Regional Infrastructure Contributions

Contributions Reform - Feasibility Analysis

Department of Planning,
Industry and Environment

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Atlas
URBAN ECONOMICS

Document Control

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Executive Summary

Background and Overview

The NSW Government has commenced a comprehensive review of infrastructure funding in NSW to assess its effectiveness and efficiency in delivering public infrastructure to support development.

In November 2020, the NSW Productivity Commissioner (**PC**) published a detailed review (**the Review**) of the infrastructure contributions system in NSW, making 29 recommendations to improve certainty and efficiency on delivery of infrastructure.

The recommendations on regional infrastructure contribution rates were made *subject to no substantial impacts on feasibility*. In March 2021, the NSW Department of Planning, Industry and Environment (DPIE) accepted the recommendations subject to confirming charging methodology. The PC's recommendations and DPIE's responses to regional infrastructure contributions are outlined in Table ES-1.

Table ES-1: NSW Productivity Commission's Recommendations (2020) and DPIE Response (2021)

Item	Recommendation	DPIE Response
5.1	Adopt regional infrastructure contributions (RIC)	Accept. Savings and transitional arrangements for SIC determinations made prior to 1 July 2022 to be determined.
(i)	Prepare and implement state contributions for Greater Sydney, Central Coast, Hunter and Illawarra- Shoalhaven regions	
(ii)	Greater Sydney region charges (subject to no substantial impacts on feasibility): • $12,000 per dwelling for houses (detached, semi-detached, townhouses) • $10,000 per dwelling for all other residential accommodation • $10/sqm to $15/sqm for industrial • $20/sqm to $30/sqm for commercial • $30/sqm to $40/sqm for retail	Accept. Final rates subject to confirming the charging methodology.
(iii)	Central Coast, Hunter and Illawarra-Shoalhaven region charges (subject to no substantial impacts on feasibility): • $10,000 per dwelling for houses (detached, semi-detached, townhouses) • $8,000 per dwelling for all other residential accommodation • $10/sqm to $15/sqm for industrial • $20/sqm to $30/sqm for commercial • $30/sqm to $40/sqm for retail	

Source: NSW Productivity Commission (2020), DPIE

Scope of the Study

Atlas Urban Economics (Atlas) is engaged by DPIE to analyse the implications of the Review's recommendations on regional infrastructure contributions (**RIC**) (**the Study**). The Study reviews the proposed charging methodology and tests the feasibility impact of the recommended RIC rates to inform policy decisions on the RIC framework.

State and regional infrastructure contributions are referred to collectively as 'regional infrastructure contributions' (**RIC**). The proposed RIC rates are fixed dollar rates:

- per dwelling for residential development; and
- per square metre of GFA for non-residential development.

The Study's objectives are to investigate:

- If the proposed RIC rates are appropriate in consideration of impact on feasibility and development supply.
- Suitability of the proposed charging methodology.

The RIC framework comprises the RIC, a standard broad-based component (focus of this Study), which is supplemented by two additional components that are only applied to specific areas within the region. This includes a transport infrastructure contribution (TPC) and biodiversity contribution (SBC). The Study does not specifically test the TPC and SBC but considers potential feasibility impact in the context of the RIC.

Study Observations - Charging Methodology and Feasibility Impact

The Review recommends two sets of RIC charges - one for Greater Sydney and one for the Central Coast, Hunter and Illawarra-Shoalhaven regions.

- "**Greater Sydney**" comprises the region and LGAs as defined in the *Greater Sydney Commission Act 2015 No. 57*.
- The "Hunter region" is the Lower Hunter (LGAs of Newcastle, Maitland, Port Stephens, Lake Macquarie and Cessnock). The Illawarra Shoalhaven region comprises LGAs of Kiama, Shellharbour, Wollongong and Shoalhaven and the Central Coast region is the Central Coast LGA. Collectively these regions are referred to as the '**Outer Metro regions'**.

The Study examines:

- The proposed RIC charging methodology and if it is appropriate.
- Impact on feasibility and consequent implications for development supply.

Charging Methodology and Units of Charge

The PC charging methodologies ($ per dwelling for residential development and $ per sqm GFA for commercial, retail and industrial development) reflect the density and intensity of development and are accordingly considered appropriate.

The nominated land use categories (residential, retail, commercial and industrial) and RIC rates do not cover all uses under the standard instrument LEP. Additionally, the units of charge proposed for residential uses do not suit all categories of dwellings, in particular non-private dwellings (e.g. tourist and visitor accommodation, boarding houses, hostels, aged care facilities, nursing homes, etc). Accordingly, consideration needs to be given to how non-private dwellings and other uses not covered by the proposed charging methodology are charged.

The ABS classifies non-private dwellings as establishments providing a communal or transitory type of accommodation, e.g. hotels, motels, boarding houses, nursing homes, corrective institutions, boarding schools, staff quarters and hospitals.

Non-private dwellings generally involve commercial enterprise which has consequent flow-on implications for broader economic activity. For example, the operation of hotels and backpackers' facilities accommodates transient occupants (tourists and visitors) while aged care and nursing homes accommodate less mobile occupants. A RIC charge per bed would arguably be the most accurate proxy for infrastructure demand, however has challenges to its implementation. It would be important that an appropriate unit/s of charge is enabled to ensure adequate provision of infrastructure at the ***local level***.

Assuming that demand for local infrastructure arising from non-private dwellings is addressed within the local contributions framework, the commercial RIC rate ($30/sqm GFA) could be considered for wide application to non-private dwellings and other uses not covered by the proposed charging methodology. This recognises the commercial enterprise associated with the land uses and addresses the PC Review's objective of simplicity.

Impact on Feasibility

The Study highlights that site-specific feasibility impacts are not the issue in question. Feasibility impact is relevant for policy decisions only where that impact risks undermining development supply and achievement of planning objectives.

Understanding the nature and distribution of future growth in Greater Sydney and the Outer Metro regions is relevant in ascertaining the implications of a RIC rate/s on feasibility and ultimately on the delivery of supply to support future growth.

Patterns of growth additionally have implications for infrastructure and the need for contributions to fund that infrastructure. It is important to consider the impacts to feasibility in this context.

The Study considers the impact of a RIC in the following planning scenarios:

- No change to planning controls.
- Change to planning controls (i.e. increased density).

For any (additional) contributions to be viable, development without the contribution needs to be feasible in the first instance. If development is not feasible (regardless of contributions), the activity in question will not occur. Therefore, the analysis presumes that the case study selections are feasible to develop even without a RIC.

The contribution impact testing (assuming no change to planning controls) is undertaken in three steps:

1. **Step 1 - Identification of areas and notional development yields for testing**

   Development typologies and notional development yields in select case study locations based on assumed planning controls which are then tested in Step 2 and Step 3.

2. **Step 2 - Baseline feasibility (no RIC or water charge, existing SIC where applicable, existing local contributions)**

   Generic feasibility testing is carried out on sites and notional development yields developed in Step 1. Step 2 testing assumes all applicable statutory fees and charges are payable including local contributions.

3. **Step 3 - Impact testing of a RIC**

   Step 3 includes a RIC to examine the impact on baseline feasibility. The impact of the PC Review's RIC rates is initially tested before alternate rates are tested (if required). Where a SIC is applicable, the RIC is assumed to replace the SIC.

   Step 3 also considers the sensitivity of the impacts of water infrastructure charges (and higher s7.12 residential rates) if they were to be implemented separately and together.

The contribution capacity testing finds that where no notice is given ***and*** where there is no change to planning controls (i.e, no rezoning), impact on feasibility from a RIC is inevitable. This adverse impact will be felt to varying degrees. Low value markets are most vulnerable to the risk of impact where no notice is given.

- In Greater Sydney, a RIC (in and of itself) is observed to generally result in relatively marginal impact, with supportive natural market cycles assisting to mitigate impact.
- In emerging high density markets where sale values are comparatively 'low' to the rest of Greater Sydney, feasibility impacts are observed to be greater.
- Lower residential RIC rates are necessary to better reflect the different pricing dynamics between Greater Sydney and Outer Metro regions. Lower RIC rates in Outer Metro regions - $8,000 per dwelling (House) and $6,000 per dwelling (Other Residential) generally result in more marginal impact, with supportive market cycles assisting to mitigate impact.
- Proposed non-residential RIC rates (Industrial, Commercial, Retail) are tested to be generally tolerated.
- While emerging high density markets in Greater Sydney are vulnerable to impact, the distribution patterns of forecast dwellings over the short and longer-term mean that higher risk markets have the opportunity to evolve and adjust.
- In the Outer Metro regions, while lower value areas in Maitland and Cessnock LGAs are more vulnerable to a RIC, these areas are projected to require comparatively low proportion of future dwellings, and therefore impact to dwelling supply (and by implication development supply) is more marginal.

Commercial and retail markets are among the hardest hit by intermittent and prolonged lockdowns induced by the COVID-19 pandemic. While the commercial and retail RIC rates (in and of themselves) are tested to generally be within tolerance, there is a case for considering a flat RIC rate of $30/sqm for commercial and retail uses, which would provide scope for market recovery and additionally provide relief for the retail sector which is undergoing structural change.

In addition, a flat commercial RIC rate ($30/sqm) would better align with the standard instrument LEP definition of land use terms, where 'office', 'business' and 'retail' are subsets of 'Commercial'.

The key to mitigating feasibility impacts is notice and staged implementation. Advance notice would allow sites already purchased to be progressed and for due diligence investigations to account for the contributions prior to site purchase.

Staggered implementation of various contributions and charges (RIC, water charges, s7.12 rates) is necessary to allow incremental adjustment and avoid 'shocking' the market. Supportive market conditions also act to offset and mitigate impact.

Amenity Uplift/ Accessibility Uplift

All things being equal, the impact of a RIC on sites in receipt of an amenity uplift can be negligible due to an increase in value. When an amenity/ accessibility uplift is accompanied by planning uplift, development feasibility is further enhanced.

Sites that are the beneficiary of amenity and planning uplift are candidates for imposition of a TPC. Where a site is the beneficiary of planning and amenity uplift, there is generally a commensurate increase in site value. It is through this value increase (or Surplus Value) that a site will have the capacity to contribute to a TPC while remaining viable for development

Recommendations

The Study makes a number of recommendations based on observations of the proposed charging methodology and feasibility impact, in particular where impact could undermine development supply.

- **Recommended RIC Rates**

  The Study recommends adopting the PC's residential RIC rates for Greater Sydney. The Study further recommends the Commercial RIC ($30/sqm) applies to Commercial ***and*** Retail floorspace in Greater Sydney and the Outer Metro regions.

  The Study recommends an alternate RIC of $8,000 per dwelling (House) and $6,000 per dwelling (Other Residential) in the Outer Metro regions.

Table ES-2 shows RIC rates that could be considered for Greater Sydney and the Outer Metro regions.

Table ES-2: Potential RIC Rates, Greater Sydney and Outer Metro regions

Region	House ($/dw)	Other Residential ($/dw)	Industrial ($/sqm GFA)	Commercial ($/sqm GFA)	Retail ($/sqm GFA)
Greater Sydney	$12,000	$10,000	$15	$30	$30
Outer Metro regions	$8,000	$6,000	$15	$30	$30

Source: Atlas

- **Additional Unit Charge Rates**

  The Study recommends adoption of a standard RIC charge for land uses not covered by the proposed units of charge. These land uses include non-private dwellings (such as boarding houses, backpackers' accommodation, tourism and visitor accommodation) and other land uses that do not fall within the Industrial or Commercial land use category.

  Assuming demand for local infrastructure from non-private dwellings is addressed by the local contributions framework, the Study recommends the commercial RIC ($30/sqm) is considered for wide application to these uses. This recognises the commercial enterprise associated with the land uses and addresses the PC Review's objective of simplicity.

- **Levy on 'Total' Development**

  The Study recommends that RIC rates are levied on 'total' and not 'net new' development activity. This means that calculation of the RIC does not offset existing buildings. As existing buildings reach the end of the economic useful life and are redeveloped, commensurate contributions from new development would enable state and regional infrastructure to be similarly renewed.

- **Notice, Phasing-in and Staggered Implementation**

  The Study recommends that DPIE provide advance notice (at least 12 months) of new RIC rates to the market with savings provisions applying to applications lodged during this time.

  The Study recommends that implementation of the RIC, water charges, SBC and higher s7.12 rates is staggered over a 3-5 year period, with clear indication provided of when each is to be implemented.

- **Exemptions**

  The Study recommends the following are exempt from a RIC:

  - Social infrastructure (e.g. social and affordable housing, schools, hospitals, etc.)
  - Non-floorspace based development (e.g. data centres, solar and wind farms, eco-tourism resorts).

- **Annual and Periodic Review of RIC**

  The Study recommends that RIC rates are indexed annually to the Producer Price Index (Roads and Bridges).

  Regular review of development activity and take-up of development opportunities should be built into the RIC framework to monitor impacts and implications on development supply in Greater Sydney and the Outer Metro regions.

Clear and definitive notice to the market of DPIE's intentions to implement the RIC would provide certainty for investment so that parties are informed at the outset and able to make informed decisions on site purchase. Over time, market dynamics will adjust as the market accounts for the cost of the RIC.

Glossary of Terms and Abbreviations

Terms

Amenity Uplift	Increase in desirability from improved amenity (which could be due to improved transport accessibility, improved public realm amenity, etc.)
Economic Price/ rent	The price or rent necessary to provide an adequate return on development
Central City	Defined for the purposes of the Study as the Blacktown, Canterbury-Bankstown, Cumberland, Georges River, Hills Shire, Parramatta and Sutherland Shire local government areas.
Eastern City	Defined for the purposes of the Study as the Bayside, Burwood, Canada Bay, Hornsby, Hunters Hill, Inner West, Ku-ring-gai, Lane Cove, Mosman, North Sydney, Northern Beaches, Randwick, Ryde, Strathfield, Sydney, Waverley, Willoughby and Woollahra local government areas.
Greenfield Area	An undeveloped area typically used for agricultural and/or non-urban uses. Greenfield areas are typically not serviced by essential infrastructure such as water, sewerage, gas and electricity.
Growth Area	An area earmarked for future housing development and formally defined under the State Environmental Planning Policy (Sydney Region Growth Centres) 2006.
Illawarra-Shoalhaven	The Kiama, Shellharbour, Shoalhaven and Wollongong local government areas
Infill Area	An existing urban area with development opportunities within existing lot patterns
Hunter	Lower Hunter region comprised of the Cessnock, Lake Macquarie, Maitland, Newcastle and Port Stephens local government areas
Planning Uplift	Increase in development capacity following a rezoning
Surplus Value	Defined as the difference between the assumed site value (under current planning controls) and the site value after a rezoning
Western City	The Blue Mountains, Camden, Campbelltown, Hawkesbury, Fairfield, Liverpool, Penrith and Wollondilly local government areas.

Abbreviations

SBC	Biodiversity Infrastructure Contributions
DPIE	Department of Planning Industry and Environment
GFA	Gross Floor Area
IRR	Internal Rate of Return
IPART	Independent Pricing and Regulatory Tribunal
LEP	Local Environmental Plan
LGA	Local Government Area
NDA	Net Developable Area
PC	Productivity Commission
PPI	Producer Price Index
RIC	Regional Infrastructure Contributions
SIC	Special Infrastructure Contributions
TPC	Transport Infrastructure Contributions
WSA	Western Sydney Airport

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1. Introduction

1.1 Background and Overview

The NSW Government has commenced a comprehensive review of infrastructure funding in NSW to assess its effectiveness and efficiency in delivering public infrastructure to support development.

In November 2020, the NSW Productivity Commissioner (**PC**) published a detailed review (**the Review**) of the infrastructure contributions system in NSW. The Review culminated in 29 recommendations that form the foundation of reform to improving certainty and efficiency on how infrastructure is delivered.

The recommendations on regional infrastructure contribution rates were made *subject to no substantial impacts on feasibility*. In March 2021, the NSW Department of Planning, Industry and Environment (DPIE) accepted the recommendations subject to confirming charging methodology. The PC's recommendations and DPIE's responses are outlined in **Table 1.1**.

Table 1.1: NSW Productivity Commission's Recommendations (2020) and DPIE Response (2021)

Item	Recommendation	DPIE Response
5.1	Adopt regional infrastructure contributions (RIC)	Accept. Savings and transitional arrangements for SIC determinations made prior to 1 July 2022 to be determined.
(i)	Prepare and implement state contributions for Greater Sydney, Central Coast, Hunter and Illawarra- Shoalhaven regions	
(ii)	Greater Sydney region charges (subject to no substantial impacts on feasibility): • $12,000 per dwelling for houses (detached, semi-detached, townhouses) • $10,000 per dwelling for all other residential accommodation • $10/sqm to $15/sqm for industrial • $20/sqm to $30/sqm for commercial • $30/sqm to $40/sqm for retail	Accept. Final rates subject to confirming the charging methodology.
(iii)	Central Coast, Hunter and Illawarra-Shoalhaven region charges (subject to no substantial impacts on feasibility): • $10,000 per dwelling for houses (detached, semi-detached, townhouses) • $8,000 per dwelling for all other residential accommodation • $10/sqm to $15/sqm for industrial • $20/sqm to $30/sqm for commercial • $30/sqm to $40/sqm for retail	

Source: NSW Productivity Commission (2020), DPIE

1.2 Scope and Approach

Atlas Urban Economics (Atlas) is engaged by DPIE to analyse the implications of the Review's recommendations on state and regional infrastructure contributions (**the Study**). The Study reviews the proposed charging methodology and tests the feasibility impact of the recommended RIC rates to inform policy decisions on the RIC framework.

State and regional infrastructure contributions are referred to collectively as 'regional infrastructure contributions' (**RIC**). The proposed RIC rates are fixed dollar rates:

- per dwelling for residential development; and
- per square metre of GFA for non-residential development.

The Study's objectives are to investigate:

- If the proposed RIC rates are appropriate in consideration of impact on feasibility and development supply.
- Suitability of the proposed charging methodology.

The RIC framework comprises the RIC, a standard broad-based component (focus of this Study), which is supplemented by two additional components that are only applied to specific areas within the region. This includes a transport infrastructure contribution (TPC) and biodiversity contribution (SBC). The Study does not specifically test the TPC and SBC but considers potential feasibility impact in the context of the RIC.

Definition of Study Area

The Review recommends two sets of RIC charges - one for Greater Sydney and one for the Central Coast, Hunter and Illawarra-Shoalhaven regions.

"Greater Sydney" comprises the region and LGAs defined in the *Greater Sydney Commission Act 2015 No. 57*.

The "Hunter region" is defined as the Lower Hunter comprising LGAs of Newcastle, Maitland, Port Stephens, Lake Macquarie and Cessnock. The Illawarra Shoalhaven region comprises LGAs of Kiama, Shellharbour, Wollongong and Shoalhaven and the Central Coast region is comprised of the Central Coast LGA. Collectively these are referred to as the '**Outer Metro regions**'.

Structure of the Study

The Study is structured in the following parts and chapters:

- Part A (Chapters 2 and 3) carries out feasibility analysis to test the impact of the RIC in **Greater Sydney**.
- Part B (Chapters 4 and 5) carries out feasibility analysis to test the impact of the RIC in the **Outer Metro regions**.
- Part C (Chapters 6 and 7) reviews the proposed RIC charging methodology, discusses key matters of consideration for implementation and makes recommendations to the proposed RIC charging methodology.

The feasibility analysis in Part A and B relies on a review of case study developments in the respective regions and carries out contribution impact testing assuming there is no change to planning controls (i.e. there is no rezoning).

The Study additionally investigates scenarios where there are planning amendments, i.e. additional development capacity is unlocked by amendments to planning controls. This analysis will assist DPIE understand the 'overall scope' for contributions, not just for regional and state infrastructure but also for local and other infrastructure.

1.3 Assumptions and Limitations

The Study examines at the impacts of the PC Review's recommended RIC charge rates on feasibility by land use. Assumptions are developed in collaboration with DPIE and are additionally drawn from market observations and professional experience.

Land Use Categories

The PC Review utilises broad land use categories in recommending a RIC including - Houses, Other Residential Accommodation, Industrial, Commercial and Retail uses.

The Study has defined these land use categories in accordance with the standard Instrument LEP. **Table 1.2** outlines the various groups of land use that the above land use categories encompass (sourced from the LEP Practice Note on preparing LEPs, issued in 2011).

Table 1.2: Land Use Terms, Subsets and Sub-terms and General Relationships

Land Use	Subsets and Sub-terms of Land Use
Houses[1]	Detached, semi-detached, townhouses[2] (assumed to be synonymous with attached dwellings)
Other Residential	Boarding houses, dual occupancies, group homes, hostels, multi-dwelling housing, residential flat buildings, rural workers' dwellings, secondary dwellings, seniors housing, shop top housing
Industrial	Light industry - high technology industry, home industry, artisan food and drink industry
	General industry - other than heavy industry or light industry
	Heavy industry - industrial activity that requires separation from other development and includes hazardous industry or offensive industry
Commercial	Office premises - does not involve dealing with members of the public on a direct and regular basis, except where such dealing is a minor activity (by appointment)
	Business premises - services directly to members of the public on a regular basis and includes *inter alia*, banks, post offices, hairdressers, dry cleaners, travel agencies, medical centre, etc.
Commercial (specifically Retail)	Retail premises[3] - used for the purposes of selling items by retail or by wholesale and includes *inter alia*, cellar door premises, food and drink premises, garden centres, hardware and building supplies, rural supplies, shops, specialised retail premises, vehicle sales or hire premises, etc.

Source: DPIE (2011)

Notes to Table 1.2:

1 - Under the category 'Houses', the PC Review nominates "detached, semi-detached and townhouses". "House" is not a separate land use category under the standard instrument. "Residential accommodation" is the term used that covers buildings that are used predominantly as a place of residence. Accordingly, residential accommodation other than "detached, semi-detached and townhouses" is assumed (by implication) to fall within the category of 'Other Residential'.

2 - "Townhouse" is not separately defined under the standard instrument. This is assumed to refer to the description of "attached dwellings" as defined in the standard instrument.

3 - "Retail" is a subset term of 'Commercial' in the Standard Instrument LEP.

The Study does not attempt to test the impact of a RIC on all subsets/ sub-terms of the land uses. Generic land use typologies (based on observations of market/ development activity) are developed for the purpose of testing the impact of a RIC.

Development Contributions Other than a RIC

The PC Review makes a number of recommendations with respect contributions that are not related to the RIC that are relevant to the objectives of this Study. The PC's recommendations that are considered relevant to the Study and their implications for the Study are summarised in **Table 1.3**.

Table 1.3: Non-RIC Recommendations Relevant to the Study

Item	Recommendation	Implications for Study Assumptions
4.5	Section 7.11 contribution plans to use benchmark costs IPART to develop and maintain standardised benchmark costs for local infrastructure that reflect the efficient cost of provision.	This could reduce the cost of infrastructure delivery and result in lower or similar s7.11 contribution rates.
4.6	Contribution plans to reflect development-contingent costs only	This could reduce the cost of infrastructure delivery and result in lower or similar s7.11 contribution rates.
(i)	Apply the essential works list to all s7.11 contributions plans	
(ii)	IPART to review the essential works list and provide advice on the approach to considering efficient infrastructure design and application of nexus.	
(iii)	Subject to review by the IPAART issue a revised practice note.	
4.10	Defer payment of contributions to the occupation certificate stage	The impact testing modelling assumes payment at construction certificate stage. This allows for the 'worse case' to be understood from a cash flow perspective.
4.11	Increase the maximum allowable rate for s7.12 fixed development consent levies:	This is likely to result in higher s7.12 contribution rates than currently applicable. These rates are assumed in the Study's impact testing.
(i)	• $10,000 per additional dwelling for houses (detached, semi-detached, townhouses) • $8,000 per additional dwelling for all other residential accommodation • $35/sqm of additional GFA for commercial uses • $25/sqm of additional GFA for mixed uses • $13/sqm of additional GFA for industrial uses	
(ii)	Index contribution rates quarterly using the Producer Price Index (Road and Bridge Construction – NSW) and review periodically (approx. every 3-5 years) to ensure they remain in line with the intended proportion of development costs.	
5.3	Adopt transport contributions for major projects	Major transport projects bring with them an ***amenity uplift*** (due to improved accessibility). This is generally reflected in higher market pricing. Major transport projects are a catalyst for precinct planning, often resulting in rezoning/ upzoning of land within a defined catchment. The Study explores conceptual level how a transport infrastructure contribution (TPC) could be levied.
(i)	Prepare and implement a transport contribution for major projects that: • Is additional to regional infrastructure contributions, as applicable • Applies to properties within a service catchment and is subject to additional development capacity created as a result of the investment	
(ii)	Contribution charges should be established for residential and non-residential uses. A minimum charge of $5,000 per dwelling should be applied, with Transport for NSW required to apply higher charges where costs and benefits are relatively higher.	
5.4	Create a new category of contributions plan specific to biodiversity	The Study considers feasibility impact where a biodiversity infrastructure contribution (SBC) may be proposed.
(i)	Create a new contribution category under Part 7 of the EP&A Act for biodiversity offsets	
(ii)	Prepare, implement a biodiversity contribution for biodiversity certification areas	

Item	Recommendation	Implications for Study Assumptions
5.5	Phase-in metropolitan water charges for more efficient delivery of water infrastructure	Notional water charges assumed in consultation with water authorities

Source: NSW Productivity Commission (2020), Atlas

Feasibility Impact of RIC Rates

The Study highlights that site-specific feasibility impacts are not the issue in question. Feasibility impact is relevant for policy decisions only where that impact risks undermining development supply and achievement of planning objectives.

The objective of contribution capacity testing is to assess the impact of the proposed RIC contribution rates (together with other contributions where applicable).

Due to existing lot and ownership patterns, built form and property values, the modelling of feasibility impact at an aggregate level is complex. Each property is different and when they are consolidated into a development site, their feasibility threshold depends on the land use mix and planning controls that apply.

There will invariably be areas across the Study Area which are subject to planning and policy change. The Study is about testing the impact of the proposed RIC rates, and therefore does not consider the impact of planning policy controls (e.g. arising from precinct planning) to feasibility. The Study does however consider impact of the proposed RIC rates alongside the Review's recommendations on SBC, TPC, water infrastructure charges and s7.12 residential rates.

The underlying premise of the impact testing is that development is feasible ***in the first instance***. If development is not feasible (whether due to lack of market demand or planning controls that are not feasible), the development in question will not occur. As a starting point, the impact testing assumes development is in the first instance feasible (without a RIC).

Limitations

The Study is a generic assessment which makes observations at an aggregate level across Greater Sydney and the Outer Metro regions.

The Study highlights the following limitations:

- It is not possible to examine the impact of the RIC on every land use subset or sub-term. Notional development typologies (considered to be representative of future development activity in Greater Sydney and the Outer Metro regions) are nominated for the purposes of contribution impact testing. Hypothetical development yields are formulated for testing - they are notional only; they have not been urban design or engineering tested.
- Case study areas are selected for the purposes of examining the impact of a RIC by land use, utilising notionally assumed development typologies and yields.
- Generic feasibility testing is based on high-level revenue and cost assumptions and does not consider site-specific nuances typically considered in detailed feasibility analysis.
- A desktop appraisal of 'as is' or existing property values is carried out without the benefit of site inspections or property financial information (i.e. rental income and investment returns).

The Study notes a key difference in approach to feasibility analysis/ 'capacity to pay' studies previously carried out by DPIE for individual Special Infrastructure Contribution (SIC) areas. This Study does not examine impact on a site-by-site basis that capacity to pay studies would typically consider. Rather, 'impact on feasibility' in this Study is considered from a broad regional perspective and its consequent implications for future development supply.

The Study additionally highlights limitations with the data relied upon:

- Data availability is not necessarily congruent with the geographies of analysis.
- Data currency, especially older datasets such as census (ABS, 2016) and population/ dwellings projections (DPIE, 2019).

Despite the assumptions made and limitations of generic feasibility testing, the analysis is considered to be appropriate in examining the impacts of a RIC at a strategic and high-level in the Greater Sydney region and Outer Metro regions.

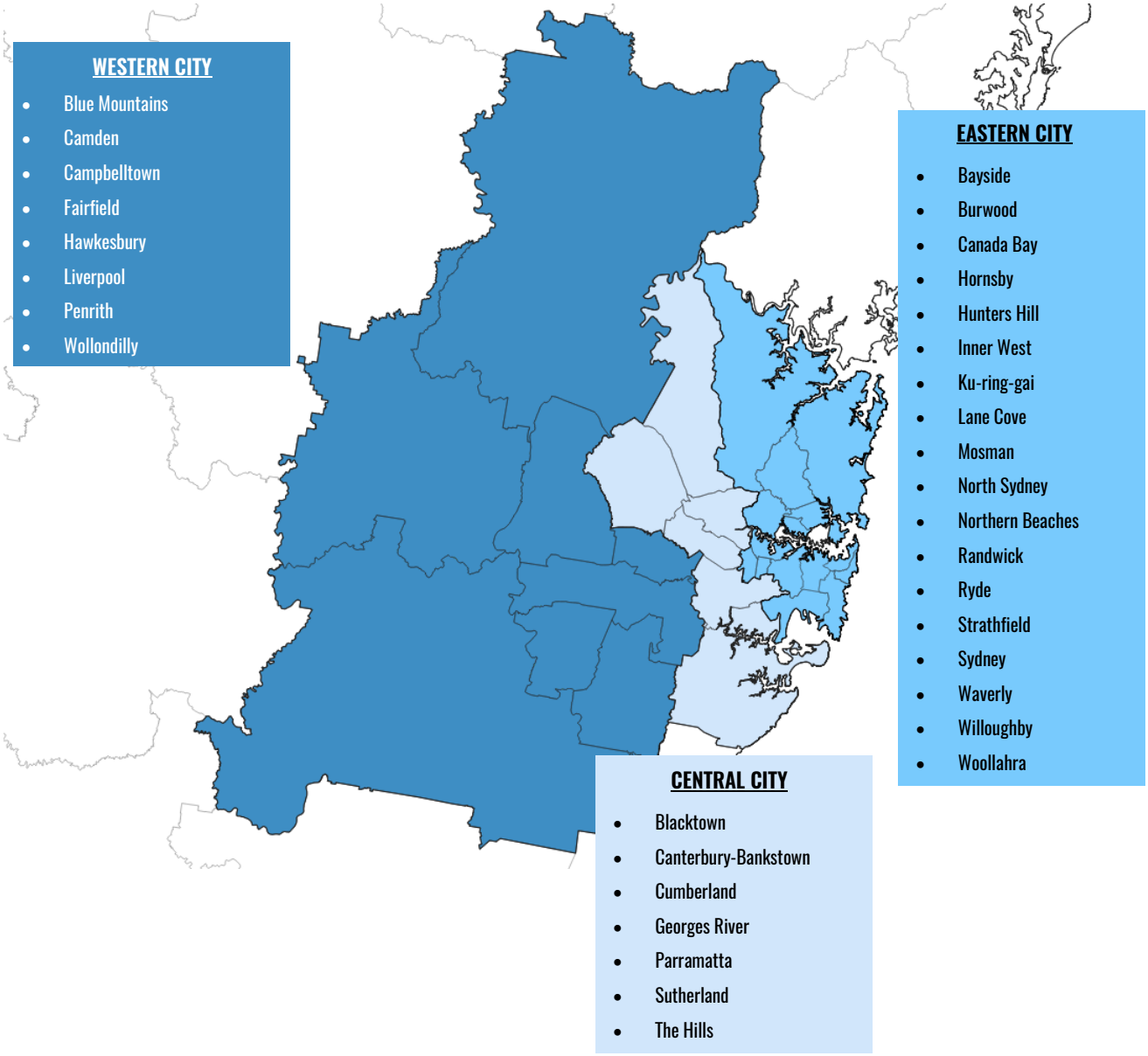
Part A: Feasibility Analysis - Greater Sydney Region

Part A (Chapters 2 and 3) carries out feasibility impact testing on sample location areas in the Greater Sydney region for the purposes of aggregating the observations across the region.

For the purposes of this Study, Greater Sydney is considered in three broad sub-regions – the Eastern City, the Central City and the Western City. These sub-regions are defined by the aggregation of districts from the Greater Sydney Region Plan:

- Western City - comprised of Western City District
- Central City - comprised of Central City District and South District.
- Eastern City - comprised of Eastern City District and North District.

Figure 1.1: Greater Sydney Region



Source: Atlas

2. Case Study Analysis

2.1 Rationale and Parameters of Selection

The PC Review recommends RIC charges, subject to there being no substantial impacts on feasibility. The impact of a RIC on development feasibility is relevant where the impact is substantial and/ or could impact future supply. Accordingly, the issue of impact on feasibility is critical to understand in areas planned for large scale development supply.

The impact of a RIC will differ based on a range of market and economic factors. The selection of case study areas for analysis is made based on the following considerations:

- **Growth Expectations**

  Understanding the impact of a RIC on areas planned for strong growth over the coming decades is critical in ensuring the new contributions do not materially impact on development feasibility and therefore future development supply.

  Areas expected to be beneficiaries of significant and/ or deepening market demand will be better placed to absorb a RIC than areas subject to declining market demand (e.g. in areas experienced declining population growth).

  The analysis focuses on case study areas expected to experience growing market demand and that are planned to contribute to development supply.

- **Market Values**

  Tolerance to new development costs (such as a RIC) is influenced by market dynamics, notably the cost of land and the potential revenue of new floorspace. Whilst market values vary by geographic region and by market, individual markets *within* the same geographic regions can also show significant variance in market values.

  Areas selected include low value and high value areas to consider the role of market values on the impact of a RIC.

- **Change to Planning Controls**

  Areas that are implemented with amended planning controls to accommodate new growth are often the focus of development and market activity. The foreshadowing of amendments to planning controls (e.g. upzoning or rezoning) is often followed by a swift shift in land value expectations.

  Areas selected include areas which could be subject to a change in planning controls.

- **Infrastructure Investment/ Urban Renewal**

  The catalyst for growth and changes to planning controls is in many cases committed infrastructure investment and urban renewal. Similar to the foreshadowing of planning amendments, announcements of infrastructure investment also result in a shift in land values following expectations of amenity uplift/ accessibility uplift. This can often occur even before changes to the planning framework are announced.

  Areas selected include areas where new infrastructure is planned.

- **Other Development Contributions**

  All development contributions cumulatively have an impact on development feasibility.

  The PC Review recommends reform to local contributions (s7.11, s7.12) and to biodiversity and water infrastructure charges. The analysis necessarily makes assumptions on other development contributions (other than a RIC) in examining the impact of a RIC on feasibility.

Case study areas are selected with regard to the above considerations and are a diverse representation of land use markets in Greater Sydney.

The next section describes case study areas selected to understand the impacts of a RIC on feasibility in Greater Sydney.

2.2 Summary of Case Study Areas

Case study areas are selected for their key characteristics and diverse representation of land use markets in Greater Sydney. The rationale and considerations for case study area selection are outlined in Schedule 1.

Table 2.1 outlines an area selection matrix used in the selection of these case study areas.

Table 2.1: Greater Sydney Case Study Areas by Land Use and Selection Criteria

Case Study Area	Growth Expectations	Market Values	Amendments to Planning Controls	Train/ Metro Station	Other Contributions
House					
Edmondson Park	High	Low	No	Existing	s7.11
Schofields	High	Low	No	Existing	s7.11
Warriewood	Low	High	No	No	s7.11
Other Residential					
St Marys	High	Low	Yes	Future	s7.11
Bankstown	High	Med	Yes	Existing / Future	s7.11
Chatswood	Low	High	No	Existing	s7.11, Affordable Housing
Industrial					
Erskine Park	High	Low	No	No	s7.12
Auburn	High	Med	No	No	s7.12
Alexandria	Low	High	No	No	s7.11
Commercial					
Penrith	High	Low	No	Existing	s7.11, s7.12
Sydney Olympic Park	High	Low	Yes	Existing/ Future	Infrastructure Contributions Framework (ICF), Affordable Housing
Macquarie Park	High	Med	No	Existing	s7.11
Retail					
Leppington	High	Low	No	No	s7.11
Marsden Park	High	Low	No	No	s7.11
Green Square	High	Med	No	No	s7.11, Affordable Housing

Source: Atlas

The case study locations are used in Chapter 3 to test the impact of the RIC in Greater Sydney.

3. Impact of Greater Sydney RIC

3.1 Land Use Markets and Property Cycles

A range of macro-economic and local market factors influence patterns of supply and demand across Greater Sydney. Land use and development markets behave differently depending on the nature of demand and the available supply opportunities. Accordingly, the impacts of a RIC will be felt differently by land use as well as by geographic location and sub-market.

3.1.1 Residential

Residential markets across Greater Sydney witnessed robust growth over most of the past decade. Market activity softened over the 2016-2018 period as APRA (Australian Prudential Regulation Authority) sought to tighten residential mortgage lending, prompted by an environment of high and rising household debt, subdued household income growth, historically low interest rates and rising house prices.

Since the onset of the COVID-19 pandemic and forced shutdowns, various government interventions and the lowering of the cash rate by the RBA (Reserve Bank of Australia) have resulted in phenomenal market activity, with dwelling prices witnessing strong growth nationally. This is a result of *inter alia*, the converging of 'cheap debt' and recent accumulated household savings in a restricted housing supply environment.

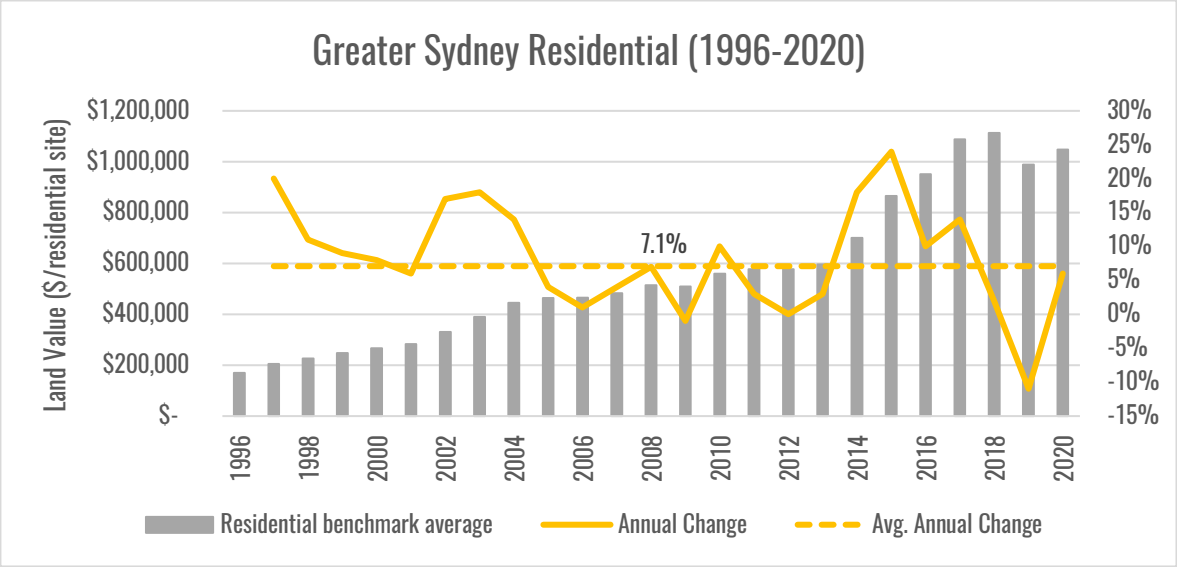
Affordability is a key driver of household decisions, with the issue of affordability driving market demand for medium density typologies (townhouses and low-rise apartments) particularly around train stations and in high retail/ urban amenity areas where existing house values are high.

Market demand for higher-density dwellings in Sydney's outer ring suburbs is influenced by the availability and relative pricing of low and medium-density housing options. The 'trade off' between space and price will continue to underpin the evolution of residential typologies. For instance, if a 3-bedroom detached dwelling is available for $800,000 in the outer ring suburbs, it is unlikely a 3-bedroom unit will yet be able to achieve similar pricing.

The success of new apartment developments in emerging markets (e.g. Edmondson Park, Oran Park, Rouse Hill) can be observed to be underpinned by their proximity to new and/ or established retail centres and transport infrastructure. Market acceptance for higher density residential formats is expected to continue to grow off-the-back of housing affordability and a desire for convenience and high amenity.

Figure 3.1 shows the growth of residential benchmark land values across Greater Sydney, analysing to an average of 7.1% per annum over the 24-year period. The peaks and troughs of the residential market can be readily observed from the graph.

Figure 3.1: Residential Benchmark Land Values (1996-2020)



Source: Valuer General (2021)

Looking Forward - Enduring Demand

The outlook for the residential market is good given its robust economic drivers - population growth, low employment rates and relatively low interest rate environment, which is expected to sustain trend growth.

3.1.2 Industrial

Greater Sydney's industrial market has performed strongly over the 3 years to 2021, buoyed by strong growth in the logistics and e-commerce sectors coupled with strong population growth and need for urban services. This has coincided with historic supply pressures, resulting in fierce competition for industrial property and strong rental and land value appreciation.

Whilst the economic repercussions of COVID-19 and resultant recession being felt across Australia make the outlook for many property sectors uncertain, market conditions in the industrial sector are expected to remain strong due to:

- **Infrastructure Pipeline**

  Large scale transport infrastructure projects underway and in the pipeline stimulating industrial activity.

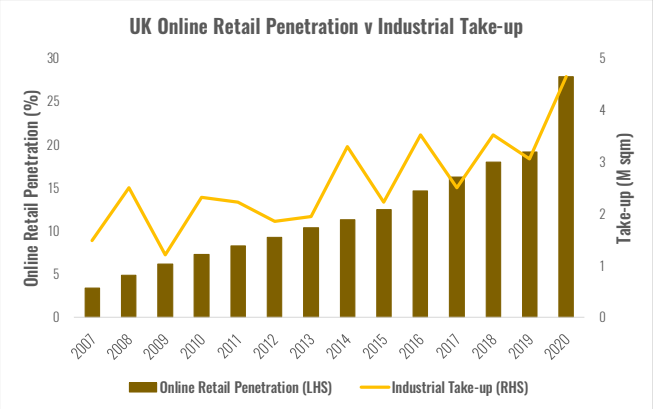
- **Increase in Logistics Activity**

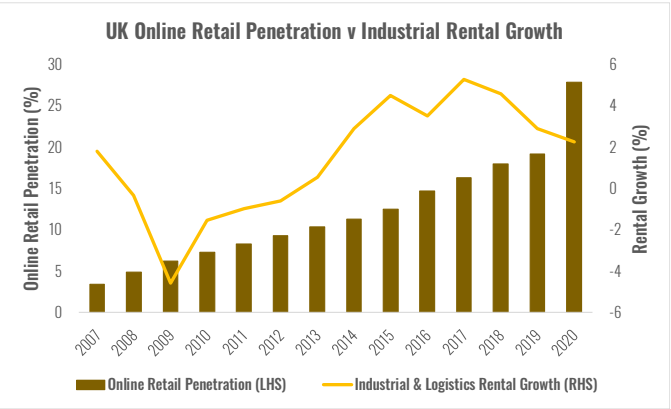
  Uptake in the use of e-commerce platforms by consumers and businesses is driving demand for freight and logistics. This trend is expected to be exacerbated in a post-COVID economy. Australia's online retail penetration was at 12% at the end of 2020 (NAB, 2021) considered to be low in the OECD (Organisation for Economic Co-operation and Development) where the UK and US approached 30%.

  Research suggests that generally online retail requires three times more space than offline retail. This is because online retailers tend to offer more product variety and need greater stock buffers. They also need more space given they ship to customers and directly handle returns.

Figure 3.2: show a correlation between online retail penetration and the demand for logistics space (which equates to rents) in the UK over the 2007-2020 period.

Figure 3.2: UK Online Retail Penetration v Industrial Take-up and Rental Growth (2007-2020)





Source: ONS, Savills, MSCI

Given that online retail penetration is approaching 30% in the UK, it would be reasonable to expect scope potential for the Australian logistics sector if it follows a similar path.

The take-up of online retail and demand for logistics space was already on the rise before COVID-19 and is an example of COVID acting as an accelerant to structural change.

- **Population Growth**

  Stable population growth across Greater Sydney driving demand for urban services which meet local population needs (e.g. waste recycling, automotive services, utilities, small scale manufacturing).

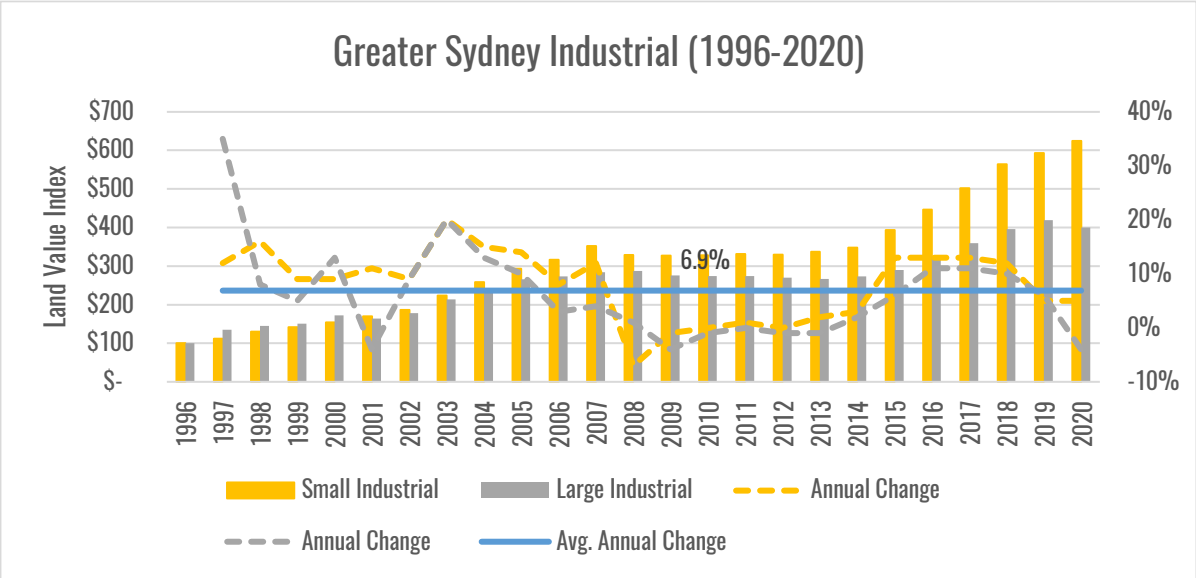
- **Growth in Internet Usage**

  Further growth in internet usage driving demand for data storage in large, purpose-built facilities (i.e. data centres).

These strong tailwinds have resulted in significant investment interest into industrial assets across Greater Sydney in recent years, as institutional investors and real estate trusts seek to increase their exposure to the industrial sector (predominantly freight and logistics). This investment focus is expected to continue and strengthen over the medium and long term.

Figure 3.3 shows industrial benchmark land values achieved an average growth of 6.9% per annum over the 24 years to 2020.

Figure 3.3: Industrial Benchmark Land Values (1996-2020)



Source: Valuer General (2021)

Built Form Typologies

Industrial developments do not generally respond to density in the same way that residential and commercial buildings do (in residential/ commercial tower forms). Requirements for loading/ unloading and large vehicle circulation generally result in low site cover or FSRs ranging from 0.5:1 to 0.7:1 for industrial development.

Like any land use category, the nature of industrial floorspace demand is not homogenous. As a result, there are different industrial typologies that respond to this nuanced demand. It is important for land use and contributions planning to understand the nuanced nature of demand and how land and development markets consequently respond.

Many industrial precincts in established urban areas accommodate a range of business activities (not just industrial activity) including sales, admin and marketing, research and development, etc. Accordingly, industrial built form typologies in these areas typically include higher office content and therefore have higher associated cost and value.

Additionally, competitive conditions (especially in areas where land supply is scarce) result in rising prices which lead to a densification of industrial building formats where land is able to be used more intensely.

Looking Forward - Evolving Typologies

The increase in logistics activity is expected to contribute further to the deepening of market demand for industrial floorspace. Further, as Western Sydney continues its growth trajectory and its population base gains critical mass, the nature of industrial activity undertaken is expected to transition to accommodate a more diverse range of business functions.

Where industrial activity (e.g. distribution, warehousing, manufacturing) may have in the past been undertaken separately to head office/ research & development functions (which may be accommodated in North Sydney or Sydney CBD), as Western Sydney's population and skills base grows, industrial precincts are expected to increasingly accommodate head office functions and higher order activities.

The transitioning nature of business activity undertaken has direct implications for the type of built form that is developed in industrial precincts. Over time, industrial built form typologies in Western Sydney are expected to accommodate higher office content and build specifications of higher quality and amenity.

Industrial built form typologies in established areas (e.g. Botany, South Sydney) are also expected to evolve as land becomes more scarce and expensive, accommodating to varying degrees vertical and multi-level typologies.

The transition of industrial built form typologies in various parts of Greater Sydney will be driven by different factors. They are expected to have similar upward implications for cost and revenue. Trend growth is expected to continue, if not increase, over the future decade as industrial uses continue to evolve to include a range of business functions.

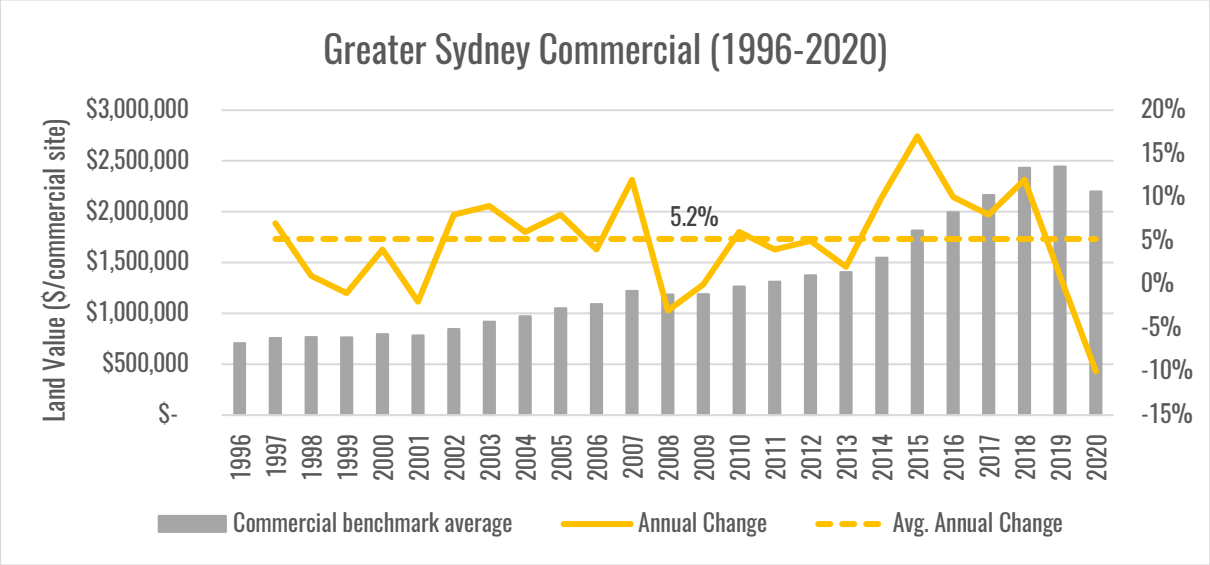
3.1.3 Commercial

Greater Sydney's commercial office market performed strongly over the course of 2015-2019. Historically low vacancy rates, rising rents and limited new net supply in some CBDs led to some businesses to consider alternative locations in Sydney's suburban and city fringe markets. Furthermore, significant infrastructure and business investment in Western Sydney has continued to draw occupiers to suburban markets such as Parramatta and Liverpool.

Market conditions across these markets has been mixed over the 24 months to 2021. Persistent low vacancy levels and rising rents in the Parramatta CBD have driven demand further west as some price-conscious occupiers move into markets such as Norwest, Bankstown and Liverpool where there is more affordable supply. Recent shutdowns have severely impacted occupancy levels in commercial centres, with rising vacancy levels and downward pressure on rental levels inevitable.

Figure 3.4 shows commercial benchmark land values averaged growth of 5.2% per annum over the 1996-2020 period. This covers the 2019-20 period where values experienced (-10%) growth.

Figure 3.4: Commercial Benchmark Land Values (1996-2020)



Source: Valuer General (2021)

Built Form Expectations

Commercial office market trends have experienced rapid evolution over the last decade, driven by a series of structural changes. These structural change drivers have origins in broad, global influences (e.g. growth and adoption of technology) which have affected the way businesses demand and use office space.

The importance of place and building amenity is becoming increasingly important in a post COVID-19 environment, with office floorspace having to work harder to:

- Give employees a reason to return to the office; and
- Convince employers of its productivity returns.

In an environment where there is fierce competition for talent, many employers use their real estate decisions as a recruitment tool. Tenant amenity is a critical ingredient for space competitiveness.

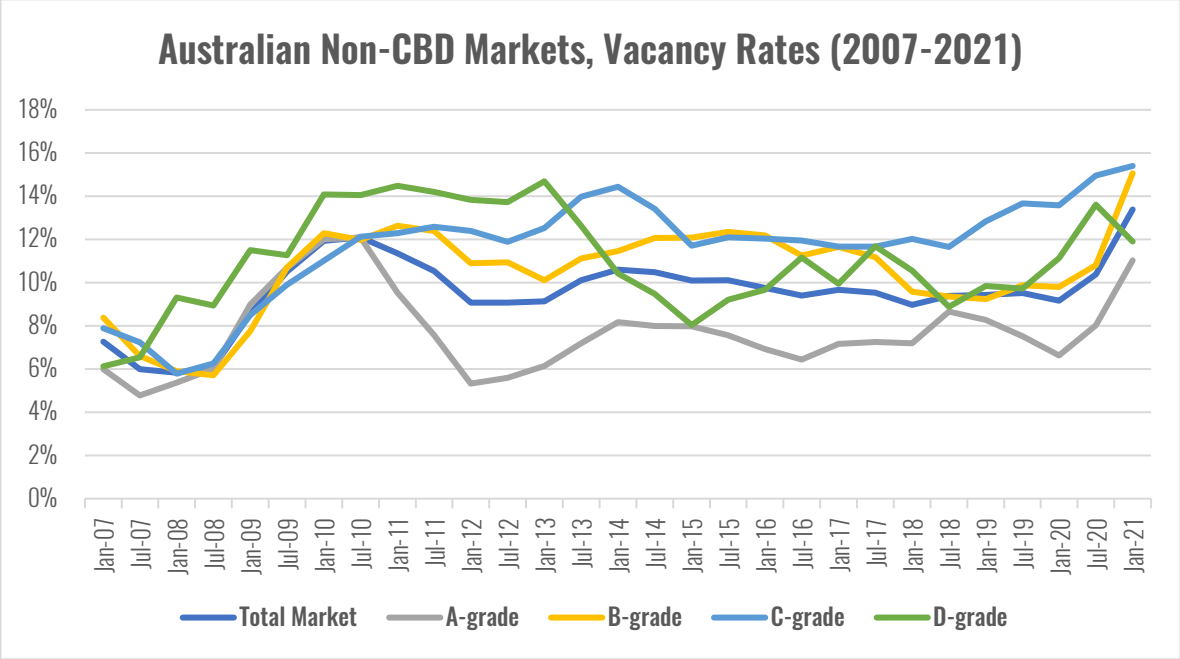
Even before the COVID-19 pandemic and forced shutdowns, the expectations of tenants and workers were already changing. Services or amenity that were once 'nice-to-haves', have over time become 'standard', thereby shifting worker expectations to require even greater levels of quality and amenity from their workspace. Building amenity such as end-of-trip facilities are now expected in a contemporary building with older buildings needing to retrofit such facilities or risk being uncompetitive.

Any economic downturn (such as the present) is invariably accompanied by a rise in vacancy levels as occupiers reduce their occupied footprint or exit their premises.

When tenant demand falls on a large scale, pricing is inevitably affected - incentives rise and effective rents fall as landlords compete for a smaller pool of tenants. This often leads to a 'flight to quality' situation where tenants of secondary space opt for better quality space, obtaining better 'bang for buck' and leaving secondary quality space at risk of prolonged vacancy.

Figure 3.5 illustrates the general vulnerability of secondary grade stock in Australian Non-CBD markets to vacancy; this vulnerability is heightened in any economic downturn.

Figure 3.5: Australian Non-CBD Markets, Vacancy Rates (2007-2021)



Source: PCA (2021)

The graph shows that vacancy rates for secondary grade office (B, C and D-grade) have ***consistently*** been higher than prime secondary grade office (A-grade).

Looking Forward - Shifting Expectations

While a number of structural trends were already at play prior to the COVID-19 pandemic, forced shutdowns over the last 18 months have accelerated the implications of these structural trends on office demand.

Looking forward, the following factors are expected to influence demand for office floorspace:

- A shift in the type of activities undertaken in the office (to include more collaboration and meeting space, high quality amenity and recreation space).
- An increase in tenant expectations on building quality and amenity resulting in more discerning and selective behaviour.
- A need for flexibility - for space to be adaptable for various activity types and for lease tenure to be more flexible.

A 'permanent flight to quality' is expected to be witnessed across the board, as tenants demand more value from their office space. Businesses and employees alike are expected to re-evaluate and experiment with their office footprints, making decisions on an office footprint that would result in better productivity.

In the short and medium term, this means that the office market environment will become more competitive. Landlords will need to ensure their buildings 'work harder' to be competitive. Older buildings will need to be retrofitted with contemporary services (like end-of-trip facilities) and common areas refurbished/ upgraded to preserve building prestige/ image.

The commercial office market is expected to undergo an adjustment period as vacant space is absorbed and secondary grade assets not capable of the required refurbishment accelerate towards the end of their economic useful life. This could present opportunities for adaptive reuse or redevelopment.

Furthermore, there will likely be a 'rebalancing' of commercial uses across major and secondary CBDs and suburban centres.

In any event, as with industrial built form typologies, commercial built form typologies are expected to over time transition to accommodate better quality build and amenity. This has cost and revenue implications for development. Lower than trend growth is likely over the short term until vacancy in the market is absorbed and occupancy levels return to trend.

Over the longer term as international borders re-open and vaccination rates build, the economic drivers of population growth, low unemployment rates and returning business confidence are expected to sustain a return of commercial markets to trend.

3.1.4 Retail

Australia's traditional 'bricks and mortar' retail sector has been facing headwinds for the greater part of the past decade as weak wage growth and growing housing costs have placed pressure on consumer spending patterns. The continued growth of online retailing has also placed significant pressure on bricks and mortar retail, with some local retailers failing to compete.

The retail sector is facing a challenging period following the onset of the COVID-19 pandemic and subsequent shutdowns. Structural trends already unfolding prior to the COVID-19 pandemic have accelerated during this period. Growth in online retail, 'experiential retail' and 'hyper localism' collectively resulted in a changed landscape for retailers and their floorspace.

'Experiential retail' is not new. Consumer preference for a variety of experiences has resulted in careful curation of the retail experience for the consumer in many retail establishments. Artisan food and drink, the ability to select fresh produce in an urban farm, a theatrical experience in food preparation at a restaurant, etc. are examples of how the retail industry is responding to provide UX (the user experience).

Worker preferences have moved away from commuting large distances to work have been mirrored in consumer spending patterns. The aspirational lifestyle of living, working and playing in close proximity supports demand for localised retail facilities which do not require shoppers to travel large distances. This leads to stronger localised networks of retail centres.

Retail floorspace is increasingly provided in a mixed use environment - co-located with commercial and residential uses. The co-location of retail floorspace within a population of resident workers and households contributes a primary trade catchment, contributes to economic sustainability and assists to ensure activation beyond business hours.

Soft market conditions over the short term are generally expected until surplus capacity is absorbed, redundant retail assets are adaptively reused for alternate uses or redeveloped. Over the longer term as international borders re-open, the economic drivers of population growth, low unemployment and returning consumer confidence are expected to sustain a return of market confidence and development activity of retail floorspace.

3.1.5 Long-term Market Growth

Long-term growth rates are a relevant consideration when examining the impact of a new contribution/ charge on development. Section 3.1 examined long-term property cycles and average growth rates in the respective land use markets.

Property markets, like economies, operate in cycles. Property markets are influenced by various economic drivers of demand (e.g. business confidence, employment prospects, jobs and wages growth), interest rates, the availability of capital and the availability of supply to meet demand.

While property markets can be grouped by land use category (e.g. residential, commercial, industrial), these markets are generally more diverse than three property markets. Sub-markets exist by land use and by geography. For the purposes of the Study, it is not possible to examine every property market at every geography. The Study has grouped land use and property markets and made observations in aggregate. This section compares average property land values growth against - Producer Price Index (PPI) and Consumer Price Index (CPI).

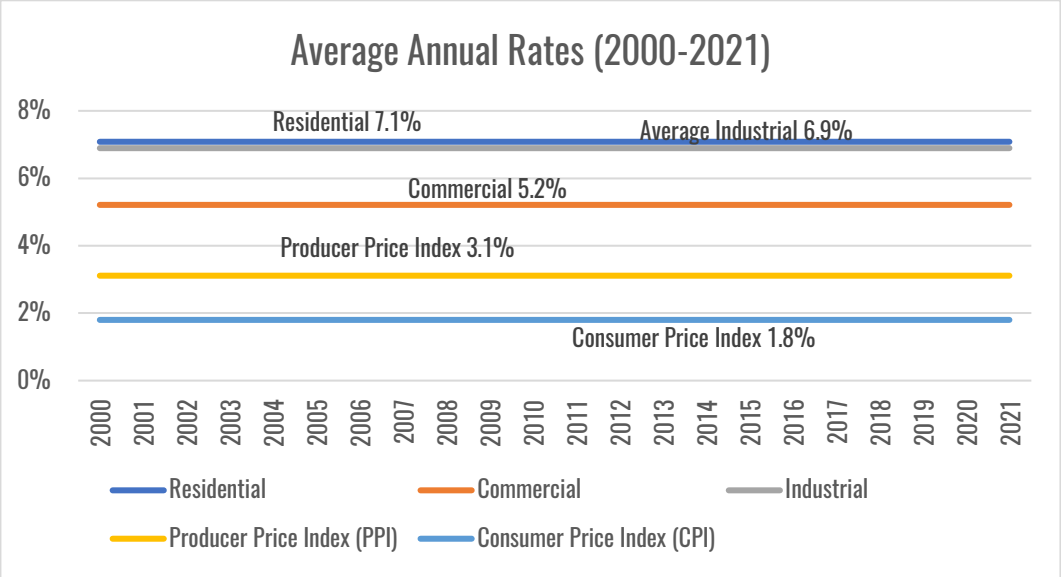
The PPI measures price movements as they enter or leave the production process. An input PPI measures the average change in the prices of all products used by an industry for the production of their outputs. Conversely, the CPI measures cost changes from the viewpoint of the consumer and is a proxy for measuring the cost of living.

The two indices are intended to reveal different aspects of economic activity. The PPI is often used to calculate real growth by adjusting revenue sources for inflation, and the CPI is often applied to calculate changes in the cost of living by adjusting revenue and expense sources. The indices are common economic indicators that measure inflation.

Over the 2000-2021 period, the PPI (roads and bridges) averaged 3.1% per annum and the CPI averaged 1.8% per annum.

Figure 3.6 charts the average annual growth of residential, industrial and commercial land values against PPI (roads and bridges) and CPI over the 1997-2021 period.

Figure 3.6: Comparison of Long-term Trends (1997-2021)



Source: Valuer General (2021), ABS (2021c)

Table 3.1 shows that if price movements measured by PPI were taken as a proxy for the price of construction inputs, net market growth could be inferred to range from 2.1% to 4.0% per annum.

Table 3.1: Average Market Trends (1997-2021)

Land Use Market	Long-term Average	Market Growth (net of PPI)	Market Growth (net of CPI)
Residential	7.1%	4.0%	5.3%
Industrial	6.9%	3.8%	5.1%
Commercial (prior to 2020)	5.2%	2.1%	3.4%

Source: Valuer General (2021), ABS (2021c)

The observed net market growth trends by land use are relevant for the contribution impact testing in the following sections.

3.2 Contribution Impact Testing

This section examines the impact of the proposed RIC rates alone and in the context of proposed s7.12 and potential water infrastructure charges.

Table 3.2 outlines the RIC rates and s7.12 rates assumed (separately and together) in the contribution impact testing.

Table 3.2: Tested RIC and s7.12 Rates

Land Use Type	Tested RIC	Tested s7.12 Rates
Houses (detached, semi-detached, townhouses)	$12,000/ dwelling	$10,000/ dwelling
All other Residential Accommodation	$10,000/ dwelling	$8,000/ dwelling
Industrial	$15/sqm GFA	$13/sqm GFA
Commercial	$30/sqm GFA	$25/sqm GFA
Retail	$40/sqm GFA	$35/sqm GFA

Source: Productivity Commission (2020)

Table 3.3 outlines water infrastructure rates assumed in the contribution impact testing. These are indicative estimates from informal discussions with water authorities Sydney Water and Hunter Water. Some regions (e.g. Central Coast, Shoalhaven LGAs) already pay water infrastructure charges.

Table 3.3: Water Infrastructure Rates ($/dwelling)

Land Use Type	Greater Sydney
Houses (detached, semi-detached, townhouses)	$5,000 to $10,000
Other Residential Accommodation	$3,000 to $5,000

Source: Sydney Water, Hunter Water, Atlas

Water infrastructure charges for non-residential are estimated based on the notional development typologies in section 3.2.2.

The RIC framework comprises a RIC charge and SBC and TPC charges (where applicable). The analysis considers the circumstances under which an SBC and TPC could be required and comments on likely impact to feasibility,

3.2.1 Methodology

For any (additional) contributions to be viable, development without the contribution needs to be feasible in the first instance. If development is not feasible (regardless of contributions), the activity in question will not occur. Therefore, the analysis presumes that the case study selections are feasible to develop even without a RIC.

The contribution impact testing is undertaken in three steps:

1. **Step 1 - Identification of areas and notional development yields for testing**

   Atlas worked with DPIE to identify geographic locations in Greater Sydney for impact testing by land use. This step develops notional development yields based on assumed planning controls which are then tested in Step 2 and Step 3.

2. **Step 2 - Baseline feasibility (no RIC or water charge, existing SIC where applicable, existing local contributions)**

   Generic feasibility testing is carried out on sites and notional development yields developed in Step 1. Step 2 testing assumes all applicable statutory fees and charges are payable including local contributions*.

3. **Step 3 - Impact testing of a RIC**

   Step 3 includes a RIC to examine the impact on baseline feasibility. The impact of the PC recommended RIC rates is initially tested before alternate rates are tested (as appropriate). Where a SIC is currently payable, the tested RIC is assumed to be in place of the SIC.

   Step 3 also considers the sensitivity of the impacts of water infrastructure charges (and higher s7.12 residential rates *where applicable*) if they were to be implemented separately and together.

The results of the impact testing are measured against performance indicators to observe the impact of the RIC on feasibility. The impact of the RIC on feasibility is then considered in the context of future development supply.

***Other Contributions/ Charges Required (Step 2)**

The Study develops assumptions on all applicable statutory fees and charges for the contribution impact testing. Section 1.3 earlier described the rationale for the assumptions adopted for development contributions (other than a RIC).

The following assumptions are made with respect development contributions and other statutory charges in **Step 2**:

- Existing s7.11 and s7.12 contributions plan (or other precinct-specific contributions plan) - similar rates assumed.
- Existing Affordable Housing contributions plan - similar rates assumed.
- Special infrastructure contributions (SIC) where applicable.

These contributions (other than the RIC, water charges and higher s7.12 residential rates) are assumed in Step 2 (Baseline Feasibility) described above.

Performance Indicators

The objective of the contribution impact testing is to assess if, after a RIC, hurdle rates are within acceptable range.

Key performance indicators relied upon are hurdle rates (development margin[1] and project IRR[2]). Benchmark hurdle rates and their 'feasible' ranges by land use typology are indicated in **Table 3.4**.

Table 3.4: Benchmark Hurdle Rates*

Performance Indicator	Commercial and Residential			Industrial		
	Feasible	Marginal to Feasible	Not Feasible	Feasible	Marginal to Feasible	Not Feasible
Development Margin	>20%	18%-20%	<18%	>16%	15%-16%	<15%
Project Return (IRR)	>18%	17%-18%	<17%	>16%	15%-16%	<15%

Source: Atlas

*We note historic low interest rates (which are expected to endure at least for the medium term) have re-set market expectations and lowered benchmark project returns (IRR).

3.2.2 Case Study Typologies and Scenarios Tested

This section carries out contribution impact testing by land use to ascertain the impact of a RIC and water charges on feasibility. The Study highlights that the viability of a contributions framework is underpinned by the underlying feasibility of development. If development is not feasible in the first instance (whether due to lack of market demand or planning controls that are not feasible), the development in question will not occur, regardless of a RIC.

Case Study Areas and Development Typologies

Contribution impact testing in the above scenarios is undertaken for the select case study locations described in Chapter 2.

Hypothetical development typologies (informed by a review of development applications in the select locations) are tested to examine the impact of a RIC, water charge and s7.12 (separately and together) in the context of other contributions.

The tested development typologies are summarised in **Table 3.5**.

Table 3.5: Development Tyologies Tested

RIC Land Use	Location	Site Area (sqm)	GFA (sqm)	Notional Development and Yields
House	Edmondson Park	15,000	n/a	• 34 x 2 storey detached dwellings
	Schofields	3,500	n/a	• 16 x 2 storey townhouses
	Warriewood	3,500	n/a	• 10 x 2 storey detached dwellings
Other Residential	St Marys	900	2,700	• 9 storey mixed use development (30 units)
	Bankstown	2,000	4,700	• 6 storey residential flat building (50 units)
	Chatswood	1,500	2,700	• 7 storey mixed use development (30 units)
Industrial	Erskine Park	14,000	7,000	• Industrial strata units
	Auburn	125,000	70,000	• Warehouse/ offices in various buildings
	Alexandria	3,200	4,000	• Industrial units with office space
Commercial	Penrith	2,500	4,000	• 6 storey commercial building
	Sydney Olympic Park	5,000	15,000	• 6 storey commercial building
	Macquarie Park	8,000	11,500	• 8 storey commercial building
Retail	Leppington	12,000	8,000	• Mixed use (business/ office, specialty retail)
	Marsden Park	20,000	7,500	• Mixed use (business, medical centre, retail)
	Green Square	3,800	23,000	• Mixed use (retail, commercial, residential)

Source: Atlas

[1] Development Margin is profit divided by total costs (including selling costs)
[2] Project IRR is the project return on investment, the discount rate where the cash inflows and cash outflows are equal

Table 3.6 scenarios tested and contributions assumptions in each. The scope of the analysis is to test the feasibility impact of the proposed RIC in a '**No change to planning controls**' scenario.

Table 3.6: Capacity Testing Scenarios and Contributions Assumptions

Ref.	Scenarios Tested	Contributions Assumptions
1	Baseline Feasibility	• All applicable fees and charges, including s7.11 or s7.12, affordable housing contributions • SIC (if applicable) • 3% pa net market growth

2	RIC Impact Testing	• All baseline applicable fees and charges, including s7.11 or s7.12, affordable housing contributions
		• Proposed Residential RIC rates
		  ◦ $12,000 per dwelling (House)
		  ◦ $10,000 per dwelling (Residential unit)
		• Proposed Non-residential RIC rates
		• Alternate RIC rates (as required)

3	RIC, Water Charges, Residential s7.12 Impact Testing	• All baseline applicable fees and charges, including s7.11 or s7.12, affordable housing contributions
		• Proposed Residential RIC rates
		  ◦ $12,000 per dwelling (House)
		  ◦ $10,000 per dwelling (Residential unit)
		• Proposed Non-residential RIC rates
		• Water infrastructure charges:
		  ◦ $7,500 per dwelling (House)
		  ◦ $4,000 per dwelling (Residential unit)
		• Residential s7.12 rates (replacing existing s7.12 rates where applicable)
		  ◦ $10,000 per dwelling (House)
		  ◦ $8,000 per dwelling (Residential unit)

Source: Atlas

Testing Outcomes

In this section a series of graphs illustrates the impact of the ***proposed RIC and water infrastructure charges*** (separately and together) by land use and development typology - residential (house and units), industrial, commercial and retail.

The impact of ***proposed residential s7.12 rates*** is also considered on residential land use typologies (house and units).

Figure 3.7 illustrates the impact of the RIC and water charges (separately and together) on development margin for House typologies and **Figure 3.8** the impact of a RIC on development margin for Residential Units.

Figure 3.7: Impact of a RIC (and water charges), House

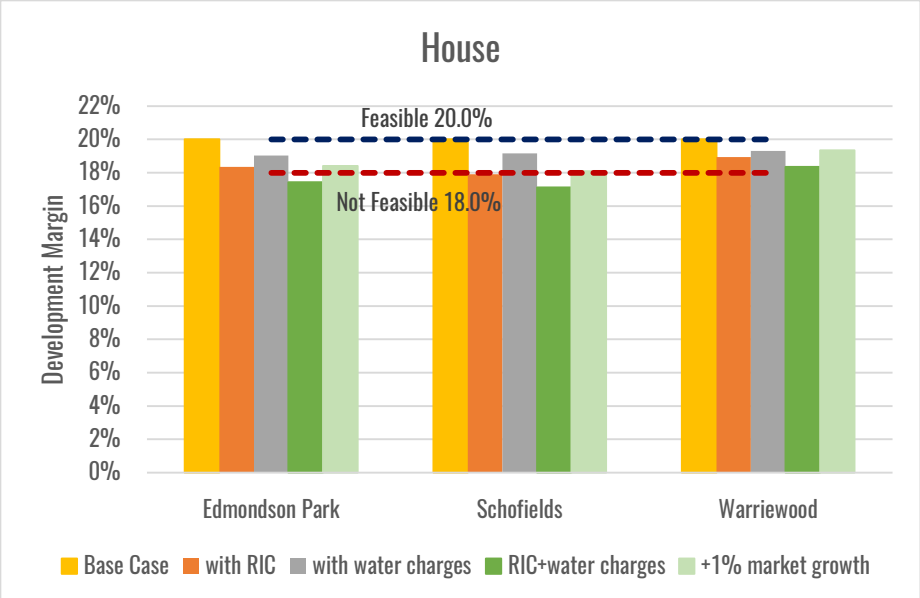


Figure 3.8: Impact of a RIC (and water charges), Other Residential

Source: Atlas

The following observations are made with respect the impact of tested RIC rates on residential development feasibility:

- Low value markets are most vulnerable (from an impact perspective) to a RIC. This includes high density residential markets that are emerging (e.g. in Western Sydney markets such as Bankstown, Liverpool, St Marys, etc.) Impact to high value markets is more minor where the margin reduces from Feasible to Marginal-to-Feasible.
- If the RIC rates were implemented concurrently with water charges, the impact results in development that is Not Feasible, with the exception of 'high value' markets tested (e.g. Warriewood and Chatswood).
- Natural market cycles assist to offset the impact of the RIC, with 1% of additional market growth offsetting its impact.

The analysis shows a lower rate of $8,000 per dwelling provides impact relief to high density residential markets that are emerging and yet to establish (which are characterised by low values). The lower RIC is less material for higher value markets.

Figure 3.9 and **Figure 3.10** illustrate the impact to development margin when the proposed s7.12 residential levies are included. Different areas are tested for this purpose - only locations that are subject to s7.12 residential levies are selected.

Figure 3.9: Impact of a RIC (and water charges and higher s7.12), House

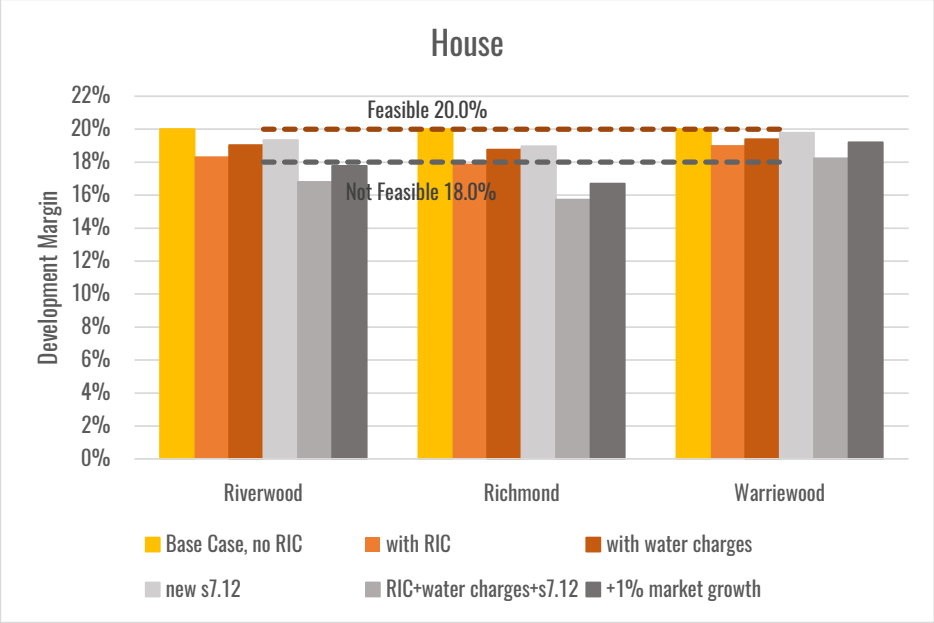
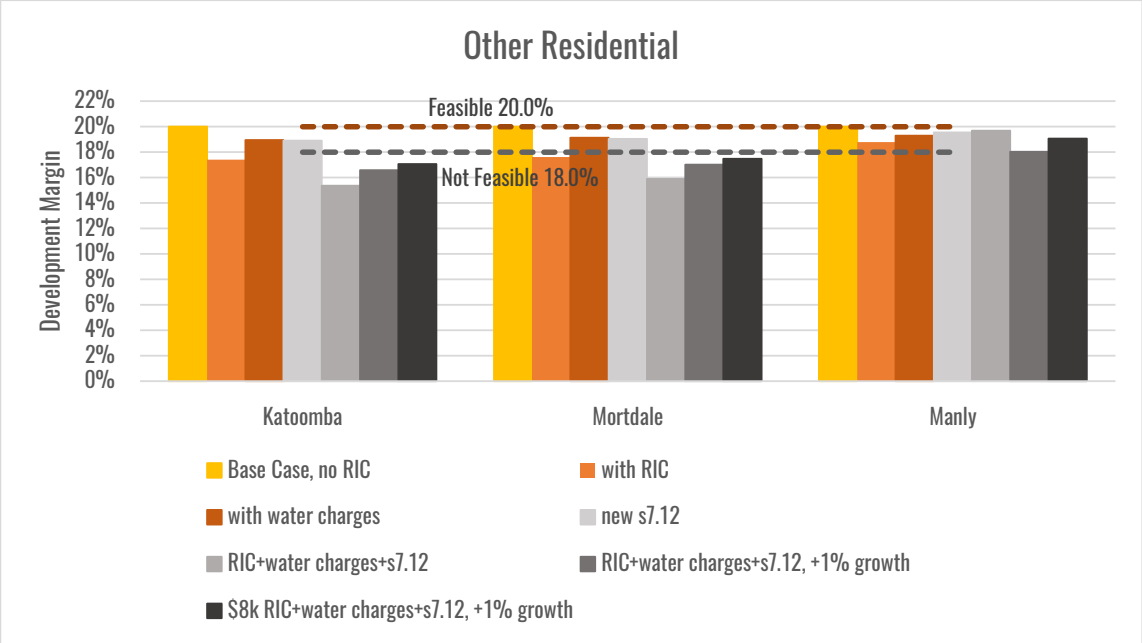


Figure 3.10: Impact of a RIC (and water charges and higher s7.12), Other Residential



Source: Atlas

The following observations can be made when also considering impact of higher s7.12 levies:

- Low value markets are similarly most vulnerable (from an impact perspective) to additional contributions.
- If implemented ***separately***, the tested RIC, water charges and s7.12 residential levy are generally tolerated, the margin reducing from Feasible to Marginal-to-Feasible.
- If the RIC was implemented concurrently with water charges and s7.12 levies, the impact to feasibility can be severe in lower value markets where development is Not Feasible. 'High value' markets tested (e.g. Manly) are less at risk of impact.

The analysis illustrates the importance of a staggered and phased-in implementation of the RIC and other contributions.

Industrial

This section carries out impact testing of the RIC on various industrial typologies:

- Industrial strata units - Erskine Park;
- Warehouse/ office in various buildings - Auburn; and
- Industrial units with office space - Alexandria.

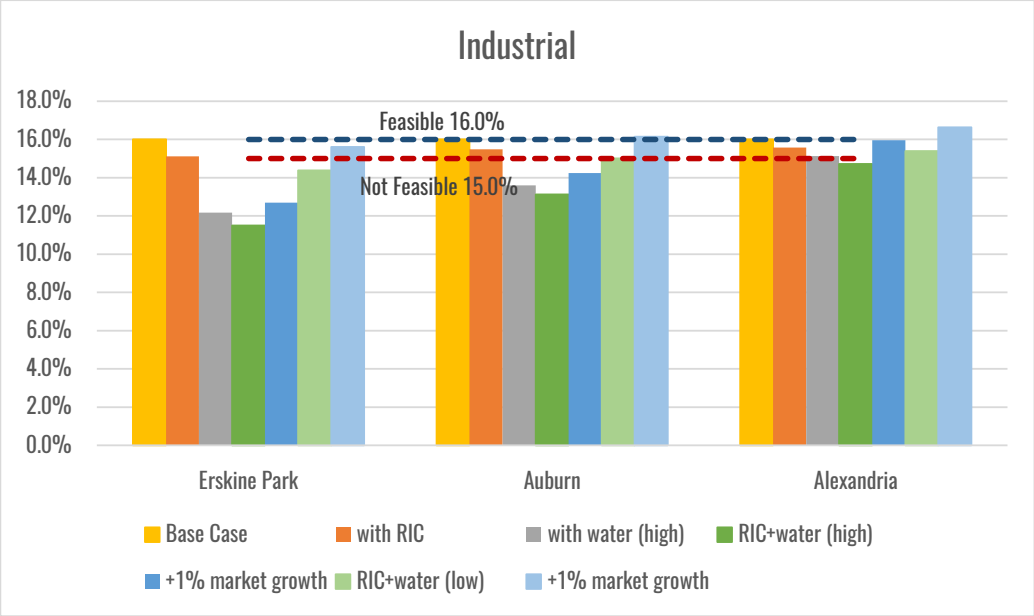
Impact of the RIC on the nominated development typologies are tested in the various contribution and growth scenarios. A RIC of $15/sqm GFA is tested on Industrial typologies with a notional water charge assumed.

Informal discussions with water authorities Sydney Water and Hunter Water indicate water charges for industrial development can vary widely. An industrial use with a high water load or discharge requirement (which could be related to a proposed manufacturing/ production process) would attract a high water infrastructure charge compared to a warehousing/ logistics use with a comparatively lower water requirement.

It is therefore difficult to accurately estimate water charges for this land use for impact testing. The testing estimates two scenarios of water charges - high and low. These 'bookends' help frame the impact testing outcomes.

Figure 3.11 illustrates the impact to development margin on Industrial typologies.

Figure 3.11: Impact of a RIC (and water charges), Industrial



Source: Atlas

The following observations are made with respect the impact of tested RIC rates on industrial development feasibility:

- The tested RIC rate (in and of itself) is generally within tolerance, with feasibility experiencing impact and remaining 'Marginal-to-Feasible'.
- Inclusion of a water charge in developments of lower density (<FSR 0.8:1) results in greater impact (as charges are assumed based on site area).
- Low value markets are most vulnerable (from an impact perspective) to a RIC and water charges. Impact to high value markets is more minor.
- Natural market cycles assist to offset the impact of the RIC.

Looking forward, as industrial development typologies continue to transition (from basic warehouse/ sheds to hybrid typologies that combine multiple business functions), a commensurate increase in cost and revenue is expected and water infrastructure charges would reduce if the water requirement was lower.

While tested RIC of $15/sqm is tolerated (on its own), it is critical that water and other charges are staggered appropriately. If appropriately staged, it is conceivable a higher RIC than $15/sqm could be tolerated in Greater Sydney.

Commercial

Impact testing of the RIC on commercial development in Penrith, Sydney Olympic Park and Macquarie Park is undertaken in various contribution and growth scenarios. A RIC of $30/sqm GFA is tested on Commercial typologies while a notional water infrastructure charge is assumed.

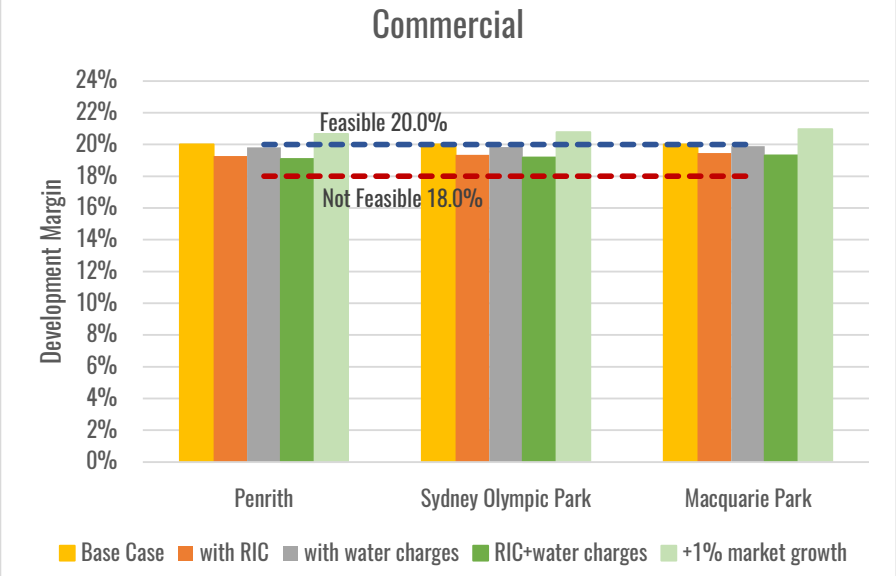
The following observations are made with respect the impact of tested RIC rates on commercial development feasibility:

- The tested RIC rate is within tolerance and development being Feasible-to-Marginal, with natural/ cyclical growth assisting to offset the impact.
- The inclusion of a water charge in development (separately and together) is generally tolerated.
- Natural market cycles assist to offset the impact of the RIC, with 1% of additional market growth offsetting its impact.

The pricing profile of commercial development is varied, with higher cost and revenue pricing in established markets such as North Sydney, Parramatta, Sydney CBDs compared to emerging commercial markets of Penrith and Liverpool.

Figure 3.12 illustrates the impact to development margin on Commercial development.

Figure 3.12: Impact of a RIC (and water charges), Commercial



Source: Atlas

Looking forward, commercial development typologies are expected to respond to tenant expectations of greater amenity and quality. This is expected to have further cost and revenue implications.

Commercial markets have recently been hard hit by intermittent and prolonged shutdowns. The viability of new commercial development in the immediate term will invariably be affected, as developers may delay commencement until pre-commitments can be secured. If new commercial development is not feasible in the first instance (without the RIC), the issue of the RIC and its impact is moot as that development will not occur.

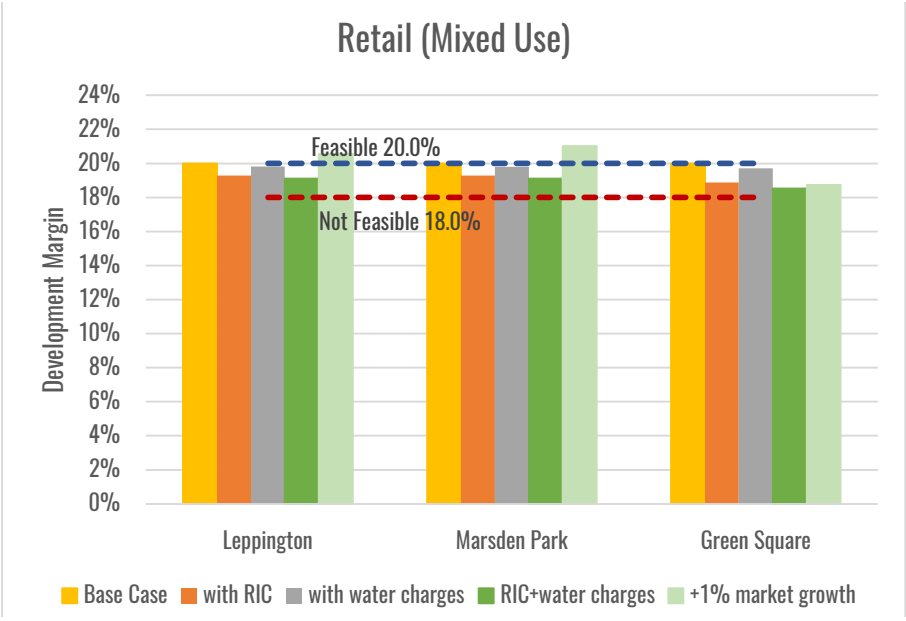
The tested RIC of $30/sqm is observed to be generally tolerated, providing scope for market recovery as vacancies recede.

Retail

Impact testing of the RIC on retail developments in Leppington, Marsden Park and Green Square. A RIC of $40/sqm GFA is tested on Retail typologies with a notional water infrastructure charge assumed. As retail development is assumed to occur in mixed use typologies, different RIC rates are assumed to apply.

Figure 3.13 illustrates the impact to development margin on retail (mixed use) development.

Figure 3.13: Impact of a RIC (and water charges), Retail



Source: Atlas

The following observations are made with respect the impact of tested RIC rates on retail development feasibility:

- The tested RIC rate is generally within tolerance and development being Feasible-to-Marginal, with natural/ cyclical growth assisting to offset the impact.
- The inclusion of a water charge in development (separately and together) is generally tolerated.
- Natural market cycles assist to offset the impact of the RIC, with 1% of additional market growth offsetting its impact.

Retail markets (along with commercial markets) are among the hardest hit by intermittent and prolonged shutdowns. The viability of new (convenience-based) retail development is generally positive, with discretionary retail floorspace arguably more challenging from a viability perspective.

If new retail development is not feasible in the first instance (no RIC), the issue of the RIC and its impact is moot as that development will not occur. If new retail development is feasible in the first instance, the tested RIC at $40/sqm is observed to be generally tolerated by various retail typologies, providing scope for market recovery to occur as vacancies recede.

3.3 Observations of Impact

Growth markets which are the beneficiary of rising/ deepening market demand are better placed to absorb a RIC. Broadening market demand and natural market cycles result in more favourable sale metrics (i.e. rents and prices, take-up and sale rates) that help to offset any increase in development contributions.

In existing urban areas, the feasibility of development is influenced by a myriad factors including the cost of land. Where existing buildings are functional and valuable, their value may be too high to be economically feasible for redevelopment. Sites that are not feasible to develop in the first instance have no capacity to contribute to infrastructure.

3.3.1 Impact of a RIC on Feasibility

Where there is no change to planning controls (i.e, no rezoning), adverse impact to feasibility is inevitable. Contribution impact testing in section 3.2 makes the following observations:

- A RIC (in and of itself, applied separately) is observed to generally result in relatively marginal impact, with supportive natural market cycles assisting to mitigate impact.
- In emerging high density markets where sale values are comparatively 'low' to the rest of Greater Sydney, feasibility impacts are observed to be greater.
- Where a SIC is currently payable, there is marginal impact from a RIC.
- With advance notice provided to the market, the impact to feasibility is mitigated with developers able to account for the contributions during due diligence prior to site purchase.
- Concurrent implementation of a RIC with water infrastructure and the proposed residential s7.12 rates (with no advance notice to the market) could act to 'shock' the market and result in severe impact to feasibility.

The key to mitigating feasibility impacts is notice and staged implementation. Advance notice would allow sites already purchased to be progressed and for due diligence investigations to account for the contributions prior to site purchase.

Staggered implementation of various contributions and charges (water charges, s7.12 rates) would allow incremental market adjustment and avoid 'shocking' the market. Supportive market conditions also act to offset and mitigate impact.

Implications of COVID-19

Australia has arguably largely been in control of infection outbreaks, however with the recent extended shutdowns and restrictions having been in place since June 2021, business and investment sentiment has been shaken. As Australia reaches its target vaccination rates and international borders re-open, business and investment confidence is expected to rebound.

Commercial and retail markets are among the hardest hit by intermittent and prolonged lockdowns. While the commercial and retail RIC rates (in and of themselves) are tested to generally be within tolerance (and in some cases indicating scope for higher rates), there is a case for considering application of the Commercial RIC rate of $30/sqm, which would provide scope for market recovery and additionally provide relief for the retail sector which is undergoing structural change.

3.3.2 Market Maturity and Depth of Demand

The large geographic expanse of Greater Sydney is characterised by multiple land use and property markets and sub-markets. These markets are driven by diverse economic factors that result in varying behaviour and response to policy interventions.

Land use and property markets are driven by patterns of supply and demand, which then influence pricing levels (which can be used as a proxy for understanding market demand). Demand metrics (prices and rents, vacancies, incentives and yields) are useful indicators of market characteristics and depth of market demand.

The price the market is willing to pay for floorspace has direct implications for the capacity of development to feasibly make development contributions.

A Hierarchy of Markets

A clear hierarchy of prices in all land use markets exists in Greater Sydney. Overall, areas in the Eastern City have the highest price levels. This suggests a commensurate capacity to pay for development contributions. The cost of production however, is also relevant to consider, and is typically higher in higher-priced areas where market expectations of quality and amenity are greater.

The cost of land is a key driver of the higher cost of production, with fragmented ownership patterns and valuable existing buildings together making it expensive to acquire and consolidated development sites. Markets in higher priced areas are also more discerning, requiring better quality build and inclusions, thereby resulting in a higher build cost.

Areas in the Western City and parts of the Central City are generally at the lower end of the price hierarchy. The cost of production can still be challenging where ownership patterns are fragmented and trunk and services infrastructure lags in lower priced areas. Additionally, market willingness to pay for higher density product in lower priced areas can be fragile.

The hierarchy of markets can be illustrated by the variance in median house prices:

- In the Western City, median house prices are less than $880,000.
- In the Central City, median house prices range from $880,000 to 1.4 million
- In the Eastern City, median house prices range from $1.4 million to $4.4 million.

Similar to the residential market, demand and pricing for commercial and industrial land uses are highest in the Eastern and Central City compared to the Western City. For instance:

- Commercial office rents in the Eastern City are, on average, some 133% higher compared to the Central City.
- Industrial land values in the Eastern City can in some sub-markets be three times higher than the Western City.

The impact testing in section 3.2 shows that the feasibility of development in low value areas is most vulnerable to a RIC (assuming no notice were provided to the market).

The Study however notes that the Western City and Central City are expected to accommodate significant population growth, the corollary of which will be deepening market demand for various types of floorspace.

Growth Expectations and Scope for Deepening Market Demand

Established markets are generally focused in the Eastern City and parts of the Central City. These markets are accessible and have the benefit of established catchment areas.

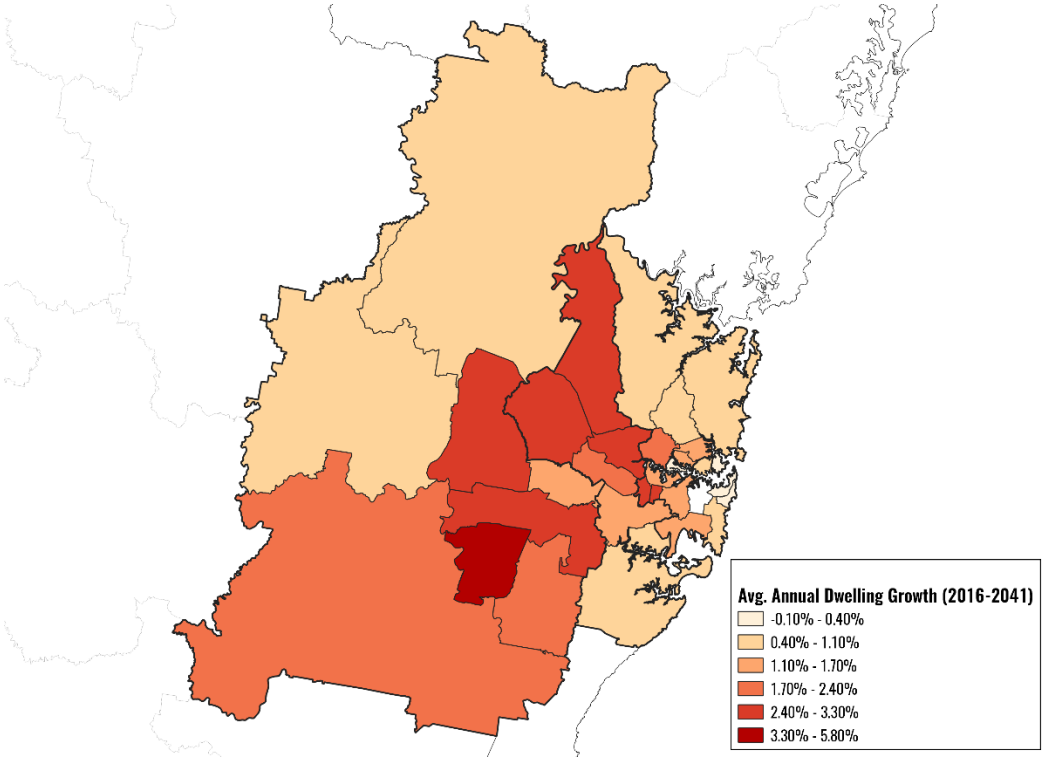
There are many parts of Greater Sydney that are emerging as established markets as growing populations of workers and households underpin development momentum and demand for different types of floorspace. As these markets establish, developers are expected to respond to deepening market demand.

The population in different parts of Greater Sydney is expected to grow at different rates over 2016-2041, requiring:

- 234,000 more dwellings in the Eastern City (24% of Greater Sydney's dwelling need)
- 411,000 more dwellings in the Central City (42% of Greater Sydney's dwelling need)
- 332,000 more dwellings in the Western City (34% of Greater Sydney's dwelling need)

Figure 3.14 illustrates projected distribution of average annual dwelling growth to 2041. In average annual growth terms, the Western City has the highest pace of growth (coming off a low base). In dwelling number terms, the Central City has the largest number of new dwellings, providing for more than 40% of Greater Sydney's dwelling need.

Figure 3.14: Average Annual Dwelling Demand Projections (2016-2041), Greater Sydney

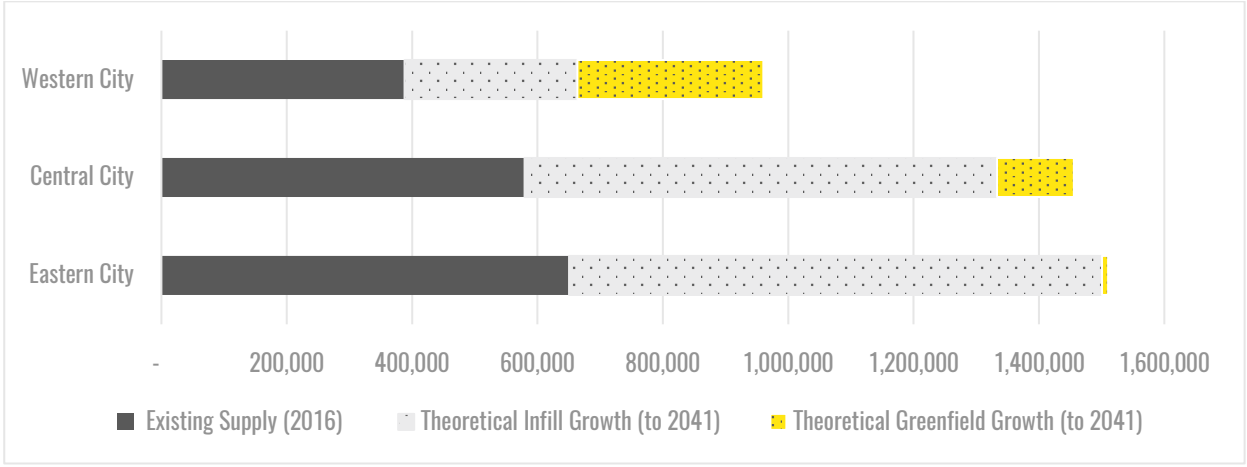


Source: DPIE (2019)

Figure 3.15 illustrates dwelling capacity (estimated by various councils) in Greater Sydney by greenfield and infill areas.

Based on the distribution of estimated development capacity, medium and higher density typologies are expected to be the predominant form of new housing in the Central and Eastern City, whereas new housing in the Western City could be relatively evenly distributed between low and higher density formats.

Figure 3.15: Greater Sydney, Estimated Dwelling Capacity by Typology



Source: Various Local Housing Strategies (see Reference List)

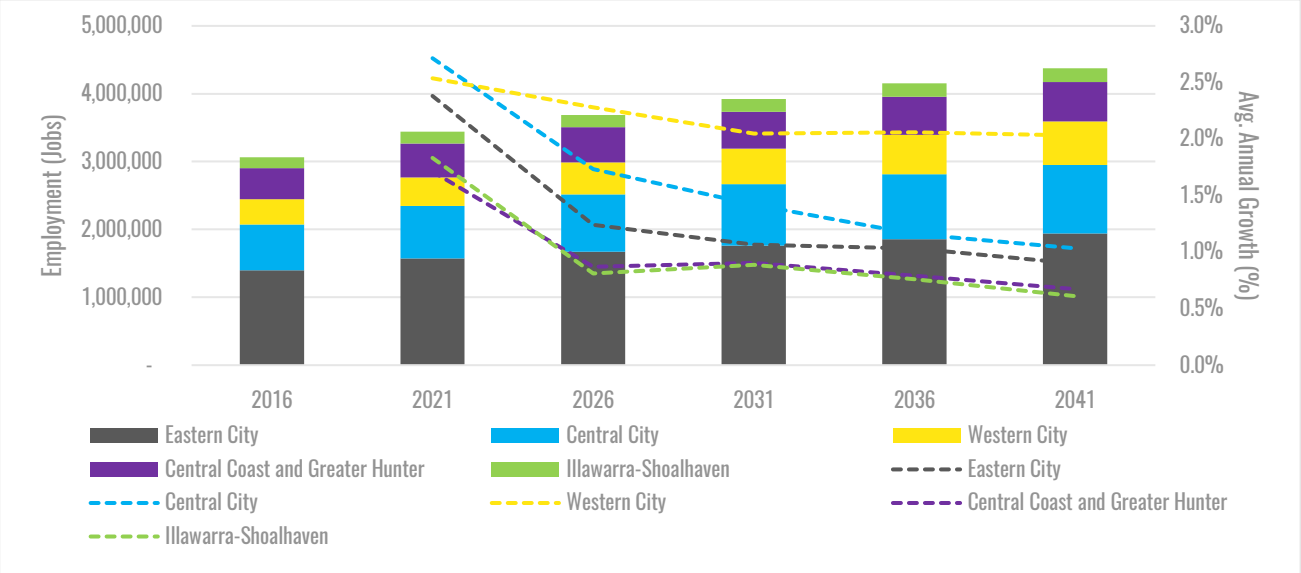
Future employment growth expectations are also different across parts of Greater Sydney. The Eastern City is expected to attract the majority of future employment growth (in terms of number of jobs). In terms of annual growth, the Western City is expected to have the highest growth (coming off a low base).

Employment projections by Transport for NSW suggest that over 2016-2041:

- The Eastern City could accommodate 543,000 new jobs (growth of 39%)
- The Central City could accommodate 332,000 jobs (growth of almost 50%)
- The Western City could accommodate 267,000 jobs (significant growth of around 72%)

Figure 3.16 depicts the quantum and pace of employment growth expected in Greater Sydney over 2016-2041.

Figure 3.16: Employment Projections (2016-2041)



Source: TPA (2019)

Property markets are influenced by various economic drivers of demand (e.g. population growth, business confidence, employment prospects, jobs growth), interest rates, the availability of capital and the availability of supply to meet demand.

It is therefore reasonable to expect that emerging markets (currently low value areas) will respond to the relevant economic drivers, thereby providing scope for market demand to deepen which will then support development activity.

Western Sydney has been the beneficiary of keen development and investment interest, with active site consolidation occurring in recent years. An analysis of historical dwelling completions over 1999-2020 indicates that nearly 60% of Greater Sydney's net dwelling completions occurred in the Western City and Central City.

Depending on location, new development has the capacity to transform the urban realm and ground plane, thereby making the broader precinct more accessible and amenable to work and live in. As the image and market desirability of an area improves, demand and pricing increase, thereby improving project feasibility. An environment of increasing desirability and market appeal assists to mitigate and offset any increase in development contributions.

The principal consideration for the viability of any contributions framework is ***demand***.

In the current COVID-19 environment where demand has retreated for a range of floorspace types and uses, development activity may not be viable regardless of contributions. Therefore, any contributions requirement will not be tolerated.

As an example, hotel trading conditions in the Sydney CBD were observed to have generally slowed in the 2019 calendar year, broadly attributed to a surge in new supply and completions. This resulted in purchaser reticence in 2019 due to softer trading conditions. Following the significant collapse in demand for hotels and other short-term accommodation facilities in 2020, it will conceivably be some years before new hotel development activity will become viable again. Notwithstanding these comments, there are market participants who take a long-term view, planning for future development in anticipation of a market recovery.

3.3.3 Significance of Impact on Dwelling and Development Supply

Infrastructure contributions are expected to be predominant in high growth areas (aligning with development activity).

Understanding the nature and distribution of future growth in Greater Sydney is critical to understanding the implications of a RIC rate/s on feasibility and ultimately on the delivery of supply to support Greater Sydney's future growth. Patterns of growth also have implications for infrastructure and the need for contributions to fund that infrastructure. It is important to consider the impacts to feasibility in this context.

Historical Dwelling Completions

Table 3.7 summarises net dwelling completions over the 12-year period to June 2020. Sydney's growth areas straddle the LGAs of Blacktown, Camden, Campbelltown, Liverpool, Penrith and Wollondilly. These Growth Area LGAs accounted for approx. a quarter (25.7%) of net dwelling completions, with majority comprising one net dwelling completion ("detached").

Table 3.7: Net Dwelling Completions, Growth Area LGAs and Greater Sydney (FY99-FY20)

LGA	Detached*	Multi-Unit*	Total	Detached	Multi-Unit	Total
Greater Sydney	164,986	368,866	533,852	30.9%	69.1%	100.0%
Growth Area LGAs	99,817	37,491	137,308	**60.5%**	**10.2%**	**25.7%**
Blacktown	32,716	12,228	44,944			
Camden	22,155	1,382	23,537			
Campbelltown	9,878	4,504	14,382			
Liverpool	19,954	9,405	29,359			
Penrith	11,204	9,147	20,351			
Wollondilly	3,910	825	4,735			
Non-Growth Area LGAs	**65,169**	**331,375**	**396,544**	**39.5%**	**89.8%**	**74.3%**

Source: DPIE (2021))

*"detached" does not refer to the dwelling type (i.e. it does not refer to a freestanding dwelling). The term "detached" is used to denote the net number of dwellings. If a development results in one net dwelling completion (e.g. a two-unit development that demolishes one house), the net dwelling completion is categorised as "detached".

"multi-unit" refers to a net dwelling completion that is more than one. If a development results in two or more net dwellings (e.g. a three-unit development that demolishes one house), the net dwelling completion is categorised as "multi-unit".

The 10 LGAs that accommodated more than 60% of net dwelling completions are summarised in **Table 3.8**.

Table 3.8: Net Dwelling Completions, Top 10 LGAs and Greater Sydney (FY99-FY20)

LGA	Detached*	Multi-Unit*	Total	Detached	Multi-Unit	Total
Greater Sydney	164,986	368,866	533,852	30.9%	69.1%	100.0%
Top 10 LGAs	99,817	37,491	137,308	**74.2%**	**54.6%**	**60.6%**
Bayside	831	23,571	24,402			
Blacktown	32,716	12,228	44,944			
Camden	22,155	1,382	23,537			
Canterbury-Bankstown	4,516	17,916	22,432			
Cumberland	4,864	19,211	24,075			
Liverpool	19,954	9,405	29,359			
Parramatta	4,284	39,017	43,301			
Penrith	11,204	9,147	20,351			
Sydney	844	62,052	62,896			
The Hills	21,069	7,294	28,363			
Rest of Greater Sydney	**42,549**	**167,643**	**210,192**	**25.8%**	**45.4%**	**39.4%**

Source: DPIE (2021)

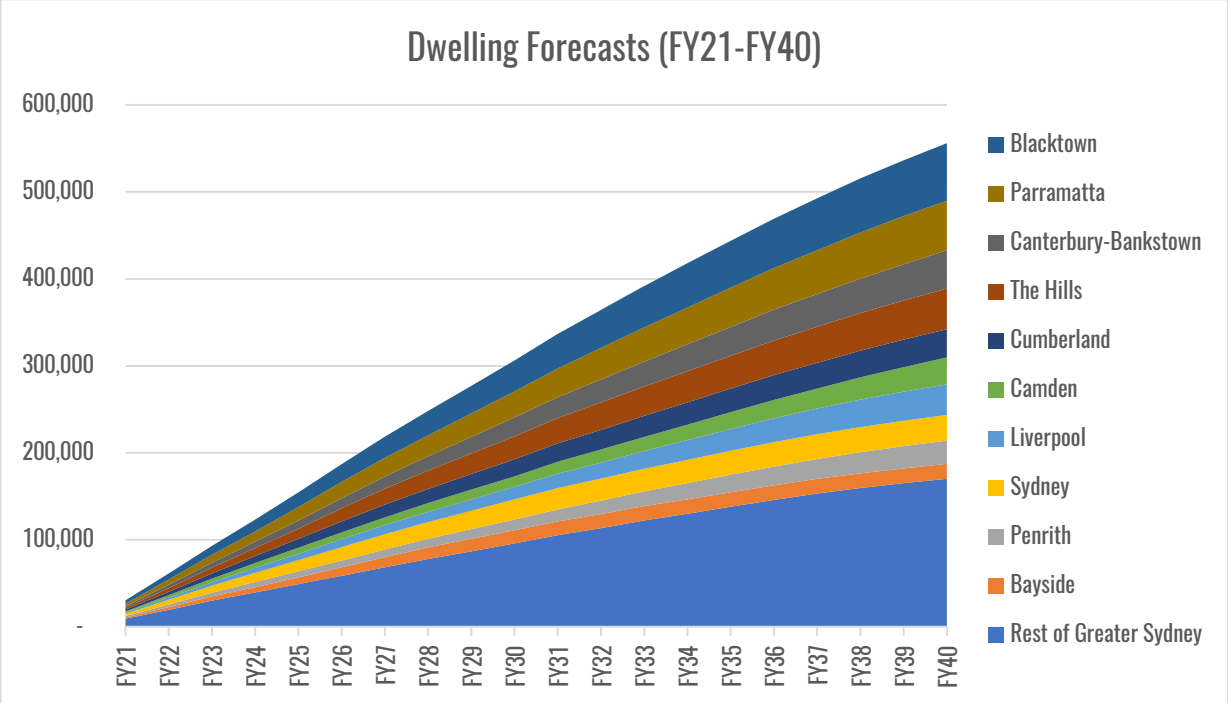
The 10 LGAs that contributed to the majority of Greater Sydney's historical dwelling completions are mostly located in the Central City and Western City (except for Sydney and Bayside LGAs).

Housing Forecasts

Looking forward, DPIE forecast that approx. 69% of dwellings will be delivered in the same 10 LGAs that contributed to 60% of Greater Sydney's net dwelling completions in the 12 years to 2020.

Figure 3.17 illustrates forecast housing supply in Greater Sydney and the 10 LGAs that account for 70% of forecast supply.

Figure 3.17: Forecast Dwellings, Top 10 LGAs and Greater Sydney (FY21-FY40)



Source: DPIE (2021)

Table 3.9 summarises the forecast dwellings by time period, referred to as 'short-term', 'medium term' and 'longer term'.

Table 3.9: Forecast Dwellings, Top 10 LGAs and Greater Sydney (FY21-FY40)

LGA	Short-term (FY21-25)		Med-term (FY21-30)		Longer term (FY21-40)	
Greater Sydney	154,526	100%	306,293	100.0%	556,084	100%
Top 10 LGAs						
Bayside	7,620	4.9%	15,183	5.0%	17,019	3.1%
Blacktown	16,973	11.0%	35,588	11.6%	66,021	11.9%
Camden	**6,882**	**4.5%**	**12,137**	**4.0%**	**30,858**	**5.5%**
Canterbury-Bankstown	9,549	6.2%	21,580	7.0%	43,882	7.9%
Cumberland	10,192	6.6%	19,683	6.4%	32,513	5.8%
Liverpool	**7,205**	**4.7%**	**14,425**	**4.7%**	**35,453**	**6.4%**
Parramatta	15,465	10.0%	30,002	9.8%	57,299	10.3%
Penrith	**6,828**	**4.4%**	**12,289**	**4.0%**	**26,693**	**4.8%**
Sydney	13,112	8.5%	23,037	7.5%	29,571	5.3%
The Hills	11,535	7.5%	26,504	8.7%	46,614	8.4%
Rest of Greater Sydney	**49,166**	**31.8%**	**95,864**	**31.3%**	**170,162**	**30.6%**

Source: DPIE (2021)

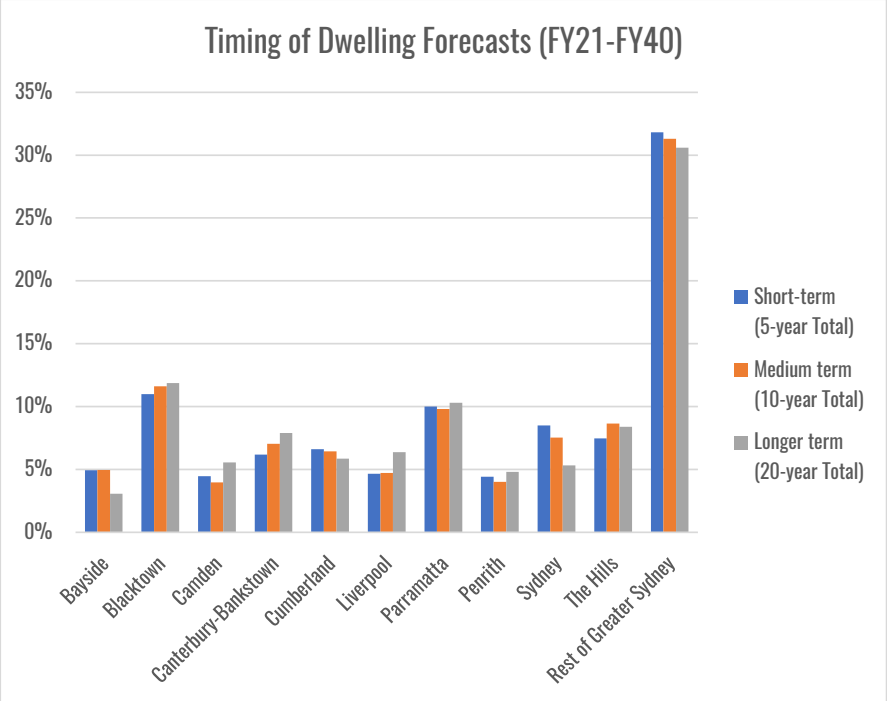
Three of the Top 10 LGAs (Camden, Liverpool, Penrith) are in the Western City where high density markets are still emerging and market demand for apartments is less established. The chart at **Figure 3.15** indicates the relative capacity of the Western City by housing typology – indicating an even capacity split between greenfield and infill development opportunities.

Given market preference and the commercial realities of development, lower and medium density housing formats are expected comprise the predominant form of housing at least in the first 10 years of the forecast (FY21-FY30). These LGAs are forecast to play relatively small roles in the first five years (to FY25), each contributing less than 5% of total dwellings.

In contrast, other LGAs comprise residential markets (e.g. Bayside, Cumberland, Parramatta, Sydney) that are more diverse and have deeper demand for a range of housing typologies (low and higher density).

Figure 3.18 shows the relative timing of dwelling forecasts in the short term, medium term and longer term.

Figure 3.18: Timing of Dwelling Forecasts (FY21-FY40)



Source: DPIE (2021)

Some LGAs are forecast to contribute more in the short-term (to FY25) compared to other LGAs that contribute in the longer-term (to FY40). The example of Sydney LGA best illustrated this - short term dwelling forecasts (8.5%) are much higher as a proportion of total dwellings compared to long term dwelling forecasts (5.3%).

LGAs with ***established*** high density markets including Parramatta, Sydney, Cumberland and the Rest of Greater Sydney are forecast to accommodate higher proportional growth in the short term (first five years of the forecast period), and thereafter the rate of dwelling production slows to FY40.

LGAs with ***emerging*** high density markets (e.g. Blacktown, Camden, Canterbury-Bankstown, Liverpool, The Hills, Penrith) play a comparatively minor role in the short-term before accommodating more rapid growth in the medium and longer term to FY40.

Implications for Contribution Impact Testing

Contribution impact testing in section 3.2 observed that the key to mitigating feasibility impacts is ***notice***. If advance notice is given of the implementation of a RIC, water charges and s7.12 levies, and acted upon, pre-purchase due diligence would account for any increased contributions liability enabling a developer to pay an 'appropriate' price for a site.

The impact testing also noted the role of supportive market conditions to offsetting and mitigating any impact on feasibility.

Overall, the risk to development feasibility from a RIC is greatest when markets have limited notice and in the case of emerging or 'low value' markets. In the worst case, the impact of a RIC would be substantial if implemented on high density development in low value markets at no notice.

The analysis of development supply in **Table 3.9** shows that in the short-term, as a proportional share of total dwellings forecast, the supply of Greater Sydney's dwellings is forecast to occur in LGAs such as Sydney, Parramatta, Bayside where market attitudes towards high density living is comparatively established.

It is over the longer term to FY40, that the forecasts suggest that emerging markets such as Camden, Penrith, Liverpool 'step up' to deliver a larger proportional share of total dwellings. By this time, it is conceivable that market attitudes towards high density living would have further evolved, leading to market maturity and acceptance of higher density formats. The market would also have had the time to adjust to the requirement for a RIC, water charges and s7.12 levies. Savings provisions would apply to applications lodged during this time.

Accordingly and on balance, if advance notice was provided and market participants have the opportunity to adjust to the requirement for a RIC, the nature of the observed feasibility impacts (which are most acute in 'Other Residential' in low value areas) is not expected to be detrimental to Greater Sydney's overall supply of housing.

The Study's impact testing shows that a RIC (in and of itself) is generally tolerated in Greater Sydney. There are exceptions in emerging markets where market attitudes towards higher density living are less established.

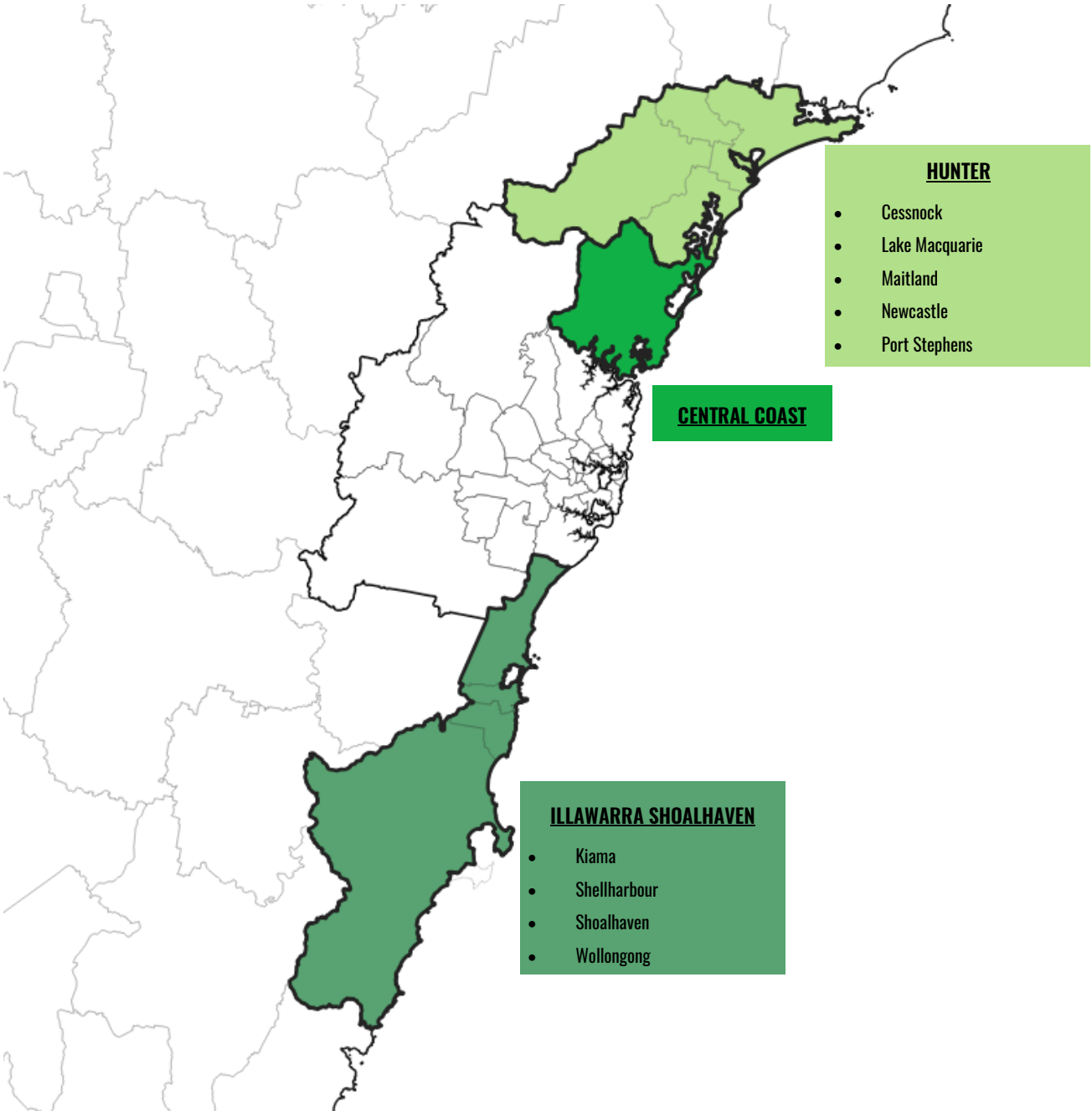
In the context of the overall RIC framework (which incorporates a RIC, SBC and TPC) and where residential s7.12 rates may be applicable, careful staging and staggering of the various contributions/ charges will be critical to avoid a 'layering of charges' and cumulative impact that would undermine investment feasibility and ultimately development supply.

Part B: Feasibility Analysis - Hunter, Central Coast, Illawarra-Shoalhaven Regions (Outer Metro Regions)

Part B (Chapters 4 and 5) carries out feasibility impact testing on sample location areas in the Outer Metro regions.

Figure 3.19 illustrates the defined boundaries of the Lower Hunter, Central Coast and Illawarra Shoalhaven Regions.

Figure 3.19: Hunter, Central Coast and Illawarra Shoalhaven Regions



Source: Atlas

4. Case Study Analysis

4.1 Overview of Selected Case Studies

The impact of RIC rates on development feasibility is relevant where the impact is substantial and could impact future supply where RIC rates are proposed - Lower Hunter, Central Coast and Illawarra-Shoalhaven regions.

Owing to the dispersed nature of the Outer Metro regions, a broad sample of locations has been selected.

4.2 Summary of Case Study Areas

Case study areas are selected for their key characteristics and diverse representation of land use markets in the Outer Metro regions. The rationale and considerations for case study area selection are outlined in Schedule 3.

Table 4.1 outlines an area selection matrix used in the selection of these case study areas.

Table 4.1: Outer Metro regions Case Study Areas by Land Use and Selection Criteria

Case Study Area	Region	Growth Expectations	Market Values	Amendments to Planning Controls	Train Station	Other Contributions
House						
Broadmeadow	Lower Hunter	Low	Low	No	Existing	s7.12
Wadalba	Central Coast	High	Low	No	Existing	s7.11, water charges
Ettalong Beach	Central Coast	Low	High	No	No	s7.11, water charges
Calderwood	Illawarra-Shoalhaven	High	High	No	No	s7.11
Oak Flats	Illawarra-Shoalhaven	High	Low	No	Existing	s7.11
Nowra	Illawarra-Shoalhaven	High	Low	No	No	s7.11, water charges
Other Residential						
Newcastle West	Lower Hunter	High	High	No	No	S7.12
Gosford	Central Coast	High	High	No	Existing	s7.12, water charges
The Entrance	Central Coast	Low	Low	No	No	s7.12, water charges
Corrimal	Illawarra-Shoalhaven	Low	High	Yes	Existing	s7.11
Kiama	Illawarra-Shoalhaven	Low	High	Yes	Existing	s7.11
Industrial						
Beresfield	Lower Hunter	High	High		No	s7.12
Warnervale	Central Coast	Low	High	No	No	s7.12, water charges
South Nowra	Illawarra-Shoalhaven	High	Low	Yes	No	s7.11, water charges
Commercial						
Newcastle	Lower Hunter	High	High	No	Existing	s7.12
Wollongong	Illawarra-Shoalhaven	High	High	Yes	Existing	s7.12
Mixed Use						
Mayfield	Lower Hunter	High	High	No	No	s7.12
Branxton	Lower Hunter	Low	Low	No	Existing	s7.12

Source: Atlas

The case study locations are used in Chapter 5 to test the impact of the RIC in the Outer Metro regions.

5. Impact of Outer Metro regions RIC

5.1 Land Use Markets and Property Cycles

A range of macro-economic and local market factors influence patterns of supply and demand in the Outer Metro regions. Land use and development markets behave differently depending on the nature of demand and the available supply opportunities. Accordingly, the impacts of a RIC will be felt differently by land use as well as by geographic location and sub-market.

5.1.1 Residential

Following a period of sustained price decline over the 2005-2012 period, residential markets across the Outer Metro regions have generally experienced a sustained period of price growth since 2013. This period of strong growth correlates with Australia's east coast housing boom over 2013-2018 which saw rapid price increases, particularly in Greater Sydney. Following a market softening in mid-2018 and following the broader capital city markets, residential prices across the Outer Metro regions generally fell in 2018 and began to recover in early 2020.

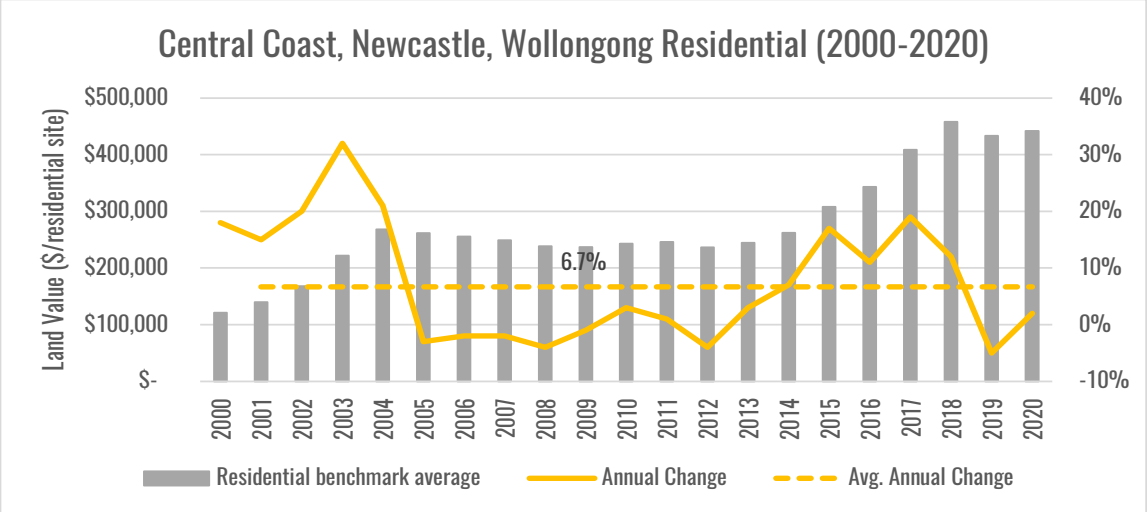
The COVID-19 pandemic has had a unique impact on regional NSW housing markets. Forced shutdowns and working from home practices have resulted in an influx of demand from city-based households looking to relocate to regional areas. Whilst the 'tree-change' trend has been slowly playing out for some time, the COVID-19 pandemic appears to have 'brought forward' the decision for many households who were considering relocating, as well as triggering a response from those who may have otherwise continued to live in inner city or capital city suburban localities.

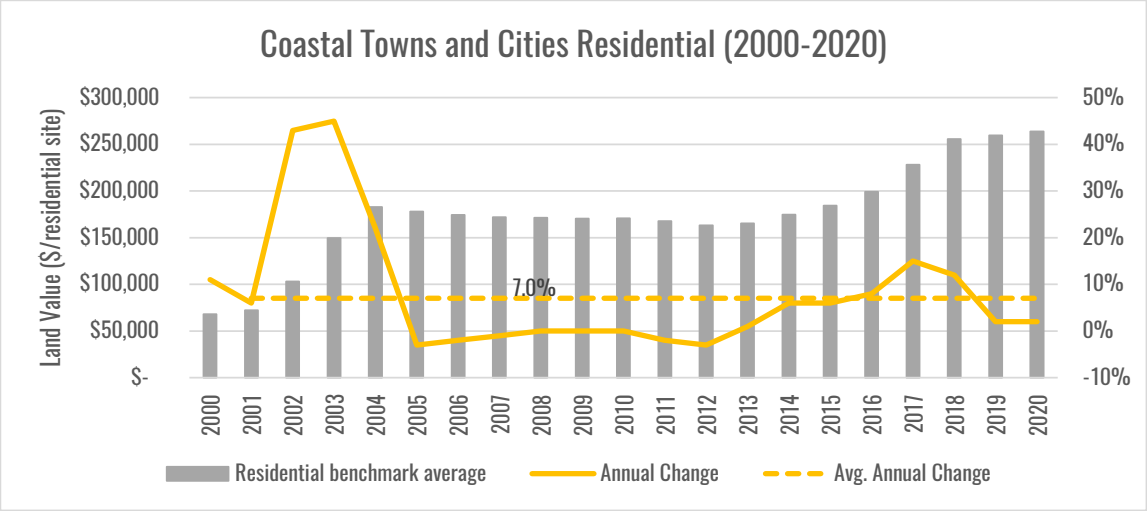
This influx in demand for housing across the regional areas has had a clear positive impact on house prices across the Outer Metro regions. For instance, the Newcastle and Illawarra regions are observed to have recorded dwelling price growth of over 22% in the 12 months to July 2021. This is faster than Greater Sydney over the same period (CoreLogic RP Data, 2021).

Much of this wave of heightened demand across regional NSW has been for detached housing with high-density housing yet to record the same level of market acceptance in many regional areas as compared to Greater Sydney. That said, demand for higher density housing formats in select regional markets is robust. Areas such as Wollongong and Newcastle and their surrounding centres have added significant high-density apartment developments in recent times. Demand for this product is being driven by a range of buyers - particularly younger singles or couples and/or older downsizers - who value the lifestyle benefits of higher density living.

Figure 5.1 shows the growth of residential benchmark land values across Regional NSW (major cities and coastal towns/ cities) over a 20-year period. Long-term annual market growth rates are indicated at 6.7% and 7.0% respectively. The peaks and troughs of the residential market can be readily observed from the graph. It is noted that land values data does not yet show the price growth observed across the Outer Metro regions since the onset of the COVID-19 pandemic in March 2020.

Figure 5.1: Residential Benchmark Land Values (2000-2020)





Source: Valuer General (2021)

Looking Forward - Enduring Demand

The outlook for the Outer Metro region's housing markets is good - the shift in population away from urban areas towards the regions is expected to continue in the short-term whilst other demand-side factors (low employment rates and relatively low interest rate environment) will continue to support trend growth.

5.1.2 Industrial

Despite the economic headwinds caused by COVID-19 shutdowns, industrial markets across much of regional NSW have performed strongly in the past 12 months. The market has been buoyed by growth in the logistics and e-commerce sectors, population growth demanding urban services and localised employment growth in traditional industrial sectors.

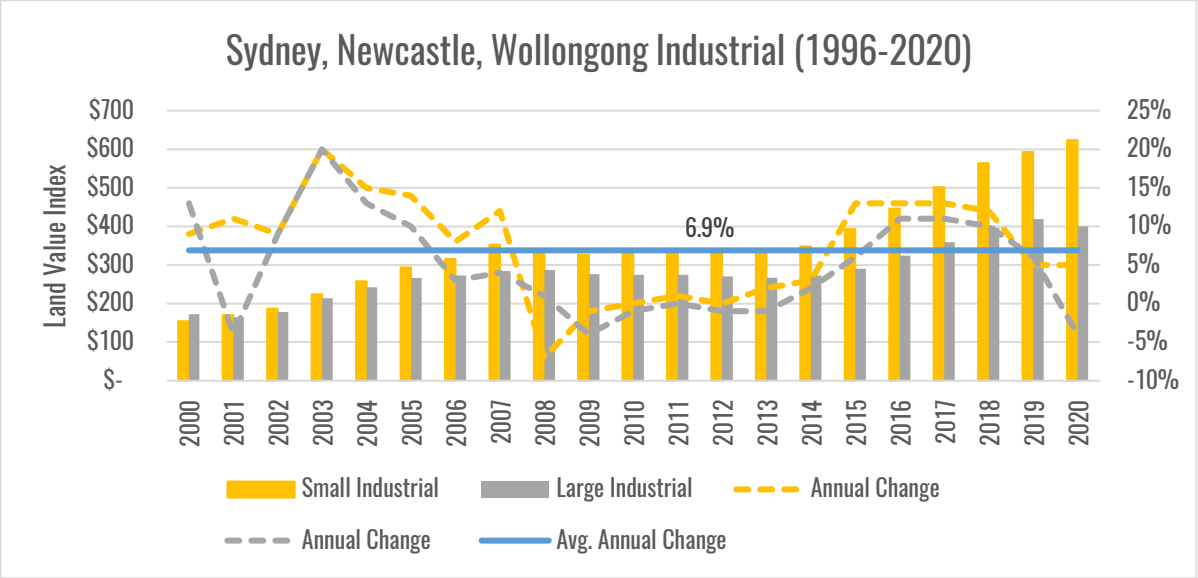
Whilst the economic repercussions of COVID-19-induced shutdowns being felt across parts of Australia make the outlook for many property sectors uncertain, market conditions in the industrial sector are expected to remain strong as:

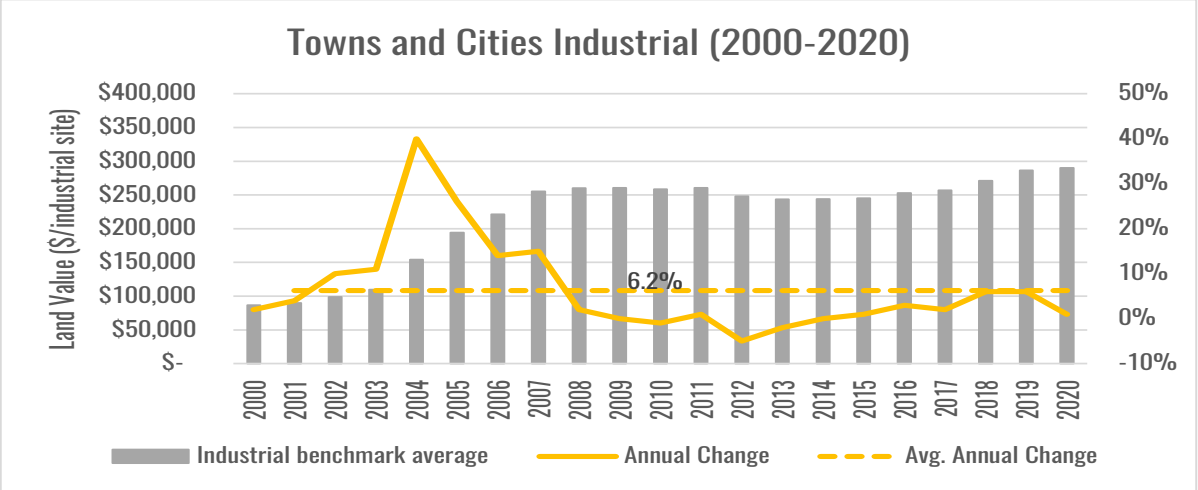
- Further uptake in the use of e-commerce platforms by consumers and businesses, driving demand for freight and logistics. This trend is expected to be exacerbated in a post-COVID economy.
- Increasing shift of occupiers from Greater Sydney to the regions given the rising cost of industrial accommodation.
- Large scale transport infrastructure projects underway and in the pipeline stimulating industrial activity.
- Strong projected population growth driving demand for urban services (e.g. waste recycling, automotive services, utilities, small scale manufacturing), particularly in the wake of COVID-19.

These drivers have resulted in significant investment interest into industrial assets within the industrial markets of the Outer Metro regions, resulting in strong capital and rental growth. This is expected to persist for some time.

Figure 5.2 shows industrial benchmark land values in Sydney, Newcastle and Wollongong achieved an average growth of 6.9% per annum over the 20 years to 2020. Towns and cities in regional NSW achieved slightly lower average annual growth of 6.2% over the same period.

Figure 5.2: Industrial Benchmark Land Values (2000-2020)





Source: Valuer General (2021)

Built Form Typologies

Similar to industrial development in Greater Sydney, industrial developments across the Outer Metro regions do not often respond to density like residential and commercial buildings do. Requirements for loading/ unloading and large vehicle circulation generally result in low site cover and/or FSRs ranging from 0.5:1 to 0.7:1 for industrial development.

In Greater Sydney, many industrial precincts accommodate a higher office content and comprise more dense industrial formats given a scarcity of industrial demand. These trends are less observable across the Outer Metro regions, given industrial land values and land supply has not necessitated more dense industrial formats.

Looking Forward - Evolving Typologies

The increase in logistics activity is expected to contribute further to the deepening of market demand for industrial floorspace. This trend is not limited to Greater Sydney and will equally influence demand for industrial land in the Outer Metro regions, albeit to a lesser degree.

Whilst the densification of industrial typologies in the Outer Metro regions has yet to emerge to the same degree as that observed in Greater Sydney, these formats are expected to come online in time. This is particularly relevant in industrial markets servicing key regional cities (e.g. Newcastle, Wollongong) where industrial land is becoming more scarce and expensive.

5.1.3 Commercial

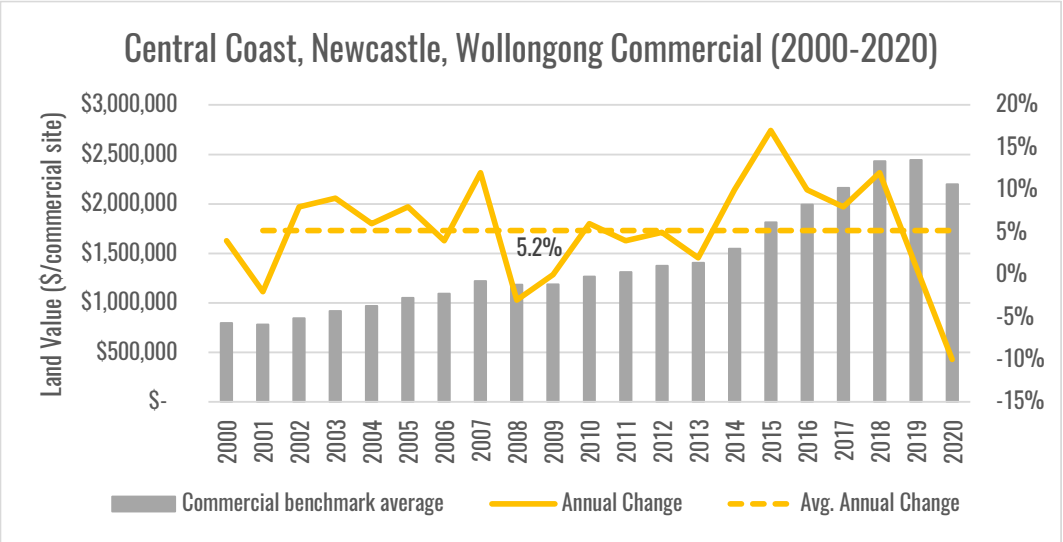
Commercial floorspace across the Outer Metro regions is primarily focused in regional cities and larger centres. Whilst historically playing a predominantly localised role, markets such as Newcastle and Wollongong have begun to attract larger corporates who could equally operate in a Greater Sydney location.

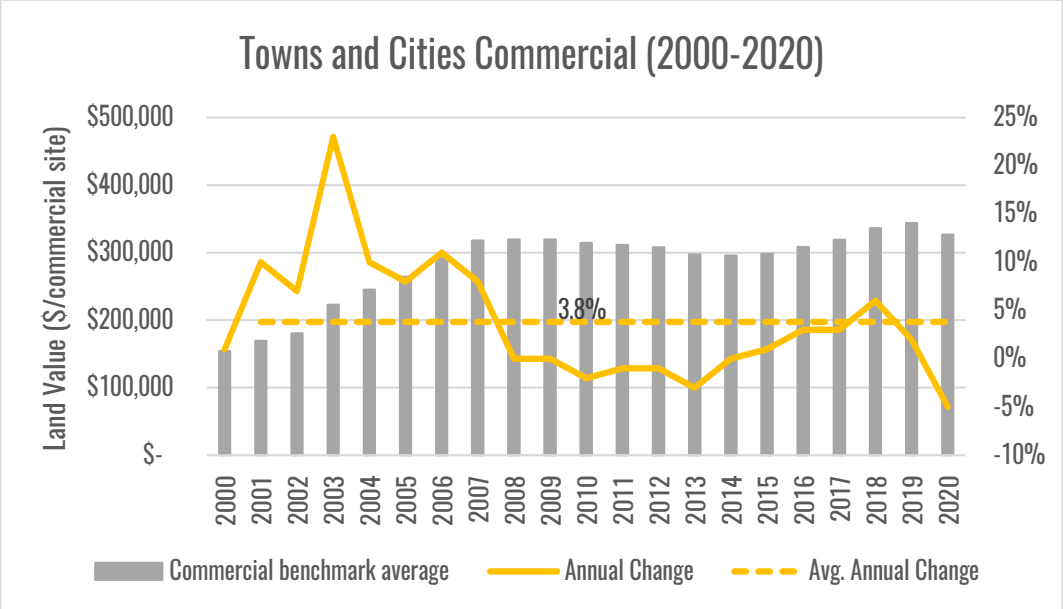
Market conditions across these markets has been mixed over the past 12-18 months. Forced working from home practices over the course of 2020 and 2021 have had an obvious impact on occupancy levels, whilst the long-term retention of these policies could impact demand levels in a post-COVID-19 market.

Commercial office buildings across regional NSW are distinctly lower scale compared to Greater Sydney CBD office markets. This is a direct reflection of underlying land economics - taller and more expensive office buildings will only be developed in markets where the higher cost can be offset by economic rents. That said, deepening market demand and a diversification of the economic base in both Newcastle and Wollongong are now resulting in taller commercial buildings becoming feasible, with this trend expected to continue.

Figure 5.3 shows commercial benchmark land values in Central Coast, Newcastle and Wollongong averaged growth of 5.2% per annum over the 2000-2020 period. Towns and cities in regional NSW achieved slightly lower average annual growth of 3.8% over the same period.

Figure 5.3: Commercial Benchmark Land Values (1996-2020)





Source: Valuer General (2021)

Looking Forward - Shifting Expectations

Future demand for commercial floorspace across the Outer Metro regions is expected to be primarily focused in key regional cities (e.g. Newcastle, Wollongong) where commercial markets are already established and amenity is high. As demand for office space in these markets continues to grow, price increases (both capital values and rents) will incentivise the development of taller office buildings.

Furthermore, the quality of office buildings across these markets will invariably improve due to competition from the working from home practices. Office landlords seek to entice occupiers back to the office through improving office fit outs and amenity offerings, particularly in markets where office accommodation is dated and remote working is financially compelling.

5.1.4 Retail

The pressures facing Australia's traditional 'bricks and mortar' retail sector is in many respects no more apparent than in regional and rural areas. Areas characterised by lower rates of population growth and lower levels of discretionary income have proven difficult markets for many traditional retailers who have been unable to compete with online retailers.

Like that observed in Greater Sydney, soft market conditions over the short term are generally expected until surplus capacity is absorbed, redundant retail assets are adaptively reused for alternate uses or redeveloped. Over the longer term as international borders re-open, the economic drivers of population growth, low unemployment and returning consumer confidence are expected to sustain a return of market confidence and development activity of retail floorspace.

5.2 Contribution Impact Testing

This section examines the impact of the Review's recommended RIC rates in the Outer Metro regions.

Table 5.1 outlines the RIC rates and s7.12 rates assumed (separately and together) in the contribution impact testing.

Table 5.1: Tested RIC and s7.12 Rates

Land Use Type	Tested RIC	Tested s7.12 Rates
Houses (detached, semi-detached, townhouses)	$10,000/ dwelling	$10,000/ dwelling
All other Residential Accommodation	$8,000/ dwelling	$8,000/ dwelling
Industrial	$15/sqm GFA	$13/sqm GFA
Commercial	$30/sqm GFA	$25/sqm GFA
Retail	$40/sqm GFA	$35/sqm GFA

Source: Productivity Commission (2020)

Water charges are also included in the impact testing following PC recommendations on water infrastructure.

Table 5.2 outlines water infrastructure rates assumed in the contribution impact testing. These are indicative estimates from informal discussions with water authorities Sydney Water and Hunter Water. Some regions (e.g. Central Coast, Shoalhaven LGAs) already pay water charges and accordingly, any water infrastructure charges would not be new.

Table 5.2: Water Infrastructure Rates ($/dwelling)

Land Use Type	Lower Hunter	Parts of Illawarra
Houses (detached, semi-detached, townhouses)	$8,000 to $14,000	$10,000 to $16,000
Other Residential Accommodation	$5,000 to $8,000	$6,000 to $10,000

Source: Sydney Water, Hunter Water, Atlas

Water infrastructure charges for non-residential are estimated based on the notional development typologies in section 5.2.2.

5.2.1 Methodology

For any (additional) contributions to be viable, development without the contribution needs to be feasible in the first instance. If development is not feasible (regardless of contributions), the activity in question will not occur. Therefore, the analysis presumes that the case study selections are feasible to develop even without a RIC.

The contribution impact testing is undertaken in three steps:

1. **Step 1 - Identification of areas and notional development yields for testing**

   Atlas worked with DPIE to identify geographic locations in the Outer Metro regions for impact testing by land use. This step develops notional development yields based on assumed planning controls which are then tested in Step 2 and 3.

2. **Step 2 - Baseline feasibility (no RIC, existing SIC where applicable, existing local contributions)**

   Generic feasibility testing is carried out on sites and notional development yields developed in Step 1. Step 2 testing assumes all applicable statutory fees and charges are payable including local contributions*.

3. **Step 3 - Impact testing of a RIC**

   Step 3 includes the proposed RIC rates to examine impact on baseline feasibility. Where a SIC is currently payable, the tested RIC is assumed to be in place of the SIC.

   Step 3 also considers the sensitivity of the impacts of water infrastructure charges (where they are currently not applicable) and higher s7.12 residential rates, if they were to be implemented separately and together.

The results of the impact testing are measured against performance indicators to observe the impact of the RIC on feasibility. The impact of the RIC on feasibility is then considered in the context of future development supply.

*Other Contributions/ Charges Required (Step 2)

The Study develops assumptions on all applicable statutory fees and charges for the contribution impact testing. Section 1.3 earlier described the rationale for the assumptions adopted for development contributions (other than a RIC).

The following assumptions are made with respect development contributions and other statutory charges in **Step 2**:

- Existing s7.11 and s7.12 contributions plan (or other precinct-specific contributions plan) - similar rates assumed.
- Special infrastructure contributions (SIC) where currently applicable.
- Water infrastructure charges where currently applicable (Central Coast and Shoalhaven LGAs).

These contributions (other than the RIC, water charges and higher s7.12 residential rates) are assumed in Step 2 (Baseline Feasibility) described above.

Performance Indicators

The objective of the impact testing is to assess if, after contribution to a RIC, the hurdle rates are within acceptable range.

Key performance indicators relied upon are hurdle rates (development margin[3] and project IRR[4]). Benchmark hurdle rates and their 'feasible' ranges by land use typology are indicated in **Table 5.3**.

Table 5.3: Benchmark Hurdle Rates*

Performance Indicator	Commercial and Residential			Industrial		
	Feasible	Marginal to Feasible	Not Feasible	Feasible	Marginal to Feasible	Not Feasible
Development Margin	>20%	18%-20%	<18%	>16%	15%-16%	<15%
Project Return (IRR)	>18%	17%-18%	<17%	>16%	15%-16%	<15%

Source: Atlas

*We note historic low interest rates (which are expected to endure at least for the medium term) have re-set market expectations and lowered benchmark project returns (IRR).

[3] Development Margin is profit divided by total costs (including selling costs)
[4] Project IRR is the project return on investment, the discount rate where the cash inflows and cash outflows are equal

5.2.2 Case Study Typologies and Scenarios Tested

This section carries out contribution impact testing by land use to ascertain the impact of a RIC, water charges and higher residential s7.12 rates on feasibility. These charges are tested separately and together. The Study reiterates that if development is not feasible in the first instance (whether due to lack of market demand or planning controls that are not feasible), the issue of a RIC is a moot issue.

Case Study Areas and Development Typologies

Contribution impact testing in the above scenarios is undertaken for the select case study locations described in Chapter 4.

Hypothetical development typologies (informed by a review of development applications in the select locations) are tested to examine the impact of a RIC and water charges (separately and together) in the context of other contributions.

The tested development typologies are summarised in **Table 5.4**.

Table 5.4: Development Tyologies Tested

RIC Land Use	Location	Region	Site Area (sqm)	GFA (sqm)	Notional Development and Yields
House	Broadmeadow	Lower Hunter	800	n/a	• 3 x 2 storey detached houses
	Calderwood	Illawarra-Shoalhaven	2,000	n/a	• 7 x 2 storey detached houses
	Oak Flats		1,100	n/a	• 5 x 2 storey townhouses
	Wadalba	Central Coast	41,800	n/a	• 66 x 1 storey detached houses
	Ettalong Beach		1,200	n/a	• 5 x 2 storey townhouses
	Nowra	Illawarra-Shoalhaven	1,000	n/a	• 4 x 1 storey villas
Other Residential	Newcastle West	Greater Hunter	1,500	6,500	• 13 storey mixed use development (60 units)
	Kiama	Illawarra-Shoalhaven	1,100	1,500	• 3 storey residential flat building (12 units)
	Corrimal		3,000	1,500	• 3 storey residential flat building (12 units)
	Gosford	Central Coast	2,400	7,500	• 12 storey residential flat building (90 units)
	The Entrance		1,400	1,800	• 4 storey residential flat building (19 units)
Industrial	Beresfield	Lower Hunter	2,700	1,400	• Industrial strata units
	Warnervale	Central Coast	5,500	1,900	• Light industrial complex (10 units)
	South Nowra	Illawarra-Shoalhaven	3,200	1,500	• 4 industrial units
Commercial	Newcastle	Greater Hunter	2,200	8,200	• 6 storey commercial building
	Wollongong	Illawarra-Shoalhaven	3,300	11,500	• 6 storey commercial building
Retail	Mayfield	Lower Hunter	12,000	6,000	• 2 level retail development
	Branxton		14,000	4,600	• 1 level retail development

Source: Atlas

Table 5.5 scenarios tested and contributions assumptions in each. The scope of the analysis is to test the feasibility impact of the proposed RIC in a '**No change to planning controls**' scenario.

Table 5.5: Capacity Testing Scenarios and Contributions Assumptions

Ref.	Scenarios Tested	Contributions Assumptions
1	Baseline Feasibility	• All applicable fees and charges, including s7.11 or s7.12 contributions • SIC (if applicable) • 3% pa net market growth

2	RIC Impact Testing	• All baseline applicable fees and charges, including s7.11 or s7.12, SIC
		• Proposed Residential RIC rates
		  ◦ $10,000 per dwelling (House)
		  ◦ $8,000 per dwelling (Residential unit)
		• Proposed Non-residential RIC rate
		• Alternate RIC rates (as required)

Ref.	Scenarios Tested	Contributions Assumptions

3	RIC, Water Charges, Residential s7.12 Impact Testing	• All baseline applicable fees and charges, including s7.11 or s7.12 contributions
		• Alternate Residential RIC rates
		  ◦ $8,000 per dwelling (House)
		  ◦ $6,000 per dwelling (Residential unit)
		• Proposed Non-residential RIC rates
		• Water infrastructure charges (if not currently payable):
		  ◦ Lower Hunter - $11,000 per dwelling (House) and $6,500 per dwelling Residential unit)
		  ◦ Parts of Illawarra (outside Shoalhaven LGA) - $13,000 per dwelling (House and $8,000 per dwelling (Residential unit)
		• Residential s7.12 rates (replacing existing s7.12 rates where applicable)
		  ◦ $10,000 per dwelling (House)
		  ◦ $8,000 per dwelling (Residential unit)

Source: Atlas

Testing Outcomes

In this section a series of graphs illustrates the impact of the ***proposed RIC and water infrastructure charges*** (separately and together) by land use and development typology - residential (house and units), industrial, commercial and retail. Where required (i.e. if feasibility impact is severe), alternate RIC rates are tested.

The impact of ***proposed residential s7.12 rates*** is also considered on residential land use typologies (house and units).

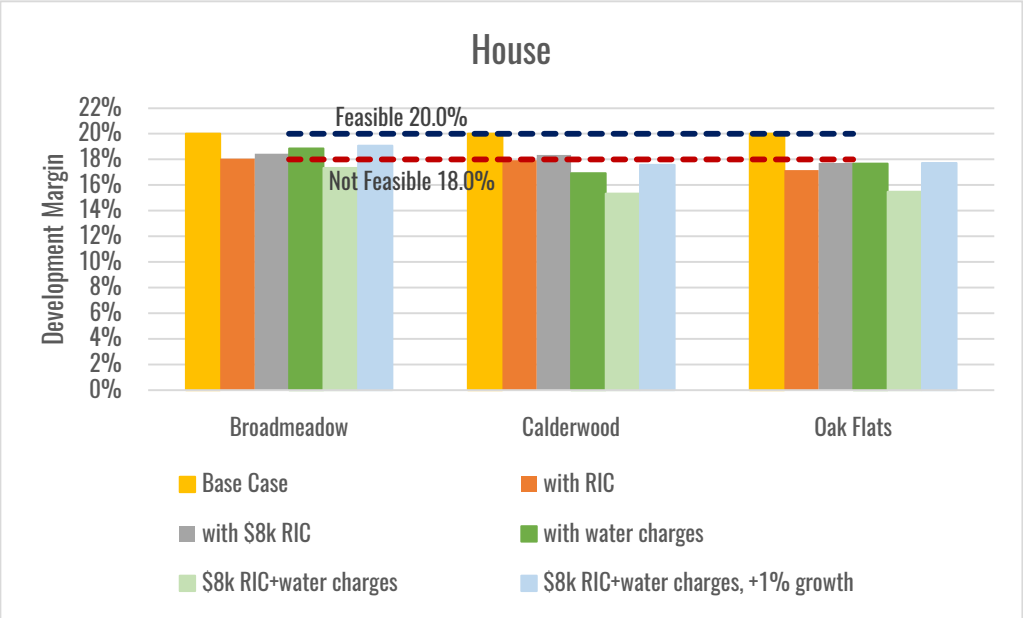
Figure 5.4 illustrates the impact to development margin on House typologies - the first graph showing locations not currently subject to water charges and the second graph showing tested locations already subject to water charges.

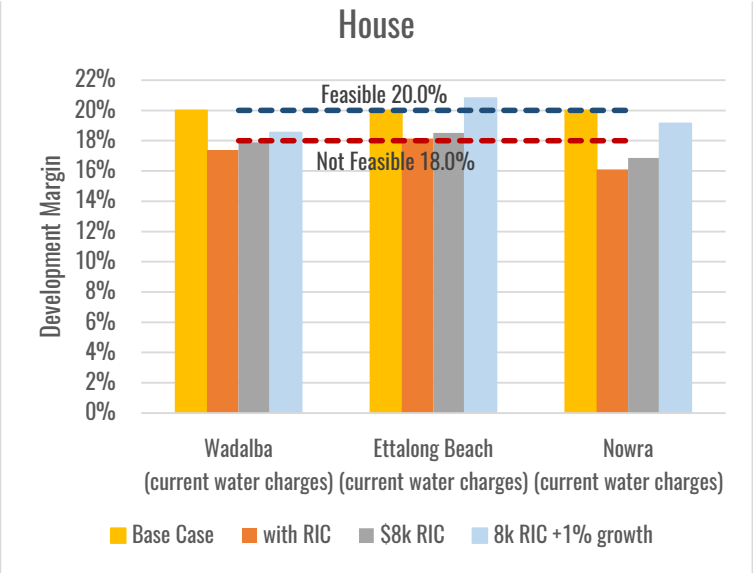
The following observations are made with respect the impact of tested RIC rates on the 'House' typologies feasibility:

- Low value markets are most vulnerable (from an impact perspective) to the proposed RIC of $10,000 per dwelling, with development becoming Not Feasible.
- If the RIC rates were implemented concurrently with water charges, the impact to feasibility is even more severe. This is particularly relevant in locations where water charges are not currently payable.
- A lower RIC of $8,000 per dwelling reduces the feasibility impact, development being Marginal-to-Feasible.
- Natural market cycles assist to offset the impact of the RIC, with 1% of additional market growth offsetting its impact.

The analysis shows an alternate RIC rate of $8,000 provides impact relief, with natural market cycles further providing relief.

Figure 5.4: Impact of a RIC (and water charges), House

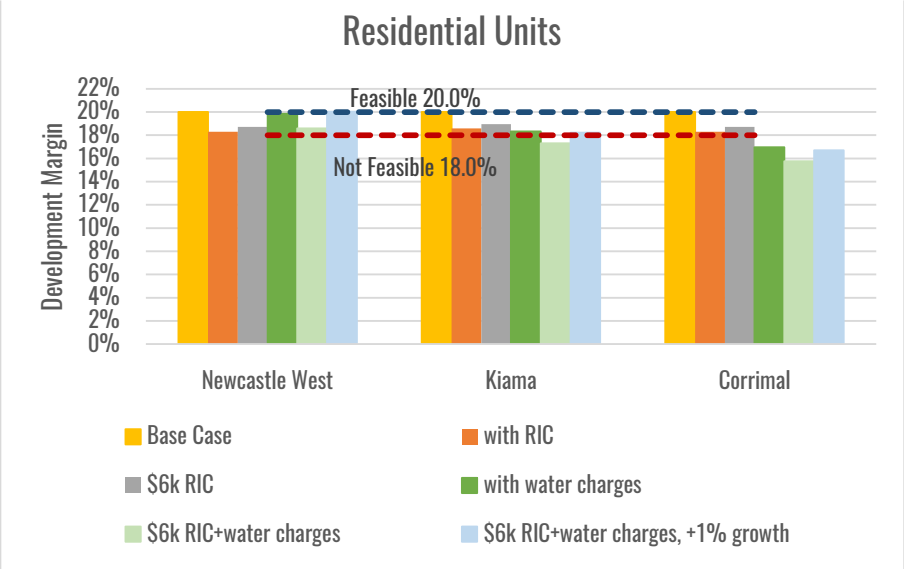


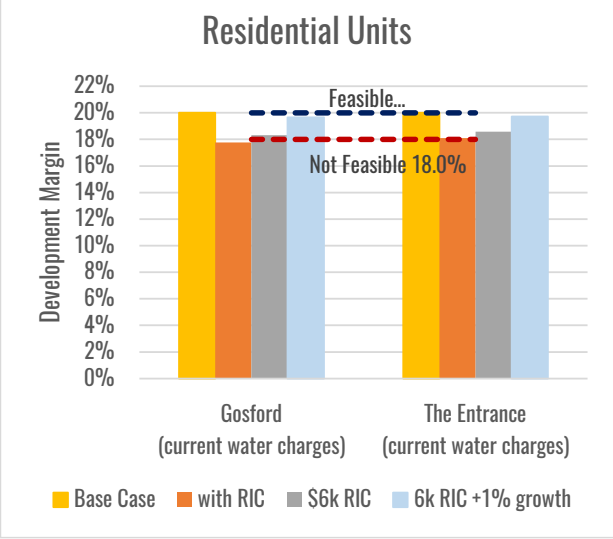


Source: Atlas

Figure 5.5 shows the impact on residential unit typologies - the first graph showing locations not currently subject to water charges and the second graph showing tested locations already subject to water charges.

Figure 5.5: Impact of a RIC (and water charges), Other Residential





Source: Atlas

The following observations are made with respect the impact of tested RIC rates on 'residential unit' feasibility:

- The developments tested are vulnerable (from an impact perspective) to varying degrees to the proposed RIC of $8,000 per dwelling. Higher value markets (for example Kiama in the locations tested) are less vulnerable to impact.
- While coastal and beachfront locations can command premium prices and arguably be less vulnerable to impact from a RIC, market attitudes towards higher density living in Outer Metro regions (as a whole) are generally less established compared to Greater Sydney. Consequently, the general level of prices is lower compared to Greater Sydney.
- A lower RIC of $8,000 per dwelling reduces the feasibility impact, development being Marginal-to-Feasible.
- If the RIC rates were implemented concurrently with water charges, the impact to feasibility can be notable. This is relevant in locations where water charges are not currently payable.
- Natural market cycles assist to offset the impact of the RIC, with 1% of additional market growth offsetting its impact.

The analysis shows an alternate RIC rate of $6,000 per dwelling provides impact relief to high density residential markets that are emerging and yet to establish (which are characterised by low values). High density residential markets in the Outer Metro regions are generally less established than emerging markets in Greater Sydney.

Industrial

This section carries out impact testing of the RIC on various industrial typologies:

- Industrial strata units - Beresfield.
- Light industrial complex - Warnervale.
- Industrial units - South Nowra.

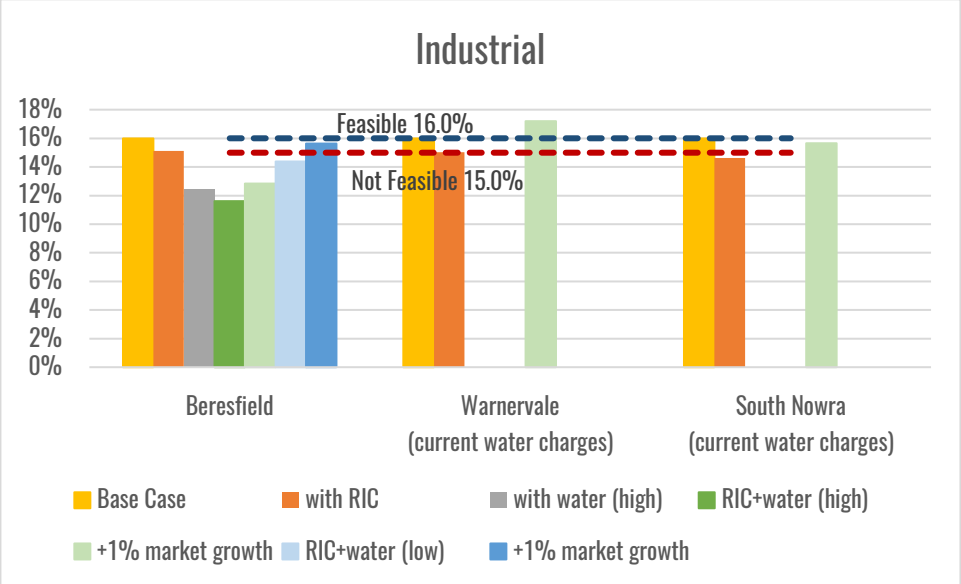
Impact of the RIC on the nominated development typologies are tested in the various contribution and growth scenarios. A RIC of $15/sqm GFA is tested on Industrial typologies with a notional water charge assumed.

Informal discussions with water authorities Sydney Water and Hunter Water indicate water charges for industrial development can vary widely. An industrial use with a high water load or discharge requirement (which could be related to a proposed manufacturing/ production process) would attract a high water infrastructure charge compared to a warehousing/ logistics use with a comparatively lower water requirement.

It is therefore difficult to accurately estimate water charges for this land use for impact testing. The testing estimates two scenarios of water charges - high and low. These 'bookends' help frame the impact testing outcomes.

Figure 5.6 illustrates the impact to development margin on Industrial typologies.

Figure 5.6: Impact of a RIC (and water charges), Industrial



Source: Atlas

The following observations are made with respect the impact of tested RIC rates on industrial development feasibility:

- The tested RIC rate is within tolerance, development remaining Marginal-to-Feasible.
- Inclusion of a water charge in developments of lower density (<FSR 0.5:1) results in greater impact (as charges are assumed based on site area). This is relevant in locations where water charges are not currently payable.
- Low value markets are most vulnerable (from an impact perspective) to a RIC and water charges. Impact to high value markets is more minor.
- Natural market cycles assist to offset the impact of the RIC.

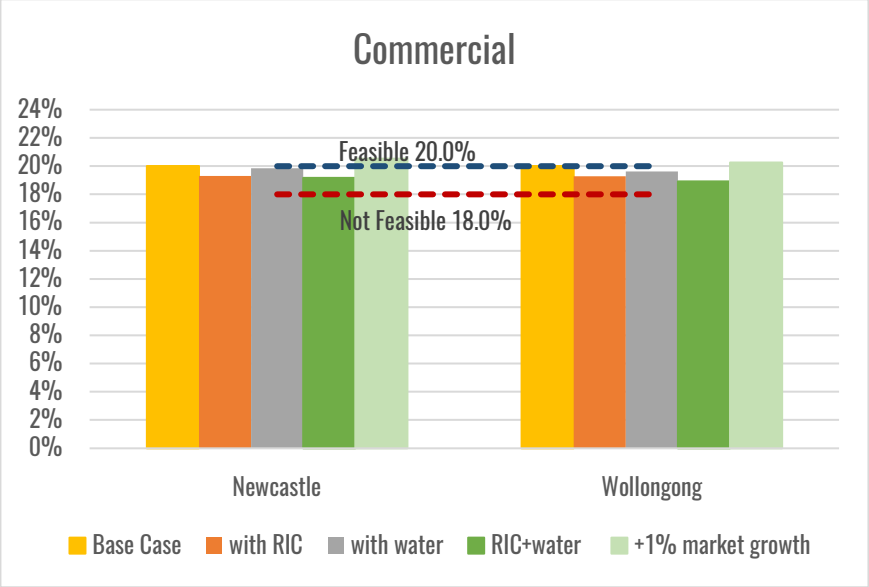
The tested RIC of $15/sqm is generally tolerated assuming ***separate*** implementation to water infrastructure charges.

Commercial

Impact testing of the RIC on commercial development in Newcastle and Wollongong is undertaken in various contribution and growth scenarios. A RIC of $30/sqm GFA is tested on Commercial typologies while a notional water connection charge is assumed.

Figure 5.7 illustrates the impact to development margin on Commercial development.

Figure 5.7: Impact of a RIC (and water charges), Commercial



Source: Atlas

The following observations are made with respect the impact of tested RIC rates on commercial development feasibility:

- The tested RIC rate is generally within tolerance (development remaining Marginal-to-Feasible), with natural/ cyclical growth assisting to offset the impact.
- The inclusion of a water charge in development (separately and together) is generally tolerated.
- Natural market cycles assist to offset the impact of the RIC, with 1% of additional market growth offsetting its impact.

Looking forward, commercial development typologies are expected to respond to tenant expectations of greater amenity and quality. This is expected to have further cost and revenue implications.

The tested RIC of $30/sqm is generally tolerated with and without the assumed water infrastructure charges.

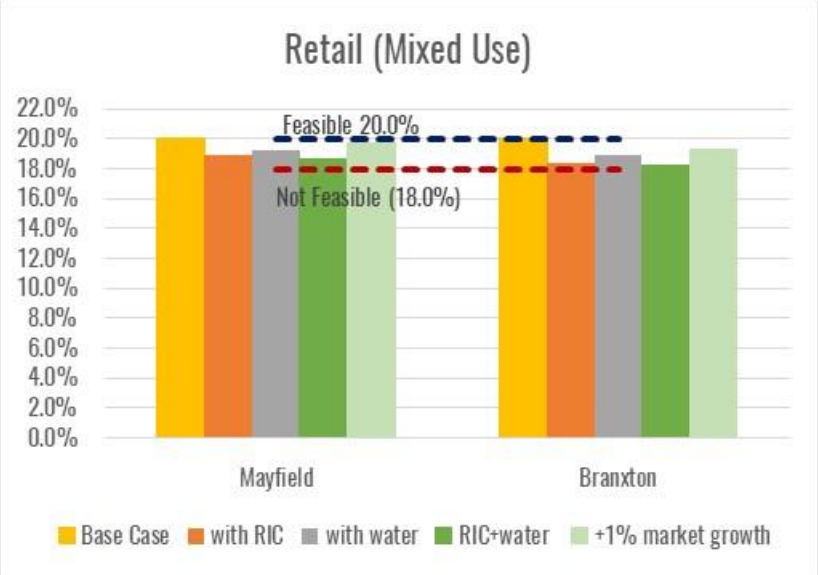
Retail

Impact testing of the RIC on retail development is undertaken in local/ neighbourhood developments which are the predominant activity observed in the Outer Metro regions. A RIC of $40/sqm GFA is tested on Retail typologies with a notional water connection charge assumed.

As retail development is assumed to occur in mixed use typologies, different RIC rates are assumed to apply to retail, commercial and residential floorspace respectively.

Figure 5.8 illustrates the impact to development margin on retail (mixed use) development.

Figure 5.8: Impact of a RIC (and water charges), Retail



Source: Atlas

The following observations are made with respect the impact of tested RIC rates on mixed use development feasibility:

- The tested RIC rate is within tolerance (development remaining Marginal-to-Feasible), with natural/ cyclical growth assisting to offset the impact.
- The inclusion of a water charge in development (separately and together) is generally tolerated.
- Natural market cycles assist to offset the impact of the RIC, with 1% of additional market growth offsetting its impact.

The tested RIC of $40/sqm is generally tolerated with and without the assumed water infrastructure charges.

5.3 Observations of Impact

The Greater Sydney region and the Outer Metro regions are different in terms of their:

- Economic drivers and market dynamics (which is reflected in demand and pricing).
- Historical growth and future growth expectations.

The Outer Metro regions have similarities, though, like Greater Sydney they are comprised of many markets and sub-markets. Residential markets can be differentiated by coastal and inland locations, while commercial, retail and industrial markets can be differentiated by accessibility and service catchment.

5.3.1 Impact of a RIC on Feasibility

Where there is no change to planning controls (i.e, no rezoning), adverse impact to feasibility is inevitable. The contribution impact testing makes the following critical observations:

- The residential RIC rates of $10,000 (House) and $8,000 (Other Residential) are high when compared to the relative pricing of residential uses in the Outer Metro regions.
- The contribution impact testing finds there is a case for implementing lower residential RIC rates than proposed by the PC Review. Rates of $8,000 per dwelling (House) and $6,000 per dwelling (Other Residential) are tested and found to provide impact relief, more proportional to levels of pricing and demand in the Outer Metro regions.
- The impact of proposed non-residential RIC rates is generally marginal in the Outer Metro regions, indicating tolerance.
- While water infrastructure charges do contribute to feasibility impact (if implemented together with the RIC), some areas in the Outer Metro regions are already subject to water charges (i.e. Central Coast and Shoalhaven LGAs).

Contribution impact testing additionally makes the following observations (similar to Greater Sydney):

- A RIC (at lower rates of $8,000 per dwelling (House) and $6,000 per dwelling (Other Residential)) is observed to generally result in relatively marginal impact, with supportive natural market cycles assisting to mitigate impact.
- In lower value markets where sale values are comparatively 'low' to the rest of the Outer Metro regions, feasibility impacts are observed to be greater.
- Where a SIC is currently payable, there is marginal impact from a RIC.
- With advance notice provided to the market, the impact to feasibility is mitigated with developers able to account for the contributions during due diligence prior to site purchase.
- Concurrent implementation of a RIC with water infrastructure and the proposed residential s7.12 rates (with no advance notice to the market) have the potential to 'shock' the market and result in severe impact to feasibility.

Staggered implementation of various contributions and charges would allow incremental market adjustment and avoid 'shocking' the market. Supportive market conditions are also critical to the offset and mitigation of impact.

Implications of COVID-19

Australia has arguably largely been in control of infection outbreaks, however with the recent extended shutdowns and restrictions having been in place since June 2021, business and investment sentiment has been shaken. As Australia reaches its target vaccination rates and international borders re-open, business and investment confidence is expected to rebound.

Residential markets in regional areas (including the Outer Metro regions) have been beneficiary to inward internal migration from capital cities. Concurrent with low interest rates and Government stimulus, there has been a recent boom in residential activity. Data is still emerging on whether migration flows to the regions will be sustained, or if it is temporary 'bringing forward' of internal migration patterns.

Commercial and retail markets are among the hardest hit by intermittent and prolonged lockdowns. While the commercial and retail RIC rates (in and of themselves) are tested to generally be within tolerance, there is a case for a flat RIC rate of $30/sqm for commercial and retail uses, which would provide scope for market recovery and provide relief for the retail sector which is undergoing structural change.

5.3.2 Price Segmentation and Depth of Demand

The large geographic expanse of the Outer Metro regions is characterised by multiple land use and property markets and sub-markets. These markets are driven by diverse economic factors that result in varying behaviour. The price the market is willing to pay for floorspace directly affects the capacity of development to feasibly make development contributions.

A Hierarchy of Markets

Similar to Greater Sydney, the Outer Metro regions incorporate land use markets of varying scales. Regional cities like Newcastle and Wollongong have established centres, large resident and worker populations, and consequently accommodate a wide range of established residential markets with different housing types. Smaller regions like Cessnock and Maitland have smaller populations, and accordingly less diverse land use types and lower price points.

This results in varying tolerance to development contributions. The cost of production is also a relevant consideration and is typically higher, for example, in coastal areas where market expectations of quality and amenity are greater.

Figure 5-9 illustrates the range of median dwelling prices in the Outer Metro regions. There is broad comparability of pricing with the exception of Maitland and Cessnock LGAs which are lower priced areas and Kiama LGA with higher dwelling prices.

Figure 5-9: Median Dwelling Prices, Outer Metro regions

Source: Pricefinder

Demand and pricing for commercial/ industrial land uses are generally highest in cities such as Wollongong and Newcastle.

The impact testing in section 5.2 shows that the feasibility of development in low value areas is most vulnerable to a RIC (assuming no notice was provided to the market). This includes areas in the Maitland and Cessnock LGAs.

The next section examines future growth expectations in the Outer Metro regions to understand how feasibility impacts could have adverse impacts on development supply.

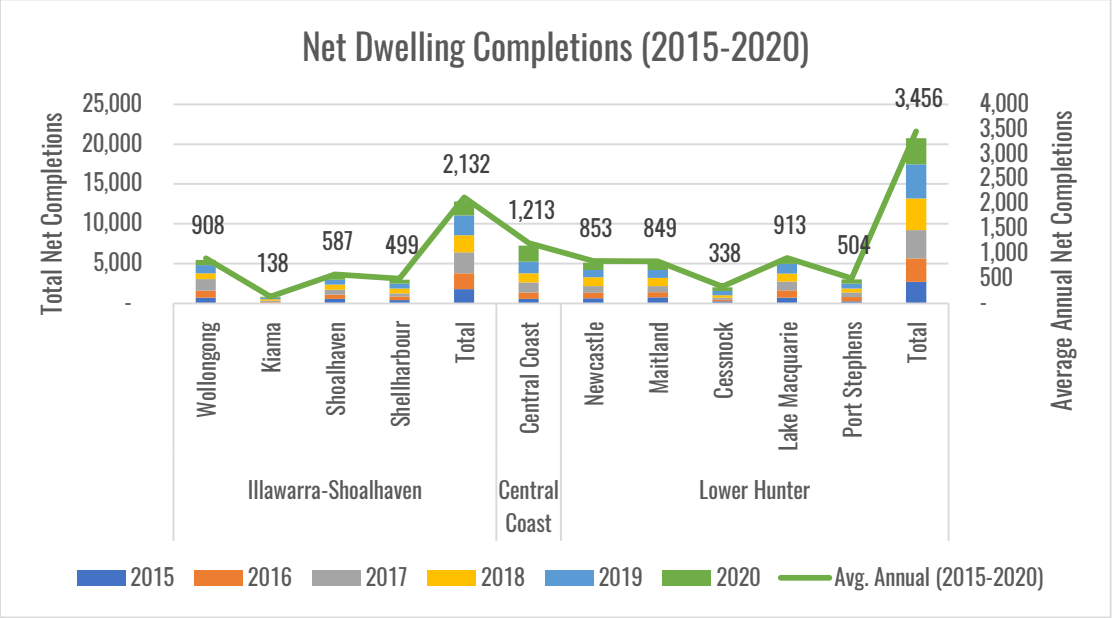
5.3.3 Significance of Impact on Dwelling Supply

Infrastructure contributions are expected to predominantly be received from high growth areas (in line with the distribution of development activity). Understanding the nature and distribution of future growth in the Outer Metro regions is relevant to ascertaining the likely implications of a RIC rate/s on feasibility and ultimately on the delivery of supply.

Patterns of future growth expectations have obvious implications for the distribution and need for infrastructure and development contributions to fund that infrastructure. It is important to consider the impacts to feasibility in this context.

Figure 5.12 shows that historical dwellings growth in the Outer Metro regions varied over the 2015-2020 period. Cessnock and Kiama LGAs had the lowest dwellings growth over the 2015-2020 period.

Figure 5-10: Historical Net Dwelling Completions (2015-2020)



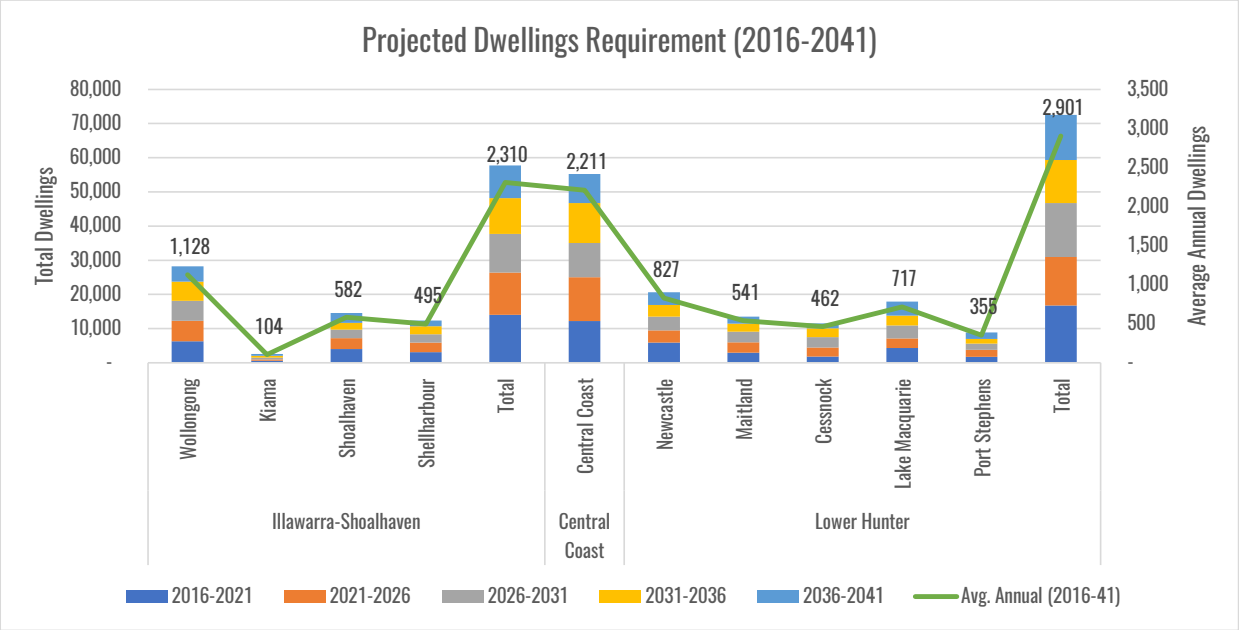
Source: DPIE (2021)

Figure 5-11 shows future dwellings required in the Outer Metro regions based on NSW population projections (DPIE, 2019). The Central Coast and Illawarra-Shoalhaven regions are projected to require a greater number of dwellings (in average annual terms) compared to recent net completions in 2015-2020.

The population in parts of the Outer Metro regions is expected to grow at different rates over 2016-2041 (DPIE, 2019), requiring:

- 55,300 more dwellings in the Central Coast.
- 72,500 more dwellings in the Lower Hunter
- 57,700 more dwellings in the Illawarra-Shoalhaven

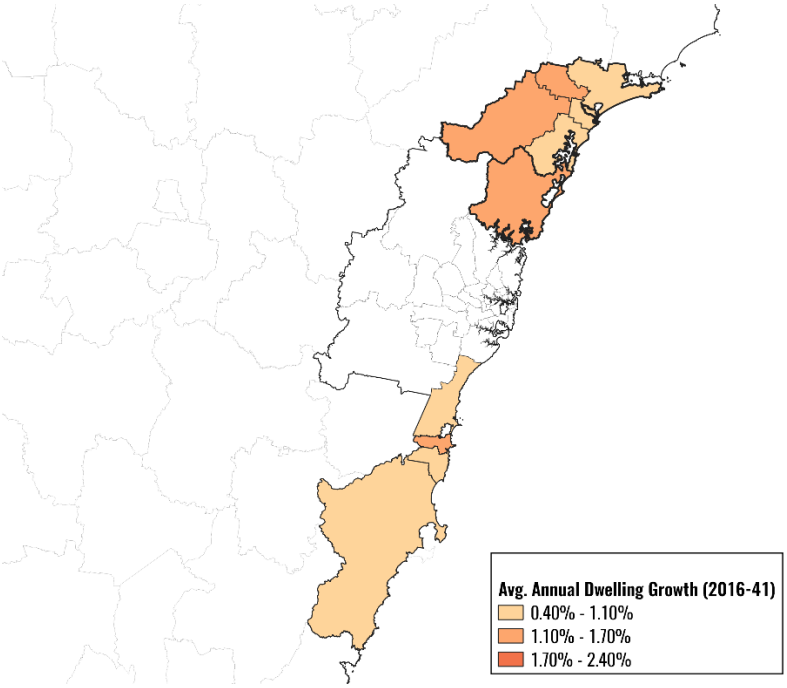
Figure 5-11: Projected Dwellings Requirement (2016-2041)



Source: DPIE (2019)

Figure 5.12 illustrates projected distribution of average annual dwelling growth to 2041.

Figure 5.12: Average Annual Dwelling Growth Projections (2016-2041)



Source: DPIE (2019)

The Lower Hunter region is projected with the highest requirement for new dwellings - the majority of demand in Newcastle and Lake Macquarie, with LGAs of Maitland, Cessnock and Port Stephens playing smaller roles (in average annual terms). Accordingly, despite greater potential for impact to feasibility in 'lower value' areas in Maitland and Cessnock LGAs, impact to development supply is more marginal.

Nevertheless, if advance notice was provided ***and*** market participants have the opportunity to adjust to the requirement for a RIC (and other charges over time), the nature of the observed feasibility impacts is not expected to be detrimental to the Outer Metro regions' overall supply of housing.

The impact testing shows there is a case for lower residential RIC rates in the Outer Metro regions - $8,000 per dwelling (House) and $6,000 per dwelling (Other Residential).

Part C: Review of Proposed RIC Charging Methodology

6. Proposed RIC Charges

6.1 Premise and Rationale of Charging Methodology

A variety of charging methodologies (and units of charge) apply in NSW. They observed to generally fall in the following categories:

- **s7.11 contributions** - a form of user-pays and the charging methodology is based on a demand metric (e.g. per resident or dwelling, per worker or floorspace GFA).
- **s7.12 contributions** - a form of hypothecated development tax and the charging methodology is a levy on a percentage of development cost.
- **Special Infrastructure Contributions (SIC)** - a hybrid of s7.11 and s7.12 contributions, is developed in a framework that identifies demand for state and regional infrastructure.

  The contributions are collected as a hypothecated development tax (similar to s7.12). The units of charge for a SIC vary, including a charge on net developable area, charge per resident/ dwelling and percentage of development cost.

The different charging methodologies (and units of charge) can result in perverse outcomes if development does not occur as envisaged at the time of contribution design.

Many of the current SIC units of charge are based on a per hectare of net developable area (NDA). This charging methodology is appropriate in a greenfield context where the land use and built form response is expected to be low in density.

However, if developments become more dense and the land is used more intensely (accommodating more residents and more workers), the contribution per hectare of NDA no longer represents a good proxy by which to charge for infrastructure need.

As higher density building formats become viable to deliver (e.g. shop top housing, residential apartment buildings, multi-storey commercial buildings) higher contributions become viable, aligning with market pricing and development cost. In these circumstances, a contribution based on a per hectare of NDA would result in a shortfall of funds to deliver adequate infrastructure. A unit charge aligning with need - based on per resident/ dwelling or worker/ floorspace GFA would be more appropriate.

6.2 Review of RIC Charging Methodology

6.2.1 Comparison against Other Charging Methodologies

This section reviews the PC-recommended RIC charging methodology against other charging methodologies. The comparison makes observations on their appropriateness in achieving the PC Review's objectives of certainty, efficiency, transparency, simplicity and consistency.

The case study areas and notional development typologies in section 3.2.2 are used in the comparison.

Residential

Table 6.1 analyses the residential RIC in equivalent terms of other units of charge.

Table 6.1: Residential RIC and Other Units of Charge

House	Edmondson Park	Schofields	Warriewood
Site Area (sqm)	15,000	3,500	3,500
Dwellings (dw/ha)	34 (27.2)	15 (51.4)	10 (34.3)
Cost of Development	$18,064,447	$6,186,466	$7,378,237
RIC (per dwelling)	$12,000	$12,000	$12,000
Total RIC	$408,000	$192,000	$120,000
($/ha NDA)	$272,000	$514,286	$342,857
(% cost of development)	2.3%	2.9%	1.6%

Other Residential	St Marys	Bankstown	Chatswood
Site Area (sqm)	900	2,000	1,500
Gross Floor Area (sqm)	2,700	4,700	2,700
FSR	3.0:1	2.4:1	1.8:1
Dwellings (dw/ha)	32 (355.6)	53 (265.0)	32 (213.3)
Cost of Development	$12,336,288	$21,568,986	$17,366,780
RIC (per dwelling)	$10,000	$10,000	$10,000
Total RIC	$320,000	$530,000	$320,000
($/ha NDA)	$3,555,556	$2,650,000	$2,133,333
(% cost of development)	2.6%	2.5%	1.8%

Source: Atlas

The following observations are made:

- The residential RIC rates are a function of density - the more dwellings per ha, the higher the contributions.
- As a contribution rate per ha of NDA, the House RIC results in a cost of $270,000/ha to $550,000/ha. The Other Residential RIC also results in wide range of $2.1m/ha to $3.6m/ha. This demonstrates that charging on the basis of NDA does not align with development capacity or infrastructure need.
- As a percent of development cost, the residential RIC is disproportionately lower in high value markets (e.g. Warriewood, Chatswood) due to the higher pricing achieved and higher market expectations of build quality and specification.

Industrial

Table 6.2 analyses the industrial RIC in equivalent terms of other units of charge.

Table 6.2: Industrial RIC and Other Units of Charge

Industrial	Erskine Park	Auburn	Alexandria
Site Area (sqm)	14,000	125,000	3,200
Gross Floor Area (sqm)	7,000	70,000	4,000
FSR	0.5:1	0.56:1	1.25:1
Cost of Development ($/sqm GFA, sqm)	$9,909,141 ($1,416)	$165,914,204 ($2,370)	$10,633,340 ($2,658)
RIC (per sqm GFA)	$15	$15	$15
Total RIC	$105,000	$1,050,000	$60,000
($/ha NDA)	$75,000	$84,000	$187,500
(% cost of development)	1.1%	0.6%	0.6%

Source: Atlas

The following observations are made:

- The industrial RIC is a function of density - the more the floorspace, the higher the contributions.
- As a contribution rate per ha of NDA, the RIC results in a cost of $75,000/ha to $188,000/ha. This also demonstrates that charging on the basis of NDA does not align with development capacity or infrastructure need.
- As a percent of development cost, the RIC is lower (0.6%) in higher order markets (e.g. Alexandria) where typologies are more evolved and dense (e.g. multi-levels, basement parking).
- In lower value markets where industrial development typologies are more 'basic' in design and construction, the RIC comprises a higher proportion of development cost (1.1%).

Commercial

Table 6.3 analyses the commercial RIC in equivalent terms of other units of charge.

Table 6.3: Commercial RIC and Other Units of Charge

Commercial	Penrith	Sydney Olympic Park	Macquarie Park
Site Area (sqm)	2,500	5,000	8,000
Gross Floor Area (sqm)	4,000	15,000	11,500
FSR	1.6:1	3.0:1	1.4:1
Cost of Development ($/sqm GFA, sqm)	$15,881,344 ($3,970)	$68,084,074 ($4,539)	$51,003,065 ($4,435)
RIC (per sqm GFA)	$30	$30	$30
Total RIC	$120,000	$450,000	$345,000
($/ha NDA)	$480,000	$900,000	$431,250
(% cost of development)	0.8%	0.7%	0.7%

Source: Atlas

The following observations are made:

- The commercial RIC is a function of density - the more the floorspace, the higher the contributions.
- As a contribution rate per ha of NDA, the RIC results in a cost of $430,000/ha to $900,000/ha. This also demonstrates that charging on the basis of NDA does not align with development capacity or infrastructure need.
- As a percent of development cost, the RIC is lower (0.7%) in established markets (e.g. Macquarie Park) where typologies are more dense (multi-levels, basement parking). The RIC would be even lower (as a percent of development cost) in markets such as Sydney CBD, North Sydney and Parramatta where office tower forms are prevalent.
- In lower value markets where commercial developments are of lower rise and more 'basic' in design and construction, the RIC comprises a higher proportion of development cost (0.8%).

Retail

Table 6.4 analyses the retail RIC in equivalent terms of other units of charge. In the interest of consistency across case study areas and ease of analysis, the residential component of development is excluded.

Table 6.4: Retail RIC and Other Units of Charge

Retail	Leppington	Marsden Park	Green Square
Site Area (sqm)	12,000	20,000	3,800
Gross Floor Area (sqm)	8,000	7,500	23,000
Retail	5,767	4,884	1,315
Commercial	2,233	2,616	3,575
Residential	-	-	18,110
FSR (excluding Residential)	0.67:1	0.4:1	1.3:1
Cost of Development ($/sqm GFA, sqm)	$44,246,604 ($5,531)	$34,277,165 ($4,570)	$29,442,690 ($6,021)
Retail RIC (per sqm GFA) Commercial RIC (per sqm GFA)	$40 $30	$40 $30	$40 $30
Total RIC (excluding Residential)	$297,670	$273,840	$182,450
($/ha NDA)	$248,058	$136,920	$480,132
(% cost of development)	0.7%	0.8%	0.6%

Source: Atlas

The following observations are made:

- The retail RIC is a function of density - the more the floorspace, the higher the contributions.
- As a contribution rate per ha of NDA, the RIC results in a cost of $130,000/ha to $480,000/ha. This also demonstrates that charging on the basis of NDA does not align with development capacity or infrastructure need.
- As a percent of development cost, the RIC is lower (0.6%) in established markets (e.g. Green Square) where typologies are more dense (multi-levels, basement parking). In low value markets where typologies are single level and parking is at-grade, the RIC is higher (0.8%) as a percent of development cost.

The next section reviews the nominated units of charge and considers if they are appropriate.

6.2.2 Appropriateness of Units of Charge

The nominated land use categories and RIC rates in the PC Review do not cover all uses under the standard instrument LEP. Relevantly, the units of charge proposed for residential uses do not suit all categories of dwellings, in particular non-private dwellings (e.g. short-term accommodation, boarding houses, aged care and nursing homes, backpackers' accommodation, etc).

Additional to non-private dwellings, there are other uses in the standard instrument LEP that are not covered by the units of charge. Accordingly, consideration needs to be given to how non-private dwellings and other uses not covered by the proposed charging methodology are charged.

While additional units of charge could be investigated, there is not a single unit of charge that would cover all the above uses.

Non-private Dwellings

The ABS classifies non-private dwellings as establishments providing a communal or transitory type of accommodation, e.g. hotels, motels, boarding houses, nursing homes, corrective institutions, boarding schools, staff quarters and hospitals.

A brief history of the enumeration and classification of non-private dwellings is extracted from the ABS website:

- Up to and including the 1981 Census caravan parks were classified as non-private dwellings. However, from the 1986 Census onwards, caravans in caravan parks have been enumerated as private dwellings. These dwellings can be covered by the per dwelling RIC charge.
- Until the 1996 Census, self-contained dwellings in retirement villages and dwellings in manufactured home estates were also classified as non-private dwellings. These dwellings can also be covered by the per dwelling RIC charge.
- In the 2006 Census, additional response options were introduced to identify immigration detention centres, youth/ backpacker hostels and ski lodges. These options were included in the 2011 and 2016 Census.
- For the 2016 Census, a separate category for Mining camps was added as a subset of the Staffing accommodation category to enable more accurate identification.

The non-private dwellings classification also includes the category 'Accommodation for the retired or aged (not self-contained)' which is accommodation where meals are provided. In contrast, units in 'Retirement village (self-contained)' are classified as private dwellings.

Potential Unit Charge Solution

A RIC charge per bed would conceivably be the most accurate proxy for infrastructure demand. It is important that an appropriate unit/s of charge is enabled to ensure adequate provision of infrastructure at the ***local level***.

Non-private dwellings generally involve commercial enterprise which has consequent flow-on implications for broader economic activity. For example, the operation of hotels and backpackers' facilities accommodates transient occupants (tourists and visitors) while aged care and nursing home facilities accommodate less mobile occupants.

Working on the presumption that demand for local infrastructure arising from these uses is addressed within the local contributions framework, the commercial RIC rate ($30/sqm) could be considered for wide application to these uses. This recognises the commercial enterprise associated with the land uses and addresses the PC Review's objective of simplicity.

6.3 Impact on Feasibility

The PC Review recommends single RIC rates by land use "subject to no substantial impact on feasibility".

In large and diverse regions such as Greater Sydney and the Outer Metro regions, application of a single rate by land use will invariably result in differing impacts to feasibility.

Notwithstanding, the Study is guided by issue of feasibility impact relevance as well as by the principles of certainty, efficiency, simplicity, transparency and consistency.

As a general proposition, development will be feasible where economic prices/ rents can be achieved. That said, not all areas or sites are feasible to develop under existing planning controls. This could be for a variety of reasons, e.g. existing buildings/ uses may be too valuable or there could be a lack of market demand.

If development is not feasible in the first instance, the issue of contributions (even baseline contributions) is academic. Where site and market characteristics enable feasible development, a RIC has better prospect of being tolerated.

6.3.1 No Change to Planning Controls

Where there are no changes to planning controls, contribution impact testing finds that:

- Notice to the market is key to mitigating impact of a RIC on feasibility, with developers able to account for the contributions during due diligence prior to site purchase.
- **In Greater Sydney**:
    - Proposed $12,000 per dwelling RIC House rate is generally tolerated (with marginal impact) to feasibility.
    - Proposed $10,000 per dwelling RIC Other Residential rate is generally tolerated, with the exception of emerging (or lower value) markets where market attitudes towards higher density living is less established.
    - Proposed non-residential RIC rates are tested to be generally tolerated.
    - If water infrastructure charges and residential s7.12 rates (where applicable) were implemented together with RIC rates, there could be substantial impact on feasibility, resulting in development that is Not Feasible.
- **In the Outer Metro regions**:
    - The residential RIC rates of $10,000 (House) and $8,000 (Other Residential) are high compared to the relative pricing of dwellings in the Outer Metro regions. There is a case for lower residential RIC rates than proposed.
    - Rates of $8,000 per dwelling (House) and $6,000 per dwelling (Other Residential) are tested and found to provide impact relief, more proportional to levels of pricing and demand in the Outer Metro regions.
    - The impact of proposed non-residential RIC rates is marginal in the Outer Metro regions, indicating tolerance.
    - While water infrastructure charges contribute to feasibility impact (if implemented together with the RIC), some areas are already subject to water infrastructure charges (i.e. Central Coast and Shoalhaven LGAs). For areas not currently subject to water charges, implementation of a RIC, water charges and higher s7.12 rates together would result in significant impact to development feasibility.
- A RIC (in and of itself) is observed to generally result in relatively marginal impact, with supportive natural market cycles assisting to mitigate impact.
- Careful staggering and phasing-in of the RIC and other contributions will therefore be necessary.

The contribution capacity testing finds that where no notice is given and where there is no change to planning controls (i.e, no rezoning), adverse impact to development feasibility from the RIC rates is inevitable. This adverse impact will be felt to varying degrees. Low value markets are most vulnerable to the risk of impact where no notice is given.

Concurrent implementation of the RIC, water infrastructure charges and higher s7.12 rates can result in substantial impact to feasibility. This underscores a staged/ staggered implementation of the various contributions/ charges will be important to mitigate the effects of shock to the market. Notwithstanding impact, market growth as part of natural market cycles is observed to help offset and mitigate any adverse impact to development feasibility.

Significance of Impact on Development Supply

Site-specific feasibility impacts are not the issue in question.

Feasibility impact is relevant for policy decisions where it threatens development supply and achievement of planning objectives. The impact on feasibility is only relevant in this context.

The impact on feasibility and ultimately the impact on development supply is a nuanced issue. Negative impacts are more likely to be tolerated in a rising market and/ or if planning or amenity uplifts can be expected. Supportive market conditions help to mitigate any impact, allowing the contributions to be absorbed within 'naturally-occurring' price increases.

In a flat market, developers may still proceed with development and accept the increase in contributions subject to acceptable reduction in development margin. If the impact to development margin is not acceptable (making the project no longer bankable), the development will not proceed.

In Greater Sydney, DPIE's dwelling forecasts indicate that in the short-term (to FY25), as a proportional share of total dwellings, a large proportion is forecast to occur in LGAs such as Sydney, Parramatta, Bayside, Cumberland where market attitudes towards high density living is generally well accepted.

Over the longer term to FY40, the forecasts suggest that emerging markets such as Camden, Penrith, Liverpool 'step up' to deliver a larger proportional share of total dwellings. By this time, market attitudes towards high density living would have evolved, leading to market acceptance of higher density formats. The market would also have had the time to adjust to the requirement for a RIC and other contributions. Savings provisions would apply to applications lodged during this time.

Accordingly and on balance, if advance notice was provided and market participants have the opportunity to adjust to the requirement for a RIC, the nature of the observed feasibility impacts (which are most acute for higher density residential in low value areas) is not expected to be detrimental to Greater Sydney's overall supply of housing.

In the Outer Metro regions, the Lower Hunter is projected with the highest dwelling requirements - majority in Newcastle and Lake Macquarie, with LGAs of Maitland, Cessnock and Port Stephens playing smaller roles. Accordingly, despite 'lower value' areas in Maitland and Cessnock being at higher risk of feasibility impact, impact to dwelling supply is more marginal.

6.3.2 Change to Planning Controls (increased density) and Major Transport Infrastructure

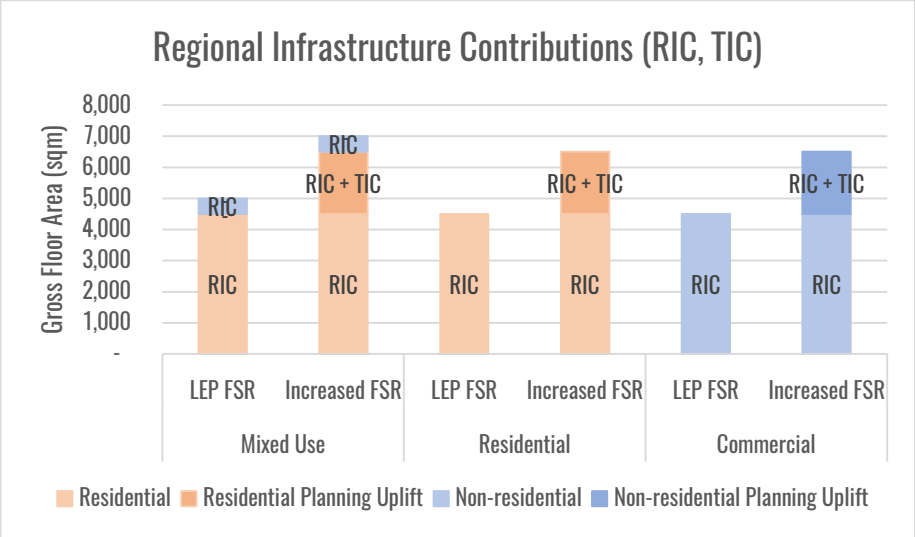
DPIE has accepted the PC Review's recommendation of a TPC subject to further work to determine the level of charge to be levied on future rezonings, having regard to, *inter alia*, development capacity, feasibility and cumulative impact of development contributions. A TPC would operate in tandem with a RIC.

Major transport investments improve accessibility, result in greater amenity and induce market demand. All things being equal, an amenity uplift results in greater market desirability, revenue potential and consequently development profit.

The rationale for a TPC is that major transport projects bring an ***amenity uplift*** (due to improved accessibility). Additionally, major transport projects are catalysts for the rezoning of land and unlocking of development capacity (***planning uplift***). Combined, amenity uplift and planning uplift result in potential for greater site values and profit margin.

Figure 6-1 illustrates conceptually how a RIC/ TPC would operate, i.e. a RIC to apply on overall GFA and TPC to apply on 'additional GFA' (or planning uplift) from a rezoning.

Figure 6-1: Conceptual Ilustration of RIC and TPC



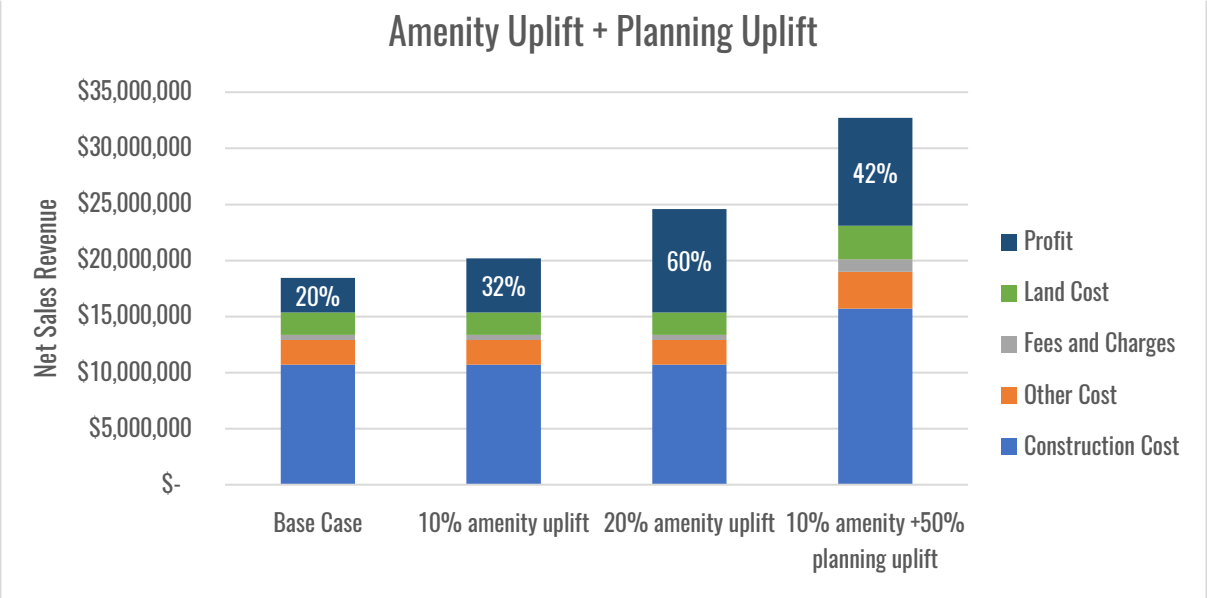
Source: Atlas

Figure 6.2 shows that where an amenity uplift results in 10% increase to revenue, development profit increases from 20% to 32%. Where amenity uplift results in 20% increase to revenue, development profit increase to 60%.

Where an amenity uplift is accompanied by planning uplift (say +50% GFA), development profit increases, though margins can be more modest (42%) when the planning uplift necessitates higher construction cost (due to taller buildings, etc.).

Figure 6.2 shows conceptually the impact of amenity uplift and planning uplift on project attractiveness and performance.

Figure 6.2: Impact of Infrastructure and Planning Interventions on Profit



Source: Atlas

Where a site is the beneficiary of planning uplift (e.g. increase in FSR) there is generally a commensurate increase in site value. It is through this value increase (or Surplus Value) that a site will have the capacity to contribute to a TPC while remaining viable for development.

6.4 Summary of Observations

The analysis in this chapter examined:

- The proposed RIC rates and how they compare, in terms of equivalence with other charging methodologies.
- The proposed RIC units of charge and if they are appropriate.
- Impact on feasibility and consequent implications for dwelling supply (and by inference development supply).
- Potential for a TPC and implications for feasibility.

Charging Methodology and Units of Charge

The PC charging methodologies reflect the density and intensity of development (and by inference infrastructure need) and are accordingly considered appropriate.

The recommended residential units of charge (per dwelling) however are not suitable for residential uses classified as 'non-private dwellings' (e.g. hotels, backpackers accommodation, boarding houses, aged care and nursing facilities).

Assuming that demand for local infrastructure arising from non-private dwellings is addressed within the local contributions framework, the commercial RIC rate ($30/sqm GFA) could be considered for wide application to these uses. This recognises the commercial enterprise associated with the land uses and addresses the PC Review's objective of simplicity.

Impact on Feasibility

The contribution capacity testing finds that where no notice is given and where there is no change to planning controls (i.e, no rezoning), impact on feasibility from a RIC is inevitable. This adverse impact will be felt to varying degrees. Low value markets are most vulnerable to the risk of impact where no notice is given.

- In Greater Sydney, a RIC (in and of itself) is observed to generally result in relatively marginal impact, with supportive natural market cycles assisting to mitigate impact.
- In emerging high density markets where sale values are comparatively 'low' to the rest of Greater Sydney, feasibility impacts are observed to be greater.
- Lower residential RIC rates are found to be necessary and better reflective of the different in pricing dynamics between Greater Sydney and the Outer Metro regions. Lower residential RIC rates in the Outer Metro regions - $8,000 per dwelling (House) and $6,000 per dwelling (Other Residential) are observed to generally result in marginal impact, with supportive natural market cycles assisting to mitigate impact.
- Proposed non-residential RIC rates are tested to be generally tolerated.
- While less established high density residential markets in Greater Sydney are most vulnerable to a RIC, the distribution patterns of forecast dwellings over the short and longer-term mean that higher risk markets have the opportunity to evolve and adjust.
- In the Outer Metro regions, while lower value areas in the Maitland and Cessnock LGAs are more vulnerable to a RIC, these areas are expected to accommodate a comparatively lower proportion of future dwellings, and therefore impact to dwelling supply is more marginal.

Commercial and retail markets are among the hardest hit by intermittent and prolonged lockdowns. While the commercial and retail RIC rates (in and of themselves) are tested to generally be within tolerance in Greater Sydney and the Outer Metro regions, there is a case for considering a flat RIC rate of $30/sqm for commercial and retail uses, which would provide scope for market recovery and additionally provide relief for the retail sector which is undergoing structural change.

A flat commercial RIC rate would also better align with the standard instrument LEP definition of land use terms, where 'office', 'business' and 'retail' are subsets of 'Commercial'.

The key to mitigating feasibility impacts is notice and staged implementation. Advance notice would allow sites already purchased to be progressed and for due diligence investigations to account for the contributions prior to site purchase.

Staggered implementation of various contributions and charges (water charges, s7.12 rates) would allow incremental market adjustment and avoid 'shocking' the market. Supportive market conditions also act to offset and mitigate impact.

7. Considerations and Recommendations

7.1 Principles and Objectives of Contributions Reforms

The PC Review is premised on the stated principles of an efficient infrastructure contributions system - certainty, efficiency, simplicity, transparency and consistency.

The reform of infrastructure contributions in NSW is a move towards a principles-based infrastructure contributions system, with the trade-off against time and resources weighed against providing certainty and ensuring plans are cost-reflective.

The PC Review's priority reforms are to:

- Ensure charges can be properly factored into feasibility studies by requiring contributions plans be developed prior to rezoning.
- Limit the use of state and local planning agreements to direct delivery of works and supporting infrastructure for 'out-of-sequence' developments.
- Address insufficient and ad hoc s7.24 special infrastructure contributions through implementation of modest and simple broad-based regional charges.
- Ensure the beneficiaries of major transport investments contribute to the cost by implementing a contribution for rezoned properties within station service catchments.
- Take pressure off household water bills by transitioning to cost reflective charges for water connections.
- Make the system easier to navigate and comply with by providing and maintaining clear and rationalised guidance and comprehensive digital tools.
- Be more transparent in reporting on how much money is collected and where it is spent.

7.2 Key Matters for Consideration

Appropriateness of RIC Rates

Greater Sydney and the Outer Metro regions are vast in geography. They are subject to a myriad of land use and market factors that drive market and development activity. It is therefore important to 'strike' RIC rates that are reflective of the different market dynamics, yet reflect the PC Review's desired objectives of efficiency and simplicity.

The Study finds that the proposed charging methodology is generally suitable, however not for non-private dwellings and some non-floorspace based uses. In these circumstances, DPIE could consider applying the commercial RIC rate ($30/sqm). This would recognise the commercial enterprise and consequent flow-on implications for broader economic activity that non-private dwellings have. This however presumes that demand for local infrastructure arising from these uses is appropriately addressed within the local contributions framework.

Impact on Feasibility

As a general proposition, development will be feasible where economic prices/ rents can be achieved. Not all areas or sites are feasible to develop under existing planning controls. If development is not feasible in the first instance (whether due to lack of market demand or planning controls that are not feasible), the issue of contributions (even business-as-usual contributions) is moot. The impact testing assumes that development as a starting point (without the RIC), is feasible.

Contribution impact testing finds that:

- In a business-as-usual scenario (no rezoning), advance notice is key, with natural market cycles assisting to offset impact.
- Immediate implementation (i.e. with ***no advance notice***) results in the greatest impact in 'low value' markets.
- Feasibility impact from the RIC is not the only consideration. Impact from water charges and residential s7.12 rates are equally critical. Careful staggering and phasing-in will be necessary to mitigate adverse cumulative impact.
- Lower residential RIC rates than proposed in the Outer Metro regions to avoid substantial impact on feasibility.

Key to mitigating feasibility impact is notice. Advance notice allows developers to account for new contribution requirements in due diligence investigations and pre-purchase negotiations. This will ensure an appropriate price is paid for a development site (and a developer does not 'overpay' for a site). Over time, market expectations will adjust. That said, there is arguably a 'floor' to how much market expectations can adjust by.

If mitigation of impact requires landowner expectations to reduce to an extent that a property becomes more valuable in its existing use (rather than as a development site), development would not be the 'highest and best use[5]' or a viable proposition. A property that is not viable as a development opportunity would remain 'as is' (in its existing use). This consideration is particularly relevant in infill areas/ established urban areas and has direct implications for development and housing supply.

Notwithstanding, if there is advance notice of the RIC and its phased-in implementation and development sites can be consolidated at appropriate pricing, adverse impact to feasibility, investment and development supply can be mitigated.

'Net New' Development and Credit Offsets

The PC Review is silent on whether credit offsets against a RIC are to be made available for existing buildings.

It is worth considering the reasons why existing buildings may be demolished and replaced. These include:

- Existing buildings are at the end of their economic useful life.
- There is an opportunity for more economic use of existing buildings.
- There is an opportunity for greater density to be achieved on the site.

The reasons why existing buildings are replaced could extend to the need to replace/ renew state and regional infrastructure when they are economically obsolete. This supports a view why existing buildings should not be offset against the RIC.

Approximately 63% of future dwellings is forecast to be delivered in non-Growth Area LGAs, which means 63% of future housing will mostly involve demolition of existing buildings.

The implementation of credit offsets is not expected to be efficient or simple to administer, particularly where existing floorspace and the proposed floorspace are different in land use category (e.g. existing mixed use space that is redeveloped into a mix of retail, commercial and residential floorspace).

Development and Intensification of Use

While some alterations and additions activity may be minor in nature (e.g. extension of a kitchen or bathroom), other alterations activities could unlock opportunity for a building to be used more intensively. This could result in the floorspace being occupied by more workers or more residents (though, residential intensification is more limited).

The intensification of use in existing buildings is not new. It is a trend that has been growing over the last decade. It is worth at this juncture making the distinction between the concepts of intensification and densification.

- **Intensification** refers to an asset being used more intensely, that is, to accommodate more people and/ or produce more output. This may or may not be accompanied by an increase in floorspace.

  Intensification is more commonly observed for non-residential development (e.g. industrial, commercial) where there is a scarcity of land and/ or where planning controls may not permit greater density but market demand is high.

- **Densification** refers to an increase in floorspace over the same amount of site area, either horizontally or vertically.

  An increase in density could occur through alterations and additions activity (e.g. addition of another storey over an existing building) or through a comprehensive redevelopment (where an existing building is demolished in favour of a new, more dense new building).

In existing urban areas, comprehensive redevelopment is not always economically feasible unless existing buildings are past their economic useful life and/ or there is significant planning upside (increased density) in a redevelopment scenario. It is therefore not uncommon for landowners to undertake alterations and additions activity to unlock opportunity for their sites to be utilised more effectively.

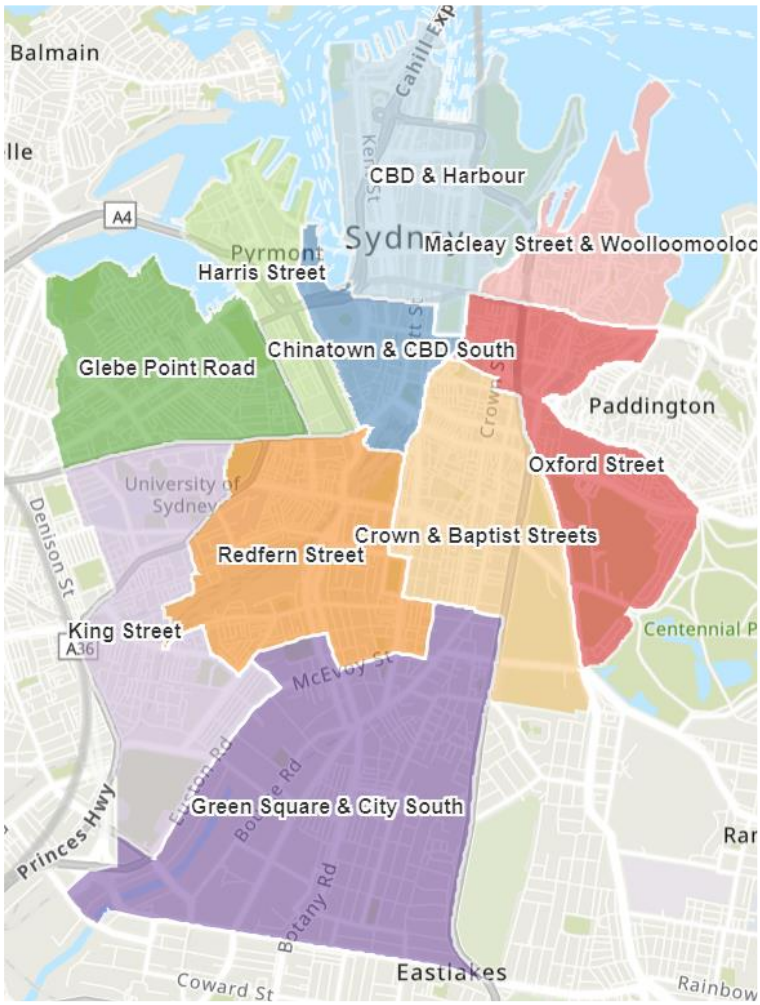
[5] Defined as "the use of an asset that maximises its potential and that is physically possible, legally permissible and financially feasible" (International Valuation Standards Committee, as adopted by the Australian Property Institute)

The trend of intensification can be observed in data collected by the City of Sydney in its five-yearly survey of buildings.

The City of Sydney undertakes a comprehensive floorspace and employment survey (FES) every five years by its village grouping. The FES is timed to occur the year after the five-yearly ABS census and provides a comprehensive picture of floorspace and how it is used in the Sydney LGA. The FES is therefore a valuable source of data that enables time-series analysis of floorspace utilisation trends.

Figure 7-1 illustrates the City of Sydney's village groupings and their boundaries.

Figure 7-1: City of Sydney Village Groupings



Source: City of Sydney (2017)

Table 7-1 shows that workspace ratios (i.e. the average floorspace occupied per worker) in the CBD and Harbour village (which mostly covers the Sydney CBD) has been falling since 2007 and accelerating between 2012 and 2017.

Table 7-1: Workspace Ratios (average per worker), CBD and Harbour Village (2007-2017)

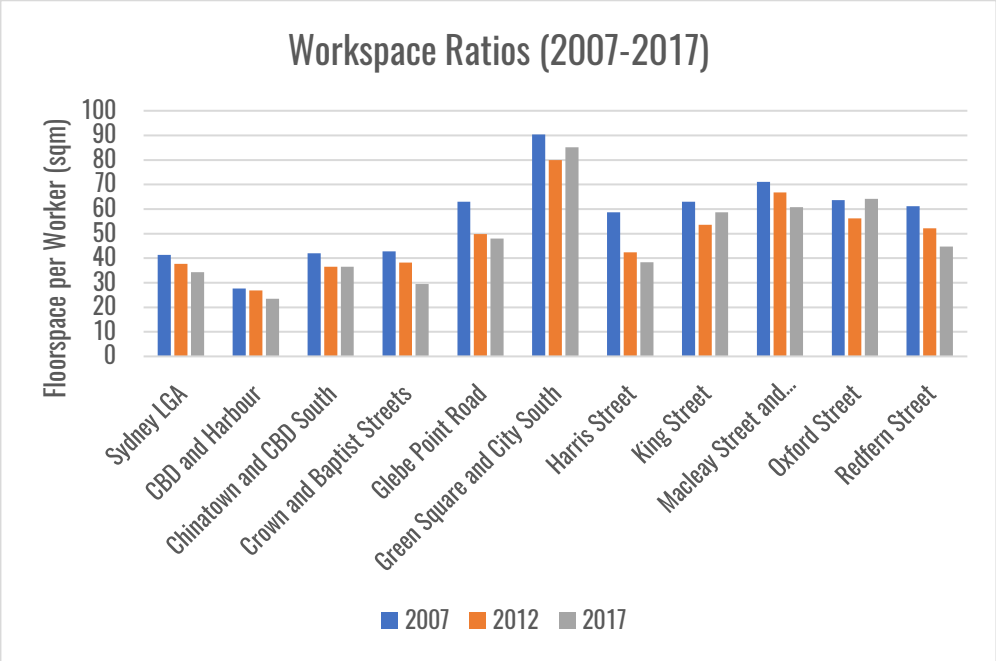
Office Space Use	2007	2012	2017
Partitioned office	14.6	14.5	13.4
Open plan office	10.6	10.8	8.0
Total office	11.5	11.6	8.8

Source: City of Sydney (2017)

While there has been new development activity in the Sydney CBD over the 2007-2017 period, there has been a significant level of alterations and additions, refurbishment and fitout activity that has facilitated the more efficient utilisation of commercial floorspace.

Figure 7-2 shows that across the Sydney LGA, overall workspace ratios have generally been on the decline since 2007.

Figure 7-2: Workspace Ratios, Sydney LGA and Villages (2007-2017)



Source: City of Sydney (2017)

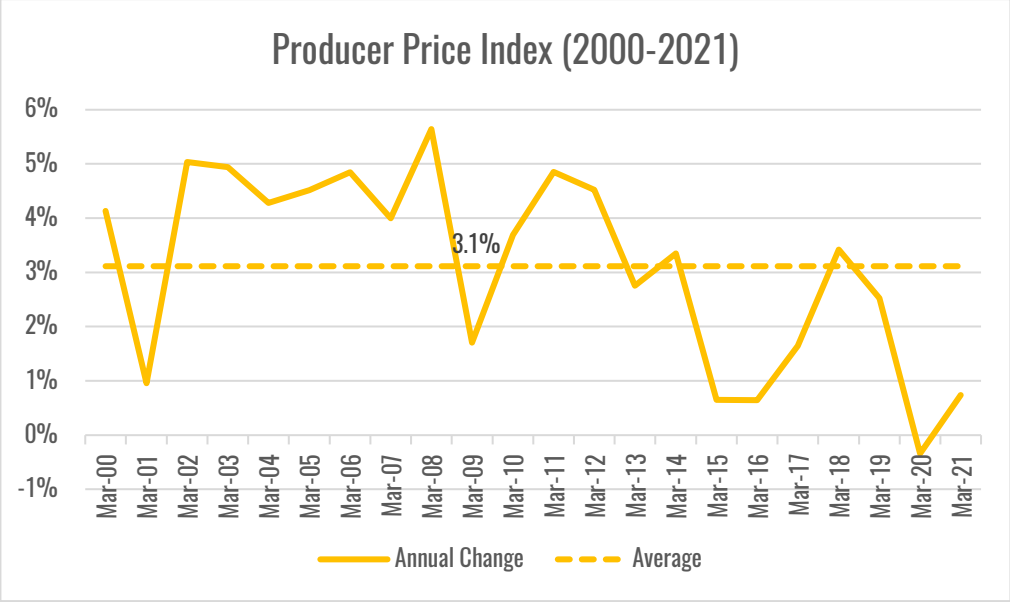
The foregoing suggests that floorspace is increasingly being used more intensively (that is, accommodating more workers per square metres of floorspace), regardless of whether new floorspace is added.

Regular Review and Indexation

The PC Review is silent on review and indexation of the RIC. It is prudent that an indexation mechanism is specified and applied regularly to the RIC. It suggests the Producer Price Index (Roads and Bridges) is used to index s7.12 contributions. In the interest of consistency and simplicity, the same index could be applied to regularly review the RIC.

Figure 7.3 depicts the PPI (Roads and Bridges) over a 21-year period to 2021. An average price growth rate of 3.1% is observed over the period.

Figure 7.3: Price Movements, Producer Price Index (2000-2021)



Source: ABS (2021c)

7.2.1 Implications for Existing SIC Rates

The PC Review's RIC rates and tested (alternate) RIC rates are for the most part lower than existing and draft SIC rates which are contained in **Table 7.2**.

Table 7.2: Existing and Draft SIC Rates, Greater Sydney and Outer Metro regions

SIC Area	Status	Sub-region	SIC Rate	Charge Type	Equivalent to RIC Unit Charge			Comments
					Low	High	unit	
Greater Sydney								
Western Sydney Growth Areas	Existing	Balmoral Road	$213,989	ha NDA of residential land	$3,566	$21,399	dwelling	Equivalent unit rates based on densities 10-60 dw/ha NDA. RIC rates of $12,000 and $10,000 per dwelling are marginally higher than majority of likely SIC rates.
			$170,232	ha NDA	$2,837	$17,023	dwelling	
	Existing	North West Industrial Lands	$92,995	ha NDA	$13	$19	dwelling	Equivalent unit rates based on assumed density of FSR 0.5:1 to 0.7:1. Industrial RIC rates broadly similar.
	Existing	Western Sydney Growth Centre	$269,649	ha NDA of residential land	$4,494	$26,965	dwelling	RIC rates per dwelling marginally higher than majority of likely SIC rates. Industrial RIC rates are lower.
			$116,899	ha NDA of industrial land	$17	$23	GFA	
	Exhibited Draft	North West Growth Area	$15,426	additional lot/ dwelling	$15,426	$15,426	dwelling	RIC rates of $12,000 and $10,000 per dwelling are lower than draft SIC rates.
		Balmoral Road	$15,267	additional lot/ dwelling	$15,267	$15,267	dwelling	
		North West Industrial Lands	$98,367	ha NDA	$14	$20	GFA	Based on assumed density of FSR 0.5:1 to 0.7:1. Industrial RIC is at lower end of draft SIC.
Bayside West	Existing	-	$9,000	additional lot/ dwelling	$9,000	$9,000	dwelling	Lower than RIC rates of $12,000 and $10,000.
St Leonards/ Crows Nest	Existing	-	$15,100	dwelling (change to planning controls)	$15,100	$15,100	dwelling	Higher than RIC rates of $12,000 and $10,000. SIC rate is calculated on 'additional' dwellings, which could, after offset of existing dwellings be lower than $15,100.
Rhodes East	Exhibited Draft	-	$21,943	additional lot/ dwelling	$21,943	$21,943	dwelling	Higher than RIC rates of $12,000 and $10,000.
Greater Macarthur	Exhibited Draft	Greater Macarthur North	$39,710	additional lot/ dwelling	$39,710	$39,710	dwelling	Higher than RIC rates of $12,000 and $10,000. This indicates scope for other contributions - water infrastructure and a SBC.
		Greater Macarthur Central	$43,985	additional lot/ dwelling	$43,985	$43,985	dwelling	
		Greater Macarthur South	$43,432	additional lot/ dwelling	$43,432	$43,432	dwelling	
Western Sydney Aerotropolis	Exhibited Draft	Enterprise zone	$200,000	ha NDA	$29	$40	GFA	Based on assumed FSR 0.5:1 to 0.7:1.
		Mixed Use zone	$500,000	ha NDA	$50	$17	GFA	Based on assumed FSR 1;1 to 3:1
		Agribusiness zone	$200,000	ha NDA	$29	$40	GFA	Based on assumed FSR 0.5:1 to 0.7:1
								Higher than non-residential RIC, lower than residential RIC.
	Exhibited Draft	Station precincts (Enterprise)	1%	Cost of development	$15	$25	GFA	Based on assumed cost range of $1,500 to $2,500/sqm
		Station precincts (Mixed Use)	2%	Cost of development	$20	$40	GFA	Based on assumed cost range of $2,000 to $4,000/sqm
								Higher than non-residential RIC, lower than residential RIC

SIC Area	Status	Sub-region	SIC Rate	Charge Type	Equivalent to RIC Unit Charge			Comments
					Low	High	unit	
Wilton	Exhibited Draft	Wilton Town Centre, Wilton North, West Wilton, South East Wilton, Maldon	$59,274	additional lot/ dwelling	$59,274	$59,274	dwelling	Higher than RIC rates of $12,000 and $10,000, indicating scope for other contributions.
Outer Metro regions								
Warnervale Town Centre	Existing	-	$140,000	ha NDA	$9	$14	GFA	Assuming FSR :1 to 1:1. Lower than non-residential and residential RIC
Wyong Emp. Zone	Existing	-	$91,000	ha NDA of industrial land	$13	$18	GFA	Equivalent unit rates based on assumed density of FSR 0.5:1 to 0.7:1. Industrial RIC rates broadly similar.
Hunter	Exhibited Draft	Lower Hunter	$9,857	additional lot/ dwelling	$9,857	$9,857	dwelling	Higher than alternate RIC rates of $8,000 and $6,000. This indicates smaller scope for other contributions - water infrastructure and a BI (if required).
Illawarra-Shoalhaven	Exhibited Draft	Nowra-Bomaderry	$72,044	ha NDA	$3,602	$7,204	dwelling	Equivalent unit rates based on densities 10-20 dw/ha NDA. Alternate RIC rates of $8,000 and $6,000 per dwelling are broadly comparable to the draft SIC rates.
		West Lake Illawarra-Calderwood, Tallawarra	$97,690	ha NDA	$4,885	$9,769	dwelling	
		West Lake Illawarra-West Dapto	$123,779	ha NDA	$6,189	$12,378	dwelling	

Source: DPIE, Atlas

The existing and draft SIC rates are mostly focused on charging residential development land with a select few charging on industrial development land.

- In Greater Sydney:
    - Residential SICs and draft SICs are mostly higher than the residential RIC rates (except gazetted SIC rates in the Western Sydney Growth Areas, being legacy rates from more than 10 years ago). Where SIC rates are higher than RIC rates, this indicates there is scope for other contributions, such as water infrastructure charges, SBC and TPC (if applicable)
    - Industrial SIC rates are generally on par with the proposed Industrial RIC rates.
    - SIC rates are generally not applicable on commercial uses, with the exception of the draft SIC in the Western Sydney Aerotropolis.
- In the Outer Metro regions:
    - RIC rates are at broadly comparable levels to where SICs or draft SICs are applicable.
    - Industrial SIC rates are generally on par with the proposed Industrial RIC rates.

An SBC is proposed to apply to areas covered by the Cumberland Plain Conservation Plan, which are generally areas in Sydney's growth areas. Where existing SIC or draft SICs exceed the RIC, there would be scope for an SBC without impact to feasibility. In circumstances where this is not the case, careful staging and advance notice would be critical considerations for an SBC.

Transitional arrangements could be considered for the RIC in current SIC areas, though would need to be balanced to ensure area-specific infrastructure can still be delivered to support development in the existing and draft SIC Contribution Areas.

7.3 Recommendations

RIC Rates in Greater Sydney and the Outer Metro regions

The Study recommends adoption of the PC Review's residential RIC rates of $12,000 per dwelling (House) and $10,000 per dwelling (Other Residential) for Greater Sydney.

The Study finds there is a case for implementing lower residential RIC rates than proposed in the Outer Metro regions. Rates of $8,000 per dwelling (House) and $6,000 per dwelling (Other Residential) are tested and found to provide impact relief, more proportional to levels of pricing and demand in the Outer Metro regions.

The Study recommends a flat Commercial RIC rate ($30/sqm) to apply to Commercial ***and*** Retail floorspace to be consistent with land use terms in the standard instrument LEP (where 'retail' premises are a subset of 'Commercial'). It would additionally provide scope for market recovery and relief for the retail sector which is undergoing structural change.

Table 7-3 shows RIC rates that could be considered for Greater Sydney and the Outer Metro regions.

Table 7-3: Potential RIC Rates, Greater Sydney and Outer Metro regions

Region	House ($/dw)	Other Residential ($/dw)	Industrial ($/sqm GFA)	Commercial ($/sqm GFA)	Retail ($/sqm GFA)
Greater Sydney	$12,000	$10,000	$15	$30	$30
Outer Metro regions	$8,000	$6,000	$15	$30	$30

Source: Atlas

Additional Unit Charge Rates

The Study recommends adoption of a standard RIC charge to apply to land uses not covered by the proposed units of charge. These land uses include non-private dwellings such as boarding houses, backpackers' accommodation, tourism and visitor accommodation and other land uses that do not fall within the Industrial or Commercial land use category.

Assuming that demand for local infrastructure arising from non-private dwellings is addressed within the local contributions framework, the Study recommends the commercial RIC rate ($30/sqm) is considered for wide application to these uses. This recognises the commercial enterprise associated with the land uses and addresses the PC Review's objective of simplicity.

Levy on 'Total' Development

The PC Review is silent on the application of the RIC on 'total' or net new' development. In the interest of simplicity and efficiency, there is a case for not allowing credit offsets for existing buildings.

The Study recommends that RIC rates are levied on 'total' and not 'net new' development activity. This means that calculation of the RIC does not offset existing buildings.

It is worth considering the reasons why existing buildings may be demolished and replaced. These include:

- Existing buildings are at the end of their economic useful life.
- There is an opportunity for more economic use of existing buildings.
- There is an opportunity for greater density to be achieved on the site.

As existing buildings reach the end of the economic useful life and are redeveloped, commensurate contributions from new development would enable state and regional infrastructure to be similarly renewed.

Notice, Phasing-in and Staggered Implementation

The Study recommends that DPIE provide advance notice (at least 12 months) of new RIC rates to the market with savings provisions applying to applications lodged during this time. This would allow:

- Sites already purchased and developments already in the pipeline to be progressed and delivered.
- Development momentum that is already building to continue.
- Market participants to factor-in the RIC in due diligence and purchase negotiations.

As with all contributions policy, landowner expectations and market behaviour adjust over time. Implementation that provides clear notice to the market will ensure any adverse impact to future investment can be mitigated as far as possible.

Even though the Study is tasked with reviewing the RIC contributions framework and its implementation implications, it is necessary for the Study to also consider implications of the water infrastructure charges, SBC and higher residential s7.12 rates as proposed in the PC Review.

The impact testing shows that careful ***staging*** and ***staggering*** of the various contributions/ charges is critical to avoid a 'layering of charges' and cumulative impact that would undermine investment feasibility and ultimately development supply.

The Study recommends that implementation of the RIC, water charges, SBC and higher s7.12 rates is staggered over a 3-5 year period, with clear indication provided of when each is to be implemented.

In a buoyant market, competition for development opportunities is keen. In a rising market, developers are generally more willing to pay premiums for sites in anticipation that rising end sale values will help offset the cost of land. As the impact testing shows, rising end sale values (a result of natural market cycles) also help to offset the impact of the RIC.

In a flat/ softening market, willingness to pay increased contributions will be lower, which underscores the importance of advance notice, enabling appropriate pricing for site consolidation.

Clear and definitive notice to the market of DPIE's intentions to implement the RIC, water charges, SBC and s7.12 rates would provide certainty for investment and development planning. Over time, market dynamics will adjust as the market accounts for the cost of the various charges. It is therefore critical for the various rates to be clearly articulated so that parties are informed at the outset and able to make informed decisions on site purchase.

Exemptions

The Study recommends the following are exempt from a RIC:

- Social infrastructure (e.g. social and affordable housing, schools, hospitals, etc.)
- Non-floorspace based development (e.g. data centres, solar and wind farms, eco-tourism resorts).

Annual and Periodic Review of RIC

The Study recommends that RIC rates are indexed annually to the Producer Price Index (Roads and Bridges), consistent with the PC's Review of s7.12 contributions.

It is essential that the RIC is reviewed appropriately to ensure it can sustainably deliver the infrastructure programme for Greater Sydney and the Outer Metro regions. Regular review of development activity and take-up of development opportunities should be built into the RIC framework to monitor impacts and implications on development supply.

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Schedules

SCHEDULE 1

Greater Sydney - Case Study Selection

Overview of Selected Case Study Areas

Residential (Houses)

Three case study areas are selected for analysis in the context of residential (houses) - Edmondson Park, Schofields and Warriewood. These are collectively referred to as '**Residential (Houses) Case Study Areas**'.

Historical Population Growth

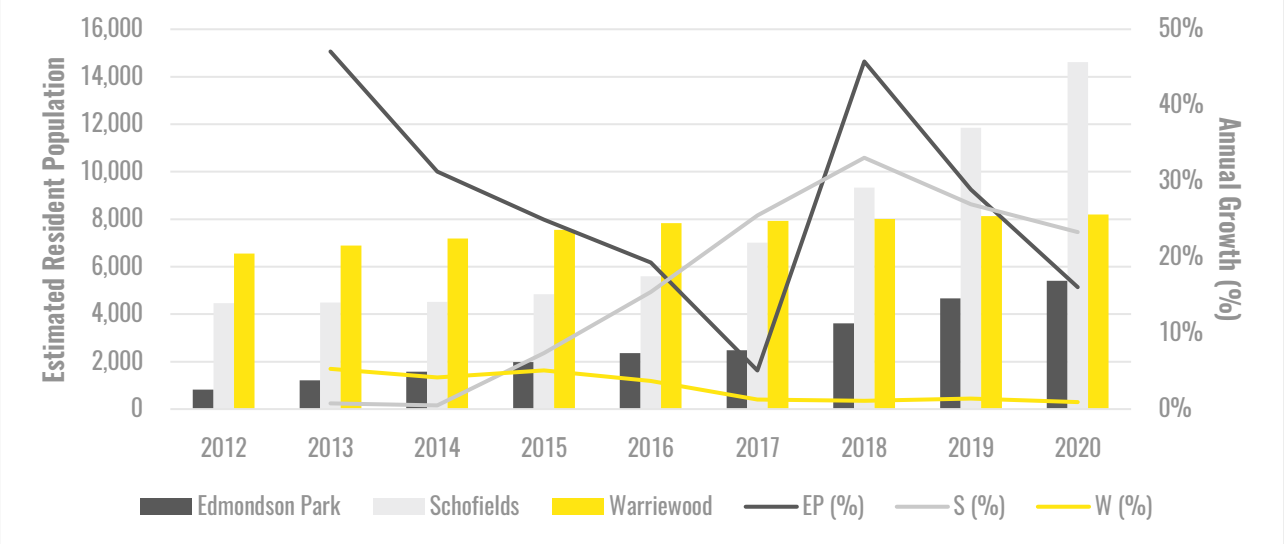
The Residential (Houses) Case Study Areas have recorded varying levels of population growth over 2012-2020, a reflection of the differing levels of development activity observed during this period.

- **Edmondson Park** has grown by almost 5,000 residents since 2012, with strong levels of growth recorded since 2017.
- **Schofields** has expanded by circa 10,000 residents since 2012 and has been one of the fastest growing precincts in Greater Sydney during the 2012-2020 period.
- Population growth in **Warriewood** has been less pronounced (being a smaller area), with some 1,300 new residents recorded since 2012.

All precincts have recorded faster levels of population growth compared to their respective LGAs.

Figure S1-1 illustrates the pace of population growth across the Residential (Houses) Case Study Areas over 2012-2020.

Figure S1-1: Estimated Resident Population (2012-2020), Residential (Houses) Case Study Areas



Note: Geographical boundaries as per those defined by .id
Source: ABS (2021), sourced from .id

Historical Dwelling Growth

Relevantly, the most recent data on dwelling supply by typology at the small area level (i.e. suburb) is as per the 2016 Census. A significant amount of new housing supply would have been delivered in the Residential (Houses) Case Study Areas post-2016; analysis of 2006-2016 Census data demonstrates high levels of new low and medium-density housing:

- Edmondson Park recorded over 500 new dwellings over 2006-2016 with 96% of these being separate houses.
- Schofields delivered 380 new dwellings in the 10-years to 2016. Some 28% of these were separate houses and around 57% were medium-density typologies (e.g. multi-unit housing, townhouses, villas, etc).

- Just over 750 new dwellings were recorded in Warriewood over 2006-2016, with much of these being medium-density typologies (50%) and high-density typologies.

Upon release of the 2021 Census, it is expected that the majority of new dwellings delivered over the 2016-2021 period across each of the Residential (Houses) Case Study Areas will primarily be low and medium-density typologies.

Table S1-1 illustrates the historical dwelling composition of the Residential (Houses) Case Study Areas over 2006-2016.

Table S1-1: Historical Dwelling Composition (2006-2016), Residential (Houses) Case Study Areas

Area	2006		2011		2016		Change	
	No.	%	No.	%	No.	%	No.	%
Edmondson Park								
Separate house	151	96%	161	91%	644	96%	493	326%
Medium-density	3	2%	11	6%	10	1%	7	233%
High-density	-	-	-	-	-	-	-	-
Schofields								
Separate house	1,429	90%	1,460	91%	1,537	78%	108	8%
Medium-density	57	4%	59	4%	275	14%	218	382%
High-density	-	-	-	-	-	-		
Warriewood								
Separate house	1,341	71%	1,256	61%	1,286	49%	-55	-4%
Medium-density	543	29%	746	36%	916	35%	373	69%
High-density	1	1%	49	2%	438	17%	437	43700%

Source: ABS, sourced from .id

Future Growth Expectations

The Residential (Houses) Case Study Areas are expected to have strong population growth over the coming decades as the largely greenfield areas have been rezoned for residential house development. Precinct planning for each area indicates:

- Edmondson Park was initially planned to accommodate some 6,000 dwellings upon buildout.
- Schofields (i.e. Schofields and Alex Avenue precincts) was initially intended for development of ~12,300 dwellings.
- Warriewood (i.e. the Warriewood Valley Release Area) is planned to accommodate around 2,500 dwellings.

As demonstrated in Table S1-2 forecasts carried out by .id in consultation with Liverpool, Blacktown and Northern Beaches Councils suggests much of this planned growth will be delivered over the coming years to 2036.

Table S1-2: Forecast Population and Dwelling Growth (2016-2036), Residential (Houses) Case Study Areas

Area	2016	2021	2026	2031	2036	Change (2016-2036)	
						No.	%
Edmondson Park							
Population	2,360	15,655	24,766	29,051	28,165	25,805	13.2%
Population Change		13,295	9,111	4,284	-885		
Dwellings	673	4,440	7,168	8,632	8,642	7,969	13.6%
Dwelling Change		3,767	2,728	1,464	10		
Schofields							
Population	5,759	14,155	22,137	26,764	26,242	20,483	7.9%
Population Change		8,396	7,982	4,627	-522		
Dwellings	1,854	4,552	7,155	8,715	8,767	6,913	8.1%
Dwelling Change		2,698	2,603	1,560	52		

Area	2016	2021	2026	2031	2036	Change (2016-2036)	
						No.	%
Warriewood							
Population	7,881	8,221	8,655	9,110	9,586	1,705	1.0%
Population Change		340	434	455	476		
Dwellings	2,685	2,823	3,023	3,223	3,423	738	1.2%
Dwelling Change		138	200	200	200		

Source: .id (2017, 2019, 2020)

Dwelling Prices

Whilst the case study areas are focal points for recent development, not all these areas attract average pricing. The following observations on prices and historical price growth for each of the Residential (Houses) Case Study Areas are made.

- Edmondson Park has a higher detached and multi-unit median price compared to the broader Liverpool LGA. Dwelling values in Edmondson Park have been growing at a faster pace to the LGA since the suburb began developing.
- Schofields also has a higher median dwelling price (detached and multi-unit) compared to the Blacktown LGA. House price growth in Schofields began outpacing the broader LGA over the past 12-months. Multi-unit dwelling prices have generally recorded *less* growth compared to the LGA.
- Warriewood has a lower median dwelling price (both detached and multi-unit) compared to the Northern Beaches LGA.

Table S1-3 illustrates the difference in dwelling (detached houses and multi-unit) price growth across the Residential (Houses) Case Study Areas compared to their respective LGAs.

Table S1-3: Median Dwelling Prices, Residential (Houses) Case Study Areas

Area	Median Sale Price	Recent Growth (%)			Historical Avg. Annual Growth	
		3-month	12-month	36-month	5-year	10-year
Detached Houses						
Edmondson Park (Liverpool LGA)	$929,500 ($799,000)	1.8% (2.0%)	3.7% (0.9%)	-3.3% (-6.3%)	2.3% (0.5%)	N/A (5.5%)
Schofields (Blacktown LGA)	$900,000 ($842,000)	0.7% (3.4%)	15.5% (9.7%)	1.9% (3.9%)	3.8% (3.4%)	7.0% (7.0%)
Warriewood (Northern Beaches LGA)	$2,172,500 ($2,380,000)	6.3% (7.7%)	18.4% (16.7%)	7.2% 16.0%	4.7% (6.7%)	5.8% (7.7%)
Multi-Unit						
Edmondson Park (Liverpool LGA)	$630,000 ($510,000)	-0.6% (1.0%)	-5.0% (4.1%)	0.2% (-4.7%)	4.1% (0.6%)	N/A (6.2%)
Schofields (Blacktown LGA)	$569,900 $584,900	-1.3% (0.0%)	-12.3% (-1.7%)	-18.6% (-5.0%)	-0.1% (1.7%)	N/A (6.6%)
Warriewood (Northern Beaches LGA)	$1,020,000 ($1,050,000)	1.8% (1.9%)	10.0% (6.3%)	-5.6% (5.5%)	5.0% (4.5%)	4.3% (5.7%)

Source: CoreLogic (2021)

Other Residential (Units)

Three case study areas are selected for analysis in the context of other residential (units) - St Marys, Bankstown and Chatswood. They are referred to as '**Other Residential (Units) Case Study Areas**'.

Historical Population Growth

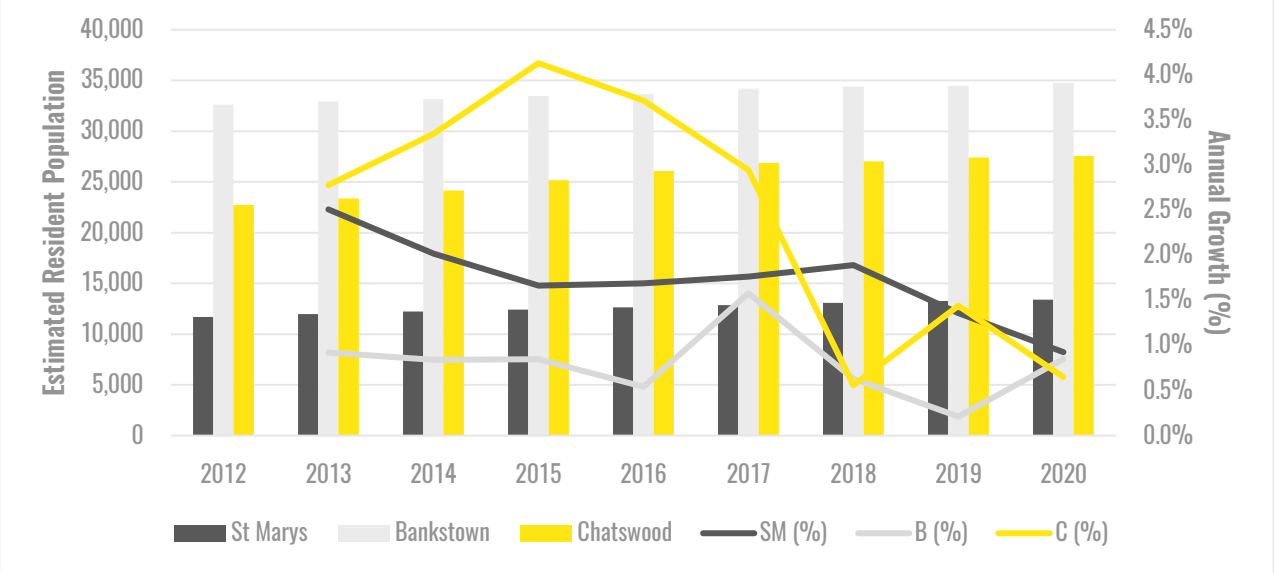
Chatswood recorded the most significant level of population growth over the 2012-2020 period, followed by Bankstown and St Marys. This reflects differing levels of market acceptance of high-density development in each of the areas.

- **St Marys** grew by some 1,700 residents over the 2012-2020 period, reflecting average annual growth of 1.7%.
- **Bankstown**'s population rose by around 2,150 residents since 2012 at an average annual rate of 0.8%.
- **Chatswood** has seen significant population growth over the 2012-2020 period, rising by around 4,800 residents at an average annual rate of growth of 2.4%.

Only Chatswood has seen a faster pace of growth compared to its parent LGA (Willoughby) – St Marys and Bankstown recorded slightly softer rates of population growth compared to their respective LGAs.

Figure S1-2 shows the pace of population growth across the Other Residential (Units) Case Study Areas over 2012-2020.

Figure S1-2: Estimated Resident Population (2012-2020), Other Residential (Units) Case Study Areas



Source: ABS, sourced from .id

Historical Dwelling Growth

Whilst a significant amount of new housing supply has been delivered in the Other Residential (Houses) Case Study Areas post-2016, analysis of 2006-2016 Census data demonstrates high levels of new *high-density* housing in particular. The Case Study Areas are expected to experience significant high-density development moving forward which is not reflected in 2016 Census data. Nevertheless, the following observations are useful in the context of understanding their profile:

- St Marys recorded over 770 new dwellings over 2006-2016 - 24% of these being high-density typologies.
- Bankstown recorded almost double the dwellings over 2006-2016 compared to St Marys, with some 1,440 dwellings - 88% were new apartments.
- Chatswood recorded some 1,815 new dwellings in the decades to 2016 - all of these high-density housing.

Upon release of the 2021 Census, it is expected that the overwhelming majority of new dwellings delivered over the 2016-2021 period across the Other Residential (Units) Case Study Areas will comprise primarily apartment typologies.

Table S1-4 illustrates the historical dwelling composition of the Other Residential (Units) Case Study Areas over 2006-2016.

Table S1-4: Historical Dwelling Composition (2006-2016), Residential (Units) Case Study Areas

Area	2006		2011		2016		Change	
	No.	%	No.	%	No.	%	No.	%
St Marys								
Separate house	2,638	60.6%	2,715	58.1%	2,746	53.5%	108	4.1%
Medium-density	1,336	30.7%	1,663	35.6%	1,692	33.0%	356	26.6%
High-density	371	8.5%	293	6.3%	658	12.8%	287	77.4%
Bankstown								
Separate house	3,423	35.2%	3,516	33.5%	3,572	32.0%	149	4.4%
Medium-density	1,908	19.6%	2,349	22.4%	1,842	16.5%	-66	-3.5%
High-density	4,382	45.0%	4,595	43.8%	5,643	50.5%	1,261	28.8%
Chatswood								
Separate house	3,249	37.6%	3,016	33.3%	2,941	28.1%	-308	-9.5%
Medium-density	1,129	13.1%	937	10.4%	865	8.3%	-264	-23.4%
High-density	4,257	49.2%	5,093	56.2%	6,625	63.3%	2,368	55.6%

Source: ABS, sourced from .id

Future Growth Expectations

The Other Residential (Units) Case Study Areas are expected to record strong levels of population growth as new transport infrastructure and/or precinct planning will unlock development capacity for further high-density development. For instance:

- Following announcement of St Marys as the primary transport interchange linking the existing heavy rail line with the Western Sydney Airport and future city of Bradfield, it is understood Penrith City Council are investigating potential changes to the local planning framework to capitalise on the significant infrastructure investment proposed.
- Planning controls in Bankstown are under review with the draft Bankstown Strategic Centre Masterplan released for public exhibition in early 2021. New planning controls will unlock a significant amount of new high-density residential development capacity. The exhibited Masterplan follows the announcement of the Bankstown Metro Station redevelopment as part of the Sydney Metro City and South West line.
- The Chatswood CBD Planning and Urban Design Strategy 2036 was endorsed by the NSW Government in mid-2020 and permits an increase in development capacity in certain parts of the precinct.

As demonstrated in Table S1-5 forecasts by .id in consultation with Canterbury-Bankstown and Willoughby Council suggests much of this growth will be delivered to 2036. Population and dwelling forecasts for St Marys are not publicly available.

Table S1-5: Forecast Population and Dwelling Growth (2021-2041), Residential (Units) Case Study Areas*

Area	2016	2021	2026	2031	2036	Change (2016-2036)	
						No.	%
Bankstown							
Population	33,648	41,031	48,418	54,087	58,769	25,121	2.83%
Population Change		7,383	7,387	5,669	4,682		
Dwellings	11,234	13,811	16,584	18,721	20,562	9,328	3.07%
Dwelling Change		2,577	2,773	2,137	1,841		
Chatswood							
Population	26,206	28,448	30,675	31,512	32,505	6,299	1.08%
Population Change		2,242	2,227	837	993		
Dwellings	10,635	11,551	12,566	12,982	13,436	2,801	1.18%
Dwelling Change		916	1,015	416	454		

*Excluding St Marys
Source: .id (2017, 2018)

New Apartment Prices

Prices paid for new apartments in the Other Residential (Units) Case Study Areas vary markedly, as expected given their difference locational characteristics, amenity and drivers of demand.

- In **St Marys**, prices paid for new apartments typically range from $6,000/sqm to $7,500/sqm of internal area. For instance, a new 2-bedroom apartment (79sqm) recently sold for $520,000. These are some of the lowest prices paid for new apartments across Greater Sydney and reflect the relative immaturity of the local apartment market given competition from comparatively priced medium-density housing typologies.
- Prices paid for new apartments in **Bankstown** typically range from $7,500/sqm to $8,500/sqm of internal area. These prices have typically been for medium-rise apartment buildings located some 400m from Bankstown train station. Following delivery of the Sydney Metro City and South East metro line, higher apartment prices and more intense forms of apartment development are anticipated.
- **Chatswood** achieves some of the highest apartment prices in Greater Sydney. Prices for new apartments achieve rates ranging from $18,000/sqm to $22,000/sqm of internal area. This is effectively three times higher than that observed in St Marys for similar sized product.

Industrial

Three case study areas selected for analysis of industrial land uses are Erskine Park, Auburn and Alexandria, located in the Western City, Central City and Eastern City respectively.

Erskine Park

Erskine Park is a 662ha industrial precinct located in the Penrith LGA and forms part of the Western Sydney Employment Area (WSEA). Under development for well over a decade, Erskine Park is around 88% developed (or being developed) and has been the location of some of the largest industrial developments in Greater Sydney in recent years.

Figure S1-3 provides a summary of employment and market profile of the Erskine Park industrial precinct.

Figure S1-3: Profile Summary, Erskine Park

Historical Employment Growth

Erskine Park accommodated some 5,000 jobs in 2016. Transport and logistics accounted for 38% of employment, followed by manufacturing (17%) and retail trade (13%). The precinct grew by ~3,000 workers over 2011-2016 following an uptick in development activity. Just over half of this growth was attributed to transport and logistics.

Land Availability and Industrial Floorspace

Erskine Park is approximately 88% developed with some 79.7ha identified as vacant and serviced in Q1 2020.

Erskine Park comprises approximately 1.46 million square metres of industrial floorspace, making it one of the largest industrial precincts in Greater Sydney. The majority of industrial buildings across the precinct are large warehouse and logisTPC centres, with these typologies being the primary form of development pursued in recent years.

Rents and Land Values

Gross industrial rents in Erskine Park generally range from $115/sqm to $140/sqm of industrial floorspace. Industrial vacancies are historically low at sub-3%. This generally accords with market activity elsewhere in Outer West Sydney.

Very few sales of vacant blocks have been recorded in recent years, with the most recent evidence show land values of just under $4 million per hectare of developable land.

Source: ABS (2017)Atlas/DPIE (2021)/Empirical CRE

Auburn

The Auburn/ Clyde industrial precinct also referred to as 'Clyburn' is located in the Cumberland LGA. Straddling Parramatta Road and centred around Transport for NSW's Clyde Stabling Yards, the Auburn/ Clyde industrial precinct offers a central location within the growing Greater Parramatta region.

Figure S1-4 provides a summary of the employment and market profile of the Auburn/ Clyde industrial precinct.

Figure S1-4: Profile Summary, Auburn/ Clyde

Historical Employment Growth

Auburn/Clyde accommodated just over 4,900 jobs in 2016. Manufacturing is the largest industry in the precinct (19% of employment), closely followed by transport and logistics (18%) and construction (13%). The precinct recorded nominal employment growth over 2011-2016 (~50 jobs) with falls in manufacturing and transport and logistics employment.

Land Availability and Industrial Floorspace

Auburn/Clyde is approximately 90% developed with 6.1ha of undeveloped and serviced land identified in Q1 2020.

Auburn/Clyde comprises approximately 368,000sqm of industrial floorspace. The precinct features a broad mix of industrial typologies, including large warehouses, factories, waste transfer stations and smaller industrial suites.

Rents and Land Values

Gross industrial rents in Auburn/Clyde generally range from $100/sqm to $150/sqm of industrial floorspace and are highly contingent on the age, quality and proportion of office floorspace attributed to each property. Many industrial buildings across the precinct are approaching the end of their economic useful life and accordingly attracting lower rents. Nevertheless, industrial vacancies are very low at sub-5%.

A broad range of sale prices have been observed in recent times, with sales evidence analysing to rates from $670/sqm to $4,500/sqm of (improved) site area. Larger sites expectedly achieve rates are the lower end of this range.

Source: ABS (2017)Atlas/DPIE (2021)/Empirical CRE

Alexandria

Alexandria is a 151.7ha industrial precinct located in the Sydney LGA and forms part of the Southern Employment Lands. The Alexandria precinct has evolved as a highly diverse industrial market with a mix of urban services, creative industries and traditional industrial occupiers. As scarcity of industrial land in the Eastern City continues to create pressure on inner city industrial precincts over the coming years. Areas like Alexandria could be among the first precincts in Greater Sydney where multi-storey warehousing could become viable.

Figure S1-5 provides a summary of employment and market profile of the Alexandria industrial precinct.

Figure S1-5: Profile Summary, Alexandria

Historical Employment Growth

Alexandria accommodated ~18,000 jobs in 2016. The largest employing industry is retail trade (17% of employment), closely followed by transport and logistics (15%) and wholesale trade (13%). The precinct grew by over 5,550 jobs over 2011-2016 with growth driven by the retail trade, construction and transport and logistics sectors.

Land Availability and Industrial Floorspace

Alexandria is approximately 98% developed. The 1.9ha of undeveloped identified in Q1 2020 is not currently serviced.

Alexandria comprises approximately 1.25 million square metres of industrial floorspace. The precinct features most types of industrial typologies, including large warehouses, factories and a variety of smaller industrial suites and industrial parks.

Rents and Land Values

Industrial rents in Alexandria are amongst the highest in Greater Sydney, ranging from $225/sqm to $300/sqm of floor area (gross). Rents in the precinct have been trending upwards for several years and influenced by growing demand for urban services and last mile logistics along with rezoning of industrial and employment land across the Eastern City.

A broad range of sale prices have been observed in recent times, with sales evidence analysing to rates from $2,000/sqm to $7,500/sqm of (improved) site area. Larger sites expectedly achieve rates are the lower end of this range.

Source: ABS (2017)Atlas/DPIE (2021)/Empirical CRE

Commercial

Three case study areas selected for analysis of commercial land uses include Penrith, Sydney Olympic Park and Macquarie Park, located in the Western City, Central City and Eastern City respectively.

Penrith

Comprising an area of over 112ha, the Penrith CBD is the anchor and historical core of the Penrith LGA and forms part of the metropolitan cluster in the Western Parkland City. It acts as the administrative, civic, and retail hub for the Nepean River area with an extensive catchment extending to the Blue Mountains and Lithgow. The commercial and economic role of Penrith CBD is expected to grow significantly over the coming years in line with significant population growth forecast for the Penrith LGA along with the completion of the Western Sydney Airport.

Figure S1-6 provides a summary of employment and market profile of the Penrith CBD.

Figure S1-6: Profile Summary, Penrith City Centre

Historical Employment Growth

The Penrith CBD accommodated ~10,500 jobs in 2016. The largest employing industry is public administration and safety (12% of employment), closely followed by retail trade (19%) and health care and social assistance (13%). The precinct grew by 1,168 jobs over 2011-2016 with growth observed across a wide variety of sectors.

Commercial Floorspace

Along with the Liverpool CBD, the Penrith CBD is one of the Western City's two primary office markets. Comprising some 150,000sqm of commercial office floorspace, the centre is dominated by older style, low rise office buildings (typically located above ground floor retail). The CBD only comprises a small number of investment grade office buildings, the largest of these ranging from 7 to 11 storeys.

Rents and Land Values

Net rents for office space in the Penrith CBD range from around $400/sqm of net lettable area (NLA) and $325/sqm for lower quality space, making it amongst the most affordable office precincts in Greater Sydney. The office vacancy rate is sub-5% - well within the 3% to 5% range representative of normal market friction.

A divergent range of prices are paid for property within the CBD, reflective of development capacity and the value of existing improvements. A sample of recent sales is indicative of prices analysing to $3,000/sqm to $4,700/sqm of site area.

Source: ABS (2017)Atlas/Empirical CRE

Sydney Olympic Park

Sydney Olympic Park is centrally located within Greater Sydney, midway between the Parramatta and Sydney CBDs. Home to the 2000 Sydney Olympics and still a major entertainment hub, the ~260ha precinct has emerged as an important suburban office market over the past two decades.

Sydney Olympic Park is expected to emerge as a major commercial market over the coming years in line with the vision outlined in the *Sydney Olympic Park Master Plan 2030*. This will be supported by delivery of a new metro station as part of the planned Sydney Metro West metro line between the Parramatta and Sydney CBDs.

Figure S1-7 provides a summary of employment and market profile of the Sydney Olympic Park precinct.

Figure S1-7: Profile Summary, Sydney Olympic Park

Historical Employment Growth

Sydney Olympic Park accommodated just over 9,800 jobs in 2016. Financial and insurance services is the largest employing industry in the precinct, accounting for over 32% of employment. The other key sectors within the precinct include arts and recreation services (~13%) and professional, scientific and technical services (~10%). The precinct grew by ~1,800 jobs over 2011-2016 with growth driven by the professional, scientific and technical services and arts and recreation services sectors.

Commercial Floorspace

Sydney Olympic Park comprises circa 180,000sqm of commercial office floorspace. The precinct is characterised by medium rise, 'campus-style' office buildings with large floorplates ranging from 2,000sqm to 3,000sqm.

Rents and Land Values

Net office rents in Sydney Olympic Park range from $420/sqm to $450/sqm of NLA. Like many of Greater Sydney's suburban office markets, Sydney Olympic Park has been heavily impacted by COVID-19 with high vacancies recorded over the 12 months to Q1 2021.

Commercial property values are highly influenced by planning capacity and quality of existing improvements, with sale prices typically ranging from $4,500/sqm to $6,000/sqm of NLA.

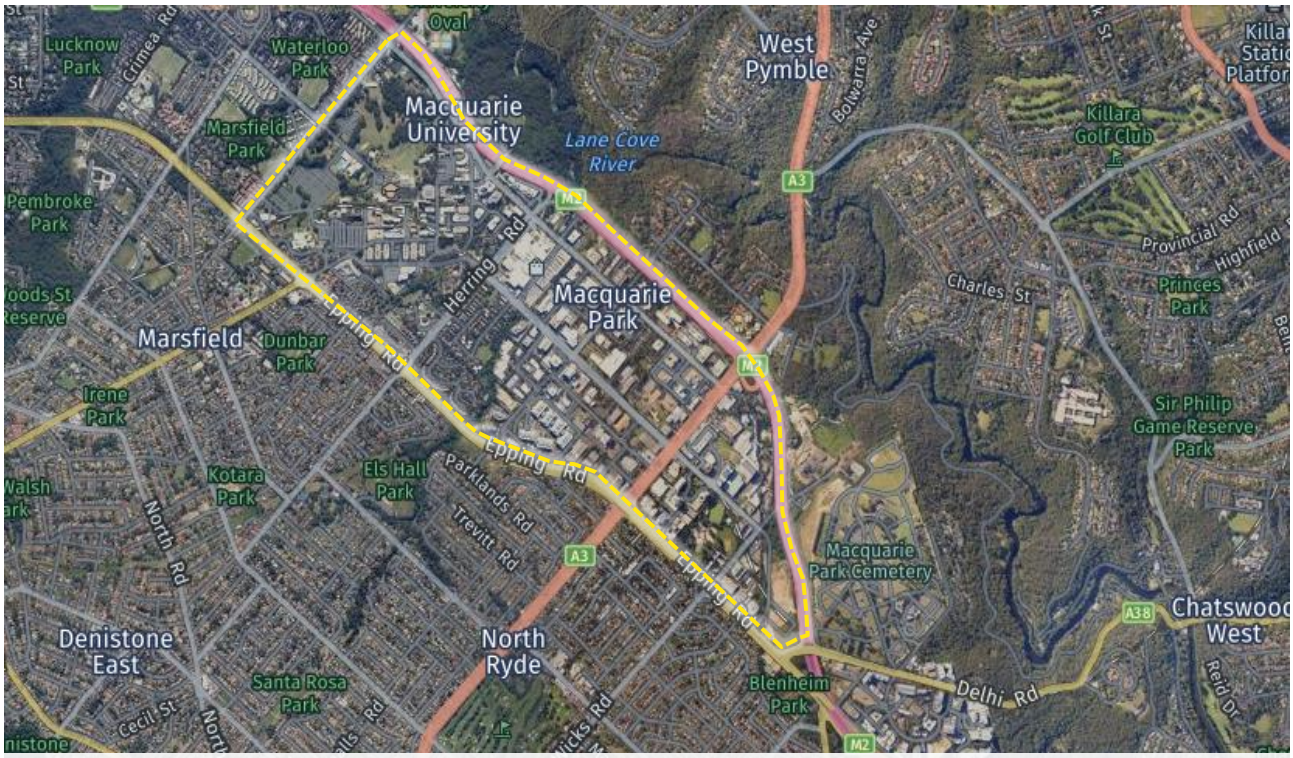
Source: ABS (2017)Atlas/DPIE (2021)/Empirical CRE

Macquarie Park

Spanning over 320ha and incorporating the Macquarie University campus, Macquarie Park is the second largest office market in NSW (after the Sydney CBD). Its co-location with other major assets such as Macquarie University, Macquarie Shopping Centre and CSIRO facilities have made it an increasingly popular precinct. The recently completed Sydney Metro Northwest, which upgraded both Macquarie University and Macquarie Park train stations to Metro standards has boosted interest in the precinct.

Figure S1-8 provides a summary of employment and market profile of Macquarie Park.

Figure S1-8: Profile Summary, Macquarie Park



Historical Employment Growth

Macquarie Park accommodated ~46,500 jobs in 2016. The largest employing industry is wholesale trade (18% of employment), closely followed by information and media technology (16%) and professional, scientific and technical services (13%). The precinct recorded growth of over 10,400 jobs over the 2011-2016 period, driven by significant growth in the health care and social assistance, education and training and retail trade sectors.

Commercial Floorspace

Macquarie Park comprises almost 860,000sqm of commercial floorspace floorspace. Similar to Sydney Olympic Park, the precinct is heavily characterised by 4-6 storey 'campus style' office buildings though in recent years there has been an uptick in development of taller, traditional office buildings.

Rents and Land Values

Net office rents in Macquarie generally range from $450/sqm to $550/sqm of NLA. Like many of Greater Sydney's suburban office markets, Macquarie Park was impacted by COVID-19 with vacancies of circa 7% recorded in Q1 2021.

Commercial property values are highly influenced by planning capacity and quality of existing improvements. Sale prices typically ranging from $6,500/sqm to $7,500/sqm of NLA, though higher prices have been paid where purchasers have anticipated the potential of development capacity.

Source: ABS (2017)Atlas/DPIE (2021)/Empirical CRE

Retail

Three case study areas selected for analysis of retail land uses include Leppington, Lidcombe and Green Square, located in the Western City, Central City and Eastern City respectively. Retail uses are often developed in mixed use developments.

Historical Population Growth

Understanding the nature of growth in the catchment area of the Retail Case Study Areas is important in illustrating the existing and future need for mixed uses.

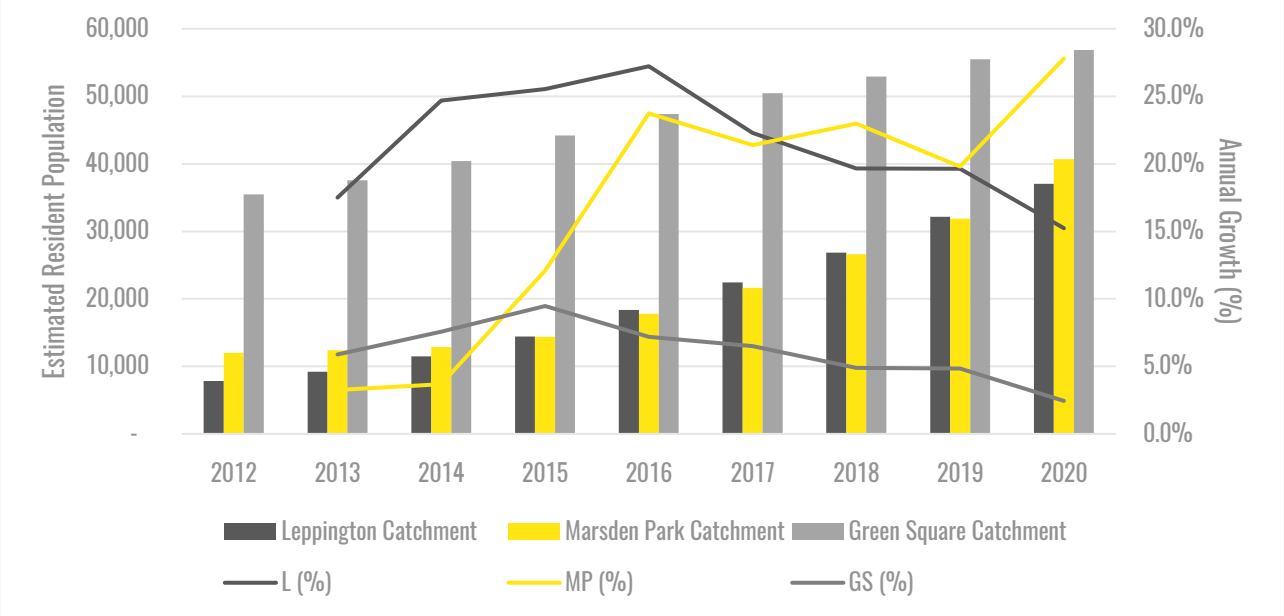
All the catchments of the Case Study Areas recorded significant growth over the 2012-2020 period:

- The **Leppington** catchment area has grown by just over 29,000 residents since 2012 - almost quadrupling in the 8 years to 2020. This reflects the significant level of residential development activity within the South West Growth Area during this time. Average annual growth over this period was 21.4% - one of the fastest rates of population growth in Australia.
- Around 28,700 new residents were recorded in the **Marsden Park** catchment over 2012-2020 period, the catchment growing by 2.5 times since 2012. Average annual growth over this period was 16.5% which was also one of the fastest rates of population growth across Australia over this period.
- The Green Square catchment area grew by almost 21,400 residents over 2012-2020, reflecting average annual growth of 6.1%, also significant for an infill area.

These catchments recorded faster levels of population growth compared to their respective LGAs.

Figure S1-9 illustrates the pace of population growth across the Retail Case Study Areas over 2012-2020.

Figure S1-9: Estimated Resident Population (2012-2020), Retail Case Study Areas



Note: Leppington Catchment - Cobbitty-Leppington SA2; Marsden Park Catchment - Riverstone-Marsden Park SA2; Green Square Catchment - Waterloo-Beaconsfield and Erskineville-Alexandria SA2s
Source: ABS (2021)

Population and Worker Densities

Population and worker densities reflect the intensity of the resident and worker population of an area and are important considerations for the viability of a mix of land uses, particularly retail.

Comparing the gross land area of the Retail Case Study Area catchments against most recent resident population data (2020) shows that resident densities in Leppington and Marsden Park are low. This reflects the large size of both catchment areas and the infancy of development within both precincts. Much higher resident densities are observed in the Green Square catchment area are observed, a reflection of the catchments smaller overall size and more developed nature. From a worker perspective, both Leppington and Marsden Park also comprised low worker densities when comparing against the most recent employment data (2016). Green Square similarly recorded higher levels of worker densities.

Table S1-6 outlines the existing population and worker densities within the Retail Case Study Areas.

Table S1-6: Population and Worker Densities, Retail Case Study Areas

Case Study Area[1]	Land Area[2] (ha)	Population (2020)	Workers (2016)	Population Density (2020)	Worker Density (2016)
Leppington	13,213.8	37,043	5,274	2.8	0.4
Marsden Park	7,942.10	40,713	8,009	5.1	1.0
Green Square	790.09	56,860	44,334	72.0	56.1

1 - Leppington Catchment - Cobbitty-Leppington SA2; Marsden Park Catchment - Riverstone-Marsden Park SA2; Green Square Catchment - Waterloo-Beaconsfield and Erskineville-Alexandria SA2s
2 - Measured area of SA2 catchments
Source: ABS (2021)/TPA (2020)

Forecast Growth and Densities

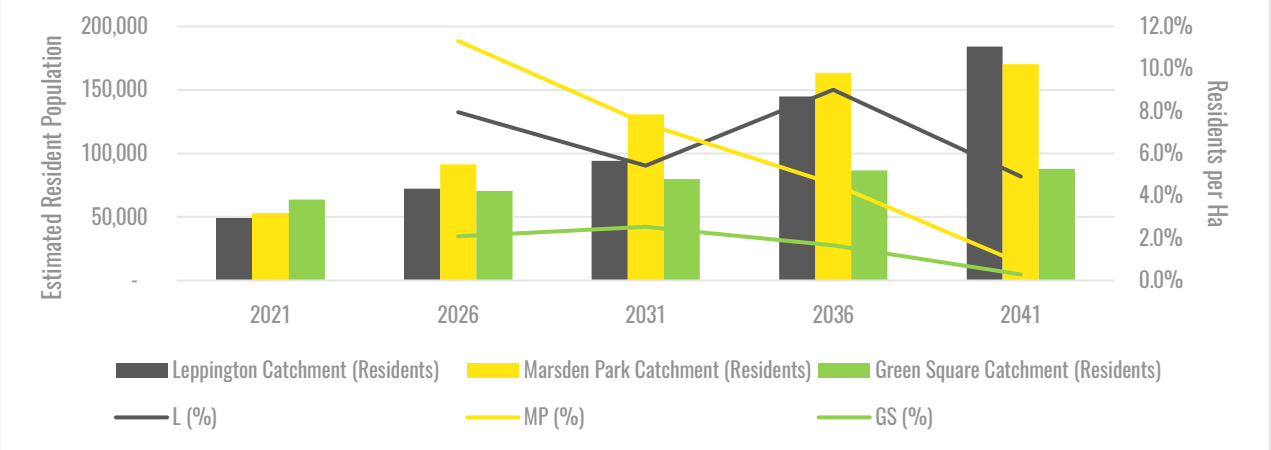
The Retail Study Areas are expected to experience significant resident and worker growth over the coming decades as the catchment areas continue to develop and mature. This growth will drive demand for a broad mix of land uses, particularly population-serving uses such as retail. This forecast growth is summarised in Table S1-7 and illustrated in Figure S1-10.

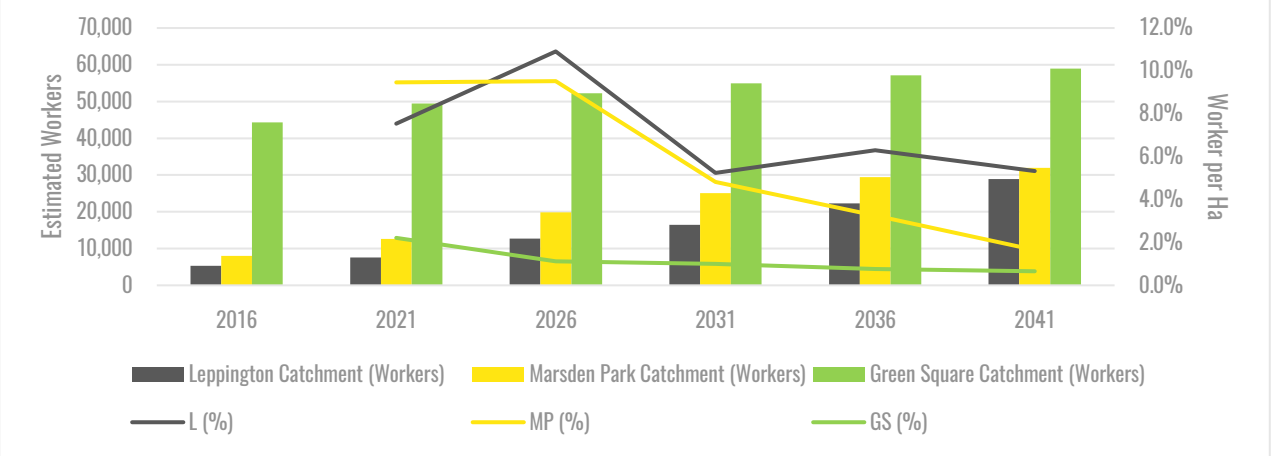
Table S1-7: Projected Resident and Worker Densities (2021-2041), Retail Case Study Areas

Catchment Study Area	2021	2026	2031	2036	2041
Leppington					
Residents	49,310	72,285	94,137	144,903	184,197
Residents/ha	3.73	5.47	7.12	10.97	13.94
Workers	7,583	12,724	16,428	22,295	28,895
Workers/ha	0.57	0.96	1.24	1.69	2.19
Marsden Park					
Residents	53,532	91,503	130,773	163,521	170,258
Residents/ha	6.74	11.52	16.47	20.59	21.44
Workers	12,588	19,837	25,102	29,458	31,966
Workers/ha	1.58	2.50	3.16	3.71	4.02
Green Square					
Residents	63,603	70,500	79,902	86,772	88,018
Residents/ha	80.50	89.23	101.13	109.83	111.40
Workers	49,461	52,276	54,950	57,091	58,988
Workers/ha	62.60	66.16	69.55	72.26	74.66

Source: Atlas/TPA (2020)

Figure S1-10: Population and Worker Projections, Retail Case Study Areas





Source: TPA (2020)

Summary of Case Study Area Characteristics

Case study areas are selected for their key characteristics and diverse representation of land use markets in Greater Sydney. Table S1-8 outlines an area selection matrix used in the selection of these case study areas.

Table S1-8: Case Study Areas by Land Use and Selection Criteria

Case Study Area	Growth Expectations	Market Values	Amendments to Planning Controls	Train/ Metro Station	Other Contributions
House					
Edmondson Park	High	Low	No	Existing	s7.11
Schofields	High	Low	No	Existing	s7.11
Warriewood	Low	High	No	No	s7.11
Other Residential					
St Marys	High	Low	Yes	Future	s7.11
Bankstown	High	Med	Yes	Existing / Future	s7.11
Chatswood	Low	High	No	Existing	s7.11, Affordable Housing
Industrial					
Erskine Park	High	Low	No	No	s7.12
Auburn	High	Med	No	No	s7.12
Alexandria	Low	High	No	No	s7.11
Commercial					
Penrith	High	Low	No	Existing	s7.11, s7.12
Sydney Olympic Park	High	Low	Yes	Existing/ Future	Infrastructure Contributions Framework (ICF), Affordable Housing
Macquarie Park	High	Med	No	Existing	s7.11
Retail					
Leppington	High	Low	No	No	s7.11
Marsden Park	High	Low	No	No	s7.11
Green Square	High	Med	No	No	s7.11, Affordable Housing

Source: Atlas

The case study locations are used in Chapter 3 to test the impact of the RIC in Greater Sydney.

SCHEDULE 2

Greater Sydney - Contribution Impact Testing Assumptions

Development Typologies and Yields

Hypothetical development typologies (informed by a review of development applications in the select locations) are tested to examine the impact of a RIC and water charge in the context of other contributions which may be payable. The tested typologies are summarised in Table S2-1.

Table S2.1: Development Tyologies Tested

RIC Land Use	Location	Site Area (sqm)	GFA (sqm)	Notional Development and Yields
House	Edmondson Park	15,000	n/a	• 34 x 2 storey detached dwellings
	Schofields	3,500	n/a	• 16 x 2 storey townhouses
	Warriewood	3,500	n/a	• 10 x 2 storey detached dwellings
Other Residential	St Marys	900	2,700	• 9 storey mixed use development (30 units)
	Bankstown	2,000	4,700	• 6 storey residential flat building (50 units)
	Chatswood	1,500	2,700	• 7 storey mixed use development (30 units)
Industrial	Erskine Park	14,000	7,000	• Industrial strata units
	Auburn	140,000	80,000	• Warehouse/ offices in various buildings
	Alexandria	3,200	4,000	• Industrial units with office space
Commercial	Penrith	2,500	4,000	• 6 storey commercial building
	Sydney Olympic Park	5,000	15,000	• 6 storey commercial building
	Macquarie Park	8,000	11,500	• 8 storey commercial building
Mixed Use	Leppington	12,000	8,000	• Mixed use (business/ office, specialty retail)
	Marsden Park	20,000	7,500	• Mixed use (business, medical centre, retail)
	Green Square	3,800	23,000	• Mixed use (retail, commercial, residential)

Source: Atlas

We highlight that development types tested are ***not*** urban design or capacity tested. They are developed from observations of development activity for the purposes of testing the impact of a RIC.

Development Timing and Staging

A DA is assumed to be progressed immediately upon settlement. Pre-commitments and/ or pre-sales is assumed to occur shortly thereafter, as relevant to the development typology tested.

Construction is assumed to commence in Month 15-24 and span for 12-24 months depending on scale and pre-commitment take-up.

Revenue Assumptions

Revenue assumptions are developed based on a market appraisal undertaken for each of the selected locations.

Table S2-2: Revenue Assumptions

Location	Notional Development and Yields	End Sale Values
Edmondson Park	• 9 x 2 storey attached dwellings	$700,000 to $800,000 per dwelling
Schofields	• 4 x townhouses	$650,000 to $750,000 per townhouse
Warriewood	• 10 x 2 storey detached dwellings	$2,000,000 to $2,500,000 per dwelling

Location	Notional Development and Yields	End Sale Values
St Marys	• 6 storey mixed use development (35 units)	• $8,250/sqm to $9,500/sqm residential internal area • $6,000/sqm of non-residential lettable area
Bankstown	• 6 storey residential flat building (50 units)	• $8,500/sqm to $10,000/sqm residential internal area
Chatswood	• 7 storey mixed use development (30 units)	• $16,000/sqm to $20,000/sqm residential internal area • $12,000/sqm non-residential lettable area
Erskine Park	• Industrial strata units	• $2,000/sqm to $3,000/sqm lettable area
Auburn	• Warehouse/ offices in various buildings	• $2,500/sqm to $4,000/sqm lettable area
Alexandria	• Industrial units with office space	• $4,000/sqm to $6,000/sqm lettable area
Penrith	• 6 storey commercial building	• $6,000/sqm to $7,000/sqm lettable area
Sydney Olympic Park	• 6 storey commercial building	• $7,000/sqm to $8,000/sqm lettable area
Macquarie Park	• 8 storey commercial building	• $8,500/sqm to $9,500/sqm lettable area
Leppington	• Mixed use (business/ office, specialty retail)	• $8,000/sqm to $9,500/sqm retail lettable area • $6,000/sqm to $7,000/sqm commercial lettable area
Marsden Park	• Mixed use (business, medical centre, retail)	• $8,000/sqm to $9,500/sqm retail lettable area • $6,000/sqm to $8,000/sqm commercial lettable area
Green Square	• Mixed use (retail, commercial, residential)	• $10,000/sqm to $16,000/sqm retail lettable area • $8,000/sqm to $12,000/sqm commercial lettable area

Source: Atlas

Other revenue assumptions:

- 75% of dwellings are pre-sold prior to construction and the balance sold on completion at a rate of 2-8 units per month (depending on location).
- For the non-residential typologies, at least 50% is assumed to be pre-committed prior to construction commencement with the remaining space be progressively taken-up during construction to completion.
- GST is included on the residential sales but excluded on non-residential sales.
- Marketing costs are assumed at 1% of gross sales revenue and legal costs at $1,500 per dwelling.
- Sales commission on sales included at 2.5% of gross residential sales and 1.5% of non-residential sales.

Cost Assumptions

Cost assumptions are generic in nature and based on a review of DAs, past experience and industry cost publications.

- Legal and due diligence costs assumed at 0.5% of land cost and is assumed to be paid on exchange in Month 1.
- The site is assumed to be appropriately zoned with design and development planning immediately upon settlement.
- Building areas are calculated by applying a generic 110%-115% ratio to GFA to which construction costs are applied.
- Construction costs are estimated with reference to past experience and cost publications:
    - Residential construction assumed at $2,000/sqm to $4,000/sqm of building area (depending on typology), balconies at $1,000/sqm.
    - Industrial construction assumed at $1,000/sqm to $2,500/sqm of building area (depending on typology)
    - Retail and commercial construction (warm shell) assumed at $2,000/sqm to $3,000/sqm of building area.
    - Basement car parking at $50,000 per car space.
- Provisional allowance for:
    - Site works at 2% of construction cost
    - Lead-in and services infrastructure at 2% of construction cost

- Professional fees at 10% of construction costs expensed 5.5% (pre-construction) and 4.5% (during construction).
- Development management fee of 2%.
- Construction contingency at 5%.
- Statutory fees:
    - DA fees of 1% and CC fees of 0.5% of construction costs.
    - Long service levy of 0.35% of construction costs.
    - Local contributions (s7.11, s7.12 or other) based on existing rates.
    - Affordable housing contributions (if applicable) based on existing rates.
- Holding costs including land tax, Council and water rates.
- 100% debt funded with interest capitalised monthly (nominal 6% per annum)
- Finance establishment cost of 0.35% of peak debt.

Hurdle Rates and Performance Indicators

Target hurdle rates are subject to perceived risk of a project (planning, market, financial and construction risk). The higher the project risk, the higher the hurdle rate. The following performance indicators are relied upon:

- Development Margin profit divided by total development costs (including selling costs).
- Discount rate refers to the project internal rate of return (IRR) where net present values of an investment is zero.
- Residual Land Value is arrived at by assessing the maximum land value a developer is willing to pay based on both hurdles of development margin and discount rate being met.

The following benchmark hurdle rates are assumed.

Table S2-3: Performance Indicators and Target Hurdle Rates*

Performance Indicator	Feasible	Marginal	Not Feasible
Development Margin	>20%	18%-20%	<18%
Project IRR	>18%	17%-18%	<17%

Source: Atlas

*We note historic low interest rates (which are expected to endure at least for the medium term) have re-set market expectations and lowered benchmark project returns (IRR).

SCHEDULE 3

Outer Metro Regions - Case Study Selection

Overview of Selected Case Studies

The impact of RIC rates on development feasibility is relevant where the impact is substantial and could impact future supply where RIC rates are proposed - Lower Hunter, Central Coast and Illawarra-Shoalhaven regions. Owing to the dispersed nature of these geographical regions, a broad sample of locations has been selected.

Residential (Houses)

Six case study areas in the Outer Metro regions are selected for analysis in the context of residential (houses). These include:

- **Lower Hunter** - Broadmeadow
- **Central Coast** - Wadalba, Ettalong Beach
- **Illawarra-Shoalhaven** - Calderwood, Oak Flats, Nowra

The growth prospects and market values of these six localities are briefly examined below.

Future Growth Expectations

The Residential (House) case study areas expect varying degrees of growth over the 2016-2036 period, a reflection of their differing levels of planning capacity to accommodate future growth. For instance, the primarily greenfield precinct of Calderwood (Shellharbour LGA) is expected to record ~3,800 new dwellings over the coming decades to 2036. Conversely, the established suburb of Ettalong Beach (Central Coast LGA) is expected to record ~670 dwellings over 2016-2036.

Population and dwelling forecasts carried out by .id in consultation with the Newcastle, Central Coast, Shellharbour and Shoalhaven councils are summarised in Table S3-1.

Table S3-1: Forecast Population and Dwelling Growth (2016-2036), Residential (Houses) Case Study Areas

Area	2016	2021	2026	2031	2036	Change (2016-2036)	
						No.	%
Broadmeadow							
Population	2,652	2,863	3,116	3,626	4,153	1,501	56.6%
Dwellings	1,249	1,348	1,468	1,713	1,968	719	57.6%
Wadalba							
Population	2,934	4,546	5,693	6,880	7,609	4,675	159.3%
Dwellings	1,082	1,667	2,100	2,543	2,836	1,754	162.1%
Ettalong Beach							
Population	6,202	6,769	6,953	7,096	7,235	1,033	16.7%
Dwellings	3,588	3,864	4,000	4,130	4,260	672	18.7%
Calderwood							
Population	1,325	3,198	5,298	8,223	11,153	9,828	741.7%
Dwellings	471	1,245	2,044	3,153	4,294	3,823	811.7%
Oak Flats							
Population	6,636	6,905	7,177	7,465	7,676	1,040	15.7%
Dwellings	2,582	2,752	2,897	3,022	3,122	540	20.9%
Nowra							
Population	9,446	10,120	10,457	10,479	10,629	1,183	12.5%
Dwellings	4,339	4,644	4,750	4,810	4,870	531	12.2%

Source: .id (2017, 2019, 2020)

Dwelling Prices

Similar to the different nature of forecast dwelling growth, historical house price growth differs area by area. Some areas, such as Broadmeadow, have recorded higher rates of price growth compared to their LGA over the past 5 and 10-years. Other areas, such as Nowra, have historically underperformed their broader LGA.

Table S3-2illustrates the difference in house price growth across the Residential (Houses) Case Study Areas compared to their respective LGAs.

Table S3-2: Median House Prices, Residential (Houses) Case Study Areas

Area	Median Sale Price	Recent Growth (%)			Historical Avg. Annual Growth	
		3-month	12-month	36-month	5-year	10-year
Broadmeadow (Newcastle LGA)	$717,500 ($740,000)	5.1% (3.2%	7.8% (12.4%)	7.8% (9.9%)	7.0% (6.3%)	6.2% (5.7%)
Wadalba (Central Coast LGA)	$712,000 ($787,000)	1.5% (5.1%)	15.0% (13.3%)	15.0% (10.7%)	5.4% (6.1%)	5.7% (6.8%)
Ettalong Beach (Central Coast LGA)	$900,000 ($787,000)	3.8% (5.1%)	7.6% (13.3%)	3.9% (10.7%)	6.0% (6.1%)	8.5% (6.8%)
Calderwood (Shellharbour LGA)	$720,000 ($725,000)	2.8% (4.0%)	5.9% (9.0%)	3.6% (3.4%)	16.3% (4.9%)	N/A (6.2%)
Oak Flats (Shellharbour LGA)	$695,000 ($725,000)	3.9% (4.0%)	15.8% (9.0%)	3.0% (3.4%)	5.2% (4.9%)	6.6% (6.2%)
Nowra (Shoalhaven LGA)	$522,000 ($685,000)	6.7% (4.9%)	17.5% (17.3%)	6.8% (17.3%)	8.4% (8.7%)	6.2% (6.6%)

Source: Pricefinder (2021)

Residential (Units)

Five case study areas in the Outer Metro regions are selected for analysis in the context of residential (units), noting that the pool of potential locations to select is more limited compared to detached houses. The case study locations selected include:

- **Lower Hunter** - Newcastle West
- **Central Coast** - Gosford, The Entrance
- **Illawarra-Shoalhaven** - Corrimal, Kiama

The growth prospects and market values of these five localities are briefly examined below.

Future Growth Expectations

Similar to the Residential (House) case study areas, the Residential (Unit) case study areas have different forecast growth profiles over the coming decades to 2036.

Newcastle West (Newcastle LGA) and Gosford (Central Coast LGA) are expected to record the highest levels of dwelling growth over the period, approximately ~3,700 dwellings and ~3,400 dwellings respectively. The Entrance (Central Coast LGA) is anticipated to record some ~2,300 additional dwellings over the 2016-2036 period, whereas Corrimal (Wollongong LGA) could grow by circa 900 dwellings. Dwelling forecasts for Kiama are not available.

The population and dwelling forecasts carried out by .id in consultation with the Newcastle, Central Coast and Wollongong councils are summarised in Table S3-3.

Table S3-3: Forecast Population and Dwelling Growth (2016-2036), Residential (Houses) Case Study Areas

Area	2016	2021	2026	2031	2036	Change (2016-2036)	
						No.	%
Newcastle – Newcastle East- Newcastle West							
Population	4,567	6,560	7,841	9,087	10,270	5,703	124.9%
Dwellings	2,913	4,169	4,989	5,795	6,595	3,682	126.4%
Gosford- West Gosford							
Population	4,970	6,187	7,653	9,361	11,028	6,058	121.9%
Dwellings	2,822	3,406	4,253	5,253	6,253	3,431	121.6%
The Entrance							
Population	5,788	6,551	7,521	8,261	9,007	3,219	55.6%
Dwellings	4,415	4,922	5,620	6,176	6,751	2,336	52.9%
Corrimal							
Population	6,711	7,553	8,007	8,384	8,836	2,125	31.7%
Dwellings	2,901	3,187	3,380	3,582	3,807	906	31.2%

Source: .id (2017, 2019, 2020)

Dwelling Prices

With the exception of Kiama, the majority of Residential (Unit) case study areas have recorded similar unit price growth compared to their respective LGAs over the five years to Q2 2021. Some of the case study areas record significantly higher median unit prices compared to their broader LGA, notably Newcastle West.

Table S3-4 illustrates the difference in historical unit price growth across the Residential (Units) Case Study Areas compared to their respective LGAs.

Table S3-4: Median Unit Prices, Residential (Houses) Case Study Areas

Area	Median Sale Price	Recent Growth (%)			Historical Avg. Annual Growth	
		3-month	12-month	36-month	5-year	10-year
Newcastle West (Newcastle LGA)	$755,000 ($560,000)	10.0% (2.9%)	-1.3% (5.0%)	14.1% (1.9%)	2.1% (4.0%)	5.0% (4.9%)
Gosford (Central Coast LGA)	$480,000 ($573,000)	-0.6% (1.9%)	5.0% (11.9%)	-3.4% (4.0%)	4.0% (5.0%)	6.2% (6.0%)
The Entrance (Central Coast LGA)	$480,000 ($573,000)	2.8% (1.9%)	4.4% (11.9%)	8.2% (4.0%)	4.1% (5.0%)	3.6% (6.0%)
Corrimal (Wollongong LGA)	$448,500 ($612,000)	-1.7% (0.9%)	-4.2% (2.6%)	-2.3% (-0.8%)	3.9% (4.2%)	6.4% (5.1%)
Kiama (Kiama LGA)	$765,000 ($725,000)	3.5% (5.2%)	3.8% (13.1%)	8.4% (11.6%)	6.8% (6.6%)	6.4% (6.6%)

Source: Pricefinder (2021)

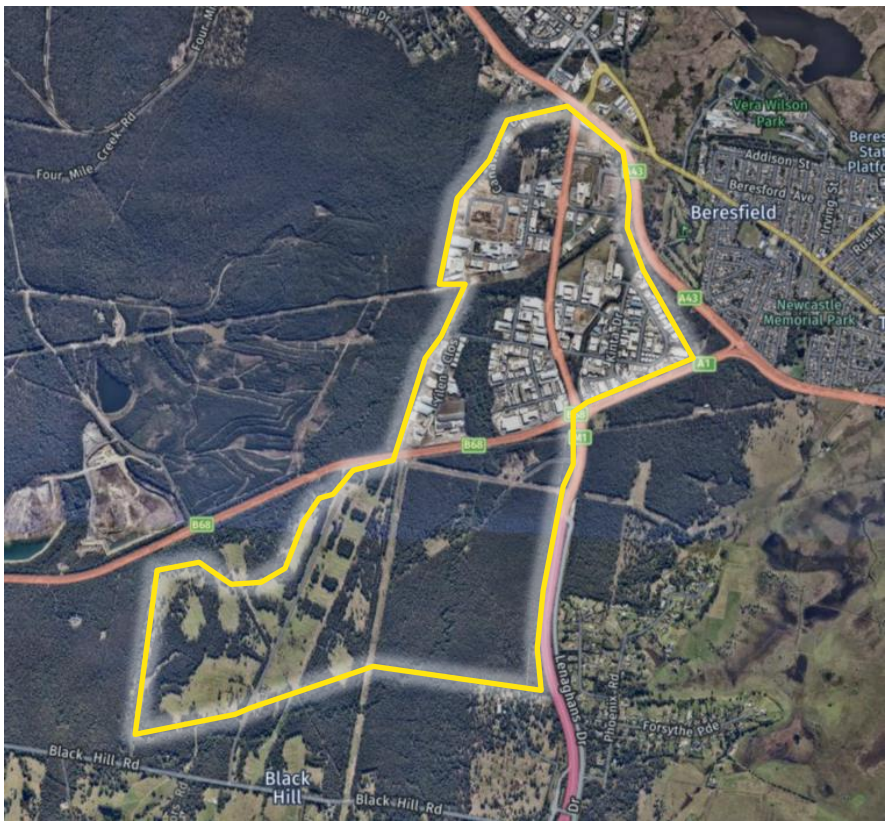
Industrial

Three case study areas selected for analysis of industrial land uses across the Outer Metro regions are Beresfield (Lower Hunter), Warnervale (Central Coast) and South Nowra (Illawarra-Shoalhaven).

Beresfield

Beresfield is a ~650ha industrial precinct located in the Newcastle LGA. Located at the junction of the Pacific Highway and New England Highway, the precinct is circa 40% developed to date. Development activity has focused to the north of John Renshaw Drive with no development in the southern section of the precinct occurred thus far. Figure S2-1 illustrates the Beresfield industrial precinct.

Figure S3-1: Location Map, Beresfield

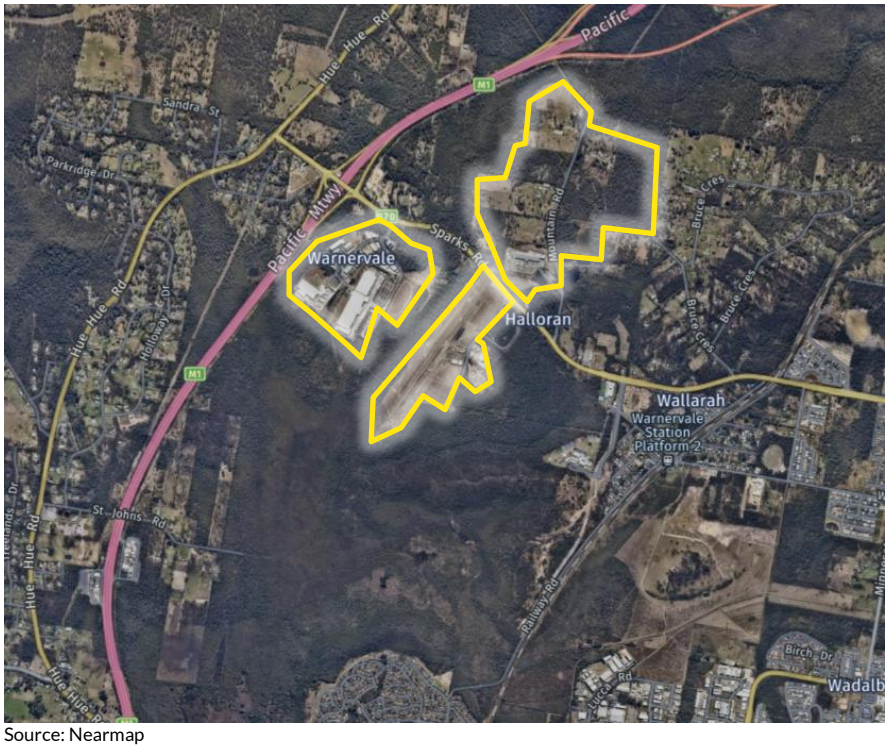


Source: Nearmap

Warnervale

The industrial precinct of Warnervale comprises some 138.5ha of industrial land and is located within the Central Coast LGA. Whilst initial development activity occurred over a decade ago, much of the precinct remains undeveloped. Woolworths are the primary anchor within the precinct, occupying a 54,000sqm distribution centre and cold storage facility.

Figure S3-2: Location Map, Warnervale

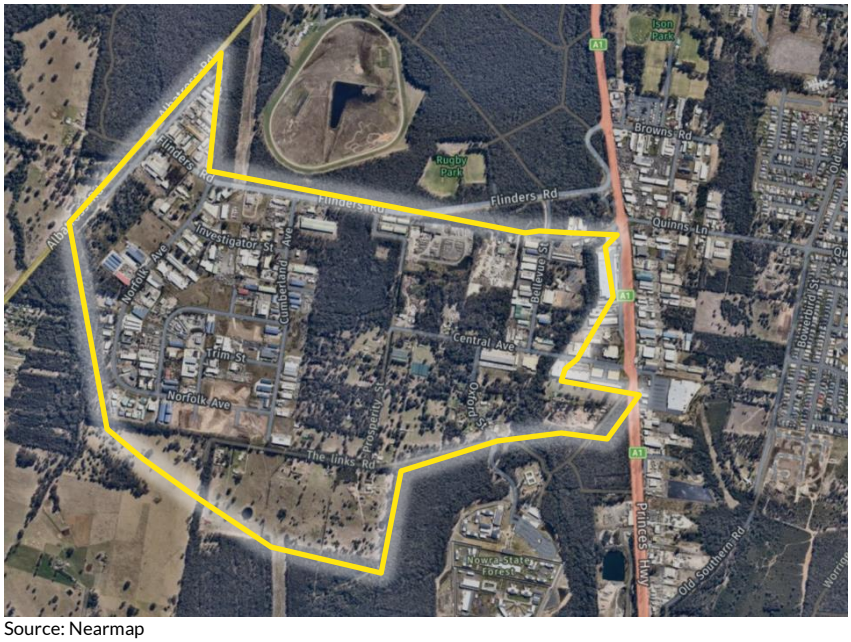


Source: Nearmap

South Nowra

Comprising an estimated 350ha of industrial land, the South Nowra industrial precinct is the largest industrial precinct in the Illawarra-Shoalhaven Region and falls within the Shoalhaven LGA. Occupied by a variety of local businesses in the transport and freight, construction and manufacturing sectors, the precinct is being progressively released and developed.

Figure S3-3: Location Map, South Nowra



Source: Nearmap

Commercial

Two case study areas selected for analysis of commercial land uses within the Outer Metro regions - Newcastle (Lower Hunter) and Wollongong (Illawarra-Shoalhaven).

Newcastle City Centre

The Newcastle City Centre is one of the largest regional office markets in Australia, comprising an estimated ~250,000sqm of office floorspace with around 40% of this being A-Grade stock. Anchored by a range of professional services, government and education occupiers, the City Centre has benefitted significantly from recent infrastructure investment

Similar to most office markets across Australia, an uptick in vacancy levels was recorded in the 12-months to January 2021 with a headline vacancy rate of 7.8% (PCA, 2021). That said, vacancy rates only increased slightly by 0.2%, well below the significant upticks in vacancy recorded in other Australian capital cities which were impacted by COVID-19-induced lockdowns over the course of 2020. Notably, the vacancy rate in the A-Grade sub-market is markedly lower at just 3.1%.

Commercial office rents across the Newcastle City Centre have remained stable over the past 12-15 months. Recently completed office floorspace can achieve net rents in the order of $450/sqm of lettable area, with average commercial rents ranging from $350/sqm to $400/sqm (Ray White Commercial, 2021).

Wollongong City Centre

Wollongong City Centre is a major regional office market and principal commercial hub for the Illawarra-Shoalhaven region. Comprising an estimated 160,000sqm of office floorspace (with around 50% of this being A-grade stock), Wollongong is increasingly attracting a mix of professional firms from Greater Sydney.

Similar to the Newcastle City Centre, Wollongong's office market has performed well over the past 12-15 months despite the economic impacts of COVID-19. Vacancy grew from 9.1% to 14.1% in the year to January 2021, though much of this was driven by new supply entering the market.

Commercial rents across the Wollongong City Centre have remained flat over the past year. Recently completed office floorspace can achieve net rents up to $500/sqm of lettable area, though average office rents generally range from $350/sqm to $450/sqm of lettable area.

Summary of Case Study Area Characteristics

Case study areas are selected for their key characteristics and diverse representation of land use markets in the Outer Metro regions. Table S3-5 outlines an area selection matrix used in the selection of these case study areas.

Table S3-5: Case Study Areas by Land Use and Selection Criteria

Case Study Area	Region	Growth Expectations	Market Values	Amendments to Planning Controls	Train Station	Other Contributions
House						
Broadmeadow	Lower Hunter	Low	Low	No	Existing	s7.12
Wadalba	Central Coast	High	Low	No	Existing	s7.11, water charges
Ettalong Beach	Central Coast	Low	High	No	No	s7.11, water charges
Calderwood	Illawarra-Shoalhaven	High	High	No	No	s7.11
Oak Flats	Illawarra-Shoalhaven	High	Low	No	Existing	s7.11
Nowra	Illawarra-Shoalhaven	High	Low	No	No	s7.11, water charges
Other Residential						
Newcastle West	Lower Hunter	High	High	No	No	S7.12
Gosford	Central Coast	High	High	No	Existing	s7.12, water charges
The Entrance	Central Coast	Low	Low	No	No	s7.12, water charges
Corrimal	Illawarra-Shoalhaven	Low	High	Yes	Existing	s7.11
Kiama	Illawarra-Shoalhaven	Low	High	Yes	Existing	s7.11
Industrial						
Beresfield	Lower Hunter	High	High		No	s7.12
Warnervale	Central Coast	Low	High	No	No	s7.12, water charges
South Nowra	Illawarra-Shoalhaven	High	Low	Yes	No	s7.11, water charges
Commercial						
Newcastle	Lower Hunter	High	High	No	Existing	s7.12
Wollongong	Illawarra-Shoalhaven	High	High	Yes	Existing	s7.12
Mixed Use						
Mayfield	Lower Hunter	High	High	No	No	s7.12
Branxton	Lower Hunter	Low	Low	No	Existing	s7.12

Source: Atlas

The case study locations are used in Chapter 5 to test the impact of the RIC in the Outer Metro regions.

SCHEDULE 4

Outer Metro Regions - Contribution Impact Testing Assumptions

Development Typologies and Yields

Hypothetical development typologies (informed by a review of development applications in the select locations) are tested to examine the impact of a RIC and water charge in the context of other contributions which may be payable. The tested typologies are summarised in Table S4-1.

Table S4.1: Development Tyologies Tested

RIC Land Use	Location	Region	Site Area (sqm)	GFA (sqm)	Notional Development and Yields
House	Broadmeadow	Lower Hunter	800	n/a	• 3 x 2 storey detached houses
	Calderwood	Illawarra-Shoalhaven	2,000	n/a	• 7 x 2 storey detached houses
	Oak Flats		1,100	n/a	• 5 x 2 storey townhouses
	Wadalba	Central Coast	41,800	n/a	• 66 x 1 storey detached houses
	Ettalong Beach		1,200	n/a	• 5 x 2 storey townhouses
	Nowra	Illawarra-Shoalhaven	1,000	n/a	• 4 x 1 storey villas
Other Residential	Newcastle West	Greater Hunter	1,500	6,500	• 13 storey mixed use development (60 units)
	Kiama	Illawarra-Shoalhaven	1,100	1,500	• 3 storey residential flat building (12 units)
	Corrimal		3,000	1,500	• 3 storey residential flat building (12 units)
	Gosford	Central Coast	2,400	7,500	• 12 storey residential flat building (90 units)
	The Entrance		1,400	1,800	• 4 storey residential flat building (19 units)
Industrial	Beresfield	Lower Hunter	2,700	1,400	• Industrial strata units
	Warnervale	Central Coast	5,500	1,900	• Light industrial complex (10 units)
	South Nowra	Illawarra-Shoalhaven	3,200	1,500	• 4 industrial units
Commercial	Newcastle	Greater Hunter	2,200	8,200	• 6 storey commercial building
	Wollongong	Illawarra-Shoalhaven	3,300	11,500	• 6 storey commercial building
Retail	Mayfield	Lower Hunter	12,000	6,000	• 2 level retail development
	Branxton		14,000	4,600	• 1 level retail development

Source: Atlas

We highlight that development types tested are ***not*** urban design or capacity tested. They are developed from observations of development activity for the purposes of testing the impact of a RIC.

Development Timing and Staging

A DA is assumed to be progressed immediately upon settlement. Pre-commitments and/ or pre-sales is assumed to occur shortly thereafter, as relevant to the development typology tested.

Construction is assumed to commence in Month 15-24 and span for 12-24 months depending on scale and pre-commitment take-up.

Revenue Assumptions

Revenue assumptions are developed based on a market appraisal undertaken for each of the selected locations.

Table S4-2: Revenue Assumptions

Location	Notional Development and Yields	End Sale Values
Broadmeadow	• 3 x 2 storey detached houses	$700,000 to $800,000 per dwelling
Calderwood	• 7 x 2 storey detached houses	$650,000 to $750,000 per dwelling
Oak Flats	• 5 x 2 storey townhouses	$600,000 to $650,000 per townhouse
Wadalba	• 66 x 1 storey detached houses	$700,000 to $800,000 per dwelling
Ettalong Beach	• 5 x 2 storey townhouses	$800,000 to $850,000 per townhouse
Nowra	• 4 x 1 storey villas	$400,000 to $450,000 per villa
Newcastle West	• 13 storey mixed use development (60 units)	• $8,000/sqm to $9,000/sqm residential internal area • $5,000/sqm to $6,000/sqm non-residential lettable area
Kiama	• 3 storey residential flat building (12 units)	• $10,000/sqm to $11,000/sqm residential internal area
Corrimal	• 3 storey residential flat building (12 units)	• $8,000/sqm to $9,000/sqm residential internal area
Gosford	• 12 storey residential flat building (90 units)	• $7,000/sqm to $8,000/sqm residential internal area
The Entrance	• 4 storey residential flat building (19 units)	• $7,500/sqm to $9,000/sqm residential internal area
Beresfield	• Industrial strata units	• $1,500/sqm to $2,000/sqm lettable area
Warnervale	• Light industrial complex (10 units)	• $1,500/sqm to $2,500/sqm lettable area
South Nowra	• 4 industrial units	• $1,200/sqm to $1,600/sqm lettable area
Newcastle	• 6 storey commercial building	• $6,500/sqm to $7,500/sqm lettable area
Wollongong	• 6 storey commercial building	• $7,000/sqm to $8,000/sqm lettable area
Mayfield	• 2 level mixed use retail development	• $6,000/sqm to $8,000/sqm lettable area
Branxton	• 1 level mixed use retail development	• $4,500/sqm to $6,500/sqm lettable area

Source: Atlas

Other revenue assumptions:

- 75% of dwellings are pre-sold prior to construction and the balance sold on completion at a rate of 2-4 units per month (depending on location).
- For the non-residential typologies, at least 50% is assumed to be pre-committed prior to construction commencement with the remaining space be progressively taken-up during construction to completion.
- GST is included on the residential sales but excluded on non-residential sales.
- Marketing costs are assumed at 1% of gross sales revenue and legal costs at $1,500 per dwelling.
- Sales commission on sales included at 2.5% of gross residential sales and 1.5% of non-residential sales.

Cost Assumptions

Cost assumptions are generic in nature and based on a review of DAs, past experience and industry cost publications.

- Legal and due diligence costs assumed at 0.5% of land cost and is assumed to be paid on exchange in Month 1.
- The site is assumed to be appropriately zoned with design and development planning immediately upon settlement.
- Building areas are calculated by applying a generic 110%-115% ratio to GFA to which construction build costs are applied.
- Construction costs are estimated with reference to past experience and cost publications:
    - Residential construction assumed at $1,500/sqm to $3,000/sqm of building area (depending on typology), balconies at $1,000/sqm.

- Industrial construction assumed at $800/sqm to $1,500/sqm of building area (depending on typology)
- Retail and commercial construction (warm shell) assumed at $1,500/sqm to $2,500/sqm of building area.
- Basement car parking at $50,000 per car space.

- Provisional allowance for:
  - Site works at 2% of construction cost
  - Lead-in and services infrastructure at 2% of construction cost
- Professional fees at 10% of construction costs expensed 5.5% (pre-construction) and 4.5% (during construction).
- Development management fee of 2%.
- Construction contingency at 5%.
- Statutory fees:
  - DA fees of 1% and CC fees of 0.5% of construction costs.
  - Long service levy of 0.35% of construction costs.
  - Water infrastructure rates (if currently payable).
  - Local contributions (s7.11 or s7.12) based on existing rates.
- Holding costs including land tax, Council and water rates.
- 100% debt funded with interest capitalised monthly (nominal 6% per annum)
- Finance establishment cost of 0.35% of peak debt.

Hurdle Rates and Performance Indicators

Target hurdle rates are subject to perceived risk of a project (planning, market, financial and construction risk). The higher the project risk, the higher the hurdle rate. The following performance indicators are relied upon:

- Development Margin profit divided by total development costs (including selling costs).
- Discount rate refers to the project internal rate of return (IRR) where net present values of an investment is zero.
- Residual Land Value is arrived at by assessing the maximum land value a developer is willing to pay based on both hurdles of development margin and discount rate being met.

The following benchmark hurdle rates are assumed.

Table S4-3: Performance Indicators and Target Hurdle Rates*

Performance Indicator	Feasible	Marginal	Not Feasible
Development Margin	>20%	18%-20%	<18%
Project IRR	>18%	17%-18%	<17%

Source: Atlas

*We note historic low interest rates (which are expected to endure at least for the medium term) have re-set market expectations and lowered benchmark project returns (IRR).

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