



North West Growth Area Blacktown Precincts

Revised growth forecasts
and analysis of
unplanned infrastructure needs

March 2020

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1. Executive summary

The North West Growth Area (NWGA) covers approximately 10,000 hectares of land across the Local Government Areas of Blacktown, Hawkesbury and The Hills. It is divided into 16 Precincts that are periodically released by the NSW Government for urban development as utility services become available. The Blacktown LGA contains the largest share of the NWGA, covering an area of approximately 7,700 hectares across 12 Precincts.

Since 2005, the NSW Government has approved precinct plans for released precincts, which include forecast dwelling and population projections based on development achieving minimum residential densities. Blacktown City Council has been monitoring residential development activity in the rezoned Blacktown Precincts in the NWGA to compare the actual delivered densities against the minimum densities that have been relied upon in forecasts and infrastructure planning.

The purpose of this report is to compare actual residential development activity against the NSW Government's forecast supply within each approved precinct plan. This comparison has highlighted that residential development activity is occurring at a far greater density than was originally predicted in the NSW Government's precinct plans, and that this has significant implications for the required infrastructure that is needed to service the unplanned population.

We estimate that the NWGA precincts in Blacktown have the potential to provide for 84,648 dwellings and 256,100 people should current development trends continue. This means that the NWGA Blacktown Precincts will potentially accommodate 102,585 more people than originally planned for by the NSW Government when the Precincts were planned and rezoned.

The significant implication of this is that the level of provision of open space, community facilities and road infrastructure that is necessary to support that scale of population will not be provided, leading to an inadequate living environment, social disharmony and traffic congestion.

Development activity to 2018:

**+2,691 current (2018)
additional dwellings**

**+8,551 current (2018)
additional population**

Our revised forecasts based on current delivered densities continuing:

**84,648 dwellings
(revised forecast)**

**256,100 people
(revised forecast)**

Implications:

**+32,802 more dwellings
above original Precinct Plan forecasts**

**+102,585 more people
above original Precinct Plan forecasts**

**+24,034 more dwellings
above 2017 LUIP forecasts**

**+66,100 more people
above 2017 LUIP forecasts**

We have estimated the impact on infrastructure provision based on the so far delivered densities continuing without any density capping imposed by the NSW Government.

Recreation and open space – increased needs

There will be a significant shortfall in open space provision resulting in a need for an additional 300 ha of open space. However, some 696 ha of open space has been identified as an opportunity to provide additional open space for the NWGA within the not yet rezoned Precincts of West Schofields, Marsden Park North and Shanes Park, together with rural zoned land in the rezoned Marsden Park Precinct and environmental living zoned land in the rezoned Schofields Precinct. An additional 300 ha of open space would cost an estimated \$941 million.

Priorities:

- NSW Government commitment to extending the Western Sydney Parklands Green Grid Priority Corridor through the NWGA.
- Collaborate with the NSW Government to address the shortfall in open space prior to rezoning any more land in the NWGA.

Community facility infrastructure – increased needs

There is a significant shortfall in the planned provision of community facility infrastructure against the revised population estimates. This means that previously planned-for community facilities need to be substantially scaled up to meet the increased demand. An additional 35,825 sqm in community facility infrastructure is required. The revised total cost of community facility infrastructure is \$524.6 million plus additional land at an estimated cost of \$56.5 million.

Priorities:

- NSW Government amend the Essential Works List to enable community facilities infrastructure to be levied within Section 7.11 Contributions Plans.

Traffic infrastructure – increased needs

As a result of the increased population and traffic movements, a number of collector and sub-arterial roads deteriorate to Level of Service category F and there are requirements across the NWGA to add lanes to existing road configurations. The results show that additional lanes are needed to adequately cater for the projected increased traffic from the expected densities. Providing additional lanes is a poor transport outcome and clearly impractical, given that road reserve boundaries are already in place for much of the network. Further planning and development will need the timely delivery of an effective and efficient integrated transport network.

Priorities:

- Accelerate the delivery of the Sydney Metro Northwest from Tallawong Station to Marsden Park Strategic Centre and preserve the corridor to the Western Sydney Airport via St Marys.
- Accelerate the delivery time for the Special Infrastructure Contribution funded projects.
- Duplicate the Richmond Railway Line beyond Schofields Railway Station.
- Deliver the Castlereagh Freeway connection from the M7 to The Northern Road in Penrith.
- Deliver the Bandon Road extension to Richmond Road.
- Replace the at-grade crossing of the Richmond Railway Line at Garfield Road.
- Confirm the alignment of the future Outer Sydney Orbital through the NWGA.

2. Introduction

2.1 Blacktown City

Blacktown City is 35 kilometres from the Sydney CBD, occupying 247 square kilometres on the Cumberland Plain. Eastern Creek, South Creek, Ropes Creek and Toongabbie Creek and their tributaries provide natural corridors that buffer areas of urban development. The NWGA occupies 7,700 hectares within the northern third of the City.

Our City is one of the fastest growing in Australia, and within 10 years it will be home to more than half a million people. We want to optimise this growth and use it to provide the people who live and work here with more opportunities, better services and connections, and the right mix of different types of homes, open spaces and centres.

The NSW Government forecasts that Blacktown City's population will exceed 600,000 people by 2041. We need to plan for new homes and jobs that are supported by the full range of infrastructure, delivered at the right place and at the right time. We will work across government boundaries to deliver essential infrastructure for the community.

Blacktown City 2019 NSW population projections

| Projections | 2016 | 2021 | 2026 | 2031 | 2036 | 2041 |
|-------------|---------|---------|---------|---------|---------|---------|
| Population | 348,050 | 411,650 | 473,500 | 525,250 | 569,550 | 612,150 |
| Dwellings | 116,800 | | | | | 223,100 |

Source: Department of Planning, Industry and Environment 2019

2.2 Purpose of this report

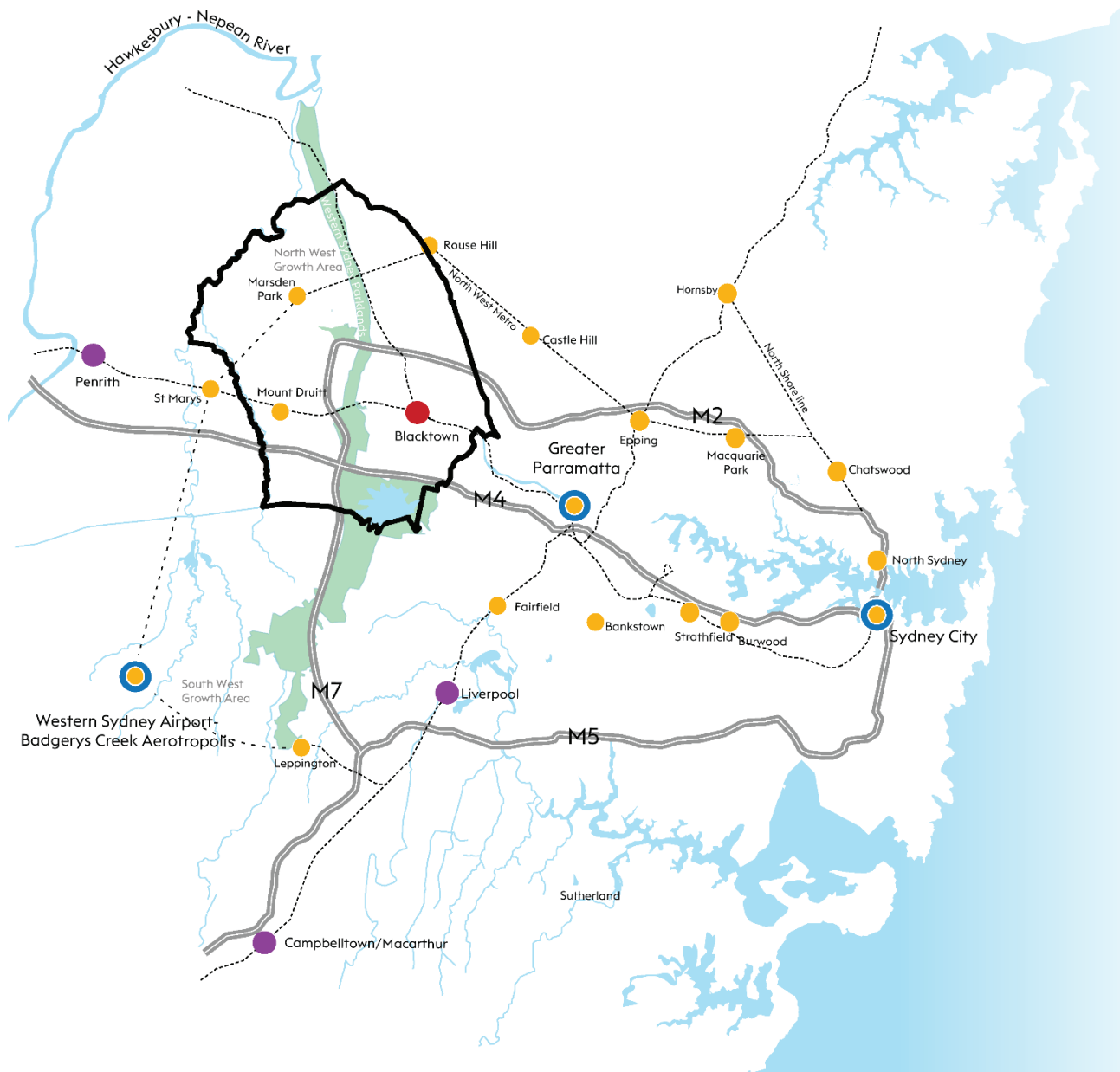
This report details the registered residential lots (dwellings) and population that has occurred in each of the rezoned Blacktown Precincts in the NWGA to the end of 2018. These figures are then compared to the NSW Government's planned forecast dwelling and population figures, which are based on development achieving minimum residential densities.

The comparison highlights that there is a significant discrepancy between the actual delivered lots (dwellings) and those forecast under minimum residential density controls. The actual delivered lots (dwellings) far exceed the NSW Government's planned numbers.

The actual delivered densities are then projected over the remaining rezoned but undeveloped land to determine a revised total forecast for the Blacktown component of the NWGA. The result is that, if current densities continue, we estimate that the Blacktown Precincts have the potential to deliver 84,648 dwellings and 256,100 people. This would be 102,585 more people than originally planned for by the NSW Government.

The report then considers the local infrastructure implications of an additional 102,585 people in the NWGA on recreation and open space, community facilities and traffic. The result is that there is a significant shortfall in the provision of recreation and open space, and community facilities, as well as unsustainable pressure on the planned road infrastructure. There are no drainage implications as it is not primarily population driven and it has been sized to cater for growth. There is a need to reconsider the precinct plans to ensure that local infrastructure is capable of being delivered to match the projected growth.

It is also important to note that the available data up until the end of 2018 has primarily been registrations of residential Torrens title lots. Data on residential Strata lots is not yet available as these subdivisions generally occur post construction and there have been limited numbers finalised to date. However, a significant number of apartments are under construction, and it is anticipated that these will result in the total number of dwellings and population further exceeding planned estimates. This report will continue to be updated as lot registration information becomes available.



Blacktown City in metropolitan Sydney

3. North West Growth Area

3.1 Background to planning and development

In 2005, the NSW Government released the Metropolitan Strategy for Sydney titled a *City of Cities - A Plan for Sydney's Future* as well as plans for the North West and South West of metropolitan Sydney titled *Managing Sydney's Growth Centres*. Greenfield development in the Growth Centres was a major direction of the Metropolitan Strategy. The Government forecast 160,000 new dwellings in the Growth Centres, which was planned to provide between 30 to 40 per cent of Sydney's housing growth up to 2031 to 2036.

The planning of infrastructure and services in the Growth Centres formed part of the Metropolitan Strategy and were integral to the development of, and access to, housing and jobs in key regional cities and major centres in Western Sydney. The Growth Centre plans estimated \$7.8 billion of infrastructure, including roads, rail, bus networks, educational and health services, all linked to the staged release of land for new dwellings.

The NSW Government then released the *North West Growth Centre Structure Plan 2006* to provide the planning framework for this growth area, as well as *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* to provide the legislative framework to implement Sydney's greenfield urban growth. The Growth Centres Development Code was also released in 2006 to provide the basis for the planning and design of precincts.

The 2006 planning framework has informed the rezoning of approximately two-thirds of the NWGA. It forecast 67,750 dwellings across 16 Precincts covering an area of approximately 10,000 hectares, based around dwelling and population targets for each precinct. Blacktown was identified to accommodate approximately 50,000 dwellings across 12 precincts covering 7,700 hectares, with the remaining growth shared between The Hills and Hawkesbury LGAs.

In 2017 the NSW Government released the *North West Priority Growth Area Land Use and Infrastructure Implementation Plan* (LUIIP) to update the strategic framework that was initially established in the North West Structure Plan in 2006. The LUIIP includes revised housing projections.

It identifies an ultimate theoretical capacity in the NWGA of 90,000 dwellings to accommodate 250,000 people. The 2017 LUIIP forecasts that the Blacktown component of the NWGA has an ultimate potential for 60,614 dwellings to accommodate 190,000 people.

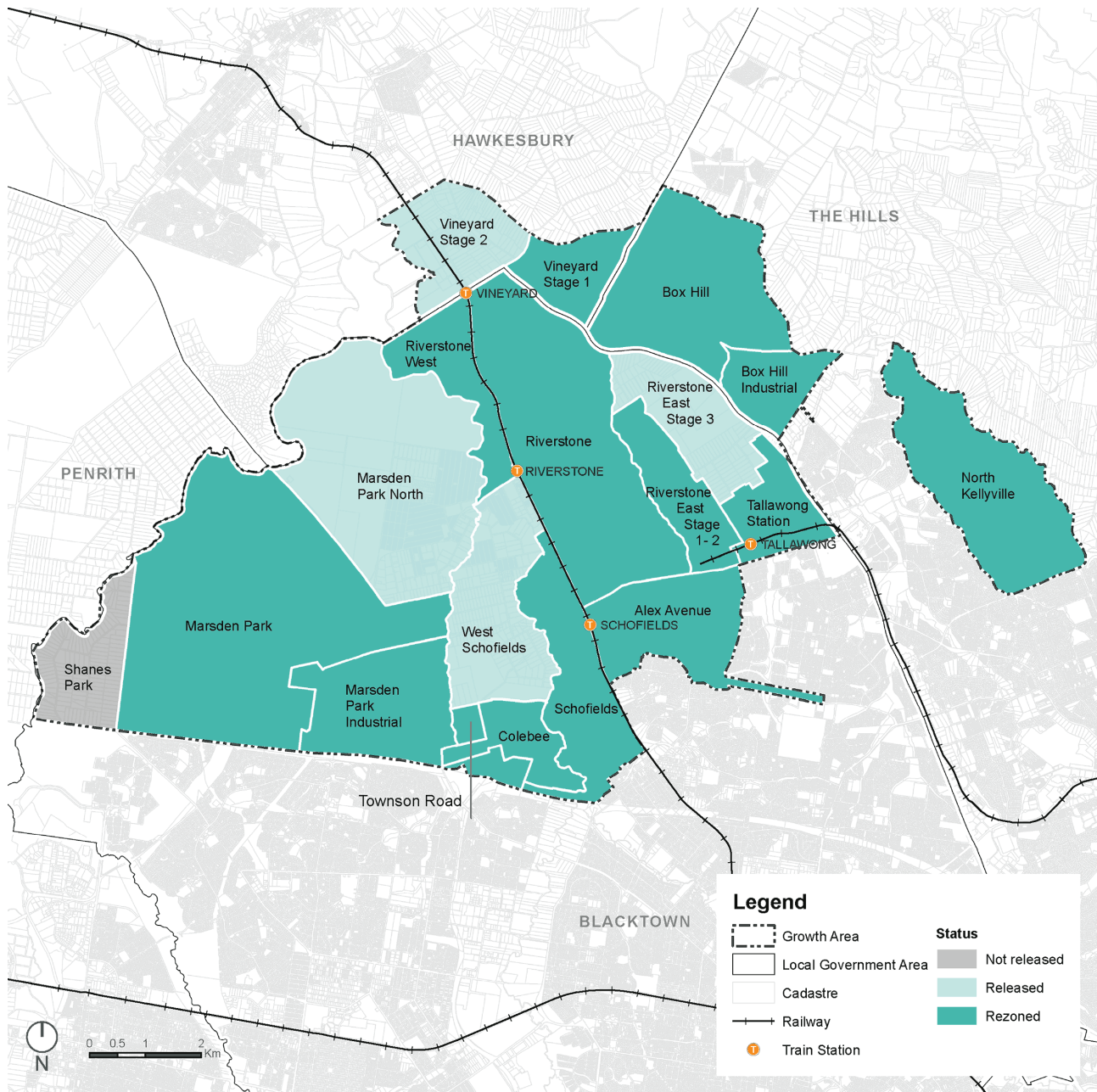
| | Total NWGA | Blacktown City component of NWGA |
|-------------------------------|------------|----------------------------------|
| Area (ha) | 10,000 | 7,724 |
| Dwellings | 90,000 | 60,614 |
| Population | 250,000 | 190,000 |
| Precincts (including Colebee) | 16 | 12 |

Source: From DPE 2017 Land Use and Infrastructure Implementation Plan forecasts

This report by Blacktown City Council further revises NSW Government forecasts based upon actual dwelling production in the Growth Area compared to originally predicted dwelling and population estimates upon which precinct planning and infrastructure provision were based. This has significant implications for infrastructure provision.

3.2 Precinct planning status

The Blacktown City component of the NWGA contains 12 precincts covering an area of 7,700 hectares. Eight of those precincts have been fully rezoned for urban development, 3 precincts have been released, with a staged partial rezoning across 2 of those precincts. Only 1 precinct is yet to be released. This is shown on the map below.



Source: Department of Planning, Industry and Environment

North West Growth Area Precincts

4. Strategic planning context

4.1 Greater Sydney Region Plan

The Greater Sydney Region Plan, *A Metropolis of Three Cities*, draws on a vision of Greater Sydney as a metropolis of three cities where most people live within 30 minutes of jobs, education and health facilities, services and great places. The Region Plan:

- sets a 40-year vision (to 2056) and establishes a 20-year plan to manage growth and change for Greater Sydney in the context of social, economic and environmental matters
- informs district and local plans and the assessment of Planning Proposals
- assists infrastructure agencies to align their infrastructure investment intentions with strategies to manage growth
- informs the private sector and the wider community of the growth management and infrastructure investment intentions of government.

Blacktown City is unique because we straddle the boundary between the Central River City and the Western Parkland City. We are critical to the success of both cities. Our size, social diversity and economy make us pre-eminent in Western Sydney, with a unique opportunity to influence the future of not only Western Sydney but the whole Sydney region.

The relevant Region Plan Themes and Objectives considered in this report are:

Infrastructure and collaboration

- Objective 1: Infrastructure supports the three cities
- Objective 2: Infrastructure aligns with forecast growth – growth infrastructure compact
- Objective 3: Infrastructure adapts to meet future needs
- Objective 4: Infrastructure use is optimised
- Objective 5: Benefits of growth realised by collaboration of governments, community and business

Liveability

- Objective 6: Services and infrastructure to meet communities' changing needs

Productivity

- Objective 14: A Metropolis of Three Cities – integrated land use and transport creates walkable and 30-minute cities
- Objective 17: Regional connectivity is enhanced

Sustainability

- Objective 26: A cool and green parkland city in the South Creek corridor
- Objective 27: Biodiversity is protected, urban bushland and remnant vegetation is enhanced
- Objective 30: Urban tree canopy is increased
- Objective 31: Public open space is accessible, protected and enhanced
- Objective 32: The Green Grid links parks, open spaces, bushland and walking and cycling paths
- Objective 37: Exposure to natural and urban hazards is reduced

4.2 Central City District Plan

The Central City District Plan is a 20-year plan to manage growth in the context of economic, social and environmental factors to achieve the 40-year vision for Greater Sydney. It acts as a bridge between the regional planning set out in the Region Plan and local planning.

The District Plan identifies planning priorities to achieve a liveable, productive and sustainable future for the District. It embeds relevant objectives, strategies and actions from the Region Plan to integrate the District's challenges and opportunities with the vision for Greater Sydney as a metropolis of three cities. While we are part of a group of 4 councils in the Central City District, the boundaries are arbitrary as we shape the future of the whole of Western Sydney and Greater Sydney.

The relevant District Plan Themes and Priorities considered in this report are:

Infrastructure and collaboration

- C1: Planning for a city supported by infrastructure
- C2: Working through collaboration

Liveability

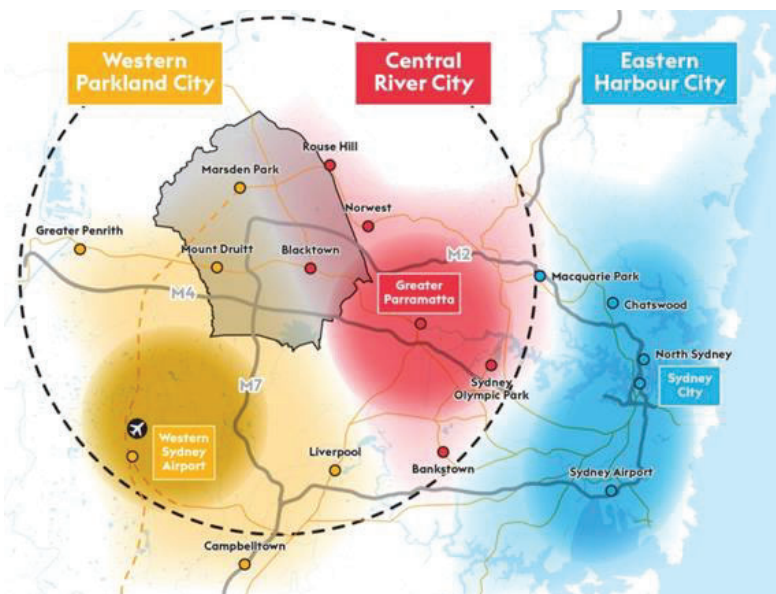
- C3: Providing services and social infrastructure to meet people's changing needs

Productivity

- C9: Delivering integrated land use and transport planning and a 30-minute city
- C10: Growing investment, business and job opportunities in Strategic Centres

Sustainability

- C13: Protecting and improving the health and enjoyment of the District's waterways
- C14: Creating a Parkland City urban structure and identity, with South Creek as a defining spatial element
- C16: Increasing urban tree canopy cover and delivering Green Grid connections
- C17: Delivering high quality open space
- C20: Adapting to the impacts of urban and natural hazards and climate change



Blacktown City sits across the Central River City and the emerging Western Parklands City



Central City District

4.3 Community Strategic Plan

Our Blacktown 2036 is our Community Strategic Plan. It identifies our community's priorities and aspirations and how we can deliver on these priorities and track their progress. *Our Blacktown 2036* is structured around the following 6 strategic directions, each including a community outcome, focus area and our indicators that will measure our progress towards the long-term community outcome:

- A vibrant and inclusive community
- A clean, sustainable and healthy environment
- A smart and prosperous economy
- A growing city supported by accessible infrastructure
- A sporting and active city
- A leading City

4.4 Local Strategic Planning Statement

The Blacktown Local Strategic Planning Statement 2020 (LSPS) sets out a 20-year vision for the future of Blacktown City as it grows and changes. It provides the basis for strategic planning in Blacktown City having regard to economic, social and environmental matters.

The LSPS sets out planning priorities and actions that are consistent with the:

- Greater Sydney Region Plan
- Central City District Plan
- Blacktown Community Strategic Plan.

Our LSPS vision for Blacktown City is:

"A planned city of sustainable growth, supported by essential infrastructure, efficient transport, a prosperous economy and equitable access to a vibrant, healthy lifestyle."

It sets out 18 Local Planning Priorities and 63 Actions to achieve the vision based on 5 themes of Infrastructure and collaboration, Liveability, Productivity, Sustainability and Implementation.

The relevant LSPS Themes and Planning Priorities considered in this report are:

Infrastructure and collaboration

- LPP 1: Planning for a city supported by infrastructure
- LPP 2: Collaborating, partnering and engaging to implement the LSPS

Liveability

- LPP 3: Providing services and social infrastructure to meet people's changing needs

Productivity

- LPP 7: Delivering integrated land use and transport planning and a 30-minute city
- LPP 8: Growing mixed use, investment, business and job opportunities in Strategic Centres

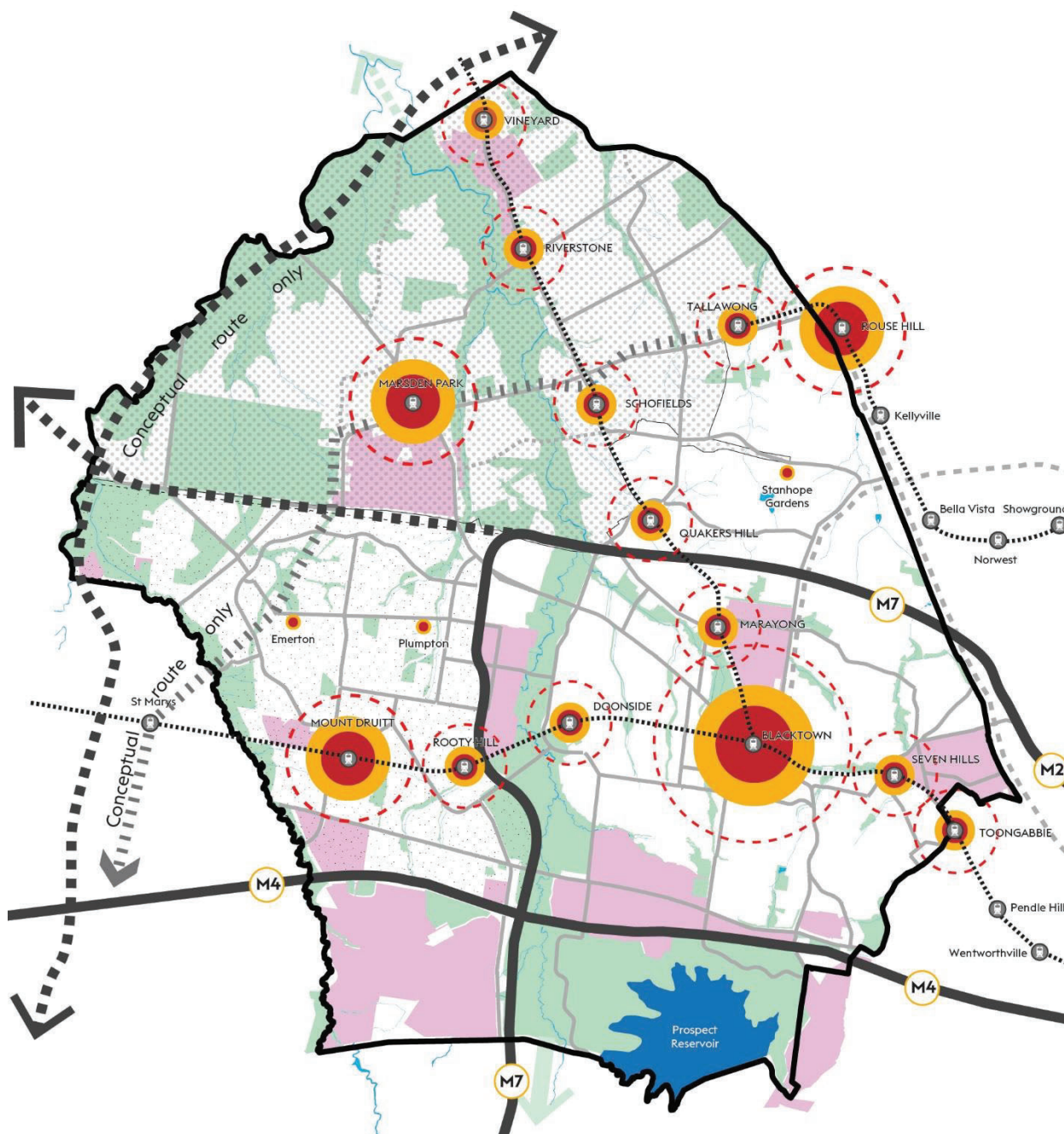
Sustainability

- LPP 11: Protecting and improving the health and enjoyment of waterways
- LPP 12: Creating a Parkland City urban structure and emphasising the importance of South Creek
- LPP 14: Increasing urban tree canopy cover and Green Grid connections
- LPP 15: Delivering high quality open space
- LPP 17: Adapting to the impacts of urban and natural hazards and climate change

Of most relevance to this report is the following Action from the LSPS:

“Action 9

Collaborate with the NSW Government to rectify the gap in planning for and provision of infrastructure arising from development occurring at higher densities than forecast in the NWGA, impacting on transport, open space, schools and other community facility needs.”



Blacktown City Structure Plan

5. Land Use and Infrastructure Implementation Plan

5.1 Objectives

In May 2017 the NSW Government released the Land Use and Infrastructure Implementation Plan (LUIIP) to update the planning framework for the NWGA to reflect the extent of urban development and housing demand that had occurred since the release of the NWGA Structure Plan in 2006.

To meet this vision, the LUIIP identifies the following objectives:



Identify a low and high growth housing capacity scenario based on how the housing market is influencing lot size and housing diversity. Plan for an additional 20,000 dwellings than originally anticipated, and facilitate the supply of 18,000 new homes by 2021 and 33,000 by 2026.



Propose new density controls (minimum and maximum) for residential land so that new communities are supported by adequate infrastructure and councils can plan for the new population. The Department will work with councils to implement the controls and will establish a system to monitor the delivery of homes.



Improve transport accessibility and connectivity through the NWGA to reduce car reliance and connect people to other parts of Sydney by providing opportunities for the integration of travel modes through detailed precinct planning.



Identify the infrastructure needs to support growth and prioritise the forward funding of delivery of infrastructure to meet higher capacity growth projections. It states that communities will be supported by infrastructure that is planned and delivered to meet the needs of new residents.



Incorporate infrastructure commitments across the NWGA and further investigate opportunities along key corridors, such as Schofields Road, Richmond Road and Bandon Road, public transport with the Sydney Metro Northwest and its transport corridor extension.



Identify additional open space that is needed to support the high growth housing capacity scenario, and establish a new green space corridor along Eastern Creek to provide new open space and better green connections. Protect bushland and connect through a Green Grid that links suburbs, rehabilitates waterways, and provides places for recreation and community.

5.2 Key action

The LUIIP sets out a number of key actions to support the delivery of the objectives. One of those actions relates to new density controls for residential land as described below:

“Action 3: Manage residential densities to align with infrastructure

The Department will establish new density controls for residential land. The controls will set minimum and maximum residential densities for residential zoned land so that new communities are supported by adequate infrastructure and local councils can plan for the new population. The Department will work with local councils to implement the controls and will establish a system to monitor the delivery of homes.”

5.3 Managing increased densities

The LUIIP included the following revised housing projections for the NWGA:

| | Total NWGA | Blacktown City component of NWGA |
|-------------------------------|------------|----------------------------------|
| Area (ha) | 10,000 | 7,724 |
| Dwellings | 90,000 | 60,614 |
| Population | 250,000 | 190,000 |
| Precincts (including Colebee) | 16 | 12 |

Source: 2017 Land Use and Infrastructure Implementation Plan forecasts

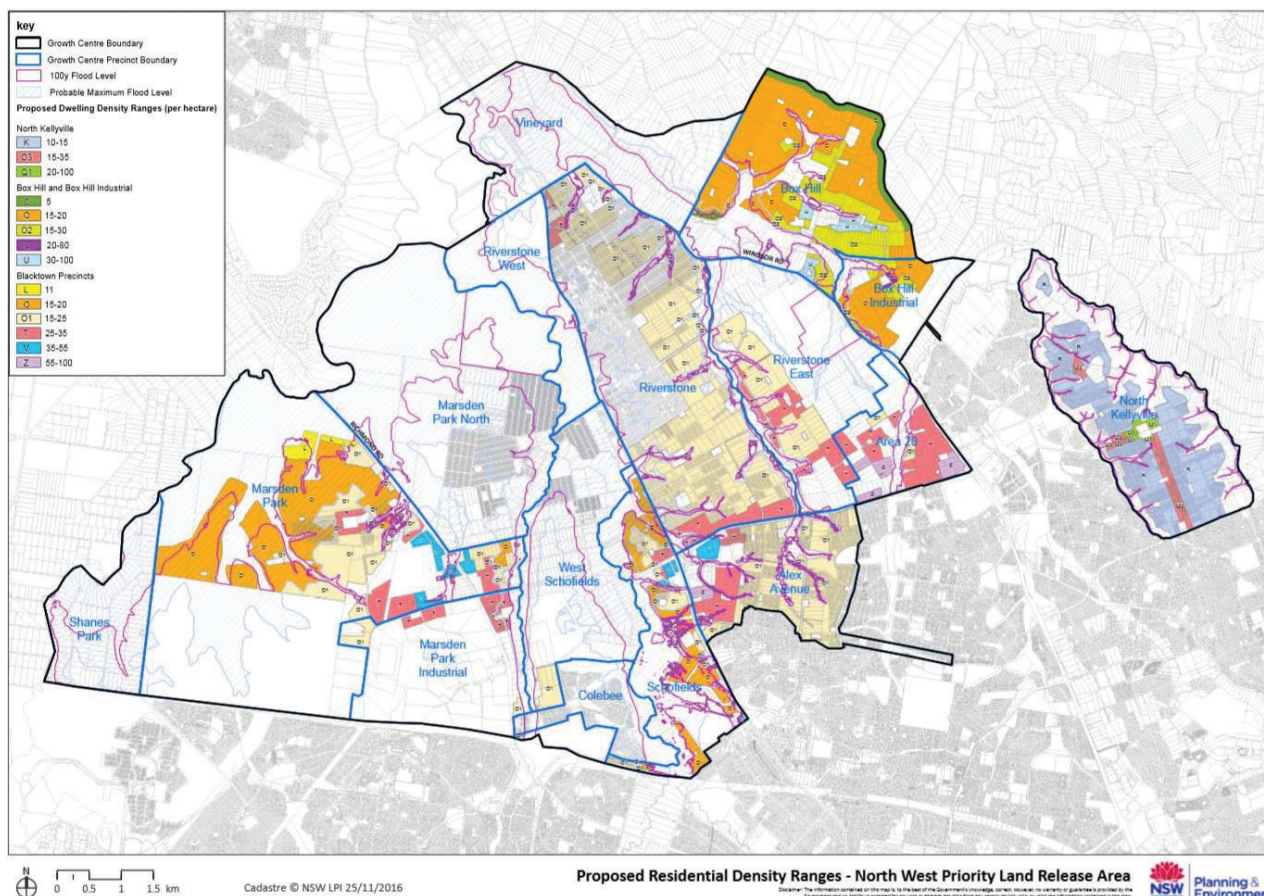
6. Growth Centres draft SEPP amendment

In May 2017, the NSW Government exhibited draft amendments to the Growth Centres SEPP to implement actions from the LUIP. One of the proposed amendments included setting minimum and maximum densities for all residential areas. In relation to the proposed residential density controls, the exhibited 'Explanation of Intended Effect' states:

"Most residential areas have a minimum residential density control under the SEPP that, at the time, was established to ensure development met dwelling targets established for the precinct to ensure the efficient use of land and the funding of local and state infrastructure. Over the last 2-3 years, the housing market has changed considerably and Councils are now receiving development applications for permissible use that far exceed the minimum residential densities in the Growth Centres SEPP."

The table below shows the existing density control and the exhibited draft SEPP density range.

| Zone | Existing minimum density (dwg/ha) | Growth Centres SEPP amendment exhibited density ranges (dwg/ha) | |
|-------|-----------------------------------|---|-----------|
| | | Minimum | Maximum |
| R2 | 11 | No change | No change |
| R2 | 12.5 | - | - |
| R2 | 15 | 15 | 25 |
| R2 | 20 | - | - |
| R2/R3 | 25 | 25 | 35 |
| R2/R3 | 30 | 25 | 35 |
| R3 | 35 | - | - |
| R3 | 40 | - | - |
| R3 | 45 | 55 | 100 |



Exhibited Draft Growth Centres SEPP – Proposed Residential Density Ranges

7. Our revised growth forecasts for Blacktown

7.1 Summary data

| | |
|--|----------|
| Rezoned precincts: | 8.6 |
| Gross area: | 7,724 ha |
| Percentage of originally predicted area developed: | 28% |
| Percentage of Precinct Plan lots registered: | 28% |
| Average residential lots registered per year: | 1,179 |
| Average lot size: | 438 sqm |

7.2 Annual rate of development activity to date

| Year | Developed area (net ha) | Registered residential lots | | | Population | | |
|--------------|-------------------------|-----------------------------|---------------|--------------|---------------|---------------|--------------|
| | | Planned | Actual | Additional | Planned | Actual | Additional |
| 2010 | 0.38 | 6 | 8 | 2 | 18 | 26 | 7 |
| 2011 | 0.26 | 4 | 4 | 0 | 13 | 13 | 0 |
| 2012 | 0.70 | 14 | 13 | -1 | 45 | 42 | -4 |
| 2013 | 15.43 | 231 | 261 | 30 | 740 | 835 | 95 |
| 2014 | 59.09 | 1,022 | 1,086 | 64 | 3,271 | 3,475 | 204 |
| 2015 | 83.74 | 1,354 | 1,573 | 219 | 4,334 | 5,034 | 700 |
| 2016 | 124.09 | 2,033 | 2,460 | 427 | 6,506 | 7,842 | 1,335 |
| 2017 | 123.56 | 2,011 | 2,610 | 599 | 6,415 | 8,304 | 1,888 |
| 2018 | 101.04 | 1,620 | 2,972 | 1,352 | 5,185 | 9,510 | 4,325 |
| Total | 508.30 | 8,296 | 10,987 | 2,691 | 26,528 | 35,080 | 8,551 |

Note: This annual rate excludes the Colebee Precinct

The above table shows the annual rate of development activity across the NWGA since 2010 when the first lot registrations occurred. Consistent with the nature of greenfield development, it shows that there was limited development activity in the early years, however as more precincts were rezoned and services became available, the number of lot registrations substantially increased.

Importantly, it compares the number of lots that were planned to be delivered under minimum density controls and the actual number of lots that were registered. The additional lots are the difference between the planned and actual. The table shows that this has generally been increasing each year, with the cumulative total at the end of 2018 being 2,691 additional lots (dwellings).

The population increase is also highlighted, showing the planned, actual and additional population each year. The cumulative total at the end of 2018 is 8,551 additional people in the NWGA.

The consequential infrastructure implications are that there is a current shortfall in provision to service the additional 8,551 people.

7.3 Summary of revised growth forecasts by Precinct

| Zoned Precincts | Area | Lots/Dwellings | | | Population | | |
|---|--------------|------------------------|---------------|---------------|------------------------|----------------|----------------|
| | (gross ha) | Original Precinct Plan | Our Forecast | Increase | Original Precinct Plan | Our Forecast | Increase |
| Alex Avenue | 420 | 6,240 | 8,706 | 2,466 | 18,000 | 25,325 | 7,325 |
| Colebee | 191 | 1,000 | 1,000 | 0 | 3,200 | 3,200 | 0 |
| Marsden Park | 1,800 | 10,308 | 17,728 | 7,420 | 30,238 | 53,745 | 23,507 |
| Marsden Park Industrial | 551 | 1,228 | 1,656 | 428 | 3,504 | 4,875 | 1,371 |
| Riverstone | 975 | 8,900 | 11,136 | 2,236 | 25,800 | 32,954 | 7,154 |
| Riverstone East (Stage 1 & 2) | 282 | 3,532 | 10,153 | 6,621 | 10,850 | 31,715 | 20,865 |
| Riverstone West | 285 | - | - | - | - | - | - |
| Schofields | 465 | 2,884 | 5,878 | 2,994 | 8,000 | 17,369 | 9,369 |
| Tallawong Station | 245 | 4,400 | 15,037 | 10,637 | 11,225 | 44,219 | 32,994 |
| West Schofields (Townson Rd) | 32 | 336 | 336 | 0 | 1,000 | 1,000 | 0 |
| Total | 5,246 | 38,828 | 71,630 | 32,802 | 111,817 | 214,402 | 102,585 |
| Released Precincts (not zoned) | | | | | | | |
| Marsden Park North | 1,227 | 6,224 | 6,224 | 0 | 19,917 | 19,917 | 0 |
| Riverstone East (Stage 3) | 374 | 1,800 | 1,800 | 0 | 6,000 | 6,000 | 0 |
| West Schofields | 552 | 4,494 | 4,494 | 0 | 14,381 | 14,381 | 0 |
| Total | 2,153 | 12,518 | 12,518 | 0 | 40,298 | 40,298 | 0 |
| Unreleased Precincts (not zoned) | | | | | | | |
| Shanes Park | 325 | 500 | 500 | 0 | 1,400 | 1,400 | 0 |
| Total | 325 | 500 | 500 | 0 | 1,400 | 1,400 | 0 |
| Overall Total (Precinct Plans) | 7,724 | 51,846 | 84,648 | 32,802 | 153,515 | 256,100 | 102,585 |

Source: DPIE published figures for each Approved Precinct Plan (i.e. rezoned) and 2017 LUIIP figures for unzoned Precincts

The above table has applied the actual delivered densities to the remaining undeveloped land in order to determine a revised forecast for each Precinct and a revised total for the Blacktown City component of the NWGA.

It compares the original Precinct Plan forecasts published by the NSW Government with the actual projected forecasts based on development activity to date. This then highlights the increased lots (dwellings) for each Precinct. The table shows that the revised overall total lots (dwellings) for the Blacktown City component of the NWGA is 84,648, which is 32,802 greater than the original Precinct Plan forecasts.

The revised overall total population for the Blacktown City component of the NWGA is 256,100 people, which is 102,585 greater than the Precinct Plan forecasts.

The consequential infrastructure implications for this revised forecast growth is discussed in the following sections of this report. The report has focused on recreation and open space, community facility provision and traffic infrastructure to understand the implications of higher than planned densities continuing across the NWGA.

8. Recreation and open space – increased needs

8.1 Summary

A total of 696 ha of open space has been identified as an opportunity to provide additional public open space within the West Schofields, Marsden Park North, Marsden Park, Schofields and Shanes Park precincts in the NWGA. These opportunities have been refined to identify areas of active and passive recreation to contribute to meeting the shortfall based on a benchmark of 2.83 ha/1,000 people. This is based on a population increase of 102,585 persons resulting in a need for an additional 300 ha of open space (180 ha active and 120 ha passive).

The analysis found that of the additional 300 ha there is a shortfall of 24 ha in meeting the 180 ha active open space provision. A solution to this shortfall could be through:

provision of additional indoor active recreation facilities (currently not permitted to be funded through s7.11)

increasing the capacity of planned open space (synthetic surface fields and the ability to levy for their funding through s7.11).

The results of the desktop study are summarised in the table below. Details of the desktop study are discussed further below with the supporting mapping and calculations provided in Appendix 2.

| Open Space | 300 ha (180 ha active / 120 ha passive) | Additional opportunities | Total |
|--------------|--|--------------------------|---------------|
| Active | 156* | 0 | 156 |
| Passive | 121 | 419 | 540 |
| Total | 277 ha | 419 ha | 696 ha |

* shortfall of 24 ha of active open space

8.2 Background

8.2.1 Accepted open space in meeting the forecast NWGA population increase

The current delivered increased density and population in the NWGA to 2018 has identified a shortfall of 24 ha of open space. If these trends continue there will be shortfall of 300 ha of open space.

Throughout the planning of the NWGA, we have successfully advocated and planned for 2.83 ha of open space per 1,000 people. The Department of Planning, Industry and Environment, the Office of Sport, and Parks and Leisure Australia and other councils have likewise recognised and adopted this benchmark. All efforts to identify solutions to this open space shortfall have continued to adopt this recognised benchmark.

In broad terms, for this open space provision shortfall, a 60/40 split between active and passive open space has been applied. For example, the 300 ha shortfall requires 180 ha of active open space (sports fields, courts and other active sport areas (e.g. cycling criterium circuits)) and 120 ha of passive open space (e.g. local parks with playgrounds, parkland corridors providing walking and cycling connections across our City).

8.2.2 Robust approach for identifying additional open space opportunities

We completed a desktop study to review opportunities for additional open space in the NWGA. This approach included:

- An analysis of the exhibited draft Indicative Layout Plans (ILPs) for the West Schofields and Marsden Park North Precincts to identify opportunities for additional open space. These precincts contain extensive areas of land impacted by the 1:100 year Annual Recurrence Interval (ARI) flood. Whilst we have not permitted active open space to be located in the 1:100 year ARI area throughout our NWGA open space planning, it is clear the land available for consideration is limited and these alternative arrangements have been considered.
- A subsequent review of all NWGA precincts to identify further opportunities to contribute to the open space shortfall. Three additional precincts have been investigated in detail, again due to the opportunities associated with land subject to the 1:100 year ARI. These precincts include Marsden Park, Schofields and Shanes Park.
- Initial mapping of open space opportunities to calculate the area of potential open space opportunities and identifying site by site constraints (e.g. floodwaters and storage, easements, riparian corridors, future infrastructure).
- Refinement of open space opportunities through allocating active or passive recreation for each location. The initial process adopted a 4.5 ha standard for active recreation areas (assuming a double football field/cricket ground and associated infrastructure). This was subsequently diversified to provide a range of active recreation provision and to respond to the known constraints (e.g. locating lower tier infrastructure in flood affected areas and locating infrastructure to minimise cut/fill requirements in flood storage areas).

The desktop study identified 696 ha of additional open space opportunities within the NWGA. This can be broken down to include 156 ha of active open space and 540 ha of passive open space. The supporting mapping and calculations are provided in Appendix 2.

8.2.3 Projected costs of delivering additional open space opportunities

Following the desktop study, the indicative costs of delivering 300 ha of additional open space has been calculated at a total of \$941,223,900. A breakdown of these costs is presented in the table below.

| | Rate (\$/ha) | Area (ha) | Cost |
|--------------------------------|-----------------------------|-----------|----------------------|
| Land Acquisition | \$1,531,413/ha ¹ | 300 | \$459,423,900 |
| Embellishment - Active | \$1,810,000/ha ² | 180 | \$325,800,000 |
| Embellishment - Passive | \$1,300,000/ha ³ | 120 | \$156,000,000 |
| Total | | | \$941,223,900 |

1. Land acquisition cost rate based on the 'L2 yet to acquire' value for open space in Marsden Park as set out in Appendix H of CP21 (2016)

2. Embellishment (active recreation) cost rate based on averaged cost of provision as updated in the BCC 2019 review of CP21

3. Embellishment (passive recreation) cost rate based on averaged cost of provision as updated in the BCC 2019 review of CP21

It is noted the cost rates for land acquisition and embellishment are currently being reviewed by DPIE and IPART. However, given the high level nature of this study and in the absence of agreed values and rates, they allow a ballpark figure to be determined.

8.3 Next steps

There are further considerations to be made before Council could consider nominating and accepting these areas as open space on the relevant Precinct Plans. These considerations include:

1. Request NSW Government review and agree with our findings.
2. Carry out further technical investigations into the cut and fill requirements, impacts on flood storage and the risk to Council of providing recreation facilities in flood affected areas.
3. Understand from the NSW Government how they will respond to their Central City District Plan Green Grid Priority Corridor of extending the Western Sydney Parklands north along Eastern Creek in the finalisation of the Precinct Plans for West Schofields and Marsden Park North. We need to highlight to the NSW Government the importance of this Priority Corridor in addressing open space shortfalls in the NWGA.
4. Consideration of the required additional open space that was not able or feasible to be accommodated. The options here include:
 - i. review areas across the NWGA ILPs not within the flood impacted areas but that may, with alternative zonings, be able to accommodate additional open space. These are likely to be locations where land parcels are already owned by Council or other government agencies (therefore removing the land acquisition sensitivities and zoning as open space)
 - ii. review other opportunities associated with Council's Riverstone Depot, surplus SP2 land associated with Council's reduced basin strategy, surplus land allocation at Department of Education sites, surplus private development land and Blacktown Leisure Centre Stanhope.

8.4 Green Grid Priority Corridor - Western Sydney Parklands extension and connections

The Western Sydney Parklands (WSP) northerly extension has been identified as a Priority Green Grid corridor in the Central City District Plan. The 27 km long WSP follows the Eastern Creek riparian corridor through Blacktown, terminating at the M7 Motorway in Quakers Hill. Eastern Creek, however, extends north through the NWGA to connect with South Creek and the Hawkesbury-Nepean River.

This connection will enhance access to open space, recreation and greener urban landscapes for the growing population of the NWGA, and also enable greater protection and rehabilitation of important biodiversity and riparian corridors. Future extensions north along Eastern Creek could connect the WSP to South Creek and the Hawkesbury River.

In the absence of public ownership of this corridor, private land owners will have limited ability to develop their land due to significant flood affectation and biodiversity significance. However, the land is not publicly accessible under this currently applicable scenario. Government commitment is needed to extend the WSP to provide certainty for future residents that there will be sufficient open space to meet community demand, and that the biodiversity significance of the corridor is maintained and enhanced.

9. Community facility infrastructure – increased needs

9.1 Summary

The increased population results in demand for an **additional 35,825 sqm** of community facility infrastructure across all precincts. This is combined with existing demand to establish revised total demand and revised total cost as outlined below:

Revised total area demand:

| | | | |
|--|--|--|---|
| 29,126 m² community centres demand | 46,280 m² aquatic centres demand | 14,663 m² recreational infrastructure demand | 90,069 m² total additional community infrastructure |
|--|--|--|---|

Revised total cost:

| | | | |
|---|---|--|--|
| \$172,562,492 community centres demand | \$340,552,662 aquatic centres demand | \$11,513,666 recreational infrastructure demand | \$524,627,820 total additional community infrastructure |
|---|---|--|--|

Unfunded community facility infrastructure:

| | | |
|---|--|---|
| \$283,898,200 (2016) current unfunded community infrastructure | +\$240,729,620 additional unfunded community infrastructure | \$524,627,820 total unfunded cost community infrastructure |
|---|--|---|

Assumptions used in analysis

- Community facility infrastructure is defined to include the following:
 - community centres (including hubs, halls and libraries)
 - aquatic centres
 - recreation infrastructure (including indoor courts, cycling, cricket nets).
- Benchmarked levels for community facilities in the NWGA are consolidated using a community hub model based on 2 catchment areas.
- Existing benchmarks for building form, size and cost of community hubs, halls and libraries have been used. The benchmarks base calculations on a predominantly single storey building form. This is driven largely by the logistical requirements of swimming pools, indoor courts and accessibility standards. While multi-storey buildings could be considered, the added construction costs have historically been comparable to the acquisition of additional land for a single storey structure. The net cost of each model would be comparable.
- Aquatic and recreational centres fall within the same provision threshold for each catchment.
- Increased population across the NWGA drives aquatic facility provision (i.e. doubling of Riverstone, 34% increase at Marsden Park, with the balance utilised at Blacktown Leisure Centre Stanhope (BLCS)).
- QS and land cost estimates are updated to reflect current pricing.
- Additional and satellite land sites to accommodate the increased facility requirements are identified (eg BLCS, Mile Street Reserve, new acquisitions) and, where necessary, rezoned. Land cost estimates are desktop approximations with assumptions made without further investigation and the rates are indicative only.

Recalculated community facility infrastructure demand by catchments

| | Catchment 1 | | | Catchment 2 | | | Total |
|--|--|---------------------|-------------|--|---------------------|-------------|----------------------------|
| | Colebee, Marsden Park, Marsden Park Industrial, Marsden Park North, Shanes Park, West Schofields | | | Alex Avenue, Area 20, Riverstone, Riverstone East, Riverstone West, Schofields | | | NWGA |
| | Revised population | 98,518 | | Revised population | 157,582 | | 256,100 |
| | Increased population | 24,878 | | Increased population | 77,707 | | 102,585 |
| | Demand | | | Demand | | | Revised total |
| | Original m² | Revised forecast m² | Increase m² | Original m² | Revised forecast m² | Increase m² | Forecast m² (2 catchments) |
| Total facility floorspace by catchment | 33,385 m² | 49,457 m² | 16,072 m² | 21,039 m² | 40,612 m² | 19,573 m² | 90,069 m² |
| Community centres | 9,581 m² | 12,513 m² | 2,932 m² | 7,040 m² | 16,613 m² | 9,573 m² | 29,126 m² |
| Aquatic centres | 13,140 m² | 26,280 m² | 13,140 m² | 10,000 m² | 20,000 m² | 10,000 m² | 46,280 m² |
| Recreational infrastructure | 10,664 m² | 10,664 m² | - | 3,999 m² | 3,999 m² | - | 14,663 m² |
| Total additional land cost | | | | | | | \$11,513,666 |
| | | | | | | | \$56,531,000 |

Notes: This review relies on:

- utilisation of density projections
- 2016 QS estimates for revised floorspace indications
- 2018 draft Blacktown City Council Community Facilities Review for revised aquatic centre indicators
- calculation of increased requirement at precinct level
- consolidated increased precinct level requirement in a limited number of facilities across 2 catchment areas.

9.2 The 'Essential Works List'

Since 2010 the NSW Government introduced a number of policy changes to the developer contributions system in NSW. Arguably, the most contentious component was its introduction of an 'Essential Works List' (EWL) for contributions plans assessed by IPART that proposed to exceed the section 7.11 caps of \$20,000 per lot/dwelling (infill development) or \$30,000 per lot/dwelling (greenfield development).

Blacktown Council's community hub model creates integrated, multi-purpose facilities rather than stand-alone facilities, and typically includes neighbourhood/community centres, child care centres, youth centres and libraries. The model is based on guiding principles that facilities should be iconic, multi-purpose, provide co-located service delivery, be accessible, promote local public art, generate community activity, ensure a safe built environment, be environmentally and financially sustainable and provide for total asset management.

Community facilities are significant places where people can come together and connect, form friendships and create social support networks. Given this, it is critical to invest in community facility infrastructure to meet the growing population and create and maintain strong communities.

The EWL excludes community facility buildings for contributions plans assessed by IPART. The exclusion of levying for community facility buildings in Blacktown will see a projected population of more than 256,000 people in the NWGA that will have no libraries, no swimming pools, no youth centres and no community meeting spaces.

The funding required for these facilities, at a standard which was permitted by the Government until they were removed from the EWL, is conservatively estimated at \$524 million. The lack of community facilities in the NWGA significantly impacts on the liveability of the area. Government intervention is needed to address this issue.

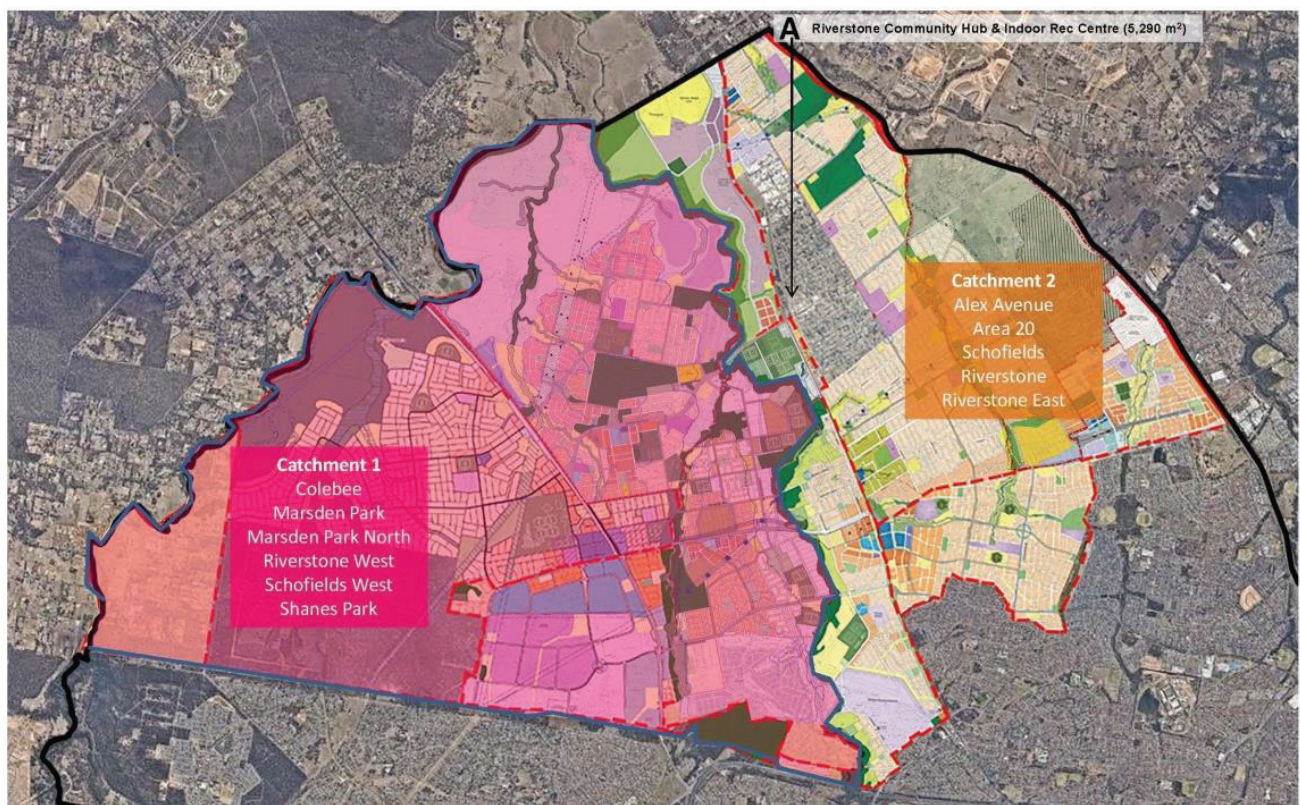
9.3 Catchment areas

This revision adopts the same best practice catchment-based approach to the planning of community facilities used in our draft Community Facilities Review 2018. Planning on a catchment basis enables:

- a more equitable approach to the supply and distribution of community facilities, with the ability to readily identify areas of under and over supply
- a place-based approach to planning for community needs, with the ability to align facility and service provision to different challenges and opportunities in each catchment
- focused planning in areas which are expected to experience high growth.

Planning on a catchment basis is particularly important in areas such as Blacktown City where demographic characteristics, community needs and urban form varies significantly across the local government area. This method recognises the distribution and location of key urban centres, community travel patterns, and existing and future population size and distribution. The draft Community Facilities Review proposed 8 catchments for the entire City, 2 of which are located in the NWGA.

| Catchment 1 Western Parkland City NWGA Precincts | Catchment 2 Central River City NWGA Precincts |
|--|---|
| Colebee, Marsden Park, Marsden Park Industrial Marsden Park North, Shanes Park and West Schofields | Alex Avenue, Area 20, Riverstone, Riverstone East, Riverstone West and Schofields |



9.4 Approach to planning social infrastructure

Blacktown Council has adopted a community hub model for the provision of its local community facilities. The community hub model was identified in 2009 and creates a multi-purpose facility combining otherwise stand-alone facilities, including neighbourhood/community centres, child care centres, youth centres and libraries. They will provide a focus for local communities to come together for social, lifelong learning and human services activities and services.

A community hub has a larger building form than existing neighbourhood/community centres. The increased critical mass (size) achieves efficiencies and economies in the land size required for acquisition by combining the provision of services identified through the NWGA benchmark standard. Community hubs provide a scale of facility that acts as a focal point for the delivery of community services, increasing the size and scope of what single centres can deliver to the community. Guiding principles include:

- total asset management
- environmental sustainability
- multi-purpose/flexibility
- service delivery hubs/co-location
- accessibility/activity generators
- crime prevention through environmental design
- iconic
- public art
- not for loss operations.

The following indicative baseline was used for the floor space size of neighbourhood centres and community hubs:

| | |
|---------------------|--|
| Local | <ul style="list-style-type: none">• 450 m² – 750 m²• servicing 4,000 – 12,000 people• within a 5 to 10 minute walk for most residents |
| District | <ul style="list-style-type: none">• 750 m² – 1,500 m²• servicing 13,000 – 50,000 people• more specialist services, operating on a broader district catchment |
| Sub-regional | <ul style="list-style-type: none">• 1,500 m² – 3,000 m², libraries 2,800 m² – 5,200 m²• servicing 50,000 people and over• major facilities, both specialist and also general |

Criteria for the siting of community hubs include:

- location in an activation centre
- accessible by public transport
- does not abut or impact on residential neighbours
- occupies an iconic space that contributes to civic identity
- is co-located with other community uses to form part of a multi-purpose destination.

9.5 Recalculated social infrastructure demand

The application of the Growth Centres Development Code Guiding Thresholds to revised population levels under the 2017 LUIP reveals a significant shortfall in the planned provision of social infrastructure against revised population data.

The projected increase in population density in both catchments significantly impacts current community facility proposals. Provision of separate facilities to the level of the Growth Centres Development Code Guiding Thresholds is neither economically nor operationally realistic. Consolidation of functions into a smaller number of larger facilities based on the community hub model will achieve significant economies of scale.

The **2015 Social Infrastructure Review** was produced by Elton Consulting for the NSW Department of Planning, Industry and Environment. The review recommended a facility be established adjacent to the Area 20 Town Centre to realise the opportunities presented by proximity to a Metro railway station.

The **2018 draft Blacktown City Council Community Facilities Review** reviewed the delivery of community facilities in line with the community hub model. The model pools infrastructure needs across a number of release precincts and develops strategically located, economically efficient, larger scale facilities.

The **community hub model** delivers sub-regional facilities with the capacity to deliver children and family services, youth and indoor recreation, and arts & cultural facilities.

Council's **siting preference** is to locate social infrastructure in or near an activated town centre, accessible by public transport, not abutting residential neighbours, iconic, and with co-located functions.

Calculations have been based on a **building form** for community facilities utilising predominantly single storey structures, driven largely by the logistical requirements of swimming pools, indoor courts and accessibility standards. While multi-storey buildings could be considered, the added construction costs have historically been comparable to the acquisition of additional land for a single storey structure. The net cost of each model would be comparable.

The **proximity of Area 20 to the boundary of the local government area** would make the Area 20 town centre unsuitable as a location for a sub-regional level facility, which would more appropriately provide greater accessibility to Blacktown residents. Taken together in a catchment with Riverstone, the increase in demand could be met by providing a district level facility in Area 20 and allocating the additional infrastructure requirement to the Riverstone sub-regional facility.

Our **commitment to sustainability** and involvement in Sustainable Sydney has highlighted the need for the strategic placement of sub-regional level community facilities that can function as heat refuges as required. The NWGA has been subject to increasing average summer temperatures and sub-regional facilities can play a significant role in supporting vulnerable families.

Our **commitment to access and equity** ensures our buildings are all-ability friendly and maximise connections to, and accessibility by, public transport.

10. Traffic – increased needs

10.1 Recommendation

A strategic assessment has been undertaken of the road infrastructure requirements based on revised growth projections over originally forecast traffic flows. The results show that additional lanes are needed to adequately cater for the projected increased traffic from the expected densities. Providing additional lanes is a poor transport outcome and clearly impractical, given that road reserve boundaries are already in place for much of the network. The increased densities show a clear need to accelerate the extension of the Sydney Metro Northwest from Tallawong Station to St Marys Station via Marsden Park as a key early priority.

10.2 Methodology and results

Blacktown's Netanal program was used to determine the major link flows for each Precinct based on increased growth over original forecasts. The program identified the link flows to determine the number of travel lanes needed to accommodate the traffic flows.

The number of mid-block lanes required to accommodate increased growth is shown with the Level of Service (LOS) this would generate. The number of travel lanes required is based on 1,400 vph per lane for mid-block links (Austroads GTM Part 3 – Section 5) and would result in some roads opening at a poor Level of Service F as follows:

- Level of Service F: urban street flow at extremely low speeds, typically 25% to 33% of the Free Flow Speed at 65 km/h (eg 16 to 22 km/h).

The results are shown for the following 3 level of service scenarios to compare the outcome:

- Level of Service A – 1,000 vph per lane
- Level of Service C – 1,200 vph per lane
- Level of Service F – 1,400 vph per lane.

For the peak traffic flow, the target should be no lower than Level of Service D.

The Table below shows the street links with an unacceptable Level of Service F based on the current number of planned travel lanes. The Level of Service assessment is on the basis that the upstream intersection controls are able to adequately cater for this amount of traffic.

Assessment criteria / parameters:

- Urban arterial road with interrupted flow
- Level of Service suburb design category (GTM Part 3 – Table 5.2)
- Peak period mid-block traffic flows may increase to 1,200 to 1,400 vph where:
 - upstream intersection has separate lanes for right and left turning traffic
 - no crossing or entering traffic at side streets
 - no parking
 - no right-turns or controlled right-turns
 - good traffic light coordination.

| Road Name | Current planning travel lanes (in each direction) | | LOS current density | 2036 AM Peak + 32% (vph) | additional (vph) | Traffic 32% increase LOS achieved | Lanes (1,000 vph) LOS A | Lanes (1,200 vph) LOS C | Lanes (1,400 vph) LOS F | Forecast additional travel lanes to maintain current LOS |
|--------------------|---|---|---------------------|--------------------------|------------------|-----------------------------------|-------------------------|-------------------------|-------------------------|--|
| | 2036 AM Peak (vph) | | | | | | | | | |
| Garfield Road West | 4,300 | 3 | F | 5,128 | 828 | F | 5.1 | 4.3 | 3.7 | 1 |
| Bandon Road | 4,600 | 3 | F | 5,578 | 978 | F | 5.6 | 4.6 | 4.0 | 1 |
| Garfield Road East | 2,200 | 3 | A/B | 3,178 | 978 | B | 3.2 | 2.6 | 2.3 | 1 |
| Westminster Street | 2,200 | 2 | A/B | 2,952 | 752 | F | 3.0 | 2.5 | 2.1 | 1 |
| Grange Avenue | 2,000 | 2 | A | 2,752 | 752 | F | 2.8 | 2.3 | 2.0 | 1 |
| Schofields Road | 3,000 | 3 | A | 3,752 | 752 | C/D | 3.8 | 3.1 | 2.7 | 1 |
| Veron Road | 2,400 | 2 | C | 2,851 | 451 | F | 2.9 | 2.4 | 2.0 | 1 |
| Railway Terrace | 1,000 | 2 | A | 1,376 | 376 | A | 1.4 | 1.1 | 1.0 | 0 |
| Carnavon Road | 1,900 | 2 | A | 2,201 | 301 | B | 2.2 | 1.8 | 1.6 | 1 |
| Burdekin Road | 3,000 | 2 | F | 3,752 | 752 | F | 3.8 | 3.1 | 2.7 | 1 |
| South Street | 2,300 | 2 | C | 3,203 | 903 | B/C | 3.2 | 2.7 | 2.3 | 1 |
| Stanhope Parkway | 3,300 | 2 | F | 3,827 | 527 | F | 3.8 | 3.2 | 2.7 | 1 |
| Hambledon Road | 2,100 | 2 | A/B | 3,454 | 1,354 | F | 3.5 | 2.9 | 2.5 | 1 |
| Alex Avenue | 2,000 | 1 | F | 2,752 | 752 | F | 2.8 | 2.3 | 2.0 | 2 |
| Pelican Road | 1,800 | 1 | F | 2,251 | 451 | F | 2.3 | 1.9 | 1.6 | 1 |
| Jerralong Drive | 1,500 | 1 | F | 2,102 | 602 | F | 2.1 | 1.8 | 1.5 | 1 |
| Quakers Hill Pky | 4,000 | 2 | F | 4,752 | 752 | F | 4.8 | 4.0 | 3.4 | 2 |
| Richmond Road | 4,800 | 3 | F | 5,703 | 903 | F | 5.7 | 4.8 | 4.1 | 2 |

Level of Service A Primarily free flow operations at average travel speeds, usually 90% of the FFS (free flow speed). Vehicles are completely unimpeded in their ability to manoeuvre.

Level of Service B Reasonably unimpeded operations at average travel speeds, usually 70% of the FFS (free flow speed).

Level of Service C Stable operations at average travel speeds, usually 50% of the FFS (free flow speed).

Level of Service D Delays at average travel speeds, usually 40% of the FFS (free flow speed).

Level of Service E Significant delays at average travel speeds, usually 33% of the FFS (free flow speed).

Level of Service F Low speed, usually 25% of the FFS (free flow speed).

Appendix 1 – Growth forecast methodology and individual precinct projections

A. Methodology elements

Total planned and forecast yield

This compares the planned dwellings and population from the approved Precinct Plan with the 'forecast' dwellings and population over the remaining undeveloped land, calculated based on a combination of the actual average residential densities that has occurred to date and, where no actual average density exists, the theoretical maximum density that applies under the Precinct Plan planning controls.

Annual rate of development activity

This compares the projected residential lots that are expected under the minimum planning controls with the actual residential lots registered from the date the Precinct Plan was made. This was then extrapolated to show projected and actual population.

Social infrastructure demand

This shows the current additional social infrastructure demand generated by the actual additional residential lots. This is additional to the current planned social infrastructure identified in the Precinct Plan and s7.11 Contributions Plan.

The additional 'forecast' social infrastructure is the total demand that is generated over the remaining undeveloped land. It is calculated based on a combination of the actual average residential densities that have occurred to date and, where no actual average density exists, the theoretical maximum density that applies under the Precinct Plan planning controls.

The benchmarks are taken from the Growth Centres Development Code 2006 that is used to guide precinct planning.

B. Alex Avenue Precinct - growth forecasts and infrastructure demand

| | |
|--|------------|
| Rezoned: | May 2010 |
| Gross area: | 420 ha |
| Percentage of area developed: | 67% |
| Percentage of Precinct Plan lots registered: | 52% |
| Percentage of Forecast lots registered: | 37% |
| Average residential lots registered per year since rezoning: | 460 |
| Estimated years remaining: | 12 |
| Average lot size: | 378.03 sqm |

Planned and forecast yield

| Lots (dwellings) | | | Population | | |
|------------------|----------|------------|---------------|----------|------------|
| Precinct Plan | Forecast | Additional | Precinct Plan | Forecast | Additional |
| 6240 | 8706 | 2466 | 18000 | 25325 | 7325 |

Annual rate of development activity

| Year | Developed area (net ha) | Registered residential lots | | | Population | | |
|--------------|-------------------------|-----------------------------|-------------|------------|-------------|--------------|-------------|
| | | Planned | Actual | Additional | Planned | Actual | Additional |
| 2010 | - | - | - | - | - | - | - |
| 2011 | - | - | - | - | - | - | - |
| 2012 | 0.70 | 14 | 13 | -1 | 45 | 42 | -4 |
| 2013 | 14.57 | 219 | 247 | 28 | 699 | 790 | 91 |
| 2014 | 34.59 | 585 | 643 | 58 | 1871 | 2058 | 187 |
| 2015 | 27.20 | 506 | 541 | 35 | 1620 | 1731 | 111 |
| 2016 | 36.97 | 674 | 767 | 93 | 2157 | 2454 | 297 |
| 2017 | 25.48 | 447 | 550 | 103 | 1431 | 1746 | 315 |
| 2018 | 18.74 | 331 | 457 | 126 | 1060 | 1462 | 403 |
| Total | 158.25 | 2776 | 3218 | 442 | 8883 | 10283 | 1400 |

Social infrastructure demand

| | Dwellings | Population | Open space | Youth centre | Community Centre | Library | | Community Services | | Performing Arts Cultural Centre |
|------------------|-----------|------------|------------|--------------|------------------|----------|----------|--------------------|----------|---------------------------------|
| | | | | | | Branch | District | Local | District | |
| | | | | | | 1:33,000 | 1:40,000 | 1:6,000 | 1:20,000 | |
| Precinct Plan | 6240 | 18000 | 50.94 | 0.90 | 0.30 | 0.55 | 0.45 | 3.00 | 0.90 | 0.60 |
| Forecast | 8706 | 25325 | 71.67 | 1.27 | 0.42 | 0.77 | 0.63 | 4.22 | 1.27 | 0.84 |
| Total increase | 2466 | 7325 | 20.73 | 0.37 | 0.12 | 0.22 | 0.18 | 1.22 | 0.37 | 0.24 |
| Current increase | 442 | 1415 | 4.00 | 0.07 | 0.02 | 0.04 | 0.04 | 0.24 | 0.07 | 0.05 |

C. Area 20 Precinct - growth forecasts and infrastructure demand

| | |
|--|-----------------|
| Rezoned: | October 2011 |
| Gross area: | 245 ha |
| Percentage of area developed: | 2% |
| Percentage of Precinct Plan lots registered : | 1.1% |
| Percentage of Forecast lots registered: | 0.3% |
| Average residential lots registered per year since rezoning: | 17 |
| Estimated years remaining: | Not enough data |
| Average lot size: | 433.21 sqm |

Planned and forecast yield

| Lots (dwellings) | | | Population | | |
|------------------|----------|------------|---------------|----------|------------|
| Precinct Plan | Forecast | Additional | Precinct Plan | Forecast | Additional |
| 4400 | 15037 | 10637 | 11225 | 44219 | 32994 |

Annual rate of development activity

| Year | Developed area (net ha) | Registered residential lots | | | Population | | |
|--------------|-------------------------|-----------------------------|-----------|------------|------------|------------|------------|
| | | Planned | Actual | Additional | Planned | Actual | Additional |
| 2011 | - | - | - | - | - | - | - |
| 2012 | - | - | - | - | - | - | - |
| 2013 | - | - | - | - | - | - | - |
| 2014 | - | - | - | - | - | - | - |
| 2015 | - | - | - | - | - | - | - |
| 2016 | 0.73 | 15 | 15 | 0 | 47 | 48 | 1 |
| 2017 | 0.30 | 6 | 9 | 3 | 19 | 29 | 10 |
| 2018 | 1.25 | 25 | 26 | 1 | 80 | 83 | 3 |
| Total | 2.28 | 46 | 50 | 4 | 146 | 160 | 14 |

Social infrastructure demand

| | Dwellings | Population | Open space | Youth centre | Community Centre | Library | Community Services | | | | Performing Arts |
|------------------|-----------|------------|-------------|--------------|------------------|----------|--------------------|----------|----------|----------|-----------------|
| | | | | | | | Branch | District | Local | District | Cultural Centre |
| | | | 2.83ha:1000 | 1:20,000 | 1:60,000 | 1:33,000 | 1:40,000 | 1:6,000 | 1:20,000 | 1:30,000 | |
| Precinct Plan | 4400 | 15037 | 42.55 | 0.75 | 0.25 | 0.46 | 0.38 | 2.51 | 0.75 | 0.50 | |
| Forecast | 15037 | 44219 | 125.14 | 2.21 | 0.74 | 1.34 | 1.11 | 7.37 | 2.21 | 1.47 | |
| Total increase | 10637 | 29182 | 82.58 | 1.46 | 0.49 | 0.88 | 0.73 | 4.86 | 1.46 | 0.97 | |
| Current increase | 4 | 14 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |

D. Marsden Park Precinct - growth forecasts and infrastructure demand

| | |
|--|--------------|
| Rezoned: | October 2013 |
| Gross area: | 1800 ha |
| Percentage of area developed: | 17% |
| Percentage of Precinct Plan lots registered : | 25% |
| Percentage of Forecast lots registered: | 14% |
| Average residential lots registered per year since rezoning: | 634 |
| Estimated years remaining: | 25 |
| Average lot size: | 426.28 sqm |

Planned and forecast yield

| Lots (dwellings) | | | Population | | |
|------------------|----------|------------|---------------|----------|------------|
| Precinct Plan | Forecast | Additional | Precinct Plan | Forecast | Additional |
| 10308 | 17720 | 7420 | 30238 | 53745 | 23507 |

Annual rate of development activity

| Year | Developed area (net ha) | Registered residential lots | | | Population | | |
|--------------|-------------------------|-----------------------------|-------------|------------|-------------|-------------|-------------|
| | | Planned | Actual | Additional | Planned | Actual | Additional |
| 2013 | - | - | - | - | - | - | - |
| 2014 | - | - | - | - | - | - | - |
| 2015 | 25.32 | 380 | 476 | 96 | 1215 | 1523 | 308 |
| 2016 | 8.76 | 132 | 173 | 41 | 422 | 554 | 132 |
| 2017 | 33.83 | 521 | 708 | 187 | 1668 | 2266 | 598 |
| 2018 | 52.95 | 852 | 1178 | 326 | 2726 | 3770 | 1044 |
| Total | 120.85 | 1884 | 2535 | 651 | 6030 | 8112 | 2082 |

Social infrastructure demand

| | Dwellings | Population | Open space | Youth centre | Community Centre | Library | | Community Services | | Performing Arts Cultural Centre |
|------------------|-----------|------------|-------------|--------------|------------------|---------|----------|--------------------|----------|---------------------------------|
| | | | 2.83ha:1000 | 1:20,000 | 1:60,000 | Branch | District | Local | District | 1:30,000 |
| | | | | | | | | | | |
| Precinct Plan | 10300 | 30238 | 85.57 | 1.51 | 0.50 | 0.92 | 0.76 | 5.04 | 1.51 | 1.01 |
| Forecast | 17720 | 53745 | 152.10 | 2.69 | 0.90 | 1.63 | 1.34 | 8.96 | 2.69 | 1.79 |
| Total increase | 7420 | 23507 | 66.53 | 1.18 | 0.39 | 0.71 | 0.59 | 3.92 | 1.18 | 0.78 |
| Current increase | 651 | 2082 | 5.89 | 0.10 | 0.03 | 0.06 | 0.05 | 0.35 | 0.10 | 0.07 |

E. Marsden Park Industrial Precinct - growth forecasts and infrastructure demand

| | |
|--|---------------|
| Rezoned: | November 2010 |
| Gross area: | 551 ha |
| Percentage of area developed: | 54% |
| Percentage of Precinct Plan lots registered : | 32% |
| Percentage of Forecast lots registered: | 24% |
| Average residential lots registered per year since rezoning: | 133 |
| Estimated years remaining: | 9 |
| Average lot size: | 442.47 sqm |

Planned and forecast yield

| Lots (dwellings) | | | Population | | |
|------------------|----------|------------|---------------|----------|------------|
| Precinct Plan | Forecast | Additional | Precinct Plan | Forecast | Additional |
| 1228 | 1656 | 428 | 3504 | 4875 | 1371 |

Annual rate of development activity

| Year | Developed area (net ha) | Registered residential lots | | | Population | | |
|--------------|-------------------------|-----------------------------|------------|------------|-------------|-------------|------------|
| | | Planned | Actual | Additional | Planned | Actual | Additional |
| 2010 | - | - | - | - | - | - | - |
| 2011 | - | - | - | - | - | - | - |
| 2012 | - | - | - | - | - | - | - |
| 2013 | - | - | - | - | - | - | - |
| 2014 | - | - | - | - | - | - | - |
| 2015 | - | - | - | - | - | - | - |
| 2016 | 9.05 | 212 | 173 | -39 | 679 | 554 | -126 |
| 2017 | 2.06 | 62 | 57 | -5 | 198 | 182 | -15 |
| 2018 | 7.73 | 122 | 169 | 47 | 390 | 541 | 151 |
| Total | 18.84 | 396 | 399 | 3 | 1267 | 1277 | 10 |

Social infrastructure demand

| | Dwellings | Population | Open space | Youth centre | Community Centre | Library | | Community Services | | Performing Arts |
|------------------|-----------|------------|-------------|--------------|------------------|----------|----------|--------------------|----------|-----------------|
| | | | | | | Branch | District | Local | District | Cultural Centre |
| | | | 2.83ha:1000 | 1:20,000 | 1:60,000 | 1:33,000 | 1:40,000 | 1:6,000 | 1:20,000 | 1:30,000 |
| Precinct Plan | 1228 | 3504 | 9.92 | 0.18 | 0.06 | 0.11 | 0.09 | 0.58 | 0.18 | 0.12 |
| Forecast | 1656 | 4875 | 13.80 | 0.24 | 0.08 | 0.15 | 0.12 | 0.81 | 0.24 | 0.16 |
| Total increase | 428 | 1371 | 3.88 | 0.07 | 0.02 | 0.04 | 0.03 | 0.23 | 0.07 | 0.05 |
| Current increase | 3 | 10 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

F. Riverstone Precinct - growth forecasts and infrastructure demand

| | |
|--|------------|
| Rezoned: | May 2010 |
| Gross area: | 975 ha |
| Percentage of area developed: | 39% |
| Percentage of Precinct Plan lots registered : | 40% |
| Percentage of Forecast lots registered: | 32% |
| Average residential lots registered per year since rezoning: | 445 |
| Estimated years remaining: | 17 |
| Average lot size: | 491.11 sqm |

Planned and forecast yield

| Lots (dwellings) | | | Population | | |
|------------------|----------|------------|---------------|----------|------------|
| Precinct Plan | Forecast | Additional | Precinct Plan | Forecast | Additional |
| 8900 | 11136 | 2236 | 25800 | 32954 | 7154 |

Annual rate of development activity

| Year | Developed area (net ha) | Registered residential lots | | | Population | | |
|--------------|-------------------------|-----------------------------|-------------|------------|-------------|--------------|-------------|
| | | Planned | Actual | Additional | Planned | Actual | Additional |
| 2010 | 0.38 | 6 | 8 | 2 | 18 | 26 | 7 |
| 2011 | 0.26 | 4 | 4 | 0 | 13 | 13 | 0 |
| 2012 | - | - | - | - | - | - | - |
| 2013 | 0.58 | 9 | 11 | 2 | 28 | 35 | 7 |
| 2014 | 23.73 | 426 | 426 | 0 | 1363 | 1363 | 0 |
| 2015 | 25.06 | 376 | 451 | 75 | 1203 | 1443 | 240 |
| 2016 | 27.96 | 391 | 579 | 188 | 1252 | 1853 | 601 |
| 2017 | 51.00 | 774 | 1049 | 238 | 2476 | 3338 | 762 |
| 2018 | 49.16 | 757 | 1033 | 276 | 2423 | 3306 | 883 |
| Total | 178.14 | 2743 | 3561 | 781 | 8776 | 11377 | 2501 |

Social infrastructure demand

| | Dwellings | Population | Open space | Youth centre | Community Centre | Library | | Community Services | | Performing Arts Cultural Centre |
|------------------|-----------|------------|-------------|--------------|------------------|----------|----------|--------------------|----------|---------------------------------|
| | | | | | | Branch | District | Local | District | |
| | | | 2.83ha:1000 | 1:20,000 | 1:60,000 | 1:33,000 | 1:40,000 | 1:6,000 | 1:20,000 | 1:30,000 |
| Precinct Plan | 8900 | 25800 | 73.01 | 1.29 | 0.43 | 0.78 | 0.65 | 4.30 | 1.29 | 0.86 |
| Forecast | 11136 | 32954 | 93.26 | 1.65 | 0.55 | 1.00 | 0.82 | 5.49 | 1.65 | 1.10 |
| Total increase | 2236 | 7154 | 20.25 | 0.36 | 0.12 | 0.22 | 0.18 | 1.19 | 0.36 | 0.24 |
| Current increase | 781 | 2501 | 7.08 | 0.13 | 0.04 | 0.08 | 0.06 | 0.42 | 0.13 | 0.08 |

G. Riverstone East Precinct - growth forecasts and infrastructure demand

| | |
|--|----------------------------|
| Rezoned: | August 2016 (Stages 1 & 2) |
| Gross area: | 282 ha |
| Percentage of area developed: | 1% |
| Percentage of Precinct Plan lots registered : | 1.05% |
| Percentage of Forecast lots registered: | 0.36% |
| Average residential lots registered per year since rezoning: | 37 |
| Estimated years remaining: | 273 |
| Average lot size: | 484.54 sqm |

Planned and forecast yield

| Lots (dwellings) | | | Population | | |
|------------------|----------|------------|---------------|----------|------------|
| Precinct Plan | Forecast | Additional | Precinct Plan | Forecast | Additional |
| 3532 | 10153 | 6621 | 10850 | 31715 | 20865 |

Annual rate of development activity

| Year | Developed area (net ha) | Registered residential lots | | | Population | | |
|--------------|-------------------------|-----------------------------|-----------|------------|------------|------------|------------|
| | | Planned | Actual | Additional | Planned | Actual | Additional |
| 2016 | - | - | - | - | - | - | - |
| 2017 | - | - | - | - | - | - | - |
| 2018 | 1.79 | 27 | 37 | 10 | 86 | 118 | 32 |
| Total | 1.79 | 27 | 37 | 10 | 86 | 118 | 32 |

Social infrastructure demand

| | Dwellings | Population | Open space | Youth centre | Community Centre | Library | | Community Services | | Performing Arts |
|------------------|-----------|------------|-------------|--------------|------------------|---------|----------|--------------------|----------|-----------------|
| | | | 2.83ha:1000 | 1:20,000 | 1:60,000 | Branch | District | Local | District | Cultural Centre |
| Precinct Plan | 3532 | 10850 | 30.71 | 0.54 | 0.18 | 0.33 | 0.27 | 1.81 | 0.54 | 0.36 |
| Forecast | 10153 | 31715 | 89.75 | 1.59 | 0.53 | 0.96 | 0.79 | 5.29 | 1.59 | 1.06 |
| Total increase | 6621 | 20865 | 59.05 | 1.04 | 0.35 | 0.63 | 0.52 | 3.48 | 1.04 | 0.70 |
| Current increase | 10 | 32 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 |

H. Schofields Precinct - growth forecasts and infrastructure demand

| | |
|--|------------|
| Rezoned: | May 2012 |
| Gross area: | 465 ha |
| Percentage of area developed: | 26% |
| Percentage of Precinct Plan lots registered : | 31% |
| Percentage of Forecast lots registered: | 15% |
| Average residential lots registered per year since rezoning: | 135 |
| Estimated years remaining: | 37 |
| Average lot size: | 557.05 sqm |

Planned and forecast yield

| Lots (dwellings) | | | Population | | |
|------------------|----------|------------|---------------|----------|------------|
| Precinct Plan | Forecast | Additional | Precinct Plan | Forecast | Additional |
| 2884 | 5878 | 2994 | 8000 | 17369 | 9369 |

Annual rate of development activity

| Year | Developed area (net ha) | Registered residential lots | | | Population | | |
|--------------|-------------------------|-----------------------------|------------|------------|-------------|-------------|------------|
| | | Planned | Actual | Additional | Planned | Actual | Additional |
| 2012 | - | - | - | - | - | - | - |
| 2013 | 0.28 | 4 | 3 | -1 | 13 | 10 | 4 |
| 2014 | 0.77 | 12 | 17 | 5 | 37 | 54 | 17 |
| 2015 | 6.16 | 92 | 105 | 13 | 296 | 336 | 40 |
| 2016 | 24.03 | 361 | 449 | 88 | 1154 | 1437 | 283 |
| 2017 | 10.90 | 163 | 237 | 74 | 523 | 758 | 235 |
| 2018 | 2.75 | 41 | 72 | 31 | 132 | 230 | 98 |
| Total | 44.89 | 673 | 883 | 210 | 2155 | 2826 | 678 |

Social infrastructure demand

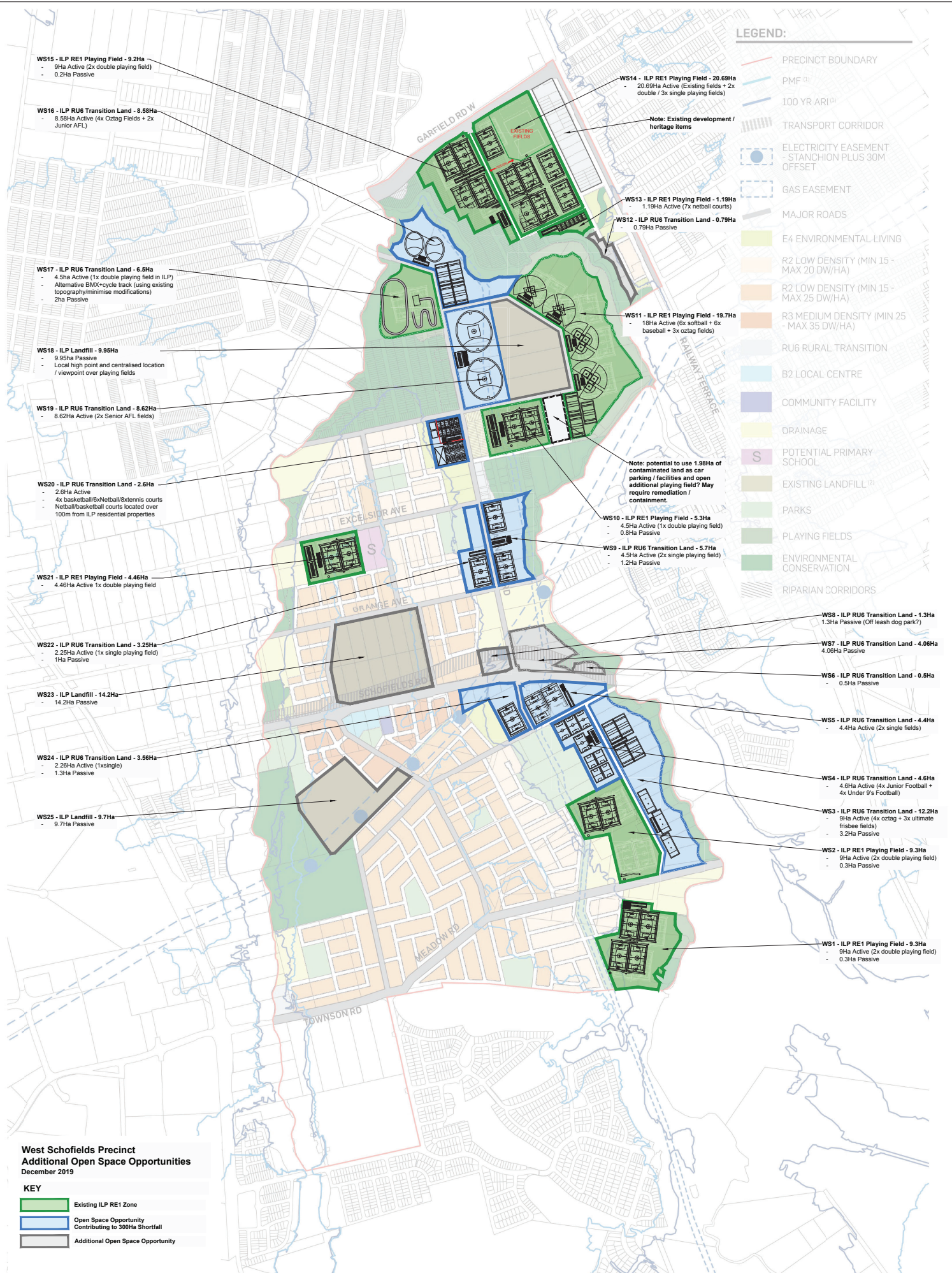
| | Dwellings | Population | Open space | Youth centre | Community Centre | Library | | Community Services | | Performing Arts |
|------------------|-----------|------------|-------------|--------------|------------------|----------|----------|--------------------|----------|-----------------|
| | | | | | | Branch | District | Local | District | Cultural Centre |
| | | | 2.83ha:1000 | 1:20,000 | 1:60,000 | 1:33,000 | 1:40,000 | 1:6,000 | 1:20,000 | 1:30,000 |
| Precinct Plan | 2884 | 8000 | 22.64 | 22.64 | 22.64 | 22.64 | 22.64 | 22.64 | 22.64 | 22.64 |
| Forecast | 5878 | 17369 | 49.15 | 49.15 | 49.15 | 49.15 | 49.15 | 49.15 | 49.15 | 49.15 |
| Total increase | 2994 | 9369 | 26.51 | 0.47 | 0.16 | 0.28 | 0.23 | 1.56 | 0.47 | 0.31 |
| Current increase | 179 | 572 | 1.62 | 0.03 | 0.01 | 0.02 | 0.01 | 0.10 | 0.03 | 0.02 |

Appendix 2 – Increased density implications for open space and recreation needs

NWGA Density Implications

| Additional Open Space Opportunities - December 2019 | | | |
|---|---|--------------------------|-------|
| | 300Ha (180Ha Active / 120Ha Passive) | Additional Opportunities | Total |
| NWGA OVERALL | Active | 0 | 156 |
| | Passive | 419 | 540 |
| | Total O.S. | 419 | 696 |
| | Note: shortfall of 24 ha of Active O.S. | | |
| BY PRECINCT | Active | 0 | 47 |
| | Passive | 41 | 47 |
| | Total O.S. | 41 | 94 |
| | | | |
| West Schofields ILP | Active | 0 | 85 |
| | Passive | 230 | 236 |
| | Total O.S. | 230 | 321 |
| | | | |
| Marsden Park North ILP | Active | 0 | 16 |
| | Passive | 65 | 115 |
| | Total O.S. | 65 | 131 |
| | | | |
| Marsden Park ILP | Active | 0 | 8 |
| | Passive | 34 | 48 |
| | Total O.S. | 56 | 79 |
| | | | |
| Schofields ILP | Active | 0 | 0 |
| | Passive | 50 | 94 |
| | Total O.S. | 94 | 138 |
| | | | |
| Shanes Park LEP | Active | 0 | 0 |
| | Passive | 50 | 94 |
| | Total O.S. | 94 | 138 |
| | | | |

Further opportunities exist at: Riverstone Depot (1.3Ha Passive)
Reduced Basin Strategy
Proposed DoE sites (surplus land allocation)
Surplus developer land
Blacktown Leisure Centre Stanhope



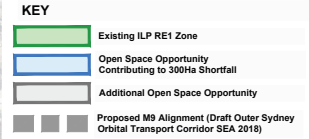
West Schofields Precinct - Additional Open Space Opportunities

| Ref | ILP Land Zone (Nov 2018 DRAFT 5) | ILP Area (Ha) | Active Space (Ha) | Notes | Passive Space (Ha) | Notes | Constraints |
|------|-------------------------------------|---------------|-------------------|---|--------------------|---|--|
| WS1 | RE1 Playing Field | 9.3 | 9 | 1x double playing field (as per ILP) (West Schofields open space provision) | 0.3 | Potential to make use of remaining area for passive recreation | Located within 1:100 ARI Flood Zone Adjacent riparian zone (10m buffer - under Water Management Act) |
| WS2 | RE1 Playing Field | 9.3 | 9 | 2x double playing field (as per ILP) (West Schofields open space provision) | 0.3 | Potential to make use of remaining area for passive recreation | Located within 1:100 ARI Flood Zone Gas easement at western extent |
| WS3 | RU6 Transition | 12.2 | 9 | 4x oztag + 3x ultimate frisbee fields | 3.2 | Single fields (up to 4) could be sited to within least affected 1:20 flood areas Potential to make use of remaining area for passive recreation | Located within 1:100 ARI Flood Zone Adjacent riparian zone (10m buffer - under Water Management Act) Possible impacts on local road capacity/parking and level of service for intersections due to additional sporting fields/demand Existing residential properties off Kerry Road |
| WS4 | RU6 Transition | 4.6 | 4.6 | 4x Junior Football + 4x Under 9s Football | n/a | n/a | Located within 1:100 ARI Flood Zone (northern most single field within deeper faster 120 flood flows) Possible impacts on local road capacity/parking and level of service for intersections due to additional sporting fields/demand Existing residential properties off Kerry Road |
| WS5 | RU6 Transition | 4.4 | 4.4 | 2x single playing field (located outside of 1:20 flood zone) | n/a | Passive area may avoids potential interaction with sporting activities and traffic (players/balls) - however road is raised over creek line. | Located within 1:100 ARI Flood Zone - playing fields sited outside of 1:20 year flood zone Existing residential properties off Angus Road Possible impacts on local road capacity/parking and level of service for intersections due to additional sporting fields/demand Gas easement Main road adjacent - potential for conflict |
| WS6 | RU6 Transition | 0.5 | n/a | n/a | 0.5 | Potential to use area for passive recreation | Located within 1:100 ARI Flood Zone Future rail corridor Adjacent riparian zone (10m buffer - under Water Management Act) Site may be better suited to E2 (size and location) |
| WS7 | RU6 Transition | 4.06 | n/a | | 4.06 | | Located within 1:100 ARI Flood Zone Future rail corridor Adjacent riparian zone (10m buffer - under Water Management Act) Gas and electricity easement Drainage infrastructure (aerial photo) Existing residential property off Camarvon Road / Junk yard |
| WS8 | RU6 Transition | 1.3 | n/a | n/a | 1.3 | Potential to use area for passive recreation / Dog Park? | Located within 1:100 ARI Flood Zone Future rail corridor Electricity easement Existing residential property off Camarvon Road |
| WS9 | RU6 Transition | 5.7 | 4.5 | 2x single playing field | 1.2 | Potential to make use of remaining area for passive recreation (1x double field would fit but 2x single fields avoids worst of 1:20 year flooding (depths/velocities)) | Located within 1:100 ARI Flood Zone Adjacent riparian zone (10m buffer - under Water Management Act) Possible impacts on local road capacity/parking and level of service for intersections due to additional sporting fields/demand Existing residential properties off Camarvon Road Gas easement at eastern extent |
| WS10 | RE1 Playing Field | 5.3 | 4.5ha | 1x double playing field (NWGC open space offset provision) | 0.8 | Potential to make use of remaining area for passive recreation | Located within 1:100 ARI Flood Zone Gas easement at eastern extent |
| WS11 | RE1 Playing Field | 19.7 | 19.7 | 6x softball + 6x baseball + 3x oztag fields (potential to locate such sporting infrastructure away from damaging 1:20 year flood waters compared to double playing fields) (NWGC open space offset provision) | n/a | | Located within 1:100 ARI Flood Zone Located within potentially fast flowing 1:20 flood waters up to ~2m deep. Adjacent riparian zone (10m buffer - under Water Management Act) Topography falls to creek |
| WS12 | RU6 Transition | 0.79 | n/a | n/a | 0.79 | Potential to use area for passive recreation/or environmental conservation | Located within 1:100 ARI Flood Zone Adjacent riparian zone (10m buffer - under Water Management Act) Slope site sloping to creek - likely to be unusable. Likely better suited to E2 |
| WS13 | RE1 Playing Field | 1.19 | 1.19 | Potential 7x netball courts (Riverstone/Alex. Ave open space offset provision) | n/a | n/a | Located within 1:100 ARI Flood Zone Adjacent riparian zone (10m buffer - under Water Management Act) Gentle slope to creek |
| WS14 | RE1 Playing Field | 20.69 | 20.69 | Combination of existing and new playing fields (2x double / 3x single playing fields) (Riverstone/Alex. Ave open space offset provision) | n/a | n/a | Located within 1:100 ARI Flood Zone |
| WS15 | RE1 Playing Field | 9.2 | 9 | 2x double playing field (1x additional double over ILP provision) (Riverstone/Alex. Ave open space offset provision) | 0.2 | Potential to make use of remaining area for passive recreation | Located within 1:100 ARI Flood Zone Adjacent riparian zone (10m buffer - under Water Management Act) |
| WS16 | RU6 Transition | 8.68 | 8.68 | 4x Oztag Fields + 2x Junior AFL (sited within approx. 2m deep fast flowing 1:20 flood waters - likely to be 2nd tier quality) | n/a | | Located within 1:100 ARI Flood Zone Located within 1:20 flood waters (approx >2m deep fast flowing) Adjacent riparian zone (10m buffer - under Water Management Act) Existing residential properties off Camarvon / open fields Gas easement |

| | | | | | | | |
|--------------------------------|-------------------|------|-------|---|------|--|--|
| WS17 | RE1 Playing Field | 6.5 | 4.5 | 1x double playing field Alternative Blix/cycle track (using existing topography/minimise modifications) | 2 | Potential to make use of remaining area for passive recreation | Located within 1:100 ARI Flood Zone ILP playing fields could be sited outside of 1:20 flood zone - however due to local hillform re-grading would be required for a playing field and place plot under 1:20 waters Adjacent riparian zone (10m buffer - under Water Management Act) Existing residential property off Carnarvon / Trotting track? Challenging topography (local hillform and site slopes to creek) |
| WS18 | Landfill | 9.95 | n/a | n/a | 9.95 | Potential to create passive recreation at landfill site in longer term Opportunity to make use of as local viewpoint? | Possible contamination / ongoing land management may result in long timeframe for any implementation Approx. 10m flat top form at ~1:20 slope with steep batter slope at base Marsden Park (R1006) precedent of using landfill site. |
| WS19 | RU6 Transition | 8.62 | 8.62 | 2x senior AFL fields | n/a | n/a | Located within 1:100 ARI Flood Zone Northern section within ~2m deep 1:20 floodwater / southern section outside Gas easement Residential properties off Carnarvon Road / Agricultural / Open fields |
| WS20 | RU6 Transition | 2.6 | 2.6 | 4x basketball / 6xNetball / 8xtennis courts Possible 2x Croquet (Private recreation?) Netball/Basketball courts located over 100m from ILP residential properties | n/a | n/a | Located within 1:100 ARI Flood Zone Possible impacts on local road capacity/parking and level of service for intersections Existing residential properties off Carnarvon Road / Agricultural land use |
| WS21 | RE1 Playing Field | 4.46 | 4.46 | 1x double playing field | n/a | n/a | |
| WS22 | RU6 Transition | 3.25 | 2.25 | 1x single playing field | 1 | Potential to use remainder of area for passive recreation Located outside of 1:20 year flood zone | Located within 1:100 ARI Flood Zone (Outside of 1:20 year flows) Existing residential properties off Carnarvon Road / Vine Street / Grange Ave |
| WS23 | Landfill | 14.2 | n/a | n/a | 14.2 | Potential to create passive recreation at landfill site in longer term | Possible contamination / ongoing land management may result in long timeframe for any implementation Future rail corridor Approx. 10m rounded form at ~1:10 slope Marsden Park (R1006) precedent of using landfill site. |
| WS24 | RU6 Transition | 3.56 | 2.26 | 1x single playing field | 1.3 | Potential to make use of remaining area for passive recreation | Partially within 1:100 ARI Flood Zone - outside of 1:20 flood zone Electricity easement at western extent |
| WS25 | Landfill | 9.7 | n/a | n/a | 9.7 | Potential to create passive recreation at landfill site in longer term | Possible contamination / ongoing land management may result in long timeframe for any implementation Approx. 8m rounded form at ~1:6 slope Electricity easement Marsden Park (R1006) precedent of using landfill site. |
| Contributes to 300Ha shortfall | | | 46.81 | | 6.7 | | |
| Additional Opportunities | | | 0 | | 40.5 | | |
| Total Open Space (He) | | | 46.81 | | 47.2 | | TOTAL 94.01 |

Contributes to 300Ha shortfall

Additional Open Space Opportunities



MPN10 - ILP RU6 Transition Land - 26Ha
- 26Ha Active (criterium circuit + potential for additional integrated active rec opportunities)

MPN11 - ILP RU6 Transition Land - 198Ha
- 198Ha Passive (extensive parkland?)
- This area aligns with the aims for the South Creek corridor (Planning Priority C14 of the Central City District Plan - GSC & LLP12 of the BCC Local Strategic Planning Statement)
- Potential western regional parklands to compliment Rouse Hill Regional Park in the east.

MPN12 - ILP RU6 Transition Land - 31.9Ha
- 31.9Ha Passive
- Potential western regional parklands to compliment Rouse Hill Regional Park in the east.

MPN13 - ILP RU6 Transition Land - 10Ha
- 10Ha Active (2x doubles + 4x junior - located to minimise landform modification)
- Access of Richmond Road
- This area aligns with the aims for the South Creek corridor (Planning Priority C14 of the Central City District Plan - GSC & LLP12 of the BCC Local Strategic Planning Statement)

MPN14 - ILP Recreation Investigation Area - 7.3Ha
- 7.3Ha Active (single playing fields or courts)

MPN15 - ILP Recreation Investigation Area - 10.6Ha
- 10.6Ha Active (single playing fields or courts)

MPN9 - ILP RE1 Playing Field - 4.44Ha
- 4.44Ha Active (1x double playing fields)

MPN8 - ILP RE1 Playing Field - 15.1Ha
- 15.1Ha Active (Paralympic Sports hub (indoor sports centre + athletics facility + 2x baseball + 6x 5-a-side courts + 1x archery range)

MPN7 - ILP RU6 Transition Land - 22.2Ha
- 22.2Ha Active (cycle criterium circuit, kids pedal park 1x double playing field, 5x otag fields, 9x netball courts, 4x basketball courts)
- Passive use incorporated

MPN6 - ILP RU6 Transition Land - 1.7Ha
- 1.7Ha Passive

MPN5 - ILP RU6 Transition Land - 1.36Ha
- 1.36Ha Passive

MPN4 - ILP School - 1.2Ha
- Opportunity to access private school field 1x existing football pitch?

MPN3 - ILP RU6 Transition Land - 11.57Ha
- 9Ha Active (3x single playing + 1x otag fields - located to minimise 1:20 flood water impacts)
- 2.57Ha Passive in remainder

MPN2 - ILP RE1 Playing Field - 9.9Ha
- 9Ha Active (2x double playing field)
- 0.9Ha Passive

MPN1 - ILP RE1 Playing Field - 5.9Ha
- 5.9Ha Active (1x double + 1 single)

MARSDEN PARK NORTH PRECINCT

DRAFT INDICATIVE LAYOUT PLAN

17 Aug 2018



(1) NOTE: Area subject to a dwelling yield cap which will result in an averaged maximum of 18 dw/ha

(2) NOTE: Where development lies between the regional 1 in 100 chance per year flood level and the PMF, additional controls will be applied to subdivision and building design to increase flood resilience

MARSDEN PARK INDUSTRIAL PRECINCT



Marsden Park North Precinct - Additional Open Space Opportunities

| Ref | ILP Land Zone (17 Aug 2018 DRAFT) | ILP Area (Ha) | Active Space (Ha) | Notes | Passive Space (Ha) | Notes | Constraints |
|--------------------------------|--------------------------------------|---------------|-------------------|---|--------------------|---|--|
| MPN1 | RE1 Playing Field | 5.9 | 5.9 | 1x double + 1x single playing field | n/a | n/a | Located within 1:100 ARI Flood Zone Adjacent riparian zone (10m buffer - under Water Management Act) |
| MPN2 | RE1 Playing Field | 9.5 | 9 | 2x double playing field | 0.5 | Potential to make use of remaining area for passive recreation | An additional 1x double playing field over ILP provision |
| MPN3 | RU6 Transition | 11.57 | 9 | 3x single playing + 1x oztag fields South-western section along Clifton Road outside of 1:20 flood waters (accommodates 3x singles+1oztag with minor 1:20 flood impacts - i.e. less than 1m deep) | 2.57 | Potential to make use of remaining area for passive recreation Creekside setting | Located within 1:100 ARI Flood Zone South-western section outside of 1:20 flood waters. Adjacent riparian zone (10m buffer - under Water Management Act) Existing residential property off Clifton Road Sloping topography to creek (approx 1:60) Possible impacts on local road capacity/parking and level of service for intersections due to additional sporting fields/demand |
| MPN4 | School | 6.1 | 2.25 | 1x existing playing field at school - opportunity to utilise?? | n/a | n/a | Asset on school grounds - access? |
| MPN5 | RU6 Transition | 1.36 | n/a | n/a | 1.36 | Potential to use area for passive recreation | Located within 1:100 ARI Flood Zone Existing residential property off Garfield Road West |
| MPN6 | RU6 Transition | 1.7 | n/a | n/a | 1.7 | Potential to use area for passive recreation | Located within 1:100 ARI Flood Zone Adjacent riparian zone (10m buffer - under Water Management Act) Existing residential properties off Camarvon Road |
| MPN7 | RU6 Transition | 22.2 | 22.2 | cycle criterium circuit, kids pedal park 1x double playing field, 5x oztag fields, 9x netball courts, 4x basketball courts | n/a | Passive use incorporated within the active infrastructure Creekside setting | Located within 1:100 ARI Flood Zone Adjacent riparian zone (10m buffer - under Water Management Act) Land slopes towards creek at approx 1:60 - modification to landform required for sports fields/flood storage implications Existing residential properties No bio-certification |
| MPN8 | RE1 Playing Field | 15.1 | 15.1 | Paralympic indoor sports centre + athletics facility + 2x baseball + 6x 5-a-side courts + 1x archery range Relocate ILP sporting fields (to MP14) | n/a | n/a | Opportunity to create Paralympic Sports (indoor/outdoor) Hub on ground outside of flood impacts Relocate sporting fields to floodplain (or offset through additional fields in other ILPs) |
| MPN9 | RE1 Playing Field | 4.44 | 4.44 | 1x double playing field | n/a | n/a | 0.6Ha under 4.5Ha standard. Potential to utilise adjacent SP1 |
| MPN10 | RU6 Transition | 26 | 26 | Cycle criterium circuit with potential for integrated active rec (trail running/informal kickabout space etc) Minimal modification to landform/flood storage capacity | n/a | n/a | Located within 1:100 ARI Flood Zone and flood storage zone Existing open fields bounded by electricity easements Isolated location may not suit organised sports and required infrastructure |
| MPN11 | RU6 Transition | 198 | n/a | n/a | 198 | This area aligns with the aims for the South Creek corridor (Planning Priority C14 of the Central City District Plan - GSC & LLP12 of the BCC Local Strategic Planning Statement) Potential western regional parklands to compliment Rouse Hill Regional Park in the east. | Located within 1:100 ARI Flood Zone and flood storage zone Adjacent riparian zone (10 buffer WM Act) Existing open fields bounded by electricity easements M9 Corridor Electricity easements |
| MPN12 | RU6 Transition | 31.9 | n/a | n/a | 31.9 | Potential to create passive recreation with Creekside setting | Within 1:100 ARI Flood Zone adjacent riparian zone (10 buffer WM Act) existing open fields M9 corridor |
| MPN13 | RU6 Transition | 10 | 10 | 2x doubles + 4x junior football fields (located to minimise landform modification) | n/a | n/a | M9 Alignment Located within 1:100 ARI Flood Zone Adjacent riparian zone (10m buffer - under Water Management Act) Existing open fields |
| MPN14 | ecreation Investigation Area | 7.3 | 7.3 | Xcro. of single playing fields (dependent on alignment) or netball courts/skate park/dog parks etc. | n/a | Potential to use area for passive recreation | Located under electricity easement Playing field layout either NS or E/W |
| MPN15 | ecreation Investigation Area | 10.6 | 10.6 | Xcro. of single playing fields (dependent on alignment) or netball courts/skate park/dog parks etc. | n/a | Potential to use area for passive recreation | Located under electricity easement Playing field layout either NS or E/W |
| Contributes to 300Ha shortfall | | | 85.1 | | 5.63 | | |
| Additional Opportunity | | | 0 | | 229.9 | | |
| Total Open Space (Ha) | | | 85.1 | | 235.53 | | TOTAL 320.63 |

Key

Contributes to 300Ha shortfall

Additional Open Space Opportunities

MP6 - ILP RUP Transition Land - 6.7Ha
- 6.7Ha Passive

MP9 - ILP RUP Transition Land - 16.1Ha
- 16.1Ha Environmental Conservation
- 16.1Ha Active (1x double playing field)
- Existing level rectangular random accommodates 5x Oztag/Touch Football fields with minimal modification to landform/flood storage

MP10 - ILP RUP Transition Land - 14Ha
- 14Ha Passive
- 14Ha Active (1x double playing field)
- Existing level rectangular random accommodates 5x Oztag/Touch Football fields with minimal modification to landform/flood storage

MP11 - ILP RUP Transition Land - 41.7Ha
- 41.7Ha Passive
- 41.7Ha Active (1x double playing field)
- Existing level rectangular random accommodates 5x Oztag/Touch Football fields with minimal modification to landform/flood storage

Note: Securing as open space allows future extension into Shanes Park and wider regional green infrastructure

MP12 - ILP E2 Env. Conservation - 48.2Ha
- 48.2Ha Passive
- Within Property Group proposal to transfer E2 land to REI along tributary creek lines

MP13 - ILP REI Playing Field - 6.96Ha
- 2.46 Active in the remainder
- 4.5Ha Passive

MP14 - ILP School - 3Ha
- 2Ha Active (assumption that DOE require 6Ha (4+2) for Marsden Park K-12 and relinquish remainder)

MP15 - ILP SP2 Drainage - 10Ha
- 10Ha Passive (Eira Masterplan shows active links along riparian corridor)

MP7 - ILP REI Playing Field - 4.24Ha
- 4.24Ha Active

MP8 - ILP REI Playing Field - 4.18Ha
- 4.18Ha Active (1x double playing field)

MP9 - ILP School - 3Ha
- 1Ha Passive (assumption that DOE require 2Ha for Marsden Park PS and relinquish remainder)

MP4 - ILP SP2 Water Management - 12.4Ha
- 6.7Ha Passive
- (5.7Ha of drainage/retention)

MP3 - ILP REI Playing Field - 4.19Ha
- 4.19Ha Active (1x double playing field)

MP2 - ILP REI Playing Field - 44Ha
- 25Ha Active (4x doubles + courts/tennisball)
- 19Ha peripheral (parking/amenity) plus opportunity for linear passive spaces

MP1 - ILP School - 3Ha
- 1Ha Passive (assumption that DOE require 2Ha for West Schofields PS and relinquish remainder)

MARSDEN PARK PRECINCT

Indicative Layout Plan

- Precinct Boundary
- Low Density Residential (11 dwellings per hectare)
 - Low Density Residential (15 dwellings per hectare)
 - Medium Density Residential (25 dwellings per hectare)
 - High Density Residential (35 dwellings per hectare)
 - Retail Centre
 - Indicative School Site
 - Community Use
 - Mixed-use Zone
- Transition
- Sporting Field
 - Local Park
 - Private Open Space (Clydesdale Estate)
 - Environmental Conservation
 - Environmental Management
 - Riparian Corridor
 - Water Management
 - Transmission Easement
 - Transport Corridor
 - Substation Site



Marsden Park Precinct - Additional Open Space Opportunities

| Ref | ILP Land Zone | ILP Area (Ha) | Active Space (Ha) | Notes | Passive Space (Ha) | Notes | Constraints |
|--------------------------------|-------------------------------|---------------|-------------------|--|--------------------|---|---|
| MP1 | School | 3 | n/a | n/a | 1 | Assumption that DoE require 2Ha for West Schofields PS and relinquish remainder | |
| MP2 | RE1 Playing Field | 44 | 25 | 4x double playing fields + courts? | 19 | Precedent: landfill site used for open space provision. Potential to use peripheral space at base of landfill as passive area and car parking/amenities | Existing landfill with steep batter slopes and relatively flat top Approx. 15 year timeframe before utilisation (contract or land management period?) |
| MP3 | RE1 Playing Field | 4.19 | 4.19 | 1x double playing field (as per ILP) | n/a | n/a | 0.31Ha shortfall for standard 4.5 provision for a double. |
| MP4 | SP2 Water Management | 12.4 | n/a | n/a | 6.7 | Possibility to utilise area around drainage infrastructure as passive recreation area Has SP2 land requirement reduced (comparing ILP to A5-built)? Possible additional -5.6Ha at northern extent could be rezoned to RE1 or utilised as recreational | Pond/flood storage area with open periphery. Elara Masterplan shows recreational links and usage of riparian corridor and storage lake. |
| MP5 | School | 3 | n/a | n/a | 1 | Assumption that DoE require 2Ha for Marsden Park PS and relinquish remainder | |
| MP6 | RE1 Playing Field | 4.18 | 4.18 | 1x double playing field (as per ILP) | n/a | n/a | 0.32Ha shortfall for standard 4.5 provision for a double. |
| MP7 | RE1 Playing Field | 4.24 | 4.24 | 1x double playing field (as per ILP) | n/a | n/a | 0.26Ha shortfall for standard 4.5 provision for a double. No flooding data to date Potentially creates impacts to heritage item (Cydesdale) due to setting/lightlines |
| MP8 | RU6 Transition | 6.7 | n/a | n/a | 6.7 | Potential to use area for passive recreation | Located in flood zone (no mapping to date) Adjacent riparian zone (10m buffer - under Water Management Act) Adjacent to Environmental Conservation area Open fields and with some drainage infrastructure Slope up to edge of development |
| MP9 | RU6 Transition | 16.1 | n/a | n/a | n/a | This area aligns with the aims for the South Creek corridor (Planning Priority C14 of the Central City District Plan - GSC & LLP12 of the BCC Local Strategic Planning Statement) Located between future M9 corridor and South Creek, best to E2/3 Environmental Land. | M9 corridor alignment dissects this area. Located in flood zone / flood storage area (no mapping to date) Open fields, relatively flat. Adjacent to Environmental Conservation area Adjacent riparian zone (10m buffer - under Water Management Act) Adjacent to Environmental Conservation area |
| MP10 | RU6 Transition | 14 | 14 | Existing level landform accommodates 9x Oztag/Touch Football playing fields with minimal modification to landform/flood storage. | n/a | n/a | Located in flood zone (no mapping to date) risk of damage to fields/may require low quality surface/no lighting(?) Isolated location may not suit organised sports and required infrastructure Future M9 corridor |
| MP11 | RU6 Transition | 41.7 | n/a | n/a | 41.7 | Topography and setting (creek and riparian) better suited to passive with no modification to landform/flood storage. This area aligns with the aims for the South Creek corridor (Planning Priority C14 of the Central City District Plan - GSC & LLP12 of the BCC Local Strategic Planning Statement) | Located in flood zone (no mapping to date) Future M9 corridor (may allow for excoriation/flooding?) Adjacent riparian zone (10m buffer - under Water Management Act) Existing property in southern area |
| MP12 | E2 Environmental Conservation | 48.2 | n/a | n/a | 48.2 | Winton Property Group proposal to transfer E2 land to RE1 along tributary creek lines | |
| MP13 | RE1 Playing Field | 6.96 | 4.5 | 1x double playing field (as per ILP) | 2.46 | Potential to make use of remaining area for passive recreation | |
| MP14 | School | 8 | 2 | Assumption that DoE require 6Ha (4+2) for Marsden Park K-12 and relinquish remainder | n/a | n/a | |
| MP15 | SP2 Water Management | 10 | n/a | n/a | 10 | Elara Masterplan shows active links along riparian corridor | |
| Contributes to 300Ha shortfall | | | 16 | | 50.4 | | |
| Additional Opportunity | | | 0 | | 64.9 | | |
| Total Open Space (Ha) | | | 16 | | 115.3 | | TOTAL 131.3 |

Key

Contributes to 300Ha shortfall

Additional Open Space Opportunities

Schofields Precinct
Additional Open Space Opportunities
December 2019

KEY

| | |
|--|--|
| | Existing ILP RE1 Zone |
| | Open Space Opportunity Contributing to 300Ha Shortfall |
| | Additional Open Space Opportunity |



Planning & Infrastructure

Schofields Precinct
Indicative Layout Plan

- Precinct Boundary
- Transport Corridor Investigation Area
- DCP Provisions Subject to Clause 6.9
- Local Centre
- Neighbourhood Centre
- Preferred Location for Neighbourhood Services
- Medium to High Density Residential
- Medium Density Residential
- Low Density Residential
- Environmental Living
- Educational Uses
- Community Uses
- Private Recreation
- Park
- Sporting fields
- Conservation Area
- Riparian Corridor
- Heritage Item
- Historic Runway Archaeological Interpretation
- Drainage and Infrastructure
- Road
- Richmond Rail Line
- Existing Transmission Line Easement
- Eastern Creek



- S26 - ILP RE1 Park - 1.05Ha
- 1.05Ha Passive
- S25 - ILP E4 Env. Living - 2.4Ha
- 2.4Ha Passive
- Adjacent proposed park
- S24 - ILP E4 Env. Living - 7.7Ha
- 7.7Ha Passive
- S23 - ILP E2 Env. Conservation - 6.25Ha
- 6.25Ha Passive
- riparian zone is greater than required (?)
- S22 - ILP RE1 Park - 0.3Ha
- 0.3Ha Passive
- S21 - ILP RE1 Park - 0.6Ha
- 0.6Ha Passive
- S20 - ILP E4 Env. Living - 2.15Ha
- 2.17Ha Passive
- S19 - ILP RE1 Park - 1.68Ha
- 1.68Ha Passive
- S18 - ILP RE1 Park - 0.62Ha
- 0.62Ha Passive
- S17 - ILP E4 Env. Living - 1.05Ha
- 1.05Ha Passive
- S16 - ILP RE1 Park - 1.68Ha
- 1.68Ha Passive
- S15 - ILP E4 Env. Living - 7.4Ha
- 3.7Ha Active (3x Oztag fields)
- 3.7Ha Passive
- S14 - ILP E2 Env. Conservation - 2.17Ha
- 2.17Ha Passive
- riparian zone is greater than required
- S13 - ILP RE1 Park - 2.07Ha
- 2.07Ha Passive
- S12 - ILP RE1 Park - 0.71Ha
- 0.71Ha Passive
- S11 - ILP RE1 Park - 1.68Ha
- 1.68Ha Passive
- S10 - ILP RE1 Park - 2.42Ha
- 2.42 Passive
- S9 - ILP RE1 Playing Fields - 11.77Ha
- 11.77Ha Active (2x double playing field + multi-use courts/tennis)
- S8 - ILP RE1 Park - 0.66Ha
- 0.66Ha Passive
- S7 - ILP E2 Env. Conservation - 13.17Ha
- 13.17Ha Passive
- riparian zone is greater than required
- S6 - ILP E4 Env. Living - 5.69Ha
- 4.5Ha Active (3x Junior + 3x Under 9's + 4x Under 7's Football Fields)
- 1.19Ha Passive
- S5 - ILP RE1 Park - 2.24Ha
- 2.24Ha Passive
- S4 - ILP E4 Env. Living - 3.96Ha
- 3.96Ha Passive
- S3 - ILP RE1 Park - 0.33Ha
- 0.33Ha Passive
- S2 - ILP RE1 Park - 0.51Ha
- 0.51Ha Passive
- S1 - ILP E4 Env. Living - 4.27Ha
- 4.27Ha Passive

Schofields Precinct - Additional Open Space Opportunities

| Ref | ILP Land Zone | ILP Area (Ha) | Active Space (Ha) | Notes | Passive Space (Ha) | Notes | Constraints |
|--------------------------------|-------------------------------|---------------|-------------------|--|--------------------|--|--|
| S1 | E4 Environmental Living | 4.27 | n/a | n/a | 4.27 | Aligns with WSP Extension aims | Adjacent riparian zone (10m buffer - under Water Management Act) |
| S2 | RE1 Park | 0.51 | n/a | n/a | 0.51 | ILP zoned park 0.28Ha of the park is located outside the riparian zone (0.22Ha remainder is shown within and subject to restrictions?) | Adjacent riparian zone (10m buffer - under Water Management Act) |
| S3 | RE1 Park | 0.33 | n/a | n/a | 0.33 | ILP zoned park | |
| S4 | E4 Environmental Living | 3.96 | n/a | n/a | 3.96 | Aligns with WSP Extension aims | Adjacent riparian zone (10m buffer - under Water Management Act) |
| S5 | RE1 Park | 2.24 | n/a | n/a | 2.24 | ILP zoned park 1.44Ha of the park is located outside the riparian zone (0.8Ha remainder is shown within and subject to restrictions?) | Adjacent riparian zone (10m buffer - under Water Management Act) |
| S6 | E4 Environmental Living | 5.69 | 4.5 | 3x Junior + 3x Under 9's + 4x Under 7's Football Fields Potential to create kids football hub | 1.19 | Aligns with WSP Extension aims | Adjacent riparian zone (10m buffer - under Water Management Act) Located in medium flood risk zone |
| S7 | E2 Environmental Conservation | 13.17 | n/a | n/a | 13.17 | Riparian zone is approx. 80m (approx 50m on western side of Eastern Creek) creates opportunity to reduce and utilise 30m for linear park Aligns with WSP Extension aims | Within riparian zone (10m buffer - under Water Management Act) Existing riparian vegetation |
| S8 | RE1 Park | 0.66 | n/a | n/a | 0.66 | ILP zoned park | |
| S9 | RE1 Playing Fields | 11.77 | 11.77 | ILP zoned playing fields (2x double playing field + multi-use courts/tennis) | n/a | n/a | |
| S10 | RE1 Park | 2.42 | n/a | n/a | 2.42 | ILP zoned park | |
| S11 | RE1 Park | 1.68 | n/a | n/a | 1.68 | ILP zoned park | |
| S12 | RE1 Park | 0.71 | n/a | n/a | 0.71 | ILP zoned park | |
| S13 | RE1 Park | 2.07 | n/a | n/a | 2.07 | ILP zoned park | |
| S14 | E2 Environmental Conservation | 2.17 | n/a | n/a | 2.17 | Riparian zone is approx. 80m (approx 50m on western side of Eastern Creek) creates opportunity to reduce and utilise 30m for linear park Aligns with WSP Extension aims | Within riparian zone (10m buffer - under Water Management Act) Existing riparian vegetation |
| S15 | E4 Environmental Living | 7.4 | 3.7 | 3x Oztag fields | 3.7 | Aligns with WSP Extension aims | Adjacent riparian zone (10m buffer - under Water Management Act) |
| S16 | RE1 Park | 0.77 | n/a | n/a | 1.68 | ILP zoned park | |
| S17 | E4 Environmental Living | 1.05 | n/a | n/a | 1.05 | Aligns with WSP Extension aims | Adjacent riparian zone (10m buffer - under Water Management Act) |
| S18 | RE1 Park | 0.62 | n/a | n/a | 0.62 | ILP zoned park | |
| S19 | RE1 Park | 3.27 | n/a | n/a | 3.27 | ILP zoned park 1.76Ha of the park is located outside the riparian zone (1.51Ha remainder is shown within and subject to restrictions?) | |
| S20 | E4 Environmental Living | 2.15 | n/a | n/a | 2.15 | Aligns with WSP Extension aims | Adjacent riparian zone (10m buffer - under Water Management Act) |
| S21 | RE1 Park | 0.6 | n/a | n/a | 1.68 | n/a | |
| S22 | RE1 Park | 0.3 | n/a | n/a | 1.68 | n/a | |
| S23 | E2 Environmental Conservation | 6.25 | n/a | n/a | 6.25 | Riparian zone is approx. 80m (approx 50m on western side of Eastern Creek) creates opportunity to reduce and utilise 30m for linear park Aligns with WSP Extension aims | Within riparian zone (10m buffer - under Water Management Act) Existing riparian vegetation Electricity easement |
| S24 | E4 Environmental Living | 7.7 | n/a | n/a | 7.7 | Aligns with WSP Extension aims | Adjacent riparian zone (10m buffer - under Water Management Act) Electricity easement As-built residential and embankment reduced the E4 zoned land over the ILP designation |
| S25 | E4 Environmental Living | 2.4 | n/a | n/a | 2.4 | Aligns with WSP Extension aims | Adjacent riparian zone (10m buffer - under Water Management Act) |
| S26 | RE1 Park | 1.05 | n/a | n/a | 1.05 | ILP zoned park | |
| Contributes to 300Ha shortfall | | | 8.2 | | 14.45 | | |
| Additional Opportunity | | | 0 | | 33.56 | | |
| Total Open Space (Ha) | | | 8.2 | | 48.01 | | TOTAL 56.21 |





Key

Contributes to 300Ha shortfall

Additional Open Space Opportunities

Shanes Park Precinct
Additional Open Space Opportunities
December 2019

KEY

-  Existing ILP RE1 Zone
-  Open Space Opportunity
Contributing to 300Ha Shortfall
-  Additional Open Space Opportunity
-  Proposed M9 Alignment (Draft Outer Sydney
Orbital Transport Corridor SEA 2018) / M7
Extension (BCC LEP)

Note: Securing as open space allows potential extension to Shanes Park and wider opportunities to connect with regional green infrastructure

Note: Indicative Riparian Zone

SP1 - LEP RU4 Rural Small Holdings - 44Ha

- 44Ha Passive (assumed)
- Broadly applying South Creek urban design principles from Central City District Plan (i.e. green buffer). Applied 50m Riparian Corridor + 100m green corridor.

SP2 - LEP RU4 Rural Small Holdings - 50Ha

- 50Ha Passive
- This area aligns with the aims for the South Creek corridor (Planning Priority C14 of the Central City District Plan - GSC & LLP12 of the BCC Local Strategic Planning Statement)
- Potential to connect wider proposed green spaces and Shanes Park. (Possible offset for M7 extension?)

SP3 - LEP RE1 Public Recreation - 7.3Ha

- 7.3Ha Active (Tennis court / equestrian)

Note: Potential South Creek Green Corridor provides connections to Wianamatta Regional Park

Shane's Park

Wianamatta
Regional Park



Shanes Park Precinct - Additional Open Space Opportunities

| Ref | LEP Land Zone | LEP Area (Ha) | Active Space (Ha) | Notes | Passive Space (Ha) | Notes | Constraints |
|--------------------------------|--------------------------|---------------|-------------------|---|--------------------|--|---|
| SP1 | RUA Rural Small Holdings | 44 | n/a | Indicative 20Ha Active/24Ha passive Broadly applying South Creek urban design principles from Central City District Plan (i.e green outlier). Applied 30m R/Panor Corridor + 100m green corridor to establish open space provision. | 44 | Indicative 20Ha Active/24Ha passive | No ILP prepared to date. Possible 500 homes planned in precinct Future M7 and M9 motorway corridors |
| SP2 | RUA Rural Small Holdings | 50 | n/a | n/a | 50 | This area aligns with the aims for the South Creek corridor (Planning Priority C14 of the Central City District Plan - GSC & LLP12 of the BCC Local Strategic Planning Statement) Potential to connect wider proposed green spaces and Shanes Park. (Possible offset for M7 extension?) | No ILP prepared to date. Possible 500 homes planned in precinct Future M7 and M9 motorway corridors |
| SP3 | RE1 Public Recreation | 7.3 | 7.3 | Equestrian / Tennis Court | n/a | n/a | Existing RE1 |
| Contributes to 300Ha shortfall | | | 0 | | 44 | | |
| Additional Opportunity | | | 0 | | 50 | | |
| Total Open Space (Ha) | | | 0 | | 94 | | TOTAL 94 |

Key

Contributes to 300Ha shortfall

Additional Open Space Opportunities