Economic Output, Jobs and Growth.

The methodological approach for the Snapshot project was both collaborative and iterative in nature. It was developed over several weeks of data interrogation, discussions with the Greater Sydney Commission’s Industrial Lands Steering Committee as well as data processing and validation. While not a settled process there is an appreciation of the breadth of data and opportunities for meaningful analysis within its current and possible future state.

The key drivers of demand for employment lands across Greater Sydney have been identified to include the rise of the logistics sector including “just in time” logistics, a broad transition from manufacturing to warehousing, infrastructure improvements are one “pull factor” to non-traditional outer suburban locations, land affordability, responses to online retailing, and technological advances in industrial processes.

Several broad typologies for employment lands within the study area were developed as part of the Snapshot project. An assessment of the value of Snapshot criteria and relationship with the identification of typologies was made. Noting that certain criteria and their scoring values were more important in this process than others, additional criteria were identified to improve this process.

Scoring summaries detail outliers and trends within LGAs as well as scoring outcomes that appear to be the result of dependent relationships between precincts qualities and scores.

The findings in the scoring include

- Positive relationships between precinct size and gross value add and identified investment;
- Low scores for criteria measuring amenity for workers had little impact on the top scoring precincts;

- Several criteria having a positive relationship with overall scores including, rents, capital improvements, precinct size and gross value add; and
- Several criteria with little impact or influence on overall scores including proximity to ports, airports and centres, distance travelled by workers, flood risk or slope.

Case studies interrogated criteria scoring outcomes, with observations detailing both the successes and limitations to the Snapshot process, identifying possible refinements to processes and new avenues for enquiry.

As result of the process of refinement, investigation, data processing and interrogation as series of findings made. These include:

- While the Snapshot process made it possible to identify Metropolitan significant precincts, its high-level approach and data collection limitations made it difficult to determine if precincts were locally significant or otherwise. This process will require refinement of the Snapshot process as well as more detailed site-specific investigations;
- Due to a number of criteria dependent on and biased toward precinct size, larger precincts scored higher overall compared than small precincts. As above, this made it difficult to get a clear understanding of differences in smaller precincts;
- Measures of amenity for workers including proximity to open space, centres and public transport had little bearing on the function of precincts (as observed in site inspections) and overall scores from the Snapshot;
- Scoring for locational criteria including proximity to intermodals, strategic centers and motorway junctions did not appear to impact the function of precincts and overall scores; and
- Limitations of data and processes may undermine the integrity of an evidence base that is intended to inform strategic decision making.

As a result of the project a series of recommendations have be tabled in this report for consideration by the Commission. These include:

- Refinement of methodological processes to overcome some limitations;
- Additional criteria to consider for additional iterations of the Snapshot process;
- A role of local governments in data collection and evidence gathering; and
- A role for the Commission in supporting local government.

1 Introduction

The purpose of this report is to outline the methodology and outcomes of the Industrial and Urban Services Precinct Analysis and Snapshot (‘the project’). The report follows a specific methodology developed by the Greater Sydney Commission (the Commission) as outlined in 2.3 Methodology – criteria and scoring.

1.1 The Project

The Commission have committed to a review of industrial and urban services land as per Action 11 Review and plan for industrial and urban services of the Greater Sydney Region Plan (GSRP), *A Metropolis of Three Cities.*

To inform Action 11, the Commission engaged Mecone and JLL (the project team) to review and provide a health check for industrial and urban services precincts identified under the ‘Review and manage’ category within *Objective 23 Industrial and urban services land is planned, retained and managed* within the GSRP.

The key tasks of the review included:

- Analysing and refining an industrial precinct dataset compiled by the Commission, including identifying data limitations and additional sources of data;
- Analysing and refining health check criteria and scoring values;
- Applying the dataset to derive scores across each criteria for each industrial precinct within the study area;
- Identifying several precincts to consider in greater detail, then testing scoring outcomes against site observations; and,
- Producing a report that provides:
- A summary of key trends influencing the character, demand for and evolution of employment lands;
    - Results of the Health Check by precinct;
    - Precinct-specific observations of the key precincts visited and potential implications on the Snapshot process.

The outcomes of the project will provide input and guidance for an evidence base to inform the Commission’s industrial and urban services review.

1.2 Employment Lands

The NSW Department of Planning and Environment define Employment Lands as those lands that are - *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.*

These lands play a crucial role for Greater Sydney through supply chain, logistics, warehousing and urban service functions. Additionally, employment lands are the location of an estimated 506,500 jobs and generate $280 billion in output. [1]

Within Greater Sydney there is a total supply of 13,826 hectares of zoned employment land across 287 precincts with a potential additional supply of 6,654 hectares identified in13 additional precincts. Figure 2shows the distribution of employment land across Greater Sydney and parts of the Central Coast and Illawarra regions.

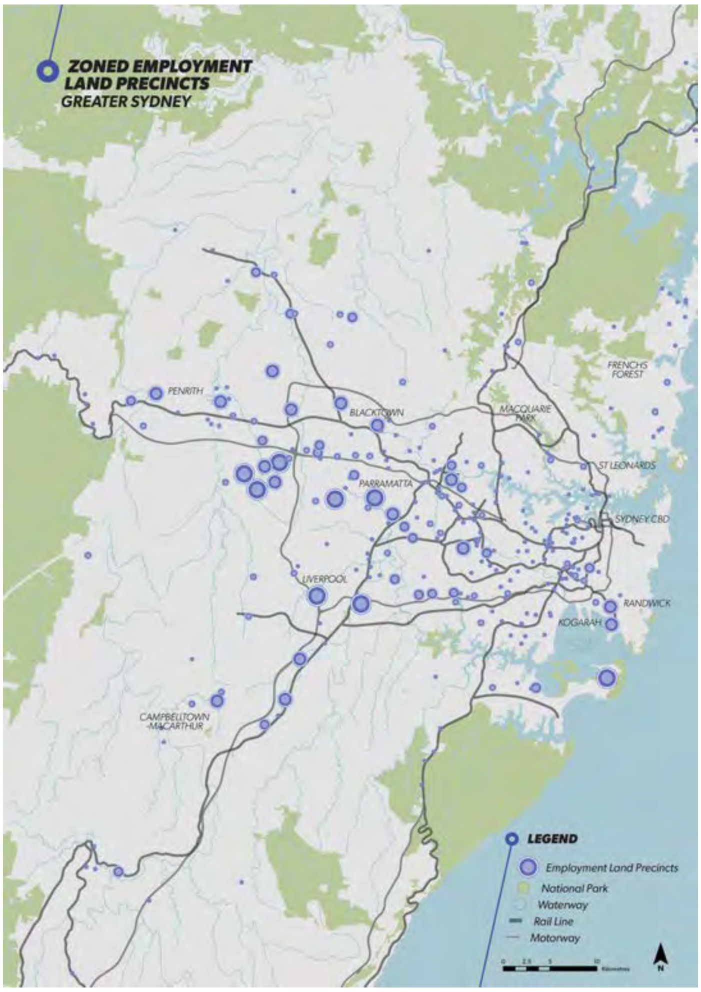

Figure 1 Zoned Employment Lands Precincts within the Sydney Metropolitan Area

[1] REMPLAN Economy and Department of Planning and Environment, Employment Land Development Monitor 2017

Source: Department of Planning and Environment

1.3 Study area

For the purposes of the review, the study area of this report are the employment lands precincts within the local government areas of Blacktown, Cumblerland, Fairfield, Hornsby, Liverpool, Parramatta and the Hills.

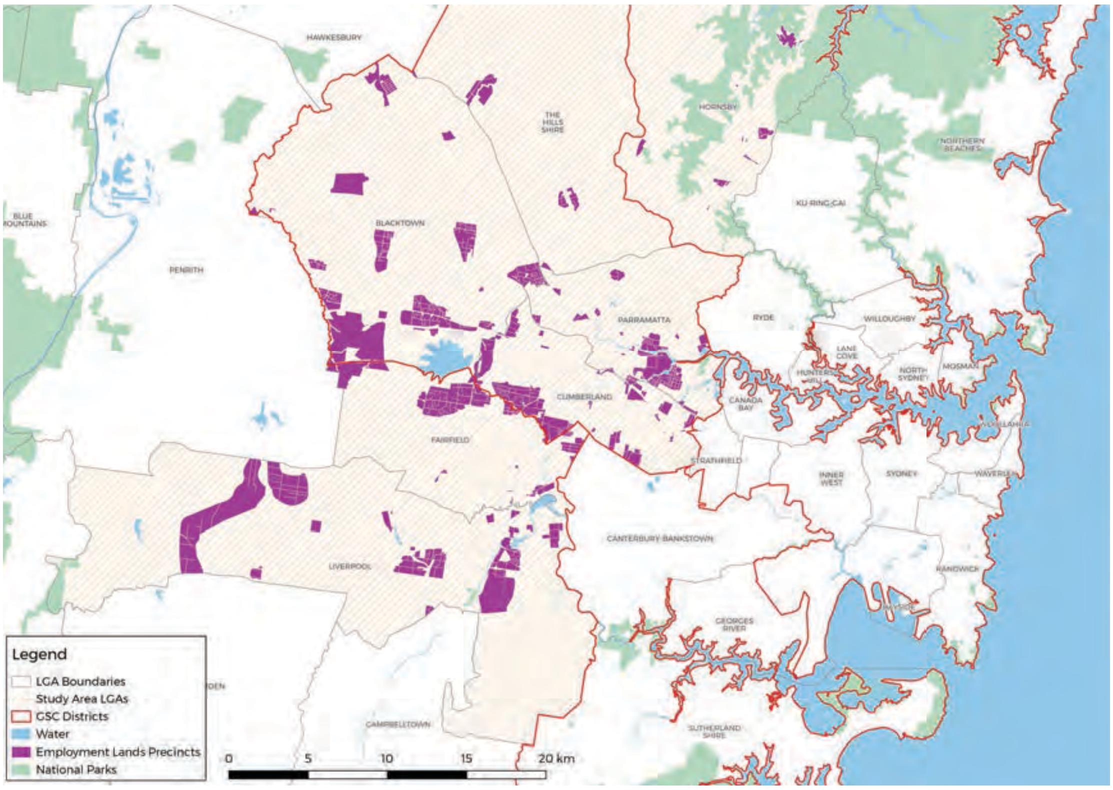

Figure 2 Industrial Precincts within the study area

Source: Mecone

It is noted in Figure 3 that the local government areas of Blacktown, Fairfield, Liverpool and the Hills are only partially included in the Review and manage category. However all industrial precincts these local government areas were included in the project for the purposes of consistent data collection and analysis.

The categories for the management of industrial precincts is discussed in further detail in Section 2.4.1 of this report.

Due to a conflict of interest for Mecone all discussion on case studies and outcomes for employment land within the Liverpool government area is included in an attachment to this report. This section has been prepared by JLL exclusively.

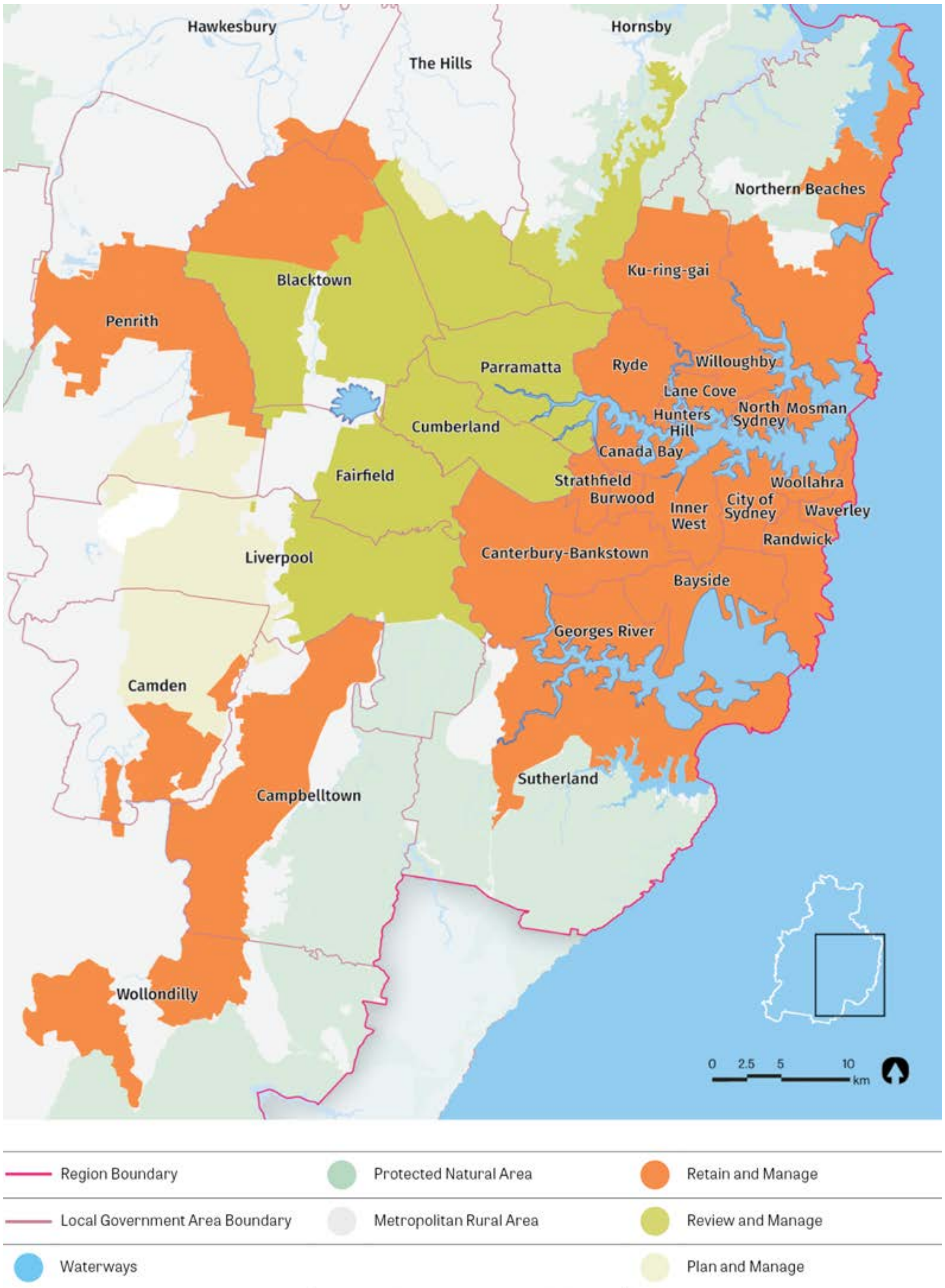

Figure 3 Approaches to planning for industrial and urban services land in existing and planned urban areas

Source: A Metropolis of Three Cities, Greater Sydney Commission, 2018

Within the study area there are 104 zoned employment land precincts, ranging from 0.1 hectares 599.1 hectares in size. Generally, those local government areas closer to the Central River City were on average smaller than those further to the west. The table below provides a summary of the extent industrial land precincts within the Study Area.

Table 1 – Study Area: Summary of Employment Lands by LGA

Local Government Area	Number of zoned employment land precincts	Precinct area hectares (ha)			Average Precinct size	Contribution to Greater Sydney employment lands
		Smallest	Largest	LGA Total		
Blacktown	23	3.9	561.6	2547.9	110.8 ha	18.4%
Cumberland	22	1.8	352.5	1112.7	50.6 ha	8.0%
Fairfield	12	1.3	559.1	1081.6	90.1 ha	7.8%
Hornsby	13	0.1	65.6	176.3	13.6 ha	1.3%
Liverpool	11	1.8	493.1 ha	1114.9	101.4 ha	8.1%
Parramatta	18	0.2	235.9	447.2	39.5 ha	5.1%
The Hills	5	1.0	144.9	284.8	57.0	2.1%
Review and Manage study area	104	0.1	559.1	6765.4	66.1 ha	50.8%

Source: Department of Planning and Environment, Employment Lands Development Monitor 2017

In addition to the 104 precincts, there are five precincts identified as potential precincts under the Department of Planning and Environment's Employment Lands Development Monitor within the study area. These precincts are all located within the Liverpool local government area and total 2,159 hectares in size.

These precincts were included in the analysis and scoring (detailed in the Attachment to this report), however both scores and the data they are based upon are considered to have limitations. In particular data pertaining to current and historic job figures, rental yields, land values and capital improvement is limited given these precincts are not yet developed. As such, there is limited value in comparisons of the potential precincts against zoned precincts.

There were a number of precincts for which Mecone did not undertake an analysis of due to existing and ongoing work being undertaken for private sector clients. As stated before, these investigations were undertaken by JLL exclusively.

1.4 Structure of reporting

This report with detail the methodology and outcomes of the Industrial and Urban Services Precinct Analysis and Snapshot.

This report is structed as follows

- Chapter 1 – Introduction (this chapter) provides an outline of the project and the purpose of the report;
- Chapter 2 - Details the project purpose and scope as well as context for Industrial lands Planning policy within Greater Sydney and details previous Health Check Industrial Lands studies;
- Chapter 3 - Provides an overview of the demand for industrial uses, both from a precinct perspective as well as a broader Sydney context.
- Chapter 4 - Provides a character profile for industrial land typologies based on observations from criteria, scoring and site visits:
- Chapter 5 - Details project findings and recommended next steps.
- Appendix 1 – Details the criteria, indicators and scoring scales used in the Snapshot
- Appendix 2 – Provides a scores and a summary of outcomes by local government
- Appendix 3 – Include the findings from Case Studies
- Attachment – Details JLLs investigations in to the Liverpool LGA

It should also be noted that the terms Employment Lands, Industrial Precinct and Industrial and Urban Services Lands has been used interchangeably throughout this report. These refer to those Employment Land precincts as identified by the ELDM which are the focus of this study.

2 Project purpose, scope and methodology

2.1 Project purpose - building an evidence base for employment land precincts

To help guide the development of an approach to the strategic outcomes for industrial and urban services land outlined in GSRP and District Plans actions, the Commission engaged the project team to assist in the development, refinement and implementation of a process to develop an evidence base on employment lands. The purpose of the project was to:

- Inform the employment lands evidence gathering processes;
- Determine which evidence was critical and of greatest use to the evidence base;
- Apply the process to the dataset provided to the study area precincts; and,
- Provide the scoring outcomes and analysis on all of the above, including findings and recommendations to further refine the process.

2.1.1 Database development

To assist in the project, the Commission engaged SGS Economics and Planning to gather evidence for the project team to assess and process in order to determine scoring outcomes. This substantial body of work provided numeric values for the majority of criteria across all dimensions. Through the refinement process additional criteria were identified, with updates provided by SGS to the project team across several iterations.

Additionally, the project team identified that data for land values, rental and capital improvements would be of considerable value to the employment lands evidence base. The Commission engaged JLL to provide this data.

2.2 Project Scope

2.2.1 Scope

The project team were engaged to:

- Apply the dataset compiled by the Commission on each precinct to the relevant dimension and criteria - this dataset included information on a range of measures including precinct characteristics such as size and extent of development, proximity to key transport infrastructure, centres and workforce, current and historic employment data and land use;
- Perform an assessment of each precinct using the health check criteria - as discussed in Section 2.4.5 the health check criteria to be employed was first developed by Hill PDA as part of their Industrial Precinct Review. The health check criteria included three key overarching dimensions with several criteria to inform them;

- Identify 10-12 key precincts to visit and consider in greater detail – the aim of this aspect of the project was to test if the criteria, the data and scoring outcomes reflected observations from the ground. This was done as a means to test, validate and refine the process and data; and
- Attend meetings with the Industrial Land Steering Committee – the committee is comprised of representatives from the councils which formed the study area and offered the project team a means to test assumptions and refine processed of the project.

It was established that while one of the key outcomes of the project was the scoring results, the project was also a means to test, develop and refine a process of industrial lands data collection to inform for future iterations of this process.

2.3 Methodology – criteria and scoring

Through a process of refinement, a final list of criteria, indicators, data and scoring were defined. Once this was complete the project team processed the data gathered by the Commission.

2.3.1 Dimensions – grouping of criteria

In alignment with the "health check" assessment process developed by Hill PDA, the criteria were grouped into three overarching dimensions. Through a refinement process some criteria departed from those within the Hill PDA report, due to consideration of the project needs and context.

For the purposes of this report, in order to minimise semantic conflict with criteria, these will be referenced as the three Dimensions.

Each dimension captures a different aspect of the precinct's characteristics, economic and locational context. Several criteria consist of sub criteria that further explored the line of inquiry. The final dimensions, criteria and sub-criteria used in the study were:

Table 2 – Industrial Lands Snapshot Dimensions
Dimension 1 - Investment and Business This dimension relates to the precinct's attractiveness to business tenants and investors due to its physical characteristics.
Criteria: • A1: Is the precinct attracting significant development activity and investment? • A2: Does the precinct provide a range of sites? • A3: Is the precinct cohesive and uninterrupted? • A4: Does the precinct have a good level of utility provision (i.e. water and sewer)? • A5: Does the precinct demonstrate high rental values? • A7: Does the precinct have high land values?

Table 2 – Industrial Lands Snapshot Dimensions
Dimension 2 - Location, Functionality and Connections This dimension relates to the precinct's physical connections to roads, transport, major infrastructure, the workforce, support services, and strategic centres. It also relates to the characteristics of the precinct including its degree of 'buffering' to more sensitive surrounding uses.

Criteria:
• B1: Does the precinct make a significant contribution (with respect to land area) to industrial land supply in its District?
• B2: Is the Precinct well connected to the motorway / orbital and the freight arterial network with limited access through residential streets? Is there B double truck access?
  o B2.1: Proximity to motorway junctions
  o B2.1: B-Double accessibility
• B3: Is the Precinct located near major infrastructure hubs i.e. an airport, port, intermodal, or a strategic centre?
  o B3.1: Proximity to airports
  o B3.2: Proximity to ports
  o B3.3: Proximity to intermodals
  o B3.4: Proximity to strategic centres
• B4: Does the precinct have good connections to support services for employees i.e. public transport, retail, business services, recreation space?
  o B4.1: Proximity to closest centre (local or strategic)
  o B4.2: Proportion of surrounding area (50 metre buffer) that is open space
  o B4.3: Proximity to nearest train station
• B5: Does the precinct have good access to the local labour market?
• B6: Does the precinct have good access to a local labour market with relevant skills/occupations?
• B7: Does the precinct have constraints such as Australian Noise Exposure Forecast (ANEF), flooding, or poor topography?
  o B7.1: Proportion of precinct that is flood prone
  o B7.2: Average slope across the precinct
  o B7.3: Location within an ANEF contour
• B8: Does the precinct have the potential for land use conflict?
• B9: Does the Precinct have significant urban services?

Dimension 3 - Economic Output, Jobs and Growth

Table 2 – Industrial Lands Snapshot Dimensions
This dimension relates to the number and density of jobs generated within the precinct together with its contribution to the economy. This component also considers whether the Precinct's has potential to grow.
Criteria: • C1: Does the Precinct generate a reasonable density of jobs? • C2: Have the number of jobs improved over time? • C3: Does the Precinct contribute significantly to the local, subregional or regional economy? • C4: Has the economic contribution improved over time? • C5: Does the site have capacity for growth and intensification? • C6: Is the number of jobs forecast to grow? • C7: Does the precinct presently support, or will it be likely in the future to support, a unique or diverse business cluster?

2.3.2 Data, Indicators and Scoring

For each of the criteria a series of datasets and indicators were identified to best enable precinct investigation and comparison. This was generally achieved through indicators based on proportions and relative measures.

Scoring scales of one to five were developed for each criteria in consideration of:

- The data range – including the scale and clustering of data;
- The nature of the measure – consideration of if scoring was best developed by quintiles or quartiles, sliding scales or binary measures (yes or no outcomes);
- Data limitations – providing a suitable value where no data was available for a precinct.

Where possible scales for scoring were developed using data that applied to all of Greater Sydney. A full detailing of criteria, data sources, indicators and scoring scales are provided in Appendix 1: Criteria, indicators, scoring scales and data sources.

2.4 Industrial Lands Context

2.4.1 Greater Sydney Region Plan

A Metropolis of Three Cities is the Greater Sydney Regional Plan (the GSRP). The GSRP sets a vision to 2056 of a Greater Sydney comprised of three cities – the Western Parkland City, the Central River City and the Eastern Harbour City – where most residents live within 30 minutes of jobs, health, education, services and great places. The plan seeks to respond to the needs of residents and address current and future structural challenges in an attempt to rebalance economic and social opportunities across Greater Sydney as it grows.

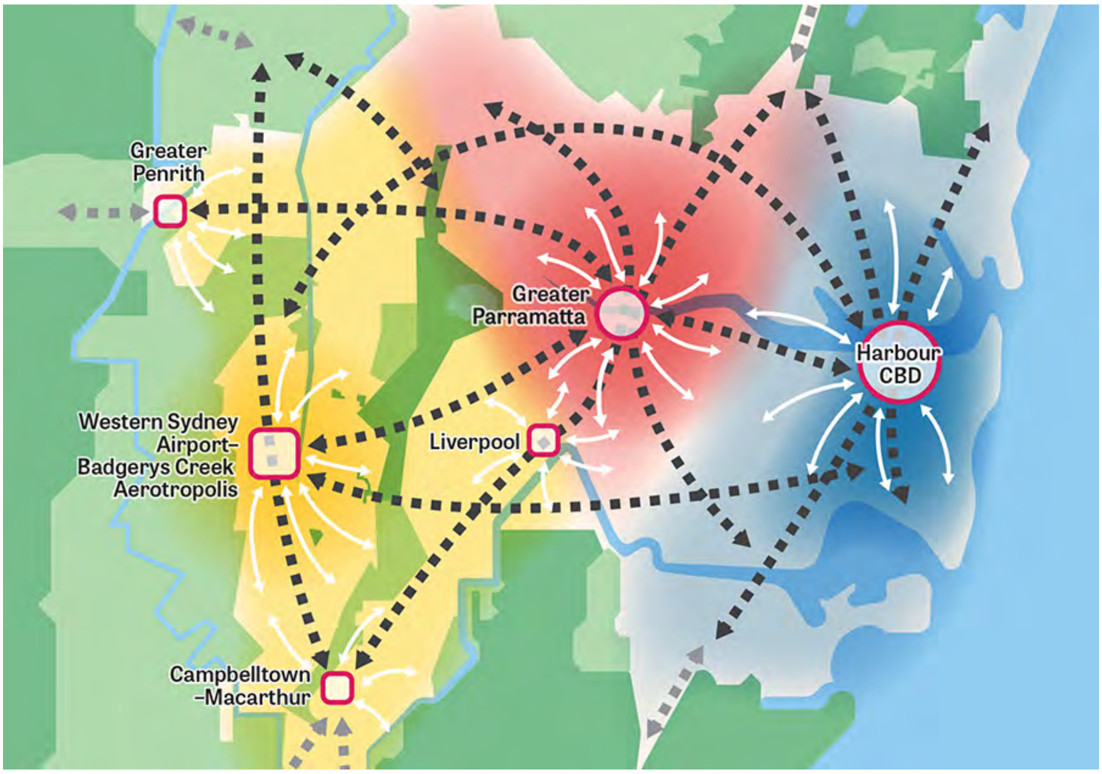

Figure 4 Vision to 2056 – The Three Cities

Source: A Metropolis of Three Cities, Greater Sydney Commission, 2018

The GSRP identifies industrial and urban services land as:

- A key contributor to the productivity of Greater Sydney;
- The location of a significant number of jobs: and
- Providing an important role in the operation and function of the city.

Noting the location requirements, uneven distribution of employment land provision and the economic, technological and broad development trends shaping industrial and urban services lands, *Objective 23 Industrial and urban services land is planned, retained and managed* outlines three approaches to planning for the future of industrial precincts.

These approaches are:

Plan and manage - this approach is to plan for additional industrial and urban services land in response to long-term projected population and development growth. This approach applies to across the South West and Western Sydney Airport Growth Areas.

Retain and manage - this approach is to retain industrial and urban services land for economic activities required for Greater Sydney's operation. This approach applies to the Eastern Harbour City, the North West Growth Area and industrial land in the established urban areas of the Western Parkland City, including the existing Western Sydney Employment Area.

Review and manage – this approach requires a review all industrial and urban services land to either confirm its retention or manage uses to allow sites to transition to higher-order employment activities (such as business parks appropriate controls to maximise business and employment outcomes. This approach applies to the established areas of Blacktown, Cumberland, Parramatta the Hills Shire, Hornsby Liverpool and Fairfield local government areas.

This report focuses on the employment lands precincts within the Review and manage local government areas.

As discussed the Commission have committed to a review of industrial and urban services land as per *Action 11 Review and plan for industrial and urban services,* which states:

The Greater Sydney Commission to review all industrial and urban services land identified as review and manage in close collaboration with State agencies, councils and with industry input.

The review will confirm retention of industrial and urban services land and in limited cases its transition to other uses.

The Greater Sydney Commission will work with the NSW Department of Planning and Environment to review the industrial and urban services land in the South West and Western Sydney Airport Growth Areas to determine if additional lands are required to meet long term population and employment growth.

The outcomes of this report will inform the Commission's approach to undertaking of Action 11 of the GSRP.

2.4.2 District Plans

The study area lies within three Greater Sydney districts, the Central City District, the Western City District and the North District. Each district's District Plan sets out a range of district specific Planning Priorities and Actions to realise the vision established in *A Metropolis of Three Cities*.

Objective 23 of the GSRP is given effect through

- *Planning Priority C11 - Maximising opportunities to attract advanced manufacturing and innovation in industrial and urban services land* - Central City District Plan;
- *Planning Priority W10 - Maximising freight and logistics opportunities and planning and managing industrial and urban services land* - Western City District Plan, and;
- *Planning Priority N11 - Retaining and managing industrial and urban services land* – North District Plan.

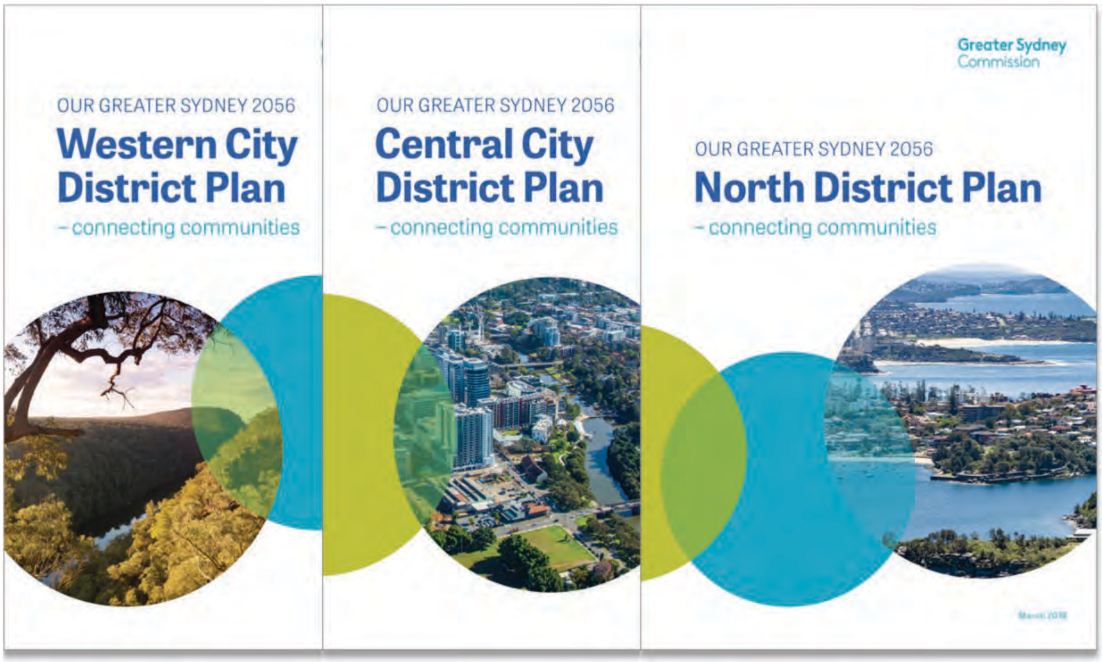

Figure 5 District Plans -Western City District, Central City District and North District

Source: Greater Sydney Commission, 2018

These planning priorities rearticulate the importance of industrial and urban services to the Greater Sydney economy and the evolving nature of employment uses and requirements within the broader economic sector.

The plans note that safeguarding industrial and urban service land from the pressures of rezoning can enable the growth and transition of this sector to provide economic benefits, services and jobs for a growing Greater Sydney.

Actions 49 (Central City District Plan), 52 (Western City District Plan) and 47 (North District Plan) state that the Commission will work with Blacktown, Cumberland, Fairfield, Hornsby, Liverpool, Parramatta and the Hills Shite councils and other planning authorities to:

Review and manage industrial and urban service land, in line with the principles for managing industrial and urban services land, in the identified local government areas by undertaking a review of all industrial land to confirm their retention or transition to higher order uses (such as business parks) and prepare appropriate controls to maximise business and employment outcomes, considering the changing nature of industries in the area.

As stated previously the findings of this report will help inform this action.

2.4.3 Employment Lands Development Program

The Department of Planning and Environment (DPE) monitor the status of employment land across the Greater Sydney, Central Coast and Hunter regions through the Employment Lands Development Monitor (ELDM).

A key output for the ELDM is annual reporting on employment lands that contains information on:

- The current availability of zoned employment land, business parks and other land where jobs are created;
- Where employment land is serviced and ready for development;
- Where development on employment land has recently taken place, and;
- Where potential future employment lands and business parks are to be located.

2.4.4 Employment Lands Studies and Strategies

Several councils within the study area have strategies pertaining to employment lands and employment more generally. The following table outlines Council level strategies that have been identified within the study area.

Table 3 – Local government employment lands studies and strategies

Local Government Area	Summary of employment policy
Blacktown	The Blacktown City Structure Plan 2036 identifies the Western Sydney Employment Area (approx. 1,100 ha in Blacktown as a major contributor to employment growth in the City. According to research the driver for this employment land is the M7 Motorway which has greatly reduced the travelling time to the City. Other key employment areas in the LGA include Blacktown City Centre, Seven Hills and Marsden Park and Mount Druitt Blacktown City Centre and north of the centre to Kings Park is largest area for business uses in the LGA and Marsden Park as

Table 3 – Local government employment lands studies and strategies	
	having significant employment opportunities in the Sydney Business Park. *The Blacktown Planning Strategy* notes that a skills shift is occurring in the LGA, particularly in the North West and Blacktown Precincts, to service and knowledge industries. Business parks are identified as a possible appropriate form for commercial development in the LGA, provided they support existing centres. *The Blacktown Masterplan* provides details on the planning of a business park to the north of the Blacktown centre. Key documents: • *Economic Development Strategic Plan Blacktown City 2013-2017* • *Community strategic plan – Our Blacktown 2036*
Cumberland	Cumberland Council recognises an opportunity to transition its economy into higher order and productive industries and the knowledge-intensive economy. Critically, Council seeks to develop an Innovation Ecosystem and grow a number of key sectors: digital technologies/media, advanced manufacturing, food and beverage manufacturing, creative industries, fashion, allied health, advanced knowledge services and freight and logistics. The *Draft Cumberland Employment and Innovation Lands Strategy and Land Use Planning Framework 2017* aims to promote stronger and innovative employment, business and economic outcomes for the LGA through the development of a land use planning framework that responds to a number of important aspirations for the LGA. These include: • Fostering growth in priority productive sectors to leverage the diversity and skills of the local community; • Fostering an innovation eco-system and knowledge-intensive industrial sector that attracts investment and growth; and • Developing a proactive strategy to defend against pressure to rezone and repurpose employment and innovation lands to residential uses. Key documents • *Draft Cumberland Employment and Innovation Lands Strategy and Land Use Planning Framework 2017* (off exhibition)

Table 3 – Local government employment lands studies and strategies	
Fairfield	*The Fairfield Employment Lands Strategy* (2008) identified a total of approximately 839.6 ha of industrial zoned land within the LGA. Hill PDA on behalf of Fairfield City Council prepared an employment lands strategy for the LGA. The main purpose of this strategy is to provide the vision as well as the appropriate planning framework (DCP and LEP amendments) to attract employment generating uses into the LGA. The *Fairfield Employment Lands Strategy (2008)* highlights the future demand for business or technology parks with the development of Badgerys Creek Airport and the inclusion of better public transport through the Western Sydney Employment Area. Key documents: • *The Fairfield Employment Lands Strategy* (2008)
Hornsby	SGS were commissioned to complete an employment Lands Study on behalf of Hornsby and Ku-ring-gai councils. This study's aim was to assist planning for employment within these two LGAs and to provide guidance on accommodating employment targets employment target Opportunities to strengthen centres, and to protect and promote employment lands, will be identified in parallel with the development of strategies to promote economic growth. Key documents: • *Hornsby & Ku-ring-gai Subregional Employment Study 2008*
Parramatta	*The Parramatta Employment Lands Strategy 2016*, which was adopted by Council at its meeting of 11th July 2016, provides a consolidated set of land use planning actions and recommendations to guide the future of Parramatta's Employment Lands Precincts. These include the following actions: • Protect strategically important employment lands precincts; • Allow for a net reduction of existing employment lands; • Rezoning to zones that facilitate higher employment densities; • Facilitate renewal of isolated industrial precincts;

Table 3 – Local government employment lands studies and strategies	
	• Use of light industrial zone to facilitate increased range of employment uses; • Prepare structure plans for key employment precincts which are undergoing economic change and for key employment precincts located on key arterials; • Investigate potential for business park around UWS; • Advocate to State Government for infrastructure improvements; and, • Proposed rezoning must be supported by an economic impact study. Key documents: • *The Parramatta Employment Lands Strategy 2016*
The Hills Shire	The *Employment Lands Direction* will provide an overall strategic context for the planning and management of the Shire's employment lands and their development and growth to 2031. It supports the commitments contained in *Hills 2026 Community Strategic Direction*, in particular the development of a modern local economy. The Direction sets out six key directions to give Council and stakeholders a clear strategy to protect and manage the Shire's employment lands and meet the needs of the community. These directions are: • Accommodate the growth of a modern local economy to meet community needs; • Enhance the attractiveness of the Shire for new business and visitors; • Promote growth in local business and employment opportunities; • Enhance the use and viability of existing employment lands; • Plan for new employment lands; and, • Encourage quality employment lands. Key documents: • *Employment Lands Direction: Planning, protection and management of the shire's employment lands 2009*

2.4.5 Employment lands health check studies

In August 2015, Hill PDA were commission by the NSW Department of Planning to inform and support an evidence base to inform the three (then) subregional strategies of the North, Central and South subregions (now known as North, Eastern City and South Districts).

This involved a study of industrial precincts within these areas and the assessment of the economic value and 'health' of each precinct as employment generating clusters.

The resulting evidence would then allow for considered planning of each precincts to either protect and enhance the economic strength of each precincts or identify appropriate means of addressing limitations or challenges through appropriate planning mechanisms including higher order uses.

Key findings of this report included:

- A desire by councils to protect industrial lands;
- Council variation of additional uses permitted within employment lands zones including residential and creative and cultural uses; and
- The changing nature of uses in industrial lands, with overserved non-traditional uses such as financial, technical and scientific services.

In undertaking their review, Hill PDA developed a Health Criteria Checklist that includes overarching criteria and sub-criteria that have been adopted for the purposes of (referred to as dimensions and criteria below).

3 Demand analysis

3.1 Key trends influencing the character, demand for and evolution of employment lands within Sydney

Greater Sydney's industrial lands have continued to evolve due to a range of internal and external influences, trends and forces. These place demands on the strategic planning for employment lands, as authorities try to respond to changes to the industrial landscape. JLL have provided observations on demand for industrial uses, both from a precinct perspective as well as a from a Greater Sydney context.

3.1.1 Overall Demand Drivers

While economic growth is a natural driver of demand for industrial space, there are forces at play that favors one location over others and structural changes that have impacted on demand for industrial space.

Key drivers of demand for industrial land and buildings are summarised below.

Table 4 – Key Drivers of Demand

Key Driver	Summary
Structural Change and Rise of the Logistics Sector	Also referred to as the changing needs of industrial space occupiers. This has in part been influenced by changes in technology. Mobile communications as well as improved data and inventory management has led to changes in business processes, including outsourcing to specialist logistics companies, consolidation and centralisation of warehousing as well as the adoption of "just-in-time" inventory management. This has transformed demand for industrial real estate away from smaller dispersed warehouse space to large distribution centres located on the major arterial road and rail networks.
Transition from Manufacturing to Warehousing	There has been a noticeable decline in manufacturing across Australia, with manufacturing output declining from 14% to 7% of total output since 1980[2]. Manufacturers have had to cope with increased competition from Asia and a strong Australian dollar for much of the past few years, with companies pushing production offshore. This has resulted in a shift in some company's property requirements from factory to warehouse space.
Infrastructure	Infrastructure improvements are one "pull factor" that can increase the appeal of a particular region. Good quality infrastructure can entice companies to move to outer suburban areas or even regional locations that might have been overlooked in favour of a more central location. While proximity

1. Deloitte Access Economics Business Outlook, September 2016

Table 4 – Key Drivers of Demand	
	to infrastructure such as Port Botany and the M5 Motorway are considered two of the major "pull factors" of industrial land in Georges River, the same M5 Motorway is also providing a compelling case for major distribution centres to re-locate to more affordable outer metropolitan locations.
Clustering	Clustering of like-minded businesses facilitates the creation of business networks and has the potential to generate new market opportunities through collaboration.
Affordable land	A supply of affordable, well located land provides the impetus for companies to consider moving premises, particularly those companies with either poorly located properties, facilities that are out-dated, or undergoing expansion / contraction. The Western Sydney Employment Area extension by over 4,500 hectares will ensure a long-term supply of relatively affordable industrial land in Western Sydney and provide further impetus for companies to consider moving west.
Competing uses in Inner / Middle Suburban Areas	This includes competition from higher order commercial and residential uses and demand from owner-occupiers for well-located sites from which to run their business. There has also been a trend towards subdivision to smaller lots as larger parcels become available. This form of re-investment in industry zones provides new opportunities for small to medium business enterprises, while industries requiring larger premises have tended to look further afield for more affordable serviced land.
On-line Retailing	The growth of this sector has seen increased demand for well-located warehouses, from both the online retailers and third party logistics providers who deliver their goods to customers.
Technology	Rapid advancements in the use of Geographic Information Systems (GIS) are now enabling occupiers to find locations which deliver them multiple benefits important to their operational success. This includes minimising the combined cost of transport and property, faster service times to stores and franchisees, access to skilled labour, and in some cases, maximising access to a target demographic market

Through analysis of the repeated transport movements for a number of occupiers, JLL's Location Intelligence team have found locations within a city which could deliver savings of up to 25% for the location-dependent portion of transport for the occupier.

This is leading to better outcomes for both tenants and landlords. Tenants secure an optimal location based on their logistics profile, while landlords could potentially offer tenants choice in location within a portfolio - securing a more inelastic tenant and income stream.

These solutions are now used by investors in a selection properties which are naturally suited to certain market segments; such as e-commerce or self-storage.

Infrastructure - The current investment on Sydney's roads is positive for improving the connectivity across metropolitan Sydney and broader NSW. An additional $4.38 billion of funding was allocated to the improvement of Sydney's road network in the Federal and State Government budgets.

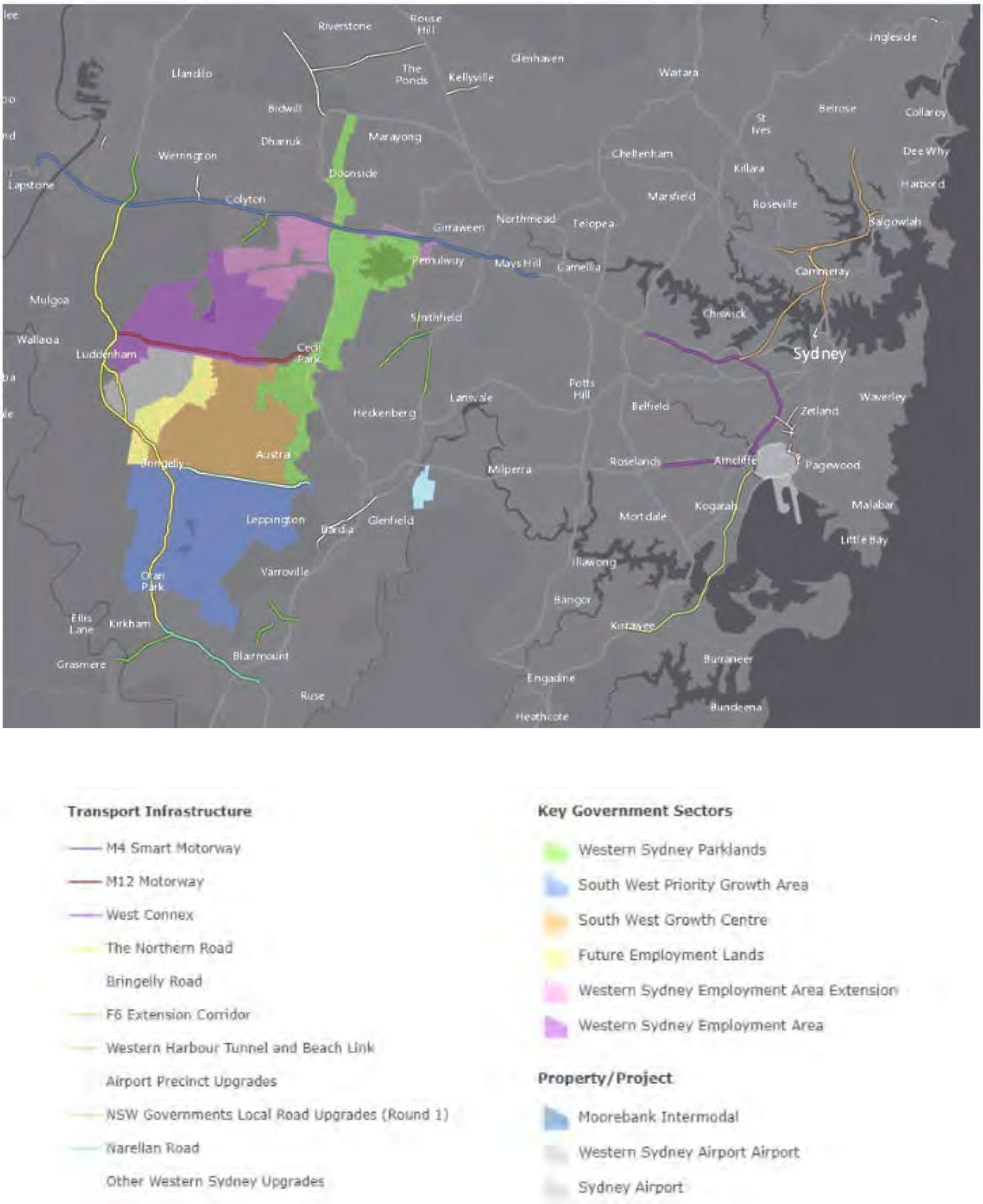

Figure 6 Sydney key transportation projects

Source: Department of Planning and Environment

New and upgraded road infrastructure will partly alleviate congestion and improve the flow of goods and products. Additionally, infrastructure development will create opportunities for new and existing precincts. Western Sydney Airport – scheduled to open in 2026 – will be a major catalyst for new industrial development and will act as an economic magnet for Greater Western Sydney.

As mentioned above, the decline in local manufacturing and a move to centralised distribution networks has transformed demand for industrial real estate away from smaller dispersed space to large space on arterial road and rail networks.

The key location criteria for warehouse and distribution centres include:

- Access to motorways, main arterials, Port Botany and/or Sydney Airport, and in some instances rail network;
- Centrally positioned as a transport hub within supply chains linking national and global suppliers with national and global customers;
- Competitive industrial land prices and rents;
- Appropriate buffer zones from residential areas;
- Greenfield sites that allow development of high tech warehouses; and
- Space to grow and accommodate large vehicles.

3.2 Current Supply and Demand Observations for Industrial Land Uses

3.2.1 Demand Observations

The Sydney industrial market is in the midst of a cyclical upswing with investor and occupier activity above historical benchmarks. New pricing benchmarks were achieved in 2017; while the leasing market recorded gross take-up above the 1 million square metre (sqm) mark for the third successive year in 2017.

Multiple factors contributed to strong leasing activity. The strength of the NSW economy has resulted in the organic growth of existing occupiers; the pre-lease market has been competitive; while the conversion of industrial stock in inner city markets has resulted in tenant displacement. The industrial sector is experiencing structural change and is a major beneficiary of increased e-commerce penetration rates.

Since 2015, the Sydney industrial gross take-up from the retail, wholesale and transport, postal and warehousing sectors has been well above the historical averages. Over the past decade, approximately 445,700 sqm of gross take-up per annum came from these three sectors. In the past three years, annual take-up from these sectors has averaged 723,100 sqm.

This trend will likely continue as consumer purchasing patterns evolve. A requirement for shorter delivery times, a more diverse range of products and an efficient strategy to handle returns will support the demand for well-located logistics and warehouse facilities.

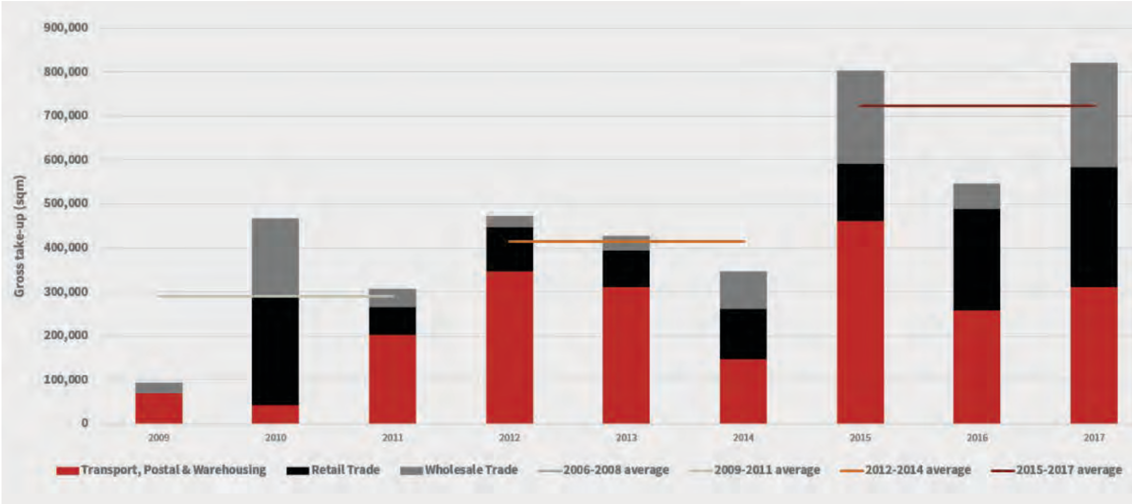

Figure 7 Sydney gross take-up - Transport, Postal & Warehousing, Retail Trade and Wholesale Trade

Source: JLL

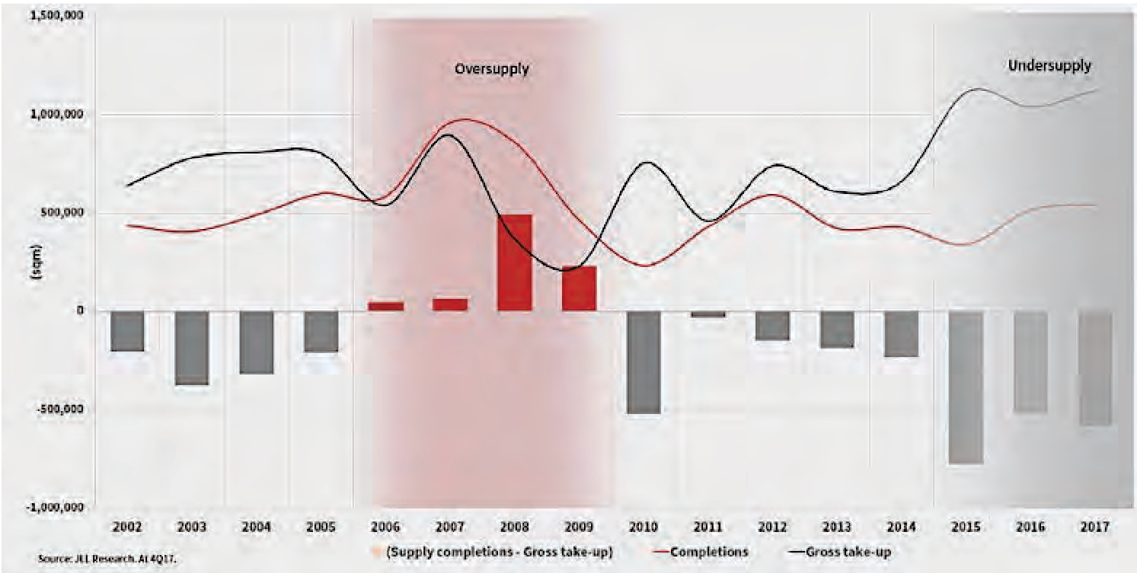

Figure 8 Annual gross take-up & supply

Source: JLL

Positive leasing activity and a reduction in stock availability has provided an environment for above trend rental growth. On a stock-weighted basis, average industrial rents across the Sydney market grew by 4.1% over 2017. This was the strongest annual growth rate in 12 years. The two largest precincts, the Outer Central West and Outer South West, recorded notable growth activity in 2017.

Rents in the Outer Central West grew in the Prime (4.2%) and Secondary market (4.6%). While in the Outer South West, net rents for existing facilities increased by 4.8% in the Prime and 12.3% in the Secondary markets. We believe an inadequate supply of industrial land to meet the near-term, and potentially longer-term, demand could produce future upward pressure to rents

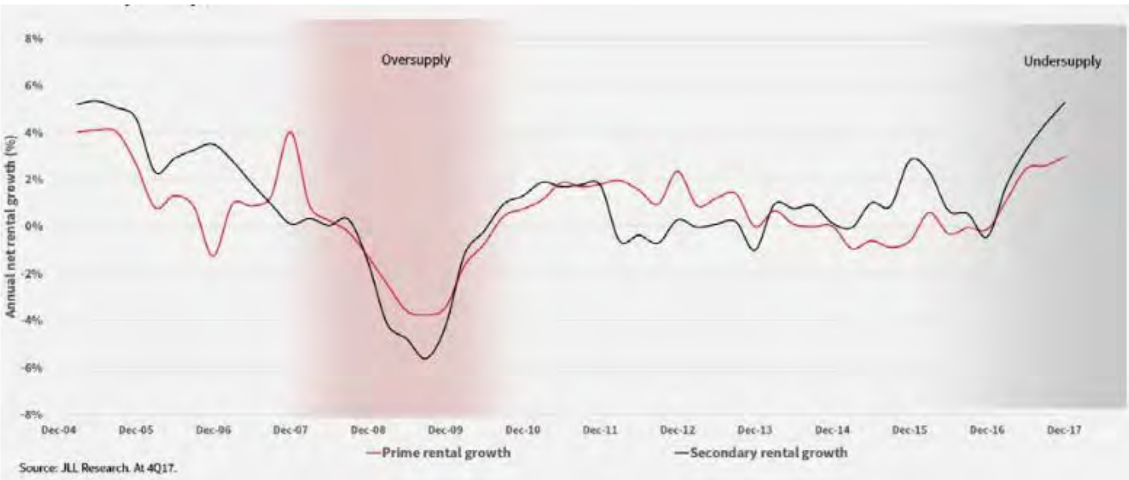

Figure 9 Sydney industrial rental growth Annualised quarterly (%)

Source: JLL

Precinct	Prime	Secondary
North	4.7%	8.9%
South Sydney	6.8%	8.7%
Inner West	1.8%	5.3%
Outer North West	2.7%	2.0%
Outer South West	4.8%	12.3%
Outer Central West	4.2%	4.6%

Figure 10 Annual rental growth 2017

Source: JLL

3.2.2 Supply Observations

The re-zoning of industrial land in inner city locations for a higher and better use has displaced tenants and generated a new source of leasing enquiry. According to the Department of Planning & Environment, an estimated 44.6 hectares (ha) of industrial land – largely in the Outer South West and Outer North West precincts – was lost to rezoning over 2015 and 2016.

This will have a two-tiered effect on the market. Firstly, the tenants who previously occupied industrial assets returned to the market; with more to come. Secondly, these withdrawals had a direct impact on industrial stock levels. Both development and occupier activity in Sydney have undergone an evident push outward.

Occupier activity in the outer west markets has grown. Over the past three years, annual gross take-up from the Outer Central West, Outer South West and Outer North West has averaged 845,000 sqm per annum. This was 48% above the 10-year annual average.

Construction pipelines in these precincts have expanded too. Completion levels in the Outer West markets over 2017 were the highest in a decade. We believe 2018 supply will exceed that level, with above 524,000 sqm of developments under construction and anticipated to complete within the year.

Positive tenant activity and a reduction in land has flowed through to higher land values. Average land values in Sydney rose by 37% over 2017. This high rate of land value growth has not been recorded before.

In the Inner West precinct, average land values in Silverwater for 1 ha blocks have increased by 33% over 2017, while in the Outer Central West, we recorded a 57% uplift in Eastern Creek land values.

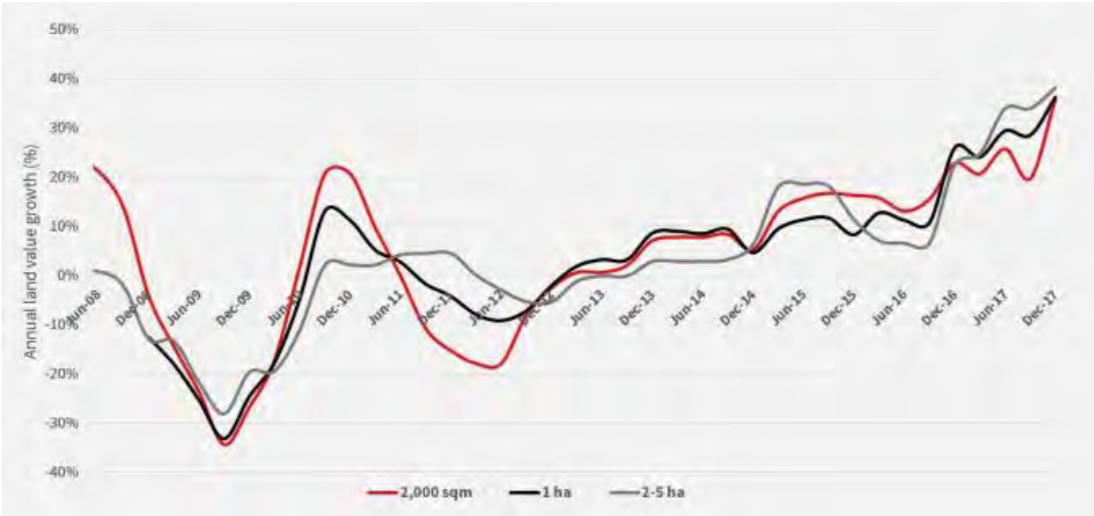

Figure 11 Sydney land value growth Annualised quarterly (%)

Source: JLL

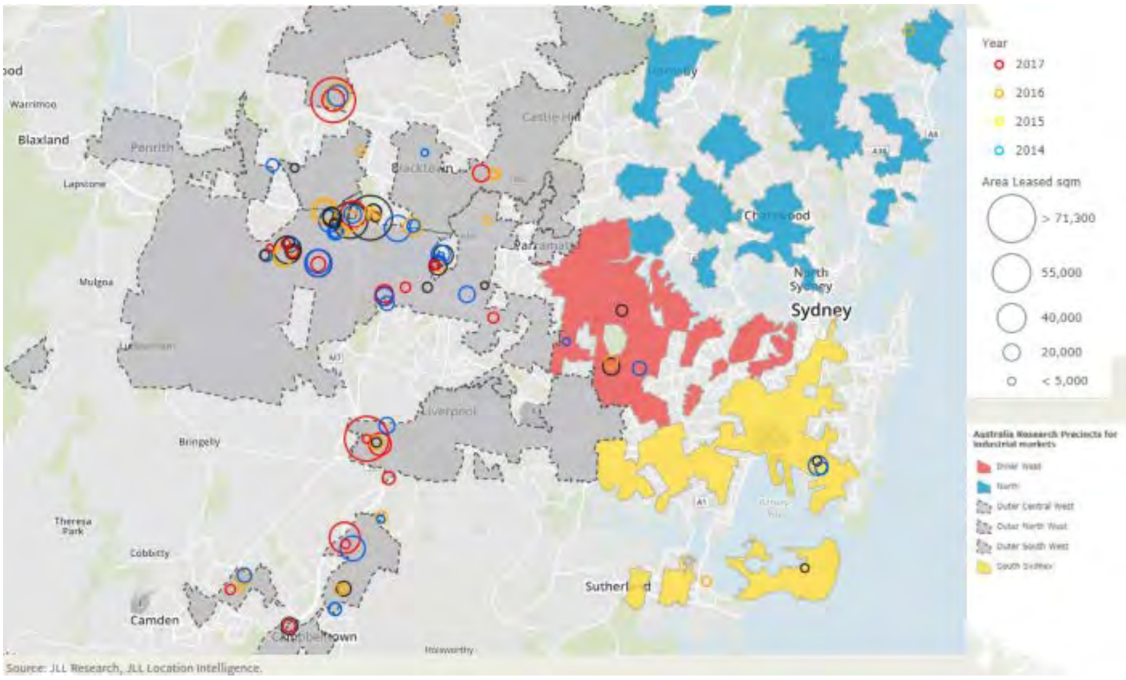

Figure 12 Industrial construction completions (2014-2017)

Source: JLL

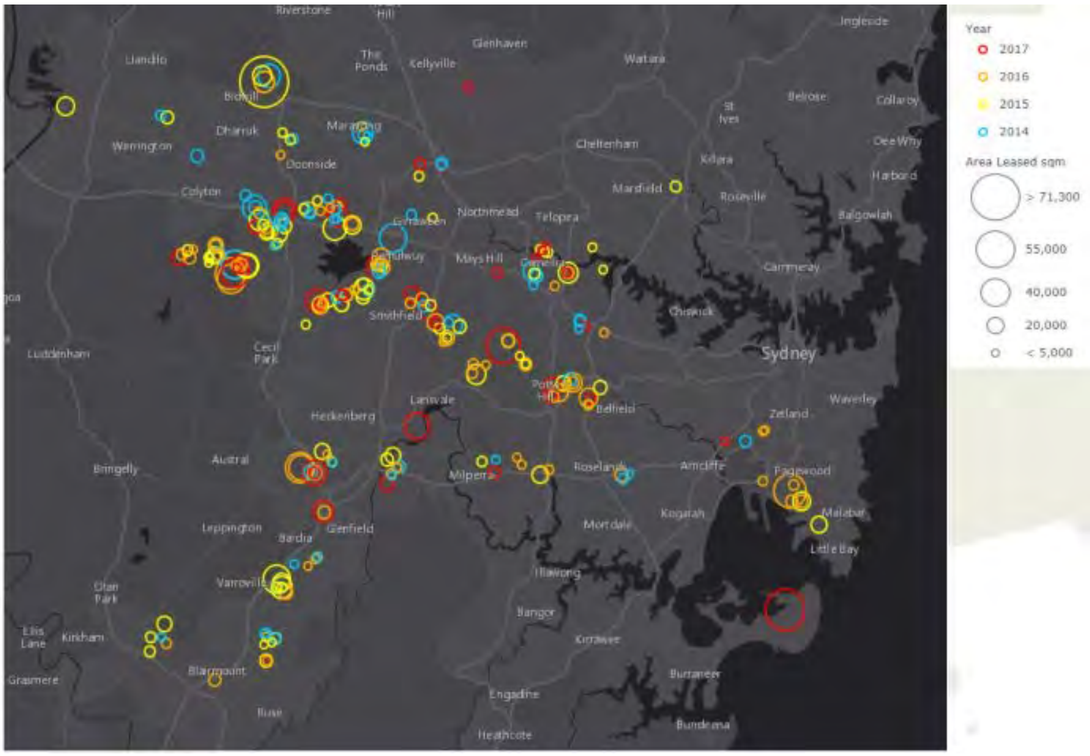

Figure 13 Industrial major occupier moves (2014-2017)

Source: JLL

In the short-term, developers have to work through zoning and service provision which limit the potential to respond to the current shortage.

Land values are a key ingredient in pre-commitment rents and imply that occupancy costs have the potential to increase significantly over the next 2-3 years.

Longer-term supply considerations include the consideration of where new industrial growth corridors will occur across metropolitan Sydney.

Timing and uncertainty surrounding key corridors, like Badgerys Creek, is causing delays to the required supply of industrial land.

The rate of land consumption and rezoning of existing inner-city industrial precincts creates a major issue for policy makers to ensure an adequate supply of

industrial land to accommodate the expansion of corporates and logistics service providers.

We believe the record levels of infrastructure development and utilisation of technology could help offset some of these costs pressures. However, we believe the consequences caused by the anemic supply in the industrial land, over the past decade, is now leading to rising land and rental rates.

Increased levels of development and rezoning have led to a reduction in Sydney's developable industrial land.

According to the ELDM serviced and undeveloped land has steadily declined since 2010. In January 2010, the Sydney Metro market had 1,012 ha of undeveloped and serviced land. By January 2017, this had reduced to 663 ha.

We estimate a further 5% of this area should be discounted to meet the requirements for other services such as access, lot size restrictions and other geographic constraints.

Our historical take-up data indicates approximately 100 ha of industrial land is absorbed for development each year. At 1Q18, there was more than 100 ha of land with developments under construction. Assuming that development activity does not approach the levels recorded in 2007 and 2008, we believe there are approximately four years' of industrial zoned and serviced land remains in the Sydney market.

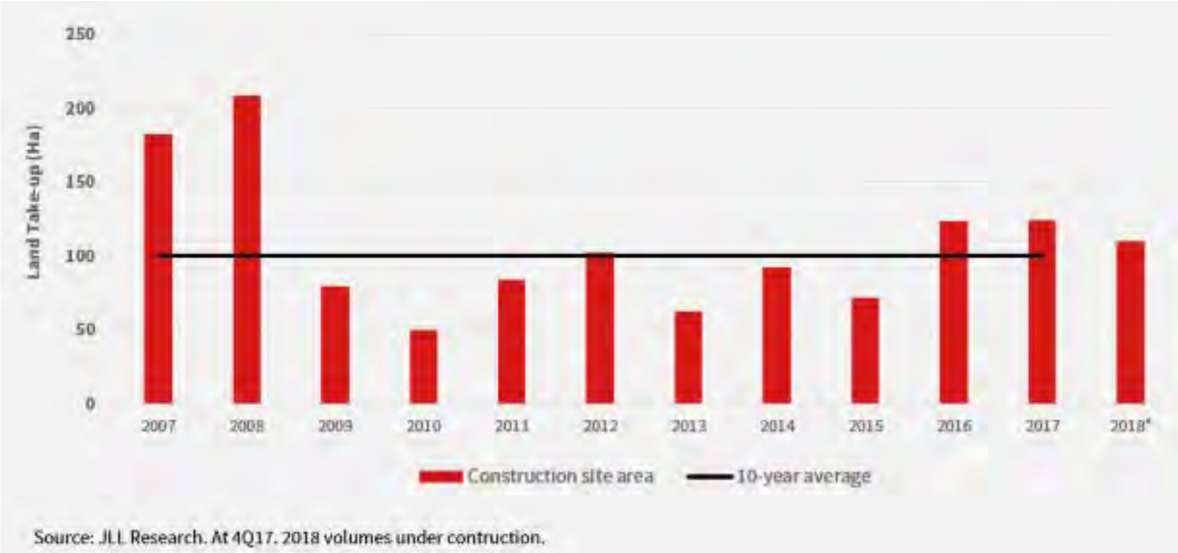

Figure 14 Sydney land absorption

Source: JLL

A more concerning factor for the industrial and logistics sector will be the rate at which developable land becomes available.

3.2.3 Zoned and un-serviced land

At March 2017, the ELDM identified 2,368 ha of un-serviced industrial zoned land. Servicing this land will depend on the level of pre-commitment reached which in turn depends upon achieving hurdle rates of return. Further, servicing land requires certainty on the end product. The servicing process cannot begin without a

project's council approval. Once the development application has been received, the delivery of lead-in services can take up to 15 months based on the complexity of works. This protracted process could limit the timely supply response to demand.

Given the rapidly depleting level of zoned and serviced industrial land and the extended turnaround time of un-serviced land, the increased scarcity of industrial assets over the near-term has become more likely. Therefore we think the periods of accelerating land value growth could be more frequent.

3.2.4 Potential Rezoning

Over the long-term, the prime question revolves around the 6,654 ha of potential industrial land.

This land remains subject to factors such as riparian corridors, slope, vegetation, transport corridors, local roads and lot fragmentation. But crucially – the availability of this land is bound by zoning uncertainty.

There is a disconnect between the asking price by current landowners and that which the developers consider feasible. At the heart of this stalemate is the uncertainty surrounding the future use of the land.

As Badgerys Creek draws closer, the land use in the surrounding corridors remain under consideration. Despite the broader council mandate to a mixture of uses, the specific approach specific determination of land-use remains largely unknown. Moreover, particular lots that are located across multiple planning jurisdictions could be subject to further uncertainty.

We believe the zoning and other planning uncertainties could limit the rate at which industrial land becomes available. This will potentially affect the medium to long-term supply of industrial floorspace.

4 Role and function analysis

The project team have considered the role and function of the industrial precincts within the study area. In doing so have provided observations on:

- The seven employment lands typologies identified by Hill PDA in their Industrial Precinct Review dated August 2015;
- The categorization of industrial lands under the Draft London Plan;
- An analysis of the ability of the current scoring to identify typologies;
- Scores for ‘known’ typologies; and,
- Additional tools that may assist in identifying typologies.

In providing context to this chapter we note that clearly Greater Sydney’s industrial precincts have a large amount of diversity with variance including;

- Their size;
- The area they service (local, regional, national, international);
- The types of goods and / or services coming from the precinct; and,
- Their density (employees or GFA per ha).

While there is no specifically defined types of roles or functions for industrial precincts there is general agreement on a selection of categories – these are discussed below.

4.1 Review of Employment Lands Typologies from Hill PDA Report

In their report ‘Industrial Precinct Review’ dated August 2015 Hill PDA identified seven typologies as follows

Table 5 – Hill PDA Industrial Precinct Review’: Employment Land Typologies

Hill PDA Typology	Description
Major Precincts	This typology generally relates to a large defined and consolidated precinct of regionally significant uses or cluster of uses that support critical infrastructure (i.e. Port Botany, Botany LGA; Sydney Airport Environs, Marrickville LGA; Alexandria, the City of Sydney LGA or Enfield, Strathfield LGA) or strategic centres and regional populations (i.e. Artarmon, Willoughby LGA and Brookvale, Warringah LGA). These parcels were generally protected as IN1 and / or IN2 zones generating local economies and precincts of choice in their own right.
Mid-scale Precincts	This typology generally related to one medium scale parcel of land or a series of more fragmented parcels

Table 5 – Hill PDA Industrial Precinct Review': Employment Land Typologies	
	and parcels of employment lands that collectively made a critical mass of businesses. These precincts were generally more disconnected from infrastructure and centres with fragmented edges that had either historically (e.g. Kingsgrove North, Canterbury LGA) been eroded by alternative uses such as residential or were in the process of being eroded (e.g. Mascot, Botany LGA). The operation of these parcels was often hindered by the need to access them from arterial roads via residential streets (e.g. Asquith, Hornsby LGA; Kingsgrove North, Canterbury LGA and Water Street, Strathfield LGA).
Remnant Industrial Sites	This typology may have one or a small number of purpose built factory buildings that are still operational but surrounded by residential uses given their more suburban location (e.g. Bushells Site, Canada Bay LGA; British American Tobacco Site, Botany LGA, Ashbury, Canterbury LGA). These sites are generally vulnerable to or already the subject of planning proposals for residential. The loss of these businesses and precincts was more likely when existing business owners were nearing retirement or the development potential had been realised and attractive options made on the sites.
Inner City Fragments	This typology relates to individual sites or clusters of former industrial buildings within inner city LGAs that are no longer suited / occupied by their original use. These buildings may lend themselves well to creative uses or a live / work mix but are under threat of conversion to 100% residential owing to their desirable industrial character (i.e. Lilyfield and Lords Road, Leichhardt LGA).
Highway Frontages and Bulky Goods	This typology can either take the form of a ribbon of car sales along a major highway with building supplies and factory outlets (i.e. Princess Highway Frontages, Marrickville LGA and Kirrawee, Sutherland Shire) or a cluster of purpose built bulky goods uses (i.e. Taren Point Bulky Goods, Sutherland LGA and Dural Service Centre, Hornsby LGA).
Working Waterfront	This typology either relates to marinas, ship chandlers associated cafes and restaurants within isolated waterfront residential neighbourhoods (i.e. Queens

Table 5 – Hill PDA Industrial Precinct Review': Employment Land Typologies	
	Parade and Princess Lane Newport) or working waterfronts (e.g. Gore Cove, Lane Cove LGA).
Urban Support Services	This final typology took a number of forms including clusters close to centres (e.g. Hornsby East and West, Hornsby LGA and Kingsgrove South, Hurstville LGA), remanent clusters within suburban streets (e.g. Belmore, Canterbury LGA) or clusters in their own right (i.e. Narrabeen, Pittwater LGA and Penshurst Hurstville, LGA and Belmore, Canterbury LGA). This type was generally more suburban in their location given the nature of the market they serve, were well established and well occupied and often located adjacent to lower value residential dwellings.

Observations

Broadly we consider that a lot of these typologies apply to the Sydney Industrial Market however should be refined based on the geographic characteristics of this study.

4.2 Review of The Draft London Plan (December 2017)

In addition to reviewing the seven employment lands typologies identified by Hill PDA the study team also considered classification of industrial lands in other jurisdictions. Regard was given to the Draft London Plan 2017 (the Plan).

London's land and premises for industry, logistics and services falls into three categories:

- Strategic Industrial Locations (SIL)
- Locally Significant Industrial Sites (LSIS)
- Non-Designated Industrial Sites

We note the last item 'Non-Designated Industrial Sites' sites containing industrial and related functions that are not formally designated as SIL or LSIS in a Local Plan. As such the observations below relate only to SIL and LSIS precincts.

4.2.1 Strategic Industrial Locations (SIL)

SILs exist to ensure London provides a sufficient number of quality sites, in appropriate locations, to meet the needs of industrial and related sectors, such as logistics, waste management and environmental industries, utilities, wholesale markets, and so on.

There are two types of SIL:

- Preferred Industrial Locations (PILs), which are particularly suitable for general industrial, light industrial, waste management, and so on.
- Industrial Business Parks (IBPs), which are particularly suitable for research and development and other activities that require a better-quality environment.
- PIL/ IBP's combined

Figure 15 London's Strategic Industrial Locations

Source: Greater London Authority 2018

London's SILs are the capital's main reservoir of land for industrial, logistics and related uses. SILs are given strategic protection because they are critical to the effective functioning of London's economy. They can accommodate activities which - by virtue of their scale, noise, odours, dust, emissions, hours of operation and/or vehicular movements - can raise tensions with other land uses and particularly residential development.

SILs are important in supporting strategic logistics operations serving the capital as well as providing relatively low-cost industrial space for small to medium enterprises (SMEs). Typically, they are located close to the strategic road network and many are also well-located with respect to rail, river, canals and safeguarded wharves which can support the sustainable movement of goods, construction materials and waste to, from and within London. To ensure that London can retain an efficient logistics function it is particularly important to secure and enhance strategic provision in SILs.

This should be complemented by smaller-scale provision in LSIS and Non-Designated Industrial Sites including sustainable 'last mile' distribution close to central London.

Innovations to make more effective use of land in SILs are encouraged and should be explored in Local Plan reviews and Opportunity Area Planning Frameworks. This includes collaborative working with other planning authorities in the relevant property market areas including authorities in the Wider South East.

This should take into account the potential to rationalise areas of SIL that are currently in non-industrial and related uses or contain transport or utilities uses which are surplus to requirements.

As part of the Draft Plan it is noted that development proposals in SILs should be supported where the uses proposed fall within the broad industrial-type activities set out below:

- light industrial
- general industrial uses
- storage and logistics/distribution uses
- other industrial-type functions, services and activities not falling within the above Use Classes including secondary materials and waste management, utilities infrastructure, land for transport and wholesale markets
- flexible premises suitable for occupation by SMEs
- small-scale 'walk to' services for industrial occupiers such as workplace crèches or cafés.

4.2.2 Locally Significant Industrial Sites (LSIL)

As outlined above the Plan does not appear to specifically define LSIL's however from our review it appears the generally have characteristics that include:

- They provide services on a more localised basis;
- They are generally identified as being smaller; and
- The nature of uses are generally less conflicting with the uses found in SIL's (i.e. creating less pollution / noise / heavy vehicle movements etc.)

Broadly the LSIL's are considered to be aligned with the Urban Support Service as defined by Hill PDA earlier.

4.2.3 Implications for the Sydney Industrial Lands Snapshot

The study team considered the above to understand its applicability to the Sydney Industrial Lands Snapshot. Broadly our observations are as follows:

- The two categories (SIL) and (LSIS) provide a higher categorisation compared with the Hill PDA and the functions proposed by the study team;

- The categorisation under SIL of Preferred Industrial Locations (PIL) and Industrial Business Park (IBP) and PIL / IBP does provide an additional level of granularity;
- In considering how the above categories could be identified the study team has reflected on the ability of the scoring process to identify precincts as either SIL and LSIL. We consider the following metrics lend themselves most to this process:

Table 6 – Snapshot Criteria most beneficial in determining SIL or LSIL typologies

Criteria	Description
B1 Does the precinct make a significant contribution (with respect to land area) to industrial land supply in its District?	This criteria denotes the larger employment lands precincts within the Study Area. These tend to more often play a metropolitan significant role compared to cmaller precincts.
B2 Is the Precinct well connected to the motorway / orbital and the freight arterial network (i.e. less than 5 min or 2km drive) with limited access through residential streets? Is the Precinct well connected to dedicated freight rail network? Is there B double truck access? B3 Is the Precinct located near major infrastructure hubs i.e. an airport, port, intermodal, or a strategic centre?	This criteria gives an indication of proximity to transport networks for distribution as well as scale of accessibility for vehicle movements, which may be important to the uses and functions of SILs Like B2, proximity to key distribution and logistics hubs may be important to the function of SILs.
B8 Does the precinct have other constraints i.e. potential for land use conflict?	This criteria may indicate if operations that result in odours and noise can continue to occur with impunity. Such uses may be necessary to the city's function.
B9 Does the Precinct have significant urban services?	High levels of urban services tend to indicate a potential LSIL function as an important local provider of services to business and residents.
C3 Does the Precinct contribute significantly to the local, subregional or regional economy?	The scale of a precinct's gross value add is primarily a measure to its significance to the Greater Sydney economy.
C6 Is the number of jobs forecast to grow?	Strategic industrial lands are often the site of a large number of jobs, making

Table 6 – Snapshot Criteria most beneficial in determining SIL or LSIL typologies	
	their role as places for employment important for Greater Sydney.
C7 Does the precinct presently support, or will it be likely in the future to support, a unique or diverse business cluster?	For a SIL clustering can work two ways, evenly distributed clustering can denote a large and general industrial precinct that provides a range of services and functions for the city, however, some specific clustering can denote a particular agglomeration of uses that are located in a particular precincts due to, among other things, access to the transport network or access to a specific market.

On balance we consider the London Plan provides a parallel approach to that proposed by Hill PDA and the Study team. More specifically we consider the roles / functions / typologies adopted by the study team detailed in 4.3 provide a greater understanding of the actual role being taken by these precincts and therefore have a preference to these more refined definitions.

4.3 Definition of Typologies Considered Appropriate for the Study Area

Having had regard to the Hill PDA report and the analysis undertaking within this study, inclusive of the case studies the project team have identified a selection of typologies that best reflect the study area. These are defined below.

Table 7 – Employment Lands Snapshot Typologies	
Snapshot Typology	Description
Large scale logistics	Precincts which have a significant proportion of occupiers associated with transport and logistics that service the Greater Sydney Metropolitan area and beyond. Access to motorways for B-doubles is critical. The improvements generally comprise large space, high clearance industrial sheds with low proportions of supporting office uses office. Many of these will have warehouse facilities of greater than 10,000 sqm. Often site coverage is no more than 50% given the requirement for parking / turning circles. These precincts (and average lot sizes) are generally above average sizes compared with the Sydney Metropolitan average.

Table 7 – Employment Lands Snapshot Typologies	
	Ownership in this precinct is dominated by listed property trusts.
General Industrial	Generally comprising larger industrial precincts which service a mix of the Greater Sydney Metropolitan area as well as more localised offerings. The improvements can vary significantly in age, size, tenure (strata and freehold) and ownership (investment and owner occupied). Clustering exists in a number of these precincts however the majority of uses are not specifically clustered.
Local Services	This is broadly aligned to the Hill PDA definition in which the typology took a number of forms including clusters close to centres. This type was generally more suburban in their location given the nature of the market they serve, were well established and well occupied and frequently located adjacent or nearby to residential. The improvements were frequently dated although exceptions exist. A mix of freehold and strata title product could be seen. A preference existed for owner occupation. Frequently the local services were provided in precinct that were smaller than the average seen across the Sydney Metropolitan region.
Bulky Goods	The study team have drawn a similar conclusion to Hill PDA that there exists a typology of Bulky Goods. This land use necessarily requires high exposure and therefore example of this exist along Parramatta Road, Victoria Road etc. The built form typology generally comprise mid sized improvements and often these uses cluster together.
Independent Sites	This is similar to the 'Remnant Industrial Sites' as defined by Hill PDA. Generally, these precincts are small given their typology may have one or a small number of purpose built factory buildings that are still operational but surrounded by residential uses given their more suburban location. These sites are generally vulnerable to or already the subject of planning proposals for residential. Frequently but not always these sites were owner occupied and comprised older facilities beyond their current economic life.

While the project team identified the potential for further grouping of typologies it was considered to be not reflective of any major category of land uses. As such we consider merit in grouping a 'other' category which could include typologies such as:

- Working waterfront
- Specialised uses
- Undefined or undeveloped precincts.

4.4 Testing of Typologies

The objective of this section is to test the given scores for a selection of precincts known to have specific function / roles.

Selected Precinct (and Associated Roles / Function)

To enable testing of the typologies identified above the following precincts were tested as they were identified as having a role and characteristics which broadly matched with the definitions.

Table 8 – Example precincts within Snapshot Typology

Known Role	Selected Precincts	Precinct Characteristics
Large scale logistics	• Eastern Creek • Glendenning • Hoxton Park Airport	Clustering of Transport and Logistics, large precincts, high capacity for growth (indicating low development of site to enable vehicle movements).
General Industrial	• Chipping Norton • Seven Hills • Wetherill Park	Large precinct sizes, general uses (no significant clustering), high numbers of jobs.
Local services	• Clyde • Guildford/Merrylands • Fairfield East	Clusters of services and industrial uses (primarily non-retail in nature), close to local centres, near residential zones, high land values.
Bulky goods	• Waitara • Orange Grove • Fairfield	Main street frontages, bulky goods clustering, small to medium precincts near centres.

Table 8 – Example precincts within Snapshot Typology		
Independent Sites	• Hornsby Heights • Alfred Street, Parramatta • Gregory Place, Harris Park	Small precincts, single lots, surrounded by residential zoned land.

Developing the Diagrams

In developing the diagrammatic representations of the typologies above in Figure 16, Figure 17 and Figure 18, the scores of the precincts which comprised each typology was averaged. The scoring for individual precincts is located in Appendix 2: Scoring outcomes by LGA.

Testing Outcomes – Investment and Business

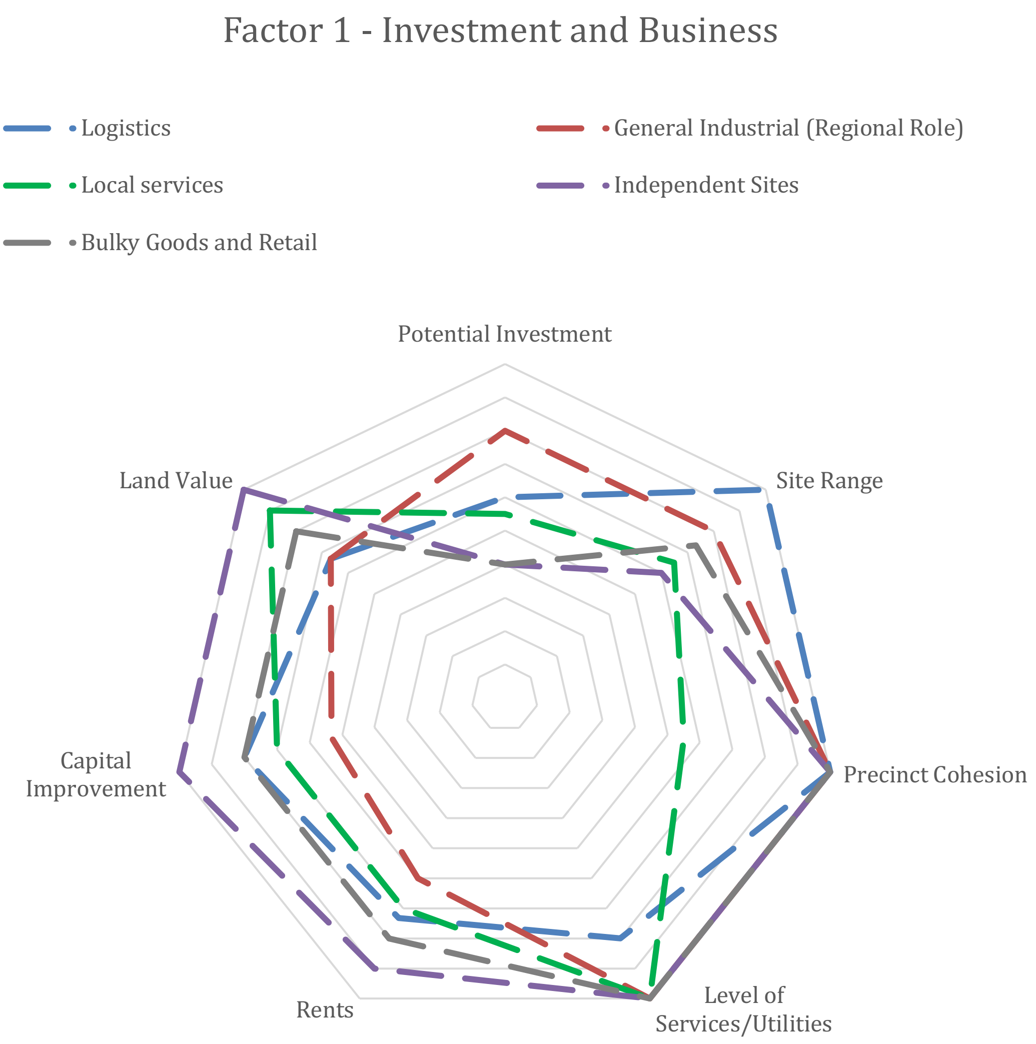

Figure 16 Dimension 1 Typology Spider Diagram

Source: JLL

Testing Outcomes – Location, Functionality and Connections

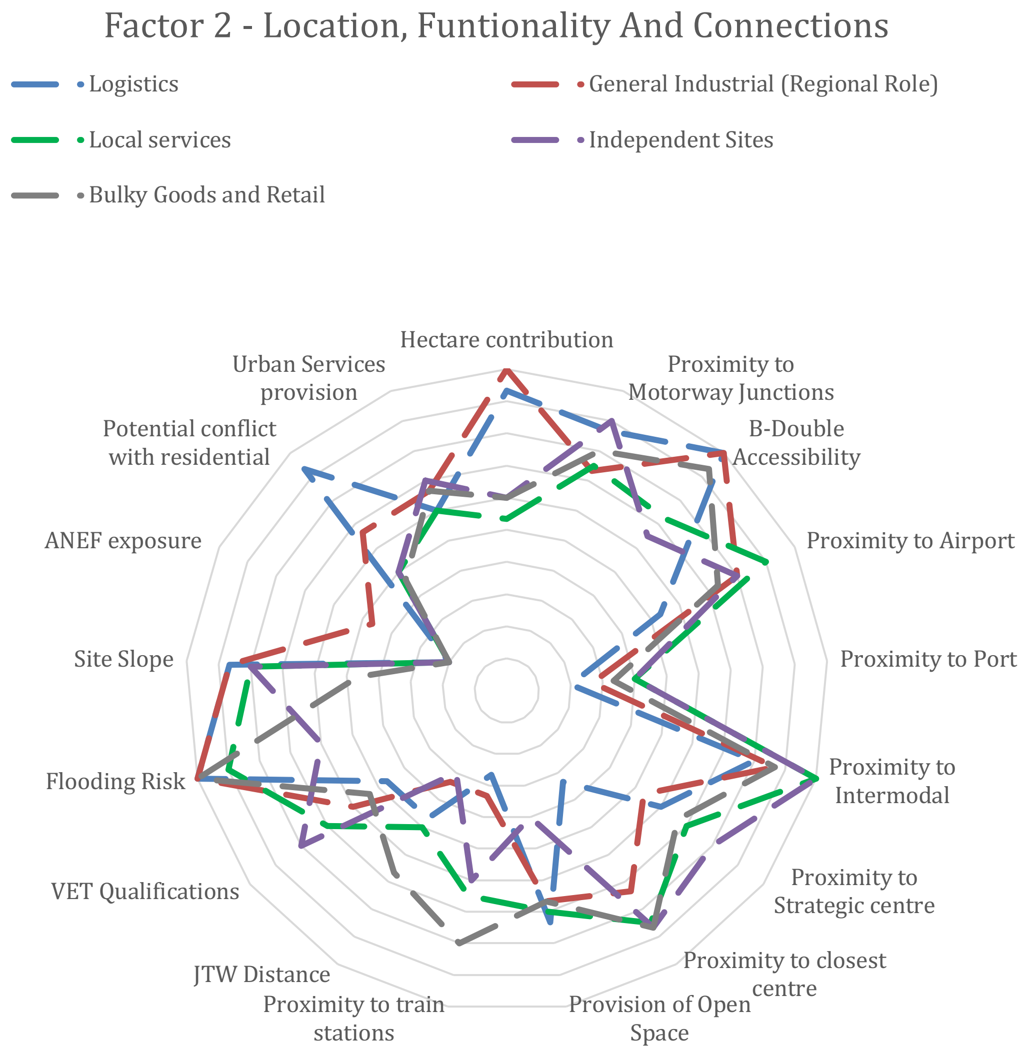

Figure 17 Dimension 2 Typology Spider Diagram

Source: JLL

Testing Outcomes – Economic Output, Jobs and Growth

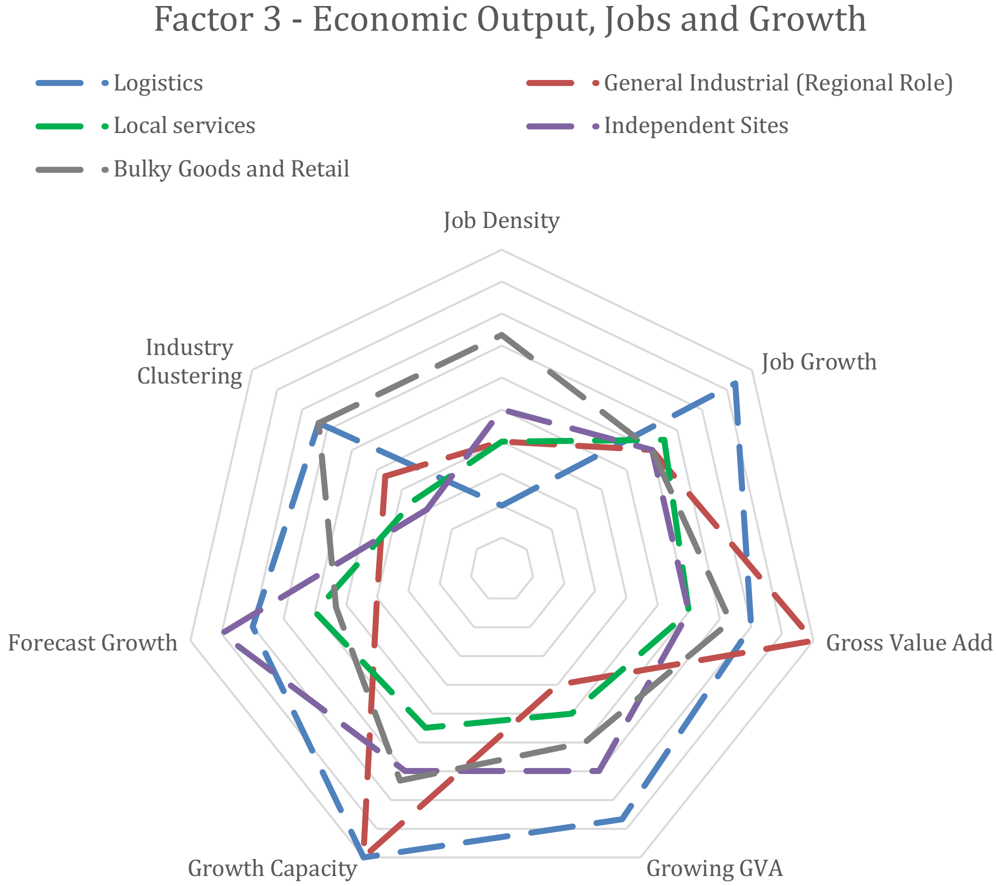

Figure 18 Dimension 3 Typology Spider Diagram

Source: JLL

Observations

The above are not conclusive profiles for each typology, however the project team believe they may be useful in providing guidance as to how a precinct's typology may potentially be identified. That is by further unpacking the key criteria and requirements of a typology to function, planning to enable a precinct to transition or evolve into a typology can be better considered. However, if employed this process will need to be refined in consideration of new evidence or measures explored by the Commission.

Furthermore, while there are limitations with the above approach such as the sample size and potential for the selected precincts not to exact examples of the defined typology we do make the following observations:

- The development of industrial precincts within Sydney is significantly influenced by historic /legacy issues. In many cases this may mean sub-optimal location of industrial precincts for all typologies.

- Most precincts, and even some of those listed above, have multiple roles. E.g. independent sites often have local services, general industrial precincts often will have a component of bulky goods. As such a blending of scores will occur.

4.5 Inputs that would Improve Identifying Role / Function

As the Commission works with councils to identify and plan for strategically important industrial lands there is some merit in understanding precincts by typology to give a view as to function beyond outputs of the Snapshot. Regardless of the typology structure adopted in this review, we have considered factors that would improve the findings and enable a better means to derive typologies. We consider merit exists in considering factors such as:

- Having regard to time series data. Property values, rents and capital value are excellent examples which are able to show demand pressures for specific locations;
- Collection of data about the key occupiers within a precinct, and the impact they have. Some precincts are dominated by 1 or 2 key occupiers and this influences other uses (competitive or complementary) to also locate within this precinct;
- Identification of greater detail on the built form typology of the precinct. The building age, nature of improvements etc. can provide meaningful observations on the types of land uses that would likely use them e.g. a car repair facility would likely not require a high space warehouse etc;
- While time consuming the best way of measuring the actual performance comes from undertaking site surveys and talking with occupiers. Not only does this process provide critically data such as the true number of employees within a precinct, it also reveals the true perception of the precinct as well as a view to the future e.g. expectations of growth.

4.6 Determining precinct significance

Due to the refinement and additional investigation required to determine precinct typologies under the proposed categorisation outlined in Section 4.3, the project team has adopted three broad categories for the purpose of identifying a precincts significance in this report. These categories are:

- Metropolitan
- Local
- Mixed

These broadly adopt those typologies identified in Section 4.3 by grouping them into what is deemed their appropriate category. These are:

- Metropolitan – Large Scale Logistics and (some)General Industrial
    - Those precincts of a large scale and significant economic contribution, whose operation are important of to the function of

Greater Sydney and include uses such as manufacturing, transport and logistics.

- Local – Local Services and (some)General Industrial
    - o Those precincts that provide employment and service functions that service the LGA and broader District and included uses such as manufacturing, automotive, warehousing and other services.
- Mixed – Bulky goods, Independent Sites, Working waterfront, Specialised uses and Undefined or undeveloped precincts.
    - o Those uses that are population serving (largely retail in nature), under pressure to rezoning as single or a small number of sites with little planned investment, specialized uses that are not critical to Metropolitan functions, or precincts under development.

The outcomes of this assessment are detailed in Appendix 2: Scoring outcomes by LGA.

Like the Snapshot process generally, the ascribed significance should not be a means to determine the value of the precinct to the region, rather it should provide a means for initial discussions and considerations as to the strategic future of these precincts which should be considered in light of its locational attributes, current uses and strategic potential.

5 Findings

This section provides a summary of the key observations from the Snapshot project. It draws on the experiences of the project team in processing data, interrogating scoring outcomes and site visit investigations.

5.1 Outcomes of site visits

One of the key purposes of the Snapshot project is to verify, test and validate the data collection process to allow for a refinement of the methodology for future iterations.

The project team were able to gauge the various successes and limitations of the data collection methods and criteria through site inspections, via an observation of how these play out on the ground.

Below is a summary of findings and commentary on the Snapshot methodology based on site visit outcomes.

5.1.1 Employment data

Scores for several criteria for Dimension 3, including C1 Job Density, contrasted with site visit observations. This was particularly apparent in smaller precincts where jobs, and therefore employment densities, for the precincts appeared to be overreported. This issue also impacts the criteria for Job Growth, Contribution and Growing Contribution.

As discussed later in this report, this was a known limitation of the data collection process, due to the size of precincts relative to the data collection geographies and difficulties in a simple process of job attribution.

5.1.2 Amenity for employees

The Snapshot included a measure to gauge the potential amenity offered to employees within precincts. This included the proximity to local and strategic centres, the provision of surrounding open space, and access to train stations.

Generally speaking, large precincts with high scores for gross value add did poorly on these measures. Observations from site visits suggest that this does not have a noticeable effect on the function of the precinct. In fact, several large precincts appeared to contain local workforce focused services such as cafes, restaurants and service stations, which enable self-containment. Additionally, provision and uptake of carparking suggested that access to public transport was not currently an influencer on precinct function.

However, this is not to say these criteria do not have value going forward. Rather, such findings should be considered when planning for the future of employment land. This could include the possible transition of uses to ones with higher job densities in which precinct amenity and accessibility via public transport may appeal to investment.

5.1.3 Investment

Generally, it was the larger precincts that had high scores for planned investment. As a measure this is a good indication of the current attractiveness of a precinct for new occupants or those occupants wishing to upgrade their stock.

However, it was observed that many precincts, including Kings Park and Rydalmere, include several occupied poor quality stock. As such, this measure has limitations in assessing precincts where stock does not necessarily have to be new or "attractive" to encourage use.

5.1.4 Requirement for qualitative analysis

Overall, the site inspections reinforced the notion that the Snapshot is only one part of the process for developing a strategic vision for employment lands. In addition to the quantitative assessment of data, contextualisation and ground-truthing must occur in parallel to develop a holistic notion of a precinct's form, function and potential future as an employment land use or otherwise.

5.2 Scoring outcomes

The following is a summary of the scoring outcomes for Snapshot process by a range of groupings.

The scoring outcomes do not in themselves indicate the success of a precinct, rather they build a picture of the precincts and in some instances highlight the successes and limitations of the Snapshot process as it is currently constructed.

5.2.1 Trends by criteria

This section provides a series of observations based on scoring data. While the observations were not validated through statistical processes, specifically the relationships between data, it appears there a series of logical explanations to support these relationships.

Precinct size and gross value add

There was an observable positive relationship between a precinct's size and criteria C3 Gross Value Add. Larger sites tend to have above average scores in criteria C3, with the 20 largest precincts averaging 4.65 for this measure out of a possible 5. Conversely, the smallest 20 precincts averaged 1.9 for C3.

Data to inform C3 was based on gross value add of specific ANZIC codes within the precinct's DNZ(s). As larger precincts tend to occupy a greater proportion of a DNZ, the observed relationship is likely to be related to the ability for larger sites to generate higher economic outputs purely due to greater total gross floor areas.

As such C3 outcomes are not relative measures, rather comparisons of gross values.

Precinct size and investment

Similar to the relationship discussed above there was an observable relationship between precinct size and criteria A1 - Investment. The 20 largest precincts averaged scores of 3.7 for this measure, whilst the smallest 20 precincts averaged 1.3. The overall average for criteria A1 was 2.3.

As larger precincts generally have more sites, this relationship may be due to the greater potential opportunities for investment. If this assumption is correct, this is not a relative measure by which precincts can be compared.

Contribution and growing contribution

Of the 25 precincts that scored 5 for gross value add (C3), their average score for the proportional increase in Gross Value Add 2011-2016 (C4) was 2. This indicates that these precincts are currently highly productive and, due to the low relative proportions in improvement to productivity since 2011, have historically been productive.

Determining strategic importance

One potential outcome of the Industrial Lands Snapshot is output scoring that could help define the level of strategic importance of employment lands precincts. In line with the London Plan approach discussed in Section 4.2. The attribution of significance has been attempted and is detailed in Appendix 2: Scoring outcomes by LGA.

However, through progressing the Snapshot, it was evident that scoring criteria outcomes were limited by the manner in which they could portray a precinct's significance.

While Metropolitan significant precincts could be identified, largely through criteria relating to precinct size, economic contribution and job figures, those of local or mixed significance were more difficult to determine. This was in part due to data limitations (discussed in 5.3) where employment, economic value and clustering nuances were difficult to determine due to overcount of data which clouded this aspect of the analysis.

Overall scores

Through the analysis of the scoring outcomes several trends with overall scores emerged. Most interestingly were those criteria with relationships with overall scores, that is where criteria scores provided a general indication to the overall score.

One group were those with a positive relationship with overall scores, that is, if a criteria score was below average the overall score was likely to also be below average. This also applied to above average scores for the criteria and overall precincts. Figure 19 demonstrates these relationships. Criteria with positive relationships of note were:

- HA contribution (a proxy for precinct size);
- Rent ($/sqm of gross floor area);
- Capital improvement (($/sqm); and,
- Gross value add.

As discussed above, the criteria for precinct size (Ha contribution) was found to have relationships with other criteria (including Gross Value Add) which would explain the positive relationship with the overall score. That is, large precincts tending to have above average scores across a range of criteria and would likely result in an above average overall score. However, for the criteria for Rent and Capital improvement it is difficult to ascertain a reason why these may have a positive relationship with the overall scoring outcome.

Conversely, it appeared that several criteria had little effect on overall total scores. Criteria considered to have little influence on overall outcomes include:

- Site cohesion;
- Proximity to train stations, ports and airports;
- Median distance for workers;
- Proximity to local centres;
- Provision of open space in the surrounding area;
- Flooding Risk;
- Average site slope; and
- Job density.

The majority of these are considered dependent criteria which are relative to the precinct's location and not an outcome of its function, values, appeal to industry or other qualities. These seem to suggest that a precinct's location may have little bearing on other criteria such as rents, gross value add, job growth or investment.

For both the above observations it is noted that there is a limit in this exercise to determine if any correlation of statistical significance due to the limited sample sizes available for analysis.

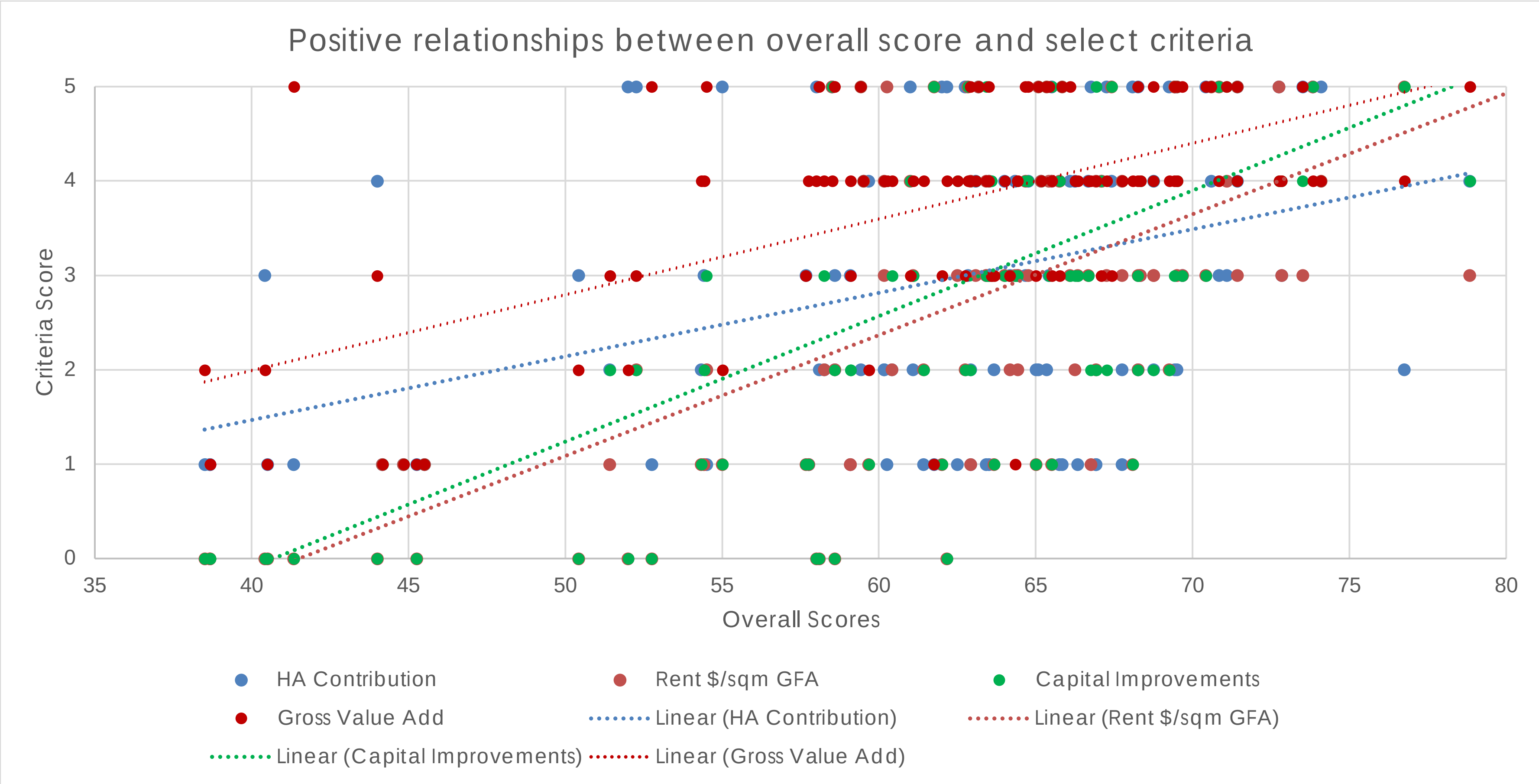

Figure 19 Criteria with a positive relationship with overall scores.
This graph presents clustering of individual scoring outcomes for select criteria plotted against overall precinct scores with trend lines highlighting positive relationships between the two. While not a proven correlation, these criteria give a general indication of total scoring outcomes.

mecone

Figure 20 Criteria with a neutral relationship with overall scores.
The above graph demonstrates weak to no relationships between certain criteria and overall scores. Compared to Figure 19 scores are more evenly distributed, and no trend can be observed.

5.3 Limitations

5.3.1 Assumptions and limitations of methodology, criteria and scoring

The following are the observed limitations to the methodology outlined above.

Assessment of precincts

While the project has resulted in scoring outcomes by precinct, this process cannot be relied upon to assess the "health" of precinct. Assumptions from the data can be made, however more detailed investigations are likely necessary in order to determine the individual success or lack thereof for each precinct, in order to determine its future roles.

Conflicts within data collection geographies

It was noted by the project team that there are several instances where two or more precincts shared a data collection geography. This conflict was noted and an apportionment of values for a variety of data was estimated.

It should also be noted that this apportionment was based on precinct area and not through a nuanced understanding of the function of the precinct or the uses within. This may result in undercounts or overcounts for some precincts.

Employment data

Criteria C1, C2 and C3 were informed through the use of employment figures gathered at the DNZ level. While one of the smallest data collection geographies, this process captures other employment lands that may be located with a precinct's DNZ.

This issue affects smaller precincts disproportionately, especially those within an urbanised context and sharing a DNZ with local centres or other commercial activity. Larger precincts were generally immune to this as they tend to occupy a DNZ or DNZs entirely.

This is best demonstrated in Figure 21 below where Cabrammatta is shares a DNZ with the Cabramatta Centre.

Figure 21 Cabramatta CBD

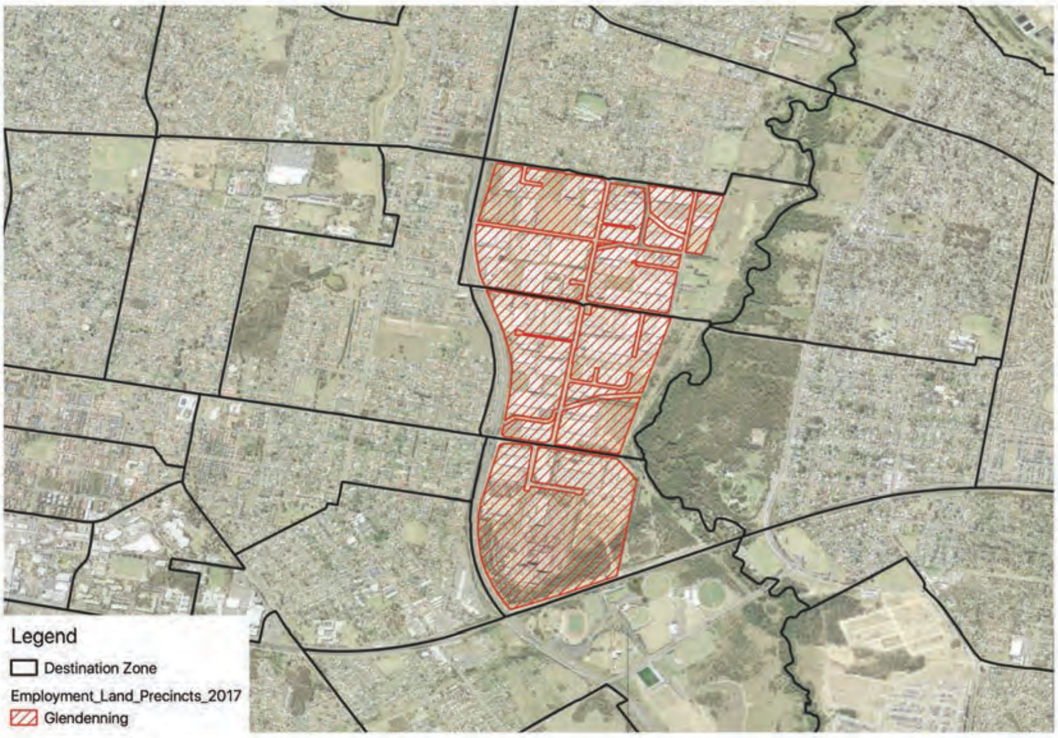

Figure 22 Glendenning

Cabramatta CBD a small precinct relative to its DNZ and Glendenning which occupies the majority of its DNZs. These demonstrate limitations with collecting information at the DNZ level as without allocation the Cabrammatta CBD is allocated jobs beyond those in the precinct. Glendenning occupies the majority of the DNZ and so there is greater confidence that jobs data is attributable to the precinct.

To address this, an assumption was made that all employment data collected at the DNZ level was attributed wholly to the precinct or precincts within. Attempts have been made to manually amend this data where possible, based on other sources of information and site observations. It should be noted that this process was not consistently or exhaustively applied. As such, a limitation on the validity of outcomes and scores for these categories is acknowledged.

Additionally, scoring scales for many criteria was based on the range and distribution of initial unmodified data. Changes due to manual overrides will affect the validity of the scoring, generally pulling scores downward.

6 Summary and next steps

6.1 Summary

The process is considered a substantial step forward in gaining an appreciation of the qualities and characteristics of a variety of employment lands. Feedback from Steering Committee members indicated that this sentiment was shared among the broader group.

The Snapshot process provides some insight into the nuances of particular employment land types and those aspects which are considered important to their ongoing function. Additionally, while not exhaustive, the Snapshot provides a framework for planning authorities seeking to emulate or encourage particular typologies by understanding basic structural needs of typologies and uses.

However as noted, this iteration of the Snapshot project is a pilot project that should be refined through not only consideration of the outcomes and recommendations detailed within this report, but through further collaboration with planning authorities and industry.

As such the following are a series of recommendations stemming from observations and learnings from the Snapshot process.

6.1.1 Recommendation 1: Process refinement

As noted in the limitations, some precincts were impacted by the manner in which data was collected and attributed to them. This was evident where small precincts were attributed with all jobs and gross value add for their relatively large data collection geography.

It is recommended that a process and methodology be developed for attribution for economic and employment data in the cases described above. This will allow for the evidence base to more closely reflect these measures and be of greater value in any analysis of employment lands precincts.

6.1.2 Recommendation 2: Additional Criteria

It is recommended that the following criteria be added into the next iteration of the Employment Lands Snapshot:

Table 9 – Recommendation 2: Additional Criteria

Recommendation	Justification
Measuring gross value add per hectare of developed and serviced employment land	This would provide a relative measure in order to ascertain the relative economic values of precincts. This will be particularly useful once issues raised in Recommendation 1 are resolved.
Measuring future investment per hectare of developed	As discussed in the findings, a relationship between precinct size and above average

Table 9 – Recommendation 2: Additional Criteria	
and serviced employment land.	scores in this criteria exists due in part to the scale of investment opportunities for larger precincts. Additionally, due to reporting investment figures as a total figure and not a proportion of the precinct, no true relativity between precincts could be established. Including this criteria could provide a relative measure in order to ascertain the relative investment within precincts.
Considering current and future transport freight and transportation planning as part of the assessment.	As noted through Steering Committee meetings and general project meetings, consideration of proximity and access to freight lines would be a useful means to assess a precinct's strategic value. Additionally, consideration transport planning particularly proximity to planed major infrastructure will also enable consideration of long-term strategic values for the precinct and broader area.
Consider other forms of transport particularly T-Ways and proposed light rail stations/stops.	As identified in case studies, several precincts had below average scores for proximity to train stations. Given the service provision of the heavy rail in the study area and the locational characteristics for many precincts this is not surprising. However, it was noted that several precincts were serviced by rapid bus services which provide significant public transport capacity and regional connectivity. As such public transport accessibility to T-Way services should be considered. Furthermore, the commitment to Parramatta Light Rail Stage 1 and Stage 2 (subject to final business case) will provide greater accessibility to employment lands, particularly to Rydalmere, and River Road West precincts. Consideration of the Light Rail route should occur to best support a robust evidence base to enable strategic planning.
Measuring Occupancy/Vacancy.	It was noted that the Commission engaged JLL to provide the project group with occupancy data.

Table 9 – Recommendation 2: Additional Criteria	
	However, due to methodological limitations, it was decided that this criteria would not be investigated for the Snapshot. However this measure is still considered to be of significant value in understanding the function and character of employment lands. Collecting such information may be best achieved through a thorough precinct by precinct analysis.
Utilise time series data	Where possible criteria should have regard to time series to enable the understanding of trends across data, time and geography. Historic data, particularly economic data such as land values, rents and capital value would enable an appreciation for the pressures on employment lands over time.

6.1.3 Recommendation 3: A role for local government

Through the Steering Committee meetings and Snapshot project meetings it became clear that councils potential ongoing role in the development of the employment lands evidence base.

Given their working knowledge of precincts and broader area, as well-established relationships with land holders, councils could undertake a complete or partial Employment Lands Audit on an annual basis. This could capture the following fields to provide data for Industrial Land evidence base and inform future iterations of Snapshot projects managed by the Commission:

- Determining precinct occupancy levels;
- Identifying key occupiers for precincts;
- Job counts to inform job densities;
- Analysis of uses;
- Qualitative analysis of the quality of stock; and
- Recording development within the precinct, accounting for development applications and complying development certificates for the precincts.

This ground-up approach will complement the Snapshot's top-down approach to create a robust evidence base.

6.1.4 Recommendation 4: The Commission supporting local government

To align with Recommendation 3, the Commission should support councils through the establishment of a data portal for evidence can be submitted. As single source of truth, both the Commission and council can gain a broader appreciation of the nature and characteristics of employment lands across the Districts and region. This is considered of value where strategic decision making in on LGA may affect the operation and function of employment lands in another. For example when uses are displaced due to changes in zoning in one LGA then seeking appropriate locations in another.

mecone

Suite 1204B, Level 12, 179 Elizabeth Street
Sydney, New South Wales 2000

info@mecone.com.au
mecone.com.au

Appendices

Appendices

Appendix 1: Criteria, indicators, scoring scales and data sources

Table 10 – Scales for Scoring

Code	Criteria	Sub-criteria	Indicator	District	Preliminary Scale					Data source
					1	2	3	4	5	
A1	Is the precinct attracting significant development activity and investment?		Cordell Connect data on proposed development within precinct ($000)		$0	$0-$4,999	$5,000-$19,999	$20,000-$99,999	>= $100,000	Cordell Connect
A2	Does the precinct provide a range of sites?		Standard deviation of lot size (sq.m)		Single lot	<=1500	1501 - 6200	6201 - 15000	>15000	Greater Sydney Commission Internal Data
A3	Is the precinct cohesive and uninterupted?		Visual analysis of Precincts for infrastructure, landscape or zoning intersections/bisections		Fragmented Precinct		Intersected by an Obstacle		Cohesive Precinct	Department of Planning and Environment - Local Environmental Plans
A4	Does the precinct have a good level of utility provision (i.e. water and sewer)?		% of precinct underveloped and unserviced		100% - 80%	79% - 50%	49%-30%	29% -10%	<10%	Department of Planning and Environment - Employment Lands Development Monitor 2017
A5	Does the precinct demonstrate high rental values?		Rents - $/sqm GFA		$0-$100	$101-$110	$111-$120	$121-$130	$131-$200	JLL Research (Q1 2018) Online Rental Advertisements CoreLogic RP Data SIX Maps NSW Globe JLL MapIT GIS
A6	Does the precinct demonstrate high improved values?		Improved capital values - $/sqm GFA		$0-$1,429	$1,430-$1,642	$1,643-$1,829	$1,830-$2,000	$2,001-$3,478	CoreLogic RP Data SIX Maps NSW Globe JLL MapIT GIS

Table 10 – Scales for Scoring

Code	Criteria	Sub-criteria	Indicator	District	Preliminary Scale 1	2	3	4	5	Data source
A7	Does the precinct have high land values?		Land Value - $/sqm of precinct		$100-$350	$351-$429	$440-$500	$501-$650	$651-$2,591	JLL Research (Q1 2018) JLL-defined Industrial Precinct map Valuer General Land Values NSW Department of Planning & Environment GSC Employment Land Database RP Data SIX Maps NSW Globe JLL MapIT GIS
B1	Does the precinct make a significant contribution (with respect to land area) to industrial land supply in its District?		Ha of zoned land (serviced and unserviced) Jan 2017	North	<=1	1.1 - 2.0	2.1 - 6	6.1 - 23	> 23	ELDP 2017
				Eastern City	<=1	1.1 - 2.0	2.1 - 6	6.1 - 16	> 16	
				South	<=2	2.1 - 5	5.1 - 14.0	14.1 - 51.0	> 51	
				Central City	<=5	5.1 - 17	17.1 - 47.0	47.1 - 118	> 118	
				Western City	<=3	3.1 - 13	13.1 - 39	39.1 - 100	>100	
B2	Is the Precinct well connected to the motorway / orbital and the freight arterial network (i.e. less than 5 min or 2km drive) with limited access through residential streets? Is there B double truck access?	B2.1 Motorway Junction	Road distance to nearest (km)		> 17	12.1 - 17	8.1 - 12	4.1 - 8	<= 4	> Greater Sydney Commission Internal Data
		B2.2 B-Double truck access	B Double, HML Short and HML truck access		NULL Value/No information		B Double	HML Short	HML	Spatial Data
B3	Is the Precinct located near major infrastructure hubs i.e. an airport, port, intermodal, or a strategic centre?	B3.1 Airport	Road distance to nearest (km)		> 33	25.1 - 33	17.1 - 25	8.1 - 17	<=8	Greater Sydney Commission Internal Data
		B3.2 Port	Road distance to nearest (km)		> 33	25.1 - 33	17.1 - 25	8.1 - 17	<=8	Greater Sydney Commission Internal Data
		B3.3 Intermodal	Road distance to nearest (km)		> 33	25.1 - 33	17.1 - 25	8.1 - 17	<=8	Greater Sydney Commission Internal Data

Table 10 – Scales for Scoring										
Code	Criteria	Sub-criteria	Indicator	District	Preliminary Scale					Data source
					1	2	3	4	5	
		B3.4 Strategic Centre	Road distance to nearest (km)		> 17	12.1 - 17	8.1 - 12	4.1 - 8	<= 4	Greater Sydney Commission Internal Data
B4	Does the precinct have good connections to support services for employees i.e. public transport, retail, business services, recreation space ?	B4.1 Local Centres	Distance to closest Local Centre (km)		>=5.0	3.0 - 4.9	2.0 - 2.9	1.0 - 1.9	< 1.0	Greater Sydney Commission Internal Data
		B4.2 Open Space	% of surrounding 50m buffer that is open space		0.0%	0.1% - 1.5%	1.6% - 4.5%	4.6% - 10.7%	> 10.8%	Department of Planning and Environment - Local Environmental Plans
		B4.3 Public Transport Network	Distance to nearest train station (km)		> 5	2 - 4.9	1 - 1.9	0.5 - 0.9	0 - 0.5	Greater Sydney Commission Internal Data
B5	Does the precinct have good access to the local labour market?		Median travel distance for workers commuting to precinct (km)		> 10.9	8.6 - 10.9	6.3 - 8.5	4.2 - 6.2	< 4.2	TfNSW Journey to Work (JTW) 2011
B6	Does the precinct have good access to a local labour market with relevant skills/occupations?		No. residents within 5km with VET qualifications		< 12,000	12,000 - 25,900	25,901 - 36,100	36,101 - 48,200	> 48,200	ABS Census Census 2016 – Place of Usual Residence
B7	Does the precinct have constraints such as Australian Noise Exposure Forecast (ANEF), flooding, or poor topography?	B7.1 Flooding	% precinct area prone to flooding		>30%	-	0.1% - 30%	-	0%	Greater Sydney Commission Internal Data
		B7.2 Slope	Mean % change in slope across precinct		> 3%	-	1% - 3%	-	< 1%	Greater Sydney Commission Internal Data
		B7.3 Noise	Exposed to Noise		No	-	-	-	Yes	Greater Sydney Commission Internal Data
B8	Does the precinct have any other contraints i.e. potential for land use conflict?		% of surrounding 50m buffer that is residential		> 52%	32% - 52%	15% - 31%	1% - 14%	0%	Department of Planning and Environment - Local Environmental Plans
B9	Does the Precinct have significant urban services		% of businesses in precinct that are urban services		0%	1% - 19%	20% - 29%	30% - 49%	>= 50%	REMPLAN

Table 10 – Scales for Scoring

Code	Criteria	Sub-criteria	Indicator	District	Preliminary Scale					Data source
					1	2	3	4	5	
C1	Does the Precinct generate a reasonable density of jobs?		Jobs per hectare in precinct		< 27	27 - 56	57 - 115	116 - 350	>350	ABS Census 2011 – Place of Usual Residence
C2	Has the number of jobs improved over time		Historic job growth in precinct (2011-2016%)		<= 0%	1% - 18%	19% - 30%	31% - 50%	> 50%	ABS Census 2011 and Census 2016 – Place of Usual Residence
C3	Does the Precinct contribute significantly to the local, subregional or regional economy?		Economic Contribution (2016 GVA$m)		< 44	44 - 88	89 - 187	188 - 440	> 440	PWC, Geospatial Economic Model
C4	Has the economic contribution improved over time		Historical Economic Contribution (2011- 2016 GVA$m)		<= 0%	1% - 18%	19% - 30%	31% - 50%	> 50%	PWC, Geospatial Economic Model
C5	Does the site have capacity for growth and intensification?		% of maximum floorspace (based on maximum FSR) that is currently unutilised		< 33.3%	33.3% - 49.9%	50% - 66.6%	>66.6%	No Maximum FSR	GSC Internal Data
C6	Is the number of jobs forecast to grow?		Forecast Job Growth (2016-2036%)		<= 0%	1% - 12%	13% - 22%	23% - 30%	> 30%	TfNSW Travel Zone Projections (LU16) 2016
C7	Does the precinct presently support, or will it be likely in the future to support, a unique or diverse business cluster?		% of jobs in top two business clusters		< 39%	39% - 44%	45% - 50%	51% - 60%	> 60%	ABS Census 2016

7.2 Appendix 2: Scoring outcomes by LGA

The following section details the outcomes of the scoring by local government area with commentary on the scale of scores including precincts that were outliers, averages as well as possible explanations for outcomes as well as other observations. It should be noted this Appendix outlines the study results but does not provide an explanation or reason for the scores. It is recommended that the below be read in conjunction with the scoring outcomes

7.2.1 Scoring framework

In order to align with the scoring process developed by Hill PDA, narrative to describe scoring outcomes has adopted the following three categories:

- Above Average scores: criteria scores of 5 or 4
- Average scores: criteria scores of 3
- Below Average scores: criteria scores of 2 or 1

7.2.2 Attributing typologies

As detailed in Section 4.6 the following local government scoring summaries also include an assessment of the level of significance the project team considered most fitting for that precinct. These are:

- Metropolitan – Large Scale Logistics and (some)General Industrial
    - Those precincts of a large scale and significant economic contribution, whose operation are important of to the function of Greater Sydney and include uses such as manufacturing, transport and logistics.
- Local – Local Services and (some)General Industrial
    - Those precincts that provide employment and service functions that service the LGA and broader District and included uses such as manufacturing, automotive, warehousing and other services.
- Mixed – Bulky goods, Independent Sites, Working waterfront, Specialised uses and Undefined or undeveloped precincts.
    - Those uses that are population serving (largely retail in nature), under pressure to rezoning as single or a small number of sites with little planned investment, specialized uses that are not critical to Metropolitan functions, or precincts under development.

7.2.3 Fairfield LGA Summary

The Fairfield local government area contains 12 precincts as identified by the ELDM. These account for 21 per cent of land area within the Western City District.

The precincts range in size from 1.3 hectares to 559.9 hectares, with an average precinct size of 90.1 hectares. Fairfield's precincts contribute 20 per cent of the total volume of employment lands in the Western City District and 8 per cent to Greater Sydney's.

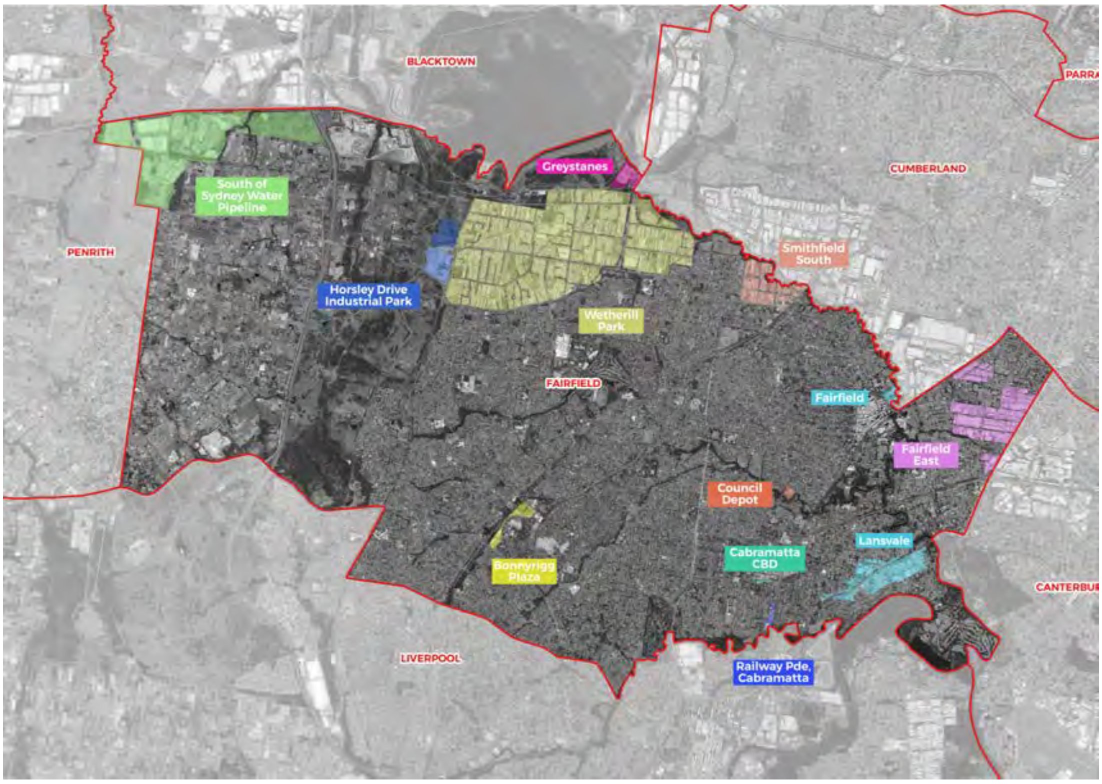

Figure 23 Industrial precincts within Fairfield local government area

Source: Mecone

As detailed below the LGA's largest precincts are Wetherill Park and South of Sydney Water Pipeline. These two precincts combined make up 75 per cent of all of Fairfield's precincts. Half of the LGA's precincts are less than 13 hectares in size.

Table 11 –Employment Lands in Fairfield local government area

Precinct	Precinct Area (ha)	Percentage of Fairfield Employment Lands	Significance
Bonnyrigg Plaza	9.9	1%	Local
Cabramatta CBD	1.3	0%	Local
Council Depot	2.5	0%	Local

Table 11 – Employment Lands in Fairfield local government area			
Fairfield	4.7	0%	Mixed
Fairfield East	99.5	9%	Local
Greystanes	12.3	1%	Local
Horlsey Drive Industrial Park	38.3	4%	Metropolitan
Lansvale	57.4	5%	Metropolitan
Railway Parade, Cabramatta	1.9	0%	Local
Smithfield, South	42.6	4%	Metropolitan
South of Sydney Water Pipeline	252.1	23%	Metropolitan
Wetherill Park	559.1	52%	Metropolitan

The table below outlines the key findings of scoring outcomes by dimension for The Fairfield local government area. These findings discuss the relationships between precincts noting observable scoring trends, outliers and in some circumstances, limitations.

Table 12 – Summary assessment of key outcomes for the Fairfield LGA	
Dimension	Key scores and observations
Investment and Business	• South of Sydney Water Pipeline ($690 m), Wetherill Park ($133 m) and Fairfield East ($37 m) were the only above average scores for planned investment. No planned investment was identified for five of the remaining 9 precincts. • On average scores for rents were 2.1, with eight precincts posting below average scores. Fairfield East was the only above average scoring precinct. • Capital improvement scores generally followed rental yields, with Fairfield East and Cabramatta CBD the only above average scores. • Land values was generally strong with eight precincts scoring above average, particularly for

Table 12 – Summary assessment of key outcomes for the Fairfield LGA	
	precincts near train stations (Fairfield and Cabrammatta). • The largest precincts, Wetherill Park and South of Sydney Water Pipeline scored poorly across rents, land values and capital improvements.
Location, Functionality and Connections	• On average locational attributes scored well, with proximity to Motorway Junctions, Intermodals, Airports and local centres, all averaging 3.4 or above. • Average precincts scores were below 3 with regards to proximity to strategic centres and train stations. This reflects the dispersed nature of centres and services in South West Sydney. • Commuters to larger precincts tended to have a higher median distance of travel to work. • Partially due to the parkland context of the 5km catchments of Wetherill Park, Greaystanes, Horelsy Drive and South of Sydney Water Pipeline include the Western Sydney Parklands, the VET qualifications measure sat around the Greater Sydney average. • Potential for conflict with residential had an inverse relationship as described above, with precincts in urban settings scoring lower due to proximity to residential lands and limited buffering.
Economic Output, Jobs and Growth	• Fairfield East and Wetherill Park had the highest scores regarding gross value add. When compared to growing contribution scores, the low scores in the latter indicate that there have sustained high value over time. Below average precincts for the contribution measure include Bonnyrigg Plaza, Railway Parade, Council Depot and Greaystanes. • The average clustering was 3.25 for the LGA. Precincts generally had one primary cluster present including Bulky Goods and Retail (Bonnyrigg Plaza and Fairfield), Manufacturing (Horsley park Industrial, Wetherill Park and Greaystanes) and Transport and Logistics (South of Sydney Water Pipeline). Observable clustering of Automotive repairs was present at Railway Parade and Cabramatta CBD.

Table 13 – Appendix 2: Fairfield LGA

Precinct Name	Dimension 1: Investment and Business								Dimension 2: Location, Functionality and Connections																	Dimension 3: Economic Output, Jobs and Growth						
	HA	A1	A2	A3	A4	A5	A6	A7	B1	B2.1	B2.2	B3.1	B3.2	B3.3	B3.4	B4.1	B4.2	B4.3	B5	B6	B7.1	B7.2	B7.3	B8	B9	C1	C2	C3	C4	C5	C6	C7
Bonnyrigg Plaza	9.9	2	3	5	5	1	1	4	2	3	5	4	1	4	3	5	2	1	5	3	5	5	1	3	4	2*	2	2	1	5	2	5
Cabramatta CBD	1.3	2	2	5	4	3	4	5	1	4	5	4	2	5	3	5	1	5	4	3	5	3	1	1	3	1*	4	4	4	3	3	4
Council Depot	2.5	1	1	5	5	1	2	4	1	3	1.5	4	1	5	3	5	4	3	5	3	5	3	1	2	1	3	1	1	1	5	3	3
Fairfield	4.7	1	4	5	5	1	1	5	2	3	5	5	2	5	4	5	4	4	3	3	5	1	1	2	4	2*	3	4	3	5	3	3
Fairfield East	99.5	4	3	1	5	4	4	4	4	3	5	5	2	5	3	5	3	3	2	3	5	5	1	2	3	2	4	5	2	5	3	1
Greystanes	12.3	1	5	5	4	1	2	2	2	3	3	4	1	4	2	3	5	1	1	2	5	3	1	5	1	1	2	1	1	5	2	4
Horlsey Drive Industrial Park	38.3	1	4	5	3	2	3	3	3	3	5	3	1	4	2	2	5	1	1	2	5	1	1	5	5	1	3	2	4	5	5	5
Lansvale	57.4	3	3	3	5	3	3	4	4	4	5	5	2	5	4	4	3	2	3	3	5	5	1	1	4	2	3	3	2	5	2	1
Railway Parade, Cabramatta	1.9	1	2	5	5	3	3	5	1	4	1.5	4	2	5	3	5	5	4	5	3	5	3	1	2	4	1*	2	1	1	5	3	5
Smithfield, South	42.6	3	3	5	5	2	3	4	4	4	5	4	1	5	3	5	4	2	2	3	5	3	1	3	4	2	3	4	2	5	2	1
South of Sydney Water Pipeline	252.1	5	5	5	4	0	0	3	5	4	5	3	1	4	2	1	1	1	3	1	5	3	1	5	1	1	5	3	5	5	5	5
Wetherill Park	559.1	5	4	5	5	2	2	3	5	3	5	4	1	4	2	4	3	1	1	2	5	3	1	4	3	2	2	5	1	5	2	2
LGA AVERAGE	90.1	2.4	3.3	4.5	4.6	1.9	2.3	3.8	2.8	3.4	4.6	4.1	1.4	4.6	2.8	4.1	3.3	2.3	2.9	2.6	5.0	3.2	1.0	2.9	3.1	2.3	3.0	2.9	2.3	5.0	3.2	3.3

*Denotes manual adjustment made to scoring

Null values for A5, A6 and A7 for precincts with no information available in these criteria

7.2.4 Blacktown LGA Summary

The Blacktown local government area contains 23 precincts as identified by the ELDM. These account for 34 per cent of land area within the Central City District.

The precincts range in size from 3.9 hectares to 561.6 hectares, with an average precinct size of 110.8 hectares. Blacktown's precincts contribute 47 per cent of the total volume of employment lands in the Central City District and 18 per cent to Greater Sydney's.

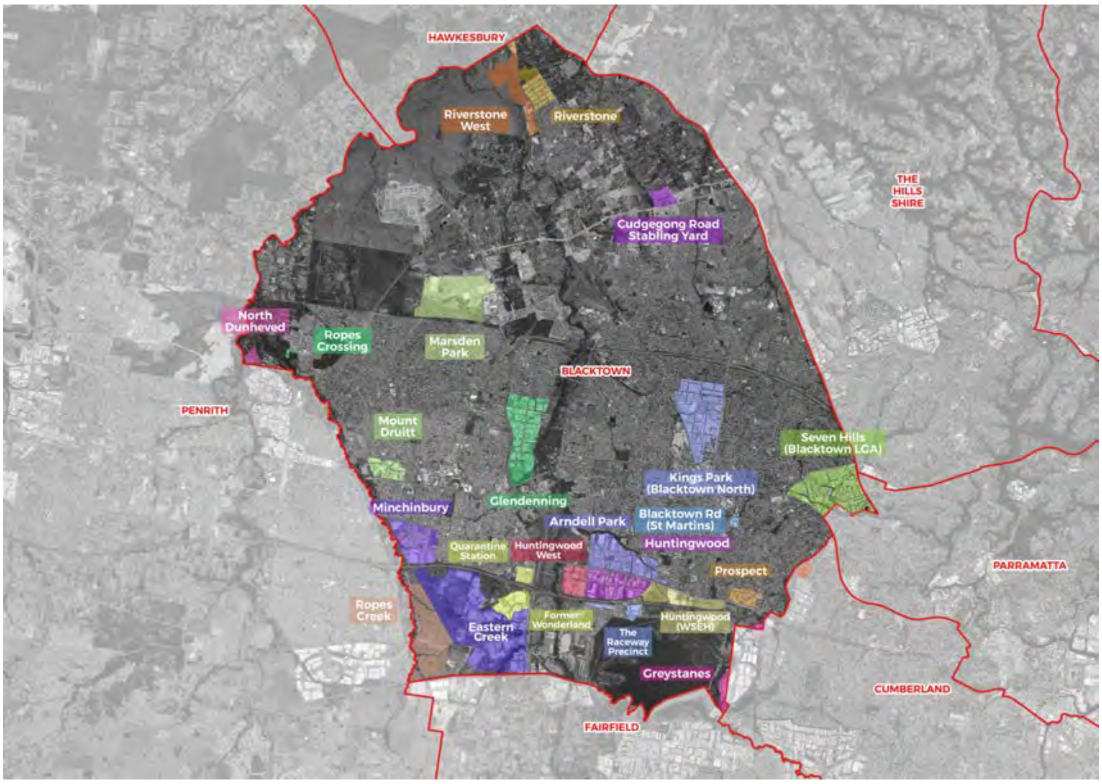

Figure 24 Industrial precincts within Blacktown local government area

Source: Mecone

The LGA's largest precincts are Eastern Creek, Marsden Park and Kings Park. While there are some relatively small precincts in the local government area, Blacktown's average precinct size of 110.8 hectares. This is the largest average precinct size for the study area.

Table 14 – Employment Lands in Blacktown local government area			
Precinct	Precinct Area (ha)	Percentage of Blacktown Employment Lands	Significance
Arndell Park	145.8	6%	Metropolitan
Blacktown Rd (St Martins)	5.9	0%	Local
Cudgegong Road Stabling Yard	33.2	1%	Mixed
Eastern Creek	561.6	22%	Metropolitan
Former Wonderland	56	2%	Metropolitan
Glendenning	195.2	8%	Metropolitan
Greystanes	26.3	1%	Metropolitan
Huntingwood	117.2	5%	Metropolitan
Huntingwood (WSEH)	80.7	3%	Metropolitan
Huntingwood West	60.8	2%	Metropolitan
Kings Park (Blacktown North)	211.4	8%	Metropolitan
Marsden Park	240.9	9%	Local
Minchinbury	118.2	5%	Metropolitan
Mount Druitt	47.5	2%	Metropolitan
North Dunheved	18.5	1%	Mixed
Prospect	35.2	1%	Local
Quarantine Station	21.9	1%	Mixed
Riverstone	61.9	2%	Local
Riverstone West	102.3	4%	Mixed
Ropes Creek	185.7	7%	Mixed

Table 14 – Employment Lands in Blacktown local government area			
Ropes Crossing	3.9	0%	Mixed
Seven Hills (Blacktown LGA)	196.4	8%	Metropolitan
The Raceway Precinct	21.4	1%	Local

The table below outlines the key findings of scoring outcomes by dimension for Blacktown local government area. These findings discuss the relationships between precincts noting observable scoring trends, outliers and in some circumstances, limitations

Table 15 –Summary assessment of key outcomes for Blacktown LGA	
Dimension	Key scores and observations
Investment and Business	• Investment scoring average 2.6 indicating below average investment in the LGA. Eastern Creek ($771m) and Marsden Park ($333m) were the top scorers in this measure, while seven precincts recorded no planned investment. • With the exception of Eastern Creek and Marsden Park, precincts with a high proportion of unserviced lands (low scores) also scored poorly for planned investment. • Precinct's rents and capital improvement scores appeared to relate across the scoring spectrum. Glendenning, Blacktown (St Martin) and Ropes Cross all scoring a maximum 5 for both measures. • With an average land value score of 2.9, scores were evenly distributed. There did not appear a correlation between land values and proximity to motorways, strategic centres or other employment areas.
Location, Functionality and Connections	• Proximity to Intermodals and B-Double accessibility to precincts were above average for all precincts with the exception of Marsden Park and Ropes Crossing (unknown B-Double access). • Access to local and strategic centres is evenly distributed across precincts with average of the scores of 3.5 (local centres) and 3.1 (strategic centres). However, proximity

Table 15 –Summary assessment of key outcomes for Blacktown LGA	
	to train stations is poor with an average of 1.7 for the LGA. • Median distance traveled by workers and VET qualification of those within a 5km catchment both average 2 and 2.3 respectively. Huntingwood West scored 5 for median distance travelled by workers, while Huntingwood and Huntingwood (WSEA) scored 1. • Provision of urban services averaged 2.6, with a weak relationship between larger precincts and high scores in this measure.
Economic Output, Jobs and Growth	• Blacktown Road (St Martins) scored the only above average score for job density with approximately 400 workers per hectare. All other precincts scored below average (2 or 1). • As with other LGAs, job growth, growing economic contribution and forecast growth have an observable strong relationship. However, there is no observable relationship between these scores and precinct size, locational or character criteria. • Precincts in the LGA averaged 3.6 for gross value add indicating that the LGA performs well against the Greater Sydney average. This above average performers in this measure were all precincts 80 hectares or larger with the exception of Blacktown (St Martins). • The LGA includes clusters of Bulky Goods and Retail (Minichinbury, Marsden Park and Prospect), Construction (Cudgegong, Riverstone and Riverstone West), Manufacturing (North Dunheved, Huntingwood (WSEA) and Glendenning) and Transport and Logistics (Huntingwood West and Quarantine Station).

Table 16 – Appendix 2 Blacktown LGA

Precinct Name	Dimension 1: Investment and Business								Dimension 2: Location, Functionality and Connections																	Dimension 3: Economic Output, Jobs and Growth						
	HA	A1	A2	A3	A4	A5	A6	A7	B1	B2.1	B2.2	B3.1	B3.2	B3.3	B3.4	B4.1	B4.2	B4.3	B5	B6	B7.1	B7.2	B7.3	B8	B9	C1	C2	C3	C4	C5	C6	C7
Arndell Park	145.8	3	4	5	5	5	4	4	5	4	5	3	1	4	3	5	4	2	2	2	5	5	1	4	4	2	3	5	3	5	2	1
Blacktown Rd (St Martins)	5.9	2	5	5	5	5	5	3	2	4	5	3	1	4	3	4	5	2	3	3	5	5	1	3	1	5	4	4	5	5	5	5
Cudgegong Road Stabling Yard	33.2	1	4	5	4	1	1	2	3	3	4	1	1	3	3	4	1	3	1	2	5	5	1	3	1	1	5	3	5	5	5	4
Eastern Creek	561.6	5	5	5	2	3	3	4	5	5	5	3	1	4	3	1	3	1	1	2	5	3	1	5	3	1	5	5	5	5	5	4
Former Wonderland	56	3	5	5	5	3	3	3	4	5	5	3	1	4	3	1	1	1	1	2	5	5	1	5	1	1	5	2	5	5	5	4
Glendenning	195.2	3	5	5	5	5	5	4	5	4	5	2	1	4	3	3	4	2	1	3	5	5	1	4	3	1	4	5	3	5	2	3
Greystanes	26.3	1	1	5	2	1	2	2	3	4	5	3	1	4	3	4	2	1	1	2	5	1	1	4	1	2	5	3	5	5	2	2
Huntingwood	117.2	4	5	5	5	3	4	3	4	5	5	3	1	4	3	4	3	1	1	2	5	5	1	5	3	1	2	5	1	5	2	1
Huntingwood (WSEH)	80.7	2	5	5	2	3	4	3	4	4	5	3	1	4	3	5	2	2	1	2	5	3	1	5	2	2	2	5	2	5	2	2
Huntingwood West	60.8	1	5	5	5	3	4	3	4	5	5	2	1	4	3	4	4	1	5	2	5	5	1	5	5	1	5	3	5	5	5	5
Kings Park (Blacktown North)	211.4	4	4	5	5	2	2	4	5	4	5	2	1	3	3	3	3	2	2	4	5	5	1	4	4	2	2	5	2	5	2	2
Marsden Park	240.9	5	5	5	2	1	1	4	5	3	1.5	1	1	4	4	4	3	1	2	2	5	5	1	5	4	1	5	3	5	4	5	5
Minchinbury	118.2	4	5	5	4	3	2	2	5	4	5	3	1	5	4	4	4	2	1	2	3	5	1	4	3	2	4	5	4	5	1	5
Mount Druitt	47.5	3	4	5	5	3	3	1	4	4	3	2	1	5	4	4	4	2	3	3	5	5	1	3	4	2	5	3	3	5	3	1
North Dunheved	18.5	1	1	5	1	1	0	1	3	2	3	2	1	5	3	3	5	2	2	2	1	3	1	5	1	1	5	2	4	5	2	4
Prospect	35.2	2	4	5	5	1	2	3	3	4	5	3	1	4	3	4	4	2	2	3	5	3	1	3	3	2	2	3	2	5	2	2
Quarantine Station	21.9	4	1	5	5	4	5	4	3	5	5	3	1	4	3	2	1	1	1	2	5	5	1	5	1	1	5	2	5	5	5	5
Riverstone	61.9	2	2	5	3	1	1	3	4	2	3	1	1	3	3	4	2	2	2	1	3	5	1	2	4	1	4	3	5	5	5	5
Riverstone West	102.3	1	1	5	1	3	3	3	4	1	3	1	1	3	3	4	2	3	5	1	1	3	1	4	1	1	4	4	5	5	5	5
Ropes Creek	185.7	1	5	3	1	1	0	3	5	4	5	3	1	5	3	5	1	1	1	2	3	5	1	5	1	1	5	4	5	5	5	4
Ropes Crossing	3.9	1	1	5	5	5	5	1	1	1	1.5	2	1	4	2	2	5	1	5	2	5	5	1	5	1	1	5	1	4	5	2	2
Seven Hills (Blacktown LGA)	196.4	4	4	5	5	4	4	4	5	4	5	3	1	4	3	4	3	2	2	4	5	5	1	4	4	2	3	5	2	5	2	2
The Raceway Precinct	21.4	3	4	5	5	3	4	3	3	4	5	3	1	4	3	2	5	1	1	2	5	3	1	5	4	1	5	2	5	5	2	2
LGA AVERAGE	110.8	3	4	5	5	3	4	3	3	4	5	3	1	4	3	2	5	1	1	2	5	3	1	4.2	2.6	1.7	2.6	3.6	3.9	4.4	4.3	3.3

7.2.5 Cumberland LGA Summary

The Cumberland local government area contains 22 precincts as identified by the ELDM. These account for 32 per cent of land area within the Central City District.

The precincts range in size from 1.8 hectares to 352.5 hectares, with an average precinct size of 50.6 hectares. Cumberland's precincts contribute 24 per cent of the total volume of employment lands in the Central City District and 8 per cent to Greater Sydney's.

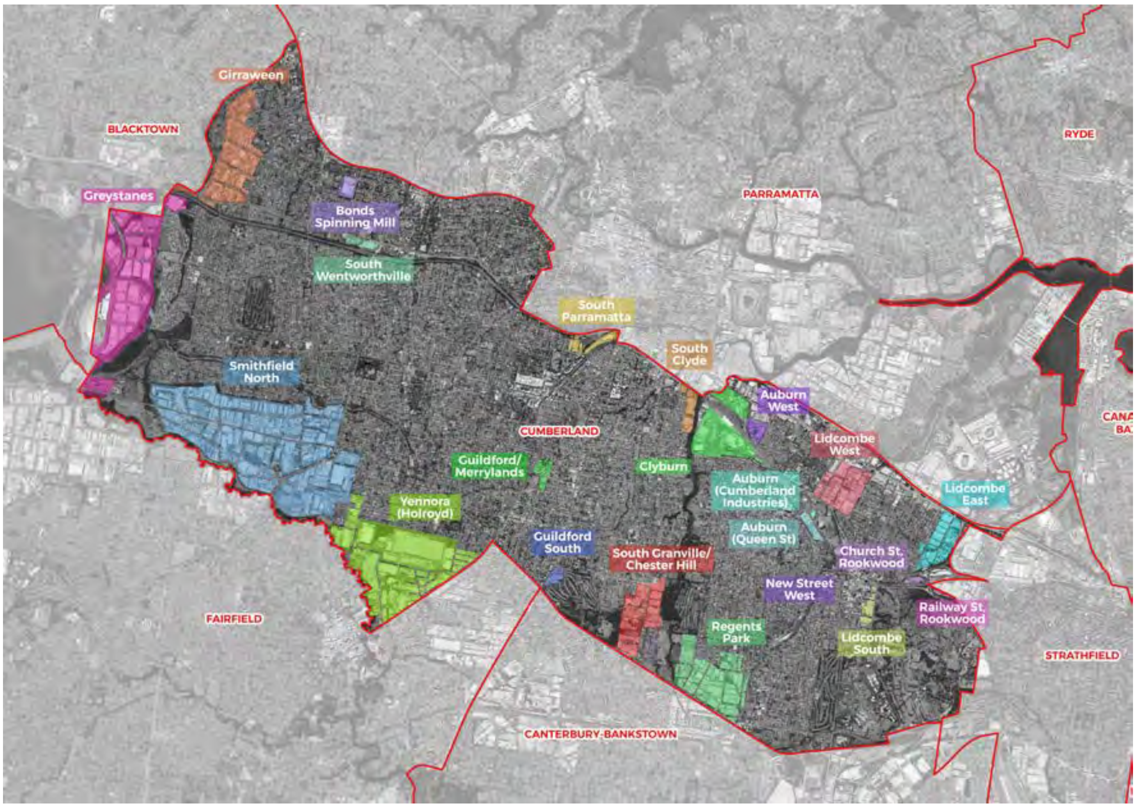

Figure 25 Industrial precincts within Cumberland local government area

Source: Mecone

As detailed in the table below the three largest precincts Smithfield North, Yennora (Holroyd) and Greaystanes. There are a number of relatively small precincts which are located in throughout the local government area.

Table 17 – Employment Lands in Cumberland local government area

Precinct	Precinct Area (ha)	Percentage of Cumberland Employment Lands	Significance
Auburn (Cumberland Industries)	0.7	0%	Metropolitan

Table 17 – Employment Lands in Cumberland local government area			
Auburn (Queen St)	5.6	1%	Metropolitan
Auburn West	6.8	1%	Metropolitan
Bonds Spinning Mill	8.0	1%	Metropolitan
Church Street, Rookwood	1.8	0%	Metropolitan
Clyburn	53.8	5%	Mixed
Girraween	86.4	56%	Metropolitan
Greystanes	162.0	15%	Metropolitan
Guildford South	4.6	0%	Metropolitan
Guildford/Merrylands	6.0	1%	Local
Lidcombe East	29.7	3%	Metropolitan
Lidcombe South	5.6	1%	Local
Lidcombe West	41.7	4%	Metropolitan
New Street West	0.4	0%	Mixed
Railway Street, Rookwood	0.9	0%	Local
Regents Park	80.8	7%	Metropolitan
Smithfield, North	352.5	32%	Metropolitan
South Clyde	11.8	1%	Metropolitan
South Granville/Chester Hill	51.2	5%	Metropolitan
South Parramatta (Cumberland LGA)	8.8	1%	Local
South Wentworthville	5.5	0%	Local
Yennora (Holroyd)	188.1	17%	Metropolitan

The table below outlines the key findings of scoring outcomes by dimension for Cumberland local government area. These findings discuss the relationships between precincts noting observable scoring trends, outliers and in some circumstances, limitations.

Table 18 – Summary assessment of key outcomes for Cumberland LGA	
Dimension	Key scores and observations
Investment and Business	• Only Smithfield, North scored above average for planned investment with a value of $122 million. 16 of the remaining 21 scored below average, 10 of these with no planned investment. • Rents were weighted toward the average with an average score of 3.2. Auburn West scored the only 5 while New Street West, Yennora (Holroyd), Guildford/Merrylands and Bonds Spinning Mill scoring the poorest. • While the average score for land values was 4.2, values tended to be highest for the eastern precincts of the LGA. Some of these scores may be a reflection of land value uplift generally across Greater Sydney particularly in well-connected areas closer to the Central City. Greystanes was the only below average scoring precinct.
Location, Functionality and Connections	• With average and above average proximity to Motorway Junctions, scoring for B-Double access is mixed. • Proximity to train stations was mixed despite the LGA having several rail lines run through it. • Below average scores for potential for conflict with neighboring residential land, generally correlated with precincts size (lower scores for smaller sites) and reflected their location within a residential setting.
Economic Output, Jobs and Growth	• Job growth was highest in the smaller precincts. This may reflect growth in surrounding areas being picked up in reporting. • There appears to be a clear relationship between precinct size and gross value add, with higher scores for larger precincts. • Growth in contribution from 2011 to 2016 shows that smaller precincts have grown by the greatest proportion. For the larger precincts lower scores indicate that these precincts are historically economically successful and have maintained their levels of productivity over time. • Clustering of Wholesale is greatest Lidcombe West and South Granville, Transport and Logistics in South Clyde and

Table 18 – Summary assessment of key outcomes for Cumberland LGA	
	Yennora, and Contruction in Guilford/Merrylands and Guilford South.

Table 19 – Appendix 2: Cumberland LGA

Precinct Name	Dimension 1: Investment and Business								Dimension 2: Location, Functionality and Connections																	Dimension 3: Economic Output, Jobs and Growth						
	HA	A1	A2	A3	A4	A5	A6	A7	B1	B2.1	B2.2	B3.1	B3.2	B3.3	B3.4	B4.1	B4.2	B4.3	B5	B6	B7.1	B7.2	B7.3	B8	B9	C1	C2	C3	C4	C5	C6	C7
Auburn (Cumberland Industries)	0.7	2	2	5	5	4	4	5	1	5	1.5	4	2	5	4	5	5	4	3	3	5	5	1	2	1	3*	4	2	4	2	5	2
Auburn (Queen St)	5.6	2	4	5	5	3	3	5	2	5	1.5	4	2	5	4	5	2	3	3	3	3	5	1	1	5	4	4	3	4	2	5	5
Auburn West	6.8	1	2	5	5	5	5	5	2	5	3	4	2	5	4	5	1	3	1	4	5	5	1	3	5	2	3	1	2	2	5	1
Bonds Spinning Mill	8	1	1	5	5	0	0	5	2	5	1.5	4	1	5	3	5	1	4	2	4	5	5	1	1	1	2	1	1	1	5	5	5
Church Street, Rookwood	1.8	1	4	5	5	2	3	4	1	5	1.5	4	3	5	4	5	1	4	1	3	5	5	1	5	1	3	5	1	4	4	3	1
Clyburn	53.8	1	5	3	5	4	4	4	4	4	5	4	2	5	3	4	2	2	1	4	1	3	1	3	1	2	2	4	2	4	4	1
Girraween	86.4	3	3	5	5	3	2	3	4	4	5	3	1	4	3	4	3	2	2	3	5	5	1	2	4	2	4	5	2	5	3	3
Greystanes	162	3	5	5	4	3	3	2	5	4	5	3	1	4	3	4	4	1	1	2	1	3	1	4	4	1	5	5	5	5	5	3
Guildford South	4.6	3	3	5	5	4	4	3	1	3	5	4	2	5	4	5	5	3	5	4	5	5	1	3	4	3	3	1	1	3	4	2
Guildford/Merrylands	6	2	3	5	5	1	2	4	2	4	1.5	4	2	5	4	5	4	3	5	4	3	3	1	1	3	3	5	2	4	2	4	3
Lidcombe East	29.7	2	5	5	5	4	4	5	3	5	5	4	3	5	4	5	1	3	1	3	3	3	1	2	3	3	5	4	4	2	3	1
Lidcombe South	5.6	2	3	5	5	2	2	5	2	5	1.5	4	2	5	4	5	4	4	2	3	1	3	1	2	3	3*	4	3	3	2	4	1
Lidcombe West	41.7	1	5	5	5	4	3	5	3	5	5	4	2	5	4	5	2	4	1	3	1	3	1	2	4	3	2	5	1	2	5	2
New Street West	0.4	1	2	5	5	0	0	5	1	5	5	4	2	5	4	5	2	4	4	3	5	5	1	1	2	3	4	1	4	4	4	2
Railway Street, Rookwood	0.9	1	3	5	5	4	4	4	1	5	1.5	4	3	5	4	4	2	3	1	3	5	5	1	5	1	4	5	1	5	3	3	5
Regents Park	80.8	3	5	5	5	4	4	5	4	4	3	4	2	5	3	5	4	4	1	3	5	5	1	3	3	2	2	5	2	2	3	1
Smithfield, North	352.5	5	4	5	5	2	2	3	5	4	5	4	1	5	3	5	4	2	1	3	5	5	1	4	4	2	3	5	2	5	2	3
South Clyde	11.8	2	5	5	5	3	3	4	2	4	3	4	2	5	4	5	4	5	1	4	5	5	1	2	5	3	1	3	1	3	1	4
South Granville/Chester Hill	51.2	1	5	5	5	3	3	5	4	4	3	4	2	5	3	4	5	2	2	3	5	5	1	3	3	2	3	4	1	2	2	2
South Parramatta (Cumberland LGA)	8.8	1	3	5	5	2	3	4	2	4	5	4	2	5	4	5	5	3	1	4	1	1	1	3	4	2	2	2	2	2	2	3
South Wentworthville	5.5	1	3	5	4	3	4	5	2	5	5	4	1	5	4	5	2	3	5	4	3	3	1	4	5	3	1	1	1	3	4	5
Yennora (Holroyd)	188.1	3	5	5	5	1	1	3	5	3	3	4	2	5	3	4	4	2	2	3	5	5	1	3	4	1	3	5	2	5	2	4
LGA AVERAGE	50.6	1.9	3.6	4.9	4.9	2.9	2.9	4.2	2.6	4.4	3.4	3.9	1.9	4.9	3.6	4.7	3.0	3.1	2.1	3.3	3.7	4.2	1.0	2.7	3.2	3.1	3.2	2.9	2.6	3.7	4.2	2.7

*Denotes manual adjustment made to scoring

Null values for A5, A6 and A7 for precincts with no information available in these criteria

7.2.6 Parramatta LGA Summary

The Parramatta local government area contains 18 precincts as identified by the ELDM. These account for 26 per cent of land area within the Central City District.

The precincts range in size from 0.2 hectares to 235.9 hectares, with an average precinct size of 39.5 hectares. Parramatta's precincts contribute 10 per cent of the total volume of employment lands in the Central City District and 3 per cent to Greater Sydney's.

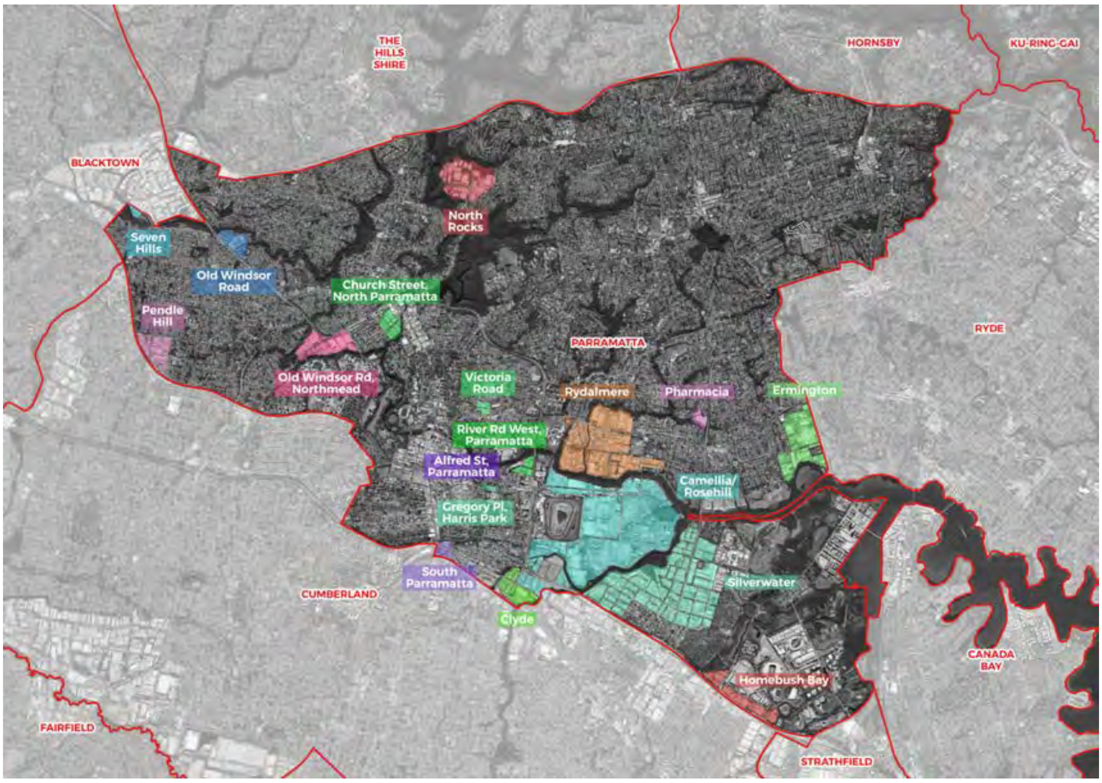

Figure 26 Industrial precincts within Parramatta local government area

Source: Mecone

As detailed below the LGA's largest precincts are Camellia/Rose Hill, Silverwater and Rydalmere. There is a large discrepancy between these precincts and the remaining other precincts in the LGA. This is evidence by the average precinct size of 39.5 hectares.

Table 20 – Employment Lands in Parramatta local government area			
Precinct	Precinct Area (ha)	Percentage of Parramatta Employment Lands	Significance
Alfred Street, Parramatta	0.2	0%	Mixed
Camellia/Rosehill	235.9	53%	Metropolitan
Church St, North Parramatta	11	2%	Metropolitan
Clyde	16.2	4%	Local Services
Ermington	45.6	10%	Metropolitan
Gregory Place, Harris Park	1.9	0%	Mixed
Homebush Bay	21.2	5%	Local
North Rocks	43.6	10%	Local
Old Windsor Road	13.3	3%	Local
Old Windsor Road, Northmead	25.8	6%	Local
Pendle Hill	18.4	4%	General Industrial
Pharmacia	5.2	1%	Local
River Road West, Parramatta	4.9	1%	Local
Rydalmere	104.5	23%	Metropolitan
Seven Hills (Parramatta LGA)	3.7	1%	Metropolitan
Silverwater	150.8	34%	Metropolitan

Table 20 – Employment Lands in Parramatta local government area			
South Parramatta (Parramatta LGA)	5	1%	Local
Victoria Rd	3.3	1%	Local

The table below outlines the key findings of scoring outcomes by dimension for Parramatta local government area. These findings discuss the relationships between precincts noting observable scoring trends, outliers and in some circumstances, limitations.

Table 21 – Summary assessment of key outcomes for Parramatta LGA

Dimension	Key scores and observations
Investment and Business	• Cammellia/Rosehill is a significant outlier with $557 million forecast to be invested from 2018. Investment ranging from $10 to $58 million is projected for seven precincts. While 6, generally smaller precincts have no investment identified. • Rents scored an average of 3.6 across the precincts. Ten precincts across a range of sizes scored above average in this measure. • Scores for land values for the LGA averaged 3.7. Three precincts which scored below average on rental yields, (South Parramatta, Pendle Hill and Gregory Place) scored above average for land value. • Capital improvement scores averaged 4 for the LGA, with South Parramatta and Gregory place the only below average scores.
Location, Functionality and Connections	• Precincts with average and below average scores for proximity to local or strategic centers tended to also do poorly for proximity to train stations. Proximity to train stations also was generally average or below average with eight of the 18 precincts scoring below average for this criteria. • Only one precinct, Gregory Place scored above average for median distance traveled for work. Of the 17

Table 21 – Summary assessment of key outcomes for Parramatta LGA	
	remaining precincts 14 scored below average, indicating that the median commuting distance for workers is more than 8.6 kilometers. • Scores for potential conflict with residential land were spread evenly. Pharmacia, Ermington and Alfred Street all scored 1 due to their residential contexts.
Economic Output, Jobs and Growth	• Generally, job growth in smaller precincts grew by the greatest proportion. However it should be noted that some of these were within close proximity to other commercial zones and may have been influenced by these due to limitations on the criteria (outlined in Section Error! Reference source not found.). • 11 of the 18 precincts had a gross value add of at or above the Greater Sydney average. Rydalmere, Silverwater, and Homebush Bay were the most significant contributors. • Like many other LGAs the smaller precincts tended to score better in the growth of gross value add criteria. However, Silverwater's GVA grew by 18% over 2011-2016, which is considered significant due the high relative base. • While many smaller precincts scored well, Homebush Bay (75 per cent) and Camellia/Rose Hill (49 per cent) were forecast to see the greatest growth in jobs. Ermington is projected to have a 7 percent decline to 2036. • Clustering tended to be greatest in smaller precincts. Manufacturing, wholesale, bulky goods retail, health and social services and local services, were the most represented clusters across all precincts.

Table 22 – Appendix 2: Parramatta LGA

Precinct Name	Dimension 1: Investment and Business								Dimension 2: Location, Functionality and Connections																	Dimension 3: Economic Output, Jobs and Growth						
	HA	A1	A2	A3	A4	A5	A6	A7	B1	B2.1	B2.2	B3.1	B3.2	B3.3	B3.4	B4.1	B4.2	B4.3	B5	B6	B7.1	B7.2	B7.3	B8	B9	C1	C2	C3	C4	C5	C6	C7
Alfred Street, Parramatta	0.2	1	2	5	5	4	5	5	1	4	1.5	4	2	5	4	5	1	4	2	4	5	5	1	1	4	2*	3	1	4	5	5	2
Camellia/Rosehill	235.9	5	5	5	5	5	5	3	5	4	5	4	2	5	3	3	2	2	1	4	5	3	1	5	4	1	2	5	2	4	5	1
Church St, North Parramatta	11	1	4	5	5	3	4	2	2	4	1.5	3	1	5	3	3	4	2	1	4	5	5	1	2	3	3	3	3	4	2	4	4
Clyde	16.2	3	4	5	5	5	5	5	2	5	5	4	2	5	4	5	3	3	1	4	5	3	1	4	3	1	1	1	2	2	2	1
Ermington	45.6	4	5	5	5	5	5	5	3	4	3	3	2	5	4	5	4	2	1	3	5	1	1	1	4	2	1	4	1	3	1	5
Gregory Place, Harris Park	1.9	1	1	5	5	2	2	4	1	4	1.5	4	2	5	4	5	5	3	5	4	5	5	1	2	5	1*	3	1	4	5	5	2
Homebush Bay	21.2	4	4	5	5	3	3	5	3	5	5	4	3	5	4	5	5	3	1	3	5	3	1	3	3	4	3	5	3	4	5	3
North Rocks	43.6	1	5	5	5	3	4	2	3	3	1.5	3	1	4	3	2	5	2	3	4	5	1	1	3	3	2	5	4	4	3	4	3
Old Windsor Road, Northmead	25.8	2	5	5	5	3	3	2	3	4	5	3	1	4	3	4	5	3	1	4	5	5	1	3	3	3	1	4	1	2	4	5
Old Windsor Road	13.3	1	5	5	5	3	4	2	2	4	5	3	1	4	3	4	5	2	2	4	5	5	1	4	5	3	3	3	3	4	4	5
Pendle Hill	18.4	3	3	5	5	2	3	4	3	4	3	3	1	4	3	5	2	4	2	4	5	5	1	2	3	2	5	3	4	2	4	4
Pharmacia	5.2	2	4	5	5	4	4	2	2	4	5	3	2	5	4	5	5	2	3	4	5	3	1	1	2	3	5	2	5	3	2	2
River Road West, Parramatta	4.9	4	3	5	5	4	4	4	1	4	5	4	2	5	4	4	2	5	2	4	5	3	1	3	3*	2	3	2	4	5	5	2
Rydalmere	104.5	2	4	3	5	4	5	5	4	4	5	3	2	5	4	5	4	4	1	4	5	1	1	4	3	3	2	5	2	2	2	1
Seven Hills (Parramatta LGA)	3.7	1	5	5	5	5	4	4	1	4	1.5	3	1	4	3	4	5	2	2	4	5	5	1	5	4	2	3	1	2	2	2	1
Silverwater	150.8	3	4	5	5	5	5	5	5	5	5	4	2	5	4	4	3	2	1	4	1	3	1	4	3	3	3	5	3	2	4	1
South Parramatta (Parramatta LGA)	5	3	3	3	5	2	2	4	1	4	5	4	2	5	4	5	2	4	3	4	5	5	1	4	4	3*	3	3	4	4	5	1
Victoria Rd	3.3	2	2	5	5	4	5	5	1	4	5	4	2	5	4	3	5	3	2	4	5	5	1	2	2	4	3	2	2	1	4	1
LGA AVERAGE	39.5	2.4	3.8	4.8	5	3.7	4	3.8	2.4	4.1	3.8	3.5	1.7	4.7	3.6	4.2	3.7	2.9	1.9	3.9	4.8	3.7	1.0	2.9	3.4	2.9	3.5	3.0	3.0	4.8	3.7	2.4

*Denotes manual adjustment made to scoring

7.2.7 The Hills LGA Summary

The Hills local government area contains 5 precincts as identified by the ELDM. These account for 7 per cent of precincts withn the Central City District. The precincts range in size from 1.0 hectares to 144.9 hectares, with an average precinct size of 57 hectares. The Hills' precincts contribute 6 per cent of the total volume of employment lands in the Central City District and 2 per cent to Greater Sydney's.

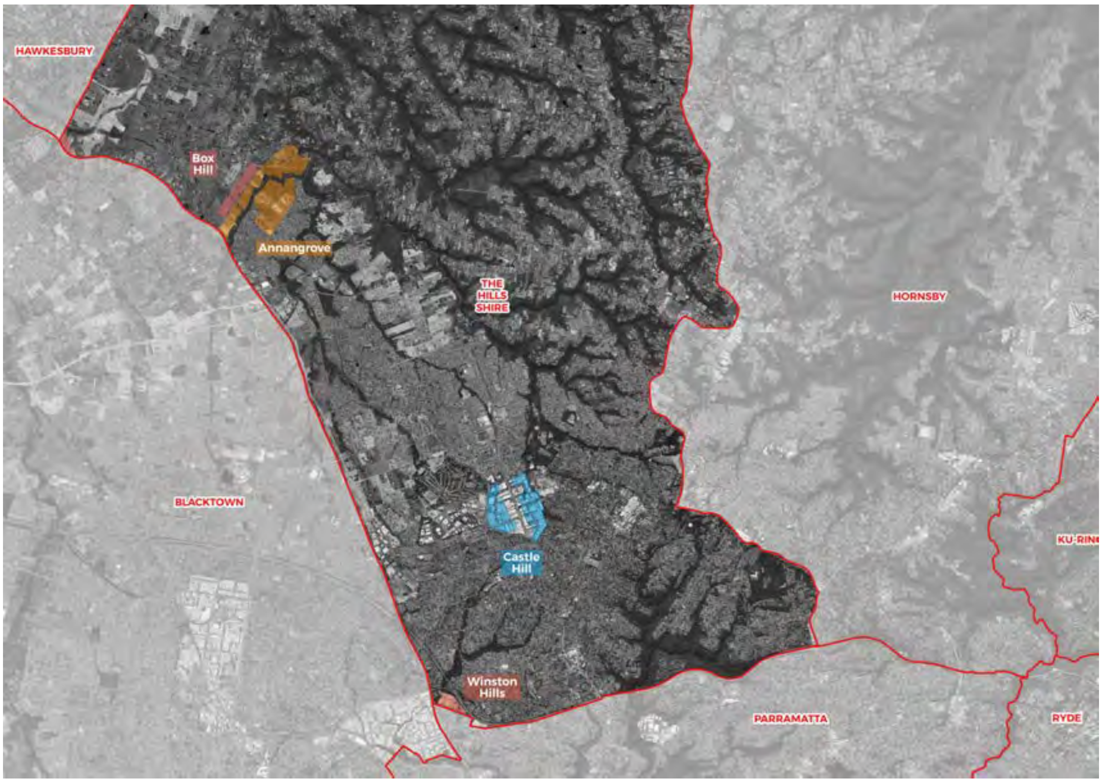

Figure 27 Industrial precincts within the Hills local government area

Source: Mecone

As detailed below the LGA's largest precinct is Annangrove. There is a great discrepancy between the extent that these precincts are developed. Castle Hill and Winston Hills are established precinct, while desktop analysis and sites visits indicates that Annangrove, Glenorie and Box Hill are underdeveloped or undeveloped. This context weighs heavily on the scoring.

Table 23 – Employment Lands in The Hills local government area			
Precinct	Precinct Area (ha)	Percentage of The Hills Employment Lands	Significance
Annangrove	144.9	51%	Mixed
Box Hill	42	15%	Mixed

Table 23 – Employment Lands in The Hills local government area			
Castle Hill	82.2	29%	Local
Glenorie	1	0%	Local
Winston Hills	14.7	5%	Local

The table below outlines the key findings of scoring outcomes by dimension for The Hills local government area. These findings discuss the relationships between precincts noting observable scoring trends, outliers and in some circumstances, limitations.

Table 24 – Summary assessment of key outcomes for The Hills LGA	
Dimension	Key scores and observations
Investment and Business	• With the LGAs average score for investment at 1.6, only Annangrove achieved a score of 3 with $13 million forecast investment. • Glenorie as a single lot scored 1, while the other precincts scored above average. While scores indicate lot size variability, it should be noted that Winston Hills and Box Hill are comprised of 9 lots or less but fell within the scoring thresholds. • Castle Hill was the only precinct to perform consistently well for rents, land value and capital improvement measures. While scores Winston Hills (rental yields) and Annangrove and Box Hill (land values) achieved average scores the general trend across these categories was below average.
Location, Functionality and Connections	• A general trend emerges where precincts further from Central city have poorer access to Motorway Junctions. B-Double accessibility scores for all precincts are high. • A similar trend of closer proximity to the Central City correlating to higher scores occurred with regard to proximity to Intermodals and Airports. Glenorie's distance to strategic centres results in a score of 1. On average of all the measures for criteria B3 Winston Hills and Castle Hill perform the best at 2.75.

Table 24 – Summary assessment of key outcomes for The Hills LGA	
	• Box Hill scored below average for median distance for workers and VET qualification measures. This may be due to the dispersed population and low density surrounding the precinct. • Urban services are evenly distributed with Box Hill and Winston Hills performing above average, while Annangrove and Glenorie performing below average.
Economic Output, Jobs and Growth	• Job density was below average for all precincts. It Please note an assessment and adjustment of data was made based on an assessment of jobs by ANZIC categories. There may be limitations in this approach especially for newly development or undeveloped precincts such as Box Hill and Glenorie. • Castle Hill and Annangrove scored above average for gross value add, while Box Hill scored below average. • Forecast growth was above average for all precincts with the exception of Glenorie. • There appears to be a relationship between growth in contribution 2011-2016 and forecast growth 2016-2036. Given the recent development and limited extent of development with the precincts of Box Hill and Annagrove this indicates data is picking up background growth in the DNZ, possibly from a small relative base. • Clustering includes Bulky goods and retail (Annangrove and Winston Hills), Construction (Box Hill and Castle Hill), Wholesale (Winston Hills and Castle Hill). While there is data for Glenorie a desktop analysis indicates the site has little to no development.

Table 25 – Appendix 2: The Hills LGA

Precinct Name	Dimension 1: Investment and Business								Dimension 2: Location, Functionality and Connections																	Dimension 3: Economic Output, Jobs and Growth						
	HA	A1	A2	A3	A4	A5	A6	A7	B1	B2.1	B2.2	B3.1	B3.2	B3.3	B3.4	B4.1	B4.2	B4.3	B5	B6	B7.1	B7.2	B7.3	B8	B9	C1	C2	C3	C4	C5	C6	C7
Annangrove	144.9	3	5	3	2	1	1	3	5	2	5	1	1	3	3	3	2	2	3	1	5	5	1	3	2	1	5	4	5	4	5	4
Box Hill	42	1	5	2	1	0	0	0	3	2	5	1	1	2	3	2	1	2	1	1	5	5	1	3	5	1	3	2	5	4	5	4
Castle Hill	82.2	2	4	3	5	5	5	5	4	3	5	2	1	4	4	4	3	4	3	3	5	3	1	4	3	2*	2	5	2	3	4	1
Glenorie	1	1	1	5	1	0	0	1	1	1	5	1	1	2	1	1	1	1	5	1	5	5	1	5	1	1*	3	3	3	5	3	1
Winston Hills	14.7	1	4	5	5	3	4	2	2	5	5	3	1	4	3	4	4	2	4	4	5	5	1	3	4	2*	5	3	5	2	5	4
LGA AVERAGE	56.96	1.6	3.8	3.6	2.8	1.8	2	2.2	3	2.6	5	1.6	1	3	2.8	2.8	2.2	2.2	3.2	2.0	5.0	4.6	1.0	3.6	3.0	2.2	2.3	3.4	4.0	5.0	4.6	2.8

*Denotes manual adjustment made to scoring

Null values for A5, A6 and A7 for precincts with no information available in these criteria

7.2.8 Hornsby

The Hornsby local government area contains 13 precincts identified by the ELDM. These account for 30 per cent of precincts within the North District. The precincts range in size from 0.1 hectares to 65.6 hectares, with an average precinct size of 13.6 hectares. Hornsby's precincts contribute 31per cent of the total volume of employment lands in the North District and 1.3 per cent to Greater Sydney's.

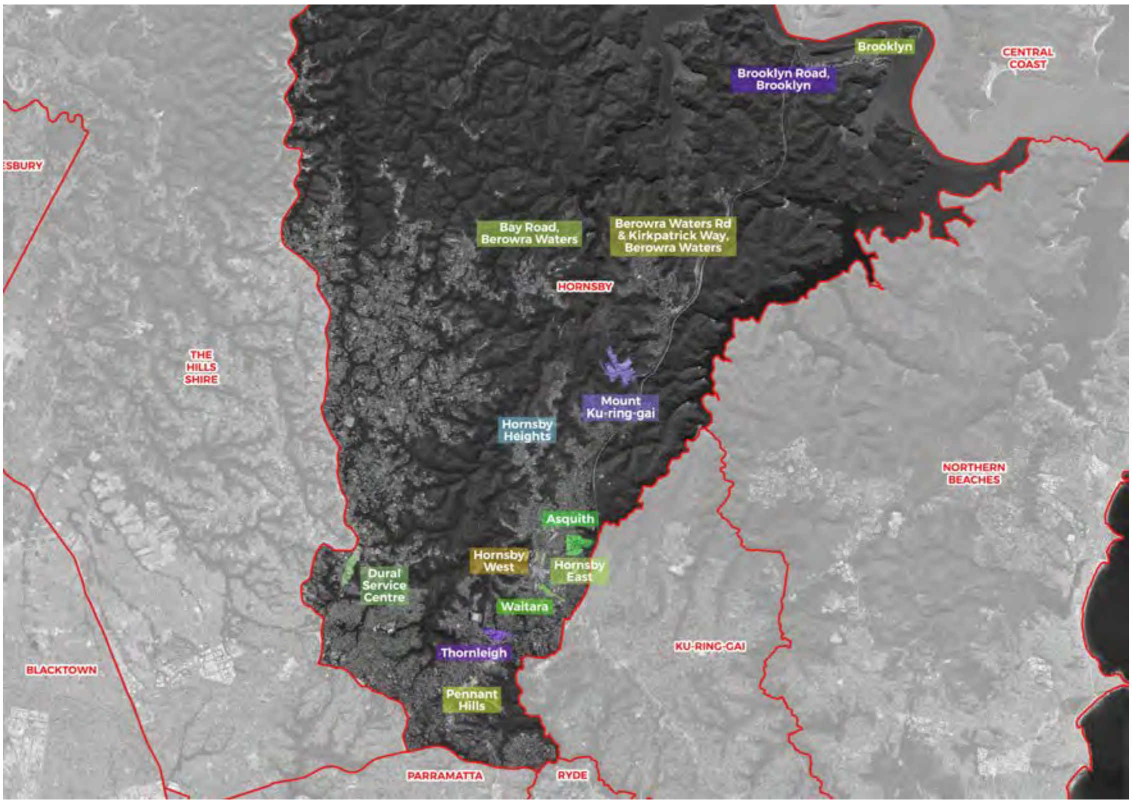

Figure 28 Industrial precincts within Hornsby local government area

Source: Mecone

As detailed below in the three largest precincts are Mount Ku-ring-gai, Dural Service Centre and Thornleigh. There are a number of relatively small precincts which are located in Brooklyn and Berowra to the very north of the local government area.

Table 26 – Employment Lands in Hornsby local government area			
Precinct	Precinct Area (ha)	Percentage of Hornsby Employment Lands	Typology
Asquith	44.2	25%	Metropolitan
Bay Rd, Berowra Waters	0.1	0%	Mixed
Berowra Waters Rd & Kirkpatrick Way, Berowra Waters	0.1	0%	Mixed
Brooklyn	0.6	0%	Mixed
Brooklyn Road, Brooklyn	0.4	0%	Mixed
Dural Service Centre	27.5	16%	Local
Hornsby East	1.0	1%	Local
Hornsby Heights	1.3	1%	Mixed
Hornsby West	1.9	1%	Mixed
Mount Ku-ring-gai	65.6	37%	Metropolitan
Pennant Hills	1.4	1%	Mixed
Thornleigh	23.7	13%	Local
Waitara	8.5	5%	Mixed

The table below outlines the key findings of scoring outcomes by dimension for Hornsby local government area. These findings discuss the relationships between precincts noting observable scoring trends, outliers and in some circumstances, limitations.

Table 27 – Summary assessment of key outcomes for Hornsby LGA	
Dimension	Key scores and observations

Table 27 – Summary assessment of key outcomes for Hornsby LGA	
Investment and Business	Only two precincts scored above average of planned investment, these were Waitara ($51.5M) and Dural Service Centre ($25.6M). Seven precincts had no investment planned. • Rents scored below average for Hornsby Heights, Mount Ku-ring-gai and the precincts located at Brooklyn and Berowra. The remaining precincts scored average or above average. Scoring for improved capital values also followed this trend. • Outcomes for land values appeared relate with proximity to Hornsby Strategic Centre, with precincts closer scoring higher. However, Brooklyn was an outlier to this trend with a score of 5.
Location, Functionality and Connections	• Largely due to their size and distance from the centre of Greater Sydney, precincts within Brooklyn and Berowra consistently scored below average for locational criteria. • Median distance to work scoring indicated that workers in Hornsby Heights and the two precincts in Berowra traveled the shortest distance to work on average. Waitara, Hornsby East, Pennant Hills and Brooklyn also scored above average in this measure. • Precincts in Berowra and Brooklyn as well as Mount Ku-ring-gai had the least potential for conflict with neighboring residential land within their buffer areas. Hornsby Heights and Thornleigh had the greatest theoretical potential for conflict. • Hornsby Heights and Thornleigh had the greatest proportion of identified urban services. Pennant Hills and the four precincts in Berowa and Brooklyn had the lowest scores in this measure.
Economic Output, Jobs and Growth	• The spread of job density scores was weighed toward below average scores, with only Hornsby heights, Waitara and Pennant Hills scoring above average. • Seven of the 13 precincts scored above average for gross value add outcomes. Hornsby Heights and the precincts in Berowra and Brooklyn scored the poorest. • Pennant Hills, Brooklyn Road and Dural Service Centre were the only precincts with an above average growth in contribution to gross value add.

Table 27 – Summary assessment of key outcomes for Hornsby LGA	
	• Automotive clusters are greatest in Pennant Hills and Waitara, Manufacturing in Asquith and Hornsby Heights and, Wholesale in Mount Ku-ring-gai

Table 28 – Appendix 2: Hornsby LGA

Precinct Name	Dimension 1: Investment and Business								Dimension 2: Location, Functionality and Connections																	Dimension 3: Economic Output, Jobs and Growth						
	HA	A1	A2	A3	A4	A5	A6	A7	B1	B2.1	B2.2	B3.1	B3.2	B3.3	B3.4	B4.1	B4.2	B4.3	B5	B6	B7.1	B7.2	B7.3	B8	B9	C1	C2	C3	C4	C5	C6	C7
Asquith	44.2	2	4	3	4	5	5	1	5	4	1.5	1	1	3	3	5	3	3	3	2	5	1	1	2	3	2	2	4	2	3	2	4
Bay Rd, Berowra Waters	0.1	1	1	5	5	1	0	0	01	1	1.5	1	1	1	1	2	5	1	5	1	3	1	1	5	1	1*	2	2	2	1	4	1
Berowra Waters Rd & Kirkpatrick Way, Berowra Waters	0.1	1	1	3	5	1	1	1	1	1	1.5	1	1	1	1	2	5	1	5	1	3	1	1	5	1	1*	3	1	1	1	4	5
Brooklyn	0.6	1	2	5	5	1	1	5	1	1	1.5	1	1	1	1	1	5	5	4	1	5	1	1	4	1	2*	1	1	1	3	3	1
Brooklyn Road, Brooklyn	0.4	1	2	5	5	1	1	1	1	1	1.5	1	1	1	1	1	4	2	2	1	5	1	1	5	1	1*	5	1	5	4	5	3
Dural Service Centre	27.5	4	4	5	4	4	4	1	5	3	5	1	1	3	3	2	3	2	3	2	5	1	1	3	3	2	5	4	5	4	4	1
Hornsby East	1	1	2	5	5	5	5	5	1	5	1.5	1	1	3	3	5	1	4	4	2	5	3	1	2	3	2*	2	5	3	1	4	5
Hornsby Heights	1.3	1	2	5	5	1	1	5	2	4	1.5	1	1	2	2	3	5	2	5	1	5	3	1	1	4	4	2	1	3	2	3	4
Hornsby West	1.9	2	2	5	5	5	5	5	2	5	4	1	1	3	3	5	1	5	3	2	5	3	1	2	2	2*	2	4	2	1	4	5
Mount Ku-ring-gai	65.6	2	4	3	4	2	2	1	5	3	5	1	1	2	1	5	5	3	3	1	5	1	1	5	2	2	4	4	3	4	1	1
Pennant Hills	1.4	1	3	5	5	5	5	5	2	4	5	2	1	4	4	5	1	4	4	3	5	5	1	3	1	4*	4	2	5	3	4	4
Thornleigh	23.7	2	3	3	5	5	5	3	5	5	5	2	1	3	4	5	4	3	3	2	5	5	1	1	4	3	2	4	2	3	2	1
Waitara	8.5	4	2	5	5	5	5	5	4	5	4	2	1	3	3	5	2	5	4	2	5	3	1	3	3	4*	1	4	1	1	4	3
LGA AVERAGE	13.6	1.7	2.5	4.4	4.8	3	2.9	2.7	2.7	3.2	2.9	1.2	1	2.3	2.3	3.5	3.4	3.1	3.7	1.6	4.7	2.2	1.0	3.2	2.2	3.1	3.0	2.8	2.7	4.7	2.2	2.9

*Denotes manual adjustment made to scoring

Null values for A5, A6 and A7 for precincts with no information available in these criteria

7.3 Appendix 3: Case Studies

7.3.1 Criteria and score testing – Case Studies

The Study Team undertook a series visits to precincts once an initial round of scoring of data completed. The purpose of these visits was to test:

- How the criteria and indicators applied in context; and
- If scoring outcomes reflect on site observations.

The precincts identified for investigation were selected based on a range of scoring outcomes from the initial round of data processing as well as observations through GIS and mapping exercises. In particular the following provided the basis on which precincts were chosen for further investigation:

- Precinct size and lot configuration;
- Job density;
- Precinct configuration and cohesion;
- Context to other precincts and commercial zones;
- Proximity to urban areas; and,
- Information of investment.

The project team aimed to evenly spread the site visits across each local government area within the study area. The following precincts by LGA were visited:

- Fairfield
    - Wetherill Park
    - Bonnyrigg Plaza
- Blacktown
    - Kings Park (Blacktown North)
    - Blacktown Road (St Martins)
- Cumberland
    - Lidcombe West
- Parramatta
    - Rydalemere
- The Hills
    - Castle Hill
- Hornsby
    - Thornleigh

7.3.2 Case study structure

The following case studies include observations and reflections based on outcomes of the initial scoring output. While all scores were considered, the case studies detail only those criteria and scores where observations challenged or confirmed the methodology of the Snapshot process. As such the case studies do not contain commentary against every criteria.

It should be noted that case study assessments are based on initial scores generated and have been included in reporting for this section. On the basis of the visits and further research, some data was adjusted. These scores are contained within Appendix 2: Scoring outcomes by LGA with indications where scores have been adjusted.

7.3.3 Wetherill Park

Wetherill Park is the Greater Sydney's second largest precinct behind Eastern Creek being 599.1 hectares in size and employing approximately 17,400 workers. It is located in the north of Fairfield local government area along a boundary with Cumberland. The precinct is zoned a mix of IN1- General Industrial and B5 – Business Development.

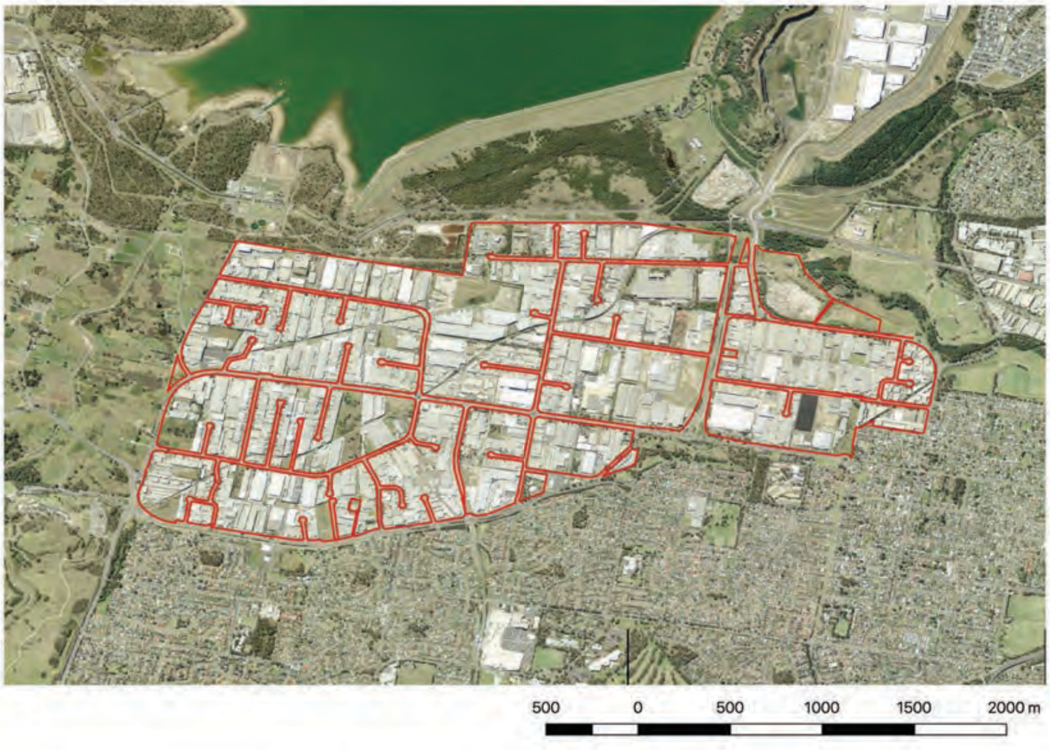

Figure 29 Wetherill Park

Context and observations

The precinct is bounded by Cowpasture Road, the Horsley Drive, Victoria and Hassall streets. The norther boundary is adjacent to the prospect nature reserve.

The precinct contains approximately 1500 businesses across 870 lots that are the site of a wide range of uses.

While a few undeveloped sites and vacant premises were observed, Wetherill Park is well developed and established and industrial precinct. Employment supporting services were observed to be located at the intersections of Victoria Street and Newtown Road as well as along Elizabeth Street. The precinct also contains several service stations with small supermarkets attached.

Although a mix of uses were observed, freight and logistics, manufacturing, warehousing and service industries were most notable.

The precinct is serviced by stations on the Tway Bus line that provides direct access to Blacktown, Parramatta and Liverpool.

Figure 30 Wetherill Park

Examples of uses and development standards

Source: Mecone

Observations on criteria and scoring following the site visit

Following the site visit, several reflections on key criteria and scores were made. Below is a summary of these.

Table 29 – Observations on criteria and scoring: Wetherill Park
A1: Is the precinct forecast to benefit from investment? Score: 5 Comment: Significant recent development within the precinct was observed. It appeared that Wetherill Park was the site of investment through renewal of sites and maintenance, as well as large scale development. The stock mix observed ranged from older established buildings to more recent developments.
B4.3: Proximity to nearest train station Score:1 Comment: While the nearest train station to Wetherill Park is 7 kilometres away, the Elizabeth and Victoria T Way stations are located at the centre of the precinct. These connects to Parramatta, Blacktown and Liverpool. Given the limitations of the extent of Sydney Train Network in broader area, access to T-Way stations should be a consideration for future criteria.

Table 29 – Observations on criteria and scoring: Wetherill Park
B9: Does the Precinct have significant urban services? Score: 3 Comment: Wetherill Park contains 1510 registered businesses of which 435 are considered to be urban services. The number of urban services is greater than many precincts that record a better score in this criteria. Given the scale of activity within the precinct - consideration should be made to the refinement of the indicator and scoring system.
C3: Does the Precinct contribute significantly to the local, subregional or regional economy? Score: 5 Comment: As a large precinct there are a number of business to contribute to economic activity. There may be value in further work to understand productivity averages, for example per business or hectare. This would enable a better economic comparison to smaller precincts which generally scored average or below average
C4: Has the economic contribution improved over time? Score: 1 Comment: With a significant contributor to gross vale add as identified in criteria C3, this outcome implies Wetherill Park's economic contribution has remained high but steady from 2011 to 2016.

7.3.4 Bonnyrigg Plaza

Bonnyrigg Plaza is a small employment lands precinct of 9.9 hectares located in the Fairfield local government area, employing approximately 833 workers. The precinct's zoning is currently a Deferred Matter.

Figure 31 Bonnyrigg Plaza

Context and observations

Bonnyrigg Plaza precinct is situated to the in the south of Fairfield local government area and is bounded by Bonnyrigg Avenue, Edensor Road, the Liverpool-Parramatta Transitway and Elizabeth Drive.

The precinct's irregular shape creates two distinct sections north and south. To the south is a Bunnings Warehouse, which was recently completed with a reported construction value of $45 million and opportunities for 170 jobs.

The northern section of the precinct contains a mix of automotive, auto electrical, urban support and construction businesses. At time of site inspection, these appeared to be operational and servincing customers.

Additionally, there are several places of public worship, a community centre and residential dwellings.

Adjacent to the site is Bonnyrigg Plaza which contains a supermarket, several commercial premises and a community centre. Bonnyrigg Public School is also adjacent to the precinct.

In addition to the recently expanded Bunning Warehouse, recent development is evident at 51 Bonnyrigg Avenue which is the site of 49 apartments. Currently there is development occurring within the precinct at 37-41 Bonnyrigg Avenue which will be the site of 142 dwellings as well as several commercial and retail uses.

The precinct is also adjacent to a station on the Tway Bus line that provides direct access to Liverpool and Parramatta with services also provided to both Liverpool and Cabramatta stations.

Figure 32 Bonnyrigg Plaza

Automotive repairs (left), residential development at 37-41 Bonnyrigg Avenue adjacent to car sales yard (right)

Source: Mecone

Observations on criteria and scoring following the site visit

Following the site visit, several reflections on key criteria and scores were made. Below is a summary of these.

Table 30 – Observations on criteria and scoring: Bonyrigg Plaza
B4.2: Proportion of surrounding area (50 metre buffer) that is open space Score: 2 Comment: While not zoned as public recreation, Clear Paddock Creek runs on the western edge of the precinct. This restored waterway and parkland provides a significant volume of open space to the immediate area. As such it could be considered that the methodology may need to be adjusted to account for such cases.
B4.3: Proximity to nearest train station Score:1 Comment: The precinct is more than 5 kilometers from the Cabramatta train station. However, the precinct is adjacent to a T-Way bus station which provides direct access to Liverpool and Parramatta with services also provided to both Liverpool and Cabramatta station. Given the limitations of the extent of Sydney Train Network in broader area, access to T-Way stations should be considered in as part of criteria B4.3.

Table 30 – Observations on criteria and scoring: Bonyrigg Plaza
B8: Does the precinct have the potential for land use conflict? Score: 3 Comment: It was observed that mixed use development was occurring within the precinct at 37-41 Bonnyrigg Avenue. This may impact on the potential uses within the precinct. Furthermore, it was noted that the precinct also contained residential dwellings along Bibbys Place. Consideration should be made towards existing and residential development within precincts. This may involve coordinating with councils to track DA and Complying Development data for precincts.
B9: Does the Precinct have significant urban services? Score: 4 Comment: The background data aligns with observations that three of eight businesses are categorised as Urban Services. These businesses included automotive repairs - mechanical and electrical. However, the due small number of overall businesses in the precinct, this criteria and score may lead to the impression that the provision of urban services available within the precinct is higher than it truly is.
C1: Does the Precinct generate a reasonable density of jobs? Score: 3 (initial score) Comment: The dataset attributed 833 jobs to the precinct. This figure is due to fact that employment data is collected at the DNZ geographic level. The 833 jobs attributed to the area is in part due to Bonnyrigg Plaza, which contains a Woolworths supermarket several retail outlets and community services, within the DNZ. As such the final data set contains an adjusted figure for jobs density which has resulted in a score of 1. This required analysis of underlying ANZIC codes and allocating these to noted uses within the precinct. While assumptions can be made as to the ANZIC codes that comprise the precinct's total number of jobs, future iterations of the Snapshot would benefit from the development of a detailed methodology and process.
C7: Does the precinct presently support, or will it be likely in the future to support, a unique or diverse business cluster? Score: 5 Comment: This score is based on the proportion of Bulky Goods (65%) and Education (9%) jobs within the DNZ. The site visit indicated that the uses within the Bonnyrigg Plaza precinct were Automotive (2%) and some but not all the 470 reported Bulky Goods jobs. This should be noted as a limitation of the way in which this criteria is measured and scored.

7.3.5 Kings Park (Blacktown North)

Kings Park is the large precinct of 211.4 hectares located within Blacktown LGA, immediately north of Blacktown strategic centre. It is the site of approximately 8,765 jobs. The precinct is zoned a mix of IN1 – General Industrial, IN2 – Light Industrial and B7- Business Park.

Figure 33 Kings Park (Blacktown North)

Context and observations

Kings Park is located to the immediate north of the Blacktown Strategic Centre. The precinct has an irregular shape and is bounded by Sunnyholt Road, Vardys Road and the T1 Western Line.

The precinct is a mix of IN1 – General Industrial, IN2 – Light Industrial and B7 – Business Park. Uses observed included light industry, industrial and urban services wholesale, light manufacturing and urban services. As such there was no dominant activity observed in the precinct.

Commercial uses that were aimed toward the public were closely grouped along Sunnyholt Road. This included a significant number of automotive sales and repair businesses.

Generally, the industrial stock was of an average standard, with a scattering of newer developments among older style stock indicating some but not extensive recent investment.

While several vacant lots or premises were observed, generally the precinct was well occupied.

Figure 34 Kings Park

Examples of industrial stock including strata units and manufacturing and education uses.

Source: Mecone

Observations on criteria and scoring following the site visit

Following the site visit, several reflections on key criteria and scores were made. Below is a summary of these.

Table 31 – Observations on criteria and scoring: Kings Park
C1: Have the number of jobs improved over time? Score: 2 Comment: Kings Park grew by approximately 1,000 jobs over the 2011-2016 period. It is now to location for to approximately 8,930 jobs. While the scoring outcome of below average is correct given scoring is focused on the proportion of growth, the score may insinuate that the precinct is performing poorly. Conversely observing scoring outcomes across the study area smaller precincts with a low employment base are more likely to achieve higher scores in the measure. Consideration for volume of growth may be required as an input into an Industrial Lands evidence base. Much like site size, employment volume provide insight into the significance of the precinct as a key source of employment in the LGA or district.
C3: Does the Precinct contribute significantly to the local, subregional or regional economy? Score: 5 C4: Has the economic contribution improved over time? Score: 2 Comment: These criteria when reviewed in conjunction, indicate that the precinct has remained highly productive across from 2011 to 2016. This suggests the precinct plays not only a role as a major employer (as discussed above) but as a consistent key contributor to Greater Sydney gross value add.
C7: Does the precinct presently support, or will it be likely in the future to support, a unique or diverse business cluster? Score: 2 Comment: The data indicates those clusters that are most significant are Manufacturing and Wholesale. However, as observed, due to the range of activities within the precinct, including food manufacture, logistics and automotive services no significant clustering is occurring. This appeared to be common among most large precincts where there are opportunities for a range of activities given lot size variety, minimal conflict with competing uses and a range of development stock.

7.3.6 Blacktown Road (St Martins)

Blacktown Road (St Martins) is a small precinct of 5.9 hectares within the Blacktown local government area, to the south east of Blacktown strategic centre. The precinct contains 2,680 jobs and is zoned B5 – Business Development.

Figure 35 Blacktown (St Martins)

Context and observations

Blacktown Road (St Martins) is a precinct located to the south east of Blackthorn Strategic Centre. It is bounded by St Martins Crescent, Blacktown Road and Bungarribee Road.

Zoned B5 – Business development it contains a mix of business including bulk goods premises, food and drink premises, neighbourhood shops and services such as a medical clinic and a Service NSW. The precinct is marketed as Blacktown MegaCentre.

Due to these uses this precinct is considered to be commercial in nature rather than those profiles typically associated with ELDM precincts such as those focused on industrial, warehousing or freight and logistics.

Most buildings were considered to be in good condition, with no vacant lots observed. The bulky good premises were serviced by a rear access on-site road and the precinct contains extensive car parking for the public.

Figure 36 Blacktown Road (St Martins)

Examples of uses and scale of development

Source: Mecone

Observations on criteria and scoring following the site visit

Following the site visit, several reflections on key criteria and scores were made. Below is a summary of these.

Table 32 – Observations on criteria and scoring: Blacktown Road (St Martins)
B8: Does the precinct have the potential for land use conflict? Score: 3 Comment: The uses within Blacktown Road were focused on services to the public. These included bulky goods and retail, medical services, social services and food outlets. These are considered compatible with adjacent residential land. As such instances, which may apply to other precincts of this type such a score may be misleading when considered out of context.

Table 32 – Observations on criteria and scoring: Blacktown Road (St Martins)
C3: Does the Precinct contribute significantly to the local, subregional or regional economy? Score: 4 Comment: Compared to other smaller scale precincts, Blacktown Road was located within a relatively smaller DNZs from which the gross value add data was collected. As the only commercial uses in the DNZs, it is possible that the GVA data attributed does in fact generate from uses on the site. As such, when compared to larger precincts with similar scoring outcomes in this measure it highlights relative gross value add of retail and bulky goods, food and medical services uses compared to traditional industrial land uses such as logistics and manufacturing.
C2: Have the number of jobs improved over time? Score: 4 C4: Has the economic contribution improved over time? Score: 5 Comment: Growth in economic contribution and job improvement appear linked and indicate recent development and investment of retail uses in the precinct. This is supported by the quality of some stock, including Harvey Norman and other outlets.

7.3.7 Lidcombe West

Lidcombe West is located to the eastern boundary of Cumberland LGA. The precinct size of 41.75 ha is very similar to the average in the LGA of 48.4 ha. The precinct has approximately 3,867workers. The precinct is zoned IN1 General Industrial: Auburn Local Environmental Plan 2010

Figure 37 Lidcombe West

Context and observations

The Lidcombe West precinct is located to the East of Cumberland LGA situated across both Auburn and Lidcombe suburbs, divided by Haslams Creek. The site is bounded by Nyrang Street to the west and St Hilliers Road, Boorea and Rawson streets to the west.

The west of the precinct along Percy Street provides a mix of urban services and bulky goods suppliers. The Licombe sided of the precinct contains mainly wholesalers and office space but is clearly dominated by the Toohey's Brewery.

Although a mix of uses were observed, Bevchain's (Tooheys) manufacturing and warehousing facility has predominant share of the precinct

The precinct is serviced by Auburn station that is located 1 km west of the precinct and has direct access to Parramatta Road to the north.

Upon observation the precinct has only 0.2 ha undeveloped space and a vacancy rate of 0.3%, supporting that it is an established industrial precinct.

Figure 38 Lidcombe West

Examples of uses and development standards

Source: Mecone

Observations on criteria and scoring following the site visit

Following the site visit, several reflections on key criteria and scores were made. Below is a summary of these.

Table 33 – Comments on criteria and scoring: Lidcombe West
B2: Is the Precinct well connected to the motorway / orbital and the freight arterial network (i.e. less than 5 min or 2km drive) with limited access through residential streets? Is the Precinct well connected to dedicated freight rail network? Is there B double truck access? Motorway: 5 B-Double: 5 Comment: The high scores for this precinct may overstate the actual connectivity. While it is relatively close proximity and allows B double access we consider this precinct inferior compared with other precincts of the same rating.
C7: Does the precinct presently support, or will it be likely in the future to support, a unique or diverse business cluster? Score: 2 Comment: We find it within expectations that this precinct has a below average business clustering given the mix of uses that were seen on the site visit.

Table 33 – Comments on criteria and scoring: Lidcombe West
C3: Does the Precinct contribute significantly to the local, subregional or regional economy? Score: 5 Comment: We consider it surprising that this precinct scores the highest rating for its contribution to the economy. We had estimated the value to be closer to 3 given some uses such as storage and bulky good exist in the precinct.
A1: Is the precinct forecast to benefit from investment? Score: 1 Comment: We did not see any evidence of significant recent development / investment in the precinct and are therefore not surprised by this rating / assessment.

7.3.8 Rydalmere

Rydalmere is a precinct of 104.5 hectares in size and employing approximately 7.520 workers. It is located in the Parramatta local government area along the Parramatta River and Victoria Road. The precinct is zoned a mix of IN1- General Industrial and IN 2 - Light Industrial.

Figure 39 Rydalmere

Context and observations

Rydalmere Industrial is zoned IN1 General Industrial and IN2 Light Industrial and includes a mix of large and small scale industrial development.

The precinct in cut into three distinct area by Victoria Road north and south and Subiaco Creek east and west.

The northern section contains large lots and business such as Bunnings which require large floorplates.

The southern section contains some moderately sized lots, while the western section contains the smallest parcels in the precinct.

This range enables a range of businesses and uses to occupy the precinct, such as automotive supplies and repairs, warehousing and laboratories.

To the western boundary of the precinct is a heavy rail line which connects Rydalmere Station to Sydney CBD and Parramatta via the Clyde on the Carlingford line, due for conversion to light rail under the Parramatta Light Rail Stage 1 project. Western Sydney University campus is located to the west of the precinct.

Figure 40 Rydalemere

Examples of range of uses and scale of development

Source: Mecone and Griffin Property 2018

Observations on criteria and scoring following the site visit

Following the site visit, several reflections on key criteria and scores were made. Below is a summary of these.

Table 34 – Observations on criteria and scoring: Rydalmere
B2.1: B-Double accessibility Score: 5 Comment: As noted above Rydalemere contains three distinct sections or sub precincts. The western section bounded by Subiaco Creek and the rail line contains a street network that is considered narrow and may affect accessibility and vehicle movement. While parts of the precinct are accessible to B-Doubles this criteria does not pick up the nuances of the variety of such an road network structure. In planning for future uses for precincts such context should be considered in more detail.
C7: Does the precinct presently support, or will it be likely in the future to support, a unique or diverse business cluster? Score: 1 Comment: Clustering data reflected the varied nature of businesses and uses observed. Like Wetherill Park due to the variety of lot sizes and stock available within the precinct, no predominant type of development was observed.

Table 34 – Observations on criteria and scoring: Rydalmere
A3: Is the precinct cohesive and uninterrupted? Score: 3 Comment: While Victoria Road and Subiaco Creek create barriers for a cohesive precinct, the on the ground functions do not appear to be interrupted by this. As noted above the northern section contains lots with large development footplates for uses such as a Bunnings Warehouse, a City of Parramatta Deport as well as industrial manufacturing and freight and logistics uses. The south eastern section includes uses that require moderate floorplates such as food manufacturing and automotive repairs. To the west are smaller scale lots which appeared to contain a range of businesses such as wholesale, retail automotive parts and medical supplies. As such, Victoria Road and Subiaco Creek did not appear to affect the functionality of the precinct as these three distinct areas appear to have developed around such a context. This indicates average scores for this measure may not have a significant bearing on the success of a precinct.

7.3.9 Castle Hill

Castle Hill (also referred to as the Showground Precinct) is one of the larger industrial precincts servicing North West Sydney. The precinct comprises 82.2 ha of a total of 56.96 ha from the total LGA. The precinct is zoned a mix of IN1 General Industrial, IN2 Light Industrial and B6 Enterprise Corridor and some as a Deferred Matter.

Figure 41 Castle Hill

Context and observations

The Castle Hill precinct is located centrally within The Hills LGA. The site is bounded by Showground, Windsor, and Carrington Roads.

The west of the precinct provides a mix of uses, but bulky goods, manufacturing and urban services appear to be most predominant. The precinct contains approximately 800 businesses across 56 lots that are the site of a wide range of uses.

The precinct also contains the Hills Lodge Hotel & Spa, an unlikely feature of an industrial precinct. The precinct is serviced by Victoria Road, which links busses to the precinct. The precinct will likely benefit from the future opening of Castle Hill Station.

Figure 42 Castle Hill

Examples of uses and development standards

Source: Mecone

Observations on criteria and scoring following the site visit

Following the site visit, several reflections on key criteria and scores were made. Below is a summary of these.

Table 35 – Observations on criteria and scoring: Castle Hill
A1: Is the precinct forecast to benefit from investment? Score: 2 Comment: While we consider the score of 2 (comparatively low) is likely to reflect the proposed pipeline of work in the precinct we are of the view it does not reflect the relatively high value in improvements in the precinct. This is partly influenced by the bulky goods nature of improvements which need to be visually appealing to attract patronage.
A2: Does the precinct demonstrate high rental values/yields? Score: 5 Comment: The precinct has high rental costs primarily due the significant catchment that this area services and the constraints on expansion. Given the expectations for population growth in the precinct / area we expect continued growth in rents and values.

Table 35 – Observations on criteria and scoring: Castle Hill
B4.3: Proximity to nearest train station Score:4 Comment: While the Castle Hill precinct does benefit from bus services, it has been generally known as being accessed by car. The comparatively high score relates to the provision of the Sydney Metro Northwest.
C3: Does the Precinct contribute significantly to the local, subregional or regional economy? Score: 5 Comment: As a large precinct there are a number of business to contribute to economic activity. Further, there are range in uses including bulky goods, distribution, car repair all contributing to the economic productivity of the precinct.
C4: Has the economic contribution improved over time? Score: 2 Comment: Based on our site inspection we had thought there may have been greater growth in economic contribution over time coming from investment in the improvement in the precinct and densification of some of the facilities.

7.3.10 Thornleigh

Thornleigh is an important industrial precinct servicing the North Shore. The precinct size of 23.7 ha is commensurate with a number in the LGA. The 2016 Census show the precinct supports 1,712 employees. It is located in the Hornsby LGA and is zoned IN1 General Industrial: Hornsby Local Environmental Plan 2013.

Figure 43 Thornleigh

Context and observations

The Thornleigh precinct is located towards the southern boundary of Hornsby LGA. The site sits between the intersections of Sefton Road, Chilvers Road and Duffy Ave. The eastern boundary sits adjacent to railway and within Brickpit Park.

The precinct provides a range of industrial uses spread across the three sections of the precinct. The western segment constuttes of mainly the Hornsby Shire Council Thornleigh Depot and urban services. The middle segment provides a mix of manufacturing, wholesale and bulky goods services. The eastern portion of the precinct contains recreational based employment though the Thronleigh Golf Centre and Thornleigh Basketball Sports Stadium.

The precinct is serviced by Cumberland Highway to the east, and is approximately 1.5 kilometres from Thornleigh Station.

Figure 44 Thornleigh

Examples of uses and development standards

Source: Mecone

Observations on criteria and scoring following the site visit

Following the site visit, several reflections on key criteria and scores were made. Below is a summary of these.

Table 36 – Comments on criteria and scoring: Thornleigh
C7Does the precinct presently support, or will it be likely in the future to support, a unique or diverse business cluster? Score: 1 Comment: We find it slightly surprising that there is no recognized clustering in this precinct given the provision of some home and building supplies Bunnings, Reece as an example although we do recignise there is a wide mix of uses within the precinct.
B4.3: Proximity to nearest train station Score:1 Comment: The nearest train station is Thornleigh however is located approximately 1 km away which gives it an average score only, especially as it appeared that there was high use of car as a means of transport to the site.

Table 36 – Comments on criteria and scoring: Thornleigh
A6 Does the precinct demonstrate high capital values? Score: 5 Comment: Given the relative shortage of industrial stock / supply in the precinct, high level of demand coming from the surrounding catchment and exposure we consider the precinct will have high capital values.
A2 Does the precinct provide a range of sites? Score: 3 Comment: We consider the score of 3 is reflective of the mix of sites within the precinct. While some diversity exists, including strata product there are a number of sites that we expect to be larger than the Sydney average.
B2: Is the Precinct well connected to the motorway / orbital and the freight arterial network (i.e. less than 5 min or 2km drive) with limited access through residential streets? Is the Precinct well connected to dedicated freight rail network? Is there B double truck access? Motorway: 5 B-Double: 5 Comment: The high scores for this precinct may overstate the actual connectivity. While it is relatively close proximity and allows B double access we consider this precinct inferior compared with other precincts of the same rating.

Attachment: Outcomes for Liverpool LGA

Given Mecone is providing existing and ongoing work for private sector clients within Liverpool, they have not undertaken analysis of the Liverpool LGA. Due to this potential conflict of interest, JLL has provided an independent assessment of the Liverpool LGA utilising the same methodology and scoring criteria applied to the other LGAs that form the broader study area.

1.1 Employment Lands Studies and Strategies

The following table outlines Council level strategies that have been identified within the Liverpool local government area.

Table 1 – Local government employment lands studies and strategies

Local Government Area	Summary of employment policy
Liverpool	*The Liverpool Business Centres and Corridors Strategy Review* (2013) identified a number of key employment lands within the LGA. *Liverpool City Centre Plan* (2007) is a 25 year plan to facilitate 15,000 new jobs for one city centre. Liverpool City Centre will continue to operate as a Regional Centre, serving the South West. Council is working to implement strategies (listed below) to ensure Liverpool City Centre is the ideal location for commercial office development. Under the *Liverpool Business Centres and Corridors Strategy Review* (2013), Council has adopted the following strategies: • Preserve a commercial core area (excluding residential) in the Liverpool CBD for future business, office and retail growth; • Limit professional office premises to business zones to capitalise on, and concentrate infrastructure and services; • Establish and maintain Liverpool's Retail Centre Hierarchy; • Support the expansion of existing retail and business centres in accordance with the adopted Retail Centres Hierarchy 2012; • Ensure the new centres complement existing centres and do not impact upon their viability; • Expand start-up business opportunities (and restrict residential) in extended enterprise corridor zones leading into main centres and nodes; and, • Support growth of existing bulky good clusters in accordance with the retail centre hierarchy and limit other locations to serve a district role. Key documents: • *The Liverpool Business Centres and Corridors Strategy Review* (2013)

1.2 Scoring outcomes for Liverpool LGA

The following section details the outcomes of the scoring by local government area with commentary on the scale of scores including precincts that were outliers, averages as well as possible explanations for outcomes as well as other observations. It should be noted this Attachment outlines the study results but does not provide an explanation or reason for the scores. It is recommended that the below be read in conjunction with the scoring outcomes

1.2.1 Scoring framework

In order to align with the scoring process developed by Hill PDA, narrative to describe scoring outcomes has adopted the following three categories:

- Above Average scores: criteria scores of 5 or 4
- Average scores: criteria scores of 3
- Below Average scores: criteria scores of 2 or 1

1.2.2 Attributing typologies

As detailed in Section 4.6 the following local government scoring summaries also include an assessment of the level of significance the project team considered most fitting for that precinct. These are:

- Metropolitan – Large Scale Logistics and (some)General Industrial

  Those precincts of a large scale and significant economic contribution, whose operation are important of to the function of Greater Sydney and include uses such as manufacturing, transport and logistics.

- Local – Local Services and (some)General Industrial

  Those precincts that provide employment and service functions that service the LGA and broader District and included uses such as manufacturing, automotive, warehousing and other services.

- Mixed – Bulky goods, Independent Sites, Working waterfront, Specialised uses and Undefined or undeveloped precincts.

  Those uses that are population serving (largely retail in nature), under pressure to rezoning as single or a small number of sites with little planned investment, specialized uses that are not critical to Metropolitan functions, or precincts under development.

1.2.3 Liverpool

The Liverpool local government area contains 11 precincts as identified by the ELDM. These account for 15 per cent of land area within the Western City District.

The precincts range in size from 1.6 hectares to 493.1 hectares, with an average precinct size of 101.4 hectares. Liverpool's precincts contribute 21 per cent of the total volume of employment lands in the Western City District and 8 per cent to Greater Sydney's.

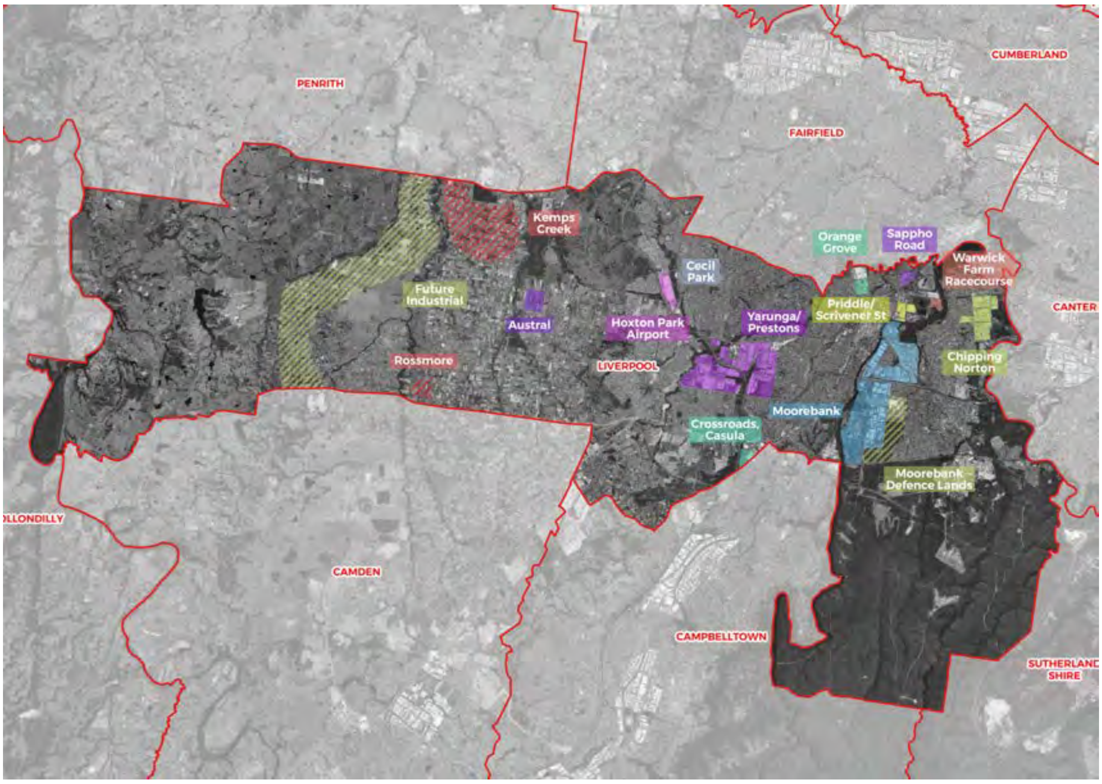

Figure 1 Industrial precincts within Liverpool local government area

Source: Mecone

As detailed below for the study area the LGA's largest precinct is Yarunga/Prestons, which is 31 per cent of all of Liverpool's zoned employment land precinct.

Liverpool also contains five areas of potential employment lands which total 2,159 hectares in size. These precincts were included in the analysis and scoring, however both scores and the data they are based upon are considered to have limitations. In particular there is unavailable data in relation to historic job figures, rental yields, land values and capital improvement.

There are a range of typologies in the Liverpool with no dominant type (refer to **Error! Reference source not found.** for more detail regarding employment lands typologies)

Employment Lands in Liverpool local government area

Precinct	Precinct Area (ha)	Percentage of Liverpool Employment Lands	Significance
Austral	41.8	4%	Mixed
Cecil Park	1.6	0%	Mixed
Chipping Norton	100.9	9%	Metropolitan
Cross Roads, Casula	16.9	2%	Mixed
Hoxton Park Airport	40	4%	Metropolitan

Employment Lands in Liverpool local government area			
Moorebank	493.1	44%	Metropolitan
Orange Grove	21.6	2%	Mixed
Priddle/Scrivener St	23.2	2%	Local
Sappho Road	17.5	2%	Mixed
Warwick Farm Racecourse	12.8	1%	Mixed
Yarunga/Prestons	345.5	31%	Metropolitan
Future Industrial* (WSA)	1,124.9	-	Mixed
Kemps Creek*	446.8	-	Mixed
Rossmore*	40.2	-	Mixed
Moorebank Defence Lands*	154.0	-	Mixed
Western Sydney Employment Area Extension*	391.9	-	Mixed

**Potential Employment Lands. Note: these were not included in calculations for percentage of precinct contribution to Liverpool LGA or for scaling of scoring for Criteria B1.*

The table below outlines the key findings of scoring outcomes by dimension for The Hills local government area. These findings discuss the relationships between precincts noting observable scoring trends, outliers and in some circumstance limitations.

Table 2 – Summary assessment of key outcomes for Liverpool LGA	
Dimension	**Key scores and observations**
Investment and Business	• The level of **investment** identified for Moorebank is the most significant for the entire study area at $1.3 billion. Yarunga/Prestons follows, with $128 million investment planned. Seven of the remaining zoned precincts score below average with five having no identified investment.

Table 2 – Summary assessment of key outcomes for Liverpool LGA	
	• As expected the potential precincts score below average on the measure of the extent of the **precinct serviced by utilities** as does the Warrick Farm Racecourse precinct. • Across all precincts the average **rents** score is 2.7, with only Yarunga/Prestons and Orange Grove with above average scores. • Seven of the 10 zoned precincts had below average scores for **land values** with Austral performing the poorest. • **Capital improvement** loosely related to **rents**, with Orange Grove scoring highest with 5 while Cecil Park and Cross Roads scored 1s.
Location, Functionality and Connections	• Across all zoned precincts proximity to **Motorway Junctions, Intermodals, B-Double accessibility** was above average. The proximity to the future Western Sydney Airport was taken into account and as such all precincts scored 3 or above. • Average scores across zoned precincts for **train station accessibility** (1.9), **median distances to work** (2.6) and **VET qualifications of surrounding population** (2.5) may be due to the dispersed nature of jobs and dwellings, variation in education attainment and low population density in catchments surrounding precincts. • Several of the potential precincts scored above average for **urban services** as did Austral, Sappho Road, Moorebank and Yarunga/Prestons. Below average scores were recorded for precincts which offer Bulky Goods and Retail (Cross Roads), Recreation (Warrick Farm Racecourse), Warehousing and Transport and Logistics functions(Hoxton Park Airport and Cecil Park)
Economic Output, Jobs and Growth	• **Job density** averaged 1.9 across the zoned precincts, which reflects **clustering** of Manufacturing, Transport and Logistics and Wholesale uses which generally have lower employment densities compared to other employment land uses. • Moorebank, Yarunga/Prestons and Chipping Norton all had above average scores for **gross value add**. Smaller zoned precincts further to the west generally scored below average. • All precincts have above average scores in relation to **capacity for growth**, which is a function of underdeveloped sites and no limits to FSR (no maximum FSR) applying to several precincts. • **Clustering** scores average 3.8 with precincts several precincts characterized by Automotive (Sappho Road), Bulky goods and retail (Cross Roads and Orange Grove), Manufacturing

Table 2 –	Summary assessment of key outcomes for Liverpool LGA
	(Chipping Norton) and Transport and Logistics (Hoxton Park Airport and Priddle/Scrivener St).

Table 3 – Liverpool LGA

Precinct Name	Dimension 1: Investment and Business								Dimension 2: Location, Functionality and Connections																	Dimension 3: Economic Output, Jobs and Growth						
	HA	A1	A2	A3	A4	A5	A6	A7	B1	B2.1	B2.2	B3.1	B3.2	B3.3	B3.4	B4.1	B4.2	B4.3	B5	B6	B7.1	B7.2	B7.3	B8	B9	C1	C2	C3	C4	C5	C6	C7
Austral	41.8	1	4	5	1	0	0	1	4	3	3	4	1	4	3	2	1	1	2	1	3	3	1	1	5	1	4	1	1	4	5	3
Cecil Park	1.6	1	1	5	5	1	1	2	1	4	5	3	1	4	3	3	5	1	5	2	5	5	1	5	1	1	5	1	5	4	5	4
Chipping Norton	100.9	3	4	5	5	1	1	3	5	4	5	5	2	5	3	5	4	2	2	3	5	5	5	2	3	2	4	5	3	5	2	3
Cross Roads, Casula	16.9	1	5	5	5	0	0	3	3	5	5	4	1	5	3	4	1	2	1	2	5	5	1	4	1	2	5	2	5	5	2	5
Hoxton Park Airport	40	1	5	5	5	3	4	2	4	4	5	3	1	4	3	3	4	1	5	2	5	5	1	5	1	1	5	2	5	5	5	4
Moorebank	493.1	5	5	3	5	3	4	4	5	5	5	4	2	5	3	4	3	2	5	2	5	3	1	4	4	1	2	5	1	5	3	4
Orange Grove	21.6	1	5	5	5	5	5	2	3	4	5	4	2	5	3	3	4	3	3	3	5	3	1	2	3	2	5	3	5	5	1	5
Priddle/Scrivener St	23.2	2	5	5	5	3	4	2	3	4	5	4	1	4	3	5	3	3	2	3	5	5	1	4	3	2	1	3	1	5	5	4
Sappho Road	17.5	2	4	5	5	3	4	2	3	4	5	4	2	5	3	4	4	3	2	3	5	5	1	4	4	2	5	3	5	5	3	5
Warwick Farm Racecourse	12.8	1	5	5	1	2	3	2	2	4	3	4	2	4	3	4	1	2	2	3	5	5	1	5	1	2	5	2	5	5	2	4
Yarunga/Prestons	345.5	5	5	3	4	5	3	4	5	5	5	3	1	4	3	2	3	1	2	3	5	5	1	3	4	1	5	5	4	5	3	1
LGA Average	101.4	2.1	4.4	4.6	4.2	2.4	2.6	2.5	3.5	4.2	4.6	3.8	1.5	4.5	3.0	3.5	3.0	1.9	2.8	2.5	4.8	4.5	1.4	3.5	2.7	1.9	2.8	2.9	3.6	4.8	4.5	3.8
Potential Precincts	HA	A1	A2	A3	A4	A5	A6	A7	B1	B2.1	B2.2	B3.1	B3.2	B3.3	B3.4	B4.1	B4.2	B4.3	B5	B6	B7.1	B7.2	B7.3	B8	B9	C1	C2	C3	C4	C5	C6	C7
Future Industrial*	1124.8	3	5	5	1	0	0	0	1	1	5	5	1	4	2	1	1	1	1	1	3	3	1	5	4	1	1	1	5	5	0	4
Kemps Creek*	446.7	1	5	5	1	0	0	0	1	2	5	4	1	4	1	1	2	1	1	1	3	5	1	5	4	1	1	1	5	5	0	3
Moorebank Defence Lands*	154	1	5	5	1	0	0	0	1	5	1.5	4	2	5	3	3	2	2	2	2	5	3	1	2	1	1	1	1	5	5	5	3
Proposed WSEA*	391.8	1	5	5	1	0	0	0	1	1	5	5	1	4	2	1	1	1	1	1	5	1	1	4	2	1	1	1	1	5	5	1
Rossmore*	40.23	1	4	5	1	0	0	0	5	2	1.5	3	1	3	3	2	1	1	4	1	3	3	1	5	5	1	1	1	5	5	5	4
Average	431.5	1.4	4.8	5	1	0	0	0	1.8	2.2	3.6	4.2	1.2	4	2.2	1.6	1.4	1.2	1.8	1.2	3.8	3	1	4.2	3.2	1	1	1	4.2	5	3	3

Null values for A5, A6 and A7 for precincts with no information available in these criteria

1.3 Appendix 4: Case Studies – Liverpool LGA

1.3.1 Chipping Norton

Chipping Norton is located to the eastern boundary of Liverpool LGA. The precinct size of 100.9 ha is very similar to the average in the LGA of 101.4 ha. The precinct has approximately 4,019 workers. The precinct is zoned IN2 Light Industrial & IN3 Heavy Industrial: Liverpool Local Environmental Plan 2008

Figure 2 – Chipping Norton

Context and observations

Chipping Norton is located to the eastern boundary of Liverpool LGA. The site is bounded by Barry Street, Governor Macquarie Drive and Newbridge and Riverside Roads. The eastern boundary is adjacent to Heron Park along the Georges River.

Chipping Norton offers high density industrial precinct containing a range uses, however logistics, bulky goods and manufacturing are the most prominent. There is a strong presence of industrial park/strata office throughout the precinct, all varying in age and quality of improvements. It is noted that Daikin holds a considerable manufacturing plant to the west of the precinct.

The significant amount of employment that is provided from the precinct assume is serviced by the extensive residential zone that surrounds the area.

Urban services were observed to be scattered throughout the precinct with auto parts providers and mechanical facilities having the strongest presence.

The precinct is serviced by Newbridge Road to the south and Governor Macquarie drive to the north, providing access to Warwick Farm station 3 kilometres west and Bankstown Airport 5.5 kilometres east.

Figure 3 Chipping Norton - Examples of uses and development standards

Source: JLL

Observations on criteria and scoring following the site visit

Following the site visit, several reflections on key criteria and scores were made. Below is a summary of these.

Table 4 – **Comments on criteria and scoring: Chipping Norton**
A6 Does the precinct demonstrate high capital values? **Score: 2** **Comment:** As land values, capital value and rents are generally lower in the south west it is not surprising that Chipping Norton has received a score of 2.
C3: Does the Precinct contribute significantly to the local, sub regional or regional economy? **Score**: **5** **Comment**: We consider it appropriate that this precinct has been given a relative high score however had figured it more likely to be closer to 4. Notwithstanding this high score is likely as a combined function of a mix of manufacturing and general industrial that occurs within the precinct.

Table 4 – Comments on criteria and scoring: Chipping Norton
C6: Is the number of jobs forecast to grow? **Score**: 2 **Comment**: We consider the score of 2 to reasonably reflects the forecast jobs growth with the below average score likely reflecting some dependence of manufacturing within the precinct.
A1: Is the precinct forecast to benefit from investment? **Score**: 3 **Comment**: Some development within the precinct was observed although many areas appeared to have dated improvements with no new investment. The score of 3 appears reasonable.
B8 Does the precinct have other constraints i.e. potential for land use conflict? **Score: 2** **Comment:** We consider it appropriate that this precinct be given a score of 2 given there appeared to be little land use conflicts.

1.3.2 Cecil Park

Cecil Park is one the Greater Sydney's smallest precincts as it comprises only 1.6 ha which is a small portion of the 101.4 ha's within the Liverpool LGA. The precinct is shown to have only 17 employees coming from the Metro-Link depot.

The precinct is zoned IN2 Light Industrial.

Figure 4 Cecil Park

Context and observations

Cecil Park is the smallest precinct of Liverpool LGA. Located and serviced by Cowpasture Road, the precinct appears to be primarily focused on the single occupant.

The existing improvements appear to be relatively new, providing office use and warehouse/ logistic space within the site. The majority of the precinct is improved with paved surface area designated to provide access and parking of trucks and vehicles of the employees.

The precinct can only be accessed by Cowpasture Road, which is linked to the M7 Motorway to the south. The precinct is limited in its access to public transport. A bus stop is located 140 metres north of the precinct, which links the depot with Liverpool Station, which is approximately 12.5 kilometres away.

The precinct's employment contribution is restricted by its size and occupancy, however it is assumed that it provides significant logistic support to the surrounding areas.

Cecil Park is adjacent to Hoxton Park Airport Employment Land Precinct, which offers urban services such as Bunnings and Caltex. We assume that both precincts act interdependently in their roles as employment land precincts for Hoxton Park and Liverpool LGA.

Figure 5 Cecil Park - Examples of uses and development standards

Source: JLL

Observations on criteria and scoring following the site visit

Following the site visit, several reflections on key criteria and scores were made. Below is a summary of these.

Table 5 – Comments on criteria and scoring: Cecil Park
C6: Is the number of jobs forecast to grow? **Score**: 5 **Comment**: Given the improvements appear relatively new it is hard to foresee significant jobs growth in this precinct.
A7 Does the precinct have high land values? **Score: 2** **Comment**: Given the precinct is located in South West Sydney the land values are low, relative to the Sydney Metropolitan region. The high exposure of the site, fronting Cowpasture Road provides a level of support.

Table 5 – Comments on criteria and scoring: Cecil Park
B3 Is the Precinct located near major infrastructure hubs i.e. an airport, port, intermodal, or a strategic centre? **Airport 3** **Port 1** **Intermodal 4** **Strategic centre 3** **Comment:** We consider the above scores provide an appropriate measure for the distance to the major infrastructure hubs. This precinct is located in close proximity to an intermodal and a significant distance from Port Botany.
C3: Does the Precinct contribute significantly to the local, sub regional or regional economy? **Score**: **1** **Comment**: We consider it appropriate that this precinct has been given a low score – as a combined function of its small size but also the uses on the site which include bus depot / storage.
B7 Does the precinct have constraints such as Australian Noise Exposure Forecast (ANEF), flooding, or poor topography? **Flooding 5** **Slope 5** **ANEF 1** **Comment**: We consider the above scores provide an appropriate measure of the constraints of the site with the ANEF being the inverse i.e. the low score reflecting no significant ANEF issues.