

WICKHAM WOOL STORE REDEVELOPMENT - ECONOMIC IMPACT ASSESSMENT

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PREPARED FOR INVESTEC

URBIS

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EXECUTIVE SUMMARY

Urbis has been appointed by Investec to undertake an Economic Impact Assessment for the redevelopment of the Wickham Woolstore located at 33-57 Annie Street Wickham.

Investec proposes to redevelop the subject site into a mixed use development, including:

- The three woolstores will be adapted as a mixed use development including internal car parking
- The western and middle woolstore will be for residential use
- There will be ground floor retail, commercial / community uses on the second and third storey, and residential use on the top floor of the eastern woolstore
- A new building with ground floor retail, top level commercial / community uses and internal car parking will be constructed in the eastern portion of the subject site, creating a laneway of retail between the woolstore and the new building
- A new residential building with internal car parking will be constructed in the northern portion of the site. There will be ground floor retail at the southern end of this building with frontage to a small road which runs east to west on the subject site
- A large recreational park will be constructed adjacent to the new residential building at the northern portion of the site.

As the subject site is currently zoned IN2 Light Industrial and the proposed development is a mixed use concept, the development proposal seeks to utilise of the heritage conservation incentive provisions contained in Clause 5.10 (10) of the Newcastle Local Environmental Plan 2012.

The use of Clause 5.10 (10) requires evidence to support the proposed change in land use, demonstrating that the proposal is necessary to facilitate the conservation of the heritage items on the subject site. In addition, the economic impact of the proposal is to be assessed. This report assesses the economic impact of the proposal.

There are currently around 2,599 hectares of industrial zoned land within the Newcastle LGA. Urbis have identified key factors that drive tenant interest and underpin the functioning of industrial precincts:

- Access to motorway networks and B-Double routes
- Scale of the precinct, with larger precincts offering opportunities for expansion, intensification of activity and clustering of similar industries and supply chain synergies. For the purposes of this assessment we have identified precincts with <10 hectares as small scale, 10-30 hectares as medium scale and >30 hectares as large scale.
- Land use conflict to sensitive noise receptors (e.g. residential areas where impacts on neighbourhood amenity can lead to land use conflict) and the potential to result in traffic conflict between residential and freight vehicles.

The competitive positioning of the subject site compared to other industrial precincts is generally inferior (in terms of its use as an industrial site).

The subject site has poor ratings against the key success drivers. It experiences constraints such as:

- Poor accessibility southbound on Hannell Street (Pacific Highway), as it is not possible to turn right directly into Annie Street. Hannell Street is the major industrial corridor of Newcastle
- According to NSW Roads and Maritime Services, Annie Street does not have B-double access. B-double access is only available to the subject site on Milford Street via The Avenue from Hannell Street
- Access from Pacific Highway which connects with Newcastle Road however cars and trunks must pass through smaller residential streets to reach the site
- The woolstores are heritage listed buildings which places significant restriction on their suitability as a light industrial asset

- Residential land use located directly across the road to the south and west of the site. This includes the Soque apartment development which involved adapting the Winchcombe Carson Woolstore for residential uses. Any uplift in industrial activity on the site is likely to adversely affect these residential uses, and create land-use conflicts.

Our analysis indicates that precincts such as Kooragang, Mayfield and Tighes Hill, and Beresfield that achieved high ratings provide users with:

- Access to a diversity of lot sizes and built that support a larger range of uses
- Fewer land use conflicts than smaller isolated precincts
- Large contiguous industrial / business zoned precincts
- Direct access to major roads and highways and with B-double access.

We have also considered the demand and supply of industrial land within the Newcastle LGA to assess whether there will be a sufficient supply of industrial land in the future if the subject site is not available for light industrial use.

We have assessed the industrial land demand and supply under two scenarios:

- **Employment Demand**, estimates an annual land demand by converting industrial job forecasts (using employment densities) to land demand. Urbis have estimated employment densities to be between 20-30 jobs per hectare.
- **Industrial Development Take-Up**, estimates an annual industrial land demand based on the site area of industrial projects on greenfield / undeveloped land that are at / or past the development approval stage and are to be completed in 2017 and 2018.

There are currently 801 hectares of industrial land in the LGA that are capable of accommodating new industrial employment in 2017.

Under the **Employment Demand** scenario, there is a projected industrial employment growth of 560 jobs in total by 2031, which will require 18.7 to 28 hectares of industrial land by 2031. Based on this estimate there will be a surplus of 773.2 - 782.5 hectares of industrial land in 2031.

Under the **Industrial Development Take-Up** scenario, there is a projected demand of 41.2 hectares by 2031. Based on this take-up estimate, if there will be a surplus of 760 hectares of industrial land in 2031.

Under both demand scenarios the redevelopment of the subject site will not have a significant impact on the supply of industrial land within the Newcastle LGA.

The industrial land supply is further augmented by 154,000 sq.m of vacant industrial floorspace across close to 100 vacancies within the LGA that are capable of industrial use and additional take-up from industrial businesses.

In addition to this, there is likely to be strong residential demand moving forward:

- In the period between 2001 and 2011, the population within the Newcastle LGA grew by approximately 13,330 persons, or 9.4% over the ten years
- The Non-Metro NSW population grew by 6.5% annually over this period
- The population of Newcastle LGA is forecast to grow by 27,200 persons (main series) or 16% between 2016 and 2031
- Between 2016 and 2021, the housing deficit is estimated at approximately - 499 dwellings (main series), expanding to - 7,840 dwelling deficit by 2026
- A supply and demand gap analysis suggests that over both the short and long-term, there is insufficient housing stock to meet the growing housing needs of the market catchment
- This impacts the affordability of housing stock, with the median unit price in the market catchment being above the affordable range for First Home Buyers (FHBs) amongst average household incomes

- Established home owners on the other hand appear to be able to afford most product types illustrating the impact of reducing the size of mortgages on repayments and overall affordability.
- The economic benefits of the development of the subject site include:
 - An average of 106 direct and 253 indirect construction jobs per annum (assuming a construction timeframe of 2.5 years)
 - Direct ongoing jobs of 456 and indirect ongoing jobs of 558, driven by the retail and commercial floorspace on the subject site
 - This represents a much stronger employment outcome compared to the existing storage use of the site, which typically do not require a significant workforce.

INTRODUCTION

Urbis has been appointed by Investec to assess the economic impact of the proposed redevelopment of the Wickham Woolstore at 33-57 Annie Street Wickham. Preliminary plans for the redevelopment are summarised below:

- The three woolstores will be adapted as a mixed use development including internal car parking
- The western and middle woolstore will be for residential use
- There will be ground floor retail, commercial / community uses on the second and third storey, and residential use on the top floor of the eastern woolstore
- A new building with ground floor retail, top level commercial / community uses and internal car parking will be constructed in the eastern portion of the subject site, creating a laneway of retail between the woolstore and the new building
- A new residential building with internal car parking will be constructed in the northern portion of the site. There will be ground floor retail at the southern end of this building with frontage to a small road which runs east to west on the subject site
- A large recreational park will be constructed adjacent to the new residential building at the northern portion of the site.

The proposed development seeks to readapt the existing building into a mixed use concept under the heritage conversion incentive contained in Clause 5.10 (10) of the NLEP 2012.

To support the change in land use the Newcastle Council requires an economic impact assessment of the proposed development.

This assessment will consider five key factors informing the economic impact of the proposed development of the subject site:

- The competitive positioning of the subject site relative to other industrial precincts within the Newcastle LGA and its potential adaptive use / redevelopment as a light industrial asset
- Industry and employment trends at the Newcastle LGA level and their land use implication for the subject site
- The sufficiency of industrial land to support future industrial employment if the subject site is readapted as a mixed use development
- The suitability of the subject site for industrial, mixed use and residential uses
- Broader economic benefits associated with the proposed development.

The remainder of this report is structured as follows:

- **Section one** provides an overview of the subject site, its regional and locational context and relevant government policy documents.
- **Section two** identifies the key competitive industrial precincts and supply within the Newcastle LGA area. This section provides a description of each precinct and rating based on location, scale and access, and their appeal compared to the subject site.
- **Section three** sets out an overview of the Newcastle LGA economy, having regard to historic, current and projected labour market segmentation. This includes analysis of the resident workforce and job base. The demand and supply for industrial land is then quantified for the Newcastle LGA.
- **Section four** reviews the key drivers for residential demand within the Newcastle LGA including demographics, supply of housing development, population and housing affordability and their implication for the redevelopment of the subject site.
- **Section five** will identify the economic benefits associated from both the construction and ongoing operations of the proposed development.

1. SUBJECT SITE AND CONTEXT

1.1. SUBJECT SITE

The subject site is located at 33-57 Annie Street Wickham as shown in Map 1.1. The subject site consists of the following lots:

- 1/DP346352
- 2/DP346352
- 3/DP346352
- 13/DP830026.

The subject site is currently zoned IN2 Light Industrial.

The subject site consists primarily of three early to mid-20th century heritage listed woolstores with laneways between them. These woolstores are four storeys in height with brick facades, internal timber framing and floors and sawtooth roofs. The buildings are linked via bridge connections at the upper levels across the laneways. Current uses include low-intensity light industrial uses such as storage and auction services.

At the eastern end of the subject site, there is a one storey building with sawtooth roof also used for light industrial purposes.

At the northern end of the subject site, there is a collection of small buildings associated with a precast concrete manufacturing facility mainly housed in temporary building and shipping containers.

Subject Site – Wickham Woolstore, 33-57 Annie Street Wickham

Map 1.1



1.2. SURROUNDING LAND USE

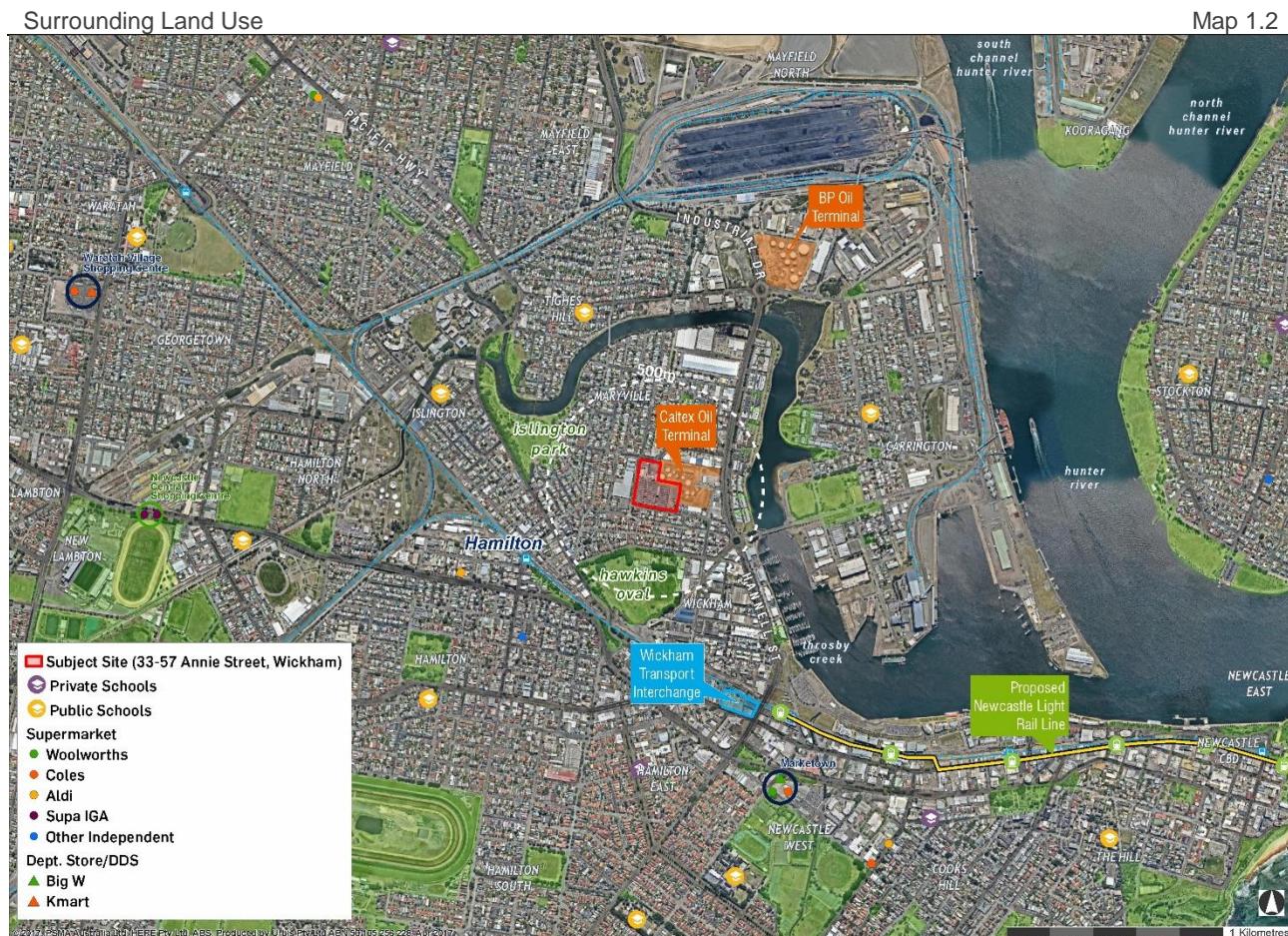
The land surrounding the subject site consists of a mix of residential and industrial uses.

- To the east, there is the Caltex Oil Terminal, commercial office building, semi-detached residential buildings and Throsby Creek. Further east across Throsby Creek there is a collection of detached residential buildings followed by the southern portion of the Port of Newcastle's Carrington Precinct
- To the north, across The Avenue, is a collection of low scale industrial and detached residential buildings. Further north is Throsby Creek and on the other side of the Creek (1 kilometre) is the BP Oil Terminal and northern portion of the Port of Newcastle's Carrington Precinct
- To the south, across Annie Street, are a collection of detached residential dwellings followed by Hawkins Oval
- To the west, across Milford Street, is the recent redevelopment of the original Winchcombe Carson Woolstore into the Soque Apartments. Further west, there are streets of detached residential dwellings followed by Islington Park.

Pacific Highway, the original major transport route which connects Sydney to Brisbane through Newcastle, is located 700 metres west of the subject site, however now performs a local distributor function. Hannell Street is located 300 metres east of the subject site. Hannell Street connects with Industrial Drive which is the major road through the industrial precincts of Newcastle.

Hamilton Train Station is approximately 750 metres south west of the subject site. The train station has services to Gosford and Sydney Central on the Central Coast and Newcastle Line, and services to Dungog and Scone on the Hunter Line.

Wickham Transport Interchange, located 950 metres south east of the subject site, is currently under construction. The interchange will serve as the terminus for the Newcastle railway line, the proposed Newcastle Light Rail line and as an interchange with Newcastle Transport bus services.



1.3. PROPOSED DEVELOPMENT

Urbis has been provided with a concept plan for the redevelopment of the subject site. These plans are shown in Figure 1.1 and Figure 1.2. The concept plan proposes to redevelop the subject site into a mixed use development.

- The three woolstores will be adapted as a mixed use development including internal car parking
- The western and middle woolstore will be for residential use
- There will be ground floor retail, commercial / community uses on the second and third story, and residential use on the top floor of the eastern woolstore
- A new building with ground floor retail, top level commercial / community uses and internal car parking will be constructed at the eastern end of the subject site, creating a laneway of retail between the woolstore and the new building
- A new residential building with internal car parking will be constructed at the northern portion of the site. There will be ground floor retail at the southern end of this building with frontage to a small road which runs east to west on the subject site
- A large recreational park will be constructed adjacent to the new residential building at the northern portion of the site.

As the site is currently zoned IN2 Light Industrial, the proposed development is prohibited under the Newcastle Local Environment Plan (NLEP) 2012. The proposed development makes use of the heritage conservation incentive contained in Clause 5.10 of the NLEP 2012 to effectively change the site's use to a mixed use development.

Proposed Development GFA

Subject Site

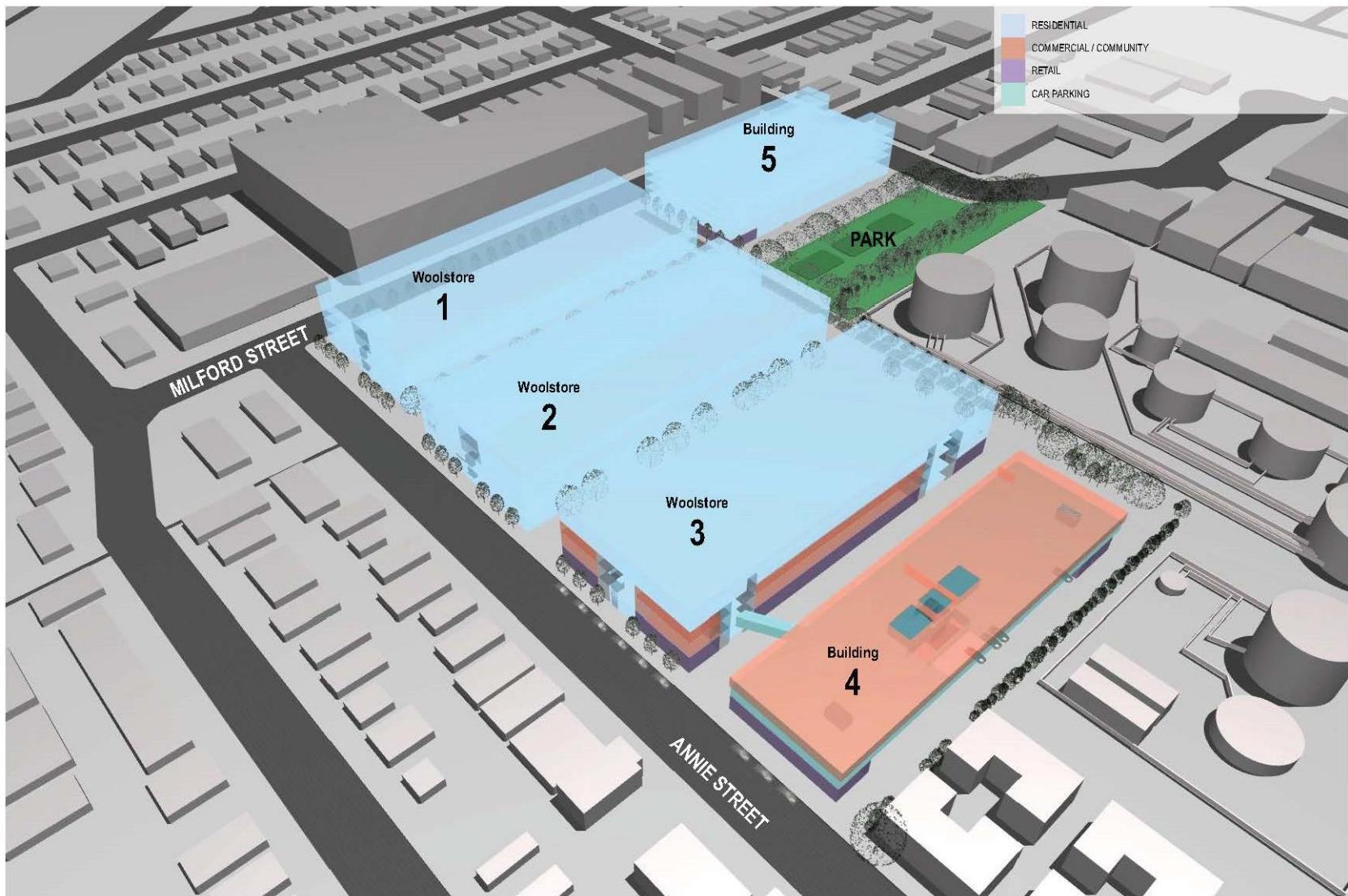
Table 1.1

Building	Residential GFA (sq.m)	Retail GFA (sq.m)	Commercial & Community GFA (sq.m)	Total GFA (sq.m)
Woolstore 1	11,875	0	0	11,875
Woolstore 2	11,875	0	0	11,875
Woolstore 3	4,496	820	5,746	11,062
Building 4	0	1,765	2,858	4,623
Building 5	9,907	225	0	10,132

Source: Investec; Urbis

Figure 1.1 – Concept Plan – Subject Site

3.2 MASSING IMAGE



WICKHAM WOOLSTORES PRE-DA | 07/12/16 | PREPARED BY TONKIN ZULAIKHA GREER, FAIRWEATHER JEMMOT & CITY PLAN SERVICES for INVESTEC AUSTRALIA

Figure 1.2 – Concept Plan 2 – Subject Site

3.5 ARTIST'S IMPRESSION



1.4. RELEVANT GOVERNMENT DOCUMENTS / POLICIES

There are a number of broader strategic planning frameworks that are relevant to the subject site. These identify key priorities and objectives for Inner Newcastle and the Newcastle LGA and include:

- Department of Planning and Environment's Review of Industrial Employment Lands in Throsby Area 2010
- Newcastle Employment Lands Strategy 2013
- Newcastle Local Planning Strategy 2015.

Department of Planning and Environment's Review of Industrial Employment Lands in Throsby Area 2010

The Review of Industrial Employment Lands in Throsby Area 2010 (RIELTA 2010) is an evidence based study which recommend future land use zones for the Carrington, Islington, Maryville, Tighes Hill and Wickham employment land precincts in Inner Newcastle.

In the study, land use analysis consisting of identifying actual land uses within the employment land precincts was performed with the assistance of Newcastle City Council. The study also undertook a review of past strategy documents in relation to the supply and demand of employment lands in the Hunter region. These include the Lower Hunter Regional Strategy 2006 and Regional Strategy Update Report 2009, Newcastle Industrial Lands Analysis 2005 and the Newcastle Industrial Lands Analysis 2009 Review.

RIELTA 2010 recommends that all industrial zoned land within the employment land precincts including Wickham should be retained except for properties along Fern Street Islington. Past strategy documents underlined that these precincts are to support port related activities and a range of industrial land uses.

Land use analysis determined that the industrial activities operating within industrial areas of the employment land precincts are compatible and appropriately located within industrial zoned land.

The RIELTA 2010 recognises that much of Newcastle LGA's land supply is restricted by site specific constraints (such as contamination, flooding and heritage). The report makes recommends providing an ongoing ten year supply of industrial land to cater for future growth and noting that smaller industrial lots (<1 hectares) could be utilised by knowledge based / high tech manufacturing that require less space than manufacturing.

Newcastle Employment Lands Strategy 2013

The Newcastle Employment Lands Strategy 2013 (NELS 2013) is a strategic document which guides the future uses and role of employment land within the Newcastle LGA based on existing research and revised population forecast and trends.

NELS 2013 identified a total supply of 2,599 hectares of industrial land of which 921 hectares were vacant in 2009. The study recommends the need to protect industrial land within the Inner Precinct of Newcastle which includes Wickham and the subject site. This is to ensure the availability of a range and choice for different businesses. There will also be a cost benefit as the existing infrastructure within the Inner Precinct has been built to service industrial uses.

Wickham and the subject site were not identified as strategic industrial lands which includes the Kooragang, Mayfield, Beresfield and Carrington precincts.

Newcastle Local Planning Strategy 2015

Newcastle Local Planning Strategy 2015 (LPS 2015) is a comprehensive land use strategy to guide the growth and development of Newcastle to 2030 and beyond.

Similar to NELS 2013, LPS 2015 identified Kooragang, Mayfield, Beresfield and Carrington as the four main Industrial clusters. The strategy outlines the need to protect industrial lands in the Inner Precinct to ensure there continues to be a range and choice of lands available for existing businesses and the growth of the Port of Newcastle.

The strategy suggests it would be inefficient to rezone existing industrial land within the Inner Precinct since existing infrastructure has been built to service industrial uses.

Urbis notes in subsequent sections that the subject site is relatively isolated from enabling infrastructure (e.g. B-Double roads) and comprises a relatively minor proportion of Newcastle's industrial land, which is substantial relative to demand forecasts.

2. COMPETITIVE POSITIONING ANALYSIS

This section identifies the industrial precincts within the Newcastle LGA, and their competitive positioning relative to the key attributes required by industrial tenants.

2.1. COMPETING INDUSTRIAL PRECINCTS

This section identifies the competing industrial precincts within the Newcastle LGA.

Map 2.1 identifies the industrial precincts identified in the Newcastle Employment Lands Strategy 2013 (NELS 2013).

The industrial precincts within Newcastle LGA consist of a total of 2,599 hectares as noted in the NELS 2013.

We note that in the NELS 2013, land zoned B4 and B5 in the Broadmeadow and Georgetown, Hamilton and Lambton, New Lambton and Waratah precincts were counted towards the supply of industrial land.

The character of the land use of these precincts are warehousing, bulky goods and local services that are light industrial and thus have the potential to continue to support industrial uses in the future.

Kooragang is the largest industrial precinct within the Newcastle LGA with a site area of 975 hectares. Kooragang precinct accommodates infrastructure and material storage to support the operations of the Port of Newcastle.

The second largest precinct is the Mayfield and Tighes Hill precinct with a site area of 633 hectares. The precinct is well located close to the Port and to central Newcastle. This precinct supports a wide range of businesses which requires industrial floorspace including retail, light industry, wholesale, construction, light manufacturing, transport and storage and business services. We note that the 52 hectare Intertrade Industrial Park development is located within the precinct and is currently zoned SP1. Intertrade Industrial Park development is currently nearing the end of its site remediation. The development includes:

- Adjacent intermodal facility
- 52 hectares of industrial land.

The precincts identified in this map are itemised overleaf in Table 2.1.

Industrial Precincts

Newcastle LGA

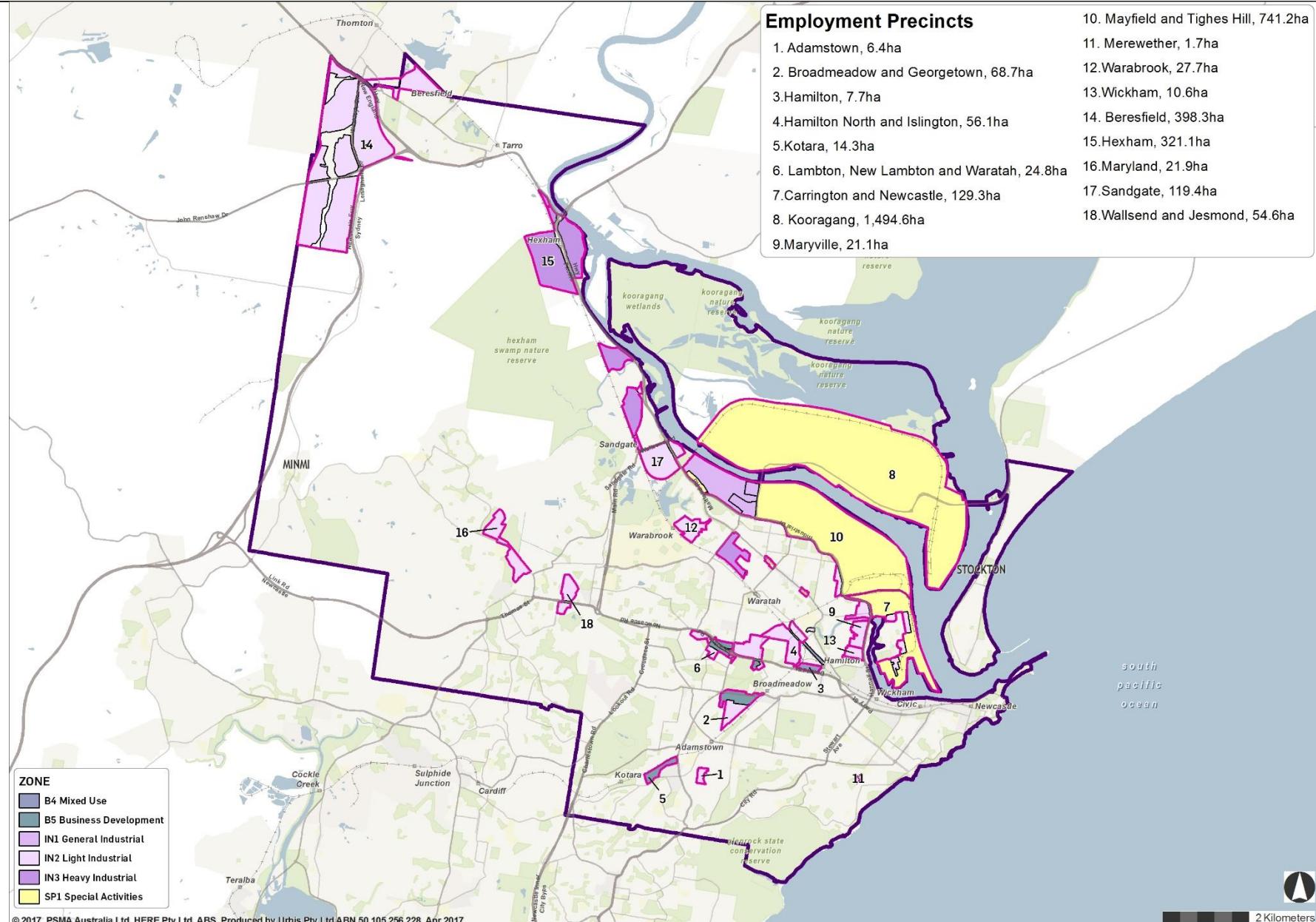
Table 2.1

Number	Precinct Name	Current Employment Zones	Hectares
1	Adamstown	IN2	6.4
2	Broadmeadow and Georgetown	IN2, B5	68.5
3	Hamilton	B4	7.6
4	Hamilton North and Islington	IN2	49.2
5	Kotara	B5	14.3
6	Lambton, New Lambton and Waratah	IN2, B5	24.6
7	Carrington and Newcastle	IN2, SP1	127.5
8	Kooragang	SP1	974.9
9	Maryville	IN2	21.1
10	Mayfield and Tighes Hill	IN1, IN2, IN3, SP1	632.6
11	Merewether	IN2	1.6
12	Warabrook	IN2	25.3
13	Wickham	IN2	9.8
14	Beresfield	IN2	288.3
15	Hexham	IN3	190.9
16	Maryland	IN2	21.5
17	Sandgate	IN3	93.4
18	Wallsend and Jesmond	IN2	41.1
Total			2,598.6

Source: NELS 2013; Urbis

Newcastle LGA Industrial Precincts

Map 2.1



2.2. INDUSTRIAL LAND ASSESSMENT

Industrial Demand Drivers – Newcastle LGA

Urbis have undertaken a high level review of the industrial precincts within the Newcastle LGA, in terms of their appeal to the industrial market compared to the subject site.

There are currently around 2,599 hectares of industrial zoned land within the Newcastle LGA.

Urbis have identified key factors that drive tenant interest and underpin the functioning of industrial precincts:

- **Access** to motorway networks and B-Double routes
- **Scale** of the precinct, with larger precincts offering opportunities for expansion, intensification of activity and clustering of similar industries and supply chain synergies. For the purposes of this assessment we have identified precincts with <10 hectares as small scale, 10-30 hectares as medium scale and >30 hectares as large scale.
- **Land use conflict** to sensitive noise receptors (e.g. residential areas where impacts on neighbourhood amenity can lead to land use conflict) and the potential to result in traffic conflict between residential and freight vehicles.

Table 2.2 presents an evaluation of each precinct based on the key success factors with a 'high', 'medium' or 'limited' rating.

Our analysis indicates that precincts such as Kooragang, Mayfield and Tighes Hill, and Beresfield achieved high ratings, providing users with:

- Access to a diversity of lot sizes and built that support a larger range of uses
- Fewer land use conflicts than smaller isolated precincts
- Large contiguous industrial / business zoned precincts
- Direct access to major roads and highways and with B-double access.

There are a number of precincts that while they have scored moderately provide a mix of local services that rely on exposure to passing traffic and a local residential population. These uses do not involve large scale warehousing and distribution and are therefore less reliant on fast access to the motorway network.

The subject site has poor ratings against the key success drivers. It experiences constraints such as:

- Poor accessibility southbound on Hannell Street as it is not possible to turn right directly into Annie Street. Hannell Street is the major industrial corridor of Newcastle.
- According to NSW Roads and Maritime Services, Annie Street does not have B-double access. B-double access is only available to the subject site on Milford Street via The Avenue from Hannell Street.
- Access from Pacific Highway which connects with Newcastle Road however cars and trunks must pass through smaller residential streets to reach the site.
- The woolstores are heritage listed buildings which places significant constraint on its suitability as a light industrial asset.
- Residential land use located directly across the road to the south and west of the site. This includes the Soque apartment development which involved adapting the Winchcombe Carson Woolstore for residential uses. Any uplift in industrial activity on the site is likely to adversely affect these residents, and create land-use conflicts.

These constraints would significantly impact the subject site's ongoing use as industrial asset and limit the types of businesses / tenants it could attract.

This analysis suggests that other precincts may be more attractive to industrial businesses looking for premises with the Newcastle LGA.

Industrial Precincts

Newcastle LGA

Table 2.2

Precinct		Access	Scale	Land use conflict	Overall Viability Ranking
1	Adamstown	Limited	Limited	High	Limited
2	Broadmeadow and Georgetown	Medium	High	Medium	Medium
3	Hamilton	Medium	Limited	Medium	Medium
4	Hamilton North and Islington	Medium	High	Medium	Medium
5	Kotara	Medium	Medium	High	Limited
6	Lambton, New Lambton and Waratah	Medium	Medium	Medium	Medium
7	Carrington and Newcastle	High	High	Medium	High
8	Kooragang	High	High	Limited	High
9	Maryville	Limited	Medium	Medium	Medium
10	Mayfield and Tighes Hill	High	High	Limited	High
11	Merewether	Limited	Limited	High	Limited
12	Warabrook	High	Medium	Medium	Medium
13	Wickham	Limited	Medium	Medium	Medium
14	Beresfield	High	High	Limited	High
15	Hexham	High	High	Limited	High
16	Maryland	Medium	Medium	Limited	Medium
17	Sandgate	High	High	Limited	High
18	Wallsend and Jesmond	Medium	High	Medium	Medium
	Subject Site	Limited	Limited	High	Limited

Source: NELS 2013 ; Urbis

Summary of Competitive Positioning of Industrial Precincts

Newcastle LGA

Table 2.3

Number	Precinct and Zoning	Access	Scale	Land Use Conflict	Overall Viability Rating
1	Adamstown	No direct access via major roads. No B-double access.	Small scale (6.4 hectares)	Significant land use conflict with residential surrounding the precinct.	Limited
2	Broadmeadow and Georgetown	Access via Lambton Road, Griffiths Road and Turton Road. No B-double access within precinct.	High scale (68.5 hectares)	Potential land use conflict with residential north, south and west of the precinct.	Medium
3	Hamilton	Access via Donald Street. No B-double access within precinct.	Small scale (7.6 hectares)	Potential land use conflict with residential south of the precinct. The Hamilton retail strip is also located east of the precinct. The area is separated from the Hamilton North precinct by the train line.	Medium
4	Hamilton North and Islington	Access via Griffins Road. No direct access via major road for the north portion of the precinct. B-double access available for the southern portion of the precinct.	High scale (49.2 hectares)	Potential land use conflict with residential south of the precinct. TAFE Newcastle is also located north of the precinct.	Medium
5	Kotara	Access via Northcott Drive. No B-double access.	Medium scale (14.3 hectares)	High land use conflict with residential, Westfield Kotara and St Pius X High School surrounding the site.	Limited
6	Lambton, New Lambton and Waratah	Access via Griffin Road and Turton Road. No B-double access.	Medium scale (24.6 hectares)	Potential land use conflict with residential along the precinct's north and southern boundaries.	Medium

Number	Precinct and Zoning	Access	Scale	Land Use Conflict	Overall Viability Rating
7	Carrington and Newcastle	Access via Hannell Street. B-double access along Darling Street and Cowper Street which run north-south and east-west of the precinct respectively.	High scale (127.5 hectares)	Potential land use conflict with residential in the middle of the precinct.	High
8	Kooragang	Access via Tourle Street from Hannell Street. B-double access is allowed for majority of streets in the precinct.	High scale (974.9 hectares)	No land use conflict with the precinct bounded by South Channel Hunter River to the south and Kooragang nature reserve to the north.	High
9	Maryville	Access via Hannell Street however there are turning restrictions into the precinct when travelling southbound on Hannell Street. B double access along The Avenue.	Medium scale (21.1 hectares)	Potential land use conflict with residential located within the precinct. Residential is also located to the west of the precinct.	Medium
10	Mayfield and Tighes Hill	Access via Hannell Street. B-double access for most streets in the precinct.	High scale (632.6 hectares)	Limited land use conflict for the eastern part of the precinct since it is bounded by the South Channel Hunter River and to the east and Hannell Street to the west. Potential land use conflict at the western IN3 zoned part as it is adjacent to residential dwellings to the north, east and west.	High
11	Merewether	No direct access via major roads. No B-double access.	Small scale (1.6 hectares)	Significant land use conflict with the Lingard Private Hospital located north of the precinct. Residential is also located to the north, east south and west of the precinct.	Limited

Number	Precinct and Zoning	Access	Scale	Land Use Conflict	Overall Viability Rating
12	Warabrook	Access via Maitland Road. B-double access along Callistemon Close.	Medium scale (25.3 hectares)	Potential land use conflict with residential north, east and west of the precinct. Warabrook Shopping Centre is located north east of the precinct.	Medium
13	Wickham	Access via Hannell Street however there are turning restrictions to Annie Street when travelling southbound on Hannell Street. Access via Pacific Highway must go through residential streets. B-double access along The Avenue and part of Milford Street.	Medium scale (9.8 hectares)	Potential land use conflict with residential south and west of the precinct.	Medium
14	Beresfield	Access via New England Highway, John Renshaw Drive and Pacific Highway. B-double access throughout the precinct.	High scale (288.3 hectares)	Minimal land use conflict with the precinct buffered by roads and vegetation against the residential areas to the north and east of the precinct.	High
15	Hexham	Access via Hannell Street and Pacific Highway. B-double access along Old Maitland Road and Galleghan Street within the precinct.	High scale (190.9 hectares)	No land use conflict with the precinct surrounded by national parklands and the Hunter River.	High
16	Maryland	Access via Minmi Road. B-double access along Minmi Road, Carbine Close, Creek Road though certain travel conditions exist along Minmi Road.	Medium scale (21.5 hectares)	Limited land use conflict with the precinct buffered by vegetation to the north, east and west. Residential is located across Minmi Road, south of the precinct.	Medium
17	Sandgate	Access via Hannell Street. B-double access for majority of roads in the precinct.	High scale (93.4 hectares)	No land use conflict with the precinct buffered by vegetation, railway tracks and the South Channel Hunter River.	High

Number	Precinct and Zoning	Access	Scale	Land Use Conflict	Overall Viability Rating
18	Wallsend and Jesmond	Access via Newcastle Road and Minmi Road. B-double access along Newcastle Road and Minmi Road.	High scale (41.1 hectares)	Potential land use conflict with residential located around the precinct. Stockland Jesmond is also located directly east of the precinct.	Medium
	Subject Site	Access via Hannell Street however there are turning restrictions to Annie Street when travelling southbound on Hannell Street. Access via Pacific Highway must go through residential streets. B-double access along The Avenue and part of Milford Street.	Small scale (3.1 hectares)	The woolstores are heritage listed buildings which places significant restriction on its suitability as a light industrial asset. Residential land use located directly across the road to the south and west of the site. This includes the Soque apartment development which involved adapting the Winchcombe Carson Woolstore for residential uses.	Limited

2.3. SUMMARY AND IMPLICATIONS

Newcastle Employment Lands Strategy 2013 identified 18 precincts with a total area of 2,599 that are capable of supporting industrial use and employment.

Our competitive positioning analysis indicates that the subject site does not share the attributes of successful, large industrial precincts located within the Newcastle LGA or smaller, specialised industrial precincts.

Our analysis indicates that stronger precincts such as Kooragang, Mayfield and Tighes Hill, and Beresfield achieved high ratings, providing users with:

- Access to a diversity of lot sizes and built form that support a larger range of uses
- Fewer land use conflicts than smaller isolated precincts
- Large contiguous industrial / business zoned precincts
- Direct access to major roads and highways and with B-double access.

While the subject site is located within the inner industrial precinct of Newcastle and is zoned for light industrial uses, its heritage constraints make it difficult for it to be redevelop as a light industrial asset.

The industrial sector is constantly changing, businesses require different built forms and facilities in buildings which woolstores built in the early to mid-20th century cannot offer. For example, typical industrial tenants require industrial buildings with high ceilings and clearance in a single level for ease of access and movement of goods. The woolstores are multi stories with low ceilings making the movement of goods inconvenient, limiting their appeal to a narrow market of industrial tenants.

While the northern part of the subject site does not have a heritage constraint, there are potential limits on the type of industrial uses that can be housed on this portion of the site given the nearby the residential apartments and houses across the street. Activities that increase noise, odour or industrial traffic on residential streets will create land use conflicts with surrounding residential properties, creating unacceptable barriers to higher intensity industrial users.

The subject site is located close to Hannell Street / Industrial Drive (Pacific Highway). However, compared to other industrial precincts within Newcastle LGA such as Tighes Hill, Mayfield North, Warabrook and Sandgate, the subject site is not as easily accessible. These precincts are located directly next to major road corridors (Industrial Drive) whereas access to the subject site must occur through residential streets and it is not possible to turn directly into Annie Street from southbound on Hannell Street. Furthermore, there are restrictions on B-double access to the subject site. These factors reduce the overall attractiveness of the subject site and the nearby properties as light industrial assets. Industrial businesses may be more attracted to other precincts in the Newcastle LGA as opposed to the subject site.

In addition, the proposed development concept will include a landscape buffer area along the boundary of the site which abuts the Caltex Oil Terminal in order to minimise the impact of any potentially hazardous event occurring on Caltex site. The new park will form the northern portion of this buffer. The rest of the buffer is completed by the landscaped promenade and planted access road.

3. EMPLOYMENT ANALYSIS

This section provides an overview of the Newcastle LGA economy. It considers the employment profile of the LGA and its implication on the type of land uses on the subject site. It assesses the demand and supply for industrial land within the Newcastle LGA under two scenarios:

- Employment demand case based on the forecast employment profile of the Newcastle LGA
- Development pipeline demand case based on market data from proposed industrial developments.

3.1. NEWCASTLE LGA ECONOMY

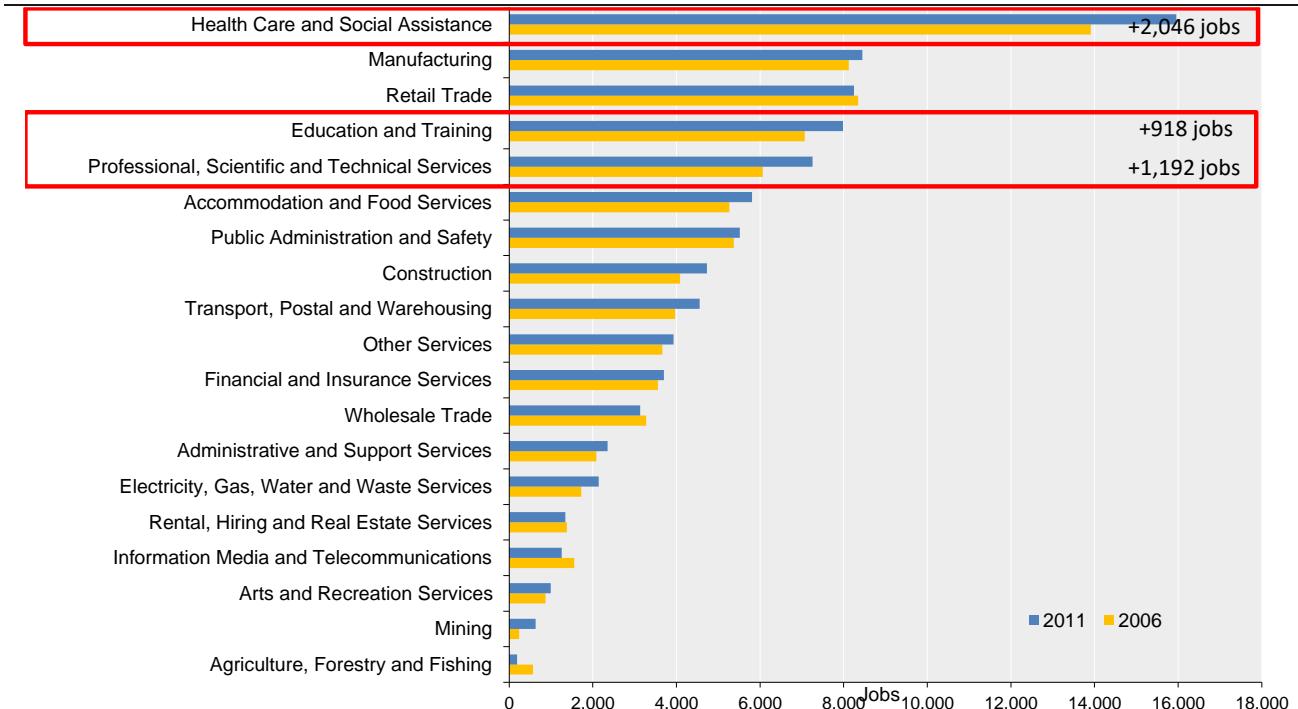
Newcastle is the regional centre for the Lower Hunter and the seventh largest city in Australia. Traditionally, Newcastle is driven by the energy and material sectors with steelworks and the Port of Newcastle which is responsible for the world's largest coal export. While these industries are still important economic drivers, the city has undergone a transformation over the last two decades towards a more knowledge based economy. This is evident in Chart 3.1 which shows the employment by industry for Newcastle LGA in 2006 and 2011. Key points to note are:

- The three fastest growing industries are services and knowledge based industries: Health Care and Social Assistance (+2,046 jobs), Education and Training (+918 jobs) and Professional, Scientific and Technical Services (+1,192 jobs)
- Health Care and Social Assistance is the largest employment industry with 15,956 jobs in the LGA in 2011
- Manufacturing remains an important and the second largest employment industry in Newcastle LGA with 8,445 jobs in the LGA in 2011, however this sector has experienced very minimal growth.

Employment by Industry

Newcastle LGA 2006 and 2011

Chart 3.1



Source: ABS Census 2006 and 2011 ; Urbis

3.2. EMPLOYMENT ANALYSIS

The resident workforce within Newcastle LGA largely reflects many of the economic trends within the LGA, outlined in Section 3.1:

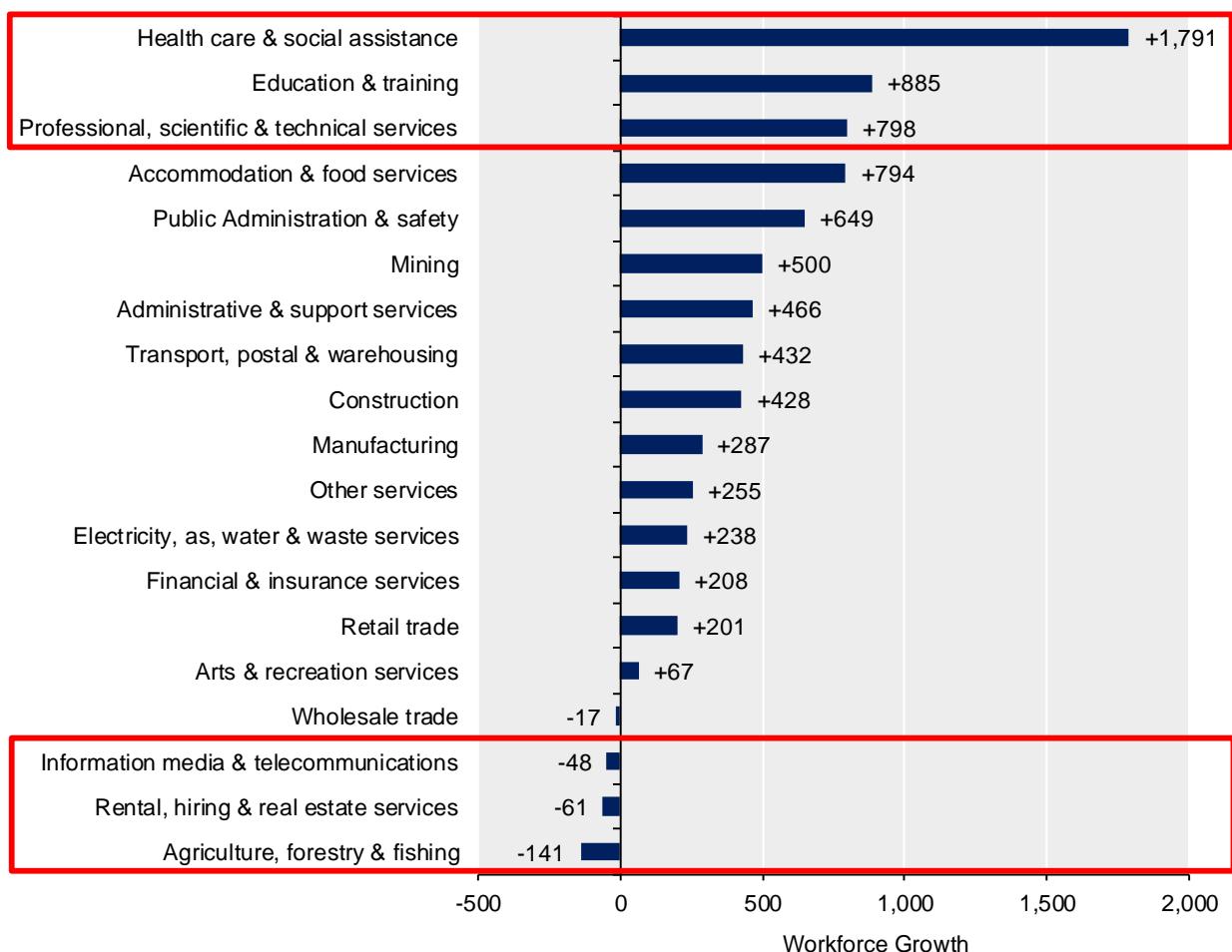
- Growth in health care and social assistance (+1,791 residents)
- Growth in education and training (+885 residents)
- Growth professional, scientific and technical services (+798 residents)
- Contraction in agriculture, forestry and fishing (-141 residents).

The land use implications of this trend are an expansion in health and office floorspace typically found in mixed use and commercial developments that would support medical, educational and professional tenants.

Resident Workers Growth

Newcastle LGA 2006 and 2011

Chart 3.2



Source: ABS Census 2006 and 2011; Urbis

The jobs gap in Newcastle LGA provides an indication which industry sectors import their workforce from outside the LGA.

Chart 3.3 illustrates that the Newcastle LGA has a high provision of jobs for the size of its resident workforce, with a ratio of 1.26 jobs per worker living within the LGA. This high ratio reflects the role of Newcastle as the regional centre of the Lower Hunter with significant level of commercial, health and administrative interest. The high proportion of jobs to resident workers also indicates there may be additional demand for housing, as workers seek to occupy housing close to work.

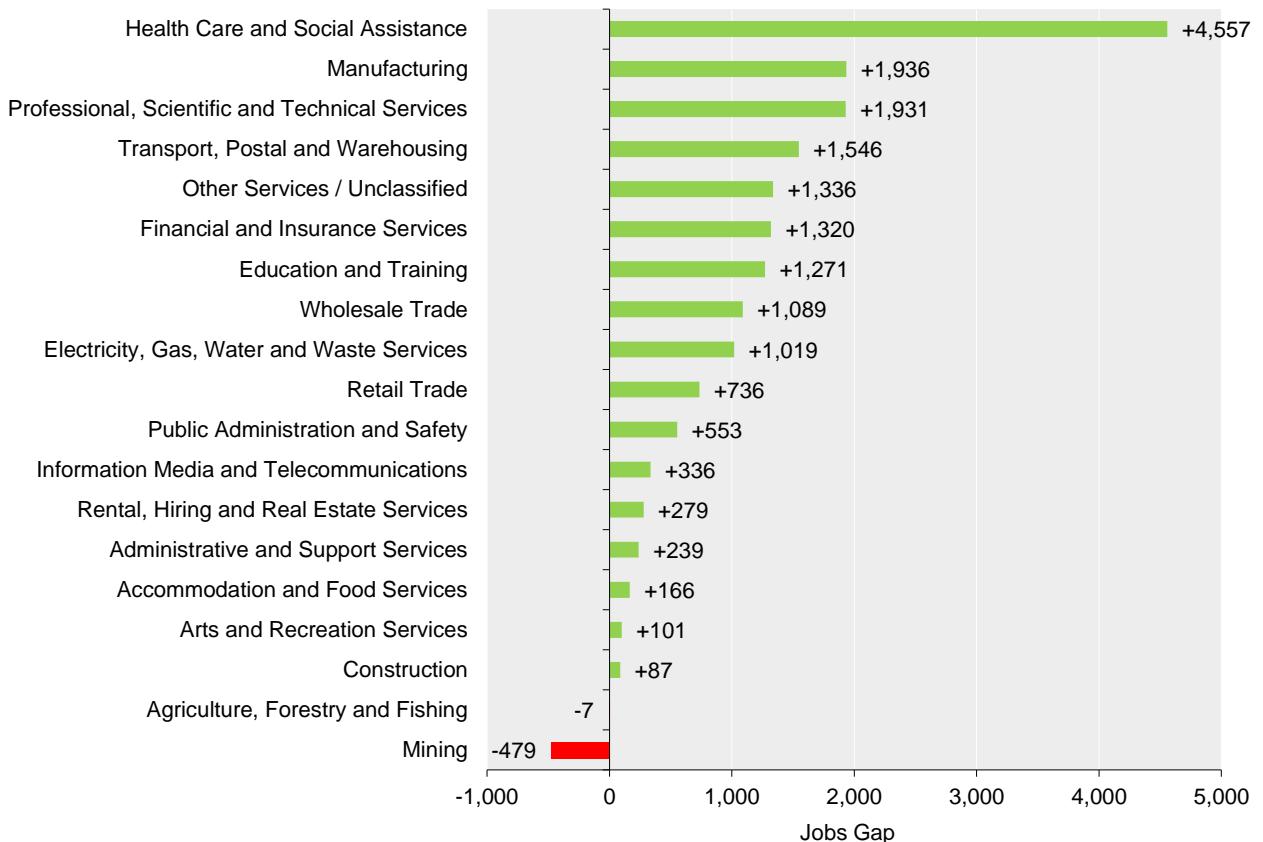
The industry sectors that have more jobs than workers are coloured green and the industry sectors that have more resident workers than jobs are coloured in red.

- Health care and social assistance, manufacturing, and professional, scientific and technical services are the three main sectors that have significantly more jobs than resident workers
- The redevelopment of the subject site to mixed use can support jobs in health and professional services while at the same time allow workers to live close their work places.

Jobs Gap Analysis (+Surplus / - Deficit)

Newcastle LGA 2011

Chart 3.3



Source: ABS Census 2011 ; Urbis

3.3. INDUSTRIAL DEMAND FORECAST

This section assesses whether there is sufficient industrial land in the Newcastle LGA to meet demand in the future. We have examined the demand of industrial land under two scenario:

- Employment demand scenario based on converting industrial job forecasts (using employment densities) to land demand
- Industrial development take-up scenario based on site areas of industrial developments on vacant industrial land in the pipeline.

3.3.1. Industrial Land Demand – Employment Demand Case

We have examined the quantum of industrial land demand based on employment forecast by the Bureau of Transport Statistics for the Newcastle LGA.

Table 3.1 shows the Bureau of Transport Statistics (BTS) employment forecast by industry for the Newcastle LGA from 2017 to 2031.

- Employment within the LGA is forecast to increase by 13,150 jobs between 2017 and 2031
- Similar to employment growth in the past period as outlined in Section 3.1 and 3.2, services and knowledge based industries will continue to grow the fastest
- Professional, Scientific and Technical Services is the fastest growing employment industry in absolute and percentage terms with an estimated 2,600 additional jobs by 2031 at an average annual growth rate of 1.8%
- Other fast growing employment industries include Accommodation and Food Services (+1,600 jobs), Public Administration and Safety (+1,330 jobs) and Construction (+1,250 jobs)
- Wholesale Trade and Manufacturing jobs are expected to decline by -480 jobs and -180 jobs respectively during the period.

Table 3.2 examines how the projected employment growth is likely to be split by property type and is illustrated in Chart 3.4. This analysis is based on benchmarks that Urbis have derived looking at land use demand by different categories of employment.

The table shows that **industrial property will house approximately 4% of employment growth which equates to around 560 additional jobs between 2017 and 2031**. Offices will account for the bulk of the growth as Newcastle shifts towards a more knowledge based economy.

Employment by Industry Forecast

Newcastle LGA, 2016 to 2031

Table 3.1

Industry Sector	2017		2021		2026		2031		2017-31	
	No.	%	No.	%	No.	%	No.	%	Total Change	Annual Growth %
Professional, Scientific and Technical Services	9,337	8%	10,298	9%	11,358	9%	11,940	10%	2,603	1.8%
Accommodation and Food Services	7,898	7%	8,454	7%	8,986	7%	9,500	8%	1,602	1.3%
Public Administration and Safety	7,185	6%	7,627	6%	8,100	7%	8,519	7%	1,334	1.2%
Construction	6,395	6%	6,745	6%	7,188	6%	7,643	6%	1,248	1.3%
Retail Trade	10,664	9%	11,116	9%	11,541	9%	11,823	9%	1,159	0.7%
Education and Training	9,864	9%	10,353	9%	10,674	9%	10,861	9%	997	0.7%
Health Care and Social Assistance	20,261	18%	20,652	18%	21,135	17%	21,211	17%	950	0.3%
Transport, Postal and Warehousing	5,878	5%	6,110	5%	6,434	5%	6,766	5%	888	1.0%
Financial and Insurance Services	4,599	4%	4,835	4%	5,152	4%	5,423	4%	824	1.2%
Other Services	4,147	4%	4,341	4%	4,546	4%	4,739	4%	592	1.0%
Electricity, Gas, Water and Waste Services	2,331	2%	2,416	2%	2,567	2%	2,690	2%	359	1.0%
Administrative and Support Services	3,049	3%	3,223	3%	3,298	3%	3,364	3%	315	0.7%
Information Media and Telecommunications	1,933	2%	2,119	2%	2,203	2%	2,242	2%	309	1.1%
Rental, Hiring and Real Estate Services	1,794	2%	1,940	2%	2,031	2%	2,086	2%	292	1.1%
Arts and Recreation Services	1,293	1%	1,364	1%	1,419	1%	1,456	1%	163	0.9%
Agriculture, Forestry and Fishing	381	0%	414	0%	437	0%	460	0%	79	1.4%
Mining	594	1%	620	1%	632	1%	650	1%	56	0.6%
Unclassified	1,913	2%	1,941	2%	1,965	2%	1,958	2%	45	0.2%
Manufacturing	9,369	8%	9,338	8%	9,256	8%	9,187	7%	-182	-0.1%
Wholesale Trade	3,587	3%	3,454	3%	3,271	3%	3,105	2%	-482	-1.0%
Total Employment	112,471	100%	117,360	100%	122,193	100%	125,623	100%	13,152	0.8%

Source: BTS September 2014 Release ; Urbis

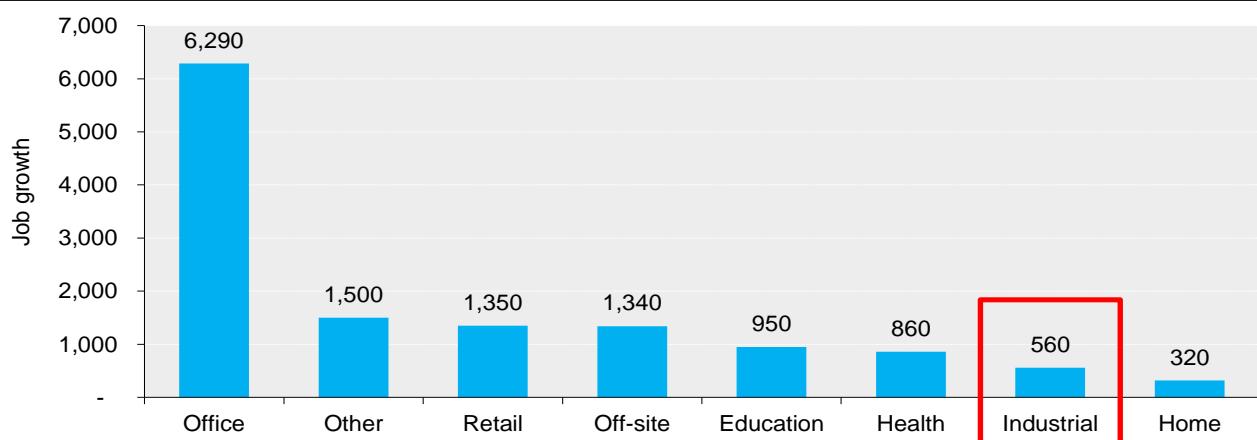
Industry Sector	2017-31	Job Change		Job Split by Property Type										Total
		Industrial	Office	Retail	Education	Health	Other	Off-site	Home					
Professional, Scientific and Technical Services	2,603		98% 2,551							2%	52	100%	2,603	
Accommodation and Food Services	1,602		25% 400					75% 1,201				100%	1,602	
Public Administration and Safety	1,334		90% 1,201					10% 133				100%	1,334	
Construction	1,248	10% 125	5% 62						70% 874	15% 187		100%	1,248	
Retail Trade	1,159	10% 116		90% 1,043								100%	1,159	
Education and Training	997		5% 50		95% 947							100%	997	
Health Care and Social Assistance	950		10% 95		90% 855							100%	950	
Transport, Postal and Warehousing	888	50% 444						50% 444				100%	888	
Financial and Insurance Services	824		98% 807							2% 16		100%	824	
Other Services	592		95% 562				5% 30					100%	592	
Electricity, Gas, Water and Waste Services	359	90% 323	10% 36									100%	359	
Administrative and Support Services	315		95% 299				5% 16					100%	315	
Information Media and Telecommunications	309	20% 62	80% 247									100%	309	
Rental, Hiring and Real Estate Services	292		98% 286						2% 6			100%	292	
Arts and Recreation Services	163		30% 49				70% 114					100%	163	
Agriculture, Forestry and Fishing	79								30% 24	70% 55		100%	79	
Mining	56	100% 56										100%	56	
Unclassified	45		95% 43				5% 2					100%	45	
Manufacturing	-182	100% -182										100%	-182	
Wholesale Trade	-482	80% -386		20% -96								100%	-482	
Total Employment	13,152	4%	560	48% 6,290	10% 1,350	7% 950	7% 860	11% 1,500	10% 1,340	2% 320	100% 13,152			

Source: BTS September 2014 Release ; Urbis

Net Employment Growth by Property Type

Newcastle LGA, 2017 to 2031

Chart 3.4



Source: Urbis

An employment density of 20 to 30 industrial jobs per hectare is used to estimate the demand for industrial land by these additional employees.

The projected 560 additional industrial property jobs from 2017 to 2031 is estimated to generate demand for 18.7 to 28 hectares of industrial land which equates to 1.3 to 2 hectares per annum.

Demand for Industrial Floorspace – Employment Demand Case

Newcastle LGA 2017 to 2031

Table 3.3

	Additional Jobs	Jobs Per ha	Demand for Land (ha)	Demand for Land Per Annum (ha)
Industrial	560	20 - 30	18.7 - 28	1.3 - 2

Source: Urbis

3.3.2. Industrial Land Demand – Development Pipeline case

Urbis have analysed the pipeline of proposed industrial development based on market data from Cordell Connect to estimate the future take up and development of industrial land within the Newcastle LGA. We have looked at site areas of projects on vacant industrial land which are at / or past the development approval stage and are to be completed in 2017 and 2018. The list of proposed industrial development is shown in Table 2.5. We have excluded the development of Incitec Pivot Ammonium Nitrate Plant from the analysis as it is an atypical development with a large site area of 37 hectares which skews our results. Our analysis finds that:

- The total site area of projects on vacant industrial land that are at / or past the development approval stage to be completed in 2017 and 2018 is approximately 58,905 sq.m
- This equates to a projected demand of 2.9 hectares per annum in 2017 and 2018. This is higher than the take up rate of 1.3 hectares to 2 hectares per annum from the employment analysis.
- The projected demand of 2.9 hectares per annum is adopted to estimate the total demand for industrial land by 2031. The total demand for industrial land equates to a total of 41.2 hectares by 2031.
- We do note that there are some projects where site area numbers were unavailable but it most likely will not have affected the result materially
- Not all projects within the development pipeline will proceed, which will decrease the demand for industrial land.

Demand for Industrial Floorspace – Development Pipeline Case

Newcastle LGA 2017 to 2031

Table 3.4

	Demand for Land Per Annum (ha)	Demand for Land (ha)
Industrial	2.9	41.2

Source: Cordell Connect ; Urbis

Industrial Proposed Development On Vacant Industrial Land 2017 to 2018 at / or Past Development Approval Stage

Newcastle LGA

Table 3.5

Project Title	Project Address	Project City	Completion Year	Project Stage	Land Zoning	Site Area	Floor Area
Channel Rd Industrial Warehouses	13 Channel Rd	Mayfield West	2017	Development Approval	IN1	5,228	3,133
Steel River Industrial Estate	5 Frost Dr	Mayfield West	2017	Contract Let	IN1	4,335	1,512
Fuchs Lubricants - Beresfield Operations	22 Elwell Cl	Beresfield	2017	Contract Let	IN2	0	0
Yilan Cl Industrial Development	27 Yilen Cl	Beresfield	2017	Development Approval	IN2	18,560	5,989
Kookaburra Educational Resources Warehouse Facility 5 Steel River Bvd		Mayfield West	2017	Tenders Called/Regns Advertised	IN1	13,230	2,900
Guernsey St Industrial Building	12 Guernsey St	Sandgate	2018	Building Approval	IN2	1,924	672
Allweld Warehouse	7 Arunga Dr	Beresfield	2018	Development Approval	IN2	2,975	1,747
Ausgrid Beresfield Depot	53 Weakleys Dr	Beresfield	2018	Contract Let	IN2	0	0
Anderson Dr Warehouse	273B Anderson Dr	Beresfield	2018	Development Approval	IN2	0	4,195
Convatech Distribution Centre - Steel River Estate	6 Pambalong Dr & 15-17 Riverside Dr	Mayfield West	2018	Development Approval	IN1	12,653	6,877

Total Site Area of Projects at / or Past Development Approval Stage to be Completed in 2017 and 2018 (sq.m)

58,905

Estimated Annual Take Up Rate 2017 and 2018 Inclusive (ha)

2.9

Source: Cordell Connect ; Urbis

3.4. INDUSTRIAL FLOORSPACE SUPPLY

The quantum of industrial land within the Newcastle LGA is estimated based on data from the Newcastle Employment Lands Strategy (NELS) 2013 and the Newcastle Industrial Land Analysis Review (NILA Review) 2009.

- NILA Review 2009 identified 2,599 hectares of industrial land within the Newcastle LGA in 2009
- Approximately 921 hectares of industrial land were vacant in 2009
- NILA Review 2009 recommended that the actual annual take up rate of 17.1 hectares between 2005 and 2009 should be adopted for future planning and assessment purposes.

Table 3.6 outlines our calculation for the total supply for vacant industrial land within the Newcastle LGA in 2017.

- Assuming a take up rate of 17.1 hectares per annum from 2010 to 2016 as indicated in the NILA Review 2009, approximately 119.7 hectares of vacant industrial land were taken up during the period (in the absence of a detailed audit of actual take up we have adopted the 2009 forecast to derive at an opening land supply balance)
- We note that it is unlikely that this forecast take-up was achieved and therefore may underestimate the supply of industrial land in 2017, with mining generated activity having slowed since 2013 and unlikely to gain the same momentum in the foreseeable future
- Newcastle LGA has therefore approximately 801 hectares of vacant industrial land in 2017, based on this calculation
- Based on our assessed demand for industrial land from 2017 to 2031, there will be an industrial land surplus of 773.2 to 782.5 hectares in 2031 based on the employment demand case, and a surplus of 760 hectares based on the development pipeline case
- If the vacant industrial land supply in Kooragang and Mayfield and Tighes Hill are removed from our supply as some supply will be dedicated to port uses, there will still be an industrial land surplus of 264.6 hectares to 273.9 hectares in the employment demand case and 251.4 hectares in the development pipeline case.

Total Industrial and Vacant Industrial Land Supply

Newcastle LGA

Table 3.6

Suburb	Total Industrial 2009 (ha)	Total Vacant 2009 (ha)
Adamstown	6.4	0.0
Broadmeadow and Georgetown	68.5	0.2
Hamilton	7.6	0.1
Hamilton North and Islington	49.2	6.9
Kotara	14.3	0.0
Lambton, New Lambton and Waratah	24.6	0.2
Carrington and Newcastle	127.5	1.8
Kooragang	974.9	519.7
Maryville	21.1	0.0
Mayfield and Tighes Hill	632.6	108.6
Merewether	1.6	0.1
Warabrook	25.3	2.4
Wickham	9.8	0.8
Beresfield	288.3	110.0
Hexham	190.9	130.2
Maryland	21.5	0.4
Sandgate	93.4	26.0
Wallsend and Jesmond	41.1	13.5
Total	2,598.6	920.9

Assumed Annual Take Up Rate (ha)	17.1
Total Take Up 2010 to 2016 (ha)	119.7
Total Vacant Industrial Land 2017 (ha)	801.2
Demand for Industrial Land 2017 to 2031 (ha) - Employment Demand Case	18.7 - 28
Industrial Land Gap (ha) - Employment Demand Case	773.2 - 782.5
Demand for Industrial Land 2017 to 2031 (ha) - Development Pipeline Case	41.2
Industrial Land Gap (ha) - Development Pipeline Case	760.0

Source: NILA Review 2009 ; NELS 2013 ; Urbis

3.4.1. Industrial Development Pipeline

Analysis of market data including projects listed in Cordell Connect indicates there is a strong pipeline of industrial floorspace generating projects planned within Newcastle LGA. These projects will supplement the vacant supply of industrial land in supporting industrial employment.

Table 3.7 illustrates the current development pipeline for industrial floorspace generating projects within the LGA. Map 3.1 illustrates the location of ten of the largest projects.

- Some 35 projects were identified across the LGA as having the capacity to provide industrial employment
- The combined floorspace of these project is approximately 100,000 sq.m, this excludes the floorspace of projects where floorspace figures are unavailable
- 20 of the 35 projects are being developed on vacant industrial land providing some 68,000 sq.m of floorspace
- 15 of the 35 projects are redevelopment of existing industrial properties, providing 32,000 sq.m of industrial floorspace
- The largest project identified is the Maitland Industrial Development on 378 Maitland Road Hexam. The project has development approval to construct three industrial scale buildings with a floorspace of 21,200 sq.m.

In addition, the Intertrade Industrial Park, which is large scale (52 hectares) and well located (proximate to the Port and central Newcastle), is in its final stage of remediation prior to being developed. The Intertrade Industrial Park is an example of a soon to be released land that will better meet the market's demand for industrial stock than the subject site.

Industrial Floorspace Proposed Development

Newcastle LGA

Table 3.7

Project Title	Project Address	Project City	Completion Year	Project Stage	Land Zoning	Site Area	Floor Area
Channel Rd Industrial Warehouses	13 Channel Rd	Mayfield West	2017	Development Approval	IN1	5,228	3,133
Summerhill Waste Management Centre	141 Minmi Rd	Wallsend	2017	Sketch Plans	SP2	0	0
Steel River Industrial Estate	5 Frost Dr	Mayfield West	2017	Contract Let	IN1	4,335	1,512
Fuchs Lubricants - Beresfield Operations	22 Elwell Cl	Beresfield	2017	Contract Let	IN2	0	0
Callistemon Cl Laundry Facility	7 Callistemon Cl	Warabrook	2017	Development Approval	IN2	0	0
Yilan Cl Industrial Development	27 Yilen Cl	Beresfield	2017	Development Approval	IN2	18,560	5,989
Bourke St Warehouse Redevelopment	111 Bourke St	Carrington	2017	Building Application	IN2	0	1,901
New England Hwy Industrial Development	181A New England Hwy	Beresfield	2017	Development Approval	IN2	2,339	1,141
Cormorant Rd Industrial Units	130 Cormorant Rd	Kooragang	2017	Development Application	SP1	1,626	2,369
Kookaburra Educational Resources Warehouse Facility	5 Steel River Bvd	Mayfield West	2017	Tenders Called/Regns Advertised	IN1	13,230	2,900
Guernsey St Industrial Building	12 Guernsey St	Sandgate	2018	Building Approval	IN2	1,924	672
Allweld Warehouse	7 Arunga Dr	Beresfield	2018	Development Approval	IN2	2,975	1,747
Ausgrid Beresfield Depot	53 Weakleys Dr	Beresfield	2018	Contract Let	IN2	0	0
Anderson Dr Warehouse	273B Anderson Dr	Beresfield	2018	Development Approval	IN2	0	4,195
Garden Grove Parade Industrial Building	116 Garden Grove Pde	Adamstown	2018	Development Application	IN2	803	620
Hunter Water North Lambton Depot	40 Compton St	Lambton	2018	Development Application	SP2	0	0
Wyong Road Warehouse	23 Wyong Rd	Lambton	2018	Development Application	IN2	845	567
Laurio Place Industrial Buildings	11 Laurio Pl	Mayfield West	2018	Development Application	IN1	4,663	2,400
Warabrook Boulevarde Warehouse	7 Warabrook Bvd	Warabrook	2018	Development Application	B2	9,116	324
Farmers Wilson Warehouse	90 Wilson St	Carrington	2018	Development Application	IN2	187	108
Waratah Steel Mill	2 Maud St	Mayfield West	2018	Sketch Plans	IN3	0	0
Industrial Development Site - Steel River Estate	Pambalong Dr	Mayfield West	2018	Early Planning	IN1	0	14,234
Convatech Distribution Centre - Steel River Estate	6 Pambalong Dr & 15-17 Riverside Dr	Mayfield West	2018	Development Approval	IN1	12,653	6,877
Maitland Industrial Development	378 Maitland Rd	Hexham	2018	Development Approval	IN3	39,570	21,212
Incitec Pivot Ammonium Nitrate Plant	39 Heron Rd, Kooragang Island	Kooragang	2018	Development Approval	SP1	368,000	0
Industrial Development Site - Steel River Estate	Riverside Dr	Mayfield West	2018	Early Planning	IN1	223,000	0
Murray Dwyer Circuit Storage Premises	3 Murray Dwyer Cct	Mayfield West	2019	Development Application	IN1	9,292	3,562
Mayfield Port-Side Land Concept Plan	Selwyn St	Mayfield	N/A	Concept Approval	SP1	0	0
Maitland Rd Light Industrial Buildings	609 Maitland Rd	Mayfield West	N/A	Sketch Plans	IN2	47,576	12,649
Rail Maintenance Facility	29 Elizabeth & Parker Sts	Carrington	N/A	Development Approval	SP1		6,089
Wallsend Rd Industrial Development	9 Wallsend Rd	Sandgate	N/A	Building Application	R2	0	0
Everett St Warehouse	8 Everett St	Carrington	N/A	Development Approval	SP1	0	2,882
Steel River Industrial Estate Warehouse Units	4 Pambalong Dr	Mayfield West	N/A	Development Approval	IN1	4,339	1,957
Elwell Cl Industrial Development	Elwell Cl	Beresfield	N/A	Development Approval	IN2	1,837	843
Black Hill Site	bned by John Renshaw Dr, M1 & New England Hw Newcastle	Newcastle	N/A	Early Planning	E4	240,000	0

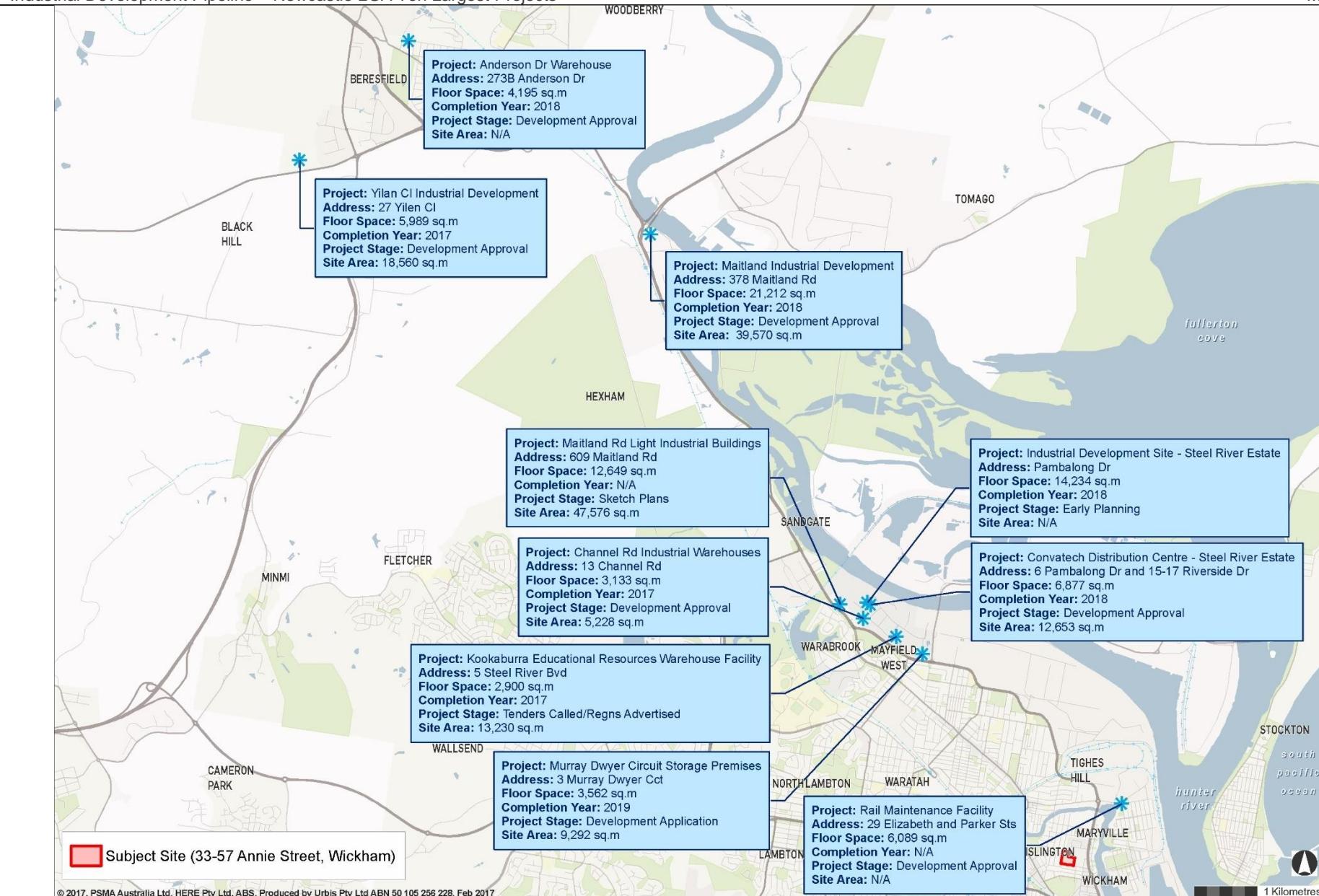
Total Industrial Floorspace Pipeline (sq.m)

99,883

Source: Cordell Connect ; Urbis

Industrial Development Pipeline – Newcastle LGA Ten Largest Projects

Map 3.1



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3.4.2. Industrial Vacancies

In addition to the pipeline of new industrial floorspace generating projects, there is a large quantum of vacant floorspace that is capable of accommodating industrial employment within the Newcastle LGA. Search of realcommercial.com.au has identified close to 100 industrial premises within the Newcastle LGA with a total industrial floorspace of **154,000 sq.m** that are available to rent. These under-utilised properties provide significant opportunities for industrial businesses to find space to operate within.

From the listed properties, a sample of ten of the largest vacancies for lease are summarised in table below.

Industrial Lease Opportunities –Ten Largest Vacancies

Newcastle LGA

Table 3.8

Address	Suburb	Floorspace (sq.m)
51 Industrial Drive	Mayfield	30,426
93 Weakleys Drive	Beresfield	13,000
37 Darling Street	Carrington	10,125
Part 16 Broadmeadow Road	Broadmeadow	8,130
122 Woodstock Street	Mayfield	6,952
43, 45 & 46 Riverside Drive	Mayfield West	6,728
128 Elizabeth Street	Carrington	6,288
119 Old Maitland Road	Hexham	5,030
2 Balbu Close	Beresfield	3,685
9-13 Rural Drive	Sandgate	3,042

3.5. SUMMARY AND IMPLICATIONS

Newcastle has undergone a transformation over the last two decades towards a more knowledge based economy.

As shown from the ABS 2006 and 2011 census, there has been significant growth in the number of jobs in services and knowledge based sectors. Employment forecast by industry for the Newcastle LGA suggests that employment growth in the services and knowledge based industries will continue to grow the fastest from 2017 to 2031, as follows:

- Professional, scientific and technical services (+2,600 jobs)
- Accommodation and food services (+1,600 jobs)
- Retail trade (+1,159 jobs)
- Education and training (+997 jobs)
- Health care and social assistance (+950 jobs).

Professional, retail, educational and medical tenancies can be found in mixed use developments. The redevelopment of the subject site to mixed use can support jobs these industries. A mixed use development on the subject site can also allow workers to live close their work which may be an issue in Newcastle LGA given there are approximately 1.26 jobs per resident worker.

We have assessed the supply of industrial land with data from the Newcastle Employment Lands Strategy (NELS) 2013 and the Newcastle Industrial Land Analysis Review (NILA Review) 2009. We have assessed the demand for industrial land under:

- Employment demand scenario based on converting industrial job forecasts (using employment densities) to land demand
- Industrial development take-up scenario based on site areas of industrial developments on vacant industrial land in the pipeline.

Our analysis demonstrates there is sufficient industrial land to support future industrial employment if the subject site is adapted as a mixed use development.

- Urbis have estimated a total of 801 hectares of vacant industrial land in the LGA that is capable of accommodating industrial employment
- Under the employment demand scenario, there is a projected industrial employment growth of 560 jobs which will require approximately 18.7 to 28 hectares of industrial land by 2031 which equates to 1.3 to 2 hectares of industrial land per annum
- Under the industrial development take-up scenario, there is a projected 2.9 hectares take-up per annum which equates to 43.5 hectares of industrial land by 2031
- There will be an industrial land surplus of 773.2 to 782.5 hectares in 2031 based on the employment demand case, and a surplus of 760 hectares based on the development pipeline case.

In addition to the industrial land surplus, there are currently 35 projects in the development pipeline in the LGA with 100,000 sq.m of floorspace. There are also close to 100 vacancies with 154,000 sq.m of floorspace in the LGA that are capable of industrial use.

There is ample supply in the market for industrial land uses, with the removal of the subject site from the industrial supply unlikely to have any significant impact.

4. RESIDENTIAL NEEDS ANALYSIS

This section provides an assessment of the current and future need for additional dwellings in the Newcastle LGA through a review of several key demand drivers:

- Demographic profile
- Supply of competitive housing developments
- Population growth
- Housing affordability.

4.1. DEMOGRAPHIC ANALYSIS

Comparing the demographic characteristics of the Newcastle LGA with those of Non-Metro NSW provides an indication of the type of residential market that is available within the LGA. The key demographic characteristics considered of most relevance to this residential need assessment include age, household income, household composition, dwelling structure, housing status and professions.

Age

Chart 4.1 indicates that the Newcastle LGA has a higher proportion of residents aged 20-34 years (23.5%) in comparison to Non-Metro NSW average (16.1%). Newcastle LGA has a lower proportion of residents aged 0-19 and 50+ in the Newcastle LGA. This suggest that Newcastle LGA has a high number of young 'working age' population, which is not surprising given Newcastle is the regional city of the Lower Hunter with significant level of commercial, health and administrative interest.

The average age of Newcastle LGA has increase from 38.1 years in 2001 to 38.7 years in 2011. By comparison, the average age for Non-Metro NSW was 37.5 years in 2001, which was lower than the average age of the Newcastle LGA. However with the influx of older residents and retirees, it has increased to higher than the Newcastle LGA to 40.1 years in 2011.

Household Income

Between 2006 and 2011, Newcastle LGA experienced strong growth in the proportion of households with annual income above \$104,000, increasing by 12% from 15% of households to 27%. By comparison, over the same period in Non-Metro NSW, households with annual income above \$104,000 only increased by 9% from 11% of households to 20%. This higher percentage point change is in part driven by the transformation and increasing importance of higher value knowledge based industries in the Newcastle economy (For example, the University of Newcastle, Hunter New England Health and Newcastle Permanent Building Society).

The average household income for Newcastle LGA in 2011 was \$77,812, which is +15% higher than the Non-Metro NSW average of \$67,788.

Household Composition

The average household size of Newcastle LGA is 2.3 persons, slightly smaller than the average of 2.4 for Non-Metro NSW in 2011.

Newcastle LGA has a lower proportion of family households (63.9%) in comparison to the Non-Metro NSW average (70%). Given the high proportion of young adult aged 20-34 years, Newcastle LGA has a higher proportion of group and lone person households than the Non-Metro NSW average (6.6% of households are group households in the Newcastle LGA compared to 3.1% for Non-Metro NSW; 29.6% of households are lone person households in the Newcastle LGA compared to 26.9% for Non-Metro NSW).

In terms of the composition of family households, couple family with no children is the most popular type in the Newcastle LGA and Non-Metro NSW. This is followed by couple family with children under 15 and couple family with children over 15. Overall, the composition of family households in Newcastle LGA is in line with the Non-Metro NSW average, with slight differences in the proportion of couple families with no children (38.7% for Newcastle LGA compared to 41.9% for Non-Metro NSW) and single parent families with children over 15 (9.5% for Newcastle LGA compared to 7.4% for Non-Metro NSW).

Dwelling Structure

Detached houses are the most dominant type of dwelling in Newcastle LGA and Non-Metro NSW with detached houses making up 73.7% and 83.4% of all dwelling types respectively. There had been a slight decrease proportion of detached dwellings in Newcastle LGA and Non-Metro NSW from 2006 to 2011 with a shift towards semi-detached housing.

Housing Tenure / Ownership

Around 34.8% of households in Newcastle LGA were renting in 2011, which is above the Non-Metro NSW average of 28.4%. This reflects that residents in the Newcastle LGA are more inclined to rent and therefore investors are likely to be an important market segment for the proposed development.

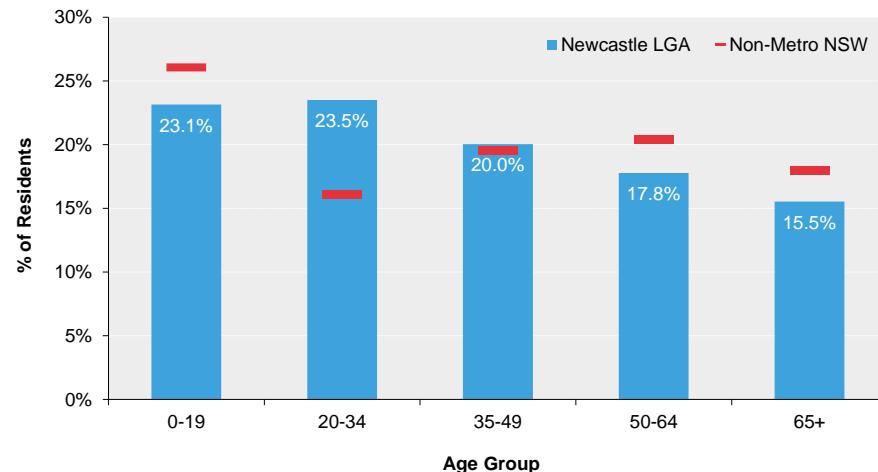
Managers and Professionals

The proportion of managers and professionals made up 36% of the labour force in the Newcastle LGA, which is higher than the Non-Metro NSW average of 31%. The high proportion of managers and professionals in the Newcastle LGA reflect residents wanting to live close to the Newcastle CBD and the Honeysuckle office precinct.

Age Distribution

Newcastle LGA and Non-Metro NSW Average, 2011

Chart 4.1



Source: ABS Census 2011; Urbis

Average Age

Newcastle LGA and Non-Metro NSW Average, 2001-2011

Chart 4.2

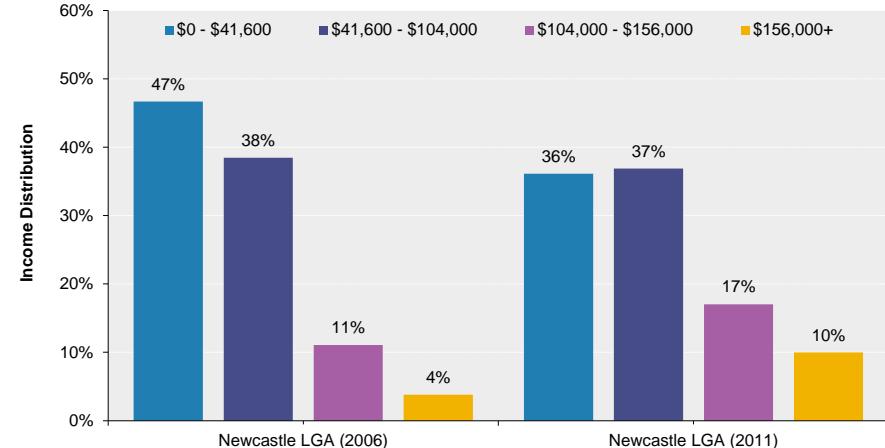
Year	Newcastle LGA	Non-Metro NSW
2001	38.1	37.5
2006	38.7	39.1
2011	38.7	40.1

Source: ABS Census 2011; Urbis

Household Income

Newcastle LGA, 2006-2011

Chart 4.3



Source: ABS Census; Urbis

Household Income

Non-Metro NSW Average, 2006-2011

Chart 4.4

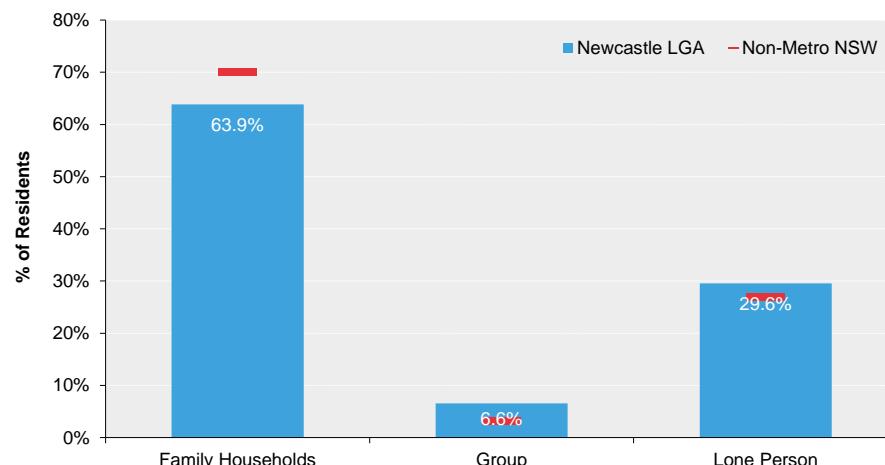


Source: ABS Census; Urbis

Household Composition

Newcastle LGA and Non-Metro NSW Average, 2011

Chart 4.5

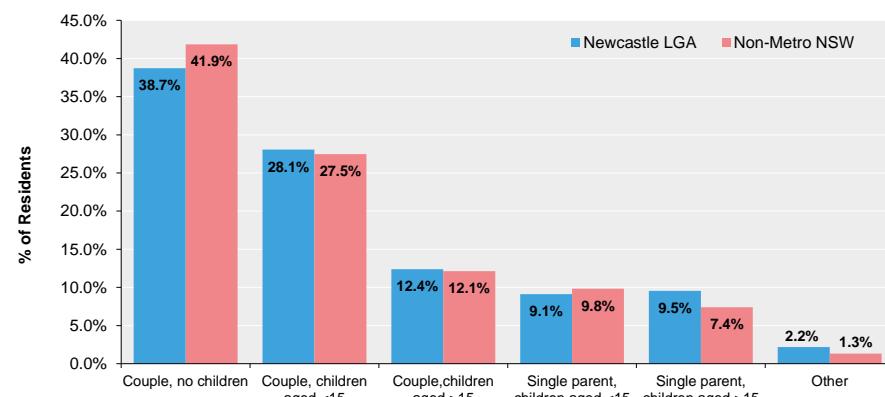


Source: ABS Census 2011; Urbis

Family Composition

Newcastle LGA and Non-Metro NSW Average, 2011

Chart 4.6

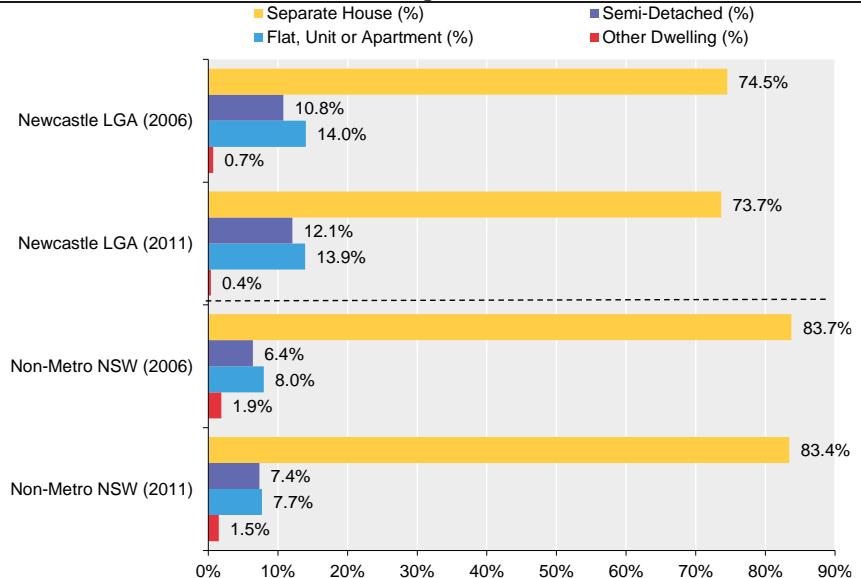


Source: ABS Census 2011; Urbis

Dwelling Structure

Newcastle LGA and Non-Metro NSW Average, 2006-2011

Chart 4.7



Source: ABS Census 2011; Urbis

Housing Status

Newcastle LGA and Non-Metro NSW Average, 2011

Table 4.1

	Newcastle LGA	Non-Metro NSW
Owner	31.8%	38.8%
Purchaser	32.7%	31.9%
Renter	34.8%	28.4%

Source: ABS Census 2011; Urbis

Managers and Professionals

Newcastle LGA and Non-Metro NSW Average, 2011

Table 4.2

	Newcastle LGA	Non-Metro NSW
Managers and Professionals	36.1%	31.4%

Source: ABS Census 2011; Urbis

4.2. RESIDENTIAL SUPPLY ASSESSMENT

This section outlines the competitive environment for residential developments within the Newcastle LGA. It comprises the following:

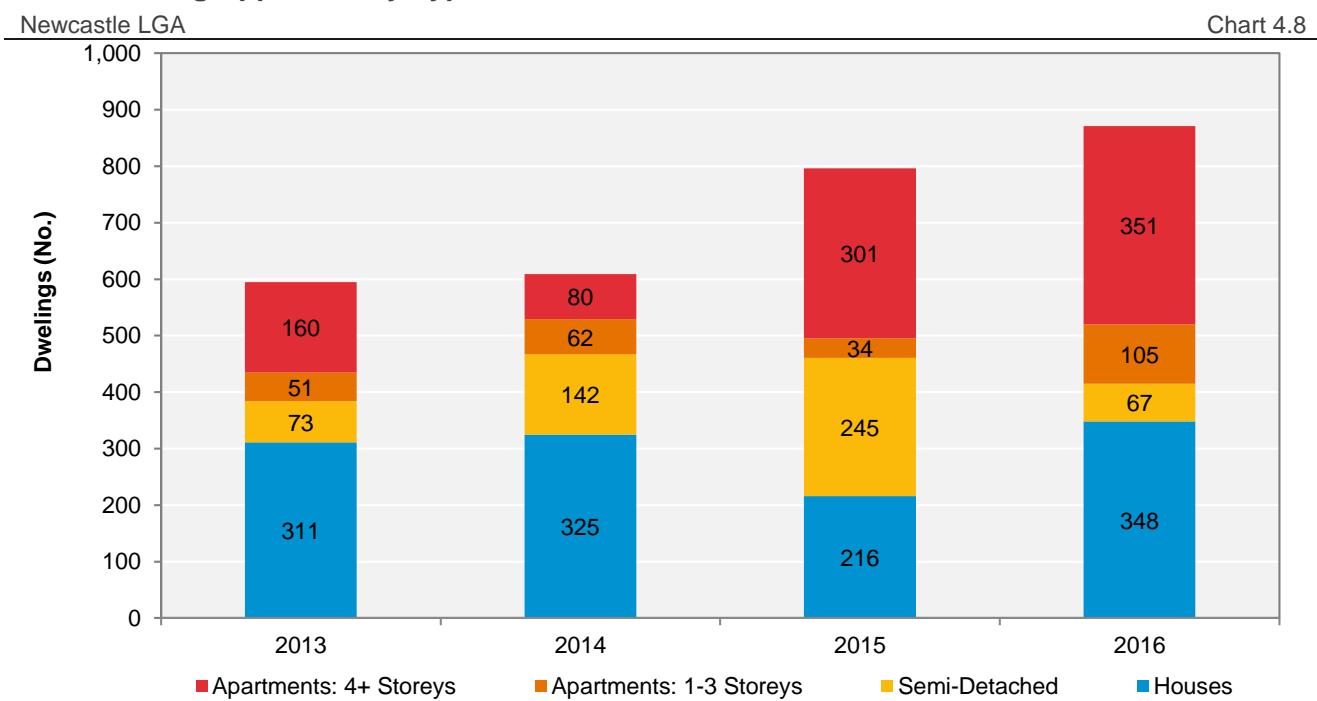
- Analysis of the distribution and type of historic dwelling approvals through the LGA
- Identification of proposed residential developments likely to compete with the proposed development concept.

4.2.1. Historical Dwelling Approvals

The following Chart 4.8 shows the historic new dwelling approvals (NDAs) by dwelling type in the Newcastle LGA between 2013 and 2016.

There has been a significant increase in new dwelling approvals since 2014 in part driven by the Sydney housing boom, the Newcastle Urban Renewal Strategy and the proposed Newcastle CBD light rail. With this increase, there has been a shift to higher density apartments (4+ storeys) developments in the Newcastle LGA. High density apartment developments have increased from 27% of new dwelling approvals in 2013 to 40% in 2016. This is a reflection of the young working age population of the Newcastle LGA that prefer to live in smaller lone or group households as well as the development's inner Newcastle location.

New Dwelling Approvals by Type



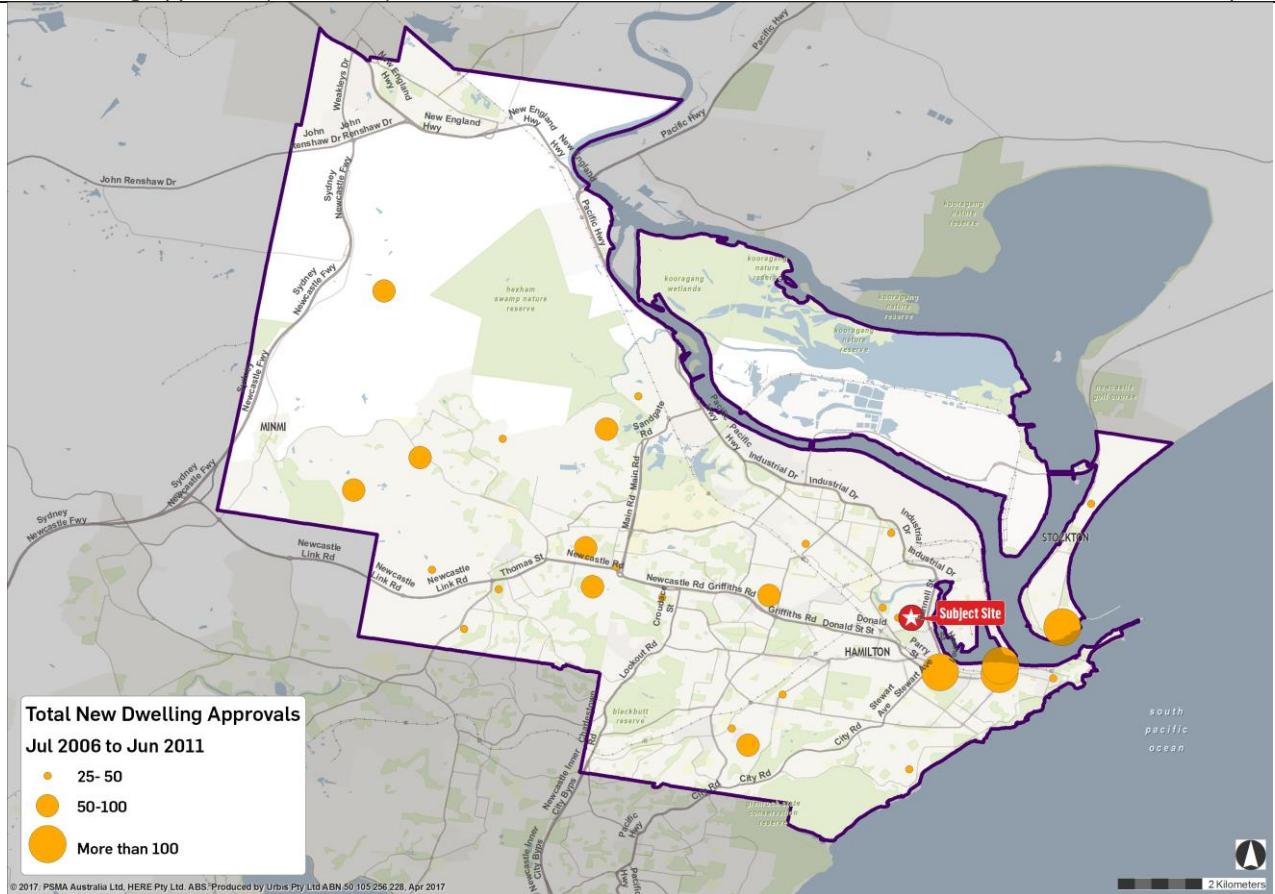
Source: ABS, Urbis

Map 4.1 and Map 4.2 illustrates the location and yield of the new dwelling approvals in the period 2006-2011 and 2011-2016 respectively.

Comparing Map 4.1 with Map 4.2, it is evident that a high proportion of new dwelling approvals have continued to be around inner Newcastle. There appears to be lower proportion of new dwelling approvals in middle Newcastle in 2011-2016 compared to 2006-2011. A number of residential development in outer Newcastle has continued.

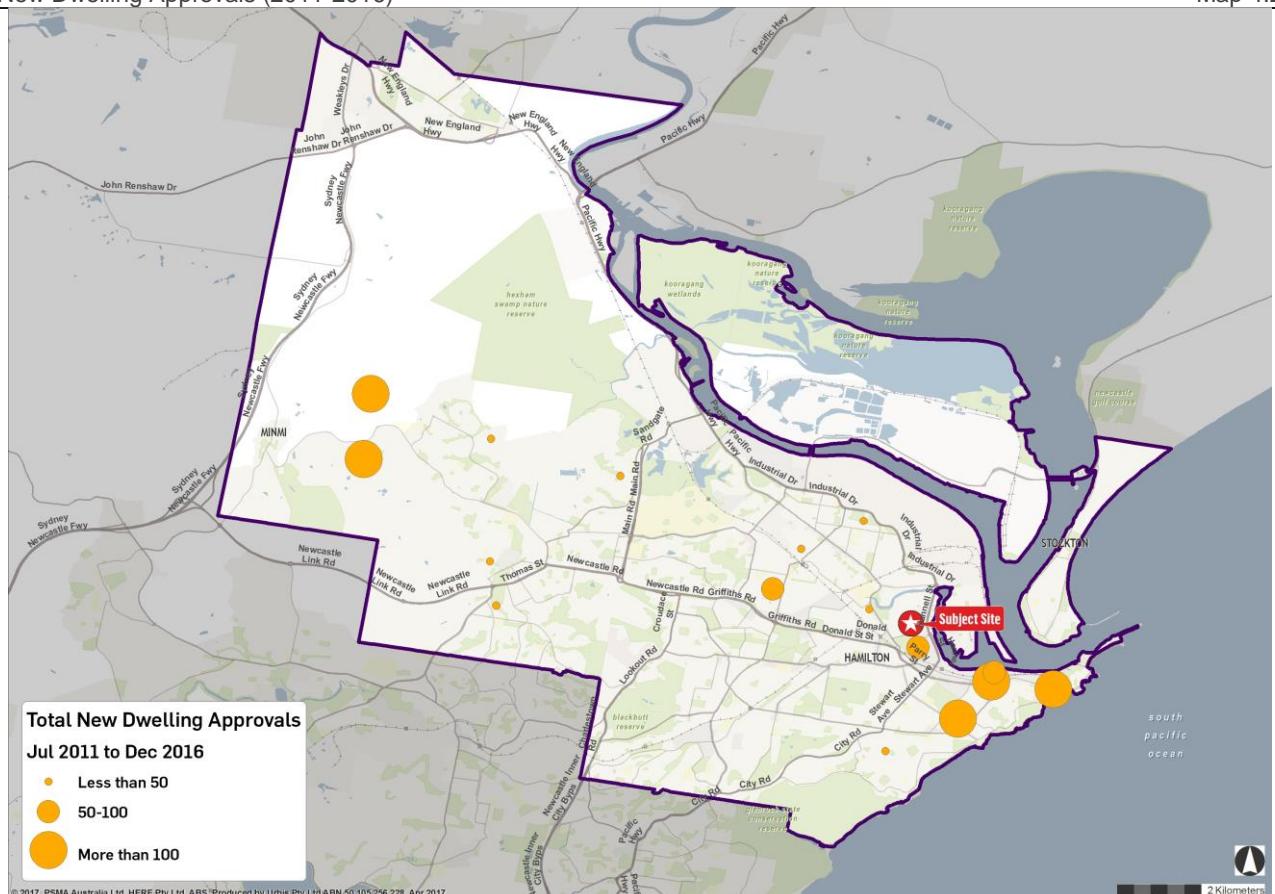
New Dwelling Approvals (2006-2011)

Map 4.1



New Dwelling Approvals (2011-2016)

Map 4.2



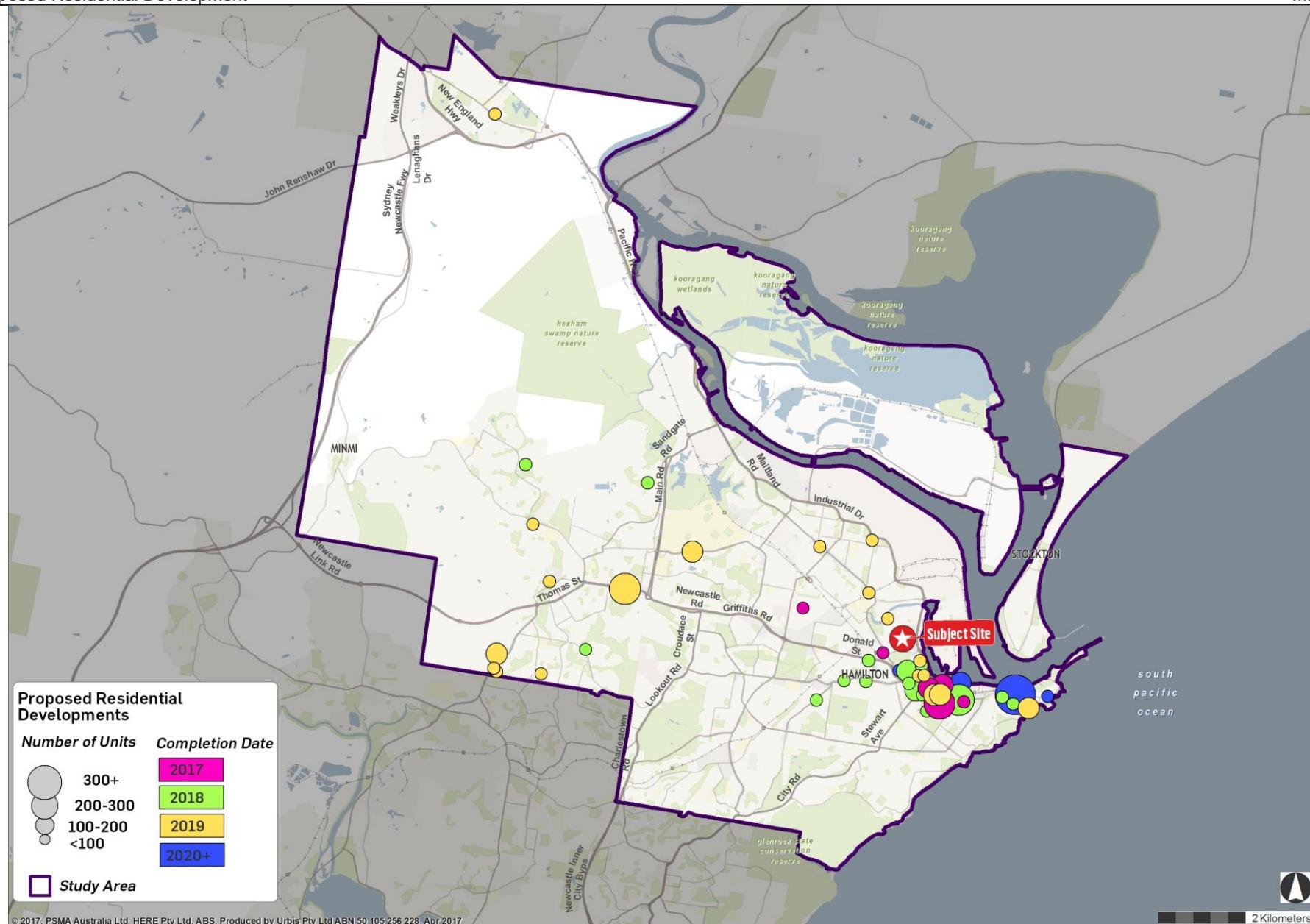
4.2.2. Future Supply

Map 4.3 outlines the proposed developments (with a residential yield over 20) expected to occur within the Newcastle LGA. The mapped developments comprise projects either currently undergoing early planning / council approval, projects that have achieved approval or projects currently under construction. Projects that have been deferred or abandoned have been disregarded for the purposes of calculating potential residential supply.

As shown in the Map 4.3, there are a large number of residential projects within inner Newcastle due to the Newcastle Urban Renewal Strategy. There are also a few residential projects located within middle Newcastle, of note the largest one in middle Newcastle is Brickworks at Wallsend, which has development approval to build 230 apartments.

Overall, there are 208 projects in the pipeline across Newcastle LGA with the potential to yield 4,495 dwellings. Of these, 157 projects are at or past the development approval stage, these projects have the potential to yield 3,535 dwellings.

A list of proposed residential development with a yield greater than 20 dwellings has been provided in Table 4.3.



Proposed Residential Developments (>20 dwellings)

Newcastle LGA, As at April 2017

Table 4.3

Project Title	Project Address	Suburb	Units	Completion Year	Project Stage
Georgetown Rd Mixed Development - The George Residences	32-34 & 38 Georgetown Rd & 2 Turner St	Georgetown	22	2017	Development Approval
Maitland Rd Mixed Development - Soho Central	52 Maitland Rd	Islington	41	2017	Contract Let
Eighteen Honeysuckle Drive & Edition Apartments	18 Honeysuckle Dr & 10 Worth Pl	Newcastle	71	2017	Contract Let
Bellevue St Mixed Development - The Huxley	12 Bellevue St	Newcastle West	64	2017	Construction
King St Apartments - Civic Green	267-269 King St	Newcastle	35	2017	Construction
Steel St Mixed Development - Spire Apartments At Marketown	23 Steel St	Newcastle West	161	2017	Construction
Parry Street Mixed Use Development - Parry Grande	122-124 Parry St	Newcastle West	31	2018	Tenders Called/Regns Advertised
Belford St Mixed Development	18 Belford St	Broadmeadow	22	2018	Development Approval
Bunker Road Apartments	65-75 Bunker Rd	Broadmeadow	38	2018	Development Application
Denison Street Mixed Use Development	20 Denison St	Newcastle West	58	2018	Development Application
Hardes Av Townhouses - Ivy Townhouses	9 Hardes Av	Maryland	21	2018	Development Approval
Throsby St Units - The Edge	25 Throsby St	Wickham	27	2018	Construction
Atrium Apartments Newcastle	117-119 Tudor St	Hamilton	33	2018	Construction
West End Strategic Development Site	73-79 Railway Ln	Wickham	156	2018	Development Application
Icon Central	509-511 Hunter St	Newcastle	262	2018	Contract Let
Croudace Rd Townhouses	158A-164 Croudace Rd	Elmwood Vale	28	2018	Development Approval
Westend Apartments - Westend Wickham	3-13 Charles St & 14-22 Wickham St	Wickham	122	2018	Construction
Hamilton St Mixed Development - The Laurel	37-39 Donald St	Hamilton	20	2018	Development Approval
Bolton St Mixed Development - Parque	58 Bolton St	Newcastle	28	2018	Contract Let
Irelands Bond 1884 Apartments	123 King St	Newcastle	25	2018	Development Application
Aero Apartments Newcastle	766-770 Hunter St	Newcastle West	44	2018	Contract Let
Mawson St Townhouses - The Grange	43 Mawson St	Shortland	27	2018	Development Approval
Hall Street Dwellings	5 Hall St	Maryville	33	2019	Development Approval
Wickham St Mixed Used Development	5 & 11 Wickham St	Wickham	40	2019	Development Approval
Maitland Rd Mixed Development - Diez Apartments	6-12 Maitland Rd	Mayfield	20	2019	Development Approval
Ingall Street Dwellings	86 Ingall St	Mayfield	26	2019	Development Application
University Dr Dwellings - The Grounds Callaghan	83 University Dr	Lambton	145	2019	Development Approval
Bolton & King Sts Mixed Development - Herald Apartments	28-30 Bolton St & 44-46 King St	Newcastle	119	2019	Contract under negotiation
Minmi Road Multiple Dwellings	27 Minmi Rd	Wallsend	25	2019	Development Approval
Lake Road Dwellings	189 Lake Rd	Elmwood Vale	21	2019	Development Approval
The Brickworks	147A-149A Newcastle Rd & 10-18 Victory Pde	Wallsend	230	2019	Development Approval
Council St Shop Top Housing	6-10 Council St	Wallsend	28	2019	Development Approval

Council St Shop Top Housing	6-10 Council St	Wallsend	28	2019	Development Approval
Project Title	Project Address	Suburb	Units	Completion Year	Project Stage
Nerigai Cl Townhouses	18 Nerigai Cl	Elmwood Vale	25	2019	Development Application
Verve Residences	464-470 King St	Newcastle	197	2019	Development Approval
Lake Rd Mixed Development	150-156 Lake Rd	Elmwood Vale	104	2019	Development Approval
Bishopsgate St Mixed Development - Bishopsgate Apartments	12 Bishopsgate St	Wickham	39	2019	Development Application
Hannell St Mixed Development	90-94 Hannell St	Wickham	24	2019	Development Application
Maitland Rd Mixed Development	316-322 Maitland Rd	Mayfield	36	2019	Development Approval
Hunter St Mixed Development - Former Empire Hotel	643-651 Hunter St	Newcastle West	128	2019	Development Approval
Lake Road Integrated Housing	197 Lake Rd & 14 Virgo St	Elmwood Vale	40	2019	Development Application
Anderson Drive Dwellings	133 Anderson Dr	Tarro	20	2019	Development Application
Newcastle Beach Apartments	21 Parnell Pl	Newcastle	45	2020	Development Application
Hunter St Mixed Development	990 Hunter St	Newcastle West	76	2020	Development Application
Honeysuckle Drive Development Site	21 Honeysuckle Dr	Newcastle	169	2020	Sketch Plans
Newcastle East End	Hunter St, Newcommen St, Morgan St, King St, Thorn St & Wolfe St	Newcastle	565	2021	Development Approval
<i>Remainder (developments with <20 units)</i>			1,004		
TOTAL			4,495		

Source: Cordell Connect ; Urbis

4.3. POPULATION

Resident population growth is a key driver of housing demand. Unless average households sizes increase, additional dwellings must be supplied to meet future population growth. In 2016, the NSW Department of Planning and Environment published population projections for NSW and each LGA for the period 2011 to 2036. These forecasts use the estimated resident population from the 2011 Census as a base.

As shown in Table 4.4, the resident population within the Newcastle LGA is forecast to increase by 27,200 persons (main series) between 2016 and 2031, equal to approximately 1,800 persons per annum.

The key findings from the historic and forecast population analysis are as follows:

- In the period between 2001 and 2011, the population within the Newcastle LGA grew by approximately 13,330 persons, or 9.4% over the ten years
- The Non-Metro NSW population grew by 6.5% annually over this period
- The population of Newcastle LGA is forecast to grow by 27,200 persons (main series) or 16% between 2016 and 2031
- Annual population growth within Newcastle LGA is expected to fluctuate between 0.9% to 1.2% between 2016 and 2031
- The implication of continued population growth moving forward is a need for increased dwellings within the Newcastle LGA.

Historic and Forecast Population

Newcastle LGA, 2011-2031

Table 4.4

LOW SERIES	Historic			Forecast			
	2001	2006	2011	2016	2021	2026	2031
Newcastle LGA	142,101	149,313	155,431	164,200	172,600	180,000	186,700
Non-Metro NSW	2,447,546	2,535,199	2,605,476	2,713,550	2,803,700	2,874,650	2,928,750
Growth %							
Newcastle LGA	1.0%	0.8%		1.1%	1.0%	0.8%	0.7%
Non-Metro NSW	0.7%	0.5%		0.8%	0.7%	0.5%	0.4%
Forecast							
MAIN SERIES				2016	2021	2026	2031
Newcastle LGA				165,050	174,400	183,450	192,250
Non-Metro NSW				2,726,250	2,833,850	2,931,950	3,020,500
Growth %							
Newcastle LGA				1.2%	1.1%	1.0%	0.9%
Non-Metro NSW				0.9%	0.8%	0.7%	0.6%
Forecast							
HIGH SERIES				2016	2021	2026	2031
Newcastle LGA				166,000	176,700	187,550	198,600
Non-Metro NSW				2,742,350	2,871,750	3,000,100	3,126,500
Growth %							
Newcastle LGA				1.3%	1.3%	1.2%	1.2%
Non-Metro NSW				1.0%	0.9%	0.9%	0.8%

Source: ABS Census ; NSW Department of Planning & Environment Population Projection 2016 ; Urbis

4.4. HOUSING AFFORDABILITY

This section assesses the level of housing affordability in the Newcastle LGA. It comprises an analysis of residential price trends and the income levels of residents.

4.4.1. Residential Dwelling Price Trends

Chart 4.9 illustrates the volume and median prices of all dwelling sales in the Newcastle LGA from 1997 to 2016. Specifically, it indicates:

- The median sale price for Newcastle LGA was \$510,000 in 2016
- The LGA has experienced strong price growth since 2011 with prices increasing by 38% from 2011 to 2016
- Sales volume have been at a stable level since 2003, averaging around 3,500 sales per year since then.

Sales and Median Prices – Residential Dwellings

Newcastle LGA

Chart 4.9



Source: Pricefinder; Urbis

4.4.2. Affordability Assessment

Housing affordability refers to a household's capacity to purchase housing, commonly measured by the proportion of a household's income spent on dwelling costs. The standard benchmark for whether housing is unaffordable is when repayments constitute 30% or more of a household's income. If a household spends 30% or more of their income on mortgage repayments or rental payments, they are considered at risk of housing stress.

This section comprises an assessment of the price points at which first home buyers (FHB) and established home buyers can afford to purchase housing, on both average and upper quintiles incomes in the Newcastle LGA.

Average household income for the Newcastle LGA is currently estimated to be \$90,310 with 20% of households estimated to have incomes above \$144,019 per annum. Applying the 30% benchmark shows that average income households can afford housing costs of \$2,258 per month, while the top 20% of households can afford a monthly housing cost of \$3,600.

To identify the affordable housing price for the Newcastle LGA, the repayments required for a range of price points were calculated and shown in Table 4.6 and Table 4.7.

The following assumptions underpin the affordability calculations:

- Standard variable interest rate: 6% (the long run average)
- Deposit: 20%
- Loan term: 30 years.

Table 4.6 shows that a FHB household in the Newcastle LGA with an average income can afford dwellings priced at \$450,000. However, the top 20% of FHB households can afford a higher price point of \$750,000.

The affordable unit price changes considerably for established home owners, due to the assumed 50% deposit (reducing the loan size). Table 4.7 shows that for established home owners, households on average income can afford around \$750,000, while high income households can afford housing priced around \$1,200,000. These results are summarised in Table 4.5.

Threshold Price Levels

Newcastle LGA

Table 4.5

Market	Average Household Income	Upper Quartile Household Income
First Home Buyer	\$ 450,000	\$ 750,000
Established Home Owners	\$ 750,000	\$ 1,200,000

Source: Urbis

Median dwelling prices currently sit at around \$510,000 for the Newcastle LGA. As such, the median dwelling prices are only affordable for Newcastle LGA residents who are established home buyers or FHB in the upper quintile of income earners.

This indicates that housing affordability is starting to become an issue for residents within the Newcastle LGA.

The delivery of additional residential dwellings in a high-density format would both increase the housing supply in the area and improve affordability.

Threshold Price Levels for First Home Buyers

Newcastle LGA

Table 4.6

	\$350,000	\$400,000	\$450,000	\$500,000	\$550,000	\$600,000	\$650,000	\$700,000	\$750,000	\$800,000	\$850,000	\$900,000	\$950,000
4.00%	-\$1,337	-\$1,528	-\$1,719	-\$1,910	-\$2,101	-\$2,292	-\$2,483	-\$2,674	-\$2,864	-\$3,055	-\$3,246	-\$3,437	-\$3,628
4.25%	-\$1,377	-\$1,574	-\$1,771	-\$1,968	-\$2,165	-\$2,361	-\$2,558	-\$2,755	-\$2,952	-\$3,148	-\$3,345	-\$3,542	-\$3,739
4.50%	-\$1,419	-\$1,621	-\$1,824	-\$2,027	-\$2,229	-\$2,432	-\$2,635	-\$2,837	-\$3,040	-\$3,243	-\$3,445	-\$3,648	-\$3,851
4.75%	-\$1,461	-\$1,669	-\$1,878	-\$2,087	-\$2,295	-\$2,504	-\$2,713	-\$2,921	-\$3,130	-\$3,339	-\$3,547	-\$3,756	-\$3,965
5.00%	-\$1,503	-\$1,718	-\$1,933	-\$2,147	-\$2,362	-\$2,577	-\$2,791	-\$3,006	-\$3,221	-\$3,436	-\$3,650	-\$3,865	-\$4,080
5.25%	-\$1,546	-\$1,767	-\$1,988	-\$2,209	-\$2,430	-\$2,651	-\$2,871	-\$3,092	-\$3,313	-\$3,534	-\$3,755	-\$3,976	-\$4,197
5.50%	-\$1,590	-\$1,817	-\$2,044	-\$2,271	-\$2,498	-\$2,725	-\$2,953	-\$3,180	-\$3,407	-\$3,634	-\$3,861	-\$4,088	-\$4,315
5.75%	-\$1,634	-\$1,867	-\$2,101	-\$2,334	-\$2,568	-\$2,801	-\$3,035	-\$3,268	-\$3,501	-\$3,735	-\$3,968	-\$4,202	-\$4,435
6.00%	-\$1,679	-\$1,919	\$2,158	-\$2,398	-\$2,638	-\$2,878	-\$3,118	-\$3,357	-\$3,597	-\$3,837	-\$4,077	-\$4,317	-\$4,557
6.25%	-\$1,724	-\$1,970	-\$2,217	-\$2,463	-\$2,709	-\$2,955	-\$3,202	-\$3,448	-\$3,694	-\$3,941	-\$4,187	-\$4,433	-\$4,679
6.50%	-\$1,770	-\$2,023	-\$2,275	-\$2,528	-\$2,781	-\$3,034	-\$3,287	-\$3,540	-\$3,792	-\$4,045	-\$4,298	-\$4,551	-\$4,804
6.75%	-\$1,816	-\$2,076	-\$2,335	-\$2,594	-\$2,854	-\$3,113	-\$3,373	-\$3,632	-\$3,892	-\$4,151	-\$4,410	-\$4,670	-\$4,929
7.00%	-\$1,863	-\$2,129	-\$2,395	-\$2,661	-\$2,927	-\$3,193	-\$3,460	-\$3,726	-\$3,992	-\$4,258	-\$4,524	-\$4,790	-\$5,056
7.25%	-\$1,910	-\$2,183	-\$2,456	-\$2,729	-\$3,002	-\$3,274	-\$3,547	-\$3,820	-\$4,093	-\$4,366	-\$4,639	-\$4,912	-\$5,185
7.50%	-\$1,958	-\$2,237	-\$2,517	-\$2,797	-\$3,077	-\$3,356	-\$3,636	-\$3,916	-\$4,195	-\$4,475	-\$4,755	-\$5,034	-\$5,314
7.75%	-\$2,006	-\$2,293	-\$2,579	-\$2,866	-\$3,152	-\$3,439	-\$3,725	-\$4,012	-\$4,298	-\$4,585	-\$4,872	-\$5,158	-\$5,445
8.00%	-\$2,055	-\$2,348	-\$2,642	-\$2,935	-\$3,229	-\$3,522	-\$3,816	-\$4,109	-\$4,403	-\$4,696	-\$4,990	-\$5,283	-\$5,577
8.25%	-\$2,104	-\$2,404	-\$2,705	-\$3,005	-\$3,306	-\$3,606	-\$3,907	-\$4,207	-\$4,508	-\$4,808	-\$5,109	-\$5,409	-\$5,710
8.50%	-\$2,153	-\$2,461	-\$2,768	-\$3,076	-\$3,383	-\$3,691	-\$3,998	-\$4,306	-\$4,613	-\$4,921	-\$5,229	-\$5,536	-\$5,844
8.75%	-\$2,203	-\$2,517	-\$2,832	-\$3,147	-\$3,461	-\$3,776	-\$4,091	-\$4,406	-\$4,720	-\$5,035	-\$5,350	-\$5,664	-\$5,979
9.00%	-\$2,253	-\$2,575	-\$2,897	-\$3,218	-\$3,540	-\$3,862	-\$4,184	-\$4,506	-\$4,828	-\$5,150	-\$5,471	-\$5,793	-\$6,115

Newcastle LGA Av. HH Income:	\$90,310	Newcastle LGA Upper Quintile Income	\$144,019
Total Newcastle LGA Households:	66,224	Newcastle LGA Households in Upper Quintile	13,245

Note: Blue indicates that this house price and interest rate level push 'average' households into mortgage stress (i.e. mortgage repayments > 30% of household income). Orange numbers indicate that this house price and interest rate push upper income quartile households into mortgage stress. Average household incomes are taken from the 2006 census and adjusted to account for income growth to 2011.

Standard Variable Rate as at March 2017

Long-term standard variable average since March 2007

Source: Urbis ; RBA F5 Indicator Lending Rates; ABS Census, 2011

Threshold Price Levels for Establish Home Buyers

Newcastle LGA

Table 4.7

	\$650,000	\$700,000	\$750,000	\$800,000	\$850,000	\$900,000	\$950,000	\$1,000,000	\$1,050,000	\$1,100,000	\$1,150,000	\$1,200,000	\$1,250,000
4.00%	-\$1,552	-\$1,671	-\$1,790	-\$1,910	-\$2,029	-\$2,148	-\$2,268	-\$2,387	-\$2,506	-\$2,626	-\$2,745	-\$2,864	-\$2,984
4.25%	-\$1,599	-\$1,722	-\$1,845	-\$1,968	-\$2,091	-\$2,214	-\$2,337	-\$2,460	-\$2,583	-\$2,706	-\$2,829	-\$2,952	-\$3,075
4.50%	-\$1,647	-\$1,773	-\$1,900	-\$2,027	-\$2,153	-\$2,280	-\$2,407	-\$2,533	-\$2,660	-\$2,787	-\$2,913	-\$3,040	-\$3,167
4.75%	-\$1,695	-\$1,826	-\$1,956	-\$2,087	-\$2,217	-\$2,347	-\$2,478	-\$2,608	-\$2,739	-\$2,869	-\$2,999	-\$3,130	-\$3,260
5.00%	-\$1,745	-\$1,879	-\$2,013	-\$2,147	-\$2,281	-\$2,416	-\$2,550	-\$2,684	-\$2,818	-\$2,953	-\$3,087	-\$3,221	-\$3,355
5.25%	-\$1,795	-\$1,933	-\$2,071	-\$2,209	-\$2,347	-\$2,485	-\$2,623	-\$2,761	-\$2,899	-\$3,037	-\$3,175	-\$3,313	-\$3,451
5.50%	-\$1,845	-\$1,987	-\$2,129	-\$2,271	-\$2,413	-\$2,555	-\$2,697	-\$2,839	-\$2,981	-\$3,123	-\$3,265	-\$3,407	-\$3,549
5.75%	-\$1,897	-\$2,043	-\$2,188	-\$2,334	-\$2,480	-\$2,626	-\$2,772	-\$2,918	-\$3,064	-\$3,210	-\$3,356	-\$3,501	-\$3,647
6.00%	-\$1,949	-\$2,098	-\$2,248	-\$2,398	-\$2,548	-\$2,698	-\$2,848	-\$2,998	-\$3,148	-\$3,298	-\$3,447	-\$3,597	-\$3,747
6.25%	-\$2,001	-\$2,155	-\$2,309	-\$2,463	-\$2,617	-\$2,771	-\$2,925	-\$3,079	-\$3,233	-\$3,386	-\$3,540	-\$3,694	-\$3,848
6.50%	-\$2,054	-\$2,212	-\$2,370	-\$2,528	-\$2,686	-\$2,844	-\$3,002	-\$3,160	-\$3,318	-\$3,476	-\$3,634	-\$3,792	-\$3,950
6.75%	-\$2,108	-\$2,270	-\$2,432	-\$2,594	-\$2,757	-\$2,919	-\$3,081	-\$3,243	-\$3,405	-\$3,567	-\$3,729	-\$3,892	-\$4,054
7.00%	-\$2,162	-\$2,329	-\$2,495	-\$2,661	-\$2,828	-\$2,994	-\$3,160	-\$3,327	-\$3,493	-\$3,659	-\$3,825	-\$3,992	-\$4,158
7.25%	-\$2,217	-\$2,388	-\$2,558	-\$2,729	-\$2,899	-\$3,070	-\$3,240	-\$3,411	-\$3,581	-\$3,752	-\$3,923	-\$4,093	-\$4,264
7.50%	-\$2,272	-\$2,447	-\$2,622	-\$2,797	-\$2,972	-\$3,146	-\$3,321	-\$3,496	-\$3,671	-\$3,846	-\$4,020	-\$4,195	-\$4,370
7.75%	-\$2,328	-\$2,507	-\$2,687	-\$2,866	-\$3,045	-\$3,224	-\$3,403	-\$3,582	-\$3,761	-\$3,940	-\$4,119	-\$4,298	-\$4,478
8.00%	-\$2,385	-\$2,568	-\$2,752	-\$2,935	-\$3,118	-\$3,302	-\$3,485	-\$3,669	-\$3,852	-\$4,036	-\$4,219	-\$4,403	-\$4,586
8.25%	-\$2,442	-\$2,629	-\$2,817	-\$3,005	-\$3,193	-\$3,381	-\$3,569	-\$3,756	-\$3,944	-\$4,132	-\$4,320	-\$4,508	-\$4,695
8.50%	-\$2,499	-\$2,691	-\$2,883	-\$3,076	-\$3,268	-\$3,460	-\$3,652	-\$3,845	-\$4,037	-\$4,229	-\$4,421	-\$4,613	-\$4,806
8.75%	-\$2,557	-\$2,753	-\$2,950	-\$3,147	-\$3,343	-\$3,540	-\$3,737	-\$3,934	-\$4,130	-\$4,327	-\$4,524	-\$4,720	-\$4,917
9.00%	-\$2,615	-\$2,816	-\$3,017	-\$3,218	-\$3,420	-\$3,621	-\$3,822	-\$4,023	-\$4,224	-\$4,425	-\$4,627	-\$4,828	-\$5,029

Newcastle LGA Av. HH Income:	\$90,310	Newcastle LGA Upper Quintile Income	\$144,019
Total Newcastle LGA Households:	66,224	Newcastle LGA Households in Upper Quintile	13,245

Note: Blue indicates that this house price and interest rate level push 'average' households into mortgage stress (i.e. mortgage repayments > 30% of household income). Orange numbers indicate that this house price and interest rate push upper income quartile households into mortgage stress. Average household incomes are taken from the 2006 census and adjusted to account for income growth to 2011.

Standard Variable Rate as at March 2017

Long-term standard variable average since March 2007

Source: Urbis ; RBA F5 Indicator Lending Rates; ABS Census, 2011

4.5. SUPPLY AND DEMAND GAP ANALYSIS

This section provides a residential dwelling supply and demand gap analysis which assesses the overall housing deficit / surplus for the Newcastle LGA. The analysis takes into consideration the following factors presented in previous sections:

- Average household size
- Proposed residential developments
- Population growth.

Table 4.8 compares the residential project pipeline with forecast housing demand. Underlying demand has been forecast on the basis of the NSW Department of Planning and Environment population projections. An average household size of 2.3 (based on the household size of the Newcastle LGA) has been used as a proxy for underlying housing demand. The table illustrates that over both the short and long-term, there is insufficient housing stock to meet the growing housing needs of the LGA. Between 2016 and 2021, the housing deficit is estimated at approximately -44 to -499 dwellings (low and main series), expanding to an -6,732 to -7,840 dwelling deficit by 2026.

These significant short-falls could potentially lead to a net out-migration from the LGA, as the market seeks housing elsewhere. Furthermore, the lack of supply relative to demand could result in price appreciation, further restricting the access to housing, particularly for first home buyers and key workers.

Forecast Housing Supply and Demand

Newcastle LGA

Table 4.8

	Forecast Population		
	2016	2021	2026
Low Series	164,200	172,600	180,000
Main Series	165,050	174,400	183,450
High Series	166,000	176,700	187,550
		Forecast Dwelling Demand	Cumulative Demand
Low Series		2016-21	2016-26
Additional Residents		8,400	7,400
Additional Dwelling Demand		3,579	3,153
New Dwelling Supply		<u>3,535</u>	<u>0</u>
Housing - Deficit / + Surplus		-44	-3,153
Main Series		2016-21	2016-26
Additional Residents		9,350	9,050
Additional Dwelling Demand		3,984	3,856
New Dwelling Supply		<u>3,535</u>	<u>0</u>
Housing - Deficit / + Surplus		-449	-3,856
High Series		2016-21	2016-26
Additional Residents		10,700	10,850
Additional Dwelling Demand		4,559	4,623
New Dwelling Supply		<u>3,535</u>	<u>0</u>
Housing - Deficit / + Surplus		-1,024	-4,623

Source: ABS Census; NSW Department of Planning & Environment; Cordell Connect; Urbis

4.6. SUMMARY AND IMPLICATIONS

Newcastle LGA has a much higher proportion of young 'working age' population and residents living in non-family households compared to the Non-Metro NSW average. A high proportion of residents are managers and professionals which reflects Newcastle as the regional capital city of the Hunter Region.

Over both the short and long term, there is insufficient housing stock to meet the growing housing needs of Newcastle LGA. Between 2016 and 2021, the housing deficit is estimated at approximately -44 to -449 dwellings (low and main series), expanding to an -6,732 to -7,840 dwellings deficit by 2026.

Housing shortage can lead to a net out migration from the LGA and cause problems in attracting workers. Housing shortage will place upward pressure on the median price of dwellings in Newcastle LGA, which has increased significantly by 38% since 2011 to \$510,000 in 2016. Housing affordability is starting to become an issue for residents within the Newcastle LGA with the median dwelling price only affordable for LGA residents who are established home buyers or FHB in the upper quintile of income earners.

The redevelopment of the subject site to allow for additional housing supply will help address the housing supply gap and affordability constraints facing first home buyers.

5. ECONOMIC BENEFITS ANALYSIS

This section identifies the potential employment and economic generation potential associated with the proposed development on the subject site. Specifically, this section addresses the following points:

- Potential employment and economic benefits generated during the construction of the proposed development
- Potential employment and economic benefits generated in the ongoing operation of the proposed development
- Qualitative assessment of additional economic benefits.

Modelling included in this report uses REMPLAN to assess current and potential economic impacts. REMPLAN is an Input-Output model that captures inter-industry relationships within an economy. It can assess the area-specific direct and flow-on implications across industry sectors in terms of employment, wages and salaries, output and value-added (Gross Regional Product). A region can be defined at a national, state or Local Government Area level.

REMPPLAN base data is drawn from the Australian Bureau of Statistics and other government agencies. It provides highly reliable, up-to-date, and defensible economic modelling across any state or region in Australia.

Previous modelling of economic impacts has used ABS Input-Output tables from 1996-97. The multipliers are close to 20 years old and are less accurate in estimating impacts on the economy, particularly due to:

- Productivity changes throughout the economy over the past 20 years
- The changing industry make-up of the Australian economy since 1997 – for example the decline in manufacturing and the rise in financial services.

5.1. CONSTRUCTION

As an indicative estimate for modelling purposes, construction costs associated with the proposed development were provided by Investec. It is estimated that total construction cost could be in the order of \$137.1 million over 2.5 years (30 months), equating to an annual construction cost of \$54.84 million. A summary of the construction cost is included in the following table.

Estimated Construction Costs for Proposed Development

Table 5.1

Building	Construction Cost
Building 1	\$ 36,600,000
Building 2	\$ 35,000,000
Building 3	\$ 28,500,000
Building 4	\$ 12,000,000
Building 5	\$ 25,000,000
Total	\$137,100,000

Source: Investec ; Urbis

The construction of the development at the subject site is estimated to have the potential to generate \$16.1 million in direct Gross Value Added (GVA) per year, and \$41.8 million in indirect GVA. Employment represents total number of employees without any conversions to full-time equivalence. The construction period is projected to generate an estimated 106 direct jobs and 253 indirect jobs.

Annual Economic Activity – Construction

Subject Site

Table 5.2

Heading	Direct Effect	Indirect Effect	Total
Jobs	106	253	359
Economic Generation GVA p.a. (\$M)	\$ 16.1	\$ 41.8	\$ 57.9

Source: REMPLAN Economy ; Urbis

5.2. ONGOING OPERATIONS

In addition to the construction phase of the proposed development, the ongoing operations of the non-residential components of the development will also create jobs and generate economic activity (in GVA).

The number of direct jobs for the proposed development was estimated using industry benchmarks on jobs per net lettable area. Direct jobs are entered into REMPLAN to produce an estimate of indirect jobs, and direct and indirect GVA.

The proposed development on the subject site will include space for office and retail, which is estimated to generate some 456 total jobs from ongoing operations as shown in Table 5.3. The direct and indirect impacts from economic activity forecast to occur from the proposed development are detailed in Table 5.4.

Proposed Non-Residential Gross Floor Area and Employment

Subject Site

Table 5.3

	GFA (sq.m)	GFA (sq.m) per job	Ongoing Jobs
Retail	2,810	25	112
Commercial / Community	8,604	25	344
Total	11,414		456

Source: Urbis

Annual Economic Activity – Ongoing Operations

Subject Site

Table 5.4

	Direct Effect	Indirect Effect	Total
Jobs	456	558	1,014
Economic Generation GVA p.a (\$M)	\$ 57.5	\$ 96.7	\$ 154.2

Source: REMPLAN Economy ; Urbis

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