

OUR GREATER SYDNEY 2056

# Draft Western City District Plan

– connecting communities



## Acknowledgement of Country

The Greater Sydney Commission acknowledges the traditional owners of the lands that include Western City District and the living culture of the traditional custodians of these lands. The Commission recognises that the traditional owners have occupied and cared for this Country over countless generations, and celebrates their continuing contribution to the life of Greater Sydney.

### Western City District

Blue Mountains  
Camden  
Campbelltown  
Fairfield  
Hawkesbury  
Liverpool  
Penrith  
Wollondilly



## How to be involved

This draft *Western City District Plan* replaces the draft South West District and West District plans, released in November 2016.

You can read the entire draft District Plan at:

**[www.greater.sydney](http://www.greater.sydney)**

This draft District Plan is on formal public exhibition until 15 December 2017.

You can make a submission:

by visiting:

**[www.greater.sydney/submissions](http://www.greater.sydney/submissions)**

by emailing:

**[submissions@gsc.nsw.gov.au](mailto:submissions@gsc.nsw.gov.au)**

by post to:

Greater Sydney Commission  
Draft Western City District Plan  
PO Box 257  
Parramatta NSW 2124

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Please note that all submissions and comments will be treated as public and will be published in a variety of mediums. If you would like to make a submission without it being made public or if you have any questions about the application of the Commission's privacy policy, please contact the Commission directly on 1800 617 681 or **[submissions@gsc.nsw.gov.au](mailto:submissions@gsc.nsw.gov.au)**.

Chief Commissioner  
Lucy Hughes Turnbull AO



This draft District Plan sets out planning priorities and actions for growth and development in the Western City District.

The draft District Plan recognises what the Commission has heard – particularly that the District’s natural landscape is a great asset and attractor, sustaining and supporting a unique, parkland city.

We know that over the next 20 years, the Western Sydney Airport will be transformational, including for employment opportunities. We also know that changes in our social make-up – such as the expected increase in people aged over 65 – will require specific planning for housing and social infrastructure.

Now we want to know how we can build on the District’s assets, and major infrastructure investment, as the population grows.

Collaboration will be the key for clarity and guidance on our city’s growth. The Greater

Sydney Commission is bringing together all parties with an interest in the District’s future and is channelling the collective energy into improved planning outcomes. By taking a leadership role we are bringing together public resources and expertise to create a more liveable, productive and sustainable city.

The Western City District brings together the former South West and West districts. I acknowledge and appreciate the important contributions to the Western City District from its former District Commissioners, Sean O’Toole OAM (West) and Sheridan Dudley (South West). Their vision and knowledge have been invaluable.

I encourage all stakeholders with an interest in the Western City District to review and provide feedback on this draft Plan. Your suggestions and comments are important in making this draft District Plan a living and working document to guide the Western City District’s future.

Interim Western City  
District Commissioner  
Geoff Roberts



The Western City District is Greater Sydney’s parkland city, a place surrounded by World Heritage-listed landscapes, with a sprinkling of towns and centres that combine village charm and heritage character.

This iconic landscape is more than a backdrop – it is the District’s underlying asset. People travel from around the world to experience the mountains, escarpments, rural hinterland and rivers. The landscape is the foundation for how we plan for the District – it resonates in our places and informs the District’s design and structure.

The development of Australia’s first 21st century international airport will drive population growth, improve transport links and create new jobs and economic opportunities. This is a unique chance to grow new markets in international and domestic tourism, advanced logistics,

aerospace industries, freight, transport, health, education and the knowledge economy. The Western Sydney City Deal between the Australian and NSW governments and local government will drive this growth.

With such change, we will protect and enhance the character of our places and make it easier for residents to access services and facilities. With more jobs, more residents will be working locally and experiencing shorter commutes. To support this, we will need a greater diversity of homes so that people can afford to live here and can choose a home that better suits their lifestyle.

I’m eager for as many people as possible to get involved. This conversation is an important step in helping to shape the decisions that will drive the District’s future.

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# Future of the Western City District

The vision for Greater Sydney as a metropolis of three cities – the Western Parkland City, the Central River City and the Eastern Harbour City – means residents in the Western City District will have quicker and easier access to a wider range of jobs, housing types and activities.

The Western City District is part of the Western Parkland City. It connects to the Central River City through Blacktown and Fairfield local government areas. The Western Sydney Airport and Badgerys Creek Aerotropolis will create a once-in-a-generation economic boom, bringing infrastructure, businesses and knowledge-intensive jobs for residents.

The draft *Western City District Plan* guides the growth of the District within the context of Greater Sydney's three cities to improve the District's social, economic and environmental assets.

The District's unique and rich tapestry of urban, rural and natural environments, combined with access to jobs, quality health care, education, recreation, cultural and natural experiences create a great quality of life for its communities.

It is a place where opportunity, success and prosperity are forged from humble beginnings, where innovation thrives, smart jobs are created, international business connections are established and global investment is supported. Local people form the basis of a highly skilled and educated workforce that continues to grow and invest in itself and its future.

The draft District Plan guides the District's transformation as part of the Western Parkland City over the next 20 to 40 years by building on the communities and natural assets that exist today. In contrast to the dormitory neighbourhoods of the past, the new Western City District will be more contained, with a greater choice of local jobs, and transport and services aligned with growth.

The District will be polycentric, with the strong relationship and collaboration between Liverpool, Greater Penrith and Campbelltown-Macarthur reinforced by the emerging Badgerys Creek Aerotropolis. This unique metropolitan city cluster will be connected by high quality public transport.

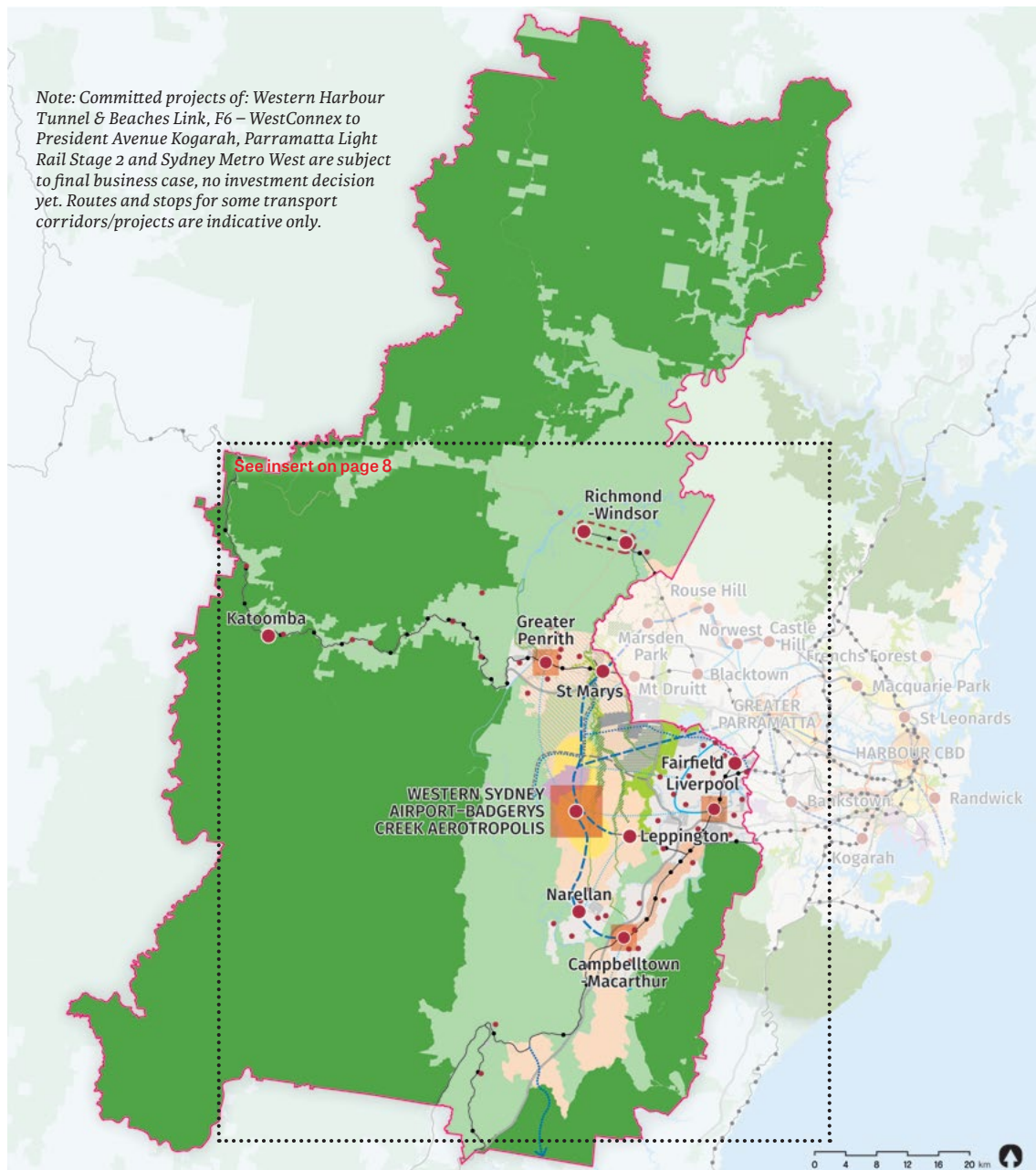
Unprecedented transport investments will provide major links for people and freight between the District's strategic centres, and to Greater Sydney's north and south, in addition to traditional economic anchors in the east.

The South Creek, Georges River and Hawkesbury-Nepean River systems will become the spatial framework for the District, with attractive and safe walking and cycling paths, bushland and a green, urban landscape framed by the Greater Blue Mountains World Heritage Area.

Extensive urban tree canopy will mitigate the heat island effect and provide cooler, more beautiful places. The substantial land release areas to house the District's new residents will become neighbourhoods with a range of housing types, access to public transport and infrastructure including schools, hospitals and community facilities.

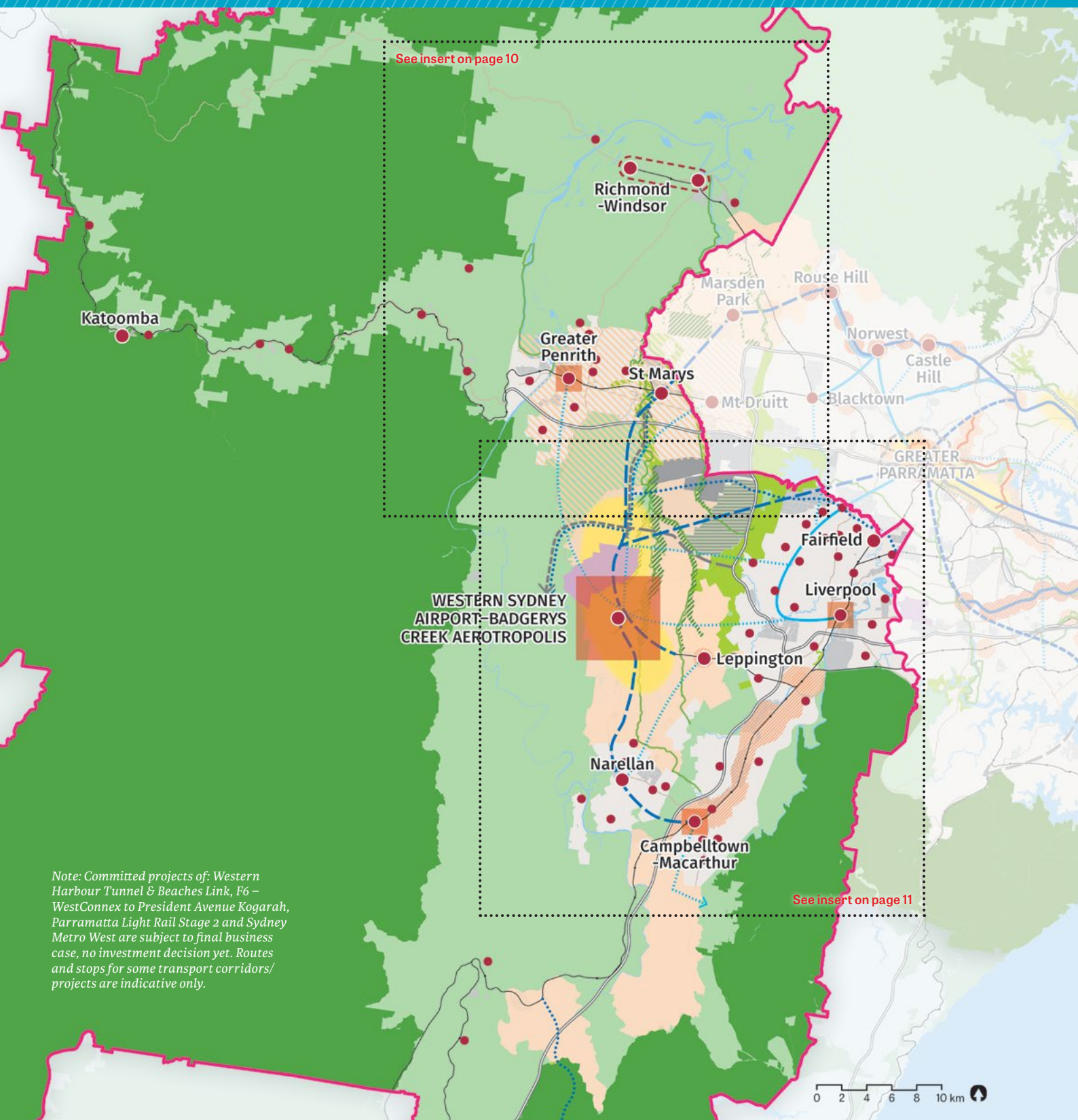
The District will retain its unique rural areas and the economic benefits of rural land so close to a metropolis, and protect its natural areas, heritage and tourism assets and the unique character of its smaller centres and villages.

**Figure 1:** Western City District Structure Plan 2036



	Metropolitan City Cluster		Industrial Land		Metropolitan Rural Area		Freight Rail Investigation
	Health and Education Precinct		Land Release Area		Major Urban Parkland and Reserve		On Street Rapid Transit
	Strategic Centre		Urban Renewal Area		Visionary Parkland and Reserve		Rapid Bus
	Local Centre		Priority Growth Area Investigation		Waterways		Motorway
	Economic Corridor		Urban Investigation Area		Train Station		Committed Motorway
	Trade Gateway		Urban Area		Train Link / Mass Transit Investigation 0-10 years		Road Investigation 0-10 years
	Western Sydney Employment Area		Protected Natural Area		Train Link / Mass Transit Investigation 10-20 years		Road Investigation 10-20 years

# Western City District Structure Plan 2036 – urban area





## Housing



Existing and projected dwellings	2016	2036
Western City District	388,000	572,500

## Jobs

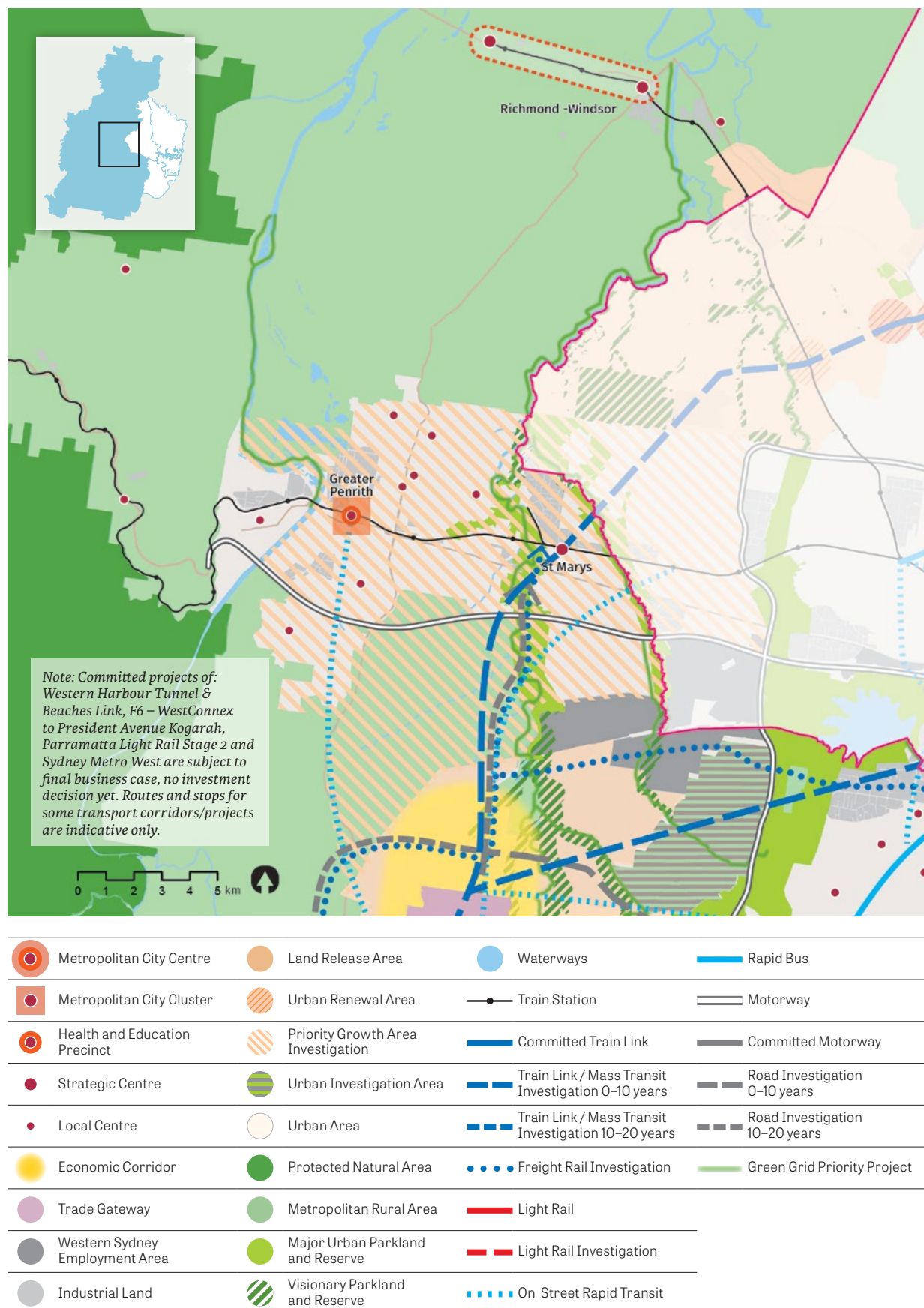


Centre job target ranges	2016	2036
Campbelltown-Macarthur	20,400	27,000–31,000
Fairfield	5,400	6,000–10,000
Greater Penrith	33,400	44,000–45,000
Katoomba	2,700	3,000–5,500
Leppington	400	7,000–12,500
Liverpool	29,000	36,000–39,000
Narellan	10,600	14,000–16,500
Richmond-Windsor	10,300	12,000–16,500
St Marys	8,300	10,000–11,500
Western Sydney Airport	2,400	29,000–34,000

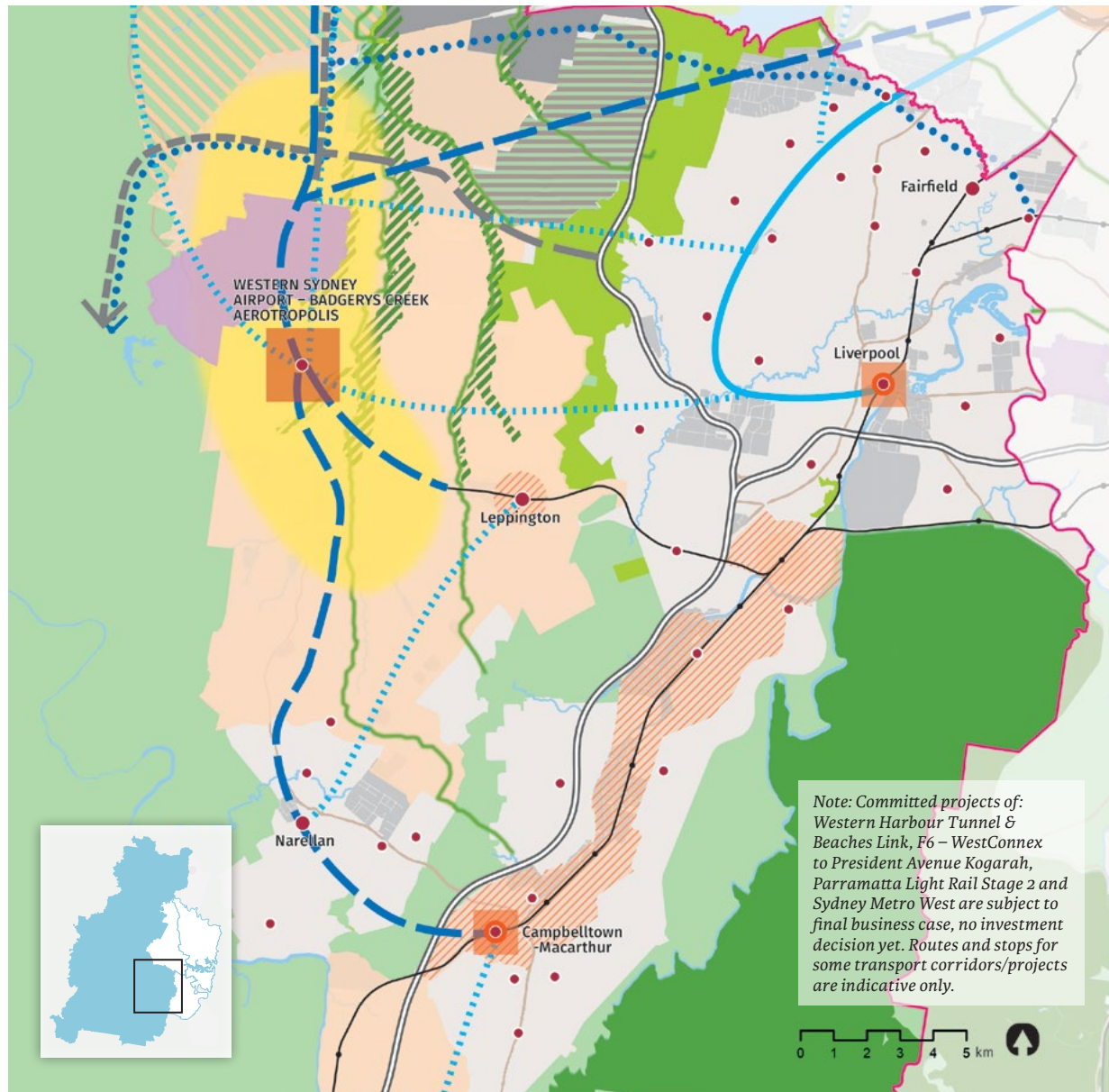
	Metropolitan City Cluster		Priority Growth Area Investigation		Train Link / Mass Transit Investigation 10–20 years
	Health and Education Precinct		Urban Investigation Area		Freight Rail Investigation
	Strategic Centre		Urban Area		On Street Rapid Transit
	Local Centre		Protected Natural Area		Rapid Bus
	Economic Corridor		Metropolitan Rural Area		Motorway
	Trade Gateway		Major Urban Parkland and Reserve		Committed Motorway
	Western Sydney Employment Area		Visionary Parkland and Reserve		Road Investigation 0–10 years
	Industrial Land		Waterways		Road Investigation 10–20 years
	Land Release Area		Train Station		
	Urban Renewal Area		Train Link / Mass Transit Investigation 0–10 years		

Note: Committed projects of: Western Harbour Tunnel & Beaches Link, F6 – WestConnex to President Avenue Kogarah, Parramatta Light Rail Stage 2 and Sydney Metro West are subject to final business case, no investment decision yet. Routes and stops for some transport corridors/projects are indicative only.

**Figure 2:** Western City District Structure Plan 2036 – urban area north



**Figure 3:** Western City District Structure Plan 2036 – urban area south



	Metropolitan City Centre		Land Release Area		Waterways		Rapid Bus
	Metropolitan City Cluster		Urban Renewal Area		Train Station		Motorway
	Health and Education Precinct		Priority Growth Area Investigation		Committed Train Link		Committed Motorway
	Strategic Centre		Urban Investigation Area		Train Link / Mass Transit Investigation 0-10 years		Road Investigation 0-10 years
	Local Centre		Urban Area		Train Link / Mass Transit Investigation 10-20 years		Road Investigation 10-20 years
	Economic Corridor		Protected Natural Area		Freight Rail Investigation		Green Grid Priority Project
	Trade Gateway		Metropolitan Rural Area		Light Rail		
	Western Sydney Employment Area		Major Urban Parkland and Reserve		Light Rail Investigation		
	Industrial Land		Visionary Parkland and Reserve		On Street Rapid Transit		



## Greater Sydney context



**Figure 4:** Metropolis of three cities

Planning for the five districts of Greater Sydney will support the vision for a metropolis of three cities (refer to Figure 4).

- The emerging **Western Parkland City** with the Western Sydney Airport and Badgerys Creek Aerotropolis will grow a strong trade, logistics, advanced manufacturing, health, education and science economy within a Western Economic Corridor and will be the most connected place in Australia.
- The developing **Central River City** will capitalise on its location in the centre of Greater Sydney and with radial transport links will continue developing its world-class health, education and research institutions, its finance, business services and administration sectors, and its logistics and urban services to drive the economy and support a growing population.
- The established **Eastern Harbour City**, Australia's global gateway, will build on its economic credentials and leverage its strong financial, professional, health and education sectors and push its capabilities with an innovation precinct that boosts productivity and global connections.

This vision will transform land use and transport patterns and rebalance Greater Sydney so the benefits of growth are shared more equally and equitably to all residents as Greater Sydney's population increases from 4.7 million to 8 million over the next 40 years.

Each of the three cities is at a different stage of development so implementation requires a targeted approach to growth.

Economic growth is to be commensurate with population growth across Greater Sydney. Increasing productivity, global competitiveness and the region's export sectors are expected to increase economic activity to \$655 billion with 817,000 new jobs by 2036.

Greater Sydney's Eastern Economic Corridor has high concentrations of jobs with good road and public transport connectivity and high levels of interaction between business and people. This corridor contributed two-thirds of the State's economic growth over the



2015–16 financial year. Planning and investment will strengthen the established Eastern Economic Corridor and will complement it by growing the Greater Parramatta and the Olympic Peninsula (GPOP) and Western Economic Corridors.

People want to live close to jobs and services, so each of the three cities will have more housing in the right places which will assist with housing affordability. Housing and jobs will be aligned with new or improved infrastructure from transport to schools, health facilities and public places under the new growth infrastructure compacts.

Improved transport within and between each of the three cities will produce a 30-minute city where most commuters can travel to their nearest metropolitan city centre by public transport within 30 minutes, and where everyone can travel to their nearest strategic centre by public transport seven days a week to access jobs, shops and services.

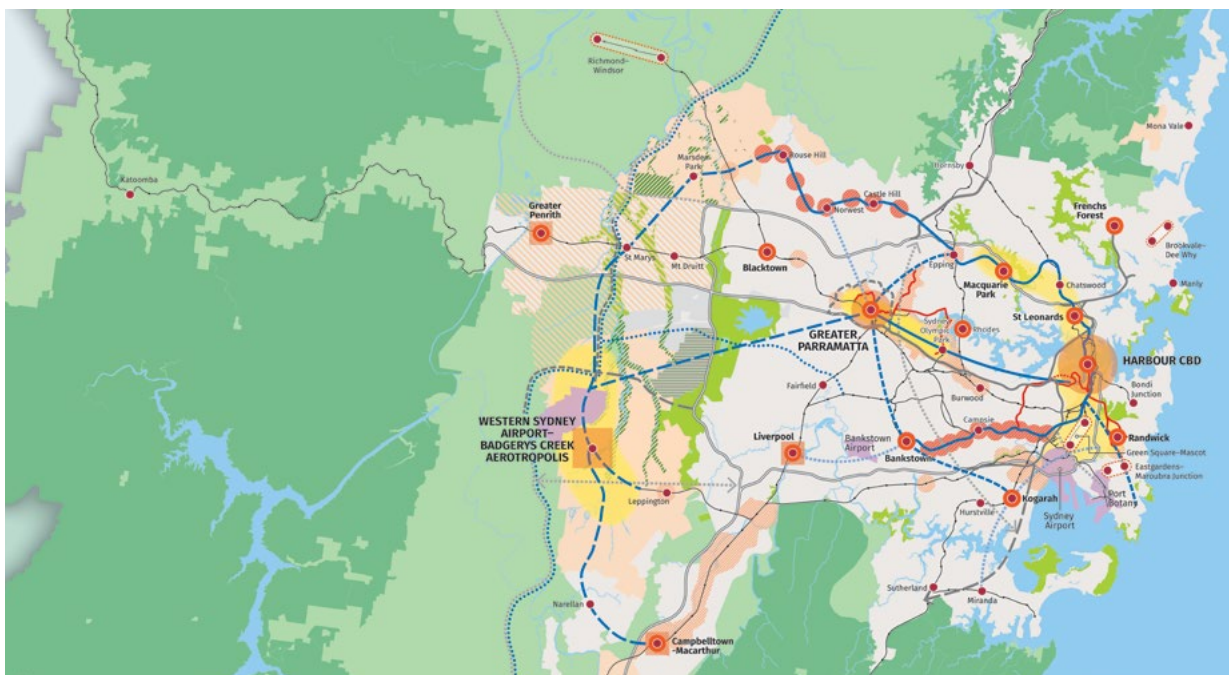
Better transport means people will be closer to knowledge-intensive jobs, city-scale infrastructure and services, and lifestyle features like entertainment, sporting and cultural facilities.

Walking and cycling will become increasingly important as part of daily travel with well-designed paths in popular thoroughfares improving the sustainability of the region and the wellbeing of residents. Growth within each of the three cities will be accompanied by higher quality public places and green spaces leading to opportunities for healthy lifestyles and community cohesion. Creativity, culture and the arts will be supported and acknowledged as part of the innovation economy.

The Greater Sydney Green Grid will connect green areas including parks, bushland and playgrounds to town centres, public transport and public places encouraging healthy lifestyles, enhancing biodiversity and supporting ecological resilience.

A metropolis of three cities brings liveability, productivity and sustainability benefits to all parts of Greater Sydney. It is consistent with the 10 Directions in *Directions for a Greater Sydney* which establishes the aspirations for the region over the next 40 years. The 10 Directions have been key to integrating land use, transport and infrastructure planning – they are foundational building blocks for the draft *Greater Sydney Region Plan*.

**Figure 5:** Greater Sydney Structure Plan 2056 – the three cities



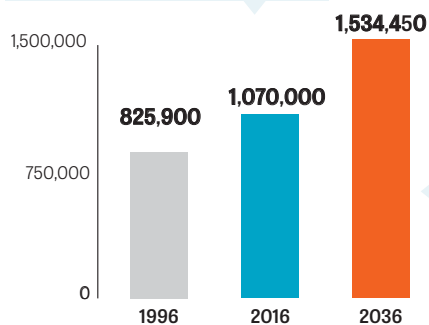
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# Western City District snapshot

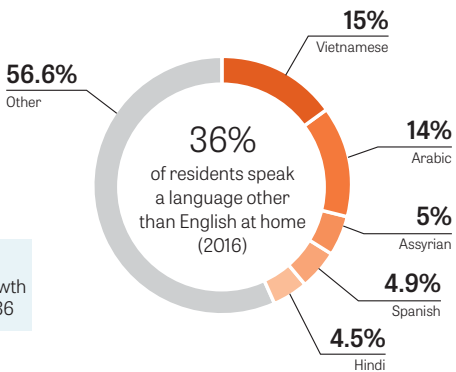


## People – Population, age and languages spoken

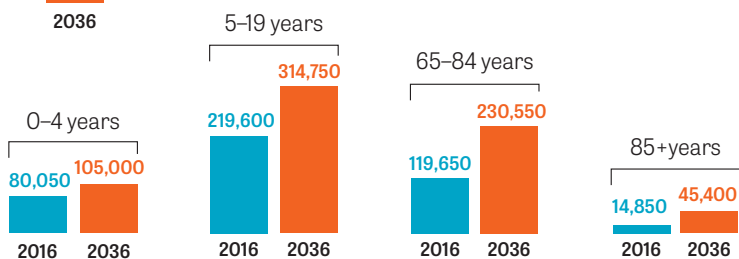
**+464,450** more people by 2036



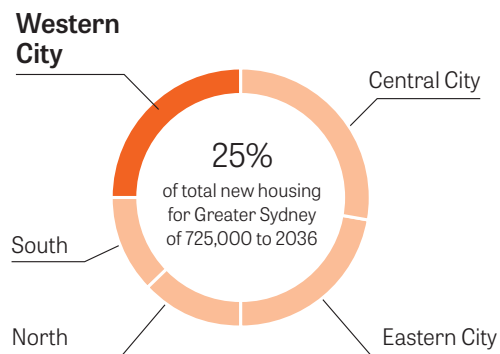
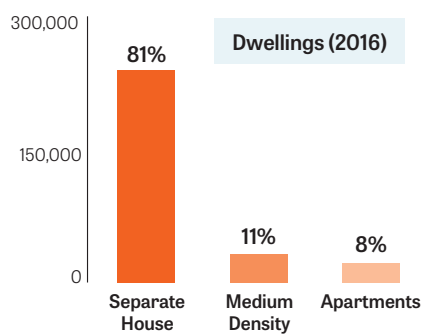
27% of Greater Sydney's total growth of 1,740,400 to 2036



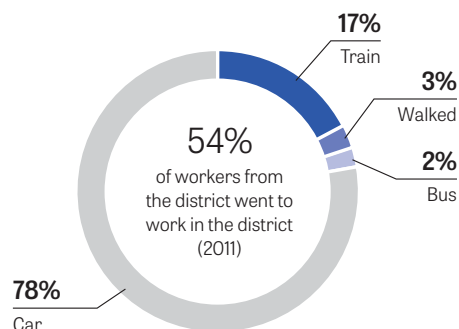
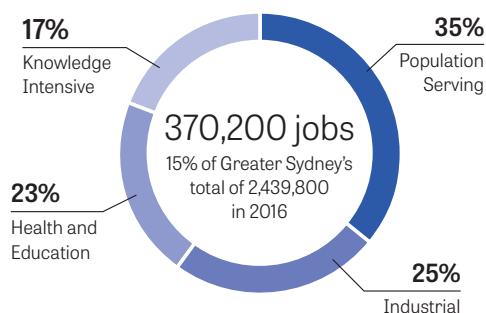
There will be a **105%** increase in the number of people aged 65 years and older in the next 20 years.



## Dwelling demand and dwelling types



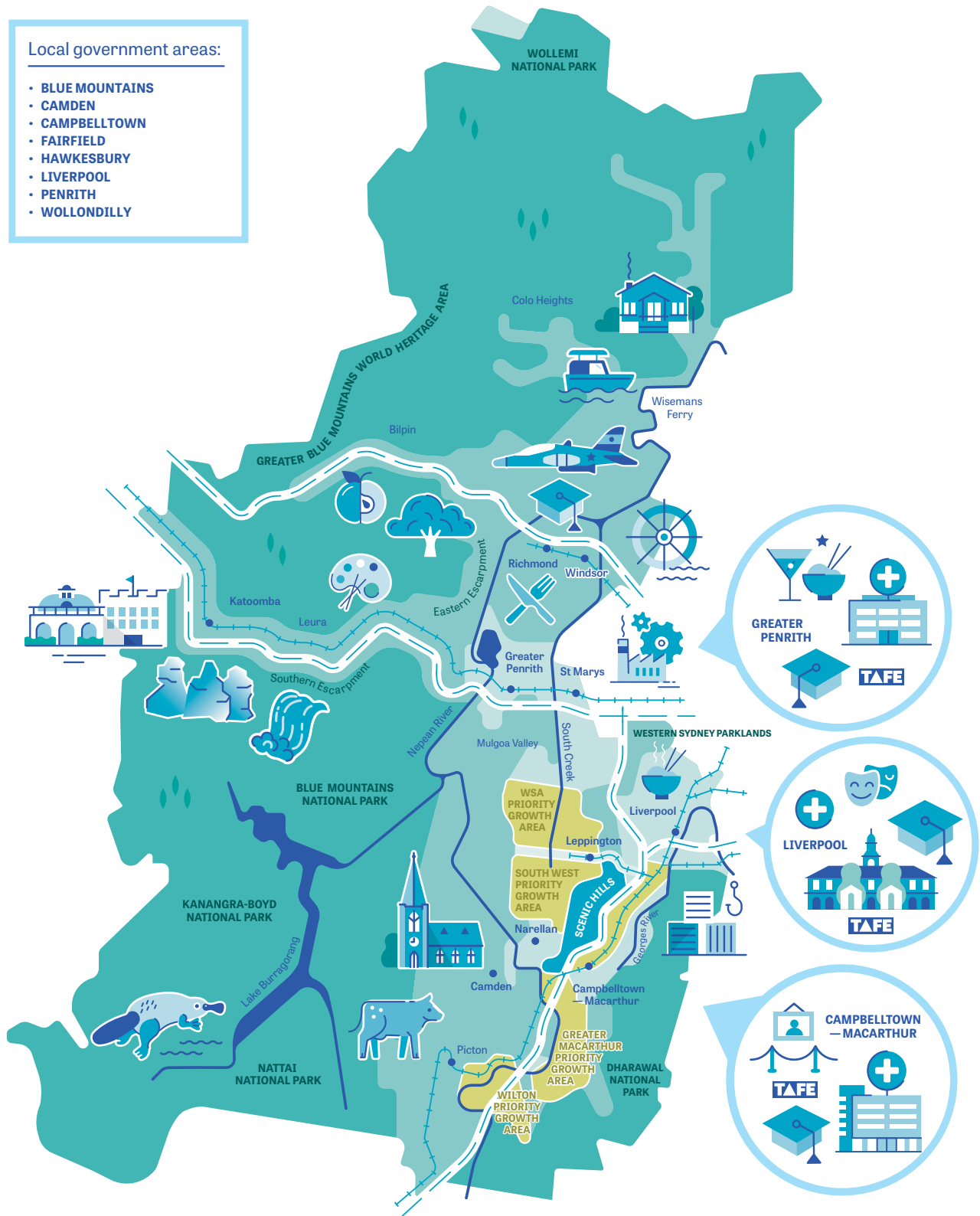
## Jobs and journey to work








## District context

Local government areas:






- BLUE MOUNTAINS
- CAMDEN
- CAMPBELLTOWN
- FAIRFIELD
- HAWKESBURY
- LIVERPOOL
- PENRITH
- WOLLONDILLY



## Ten Directions and Planning Priorities

Directions	A city supported by infrastructure	A collaborative city	A city for people	Housing the city	A city of great places
	<p>Infrastructure supporting new developments</p> 	<p>Working together to grow a Greater Sydney</p> 	<p>Celebrating diversity and putting people at the heart of planning</p> 	<p>Giving people housing choices</p> 	<p>Designing places for people</p> 
Metrics	<p>Number of land use plans supported by infrastructure plans (NSW Department of Planning and Environment, Greater Sydney Commission, Councils)</p>	<p>Proportion of agreed outcomes achieved in Collaboration Areas</p>	<p>Annual survey of community sentiment</p>	<ul style="list-style-type: none"> <li>Number of councils on track to deliver housing targets</li> <li>Number of councils with schemes that implement Affordable Rental Housing Targets</li> </ul>	<ul style="list-style-type: none"> <li>Percentage of dwellings within walking distance of a local or strategic centre</li> <li>Percentage of dwellings within walking distance of open space</li> </ul>
Western City District Planning Priorities	<p><b>Planning Priority W1</b> Planning for a city supported by infrastructure</p>	<p><b>Planning Priority W2</b> Working through collaboration</p>	<p><b>Planning Priority W3</b> Providing services and social infrastructure to meet people's changing needs</p> <p><b>Planning Priority W4</b> Fostering healthy, creative, culturally rich and socially connected communities</p>	<p><b>Planning Priority W5</b> Providing housing supply, choice and affordability, with access to jobs and services</p>	<p><b>Planning Priority W6</b> Creating and renewing great places and local centres, and respecting the District's heritage</p>



A well connected city	Jobs and skills for the city	A city in its landscape	An efficient city	A resilient city
<p><b>Developing a more accessible and walkable city</b></p>  <ul style="list-style-type: none"> <li>Percentage of dwellings located within 30 minutes by public transport of a metropolitan city centre/cluster</li> <li>Percentage of dwellings located within 30 minutes by public transport of a strategic centre</li> </ul> <p><b>Planning Priority W7</b> Establishing the land use and transport structure to deliver a liveable, productive and sustainable Western Parkland City</p>	<p><b>Creating the conditions for a stronger economy</b></p>  <ul style="list-style-type: none"> <li>Growth in jobs in targeted metropolitan and strategic centres.</li> <li>Change in number of people employed locally (five yearly)</li> </ul> <p><b>Planning Priority W8</b> Leveraging industry opportunities from the Western Sydney Airport and Badgerys Creek Aerotropolis</p> <p><b>Planning Priority W9</b> Growing and strengthening the metropolitan city cluster</p> <p><b>Planning Priority W10</b> Maximising freight and logistics opportunities and planning and managing industrial and urban services land</p> <p><b>Planning Priority W11</b> Growing investment, business opportunities and jobs in strategic centres</p>	<p><b>Valuing green spaces and landscape</b></p>  <p>Proportional increase in Greater Sydney covered by urban tree canopy</p> <p><b>Planning Priority W12</b> Protecting and improving the health and enjoyment of the District's waterways</p> <p><b>Planning Priority W13</b> Creating a Parkland City urban structure and identity, with South Creek as a defining spatial element</p> <p><b>Planning Priority W14</b> Protecting and enhancing bushland and biodiversity</p> <p><b>Planning Priority W15</b> Increasing urban tree canopy cover and delivering Green Grid connections</p> <p><b>Planning Priority W16</b> Protecting and enhancing scenic and cultural landscapes</p> <p><b>Planning Priority W17</b> Better managing rural areas</p> <p><b>Planning Priority W18</b> Delivering high quality open space</p>	<p><b>Using resources wisely</b></p>  <p>Number of precincts with low carbon initiatives</p> <p><b>Planning Priority W19</b> Reducing carbon emissions and managing energy, water and waste efficiently</p>	<p><b>Adapting to a changing world</b></p>  <p>Number of local government areas undertaking resilience planning</p> <p><b>Planning Priority W20</b> Adapting to the impacts of urban and natural hazards and climate change</p>

## 1

# About the draft Plan

The Western City District covers the Blue Mountains, Camden, Campbelltown, Fairfield, Hawkesbury, Liverpool, Penrith and Wollondilly local government areas (refer to Figure 6).

This draft *Western City District Plan* is a 20-year plan to manage growth in the context of economic, social and environmental matters to achieve the 40-year vision for Greater Sydney. It is a guide for implementing the draft *Greater Sydney Region Plan* at a district level and is a bridge between regional and local planning.

The draft District Plan informs local environmental plans and the assessment of planning proposals as well as community strategic plans and policies. The draft District Plan also assists councils to plan for and deliver growth and change, and align their local planning strategies to place-based outcomes. It informs infrastructure agencies, the private sector and the wider community of expectations for growth and change. Community engagement on the draft District Plan will contribute to a plan for growth that reflects local values and aspirations, in a way that balances regional and local considerations (refer to Figure 7).

The draft *Greater Sydney Region Plan* has been prepared by the Commission concurrently with the Government's *Future Transport 2056* and Infrastructure NSW's *State Infrastructure Strategy* to integrate land use, transport and infrastructure across the region for the first time in a generation. In this context, all the transport initiatives outlined in this draft District Plan are sourced from *Future Transport 2056*.

This draft District Plan has been prepared to give effect to the draft *Greater Sydney Region Plan*. The final District Plan will need to reflect the final

content of the *Greater Sydney Region Plan*. This draft District Plan identifies, where relevant, areas of state, regional and district significance, including priority growth areas.

In preparing this draft District Plan, the focus has been on identifying the Planning Priorities that are important to achieving a liveable, productive and sustainable future for the District. Relevant Objectives, Strategies and Actions from the draft *Greater Sydney Region Plan* are embedded in each of the Planning Priorities, to integrate the District's challenges and opportunities with the Greater Sydney vision of a metropolis of three cities.

**Figure 6:** Western City District



The concurrent preparation of the draft District Plans with the draft *Greater Sydney Region Plan* has maximised the opportunity to integrate these two plans. All data in this draft District Plan is based on current Government approved and published data sourced from the relevant State agency.

In undertaking strategic planning processes, and/or preparing or considering planning proposals, planning authorities must give effect to the draft District Plan, specifically the Planning Priorities and Actions.

## Changes from the 2016 draft District Plan

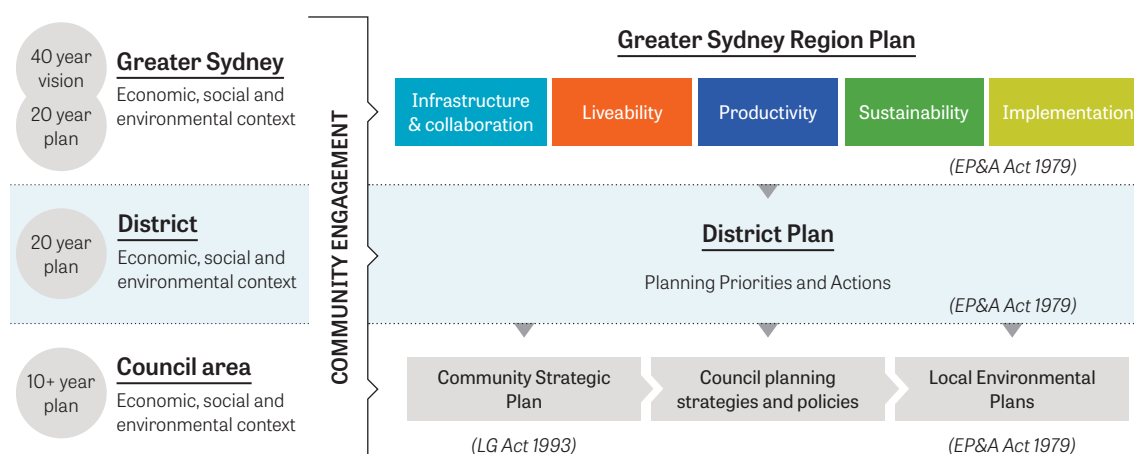
This draft *Western City District Plan* replaces the draft West District Plan and draft South West District Plans which were released in November 2016.

This draft District Plan reflects feedback from the initial exhibition period and from consultation throughout the development of the draft *Greater Sydney Region Plan*.

In preparing the draft District Plan, the Commission recognised there were Planning Priorities and Actions that were common to all districts – these have been incorporated into the draft *Greater Sydney Region Plan*.

The draft *Greater Sydney Region Plan* applies to the five districts that make up the region. The NSW Government declared six districts for the Greater Sydney Region on 27 January 2016. These were realigned to five districts on 22 September 2017. The Western City District comprises the former South West and West districts.

**Figure 7:** Relationship of regional, district and local plans



## Feedback

This draft District Plan incorporates feedback from the exhibition of draft District Plans from November 2016 to March 2017. This draft District Plan is the Commission's formal response to the key issues raised in submissions. The top five issues raised in relation to the draft West and South West District Plans are outlined below.

### *Transport planning*

- Need for access to efficient north–south and east–west transport links to reduce commuting times for residents.

### *Vision and priorities for the District*

- Support for the protection of the natural landscape, including biodiversity and the Metropolitan Rural Area for food protection.
- Need for government coordination to efficiently deliver the scale of growth with high quality design whilst protecting biodiversity and the scenic values of the landscape.
- Support for the Greater Penrith Collaboration Area, including the health and education precinct.
- Support for the Liverpool Collaboration Area, and planning for health and education precincts at Liverpool and Campbelltown–Macarthur.

### *Western Sydney Airport*

- Need for greater clarity around governance arrangements and supporting infrastructure, notably a rail line running north-south from the Western Sydney Airport.
- Opportunity of the Western Sydney Airport and the Badgerys Creek Aerotropolis to create additional jobs and transport connections for the emerging City.
- Concerns about the potential impacts of the Western Sydney Airport and growth of the Badgerys Creek Aerotropolis coupled with increasing 24/7 freight operations on the environment and residential liveability, and the need to carefully manage these potential impacts.

### *Open space (including recreation facilities and walking and cycling)*

- Support for improved active transport networks including cycleways, and a regional strategy for South Creek as a landscape framework for delivering the Western Parkland City while mitigating the urban heat island effect.

### *Implementation*

- Importance of government coordination to efficiently deliver the scale of growth with high quality urban design while protecting and enhancing the natural landscape.
- Importance of job creation and social infrastructure keeping pace with all growth.

View the *Interim Submissions & Engagement Report* and *Submissions Response Report* at <https://www.greater.sydney/what-weve-heard> to see a summary of the responses to the key issues.







## 2

# Infrastructure and collaboration

Greater Sydney is a successful and growing city, but, to become more liveable, productive and sustainable, it needs additional infrastructure and services in the right places and at the right time.

Infrastructure planning requires collaboration – managing the competing needs of a city involves all levels of government, industry and the community. The draft *Greater Sydney Region Plan* emphasises the alignment of local environmental plans, transport programs and other agency programs. This involves the interface of NSW Government investment, such as transport interchanges, and local infrastructure programmed by councils, such as public domain improvements.

Planning for infrastructure includes consideration of how such investments contribute to the shape and connectivity of Greater Sydney as a metropolis of three cities. This draft District Plan responds to major transport, health and education investments either committed or planned across the District, including the Western Sydney Airport and aligns with *Future Transport 2056*.

The increasingly rapid change of technological innovations will influence the planning and delivery of infrastructure. Recognising and facilitating this adaptability in infrastructure is critical.

Infrastructure – planned to support orderly growth, change and adaptability – must be efficient. Optimal use of infrastructure increases the capacity to better support communities.

For the Western City District, this means the following Planning Priorities:

- Planning for a city supported by infrastructure.
- Working through collaboration.

## Planning Priority W1

### Planning for a city supported by infrastructure

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **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 and Objective 4: Infrastructure use is optimised** and the corresponding strategies.

Future infrastructure investment is to be considered in the context of how it will contribute to the shape of Greater Sydney as a metropolis of three cities. This considers the influence of metropolitan, district and local level infrastructure planning, and emphasises connections between each of the three cities.


For the Western City District, east-west and north-south links will provide access between the emerging Western Sydney Airport and Badgerys Creek Aerotropolis and Liverpool, Greater Penrith and Campbelltown–Macarthur. These links will also provide access between the centres of the Western City District and Greater Parramatta and the Harbour CBD.

To align infrastructure with growth, a growth infrastructure compact approach could be used. This approach is being piloted in Greater Parramatta and the Olympic Peninsula (GPOP). The compact would identify possible scenarios for land use

and infrastructure to assess optimal land use, infrastructure investment and community outcomes. The Commission will use this pilot to consider a broader application, particularly for areas set to experience high growth.

Planning for infrastructure considers infrastructure in terms of its function: catalytic infrastructure such as major transport investments that generates greater demand and influences land uses; enabling infrastructure such as electricity and water, without which development cannot proceed; and supporting infrastructure such as local bus services that meet demand in growing communities.

In terms of transport planning, for example, new public transport infrastructure such as taxis and rideshare will help connect residents to their nearest strategic or metropolitan city cluster within 30 minutes. In other areas, traditional facilities such as libraries are being reimaged as community hubs.

 Actions	Responsibility
1. Prioritise infrastructure investments to support the vision of a metropolis of three cities.	Councils, other planning authorities, State agencies and State-owned corporations
2. Sequence growth across the three cities to promote north-south and east-west connections.	Councils, other planning authorities, State agencies and State-owned corporations
3. Align forecast growth with infrastructure.	Councils, other planning authorities, State agencies and State-owned corporations
4. Sequence infrastructure provision using a place-based approach.	Councils, other planning authorities, State agencies and State-owned corporations
5. Consider the adaptability of infrastructure and its potential shared use.	Councils, other planning authorities, State agencies and State-owned corporations
6. Maximise the utility of existing infrastructure assets and consider strategies to influence behaviour changes, to reduce the demand for new infrastructure, including supporting the development of adaptive and flexible regulations to allow decentralised utilities.	Councils, other planning authorities, State agencies and State-owned corporations

## Planning Priority W2

### Working through collaboration

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 5: Benefits of growth realised by collaboration of governments, community and business** and the corresponding action.

Collaboration in the planning and delivery of infrastructure, housing, jobs and great places is essential to realise the full benefits of growth.

The complexities of a growing region mean different approaches are required depending on the context. This ranges from nationally significant investment, corridors of renewal and land release, to a focus on a specific strategic centre or precinct.

The role of the collaboration also varies: it may be for the development of an integrated strategy where alignment of agencies is critical, for coordination of investment across different tiers of government to achieve land use outcomes, or for the delivery of specific projects.

Table 1 outlines the approaches supporting land use and infrastructure planning and delivery.

The suite of collaboration areas, priority growth areas and priority precincts are highlighted throughout this draft District Plan.

The Commission's facilitation role in bringing together various parties with an interest in the District's future and channelling their collective energy into improved planning outcomes, is demonstrated by its Collaboration Areas. This collaborative approach is underpinned by *Directions for a Greater Sydney* and is central to the way the Commission works.

Planning for the Western Sydney Airport and Badgerys Creek Aerotropolis will be coordinated through the **Western Sydney City Deal** which will involve collaboration between the Commission, Australian Government, NSW Government and the local councils of Blue Mountains, Camden, Campbelltown, Fairfield, Hawkesbury, Liverpool, Penrith and Wollondilly (refer to Planning Priority W8).

The responsibility for creating great places does not rest with any one organisation. As a non-statutory initiative, Collaboration Areas offer a new way of working to deliver collective responses that support growth and change. This will be undertaken by identifying and aligning the activities and investments of government and stakeholders, based on evidence, to respond to unprecedented growth and investment.

The Commission has identified **Liverpool, Greater Penrith and Campbelltown-Macarthur** as Collaboration Areas as highlighted throughout this draft District Plan (refer to Planning Priority W9).

The outputs of the collaborations are a Place Strategy and an Infrastructure Plan that provide certainty to the community and the private sector, and direct the NSW Government's investment and policies to achieving great places.

The collaboration for health and education precincts will lead to the development of plans that increase the attractiveness and productivity of each centre, coordinate and leverage urban renewal opportunities to deliver greater liveability outcomes, promote advanced technology and knowledge sectors on industrial and urban services land and align infrastructure delivery with urban renewal.




The Priority Precincts will be consistent with the objectives and strategies of the *Greater Sydney Region Plan* and the relevant district plans to enhance liveability, sustainability and productivity. These projects will be well planned and designed and will be delivered in collaboration with councils and informed by key government agencies and their asset plans. This planning will be supported by a special infrastructure contribution or similar satisfactory arrangement to help fund the delivery of essential community infrastructure such as health services, schools, open space and roads.

The Commission is also collaborating with local councils to improve regional open space and deliver Greater Sydney's Green Grid through the administration and management of the Metropolitan Greenspace Program (refer to Planning Priority W15).

**Table 1:** Approaches to supporting landuse and infrastructure planning and delivery

Collaboration	Agency	Focus
<b>City Deal</b>	Australian, State and local government	Domains for action: – governance, city planning and regulation – infrastructure and investment – housing – jobs and skills – innovation and digital opportunities – liveability and sustainability
<b>Collaboration Areas</b>	Greater Sydney Commission	Strategy development including: – integrated place management (strategic centres and health and education precincts) – strategy drivers: economic productivity, liveability, sustainability – infrastructure alignment
<b>Priority Growth Areas Urban Renewal Corridors</b>	NSW Department of Planning and Environment	Transformative corridor delivery including: – new land release areas – city shaping transport investment and urban renewal – infrastructure schedules and funding options
<b>Priority Precincts</b>	NSW Department of Planning and Environment	Transformative precinct delivery: – targeted development focused on housing diversity around a centre and transit node/rail station – infrastructure schedules and funding options
<b>Urban Transformation</b>	Urban Growth Development Corporation and Landcom	Project delivery: – focus on optimisation of government-owned land and urban renewal

 Actions	Responsibility
7. Identify, prioritise and deliver Collaboration Areas.	Greater Sydney Commission

## 3

# Liveability

The Western City District offers suburban and rural lifestyles with city benefits such as varied shopping and dining experiences and opportunities for authentic cultural expression. Diverse and distinctive urban centres like Liverpool, Greater Penrith and Campbelltown-Macarthur contrast with the historic and picturesque towns of Richmond, Windsor, Camden and Picton and multi-cultural hubs like Cabramatta and Fairfield and new communities in priority growth areas. The District's bushland, rivers and panoramic views across Greater Sydney are international tourist attractions. The District is also rich in environmental heritage including Aboriginal places and areas of cultural and natural heritage significance.

As the District transitions through the emergence of the Western Sydney Airport and Badgerys Creek Aerotropolis into a major city area, the District's population will grow by around 464,000 people. As the overall population grows, it is also ageing. The number of residents aged over 85 is expected to grow by 206 per cent, while the number of single-person households is expected to grow by 72 per cent. Growth in these households is expected in the local government areas of Camden (238 per cent), Liverpool (91 per cent) and Wollondilly (87 per cent), although couples with children are expected to remain the dominant household type in the District. As a result, there will be comparatively fewer working-age people (20–64 years) living in the District.

Together with overall population growth of around 464,000 (2016–2036), these demographic changes mean that an additional 184,500 homes will be required in the District by 2036.

Liveability is about people's quality of life.

Maintaining and improving liveability means housing, infrastructure and services that meet people's needs; and the provision of a range of housing types in the right locations with measures to improve affordability. This enables people to stay in their neighbourhoods and communities as they transition through life.

Creating and renewing great places, neighbourhoods and centres requires place-based planning and design excellence that builds on local strengths and focuses on public places and open spaces.

Great places are walkable – they are designed, built and managed to encourage people of all ages and abilities to walk or cycle for leisure, transport or exercise. This requires fine grain urban form and land use mix at the heart of neighbourhoods. Walkable, great places that demonstrate these characteristics promote healthy, active lifestyles and social interaction and can better support the arts, creativity, cultural expression and innovation.

A place-based and collaborative approach is required to maintain and enhance the liveability of the Western City District and can be achieved by the following Planning Priorities:

- Providing services and social infrastructure to meet people's changing needs.
- Fostering healthy, creative, culturally rich and socially connected communities.
- Providing housing supply, choice and affordability, with access to jobs and services.
- Creating and renewing great places and local centres, and respecting the District's heritage.





## Planning Priority W3

### Providing services and social infrastructure to meet people's changing needs

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 6: Services and infrastructure meet communities' changing needs** and the corresponding strategies.

As the District's population grows, major demographic changes are also occurring. Planning must recognise the changing composition of population groups in local places and provide services and social infrastructure that meet the changes in people's needs through different stages of life. This requires integrated planning and collaboration. This includes considering both the provision of services and the overall outcomes for the community and intergenerational equity.

Population projections and age profiles show distinct differences where specific demographic groups will live in the Western City District (refer to Figures 8 and 9). The greatest increase in population is expected in Camden Local Government Area (a 178 per cent increase over the 20 years to 2036) due to the South West Priority Growth Area and the strong growth across all age groups. The lowest growth is in the Blue Mountains Local Government Area (a 10 per cent increase over the 20 years to 2036) which is expected to see a decline in the age groups 0–4 years of two per cent and 20–64 years of three per cent.

Growth increases demand on existing services and infrastructure, particularly sport and recreation facilities that are, in some cases, at or nearing capacity. Residents need the right local mix of services, programs and social infrastructure at the heart of walkable neighbourhoods to support them to live socially connected, active and healthy lives.

This includes co-located schools, health services, aged care, community and cultural facilities, parks and recreation facilities, and accessible walking and cycling connections.

Improving safety, accessibility and inclusion by co-locating activities benefits all residents and visitors. It supports a fine grain urban form and land use mix which provides greater diversity of uses and users and thereby improves liveability.

Creating opportunities for increased shared use and more flexible use of underutilised facilities such as schools, sports facilities, church halls and creative spaces can support growth and respond to the different needs of local demographic groups. Multipurpose and intergenerational facilities are the key to better use of, and access to, infrastructure in new developments and is essential in land release areas.

Publicly owned land, including social housing in renewal precincts, may provide opportunities to optimise the co-location of social infrastructure and mixed uses at the heart of neighbourhoods.

Integrated and targeted delivery of services and infrastructure is needed to support growth and respond to the different needs of population groups. Accessible local health services and regional health infrastructure such as hospitals are important for all people across the District. South Western Local Health District and Nepean Blue Mountains Local Health District focus on delivering healthy communities through local health services including community health services, obesity prevention and promotion of the benefits of a healthy built environment (refer to Planning Priority W4).

## Children and young people

Over the 20 years to 2036, projections show an expected increase of 24,950 children aged four years or younger, with 41 per cent of this growth in Camden Local Government Area.

Planning for early education and child care facilities requires innovative approaches to the use of land and floor space, including co-location with compatible uses such as primary schools and office buildings, close to transport facilities.



A projected increase in school-aged children of 43 per cent necessitates planning for new and more innovative use of existing schools. The NSW Department of Education estimates that an extra 77,978 students will need to be accommodated in both government and non-government schools in the District by 2036. Growth is projected to be greatest in Camden (26,403), Liverpool (21,072), Campbelltown (13,541) and Penrith (11,008) local government areas.

Schools play an important role in creating and supporting inclusive and vibrant neighbourhoods. Planning for new schools, and use of existing schools must respond to demand in innovative ways such as more efficient use of land, contemporary design, greater sharing of spaces and facilities, and flexible learning spaces. Safe walking and cycling links to schools maximises opportunities for young people to lead more active lifestyles.

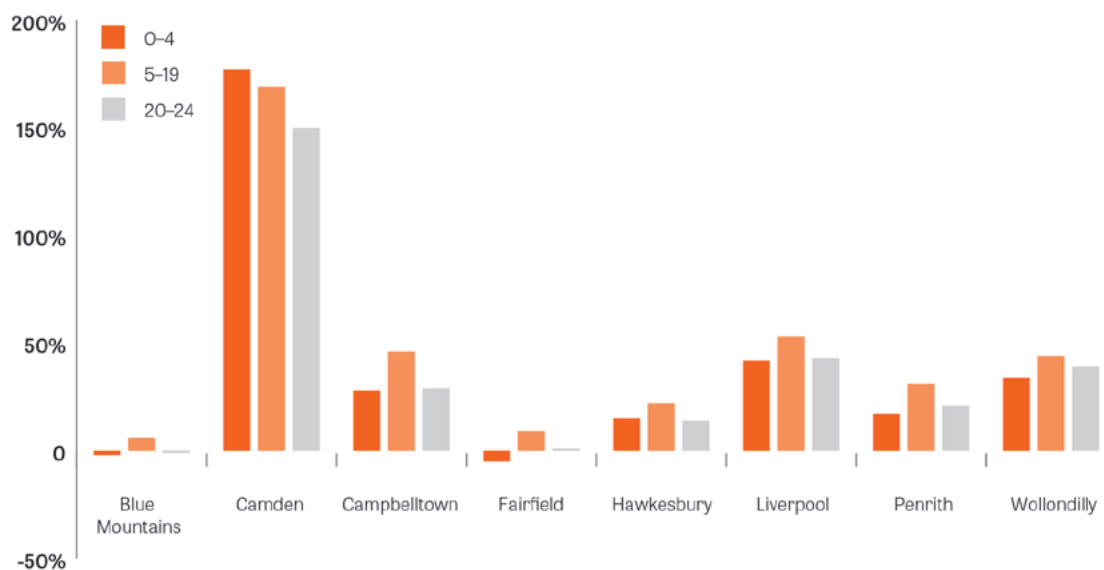
## Education and Child Care SEPP

State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 will make it easier for child care providers, schools, TAFEs and universities to build new facilities and improve existing facilities. It streamlines approval processes recognising the need for additional educational infrastructure with a focus on good design.

The accompanying *Child Care Planning Guideline* will assist in matters such as site selection, location and building design to meet national requirements for child care.

The NSW Department of Education's *School Assets Strategic Plan* sets the direction and framework for the future of school infrastructure. School Infrastructure NSW, a new specialist unit within the Department, will undertake school community planning and deliver the education infrastructure program, working with other State agencies and groups to develop schools as community hubs.

**Figure 8:** Western City District projected population change 2016 to 2036 by local government area: 0–4, 5–19 and 20–24 years



Source: NSW Department of Planning and Environment, 2016 New South Wales State and Local Government Area Household Projections and Implied Dwelling Requirements 2016 to 2036, NSW Government, Sydney.

The needs of children and young people go beyond schools. They also require careful consideration of the way that open spaces, cultural spaces and the public realm are designed and managed to include children and young people (refer to Planning Priority W6).

The Office of the Advocate for Children and Young People's *NSW Strategic Plan for Children and Young People* is the first legislated three-year whole-of-government plan that is focused on all children and young people aged 0–24 years. It aims to help ensure children and young people have opportunities to thrive, get the services they need and have their voice heard.

Camden local government area is projected to see the largest growth in people aged 20–24 years across the District (150 per cent between 2016 and 2036). The District provides important opportunities for tertiary and vocational education and training. These allow people to gain and refine skills for employment and connect with other people in the community. TAFEs and universities are also employment hubs for knowledge-intensive industries.

## Older people

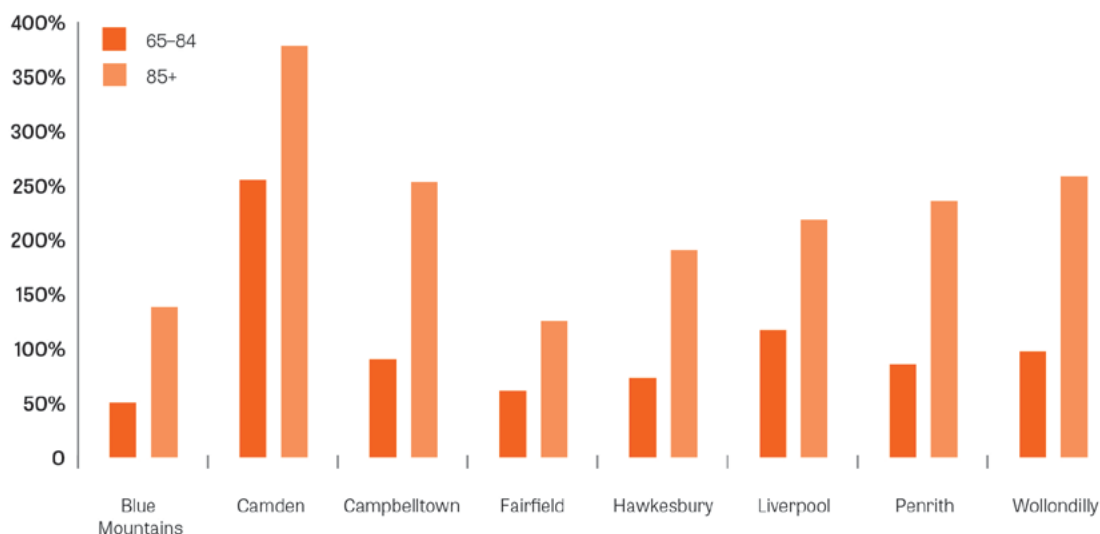
A 206 per cent proportional increase in people aged 85 and over, and a 93 per cent increase in the 65–84 age group is expected by 2036. This means 18 per cent of the District population will be aged 65 or over in 2036, up from 13 per cent in 2016.

Liverpool Local Government Area has the largest projected growth in the 65 to 84 age groups, with 23,750 more people. By comparison, Wollondilly Local Government Area will see a total growth of 5,650 people in these age groups.

More compact housing types and medium-density housing, as well as the design of walkable neighbourhoods, will create opportunities for older people to continue living in their community, where being close to family, friends and established health and support networks improves people's wellbeing.<sup>1</sup>

Walkable places that encourage older people to lead physically and socially active lives for as long as possible are required to facilitate ageing in community. Universal design— the design of homes and places that can be accessed, understood and used by all people, regardless of their age or ability – also improves accessibility for older people.

**Figure 9:** Western City District projected population change 2016 to 2036 by local government area: 65–84 and over 85 years



Source: NSW Department of Planning and Environment, 2016 New South Wales State and Local Government Area Household Projections and Implied Dwelling Requirements 2016 to 2036, NSW Government, Sydney

Coordinated and additional health, social and aged care services and collaborative responses across government and industry are needed to meet the expected increase in demand for local aged care facilities and respite services, including home care options (with associated visitor parking). This approach will also need to address care for people with specific needs such as those with dementia and the frail aged.

The *NSW Ageing Strategy 2016–2020*, prepared by the NSW Department of Family and Community Services, responds to the opportunities and challenges of the ageing population.

## Accessibility

Public places including streets, parks, shopping precincts and community facilities must be designed so that people of all ages and abilities can participate in community life. In addition to the rapidly ageing population, the District includes over 61,500<sup>2</sup> people with disability. Walkable places and homes of universal design are essential to provide opportunities and participation for all people.

## Joint and shared use

Infrastructure can be adapted and shared for different uses – school and open space facilities can be used for community, sports, arts, screen and cultural or recreational use when they are not otherwise required.

The Commission has identified a number of opportunities for developing a more collaborative city by enhancing shared use of spaces and greater connectivity between residents. These include the occasional use of streets for community events such as temporary markets, basketball and other sports or school fetes.

For example, within the Greater Sydney region, a memorandum of understanding and joint use agreement between the Hills Council and the NSW Department of Education enables co-funding and co-utilisation of a new outdoor sporting field and an indoor sporting centre at the Kellyville South Public School.

Shared use agreements increase opportunities for the community to access facilities and resources and facilitate programs and activities where resources and funding are limited. This is particularly important in urban environments with high land values and growing demand for access to open space and community facilities.

### Related government initiatives:

- NSW Department of Education, *School Assets Strategic Plan Summary*, 2017
- NSW Government, *NSW Ageing Strategy*, 2016–2020
- Office of the Advocate for Children and Young People, *NSW Strategic Plan for Children and Young People*, 2016–2019
- NSW Health South Western Sydney Local Health District *Strategic and Healthcare Services Plan, Strategic Priorities in Health Care Delivery to 2011*
- NSW Health Nepean Blue Mountains Local Health District *Strategic Plan 2012 to 2017*

### Useful links:

- Mapping the NSW Budget 2017–18
- State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017
- Livable Housing Design Guidelines



### Actions

### Responsibility

- |   |   |
|---|---|
| 8. Deliver social infrastructure to reflect the needs of the community now and in the future. | Councils, other planning authorities and State agencies                           |
| 9. Optimise the use of available public land for social infrastructure.                       | Councils, other planning authorities, State agencies and State-owned corporations |

## Planning Priority W4

### Fostering healthy, creative, culturally rich and socially connected communities

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 7: Communities are healthy, resilient and socially connected**; **Objective 8: Greater Sydney's communities are culturally rich with diverse neighbourhoods** and **Objective 9: Greater Sydney celebrates the arts and supports creative industries and innovation** and the corresponding strategies.

To foster healthy, creative, culturally rich and socially connected communities this draft District Plan recognises cultural richness and diversity as some of Greater Sydney's key strengths. Strong social connections are key to these strengths and a foundation of resilience and healthy lifestyles among the District's residents. To support and deliver these outcomes a multi-faceted and place-based approach is required to focus on the local inter-relationships between healthy, creative, culturally rich and socially connected communities.

#### Healthy and active lifestyles

Research identifies three aspects of the built environment that support healthy lifestyles and improved health outcomes: strong social connections, physical activity and access to fresh food.<sup>3</sup> Consequently, the design and management of streets, places and neighbourhoods are essential to achieving improved mental and physical health outcomes. These characteristics of the built environment are important preventative responses to the incidence of chronic lifestyle diseases like obesity and type 2 diabetes. This is important given that around 58 per cent of the adult population in the Western City District are overweight or obese.<sup>4</sup>

Walkable streets that provide accessible and safe connections to schools, daily needs and recreation facilities can encourage greater physical activity and social connection. Fine grain urban form and local mixed use places can provide better access to fresh food, together with opportunities for people to participate in arts, recreation and cultural activities. Connectivity of, and access to, diverse open space and opportunities for recreational physical activity are also essential.

#### Diverse neighbourhoods

Greater Sydney, like many global cities, has a diversity of people from differing socioeconomic circumstances and a range of social, cultural, ethnic and linguistic backgrounds. As the District grows and changes, supporting social connections, and cultural and creative expression will build resilience through understanding, trust and neighbourliness.

Targeted local responses to address spatial variations in socioeconomic disadvantage across the District are required, particularly in neighbourhoods that experience greater disadvantage.

The Western City District is home to people from many cultural and social backgrounds. The District is home to more than 320,000 people from 195 countries including Vietnam, Iraq, England, New Zealand and India. As a result, 36 per cent of the District's population speak 200 non-English languages in their homes.<sup>5</sup>

In Fairfield Local Government Area, 74 per cent of people speak 140 languages other than English. Vietnamese and Assyrian are the most commonly spoken languages in the area.

In Liverpool Local Government Area, 56 per cent of people speak 158 languages other than English. Arabic and Hindi are the most commonly spoken languages in the area. This compares with Hawkesbury and Wollondilly local government areas, where six per cent of residents speak around 70 languages other than English.

The Western City District is home to refugees from many parts of the world. Blue Mountains, Campbelltown, Fairfield, Hawkesbury, Liverpool and Penrith councils have declared Refugee



Welcome Zones and have made a commitment in spirit to welcoming refugees into communities and celebrating their diversity of cultures.

A diversity of housing types such as urban renewal, local infill – missing middle – and new communities in land release areas supports diversity of household types and community needs.

Place-based planning in the District's culturally diverse neighbourhoods utilises engagement that recognises the different ways people participate. Many councils have targeted approaches that consider specific linguistic or other needs to support greater participation.

A better understanding of people's social and economic aspirations and specific needs achieved through engagement and participation, enhances inclusion and identifies culturally appropriate responses to local needs, to deliver improved health and wellbeing outcomes.

## Aboriginal people

The District's Aboriginal people, their histories and connections to Country and community make a valuable and continuing contribution to the District's heritage, culture and identity.

Supporting Aboriginal self-determination, economic participation and contemporary cultural expression will strengthen the District's identity and cultural richness.

The District contains landholdings acquired under the *Aboriginal Land Rights Act 1983* where Local Aboriginal Land Councils may be working towards planning outcomes that will help support self-determination and economic participation.

As this draft District Plan is implemented, engagement with Aboriginal communities will be founded on self-determination and mutual respect to foster opportunities for economic participation, culturally appropriate social infrastructure and contemporary cultural expression.

## Supporting creative enterprise and social connection

Cultural and creative expression is a hallmark of innovation, and promotes understanding of differences. Place-based planning will build on the District's artistic, heritage, cultural, volunteering and creative strengths.

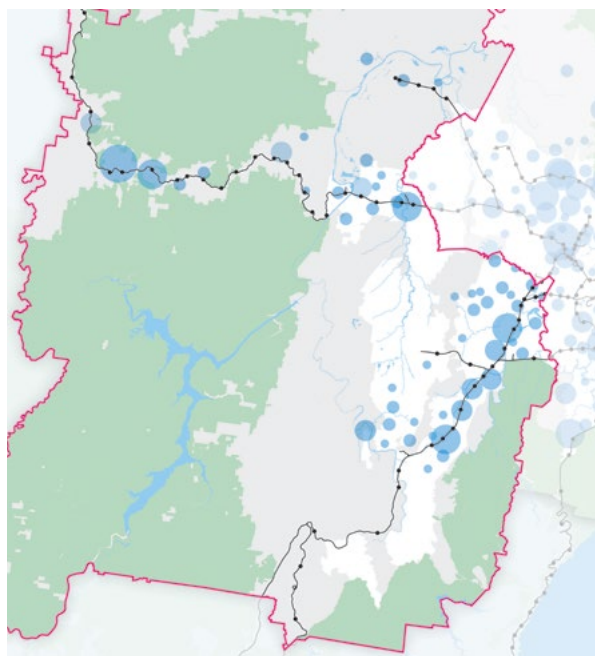
Co-locating artistic and creative organisations will support creative enterprises and precincts. This requires planning for multi-functional and shared spaces with opportunities for artists and makers to live, work, exhibit, sell and learn locally.

Cultural diversity is celebrated through a multitude of opportunities for cultural expression that develop and are nurtured by the communities of the Western City District. The District's artistic and cultural experiences include:



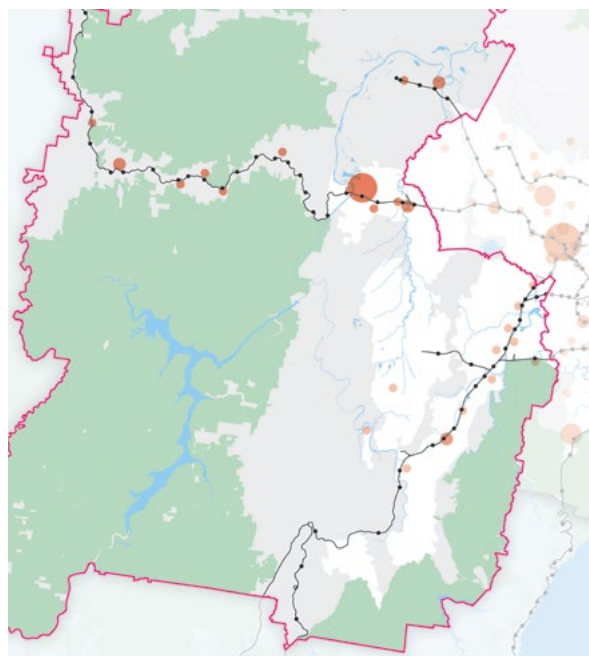
## Western City District social connectors

**Figure 10:** Western City District social infrastructure



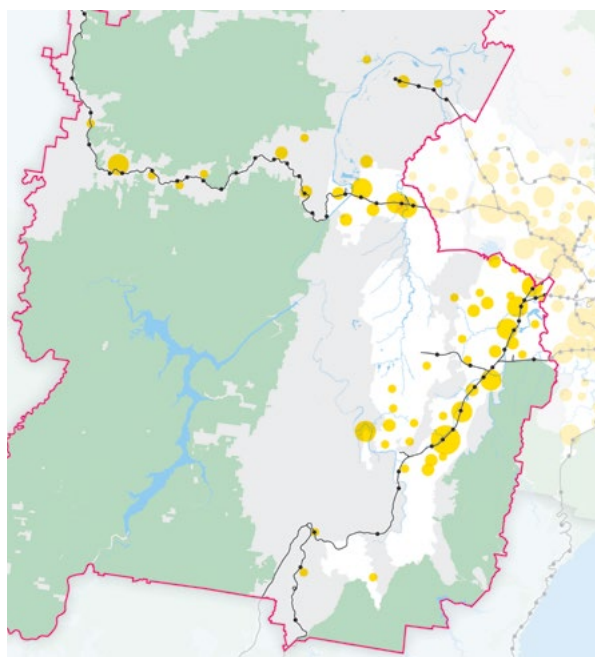
● Social infrastructure includes facilities such as community and neighbourhood hubs, sportsfields, clubs and courts, men's sheds, pools and leisure centres

**Figure 11:** Western City District shared places



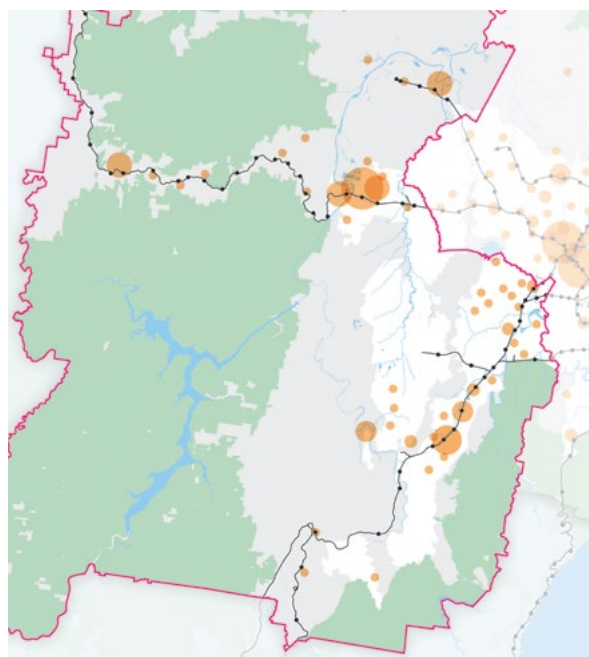
● Sharing spaces include community gardens, co-working spaces and car sharing

**Figure 12:** Western City District learning



● Learning spaces include education facilities like child care, schools, TAFEs and universities as well as libraries

**Figure 13:** Western City District street life



● Street life and meeting places include live music venues, farmers' markets, high streets and eat streets

Source: Greater Sydney Commission, 2017 adapted from Greater Sydney's Social Capital Study (2017), Cred Consulting.

- cultural events and celebrations such as NAIDOC Week, National Reconciliation Week, Cabramatta Moon Festival, Fairfield Multicultural Eid Festival, Warragamba Dam Fest and Blue Mountains Winter Magic and Music Festivals
- arts facilities such as Penrith's Joan Sutherland Performing Arts Centre, Lewers Bequest and Regional Gallery, Blue Mountains Cultural Centre, Norman Lindsay Gallery, Casula Powerhouse Arts Centre and Campbelltown Arts Centre
- cultural facilities, including the Hawkesbury Regional Art Gallery and Museum and Blue Mountains Theatre and Community Hub
- open space and sports facilities including Penrith Stadium and a high number of sports fields at Liverpool, Campbelltown and St Marys.

Support for a wide range of creative enterprises and opportunities for cultural expression will expand arts and cultural institutions, and support audience and artist participation. Locations to consider for creative industries and cultural enterprises may include underutilised mixed use areas and ground level retail or declining high streets. Greater use of public areas for interim and temporary uses through flexible regulatory settings can support activation of places and encourage participation. Continued investment in the arts, screen and cultural sector attracts a skilled workforce and encourages innovation in other sectors.

Consistent with the 2014 *State Infrastructure Strategy Update*, the Cultural Infrastructure Program Management Office is working with Infrastructure NSW to develop a cultural infrastructure strategy, which will include clear strategies and actions for Greater Sydney.

There are many educational and community facilities, social enterprises, community initiatives, clubs and sporting organisations and facilities that connect people with one another. These social connectors help foster healthy, culturally rich and networked communities which share values and trust and can develop resilience to shocks and stress.

Key social strengths and their multi-faceted nature are illustrated in Figures 10 to 13. These preliminary maps illustrate concentrations of social connectors in and around some local centres. These connectors

provide opportunities for people to connect with one another and include:

- social infrastructure such as community and neighbourhood hubs, sportsfields, clubs and courts, men's sheds, pools and leisure centres
- education facilities like child care, schools, TAFEs and universities as well as libraries
- sharing spaces like community gardens, co-working spaces and car sharing
- street life and meeting places including live music venues, farmers' markets, high streets and eat streets.

Stronger concentrations of social connectors are indicated by larger dots. The maps illustrate examples of centres where place-based planning can recognise and enhance existing community connections and provide a focus for strengthening and adding new social connectors. Focusing and augmenting social connectors in accessible places will help to improve individual and community health, inclusion and participation outcomes.

Social connectors are some of the characteristics on which the local identity and distinctive functions, of these centres are built. For example, street life is particularly evident in places like Cabramatta, Penrith City Centre and Katoomba.

### *Healthy, culturally rich and networked communities share values and trust.*

The District's cultural vibrancy is reinforced by night-time activities that extend from popular eat streets, clubs and small bars to lifestyle activities like cinemas. Stimulating and diversifying the night-time economy in appropriate locations across the District will support local economies and culture. This can generally occur in mixed-use centres with adequate noise control, locally appropriate operating hours and safe late-night travel options.

Lifelong learning facilities and libraries continue to provide valuable opportunities to continue education and connect with others in the community. Digital connectivity is also emerging as key to building broad and diverse communities of interest that can cross traditional spatial boundaries.



In the Western City District places with high concentrations of social connectors are characterised by:

- access to trains or high frequency bus routes
- cultural and economic diversity
- high levels of volunteering
- high provision of social infrastructure
- access to education and learning
- walkable town centre / eat street
- diverse housing mix (density, tenure, affordability).

Place-based planning to enhance social connections within and across communities should focus these activities at the heart of neighbourhoods and in local centres to enhance social and economic participation.

This co-location of social infrastructure with daily needs and other services helps build connections – as is evidenced at multipurpose intergenerational facilities such as the Blue Mountains Cultural Centre.

In recognition of the importance of sporting participation as a key activity and social strength, the NSW Office of Sport will bring councils together across the District to develop a Sport and Recreation Participation Strategy and a Sport and Recreation Facility Plan for the District.

#### Related government initiatives:

- NSW Department of Planning and Environment, *Aboriginal Community Land and Infrastructure Programs*
- NSW Department of Planning and Environment, *Cultural Infrastructure Program*
- NSW Office of Sport, *A New Way of Delivering Sport and Active Recreation in NSW*

 Actions	Responsibility
10. Deliver inclusive places for people of all ages and abilities that support healthy, resilient and socially connected communities by: <ul style="list-style-type: none"> <li>a. providing walkable places with active street life and a human scale</li> <li>b. co-locating schools, social, health, sporting, cultural and shared facilities.</li> </ul>	Councils, other planning authorities and State agencies
11. Consider cultural diversity in strategic planning and engagement.	Councils, other planning authorities and State agencies
12. Strengthen the economic self-determination of Aboriginal communities by engagement and consultation with Local Aboriginal Land Councils to better understand and support their economic aspirations as they relate to land use planning.	Councils, other planning authorities, State agencies and State-owned corporations
13. Facilitate opportunities for creative and artistic expression and participation, wherever feasible with a minimum regulatory burden, including: <ul style="list-style-type: none"> <li>a. creative arts and cultural enterprises and facilities</li> <li>b. creative interim and temporary uses</li> <li>c. appropriate development of the night-time economy.</li> </ul>	Councils, other planning authorities, State agencies and State-owned corporations
14. Strengthen social connections within and between communities through better understanding of the nature of social networks and supporting infrastructure in local places.	Councils, other planning authorities, State agencies and State-owned corporations





## Planning Priority W5

Providing housing supply, choice and affordability, with access to jobs and services

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 10: Greater housing supply**; and **Objective 11: Housing is more diverse and affordable** and the corresponding strategies and actions.

The draft *Greater Sydney Region Plan* sets out objectives to deliver housing supply and affordability. The location, type and cost of housing requires choices that have far-reaching impacts on quality of life, including time spent commuting, which affects people's ability to spend time with family or in the community.

Housing is more than just dwellings and needs to be considered across the housing continuum and with a place-based approach that is designed to support communities and create great places (refer to Objective 11 of the draft *Greater Sydney Region Plan*).

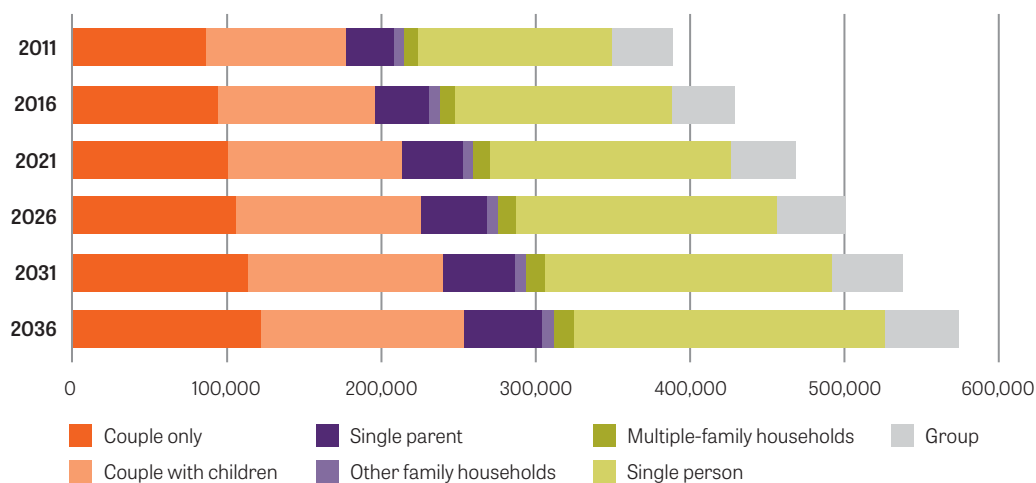
The NSW Department of Planning and Environment's projections of population and household growth in the Western City District translate to a need for an additional 184,500 homes between 2016 to 2036.

### Housing diversity and choice

New housing must be in the right places to meet demand for different housing types, tenure, price points, preferred locations and design. Housing supply must be coordinated with infrastructure delivery to create liveable, walkable, cycle-friendly neighbourhoods with shops, services and public transport. This means that some areas are not appropriate for additional housing due to natural or amenity constraints, or lack of access to services and public transport.

Planning for housing needs to consider the type of dwellings required to respond to expected changes in household and age structures (refer to Figure 14). The number of single-person households, for example, is expected to increase by 72 per cent over 20 years to 2036, with 44,300 more single-person

**Figure 14:** Western City District projected household structure 2011–2036



Source: NSW Department of Planning and Environment, 2016 *New South Wales State and Local Government Area Household Projections and Implied Dwelling Requirements 2016 to 2036*, NSW Government, Sydney.



households. Although the number of couples-with-children households is expected to increase by only 37 per cent, it is also expected that there will be 56,600 more couples-with-children households, which represents the largest household change. This requires additional flexible housing types, including smaller homes for single persons, larger homes for families and culturally appropriate housing that can accommodate several family groups or generations living together, as well as more accessible and adaptable housing of universal design.

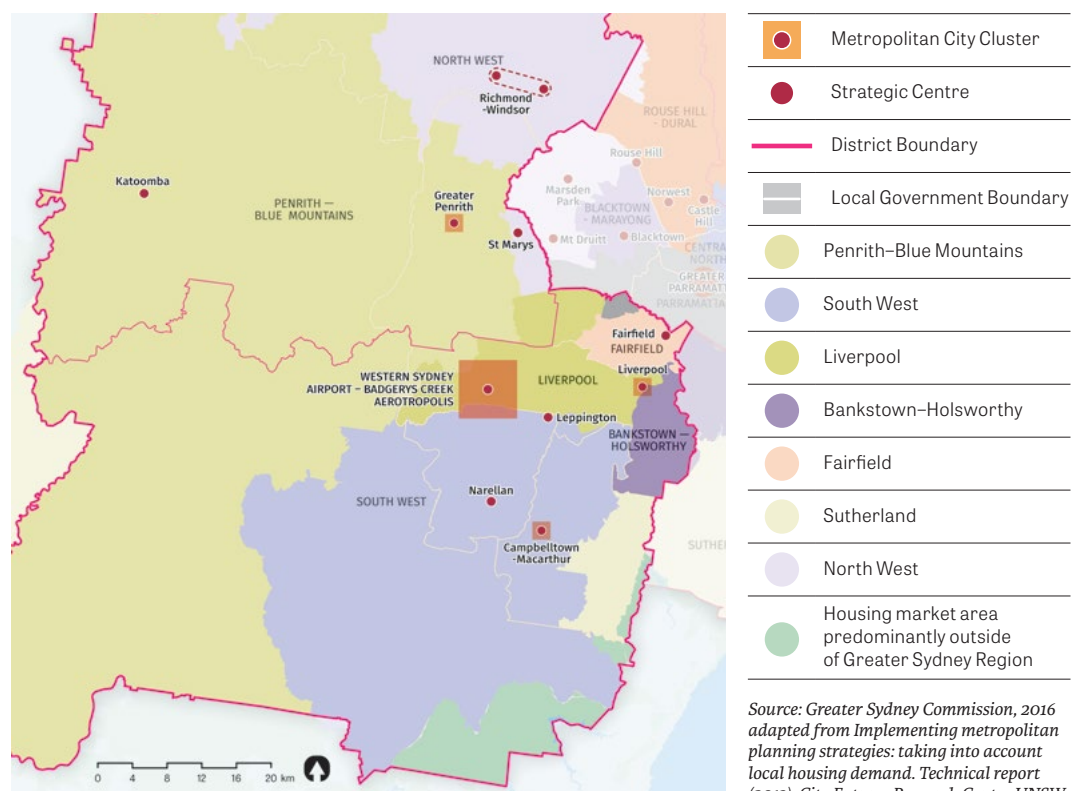
## Housing preferences

Research into housing preferences in Greater Sydney shows that people generally prefer to remain within their local area, with 82 per cent of residents moving into a new home within 15 kilometres of their former residence.<sup>6</sup> There are five housing market demand areas in the Western City District (refer to Figure 15):

- **Fairfield** – centred on the established neighbourhoods of Fairfield, Cabramatta, Prairiewood and Bonnyrigg
- **Liverpool** – including land release areas such as the South West Priority Growth Area
- **South West** – including the South West Priority Growth Area, the proposed Greater Macarthur Priority Growth Area, Wilton Priority Growth Area, Claymore Urban Renewal and Airds Bradbury Renewal Project
- **Penrith-Blue Mountains** – Greater Penrith and the villages of the Blue Mountains
- **North West** – including St Marys, Vineyard, the towns and villages of the Hawkesbury, and the eastern part of the Penrith health and education precinct at Werrington.

These housing markets mean that providing supply in one market demand area may not satisfy demand in another. Understanding need and capacity in individual housing markets will better satisfy residents' preferred housing locations.

**Figure 15:** Western City District housing market areas



The District also includes portions of the Sutherland, Bankstown-Holsworthy and Parramatta Housing Market Areas. They are addressed in the draft South and Central City District Plans respectively.

## Historic housing supply

Dwelling completions are at their highest levels in 16 years in the District, with 7,693 completions in 2016-2017.<sup>7</sup> In the five-year period from July 2012 to June 2017, 31,553 new dwellings were completed. Of these completions, 28 per cent were in Camden, 25 per cent in Liverpool and 20 per cent in Penrith local government areas.

In the past five years, 77 per cent of completions were detached dwellings and 23 per cent were multi-unit dwellings in the District. While the majority of housing completions were detached dwellings, there has been a relatively even growth in multi-unit dwellings and detached dwellings in Fairfield Local Government Area and this is expected to continue.

Multi-unit dwellings in the District provide transitional housing for seniors, homes for single persons and more affordable homes for young people and young families. Existing housing stock in the District continues to be dominated by detached dwellings.

Over the past 10 years the District has had an annual average dwelling completions rate of 4,527. Forecast supply of housing growth in the District has identified the potential for dwelling completions above this annual average in the next 5 years.

## Current initiatives and opportunities

Additional capacity for housing supply is well progressed across much of the District, including the State-led projects through the Priority Growth Areas and Priority Precincts:

- Western Sydney Airport Priority Growth Area – surrounding the Western Sydney Airport and Badgerys Creek Aerotropolis
- South West Priority Growth Area including:
  - Leppington Priority Precinct
  - Precincts at Oran Park, Catherine Field and areas being investigated at Lowes Creek, Merrylands and Pondicherry

- Greater Macarthur Priority Growth Area comprising:
  - Glenfield to Macarthur Corridor – including Precincts at Macquarie Fields, Ingleburn, Minto, Leumeah, Campbelltown and Macarthur, as well as the:
  - Glenfield Priority Precinct
  - Menangle Park, Gilead and Appin
- Wilton Priority Growth Area
- Vineyard Precinct in the North West Priority Growth Area.

The Priority Precincts will be consistent with the objectives and strategies of the *Greater Sydney Region Plan* and the relevant district plans to enhance liveability, sustainability and productivity. These projects will be well planned and designed and will be delivered in collaboration with councils and informed by key government agencies and their asset plans. This planning will be supported by a special infrastructure contribution or similar satisfactory arrangement to help fund the delivery of essential community infrastructure such as health, schools, open space and roads.

*Liverpool, Penrith and Fairfield councils are investigating opportunities for new homes close to transport and services.*

In the short to medium term, Liverpool, Penrith and Fairfield councils are investigating opportunities for new homes close to transport and services.

The *Fairfield City Settlement Action Plan 2017–2019* plans for local housing options for humanitarian entrants, refugees, people seeking asylum and other vulnerable migrant groups. Between 2016–17, precincts in Fairfield have also been contributing to the missing middle with the emergence of duplex and triplex developments.

In the Metropolitan Rural Area, Blue Mountains City Council is master planning six towns and villages.

In the Hawkesbury Local Government Area, the NSW Government is progressing investigations into the Hawkesbury-Nepean Valley floodplain, to identify the extent of the constraints and considerations for extreme event floods. These extreme events don't necessarily mean development cannot occur, but consideration of the resilience of



the new development to flooding and recovery, as well as the ability to evacuate the areas need to be taken into account.

In the Campbelltown Local Government Area, redevelopment of older public housing estates at Minto, Airds, Bradbury and Claymore as well as Bonnyrigg in the Fairfield Local Government Area involve temporary and permanent re-housing of social housing tenants and creating new housing and recreational spaces, while reducing concentrations of public housing in these targeted communities.

Other local government strategies that identify opportunities to increase capacity for housing in the District include:

- Blue Mountains Residential Strategy and Addendum (2010)
- Camden Residential Strategy (2008)
- Campbelltown Residential Development Strategy (2014)
- Fairfield Residential Development Strategy East (2014)
- Hawkesbury Residential Land Strategy (2011)
- Liverpool Residential Development Strategy (2008)
- Penrith City Strategy (2013)
- Wollondilly Growth Management Strategy (2011).



## More housing in the right locations

Creating capacity for new housing in the right locations requires clear criteria for where capacity is to be located. Accommodating homes for the next generation needs to be linked to local infrastructure – both to optimise existing infrastructure use and to maximise investment in new infrastructure (refer to Figure 16).

### *Urban renewal*

Opportunities for urban renewal need to be considered by location and by capacity of existing and proposed infrastructure. In older more established parts of Greater Sydney, urban renewal opportunities may exist around regional transport and strategic centres where links for walking and cycling promote a healthy lifestyle.

Where there is significant investment in transit corridors, both existing and proposed, urban renewal may best be investigated in key nodes along the corridor. Corridor investigations can provide a longer-term strategic context while the development of precincts within the corridor is sequenced over time.

The Commission proposes locational criteria for urban renewal investigation opportunities to include:

- alignment with investment in regional and district infrastructure. This acknowledges the catalytic impacts of infrastructure together with other possible future NSW Government investments. It also acknowledges the opportunities created by enhancements to existing infrastructure such as upgrades to schools, open space including sporting facilities and transport
- accessibility to jobs, noting close to half of Greater Sydney's jobs are generated in strategic centres
- accessibility to regional transport, noting that high-frequency transport services can create efficient connections to local transport services and expand the catchment area of people who can access regional transport
- the catchment area that is within walking distance of centres with rail, light rail or regional bus transport.

Other matters to be carefully considered include:

- the feasibility of development, including financial viability across a range of housing configurations (one, two, three or more bedrooms) and consistency with market demand
- heritage and cultural elements, visual impacts, natural hazards such as flooding, special land uses and other environmental constraints
- local features such as topography, lot sizes, strata ownership and the transition between different built forms
- the staging of enabling infrastructure, upgrades or expansions of social infrastructure such as local schools, open space and community facilities.

The Greater Penrith to St Marys corridor is a hub of economic activity that links the Penrith City Centre, and the health and education precinct, to the development opportunities around St Marys. A future transport corridor, running north to south between Macarthur, Narellan, Western Sydney Airport and Cudgegong station, will connect with the existing heavy rail corridor running east to west.

Declaring the Greater Penrith to St Marys corridor a growth area will provide for an integration of land use and transport planning to plan for a connected, vibrant District with more homes, jobs and services with open space opportunities. It will guide redevelopment opportunities and identify the infrastructure required to support continued growth.

### *Local infill development*

Medium density housing which includes villas and town houses within existing areas can provide greater housing variety while maintaining the appeal and amenity of an area.

Councils are in the best position to investigate and confirm what locations in their local government area are suited to additional medium density opportunities. In doing this the Commission proposes that councils should consider:

- transitional areas between urban renewal precincts and existing neighbourhoods
- residential land around local centres where links for walking and cycling help promote a healthy lifestyle
- areas with good proximity to regional transport where more intensive urban renewal is not suitable due to challenging topography or other characteristics
- lower density parts of suburban Greater Sydney undergoing replacement of older housing stock.

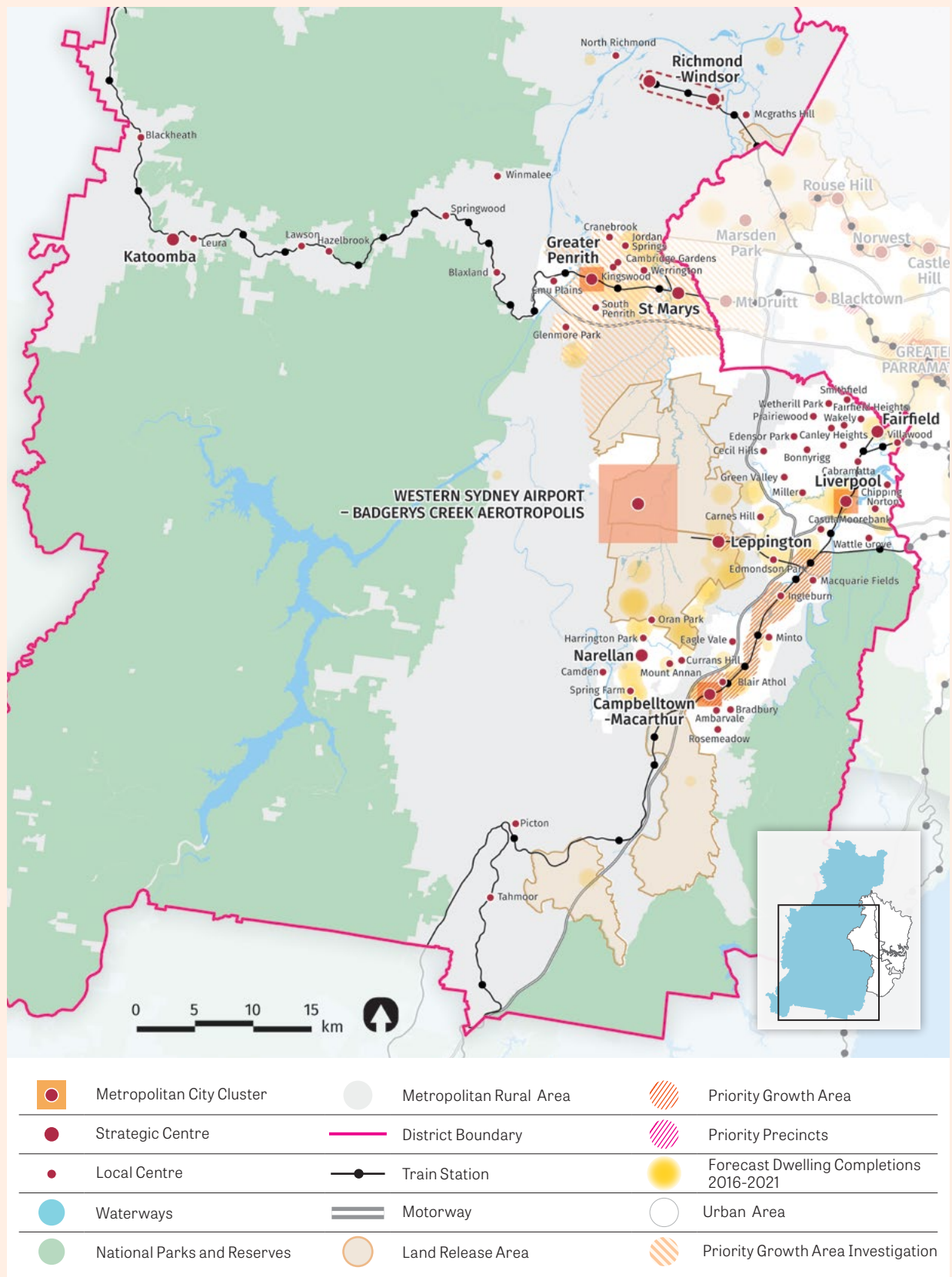
Design guidelines set out in the NSW Department of Planning and Environment's *Draft Medium Density Design Guide* show how this infill can promote good design outcomes.

### *New communities in land release areas*

The Priority Growth Area programs of the NSW Department of Planning and Environment guide development in land release areas. In the medium and longer term, there is potential to accommodate new dwellings in large priority growth areas including the North West, South West and Wilton Priority Growth Areas and the southern part of Greater Macarthur Priority Growth Area.

The Western Sydney Airport Priority Growth Area will include new communities at the same time as the development of the Western Economic Corridor, which includes Western Sydney Airport and Western Sydney Employment Area.

**Figure 16:** Western City District future housing supply



Source: Greater Sydney Commission & NSW Department of Planning and Environment



## Housing strategies and targets

To address housing supply, strategies are to be developed by councils to:

- make provision to meet the five and 10-year (when agreed) housing targets and identify capacity to contribute to a rolling program to deliver the 20-year district strategic supply
- inform the Affordable Rental Housing Target for development precincts
- coordinate the planning and delivery of local and State infrastructure.

The NSW Department of Planning and Environment will prepare guidelines to support housing strategies as outlined in the draft *Greater Sydney Region Plan* in Objective 10.

Table 2 sets five-year housing targets for the District, which are the same as published in the November 2016 draft District Plans. These are based on the District's dwelling needs and the existing opportunities to deliver supply. They include all types of housing – traditional detached and attached houses, apartments, seniors housing, granny flats and aged care.

The five-year targets are generally consistent with known housing approvals and construction activity. These are minimum targets and largely reflect delivery potential under current planning controls.

Meeting the demand over 20 years requires a longer-term outlook. The draft *Greater Sydney Region Plan* sets a District 20-year strategic housing target of 184,500 equating to an average annual supply of 9,225 dwellings, or one in four of all new homes in Greater Sydney over 20 years.

The Commission will work with each council to develop 6-10 year housing targets.

*Future Transport 2056* identifies city-shaping transport projects that will, in the long term, improve accessibility to jobs and services, and act as a stimulus for additional housing supply. To deliver the 20-year strategic housing target, councils should, in local housing strategies, investigate and recognise opportunities for long-term housing supply associated with city-shaping transport corridors, growing, emerging and new centres, and other areas with high accessibility. This includes precincts at North Bringelly and Rossmore in the Western Sydney Airport Priority Growth Area.

**Table 2:** Western City District housing targets by local government area

LGA	0–5 year housing supply targets: 2016–2021
Blue Mountains	650
Camden	11,800
Campbelltown	6,800
Fairfield	3,050
Hawkesbury	1,150
Liverpool	8,250
Penrith	6,600
Wollondilly	1,550
<b>Western City District Total</b>	<b>39,850</b>

## Affordable Rental Housing Targets

Housing has a dual social and economic role across Greater Sydney. Communities require housing that meets changing demographic needs over time and that provides stability. At the same time housing has an economic productivity role by providing housing choice and affordability for a cross section of workers.

The Commission's research and testing of needs through stakeholder and community consultation reaffirms the critical importance of providing a diversity of housing outcomes across the housing continuum in Greater Sydney.

Ensuring a steady supply of market housing in locations well supported by existing or planned services and amenity with an emphasis on public transport access is outlined in Objective 10 in the draft *Greater Sydney Region Plan*.

The Affordable Rental Housing State Environmental Planning Policy provides incentives for development projects to include a 10-year term for affordable rental housing dwellings for very low to moderate income households, however the areas where this is being applied are limited.



The NSW Department of Planning and Environment and the Commission will jointly investigate ways to facilitate housing diversity through innovative purchase and rental models.

This draft District Plan recommends the NSW Government adopt Affordable Rental Housing Targets for very low to low-income households in Greater Sydney as a mechanism to deliver a supply of affordable housing.

The Commission's testing reaffirms that across Greater Sydney targets generally in the range of 5–10 per cent of new residential floor space are viable.

The Commission will work with the NSW Department of Planning and Environment to develop the mechanisms required for delivery of the proposed Affordable Rental Housing Targets.

Further opportunities for planning to support housing affordability and diversity measures include:

- more compact housing, either on smaller land lots or through a proportion of smaller apartments of clever design to support moderate-income households and particularly key workers and skilled workers in targeted employment areas such as health and education precincts
- new owner-developer apartment models that support lower cost and more flexible delivery of apartments for like-minded owner groups.

 Actions	Responsibility
15. Prepare local or district housing strategies that address the following: <ol style="list-style-type: none"> <li>the delivery of five-year housing supply targets for each local government area</li> <li>the delivery of 6-10 year (when agreed) housing supply targets for each local government area</li> <li>capacity to contribute to the longer term 20-year strategic housing target for the District</li> <li>housing strategy requirements outlined in Objective 10 of the draft <i>Greater Sydney Region Plan</i> that include:               <ol style="list-style-type: none"> <li>creating capacity for more housing in the right locations</li> <li>supporting planning and delivery of priority growth areas and precincts as relevant to each local government area</li> <li>supporting investigation of opportunities for alignment with investment in regional and district infrastructure</li> <li>supporting the role of centres.</li> </ol> </li> </ol>	Blue Mountains City Council, Camden Council, Campbelltown City Council, Fairfield City Council, Hawkesbury City Council, Liverpool City Council, Penrith City Council, Wollondilly Shire Council
16. Prepare Affordable Rental Housing Target schemes.	Councils and other planning authorities

## Planning Priority W6

### Creating and renewing great places and local centres, and respecting the District's heritage

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 12: Great places that bring people together** and **Objective 13: Environmental heritage is conserved and enhanced** and the corresponding strategies.

Greater Sydney's cities, centres and neighbourhoods each have a unique combination of local people, history, culture, arts, climate, built form and natural features creating places with distinctive identities and functions. Great places build on these characteristics to create a sense of place that reflects shared community values and culture. Through this, they attract residents, workers, visitors, enterprise and investment.

Great places include all parts of the public realm such as open space, streets, centres and neighbourhoods. They exhibit design excellence and start with, and focus on, open space and a people-friendly public realm.

To create great places the mechanisms for delivering public benefits need to be agreed early in the planning process, so that places provide a combination of the following elements as set out in the draft *Greater Sydney Region Plan*:

- Well-designed built environment – great places are enjoyable and attractive, they are safe, clean and flexible with a mix of sizes and functions.
- Social infrastructure and opportunity – great places are inclusive of people of all ages and abilities, with a range of authentic local experiences and opportunities for social interaction and connection.
- Fine grain urban form – great places are of human scale, walkable with a mix of land uses including public buildings at the heart of communities.

The District's great places include local and strategic centres such as Katoomba, Picton and Camden and riverside neighbourhoods like Richmond and Windsor, together with major shopping precincts, and distinctive dining and night-time precincts at Penrith and Cabramatta.

The unique character and distinctive mix of land uses, activities, social connectors and functions in these places provide social and physical connectivity, local diversity and cultural richness, all of which contribute to the liveability of neighbourhoods and enhance people's quality of life.

Places best achieve these outcomes when they exhibit human scale and provide fine grain urban form and land use mix at the heart of neighbourhoods. Accessibility for people of all ages and abilities is central to creating and renewing great places, particularly walking and cycling connections to and within local places.

Improving liveability in urban environments necessitates planning for a mix of high quality places that engage, activate and connect people and communities. Co-locating activities and social infrastructure in mixed use areas delivers more efficient use of land and enhances the viability of, and access to, great places, centres and public transport.

To deliver high quality, community specific and place-based outcomes, planning for the District should integrate site-specific planning proposals with precinct-wide place and public domain outcomes through place-based planning. This is a method by which great places can capitalise on the community's shared values and strengths and the place's locally distinctive attributes through collaboration and meaningful community participation.

With growth and change, more high-quality public places will be required in and around centres. Renewal will increase opportunities to expand and connect these places and to explore opportunities for innovative public places, such as rooftops and podiums.

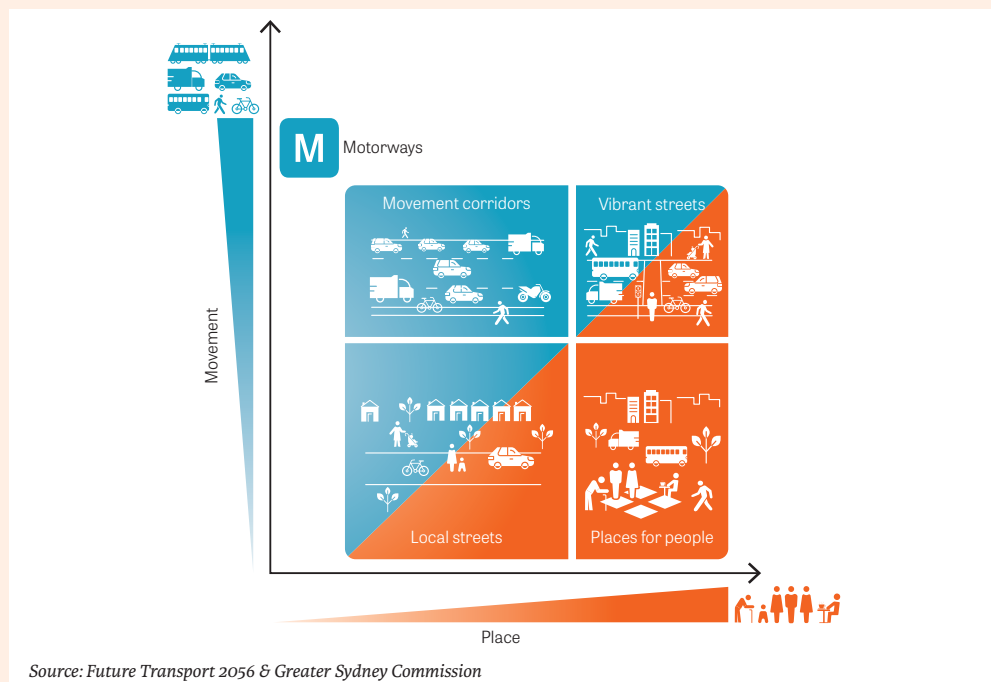
## Streets as places

Creating and renewing great places also requires recognition of the function of streets as places (refer to Figure 17). Streets are important for moving people and goods between places, but are also important places for people and street life, enhancing social and economic participation.

Much of people's experience of the public realm is in a street environment. Consequently, the way the street meets people's different movement and place needs determines the character of the street and shapes people's experience of a city. Creating and renewing streets as great places is therefore key to improving liveability.

Although streets differ in their function and character, maximising opportunities for walking, safe-cycling and social interaction is a priority. This requires allocation of road space between footpaths, cycleways, public transport and vehicles that considers people's safety needs and balances movement and place functions in response to the type of street and local conditions.

**Figure 17:** Movement and place framework



Places for people like High Street, Penrith, Leura Mall and Katoomba perform intense place functions with highly significant local pedestrian movements.

Local streets are important places for people as they provide the principal opportunity for formal and informal connections with neighbours and the local community. They must also provide good local access.

Movement corridors like the Great Western Highway provide safe and efficient movement between centres, neighbourhoods and places.

## Local centres

Local centres are the focal point of neighbourhoods and where they are a focus for public transport, they are an important part of a 30-minute city. Local centres with supermarkets greater than 1,000 square metres account for nearly 18 per cent of all jobs in Greater Sydney. They also meet residents' needs for shopping, social interaction, cultural and creative expression.

Local centres vary in size, function and character and meet a variety of needs, from a cluster of local shops like those at Canley Vale to large retail centres such as Penrith. Local centres also attract tourists, particularly in the Blue Mountains and Hawkesbury local government areas. They each perform a variety of functions but all form an important part of local community life as social connectors and they contain many of the District's great places.

Centres such as Leura and Camden serve as community hubs, with their scenic qualities that enhance their vibrant character. Richmond,

Glenbrook and Picton villages are emerging as destinations for new eateries, cafes offering unique neighbourhood qualities and cultural facilities.

Camden Council is developing an urban design framework which will be a long term strategic framework for decision making that seeks to create a resilient and sustainable future for the local centre.

The success of local centres and high streets should be supported through specific and flexible measures to improve activation and viability. This may include provision of creative workspaces, opportunities for social, creative or cultural enterprise, pop-up retail and other innovative uses. Activation of side streets may assist in some locations.

Rapid changes in technology and retail trends, emerging night-time economies and population growth require councils to be agile and responsive in their planning for the growth of centres. Adaptive and flexible spaces may be required because of an increasing demand for workspaces from start-up and creative industries.





A vibrant and safe night-time economy will enhance Greater Sydney's standing as a global city, while meeting the social and recreational needs of communities. Planning for a night-time economy in centres includes supporting a diverse range of small businesses such as retail, and cultural events and assets, accompanied by a suitable regulatory environment.

The accessibility of local centres with supermarkets greater than 1,000 square metres is illustrated in Figures 18 and 19. As a result of this walkability, many of these local centres will be increasingly supported by residential development. However housing should not compromise the ability of the centre to grow, expand and change over time. It is also recognised that some centres without supermarkets have specialised roles.

The management of local centres is predominantly led by councils. Considerations for a local hierarchy of centres within this classification should be informed by a strategic planning process at a local level including an assessment on how the proposed hierarchy influences decision-making for commercial, retail and other uses.

An understanding of the unique identity, size, land use mix, catchment and potential of each local centre and the local centres hierarchy will inform housing strategies. This draft District Plan identifies a range of specific matters for consideration in place-based planning for centres. They include:

- provide public realm and open space focus
- deliver transit-oriented development and co-locate facilities and social infrastructure
- provide, increase or improve local infrastructure and open space
- improve walking, cycling and public transport connections, including through the Greater Sydney Green Grid
- protect or expand retail and/or commercial floor space
- protect or expand employment opportunities
- support the night-time economy
- integrate and support arts and creative enterprise and expression
- augment or provide community facilities and services and cultural facilities

- conserve and interpret heritage values
- accommodate local festivals, celebrations, temporary and interim uses
- increase residential development in, or within a walkable distance of, the centre
- provide parking that is adaptable to future uses and takes account of access to public transport, walking and cycling connections.

## Heritage and character

Heritage and history are also important components of local identity and are important attributes of great places. The District's rich Aboriginal, cultural and natural heritage reinforces its sense of place and identity. A wide variety of local heritage items and heritage streetscapes also form part of the character of centres throughout the District.

The District's communities share heritage items and historic places like Camden, Picton, Richmond-Windsor and Menangle. Camden town centre's heritage significance is founded by its associations with Australia's early agricultural industries, including the wool industry and its role in early colonial settlement. Historic buildings such as the Hydro Majestic in Medlow Bath, Fernhill Estate in the Mulgoa Valley and Tebbutt's Observatory in Windsor are rich in architectural heritage and have a distinctive local character. The Blue Mountains National Park has significant Aboriginal, cultural and natural heritage values.

The conservation and interpretation of places and values of heritage significance is required to give current and future generations a better understanding of history and people's past experiences. Sympathetic adaptive re-use of heritage is an important way to conserve significance. Improved public access and connection to heritage through interpretation is also essential.

### Related government initiative:

- Government Architect NSW, *Better Placed – An integrated design policy for the built environment of New South Wales*

Figure 18: Western City District – centres north

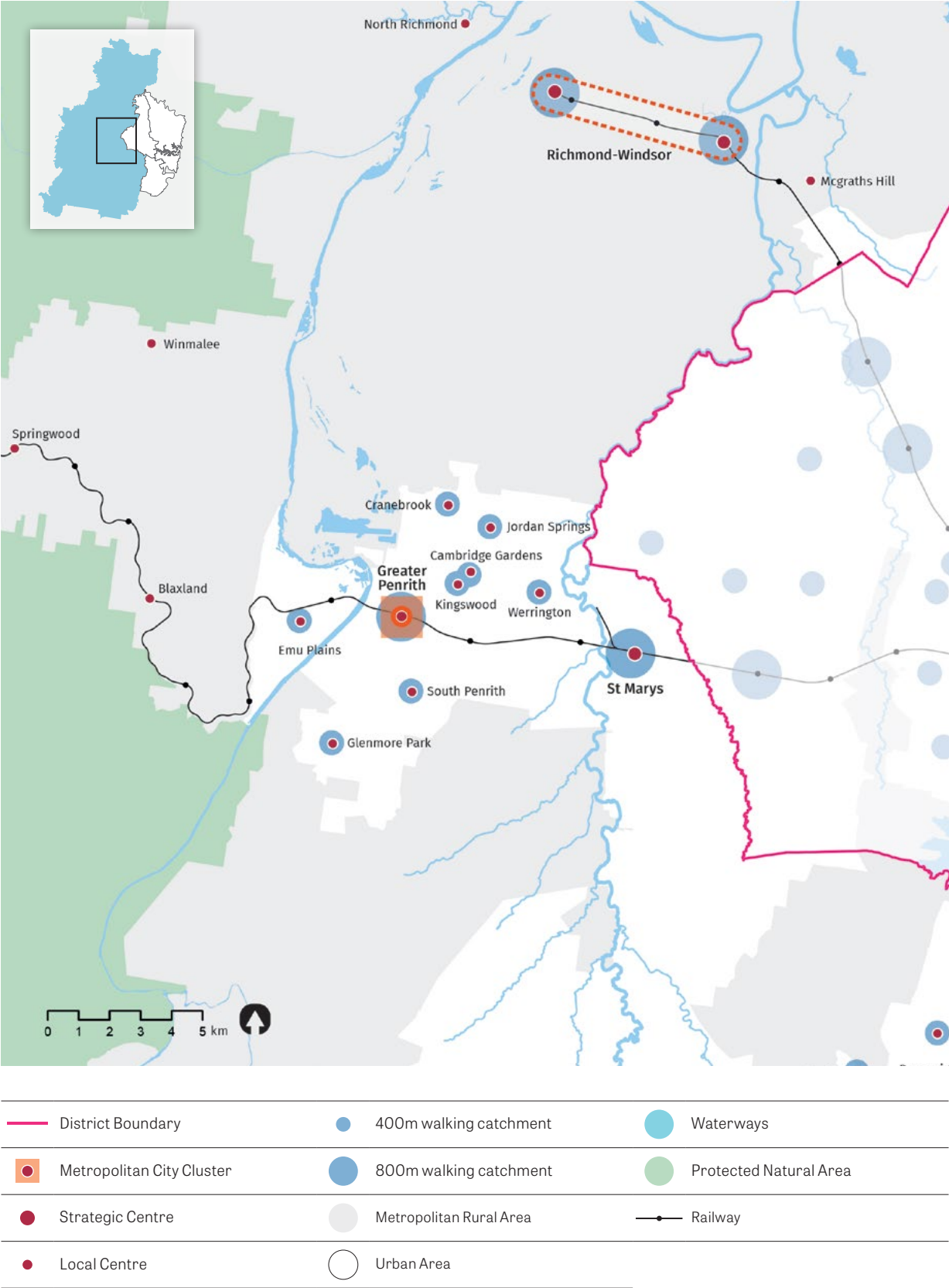
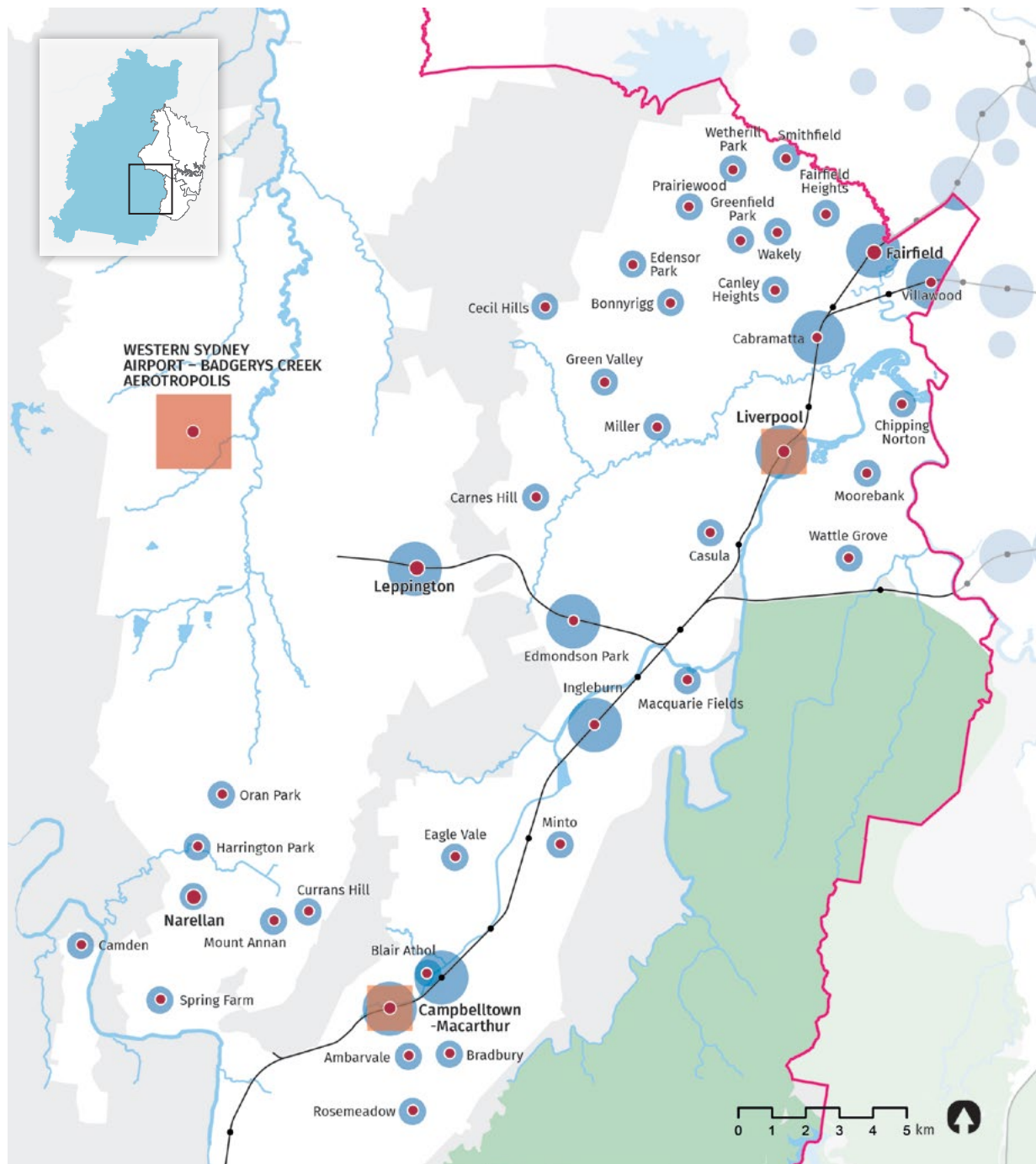


Figure 19: Western City District – centres south



	District Boundary		400m walking catchment		Waterways
	Metropolitan City Cluster		800m walking catchment		Protected Natural Area
	Strategic Centre		Metropolitan Rural Area		Railway
	Local Centre		Urban Area		

## Place-based planning

Place-based planning is a design-led and collaborative way of examining the complexity of the city by viewing it as a mosaic of different places, each with unique potential and characteristics. It responds to place-specific considerations, local qualities and community needs.

It is a way to manage change over time in places by recognising the value and need for local expertise, knowledge, responsibility and investment.

The process itself is a means of better understanding the place, and building relationships and collaboration to deliver solutions that respond to a place's potential. Staging and sequencing in a place-based context also allows for continual adjustment and improvements.

People involved in the process will vary depending on the circumstances, nature and scale of the task and may include the community, local businesses, residents, State and local government and other stakeholders. A compelling and shared vision for a place that resolves different perspectives and interests can then be created.

The products of place-based planning extend beyond a shared vision. A spatial framework for a

place provides the basis for future development, governance and allocation of responsibilities. The outputs of place-based planning detail how the vision will be implemented and the place activated, monitored, managed and re-visioned over time.

The place-based planning approach can be applied to streets, neighbourhoods, local centres, and larger scale urban renewal as well as the Metropolitan Rural Area. This approach also underpins the development of strategies in Collaboration Areas.

The District presents many opportunities for improved liveability outcomes through place-based planning, such as South Creek. In Collaboration Areas this approach can help deliver innovative approaches to change over time, particularly in relation to parking and infrastructure provision. For example, the provision of precinct-based adaptable car parking in lieu of the private provision of car parking taking into account public transport accessibility. Government Architect NSW's *Better Placed: A integrated design policy for the built environment of New South Wales* supports the creation and renewal of great places for use by all place-makers including state and local government, businesses and the community.

### Actions

### Responsibility

- |   |   |
|---|---|
| <p>17. Deliver great places by:</p> <ul style="list-style-type: none"> <li>a. prioritising a people-friendly public realm and open spaces as a central organising design principle</li> <li>b. recognising and balancing the dual function of streets as places for people and movement</li> <li>c. providing fine grain urban form, high amenity and walkability</li> <li>d. integrating social infrastructure to support social connections and provide a community hub</li> <li>e. encouraging contemporary interpretation of heritage where possible</li> <li>f. using a place-based and collaborative approach throughout planning, design, development and management.</li> </ul> | Councils, other planning authorities, State agencies and State-owned corporations |
| <p>18. Conserve and enhance environmental heritage by:</p> <ul style="list-style-type: none"> <li>a. engaging with the community early in the planning process to understand Aboriginal, European and natural heritage values</li> <li>b. conserving and interpreting Aboriginal, European and natural heritage to foster distinctive local places.</li> </ul>  | Councils, other planning authorities, State agencies and State-owned corporations |
| <p>19. Use place-based planning to support the role of centres as a focus for connected neighbourhoods.</p>   | Councils, other planning authorities and State agencies                           |





## 4

# Productivity

The vision for Greater Sydney as a metropolis of three cities – the Western Parkland City, the Central River City and the Eastern Harbour City – seeks to deliver a more productive region. This will be achieved by driving opportunities for investment, business and jobs growth; supporting economic diversity; supporting internationally competitive sectors; and rebalancing the region's eastern economic focus so that all three cities benefit from growth.

A well-connected Greater Sydney will contribute to productivity by improving efficiency in supply chains and reducing business costs; increasing access to markets; enhancing access between businesses and large numbers of skilled workers; and enhancing business-to-business interactions.

The Western City District forms the majority of the Western Parkland City and its economy is powered by health and education industries, retail, hospitality, and industrial activities including advanced manufacturing, trade and logistics and tourism. It is anchored by three health and education precincts at Liverpool, Greater Penrith and Campbelltown-Macarthur as well as four Western Sydney University campuses and the new University of Wollongong campus in Liverpool (refer to Figures 20 and 21).

There is a strong university presence connected to the hospitals within each health and education precinct, with the University of NSW and Western Sydney University at Liverpool Hospital, University of Sydney at Nepean Hospital and Western Sydney University at Campbelltown Hospital.

The vision for the Western Parkland City is a first in the history of planning for Greater Sydney. It is a vision that focuses west, with the development of the Western Sydney Airport and Badgerys Creek Aerotropolis as its catalyst. City-shaping transport

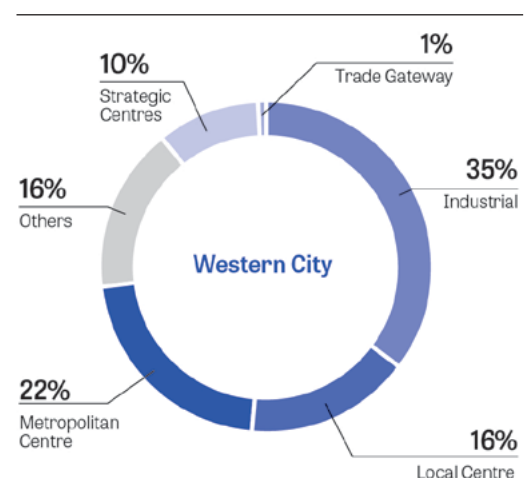
infrastructure, new industry agglomerations and collaboration with all tiers of government through the Western Sydney City Deal will support this vision.

The Western Sydney Airport and Badgerys Creek Aerotropolis will support tens of thousands of jobs. The Western Sydney City Deal will help to create new jobs, economic activities and knowledge-intensive industries to diversify the economy and attract a skilled workforce.

The District will build on its economic strengths in advanced manufacturing, aerospace and defence industries, agricultural processing and export, construction and infrastructure, transport and warehousing, visitor economy and education and training to create a new Western Economic Corridor.

Integrated transport and land use planning will be key in planning for the Western Parkland City and the Western Economic Corridor. Critical transport planning elements involve enhancing the efficiency

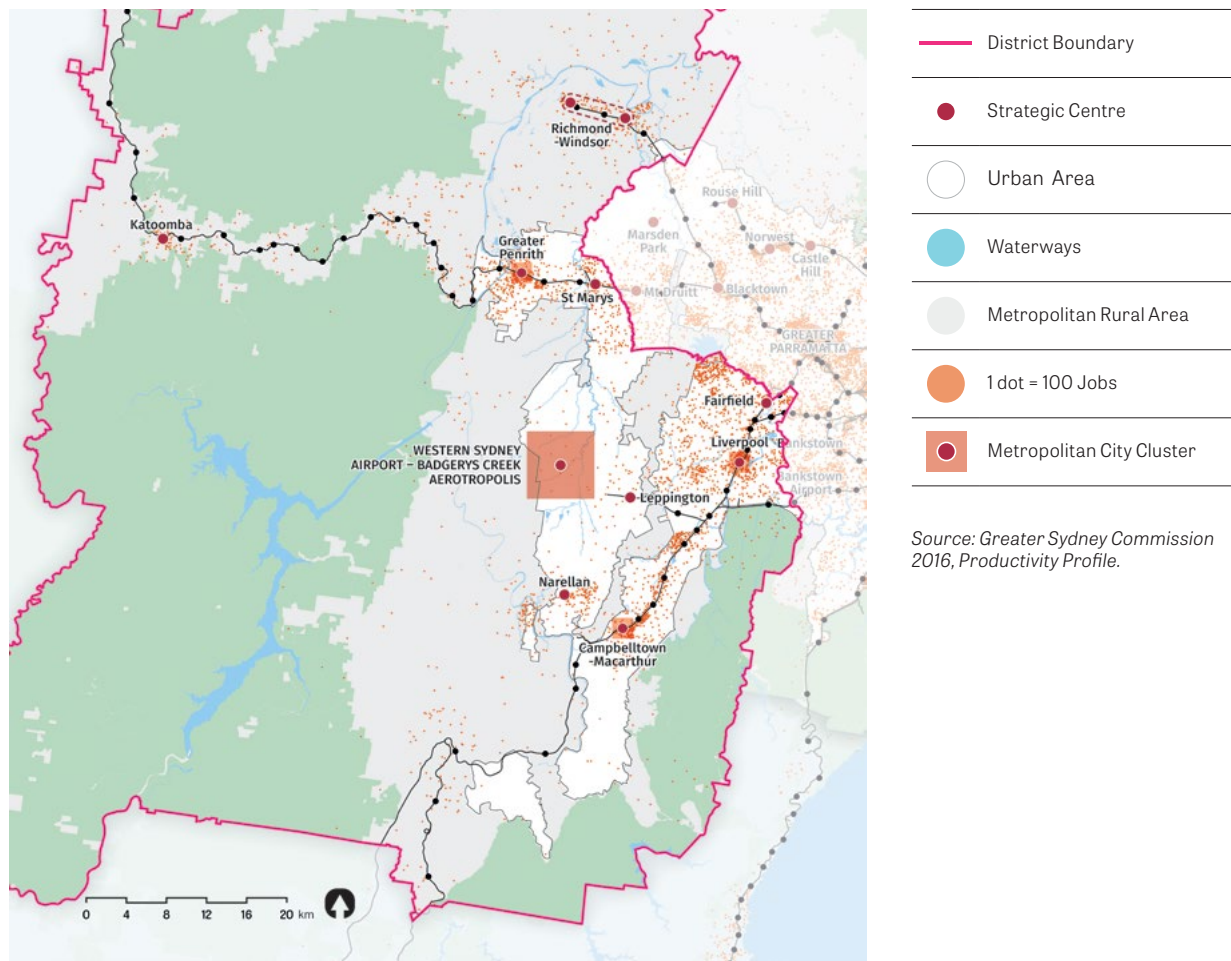
**Figure 20:** Western City District job distribution by type of location



Source: Australian Bureau of Statistics Census 2011



**Figure 21:** Western City District job density



and competitiveness of the freight sector, and enhancing inter-regional transport connections and their integration with land use planning. Major transit connections, such as the potential north-south train link, Outer Sydney Orbital, Bells Line of Road-Castlereagh Connection and Western Sydney Freight Line, have the potential to create the structure for a more compact and connected Western Parkland City.

As the Western Sydney Airport and Badgerys Creek Aerotropolis takes shape over the next 20 years, Liverpool, Greater Penrith and Campbelltown-Macarthur will continue to support airport and employment activities, and service the needs of the Western Parkland City. Providing a framework to grow investment and business activity in centres is essential, along with planning, managing and protecting industrial and urban services land.

For the Western City District improving productivity can be achieved by the following Planning Priorities:

- Establishing the land use and transport structure to deliver a liveable, productive and sustainable Western Parkland City.
- Leveraging industry opportunities from the Western Sydney Airport and Badgerys Creek Aerotropolis.
- Growing and strengthening the metropolitan city cluster.
- Maximising freight and logistics opportunities and planning and managing industrial and urban services land.
- Growing investment, business and job opportunities in strategic centres.

## Planning Priority W7

Establishing the land use and transport structure to deliver a liveable, productive and sustainable Western Parkland City

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 14: A metropolis of three cities – integrated land use and transport creates walkable and 30-minute cities; Objective 15: The Eastern, GPOP and Western Economic Corridors are better connected and more competitive; Objective 16: Freight and logistics network is competitive and efficient; and Objective 17: Regional transport is integrated with land use and the corresponding strategies and actions.**

In planning for the Western City District today, there is a significant opportunity to set in place the long-term structure of the District to benefit future generations. Fulfilling this outcome will require the consideration of a number of the objectives from the draft *Greater Sydney Region Plan* which seek to deliver walkable and 30-minute cities through integrated land use and transport planning; better connected and more competitive economic corridors; competitive and efficient freight and logistics sector; and regional transport connections integrated with land use planning.

The Australian and State Government commitments to infrastructure for the Western Sydney Airport and Badgerys Creek Aerotropolis, including the joint Scoping Study to determine the rail transport needs for Western Sydney, create the opportunity to establish a structure for the management of land use and transport infrastructure to deliver a liveable, productive and sustainable Western Parkland City.

Building the foundations of the Western Parkland City will involve establishing a land use and transport structure which enables the development and growth of new and existing economic agglomerations. For the Western City District, these include the Western Economic Corridor, Western Sydney Airport and Badgerys Creek Aerotropolis, Liverpool, Greater Penrith, Campbelltown-Macarthur and the Western Sydney Employment Area; and the potential transport corridors including the north-south mass transit link (Cudgegong Road to Macarthur), the Outer Sydney Orbital corridor, the Bells Line of Road-Castlereagh Connection and the Western Sydney Freight Line.

The Western City District will need to be more than these economic agglomerations. The structure of the District also needs to deliver liveability and sustainability outcomes. In this context, the District has an opportunity to develop a new city founded in the parkland setting of the Metropolitan Rural Area and surrounding bushland, centred on South Creek. The setting can create a unique identity – by establishing a land use and transport structure which enables economic agglomerations. It is a place where the city meets the country and national parks frame the city.

By 2056, the combined population of Greater Sydney, Newcastle and Wollongong will be approximately 10 million. Potential north-south transport connections along the Outer Sydney Orbital corridor between Greater Sydney, Newcastle and Wollongong will enable greater economic opportunities for the District. These inter-regional links will also influence the development of a land use and transport structure for the Western City District.

Therefore, the development of a land use and transport structure for the District needs to consider the coordination of the numerous land use and infrastructure initiatives across the region including:

- Western Sydney Airport and Badgerys Creek Aerotropolis
- Priority Growth Areas: Greater Penrith to St Marys, Western Sydney Airport, South West, Greater Macarthur and Wilton
- Western Sydney Employment Area
- South Creek (Infrastructure NSW initiative)



- Urban investigation areas as identified in the draft *Greater Sydney Region Plan* including to the north of the Western Sydney Airport Priority Growth Area. There are two areas that form part of the Greater Penrith to St Marys Priority Growth Area investigations:
  - Orchard Hills, north of the Defence Establishment Orchard Hills and west of St Clair
  - east of The Northern Road at Luddenham between the Western Sydney Airport Priority Growth Area and the water pipeline.
- The Defence Establishment Orchard Hills land has been included in the Priority Growth Area investigation to ensure coordination of existing and future land uses.
- To the east of the Western Sydney Airport Priority Growth Area is a third area:
  - Horsley Park and Mount Vernon located west of the M7 motorway.
- potential new transport corridors (identified for protection and further investigation) and related infrastructure initiatives as identified in *Future Transport 2056* including:
  - north-south train link
  - Leppington to Western Sydney Airport and Badgerys Creek Aerotropolis train link
  - Outer Sydney Orbital
  - Bells Line of Road-Castlereagh Connection
  - Western Sydney Freight Line
  - Bankstown to Liverpool Metro link a potential extension of Sydney Metro City and Southwest to Liverpool.
- providing industrial and freight activities with good access to the freight network including motorways and rail
- utilising open space including South Creek and its tributaries, as the defining design element (refer to Planning Priority W13).

*New Western Economic Corridor which is integral to the approach of creating more jobs and a diversity of jobs.*

To achieve these outcomes, there are a number of planning initiatives that will shape the Western City District:

- the delivery of a new **Western Economic Corridor** which is integral to the approach of creating more jobs and a diversity of jobs in the Western City District; new economic agglomerations, together with the need for planning and investigating a transport network to support the significant projected population growth, create the opportunity for a potential north-south train link which will improve access and catalyse Greater Sydney's Western Economic Corridor.
- planning for centres including the **metropolitan city cluster** comprising the Western Sydney Airport and Badgerys Creek Aerotropolis as well as Liverpool, Greater Penrith and Campbelltown-Macarthur and their health and education precincts (refer to Planning Priority W9).
- the **Western Sydney Airport Priority Growth Area** to provide local people with better access to jobs within and around the Airport, as well as infrastructure and services for local residents; it includes parts of the **Broader Western Sydney Employment Area** and land south to Bringelly Road.
- the potential **Greater Penrith to St Marys Priority Growth Area** will build on the opportunities created by the Western Economic Corridor and seek to enhance the integration of land use and transport planning for this area. This integration will enable strategic planning for a coordinated, vibrant Western City District and will guide redevelopment opportunities and identify the infrastructure required to support continued growth (refer to Planning Priority W5).

## Planning initiatives

In coordinating the integration of these land use and infrastructure initiatives, the outcomes being sought include:

- connecting (and improving) public transport access to new and existing major centres
- providing efficient north-south and east-west connectivity within and to the Western City District
- prioritising the identification and protection of infrastructure corridors

- the emerging **South Creek corridor** will be a key organising principle for the growing Western Parkland City. It will form an urban parkland with high liveability, including attractive neighbourhoods for future workers, allowing them to work and live within the District (refer to Planning Priority W13).
- the Western Parkland City is a place that meets the country and where the **Metropolitan Rural Area**, Western Sydney Parklands and the national parks and reserves of the **Protected Natural Area** including the Greater Blue Mountains World Heritage Area frame the city. This unique setting provides the opportunity to derive tourism benefits linked to the District's natural, recreational and agricultural assets.

## Transport connections

Land use planning for the urban area of the Western City District has been historically built along rail lines. In 2004, a decision was made to expand the urban areas to the South West and North West. The District's connecting north-south and east-west areas to support these new areas are located many kilometres apart.

*The 30-minute city aspiration will guide decision-making on locations for transport, housing, jobs, tertiary education, hospitals and other amenities.*

During the morning peak, 54 per cent<sup>8</sup> of residents commute within the District for work. Further, limited public transport access to the District's metropolitan city cluster or strategic centres means most journeys are made by car, which increases traffic congestion over short distances. Consequently, many of the District's residents have less choice about where they work. However, many enjoy the lifestyle benefit of living within a rural or bushland setting.

*Future Transport 2056* and the draft *Greater Sydney Region Plan* propose a well-connected city based on the concept of 'a 30-minute city'. The 30-minute city is a long-term aspiration that will guide decision-making on new locations for transport,

housing, jobs, tertiary education, hospitals and other amenities. It means that more people will have public transport access to their closest metropolitan city or strategic centre within 30 minutes, enabling efficient access to workplaces, services and community facilities.

Delivering on a 30-minute city and integrating land use and transport planning, including attracting business investment and jobs must consider:

- the importance of establishing a north-south and east-west transport structure
- building on current commitments and projects under construction
- the long-term transport vision for Greater Sydney's mass transit, road and intermediate transit network
- the city-shaping influence of the potential north-south train link
- prioritising the identification and protection of infrastructure corridors.

## Corridor protection

Corridors for future transport infrastructure are identified in *Future Transport 2056*, and the draft *Greater Sydney Services and Infrastructure Plan*.

They will define the shape, scale and function of the Western City District, and provide for future passenger, road and freight movements. The corridors currently identified for protection are:

- Western Sydney Freight Line, which connects the Southern Sydney Freight Line to a potential intermodal terminal site in Western Sydney and the Outer Sydney Orbital (motorway and freight rail) and will provide a connection with the Main West Railway Line
- the Outer Sydney Orbital, a future north-south corridor that could ultimately co-locate a future motorway and freight rail between the Central Coast and the Illawarra with connections to the Western City District and Badgerys Creek Aerotropolis
- Leppington to Badgerys Creek Aerotropolis train link, a potential extension of the South West rail link, facilitating interchange with the north-south train link

- the Bells Line of Road-Castlereagh Connection, a proposed strategic road between Kurrajong Heights and the motorway network at the junction of Richmond Road and the M7, which would improve east-west connectivity and access to regional NSW
- Bankstown to Liverpool train link, a potential extension of Sydney Metro City and Southwest to Liverpool.

The protection of additional longer-term transit corridors, as detailed above, will form part of an integrated land use and transport strategy to:

- provide greater certainty to landholders, the development industry and local councils
- enable significant cost savings to the NSW Government in the future
- provide for more efficient and effective private sector investment in infrastructure.

## Potential north-south train link and Western Economic Corridor

The Australian Government's investment in the Western Sydney Airport and participation in the Western Sydney City Deal collaboration will see the emergence of a new international airport for Greater Sydney and the Western Parkland City. These new economic agglomerations create the opportunity for a potential north-south train link which can act as a catalyst for a new Western Economic Corridor for Greater Sydney. The delivery of a new Western Economic Corridor is integral to creating more jobs and a diversity of jobs in the Western City District. In developing a Western Economic Corridor, consideration needs to be given to planning for the following major transport connections as shown on page 58:

- maximising the opportunity to have major centres on the north-south train link taking advantage of local economic activity which will be created by well over 1.5 million people who will live in the Western Parkland City by 2056
- providing east-west transport links which directly connect to centres on the potential north-south train corridor

- connecting the potential north-south train link through to the Sydney Metro-Northwest and to the health and education assets at Campbelltown-Macarthur and the existing centres would:

- enhance the opportunities for economic activity at Marsden Park
- create a range of development opportunities at the likely interchange with the Richmond rail line at Schofields
- provide Western City District residents with access to tertiary education and knowledge intensive jobs along the Sydney Metro Northwest corridor
- further connect economic activity and access for labour to a wider number of jobs
- connecting the potential north-south train corridor through to the health and education assets at Campbelltown-Macarthur and the existing centres of Narellan and Campbelltown-Macarthur, further connecting economic activity and access for labour to a wider number of jobs.

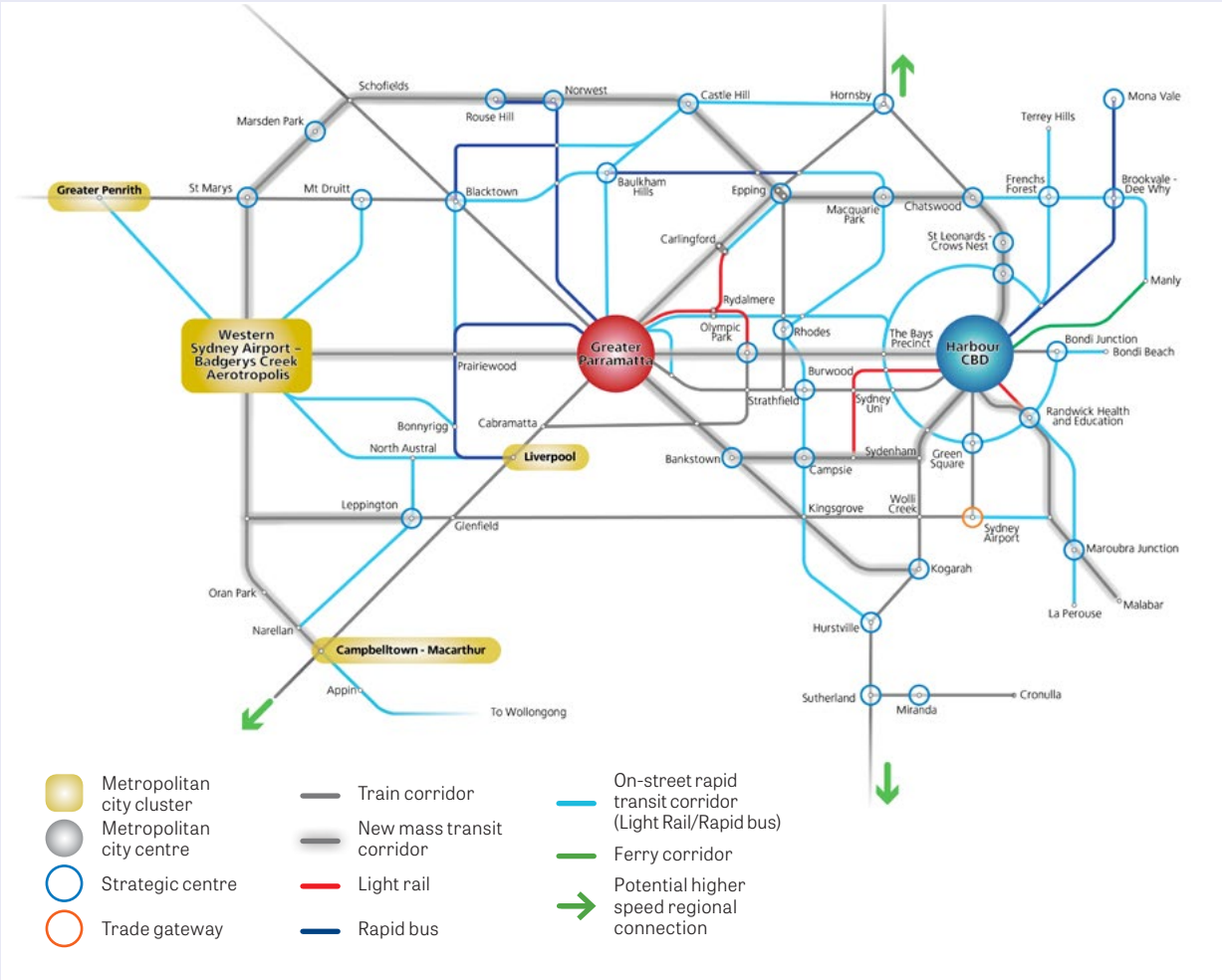
- in order to support further growth, higher capacity public transport and road links including Western Sydney Airport and Badgerys Creek Aerotropolis to Parramatta train link, and passenger train improvements south of Macarthur, will be investigated by Transport for NSW.

## North-south and east-west structure

Existing urban areas to the east of the potential north-south train link, particularly Fairfield and Liverpool local government areas, are transitioning in terms of housing and jobs between the Central City and Western City Districts. **Efficient north-south and east-west** transport links will connect people to jobs and places to support the Western Economic Corridor. This will provide greater education, employment and business opportunities, and improve the efficiency of freight.

Intermediate transit 2036

Source: Transport for NSW



Note: Timing, staging and station/stop locations for new corridors are indicative and subject to further assessment.

Intermediate transit includes buses, ferries, light rail and point-to-point transport such as taxis and rideshare.

It has a key role in providing access for customers to the train network and serving customers on corridors where trains do not operate. These roles underpin the vision for the future intermediate transit network as one that will provide coverage for customers across Greater Sydney, be easy-to-understand and well-integrated with the train network.

As Greater Sydney transitions to a metropolis of three cities, public transport will play an increasingly important role in enabling customers to access their nearest metropolitan and strategic centre within 30 minutes and travel across the city.

This requires the public transport system to not only support reliable and efficient access to centres but also to reach destinations across Greater Sydney efficiently and reliably.

Intermediate transit will support this by:

- providing frequent, reliable and efficient transport between local areas and nearby train stations where customers can access high capacity transport to travel to their nearest centre and other destinations across Greater Sydney
- providing direct access to centres for customers on corridors where trains do not operate.

The future intermediate transit network will enable this by providing coverage across Greater Sydney through a combination of strategic routes and local routes, being easy-to-understand and connecting to interchanges on train lines. This means that new routes in the Western Parkland City will be investigated to support growth, additional connections to Greater Parramatta will be investigated, including light rail extensions to support urban renewal, and new routes will be investigated in the Eastern Harbour City to support more efficient access to train corridors. As the train network grows, the intermediate transit network will also evolve to enable customers to reach their nearest station.



Over time, it will be fundamental to the success of Greater Sydney's economic corridors of the Eastern, GPOP and Western Economic Corridors. Planning for the Western City District, should consider:

- **East-west and north-south transport links** which directly connect to new centres on the potential north-south train link and provide access between Western Sydney Airport and Badgerys Creek Aerotropolis and Liverpool, Greater Penrith and Campbelltown-Macarthur:
- upgrades to The Northern Road and Narellan Road, the potential north-south train link and connections from Greater Penrith and Campbelltown-Macarthur that will provide north-south connections to Western Sydney Airport and Badgerys Creek Aerotropolis
- east-west links provided by an upgraded Bringelly Road, new M12 Motorway and potential connections to Liverpool. Transport for NSW will investigate connections to Western Sydney Airport and Badgerys Creek Aerotropolis, which could include an extension of the Liverpool-Parramatta T-way, a Western Sydney Airport and Badgerys Creek Aerotropolis – Parramatta train link, and a potential Leppington to Badgerys Creek Aerotropolis train link, facilitating interchange with the north-south train link
- east-west and north-south road-based transport links supporting the emerging Western Sydney Airport and Badgerys Creek Aerotropolis, such as Elizabeth Drive, Fifteenth Avenue and Devonshire Road, investigated as part of the integrated land use and infrastructure planning for the Western Sydney Airport Priority Growth Area
- prioritising the planning and delivery of east-west and north-south roads to Badgally Road transport corridor to Campbelltown, Spring Farm Parkway and The Horsley Drive.

## Current commitments and projects under construction

In the **short term**, the structure and land use planning of the District will be influenced by the commitments from the *Western Sydney Infrastructure Plan* and *Western Sydney Growth Roads Program*.

These will deliver new roads and road upgrades across Western Sydney and meet traffic demand from the Western Sydney Airport and Badgerys Creek Aerotropolis and surrounding centres.

The *Western Sydney Infrastructure Plan* includes the new M12 motorway and The Northern Road and Bringelly Road upgrades. The *Western Sydney Growth Roads Program* includes upgrades to Narellan Road, Campbelltown Road, Jane Street and Mulgoa Road and Appin Road with intersection upgrades at Menangle Park.

## Long-term transport network vision

*Future Transport 2056* and the draft *Greater Sydney Region Plan* outline the principal elements of the vision for the mass transit network and strategic road network. This needs to be considered as part of the planning for Greater Sydney.

*Future Transport 2056* also outlines the vision for the intermediate transit network, active transport and other future transport initiatives. Page 60 shows the intermediate transit network for 2036. This network provides access for customers to the mass transit network and services customers on corridors where mass transit does not operate. For this District initiatives include:

- improved on-road rapid transit between Western Sydney Airport and Badgerys Creek Aerotropolis and Liverpool, Greater Penrith and Campbelltown-Macarthur
- a trial of on-demand public transport where commuters can book a bus from or near their home to a local transport hub or other centre, including hospitals in Edmondson Park and Wetherill Park
- a Principal Bicycle Network which will provide high quality, high priority safe-cycling routes across Greater Sydney and will be integrated with the Greater Sydney Green Grid
- future transport technology integrated into the new metropolitan area that could include technology such as connected and automated vehicles.

## Designing adaptable infrastructure

The 21st century is an era of unprecedented and rapidly accelerating change. Innovation and the digital economy are dramatically changing the way people and goods move around Greater Sydney, providing more efficient service delivery.

Technological advances have created new mobility options including automated vehicles, assisted mobility devices such as e-bikes, automated trains and buses, and enhanced aerial mobility. Strategic planning must harness innovation and accommodate new technologies to create new opportunities for improved productivity and accessibility to jobs, goods and services.

Throughout Greater Sydney there are many examples where councils and State agencies are embracing new technologies to promote adaptable infrastructure. The NSW Government is introducing intelligent technology known as a managed motorway system (or smart motorways), to Sydney's motorways, with work already commenced on the M4. This program will use real-time information, communication and traffic management tools to maximise the performance of the motorway and provide a safer, smoother and more reliable journey.

Transport for NSW is also trialling a driverless passenger bus to observe how automated vehicles can improve the mobility of customers and interact with other people. In planning for adaptable infrastructure, planning must consider opportunities for more flexible design of streets and public spaces, for example through car parking strategies.

## Freight and logistics movement

Infrastructure commitments and potential projects such as staged investment in new north-south and east-west infrastructure – including new motorways, freight rail connections, and a new intermodal facility together with land availability in the broader Western Sydney Employment Area, will create a national competitive advantage for the Western City District.

Providing for a growing District requires an efficient and effective rail freight and road network integrated with trade gateways, in particular Western Sydney Airport. As most of Greater Sydney's freight is moved on the road network, an efficient road network will reduce congestion on roads and delays in freight and logistics movements.

Separating freight and passenger movements, particularly on train corridors, will create efficient and reliable freight journeys supported by 24/7 rail access between gateways and intermodal terminals and convenient access to centres. With the development of the Western Sydney Airport and Badgerys Creek Aerotropolis it will be critical, from the outset, to secure the access requirements for the airport and off-site industrial land for its 24/7 operation.

By 2036, the Western Sydney Employment Area will be a key destination for cargo, with metropolitan intermodal terminals being critical for managing the rapidly growing import container trade and enabling more freight to be moved by rail.<sup>9</sup> Duplication of the Port Botany Rail Line and a dedicated freight line and intermodal terminal for Western Sydney that connects to the Outer Sydney Orbital will support economic growth, driving employment and increasing the amount of freight carried on rail that will reduce heavy vehicle trips on the Sydney Road Network.<sup>10</sup>

This infrastructure will be considered in a land use and infrastructure implementation plan for the Western Sydney Airport Priority Growth Area. This will coordinate the approach to employment-led planning and development and early urban development zones (aerospace, advanced manufacturing, intermodal trade, logistics and freight, industrial).

The Western Sydney Airport Priority Growth Area was declared to provide local people with better access to jobs within and around the Airport, as well as infrastructure and services for local residents. It includes parts of the Western Sydney Employment Area and land south to Bringelly Road. The Western Sydney Employment Area is expected to provide more than 57,000 jobs over the next 30 years.


As the Western City District grows, the need for freight movements, particularly delivery vehicles, will rise. Freight movements can have negative impacts on the amenity of neighbourhoods, such as noise and additional congestion on roads, particularly during the morning peak. Freight movements outside of peak can help reduce congestion, greenhouse gas emissions and freight costs. The planning and design of communities should take a balanced approach to minimising the negative impacts, and supporting more efficient freight movements. This could include considering how development addresses busy roads, the siting of loading docks and how more freight movements can happen out of peak hours.


Investment in potential dedicated freight corridors will allow a more efficient freight and logistics network. Transport for NSW with the Australian Government, are already committed to supporting efficient movement of goods close to the Moorebank Intermodal Terminal by facilitating freight rail and road access.

A **new intermodal terminal** in Western Sydney will be investigated by 2036. The location, yet to be determined, will be connected to the Western Sydney Freight Line. This intermodal terminal with its connections to Port Botany, and in the longer term a potential Maldon-Dombarton Freight Rail link and the Outer Sydney Orbital, will play an important role in providing a dedicated freight rail network in Greater Sydney. The intermodal terminal, essentially acting as an inland port, will strengthen connections between the Western City District, Port Botany and Port Kembla, supporting container movements by rail in Greater Sydney.

Freight initiatives that will be investigated by Transport for NSW include:

- potential Western Sydney Freight Line
- Southern Sydney Freight Line improvements
- Appin and Picton Road improvements
- potential Maldon-Dombarton freight rail link to provide dedicated freight rail connections between Sydney and the Illawarra
- potential Outer Sydney Orbital motorway and freight rail link
- Bells Line of Road improvements
- potential Western Sydney Fuel Pipeline.

 Actions	Responsibility
20. Integrate land use and transport plans to deliver the 30-minute city.	Councils, other planning authorities and State agencies
21. Investigate, plan and protect future transport and infrastructure corridors.	Councils, other planning authorities and State agencies
22. Support innovative approaches to the operation of business, educational and institutional establishments to improve the performance of the transport network.	Councils, other planning authorities and State agencies

 Actions	Responsibility
<p>23. Manage the interfaces of industrial areas, trade gateways and intermodal facilities by:</p> <p><b>Land use activities</b></p> <ul style="list-style-type: none"> <li>a. providing buffer areas to nearby activities, such as residential uses, that are sensitive to emissions from 24-hour port and freight functions</li> <li>b. protecting industrial lands for port, intermodal and logistics uses from the encroachment of commercial, residential and other non-compatible uses which would adversely affect industry viability to facilitate ongoing operation and long-term growth</li> <li>c. requiring sensitive developments within influence of port and airport operations to implement measures that reduce amenity impacts</li> <li>d. improving communication of current and future noise conditions around airports, surrounding road and rail networks, intermodals and supporting private lands</li> <li>e. improving the capacity of existing stakeholders to implement existing planning noise standards for incoming sensitive developments</li> <li>f. protecting prescribed airspace from inappropriate development, for example height of building controls that would allow buildings to penetrate prescribed airspace and reduce the capacity of existing airport operations</li> <li>g. identifying and preserving land for future port and airport, intermodal and rail infrastructure</li> <li>h. accommodating advanced manufacturing where appropriate by zoning that reflects emerging development models.</li> </ul> <p><b>Transport operations</b></p> <ul style="list-style-type: none"> <li>a. providing the required commercial and passenger vehicle, and freight and passenger rail access</li> <li>b. improving the road connectivity from Villawood to Eastern Creek, via Yennora, Smithfield and Wetherill Park to improve business-to-business and supply chain connectivity along this industrial corridor.</li> </ul>	<p>Councils, other planning authorities, State agencies and State-owned corporations</p>
<p>24. Optimise the efficiency and effectiveness of the freight handling and logistics network by:</p> <ul style="list-style-type: none"> <li>a. protecting current and future freight corridors</li> <li>b. balancing the need to minimise negative impacts of freight movements on urban amenity with the need to support efficient freight movements and deliveries</li> <li>c. identifying and protecting key freight routes</li> <li>d. limiting incompatible uses in areas expected to have intense freight activity.</li> </ul>	<p>Councils, other planning authorities, State agencies and State-owned corporations</p>
<p>25. Investigate and plan for the land use implications of potential long-term transport connections.</p>	<p>Councils, other planning authorities, State agencies and State-owned corporations</p>
<p>26. Plan for urban development, new centres and employment uses that are integrated with, and optimise opportunities of, the public value and use of the potential north-south train link.</p>	<p>Councils and other planning authorities</p>
<p>27. Protect transport corridors as appropriate, including the Western Sydney Freight Line and the Outer Sydney Orbital.</p>	<p>Councils, other planning authorities and State agencies</p>
<p>28. Create landscaped boulevards along new and major transport corridor upgrades as appropriate to the existing environment.</p>	<p>State agencies</p>
<p>29. Prioritise the planning and delivery of east-west and north-south roads to facilitate access to the strategic centres (including Badgally Road transport corridor to Campbelltown, Spring Farm Parkway and The Horsley Drive) and improve walking and safe cycling connections nearby.</p>	<p>State agencies</p>



## Planning Priority W8

### Leveraging industry opportunities from the Western Sydney Airport and Badgerys Creek Aerotropolis

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 20: Western Sydney Airport and Badgerys Creek Aerotropolis are economic catalysts for Western Parkland City** and **Objective 24: Economic sectors are targeted for success** and the corresponding strategies and action.

The draft *Greater Sydney Region Plan* outlines a vision for the Western Parkland City that is a first in the history of planning for Greater Sydney. It is a vision that focuses west, with the development of the Western Sydney Airport and Badgerys Creek Aerotropolis as its economic catalyst. This requires planning that is both spatial, in terms of the locations where new jobs will be created and the way in which people and businesses make connections; and sector-specific, in terms of the existing and emerging industries that can be harnessed to bring about both economic and social benefits for Western City District residents. This Planning Priority focuses on the District's industry opportunities and locations and how best to leverage these to create a larger pool of jobs closer to where people live, therefore creating a liveable and sustainable Western Parkland City.

Leveraging off the Western Sydney Airport and Badgerys Creek Aerotropolis is one of the principal objectives for delivering a metropolis of three cities, specifically their role in delivering more jobs and a diversity for jobs to the Western City District. This is critical in that jobs growth in the Western City District has not matched population growth over the last ten years - jobs growth in the District has averaged 0.8 per cent annually, compared to 1.7 per cent annually for Greater Sydney. In addition, the education qualifications of the resident workforce are lower than the average for Greater Sydney, which impacts on the ability for locals to fill the District's skilled jobs.

Enhancing the transport connections to the Western Sydney Airport, Badgerys Creek Aerotropolis and Western Sydney Employment Area together with integrated land use and transport planning are fundamental requirements for delivering on this outcome. Success in this area requires coordination across all levels of Government and the Western Sydney City Deal will drive this collaboration.

Maximising the opportunities of the infrastructure investment and planning for the area will achieve initiatives that support the growth of key industry sectors and skills development. In particular, the Western Sydney Airport will create opportunities to grow a number of existing sectors of the Western City District such as aerospace and defence, tourism, agriculture and freight and logistics.

The quality of the Western Sydney Airport and Badgerys Creek Aerotropolis as places is also fundamental in maximising the employment outcomes for the Western City District. This also includes the design quality of the transport corridors that are developed across the District.

### The Western Sydney Airport and Badgerys Creek Aerotropolis as economic catalysts

The Western Sydney City Deal initiative will drive the development of the core economic catalysts for the Western Parkland City.

## Western Sydney City Deal

The Australian and NSW governments will work together with local government towards a landmark agreement for Western Sydney that will unlock public and private investment in key infrastructure, support jobs and economic growth, and help improve the liveability of Sydney's outer west.

The Australian and NSW governments will work with Penrith, Liverpool, Camden, Campbelltown, Fairfield, Wollondilly, the Blue Mountains and Hawkesbury councils.

Delivering change for Western Sydney:

- An increase in infrastructure investment, including transformative public transport projects to unlock the economic potential of the region, reduce congestion and support local needs.
- A program of employment and investment attraction to support the development of the region through reduced business regulation, investment in skills and removing barriers to employment, including a focus on youth and Indigenous employment.
- Improving housing affordability through support for increase supply and housing diversity, including improvements to planning and zoning regulations and higher density developments in appropriate locations.
- Improved environmental and liveability outcomes, including streamlined and coordinated biodiversity conservation, support for clean air, green spaces, vibrant arts and cultural experiences.
- Coordination between governments to deliver regulatory reforms that integrate infrastructure, land use, housing and environmental planning decisions to facilitate growth.

The Western Sydney Airport will deliver up to 3,200 jobs during construction and around 9,000<sup>11</sup> airport jobs during operation over the next 20 years. The Airport is expected to support around 28,000 jobs by 2031, which will grow to nearly 48,000 by 2041.<sup>12</sup> This includes 5,600 jobs in manufacturing, 6,450 in retail and 5,600 in professional, scientific and technical services. This growth will create substantial employment opportunities for the workforce in the Western City District.

At full operation, the airport will create at least 60,000 jobs, as well as logistics, trade, aerospace and defence, advanced manufacturing and tourism. This agglomeration of knowledge jobs in the Western City District will be the anchor for developing the Western Economic Corridor.

The air transport sector is anticipated to benefit most from the future Western Sydney Airport. Global companies will be encouraged to locate to the Badgerys Creek Aerotropolis, bringing high quality engineering, robotics and agribusiness jobs.

The high-value and sustainable nature of economic activity from the aerospace and defence industries sector provides a strong foundation on which to build local communities and attract tertiary institutions. Given the inherent link to advanced technologies, the aerospace and defence industries also has the potential to support the local labour pool with a diverse mix of transferable skills that would be relevant to many industries.

## Leveraging the benefits of north-south transport corridors

The opportunity for the Western Sydney Airport to anchor and catalyse a Western Economic Corridor is created by two potential transport initiatives: the north-south mass transit link and the Outer Sydney Orbital, both of which are planned to have connections to the Western Sydney Airport. These transport corridors would also connect the Western Economic Corridor to the existing economic activity of the Greater Penrith to Parramatta and Liverpool to Macarthur corridors.

To maximise the benefits of these opportunities a number of planning initiatives are underway which seek to integrate the land use, transport and infrastructure activity along the north-south transport corridors, including:

- North West Priority Growth Area
- Western Sydney Airport Priority Growth Area
- South West Priority Growth Area
- Greater Macarthur Priority Growth Area
- Wilton Priority Growth Area.

In addition, a new Priority Growth Area is to be investigated for the Greater Penrith to St Marys Area, refer to Objective 10 of the draft *Greater Sydney Region Plan*.

## Industry sectors and skills

The draft *Greater Sydney Region Plan* highlights the importance and role of the NSW Government in leading the development and coordination of sector-specific industry development strategies to grow and globally position key sectors of the economy.

These sectors are important in fostering innovation in the development of highly-skilled jobs which drive productivity and global competitiveness.

The strategies build on and leverage existing industry and government activities and plans, and focus on delivering high impact practical initiatives to drive sector growth through industry, academia and government collaboration.

The draft *Greater Sydney Region Plan* outlines the strategies to support industry sectors. They cover the areas of:

- industry skills and capacity building
- investment attraction
- export growth and facilitation
- industry showcasing and promotion
- opportunities through government procurement
- government and industry partnerships.

The NSW Government also has two initiatives, LaunchPad and Aerospace and Agriport precincts, targeted specifically to the Western Parkland City.

To support these strategies, Objective 24 of the draft *Greater Sydney Region Plan* emphasises the need to work with internationally competitive trade sectors to identify the barriers to growth, including regulatory barriers.

The draft *Greater Sydney Region Plan* also identifies key economic sectors for Greater Sydney's three cities. The Western Parkland City's key economic sectors include:

- advanced manufacturing
- aerospace and defence industries
- agricultural processing and export
- construction and infrastructure
- transport and warehousing
- visitor economy
- education and training.

This Planning Priority reinforces the need to:

- support the growth of internationally competitive industry sectors.
- respond to changing technologies.
- plan for tourism and visitation activities.
- protect and support rural industries.

## Aerospace and defence industries

The NSW Government, in partnership with the Australian Government, is leading the development of a world-class aerospace and defence industries precinct, adjacent to the Western Sydney Airport. The ambition is to create approximately 7,500 jobs and over \$15 billion of gross value add over the next 30 years.

This will build on existing aerospace and defence activities at RAAF Base Richmond which is now the hub of logistics support for the Australian Defence Force. The District's Australian Defence Force facilities are an important source of jobs and the RAAF bases at Richmond and Glenbrook, Holsworthy Military Reserve and the Defence Establishment Orchard Hills should be protected by allowing only appropriate and complementary uses around them.

## Visitor economy

The Western Sydney Airport will create significant opportunities to grow the international and domestic tourism markets, and thus the District's visitor economy, by attracting visitors to the heart of the Western Parkland City. This will better connect visitors to attractions such as the Greater Blue Mountains Area, a UNESCO World Heritage Site. Opportunities will include the attraction of accommodation development for overnight stays.

The increased activity will also create a need for new and/or upgrades to tourism infrastructure. Amenity enhancements are also an important part of tourism infrastructure, such as the quality of road side landscaping, particularly on main roads leading to the airport and to major tourism destinations.

These opportunities build on the recognised strength of the District's visitor economy. The Western City District hosts approximately 12.4 million visitors each year. This compares to 7.5 million visitors in 2006. Many visitors are attracted to the Greater Blue Mountains World Heritage Area. The domestic overnight visitor market and the international visitor market are higher yielding and provide economic flow-on benefits to services like accommodation, hospitality, entertainment and leisure.

Visitors to the District represent 33 per cent of Greater Sydney visitors, 20 per cent of Greater Sydney visitor nights, and 23 per cent of expenditure in the Sydney and Blue Mountains Tourism Region.<sup>13</sup> The largest visitor segment, domestic day trips, accounts for 74 per cent of all visitors, followed by domestic overnight (22 per cent) and international visitors (four per cent).

Tourism is the third largest employment sector in the Blue Mountains Local Government Area, accounting for 10.7 per cent of jobs.<sup>14</sup>

Leisure, cultural, sporting, educational and natural and cultural assets include:

- Greater Blue Mountains World Heritage Area which is recognised by Tourism Australia as one of the 16 significant national landscapes across Australia and other national parks
- rural and agricultural landscapes
- agri-tourism and food tourism

- sporting venues and recreational assets including adventure tourism
- the Australian Botanic Garden at Mount Annan and the Blue Mountains Botanic Garden at Mt Tomah
- multicultural attractions such as Canley Vale Road eat street and Cabramatta Moon Festival
- historical towns of Richmond and Windsor and tourist villages like Leura, Wentworth Falls and Blackheath
- affordable tourist accommodation in Liverpool with good access to the rest of Greater Sydney, the Blue Mountains and Canberra.

The District's multicultural population supports a robust tourist market from visiting friends and relatives market and attracts international visitation.

Growing the visitor economy through targeted activities and the development of new cultural and visitor infrastructure will help drive increased visitor numbers and develop significant employment opportunities. The Western Sydney Airport creates opportunities for the Western Parkland City to become an alternative to the Eastern Harbour City for international tourists with more affordable accommodation and attractions like the Greater Blue Mountains World Heritage Area, Aboriginal heritage, historic rural villages and scenic landscapes.

Alliances between councils and key industry stakeholders create opportunities to cross-promote events, develop and support a wider range of activities and importantly realise the opportunities as the Western Sydney Airport and Badgerys Creek Aerotropolis develops.

As the visitor economy has broad benefits, a district-wide strategy is needed to consider improvements to transport, visitor experiences and to plan for tourism, such as identifying tourist zones, site and activities in land use plans. *The Western Sydney Visitor Economy strategy 2017/18 – 2020/21* sets out a cohesive approach to destination management and marketing through Government, industry and commercial partnerships. The strategy outlines that government and industry will agree to a common Destination Management Plan focussing on the need to raise the profile and opportunities of the broader visitor economy with councils.



## Agricultural processing and export

The draft *Greater Sydney Region Plan* seeks to support and protect agricultural production and mineral resources. In the Western City District, the Metropolitan Rural Area includes agricultural activities such as the production of eggs and poultry, cut flowers, turf and mushroom farms. Western Sydney University at Hawkesbury provides tertiary education in medical and forensic science, animal science, natural science, sustainable agriculture and food security with world-class research facilities in grasses, pastures, legumes, insects and ecology. Sydney University at Cobbitty also provides course in agriculture and veterinary science, and the Elizabeth Macarthur Agriculture Institute provides world-leading research that is improving Australia's agricultural competitiveness.

Agricultural industries provide produce, employment and tourism opportunities and require long-term certainty to enable investment and growth, especially as the Western Sydney Airport may provide new international markets. The Western Sydney Employment Area will develop agribusiness and will also provide opportunities to establish high value intensive agricultural industries and will enhance export capacity for NSW Primary industries to new international markets.

The NSW Government is currently working towards developing a concept for a potential agribusiness precinct that would look to be located adjacent to the new Western Sydney Airport. This initiative would aim to enhance export capability for farmers in NSW, link agribusiness to new markets, establish capacity for high value intensive agricultural industries, develop facilities to manage biosecurity risk, strengthen agricultural research and education, and help create future jobs and skilled workers to support the precinct and the agricultural sector.

The District's extensive rural areas also include mineral resources which supply construction materials to Greater Sydney and regional areas.

## Advanced manufacturing

Accelerating high-value opportunities in advanced manufacturing, including developing a strategy to support advanced manufacturing and industry development. Existing clusters include aviation in Ingleburn and Richmond, electronics in Greater Penrith and automotive in Ingleburn. The NSW Department of Industry is also developing an Advanced Manufacturing Industry Development Strategy to maximise benefits.





Source: University of Western Sydney

## Education and training

Objective 24 of the draft *Greater Sydney Region Plan* outlines the range of education and training initiatives delivered by the NSW Government. A number of initiatives will directly support the ability for residents to be engaged with the high level of infrastructure and development investment occurring in the Western City District:

- Training Services NSW is working with State agencies and principal contractors to embed the Infrastructure Skills Legacy Program targets in projects for Western Sydney. \$10 million over four years for project coordination state-wide has been allocated to the Program.
- The Refugee Employment Support Program supports refugees and asylum seekers into sustainable and skilled employment. The program will assist up to 4,250 refugees and 1,000 asylum seekers across Western Sydney. \$22 million over four years has been allocated to this program.
- The Aboriginal Centre for Excellence is a \$20 million investment in a cultural and skills hub for Indigenous youth in the Western Sydney region. As well as providing opportunities for strengthening individual and community

resilience this initiative will have a particular focus on ensuring that local Aboriginal people, particularly young people are equipped to seize opportunities stemming from this region's growth. A key objective of the facility will be to deliver programs and services that support Aboriginal young people making the transition from the school environment into further education and employment.

This draft District Plan acknowledges the growing metropolitan city cluster that includes Liverpool, Greater Penrith and Campbelltown-Macarthur. These agglomerations of health and education assets will be essential to the District's emergence as a major city region, while growing knowledge-intensive jobs, building the District's education and skills and servicing the growing population. Acting as a complement to the emerging Badgerys Creek Aerotropolis, these centres will, in the long term, become a ring of university cities (refer to Planning Priority W9).

Study NSW will collaborate with education institutions, industry and local government in Western Sydney on implementing programs that enhance the international student experience.

## Adapting to changing technologies

Rapid technological changes and digital advancements are disrupting established business models and the workplace worldwide. These changes are dramatically changing the way people and goods move around, providing more efficient transport services. While technological changes can reduce demand for certain types of jobs, they also help to deliver innovation, new knowledge-intensive jobs and business opportunities. As governments continue to engage with industry, assess regulatory barriers and update governance and policies to capitalise on changes, strategic land use planning needs to respond by providing a regulatory environment which enables the economic opportunities created by changing technologies.

### Related government initiatives:

- NSW Defence and Industry Strategy, *Strong, Smart and Connected*
- NSW Advanced Manufacturing Industry Development Strategy
- Western Sydney Visitor Economy strategy 2017/18–2020/21

 Actions	Responsibility
30. Protect and support agricultural production and mineral resources (in particular, construction materials) by preventing inappropriately dispersed urban activities in rural areas.	Councils and other planning authorities
31. Provide a regulatory environment which enables economic opportunities created by changing technologies.	Councils, other planning authorities and State agencies
32. Consider the barriers to the growth of internationally competitive trade sectors, including engaging with industry and assessing regulatory barriers.	Councils and other planning authorities
33. Create capacity for tourist accommodation in appropriate locations through local environmental plans.	Councils and other planning authorities
34. When preparing plans for tourism and visitation, consider: <ul style="list-style-type: none"> <li>a. encouraging the development of a range of well-designed and located facilities</li> <li>b. enhancing the amenity, vibrancy and safety of centres, places and precincts</li> <li>c. supporting the development of places for artistic and cultural activities</li> <li>d. improving public facilities and access</li> <li>e. protecting heritage and biodiversity to enhance cultural and eco-tourism</li> <li>f. supporting appropriate growth of the night-time economy</li> <li>g. developing industry skills critical to growing the visitor economy.</li> </ul>	Councils and other planning authorities
35. Consider opportunities to implement place-based initiatives to attract more visitors, improve visitor experiences and ensure connections to transport at key tourist attractions.	Councils and other planning authorities
36. Consider opportunities to enhance the tourist and visitor economy in the district, including a coordinated approach to tourism activities, events and accommodation.	Councils, other planning authorities and State agencies



## Planning Priority W9

### Growing and strengthening the metropolitan city cluster

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 20: Western Sydney Airport and Badgerys Creek Aerotropolis are economic catalysts for Western Parkland City; Objective 21: Internationally competitive health, education, research and innovation precincts** and **Objective 22: Investment and business activity in centres** and the corresponding strategies and actions.

Central to the concept of a metropolis of three cities is the objective of a metropolitan city centre for each city. For the Western Parkland City and the Western City District this objective will be delivered over time beginning with a focus on four places – Liverpool, Greater Penrith, Campbelltown-Macarthur and Western Sydney Airport and Badgerys Creek Aerotropolis – a metropolitan city cluster.

Activities in these four locations will be influenced by both the significant population growth and the activities of Western Sydney Airport and Badgerys Creek Aerotropolis. The potential to grow these locations will be enhanced by investment and activities of government in health and education.

Education is the largest export service industry in NSW, with international enrolments growing at a faster rate than domestic. Government investment in, and the growth of, health and education precincts will:

- diversify job opportunities across Greater Sydney
- facilitate jobs closer to home
- strengthen the international competitiveness of the economy, particularly in innovation.

The evolution of health and education precincts follow a maturity pathway described in the draft *Greater Sydney Region Plan*.<sup>15</sup> As precincts evolve, their economic productivity increases substantially. This corresponds to three general models, which become progressively more diverse: Clusters, Precincts and Innovation Districts. The Campbelltown-Macarthur health and education precinct is at the Cluster stage and the Liverpool and Greater Penrith health and education precincts are at the Precinct stage. Each will need a tailored response to progress along the maturity pathway. It is not expected that all Precincts should, or will, develop into an Innovation District (refer to Figure 22).

In terms of higher education, the vision for the metropolitan city cluster is to achieve a ring of university cities with collaboration between the three levels of government and the university sector. Each university campus will focus on a full faculty or university facility with a minimum of 10,000 students co-located with TAFE facilities where there is adjoining land.





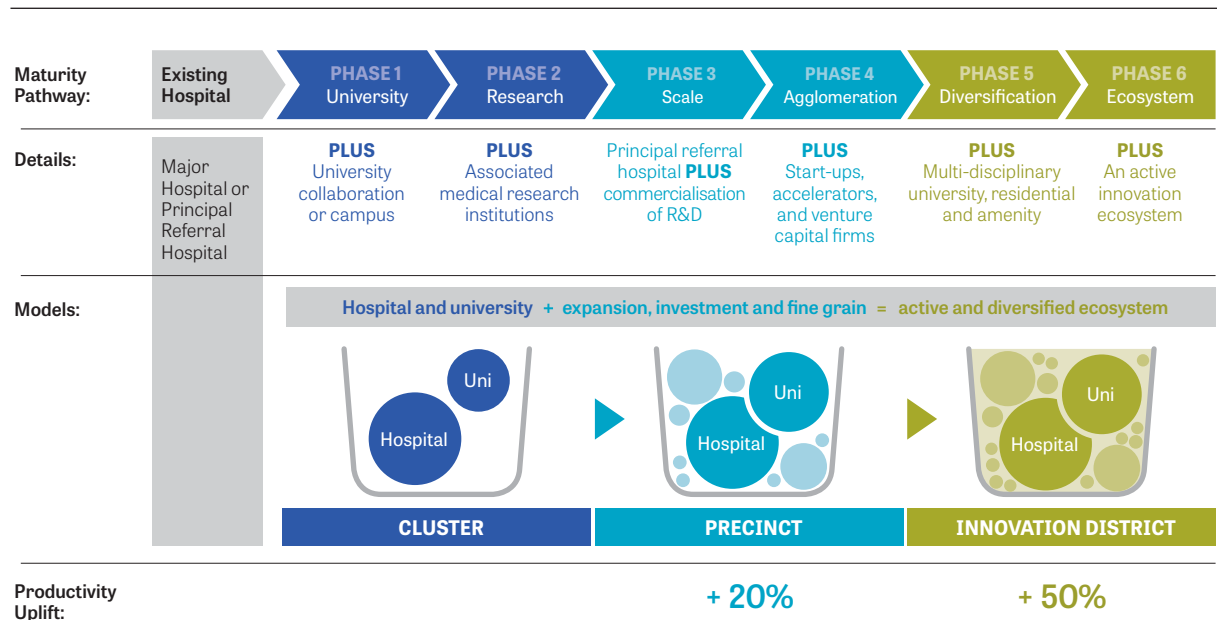
The Sydney Science Park aims to deliver 12,000 knowledge-intensive jobs and provide an industrial research and development business park by 2020. It will also include a retail and entertainment district, new homes, and an education precinct.

In light of the importance of delivering on these outcomes, specific governance arrangements have been established for each of these places. For the Western Sydney Airport and Badgerys Creek Aerotropolis the tri-government Western Sydney City Deal and the three established centres have been identified as Collaboration Areas.

These four locations will be the main focus for access to goods and services; entertainment, leisure and recreational activities; as well as cultural and arts experiences, planning to attract these land uses is critical.



**Figure 22:** Maturity pathway for health and education precincts



Source: Deloitte 2016, Westmead Innovation District: Building Western Sydney's job engine 2016-2036

## Liverpool

Liverpool CBD including its health and education precinct will grow by 7,000 new jobs (a 24 per cent increase) over the next 20 years. The precinct includes Liverpool Hospital, the Ingham Institute of Applied Medical Research and the clinical schools of the University of NSW and Western Sydney University, South West Private Hospital and South Western Sydney TAFE.

In addition to the CBD, health and education precinct and nearby residential and industrial land areas, the Collaboration Area also considers the Warwick Farm Precinct and the under-construction Moorebank Intermodal Terminal. Planning for the Collaboration Area will also consider the draft Georges River Masterplan, which aims to extend the Georges River Precinct on the eastern side of the river into the City Centre.

Considerations for the planning of the Collaboration Area include:

- strong developer interest in rezoning land for additional housing, including the currently industrial waterfront
- the University of Wollongong and Western Sydney University campuses integrated into the City Centre. Western Sydney

University is opening a new high-rise campus in the Liverpool CBD in 2018. It will use the most technologically advanced higher education teaching and research methodologies and platforms

- proximity to the M7 and M5 motorways and infrastructure upgrades to support the Western Sydney Airport
- WSA Co, the Australian Government agency established to develop the Western Sydney Airport will locate its offices in Liverpool CBD
- the University of Wollongong will build a 7,000 student campus and will set up a training facility for 700 nurses to work with Liverpool Hospital.

The Collaboration Area aims to:

- increase housing diversity and provide affordable housing
- improve and coordinate transport and other infrastructure to support jobs growth
- develop smart jobs around the health and education precinct, particularly in the areas of advanced manufacturing and logistics, automation and translational research

- improve the night-time economy, mixed-use and transport connections
- improve urban liveability and Liverpool's sense of place
- improve environmental outcomes around the Georges River
- develop its Greater Sydney Green Grid projects
- capitalise on the Western Sydney Airport and the Western Sydney City Deal
- revitalise the Liverpool CBD
- examine flooding issues and water management
- consider the opportunities presented by the Liverpool Water Recycling Facility
- undertake urban renewal at Warwick Farm and retain a social housing mix.

Liverpool	Jobs
2016 estimate	29,000
2036 baseline target	36,000
2036 higher target	39,000

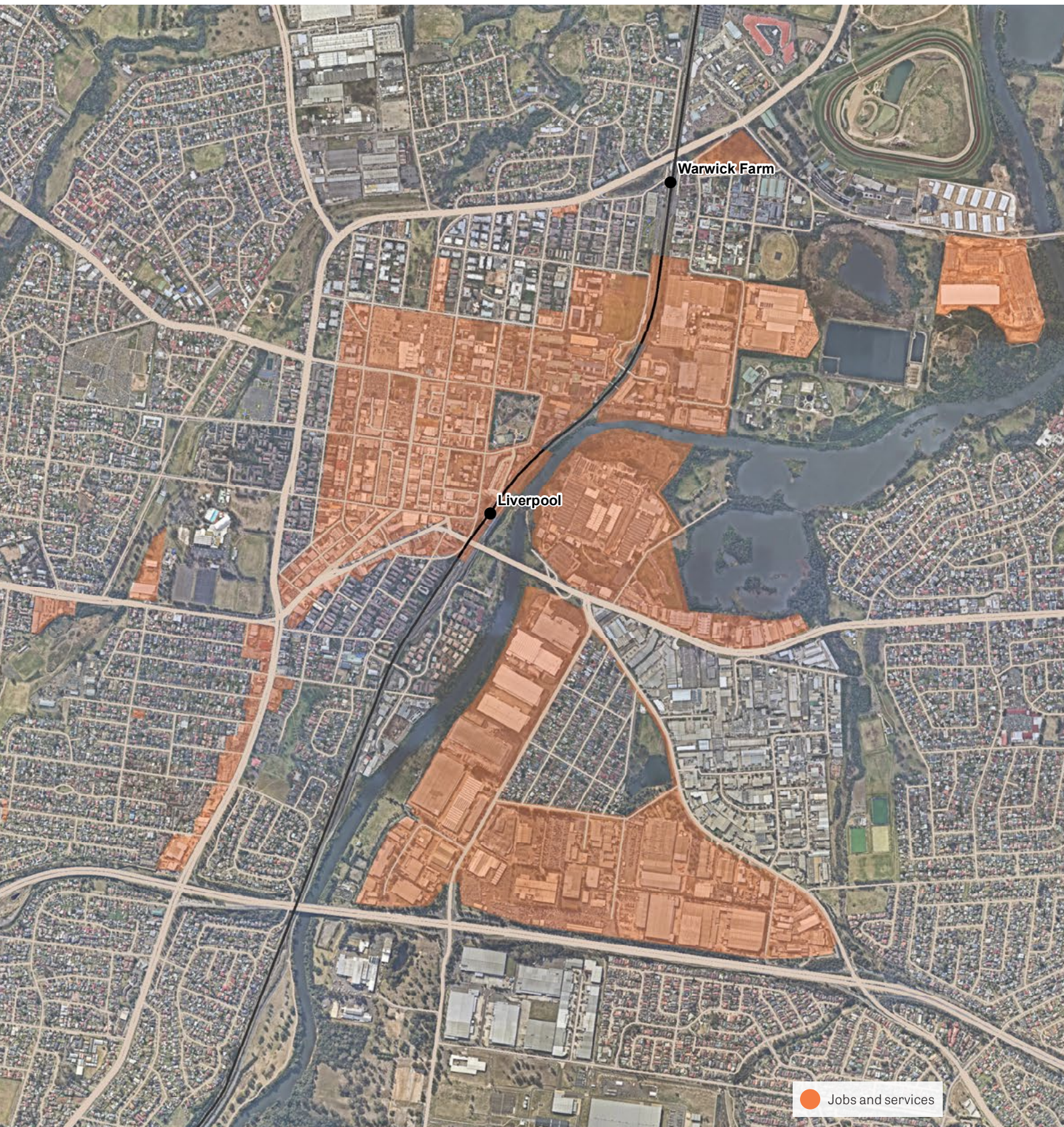
### Actions

### Responsibility

37. In addition to the Collaboration Area process outlined above, carry out the following:
- protect, develop and expand the commercial core
  - improve and coordinate transport and other infrastructure to support jobs growth
  - develop smart jobs around the health and education precinct
  - build on the centre's administrative and civic role
  - improve public domain including tree-lined, comfortable open spaces and outdoor dining
  - improve connectivity and links to the Georges River and prioritise pedestrian, cycle and public transport facilities
  - encourage a vibrant mix of uses, new lifestyle and entertainment uses to activate streets and grow the night-time economy
  - capitalise on the Western Sydney Airport and Western Sydney City Deal initiatives.

Liverpool City Council, Greater Sydney Commission and other planning authorities.







## Greater Penrith

The Collaboration Area for Greater Penrith covers the Penrith CBD, the health and education precinct and tourism precinct from Penrith Lakes along the current length of the Great River Walk to the M4 Motorway. It has the potential to grow up to 45,000 jobs – a 25 per cent increase – over the next 20 years.

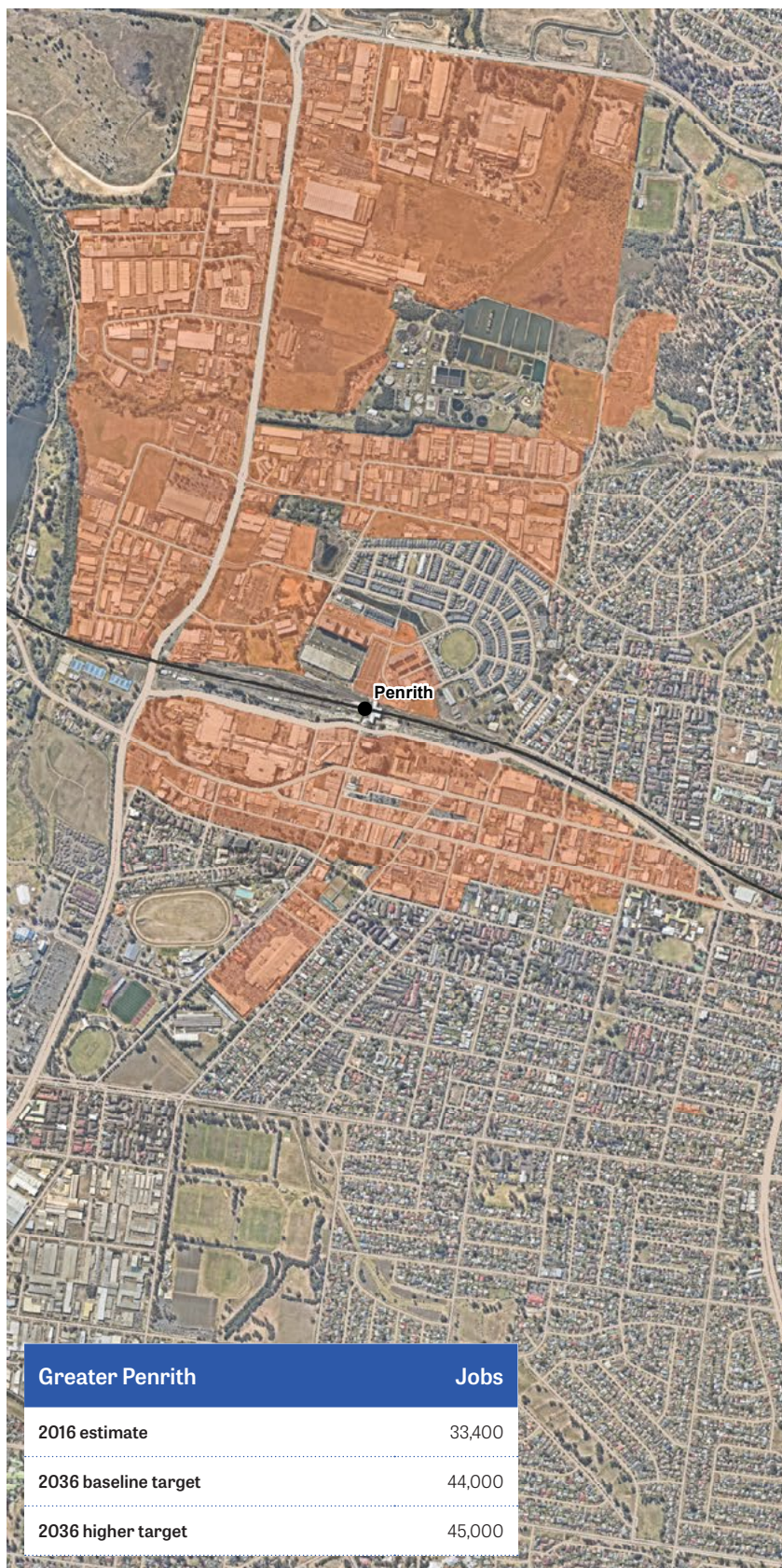
As a Collaboration Area, Greater Penrith's growth will be supported by a whole-of-government approach to align the activities and investments of government and key stakeholders in the area. The Penrith health and education precinct is based around Nepean Hospital, the Western Sydney University Werrington Campus and Nepean College of TAFE Allied Health Facility. It generated 6,000 jobs in 2011, representing almost 300 per cent growth from 2001.

The Penrith CBD is a significant commercial centre and serves a substantial catchment which extends to the west into the Blue Mountains. The \$550 million upgrade of Nepean Hospital will enhance innovation, research, health and education activities, and attract complementary businesses. The Sydney Medical School Nepean is at Nepean Hospital and is one of the eight Clinical Schools of the University of Sydney.

Nepean Hospital is supported by district-level services at Blue Mountains ANZAC Memorial and Hawkesbury Hospitals. Also, Greater Penrith will benefit from the construction and operation of the Western Sydney Airport, and forecast increases in tourism to the Blue Mountains and Metropolitan Rural Area.

The Collaboration Area aims to:

- develop an integrated land use and transport vision
- revitalise and grow the Penrith CBD
- develop a major tourist, cultural, recreational and entertainment hub
- protect and expand the health and education precinct
- address flooding issues
- implement Greater Sydney Green Grid projects and promote ecologically sustainable development
- improve housing diversity and provide affordable housing
- diversify the night-time economy
- implement healthy city initiatives and improve social infrastructure.







## Actions

38. In addition to the Collaboration Area process outlined on page 76, carry out the following:
- support the transformation of the City Centre to grow to its ultimate potential
  - support and enhance a viable commercial core
  - reinforce, capitalise and support the expansion of the Penrith health and education precinct
  - facilitate the attraction of a range of uses that contribute to an active and vibrant City Centre
  - facilitate opportunities for a diverse economy that delivers jobs of the future, strong employment sectors and improves access to education and training
  - capitalise on opportunities associated with the Western Sydney Airport including Western Sydney City Deal initiatives
  - encourage new lifestyle, tourist and cultural uses to activate streets and grow the tourism and night-time economies
  - activate primary and secondary streets and deliver contemporary urban public spaces
  - improve transport connectivity and walkability within and to the Penrith City Centre
  - connect and activate the Nepean River as a focal point and a destination
  - promote urban living by improving amenity within the City Centre and activating public spaces
  - support and demonstrate innovation.

## Responsibility

Penrith City Council,  
Greater Sydney  
Commission and other  
planning authorities

Kingswood

Werrington



Jobs and services



## Campbelltown-Macarthur

Campbelltown-Macarthur is developing into Greater Sydney's newest health and medical hub with research and specialist community-based care in paediatrics and gastrointestinal disorders. It contains Campbelltown public and private hospitals, Western Sydney University Campbelltown Campus, and TAFE NSW Western Sydney. Collectively, these elements form the health and education precinct and the Collaboration Area also includes Macarthur Square, Campbelltown Mall and surrounding government services.

The centre has the potential to grow up to 31,000 new jobs (a 32 per cent increase) by 2036.

The Western Sydney University has a strong health focus linked to the hospitals and centred around its School of Medicine and Nursing and Midwifery. Programs of note include:

- 7,000 students enrolled at the Campbelltown campus, with 632 studying medicine
- almost 3,000 students enrolled in nursing and midwifery programs and approximately 2,100 enrolled in allied health programs

- the new NSW Government–University funded Macarthur Clinical School at Campbelltown Hospital.<sup>16</sup>

The NSW Government has committed \$632 million for the Campbelltown Hospital Redevelopment Stage 2, mental health services and paediatric services. This follows the completion of the \$134 million Stage 1.

The construction of the Campbelltown Sports and Health Centre of Excellence at Western Sydney University, planned for early 2018, will improve access to high-quality sport and recreation facilities and provide programs for sports science and sports business.

Health care and social assistance is the most significant employment category in the Local Government Area, with 16 per cent or 8,000 jobs. The sector is forecast to grow by 2.35 per cent a year, resulting in approximately 13,500 jobs by 2041.<sup>17</sup>

The Collaboration Area will enable a focus on opportunities to generate growth in economic activity, employment and investment. There are opportunities to:

- protect and grow core health and education activity
- provide new research facilities and related commercial premises
- plan for complementary uses and increased cultural, creative, digital or technology businesses and employees
- establish, enhance and promote the interdependencies between health and education to grow innovation, start-up and creative industries
- improve east-west connections and liveability of the area
- support affordable housing opportunities for students and moderate-income households.

Campbelltown-Macarthur	Jobs
2016 estimate	20,400
2036 baseline target	27,000
2036 higher target	31,000

### Actions

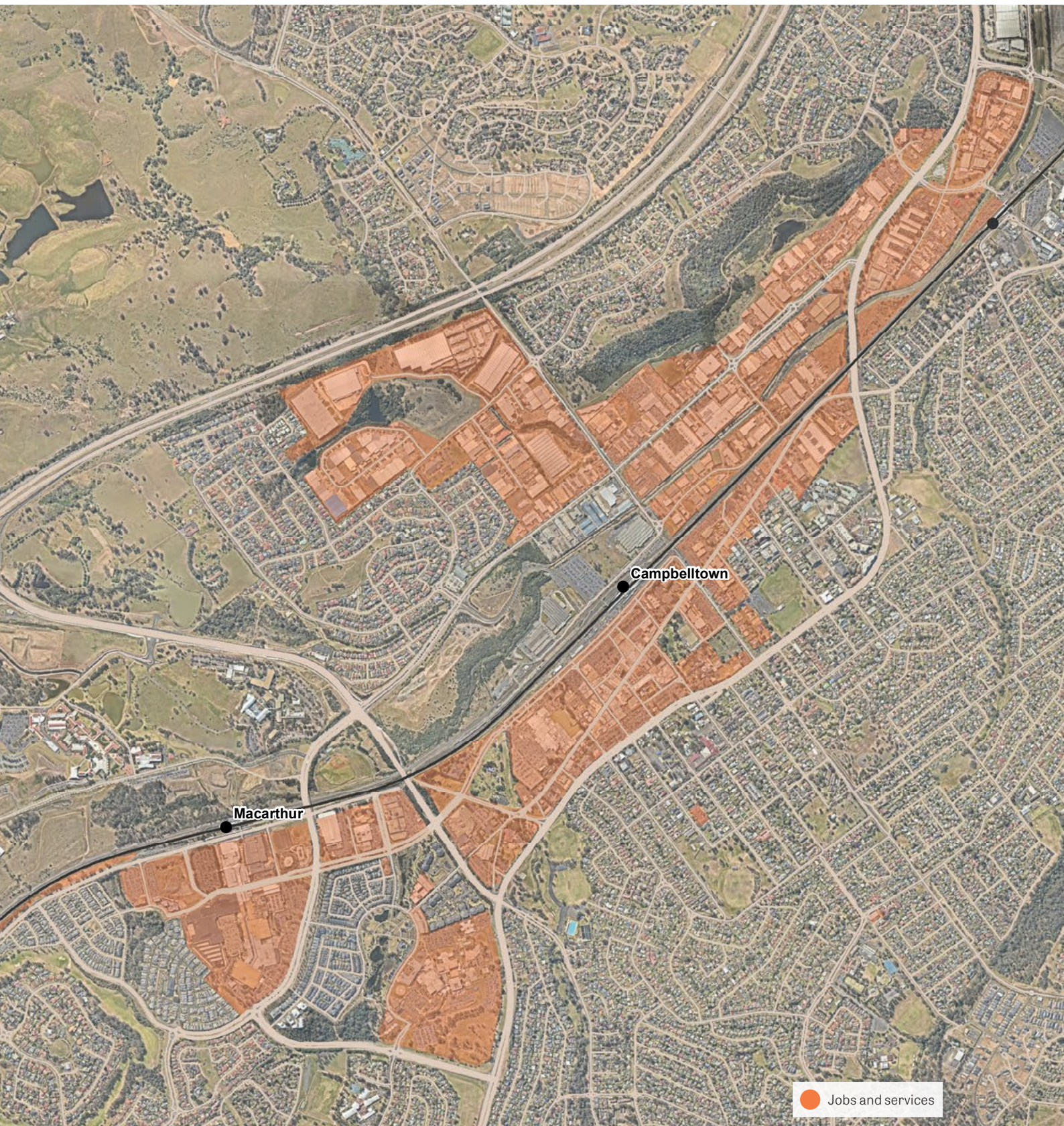
39. In addition to the Collaboration Area process outlined above, carry out the following:
- protect, develop and expand the commercial core
  - protect and grow the health, medical and education core precincts
  - investigate opportunities for the growth of allied health and medical related businesses, research, science and advanced manufacturing
  - enhance the centre's civic, cultural and heritage role
  - increase opportunities for creative, digital and technology businesses and employees
  - encourage new lifestyle and entertainment uses to activate streets and grow the night-time economy
  - improve east-west pedestrian connectivity across the southern rail line
  - support mixed-use development and surrounding high quality apartment and medium density residential development
  - capitalise on the Western Sydney Airport and Western Sydney City Deal initiatives.

### Responsibility


Campbelltown City Council, Greater Sydney Commission and other planning authorities









 Actions	Responsibility
<p>40. Facilitate health and education precincts that:</p> <ul style="list-style-type: none"> <li>a. create the conditions for the continued co-location of health and education facilities, and services to support the precinct and growth of the precincts</li> <li>b. have high levels of accessibility</li> <li>c. attract associated businesses, industries and commercialisation of research</li> <li>d. include housing opportunities for students and workers within 30 minutes of the precinct.</li> </ul>	<p>Councils, other planning authorities and State agencies</p>
<p>41. Prioritise:</p> <ul style="list-style-type: none"> <li>a. public transport investments to improve the north-south and east-west connections to the metropolitan city cluster</li> <li>b. infrastructure investments which enhance walkability and cycling, particularly those focused on access to the transport network and within five kilometres of any strategic centre or 10 kilometres of the metropolitan city cluster.</li> </ul>	<p>Councils, other planning authorities, and State agencies</p>
<p>42. Develop and implement land use and infrastructure plans for the metropolitan city cluster by:</p> <ul style="list-style-type: none"> <li>a. supporting commercial development, aerospace and defence industries and the innovation economy</li> <li>b. supporting internationally competitive freight and logistics sectors</li> <li>c. planning vibrant strategic centres and attracting health and education facilities, cultural, entertainment, arts and leisure activities</li> <li>d. creating high quality places with a focus on walking and cycling</li> <li>e. improving transport connections across the District.</li> </ul>	<p>Councils, other planning authorities and Australian and NSW government agencies</p>
<p>43. In Collaboration Areas, Priority Precincts and planning for centres:</p> <ul style="list-style-type: none"> <li>a. investigate opportunities for precinct-based provision of adaptable car parking and infrastructure in lieu of private provision of car parking</li> <li>b. ensure parking availability takes into account the level of access by public transport.</li> <li>c. consider the capacity for places to change and evolve, and accommodate diverse activities over time.</li> </ul>	<p>Councils, other planning authorities and State agencies</p>
<p>44. Deliver the Structure Plan and a Land Use and Infrastructure Plan for the Western Sydney Airport Priority Growth Area and the Western Sydney City Deal.</p>	<p>State agencies</p>
<p>45. Review the current planning controls and create capacity to achieve the job targets for the District's metropolitan city cluster.</p>	<p>Councils and other planning authorities</p>

## Planning Priority W10

### Maximising freight and logistics opportunities and planning and managing industrial and urban services land

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 16: Freight and logistics network is competitive and efficient** and **Objective 23: Industrial and urban services land is planned, protected and managed** and the corresponding strategies and action.

Greater Sydney's existing industrial, manufacturing, warehousing and distribution facilities contribute to its role as Australia's manufacturing capital. These activities occur on industrial and urban services land that also accommodates freight and logistics services, and advanced manufacturing.

Urban services includes activities such as motor vehicle services, printing, waste management, courier services and concrete batching plants. These activities serve local communities and businesses and require adequate access to industrial land across the District. Demand for this land will increase commensurate with population growth. Good local

access to these services also reduces the need to travel to other areas, minimising congestion on the transport system.

### Industrial land supply

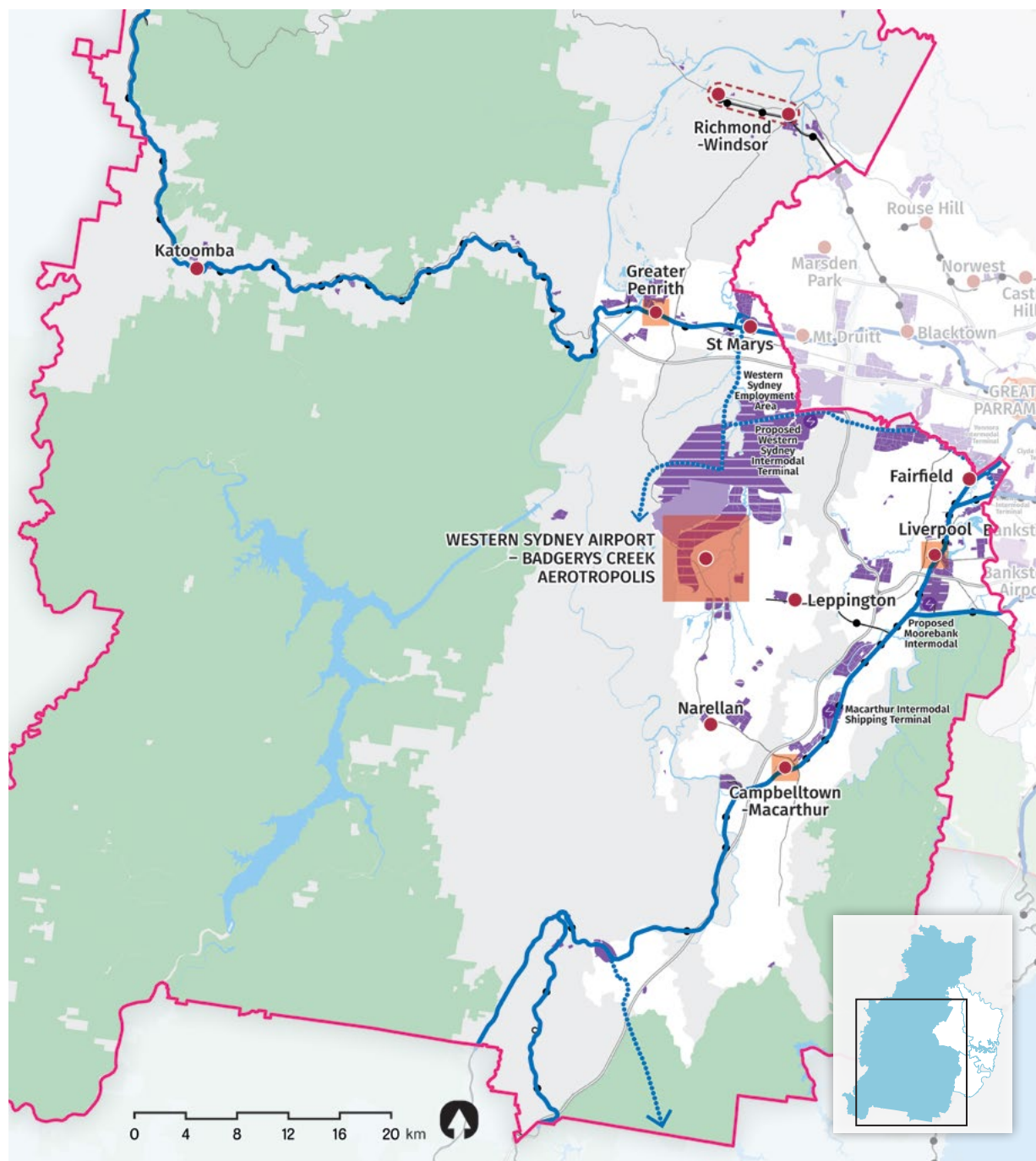
The Western City District has 3,792 hectares of industrial and urban services land, spread over 69 precincts (refer to Figure 23). This represents 38 per cent of Greater Sydney's total stock of industrial and urban services land. About 37 per cent (1,411 hectares) is undeveloped. The largest industrial and urban services precincts in the Western City District are listed in Table 3.

**Table 3:** Western City District's ten largest industrial and urban services precincts

Precinct	LGA	Undeveloped Land (ha)	Developed Land (ha)	Total (ha)
<b>Wetherill Park</b>	Fairfield	33	526	559
<b>Ingleburn</b>	Campbelltown	13	302	315
<b>Minto</b>	Campbelltown	16	241	257
<b>South of Sydney Water Pipeline</b>	Fairfield	77	176	252
<b>Moorebank</b>	Liverpool	12	324	336
<b>Yarunga/Prestons</b>	Liverpool	112	231	343
<b>Erskine Park</b>	Penrith	122	244	366
<b>North Penrith</b>	Penrith	92	168	260
<b>South of Sydney Water Pipeline</b>	Penrith	337		337
<b>St Marys</b>	Penrith	49	175	225

Source: NSW Department of Planning and Environment, *Employment Development Program 2015 Report (ELDP 2015 Report)*, NSW Government, Sydney

**Figure 23:** Western City District industrial and urban services land and freight assets



<span style="color: red;">—</span> District Boundary	<span style="color: green;">●</span> Protected Natural Areas	<span style="color: blue;">—</span> Freight/Shared Rail
<span style="color: orange;">■</span> Metropolitan City Cluster	<span style="color: lightgrey;">●</span> Metropolitan Rural Area	<span style="color: blue;">...</span> Freight Rail Investigation
<span style="color: red;">●</span> Strategic Centre	<span style="color: purple;">●</span> Industrial Land	<span style="color: white;">○</span> Urban Area
<span style="color: blue;">●</span> Waterways	<span style="color: purple;">▨</span> Future Industrial Land	



Industrial and urban services land includes the Western Sydney Employment Area, which attracts local, national and international businesses. The RAAF Base Richmond precinct and existing defence facility, Western Sydney University Hawkesbury campus, TAFE NSW Richmond, and Hurlstone Agricultural College will complement business activities around the Badgerys Creek Aerotropolis.

Major industrial and urban services sites include the corridor from Liverpool to Campbelltown and the Fairfield to Eastern Creek corridor. The latter includes Smithfield-Wetherill Park, Greater Sydney's largest industrial estate that employs more than 8,000 people. Further land is proposed to be rezoned for industrial and urban services in Western Sydney Employment Area, Erskine Park, Western Sydney Airport Priority Growth Area, Elizabeth Drive Enterprise, South West Priority Growth Area and Greater Macarthur Priority Growth Area.

## Managing industrial and urban services land

While industrial activity and urban services remain important, the nature of this economic sector is changing, with emerging technologies and new industries with different requirements. Industrial land is evolving from traditional industrial and manufacturing lands, and freight and logistics hubs, into complex employment lands. This trend is consistent with other parts of Greater Sydney, particularly east of Parramatta.

Existing sites face pressure to rezone to residential uses, especially near Liverpool and north of Greater Penrith. While locations like Wetherill Park and North St Marys may absorb more industrial activities in the short term, the District's new communities need jobs and services close to home. It is therefore important to protect the existing sites and plan for more industrial and urban services land.

Protecting industrial and urban services land can facilitate industries of the future, including creative industries and environmental services such as waste management and recycling facilities.

Timely and cost-effective infrastructure delivery will support the development and competitiveness of these lands, which compete with other Australian capital cities for large tenants like national distribution centres.

Increasing demand for local urban services and an innovative and adaptable industrial sector will require well-connected, serviced and economically viable land for businesses such as mechanics, repair centres, wholesale warehousing, light manufacturing, creative industries, freight, logistics and construction materials warehousing and supply centres.

Future employment growth across all industries and urban services will require additional floor space, additional land or both. Urban services are often less able to increase their floor space efficiency or locate in multi-story buildings.

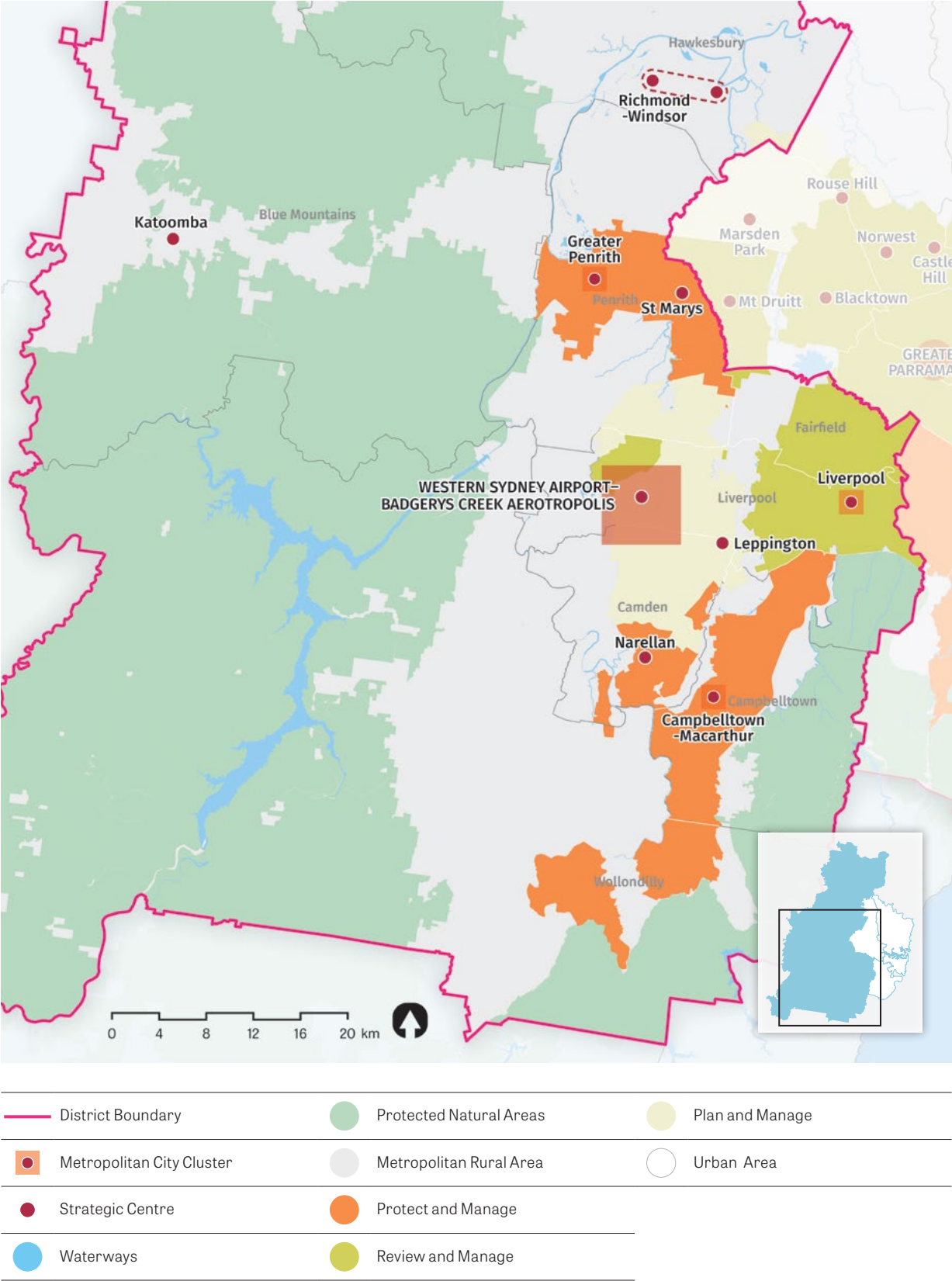
Research prepared for the Commission has compared urban services provision in Greater Sydney with the ACT benchmark of three square metres of urban services land per person. The research found that in the Western City District, the per person amount exceeds the benchmark in 2016, and the per capita amount is anticipated to reduce between 2016 and 2036.

However, owing to the substantial long-term population growth and development in land release areas, there may be a need for additional industrial and urban services land. The Commission will work with the NSW Department of Planning and Environment and councils as strategic plans are prepared to determine whether additional land is required. In considering the industrial land needs of the Western City District, the Western Sydney Airport Priority Growth Area is to be deemed a regional resource serving Greater Sydney.

Existing industrial and urban services land needs to be protected and managed to accommodate businesses supporting the local economy and serving the local population (refer to Action 46).

In the context of retaining industrial and urban services activities, there may be a need, from time to time, to review the list of appropriate activities within any precinct, considering evolving business practices and how they can best be supported through local environmental plans. Any review should take into consideration findings of the industrial, commercial and centres strategies for the local government area and/or District.

Figure 24: Western City District industrial and urban services land approaches



## Delivering local jobs and creating a local office market

As Greater Sydney grows over the next 20 years, there will be a need for the efficient and timely delivery of new office precincts. Stakeholder feedback has emphasised the need to grow and diversify local employment opportunities.

In the Western City District, there are no major standalone office precincts, increasing the need for residents to travel longer distances to access a variety of jobs. The draft *Greater Sydney Region Plan* supports the consideration of offices as a permissible use in an industrial precinct to grow the local office market and support local jobs. However, this should not be seen as a first step in transitioning an industrial area into, for example, a business park, nor is it about allowing retail to support office activity.

Considerations should include:

- the context of industrial, commercial and centres strategies for the local government area and/or the District
- proximity to established business parks or office precincts, with the transition to accommodate new offices or uses which should only be supported in precincts not close to existing business parks or office precincts
- where access to the industrial precinct is constrained, transition to accommodate new uses or offices should be supported only where it will not compromise industrial activities in the precinct or the operation of trade gateways.

The Commission will work with the NSW Department of Planning and Environment and local councils to facilitate offices in industrial precincts, where this is identified as appropriate.

## Freight and logistics

The District has the potential to become a nationally significant freight and logistics hub through its connections to the national and regional NSW transport networks. This includes primary freight links over the Great Dividing Range; the Main Western Rail Line that transports mineral and agricultural exports from regional NSW to ports and the M4 Motorway; the Hume Highway; and the Great Western Highway. These links form part of the National Land Transport Network that carries freight to and from Adelaide and Perth as well as locally and regionally to Dubbo, Newcastle, the Illawarra and Port Kembla.

*The District has the potential to become a nationally significant freight and logistics hub through its connections to the national and regional NSW transport networks.*

Development of the Western City District provides unprecedented opportunities to realise a national freight and logistics role for the District by building on its competitive advantages and leveraging off the Western Sydney Airport, existing freight infrastructure, inter-regional connections and a substantial supply of large lots of land.

Opportunities include prioritising the Western Sydney Freight Line, the Outer Sydney Orbital and a potential intermodal terminal; facilitating agribusiness by allocating land within the Badgerys Creek Aerotropolis for agricultural export logistics; and delivering the Western Sydney Airport Priority Growth Area, which is considered as a regional resource of industrial and employment land serving Greater Sydney.



A new Western Sydney intermodal terminal will be investigated by 2036. The location is yet to be determined but will be close to the Western Sydney Freight Line.

Freight and logistic services must locate to support the Western Sydney Airport. Buffer zones will avoid locating sensitive uses, like residential development, close to industrial and urban services land.


Some older industrial sites contain low buildings or constraints such as smaller lots that are unable to meet emerging freight logistics needs. A review of older sites will identify opportunities for new industrial uses with higher job densities.

As the Western City District develops, opportunities to improve freight network efficiencies, including a Western Sydney Fuel

Pipeline to the Western Sydney Airport, will become increasingly important. The District must also connect port and airport activities, linking the Western Sydney Airport, the Moorebank Intermodal Terminal and a potentially expanded container port at Port Kembla via the Outer Sydney Orbital.

A dedicated freight rail connection from Port Botany in the Eastern Harbour City to the Western Parkland City will increase the proportion of freight moved by rail. Separating freight and passenger services will increase the efficiency of freight movements and ease road congestion. The proposed Western Sydney Freight Line will boost the economic potential of surrounding industrial precincts such as Smithfield and Wetherill Park.

Actions related to freight and logistics are included in Planning Priority W7.

 Actions	Responsibility
46. Manage industrial land in the identified local government areas (refer to Figure 24) by protecting all industrial zoned land from conversion to residential development, including conversion to mixed-use zones.	Camden Council, Campbelltown City Council, Liverpool City Council, Penrith City Council, Wollondilly Shire Council and other planning authorities
47. Manage industrial land in the identified local government areas (refer to Figure 24) by undertaking a review of all industrial land to confirm their protection or transition to higher order uses (such as business parks) and prepare appropriate controls to maximise business and employment outcomes, considering the changing nature of industries in the area.	Greater Sydney Commission, Fairfield City Council, Liverpool City Council and other planning authorities
48. Manage industrial land in the identified local government areas (refer to Figure 24) by creating additional industrial and urban services land where required in land release areas to service the growing population.	Camden Council, Campbelltown City Council, Hawkesbury City Council, Liverpool City Council, Penrith City Council and other planning authorities
49. Consider office development in industrial zones where it does not compromise industrial activities.	Councils and other planning authorities
50. Facilitate the contemporary adaption of industrial and warehouse buildings through increased floor to ceiling heights.	Councils and other planning authorities

## Planning Priority W11

### Growing investment, business opportunities and jobs in strategic centres

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 22: Investment and business activity in centres** and the corresponding strategies and action.

The growth, innovation and evolution of centres will underpin the economy of the Western City District. Centres provide important services and jobs for local residents and places for communities to meet. Well-planned centres help to stimulate economic activity and innovation through the co-location of activities, provide jobs closer to where people live and use infrastructure more efficiently.

To manage the growth and change of the District's centres a centres hierarchy has been established as outlined below:

- Metropolitan city cluster: Liverpool, Greater Penrith and Campbelltown-Macarthur, Western Sydney Airport and Badgerys Creek Aerotropolis (refer to Planning Priority W9)
- Strategic centres: St Marys, Katoomba, Richmond-Windsor, Fairfield, Leppington and Narellan
- Local centres: approximately 53 centres (refer to Planning Priority W6).

All strategic centres will be the focus of public transport investments that seek to deliver the 30-minute city objective (refer to planning priority W7).

The strategic centres in the Western City District differ in size and scale of economic activity. However, as strategic centres they all have similar expectations, including:

- high levels of private sector investment
- flexibility, so that the private sector can choose where and when to invest
- co-location of a wide mix of activities, including residential
- high levels of amenity and walkability
- areas identified for commercial uses, and where appropriate, commercial cores.

Research has shown that the Western City District will need to accommodate more than 1.54 million square metres of additional retail floor space over the next 20 years. In addition, there will be significant demand for additional office floor space. Creating the opportunities to attract retail and office development locally brings jobs closer to where people live. This requires growth in either existing or new centres. The principles for developing new centres are outlined in this Planning Priority.

Delivering housing within a walkable distance of strategic centres encourages non-vehicle trips, which also fosters healthier communities. Housing within centres contributes to a sense of vibrancy, however delivery of housing should not constrain the ongoing operation and expansion of commercial and retail activities.



Jobs growth and community access to goods and services is the core objective for centres. For this reason, job targets, expressed as a range, have been projected for each strategic centre. These targets seek to inform planning authorities and infrastructure agencies of anticipated growth. They should not be seen as maximum targets.

The lower end of the range of these job targets reflects the baseline of projected jobs growth anticipated in the centre, while the upper end is an aspirational higher growth scenario to reflect outcomes in the case of future investment and land use planning in centres.

Smart work hubs offer the conveniences of a modern office – high-speed internet, meeting rooms, video conferencing facilities, informal lounges

and quiet booths – in local areas. They operate as shared workspaces with other small businesses, government and corporate organisations. There are smart work hubs at Penrith and Oran Park. Workers also access the internet from home. Opportunities for smart work hubs in strategic centres should be encouraged.

#### Related government initiatives:

- Transport for NSW, Transport Performance and Analytics, *Employment projections by travel zone*

 Actions	Responsibility
51. Provide access to jobs, goods and services in centres by: <ol style="list-style-type: none"> <li>attracting significant investment and business activity in strategic centres to provide jobs growth</li> <li>diversifying the range of activities in all centres</li> <li>creating vibrant, safe places and quality public realm</li> <li>balancing the efficient movement of people and goods with supporting the liveability of places on the road network</li> <li>improving the walkability within and to the centre</li> <li>completing and improving a safe and connected cycling network to and within the centre</li> <li>improving public transport services to all strategic centres</li> <li>creating the conditions for residential development within strategic centres and within walking distance, but not at the expense of the attraction and growth of jobs, retailing and services; where appropriate, strategic centres should define commercial cores informed by an assessment of their need.</li> </ol>	Councils, other planning authorities and State agencies
52. Create new centres in line with the <i>Principles for Greater Sydney's Centres</i> .	Councils and other planning authorities
53. Engage with the retail sector on its changing planning requirements and update planning controls as required.	Councils and other planning authorities
54. Prioritise strategic land use and infrastructure plans for growing centres, particularly those with capacity for additional retail floor space.	Councils and other planning authorities
55. Encourage opportunities for new smart work hubs.	Councils and other planning authorities
56. Review current planning controls and create capacity to achieve the job targets for the District's strategic centres.	Councils and other planning authorities



## Principles for Greater Sydney's centres

As Greater Sydney's population grows over the next 20 years, there will be a need for over five million square metres of additional retail floor space and new office precincts.

For Greater Sydney to remain competitive, the market needs to be able to deliver this floor space in an efficient and timely manner. Numerous regulatory reviews across Australia have emphasized this issue.

There will be a need to grow existing centres, particularly strategic centres and supermarket-based local centres; create new centres including business parks; and to attract health and education activities in centres. The principles for developing these centres are outlined below:

- **Existing centres:** expansion options will need to consider building heights and outward growth. In some cases, directly adjacent industrial land may be appropriate for centre expansions to accommodate businesses. Quality design and adequate infrastructure provision will be critical to enabling these situations. This approach needs to be informed by local government-based industrial strategies.
- **New centres:** these will be required across the whole of Greater Sydney.
  - In land release areas, this will include a wide range of centre types, including local and large centres which will grow and evolve into new strategic centres.
  - In land release areas, strategic planning should maximise the number and capacity of centres on existing or planned rail corridors. To deliver this outcome the centres need to be identified early to allow their incorporation into transport infrastructure plans.
  - In the Western Parkland City, where South Creek is to be planned as the central organising element for the city, opportunities for new centres to address South Creek are to be maximised.
  - In established areas, there are likely to be innovative approaches to creating new centres as part of urban renewal and mixed-use developments.
  - All new centres are to have good public transport, commensurate with the scale of the centre.

- **Business parks:** Not all centres will start as retail centres. Creating jobs and providing services to local communities can be initiated within business parks. However, the built form of these business parks is critical – that is, they must be developed as urban places which can transition into higher amenity and vibrant places while maintaining the main role as employment precincts. Councils' retail and employment strategies should provide guidance on the transition of business parks into mixed employment precincts including, where appropriate, ancillary residential to support the business park.
- **New health and tertiary education facilities,** such as hospitals and community health centres. There should be located within or directly adjacent to centres, and ideally be co-located with supporting transport infrastructure. Built form is also critical to facilitate the transition of centres with health and education uses to facilitate more mature innovation precincts.

In all cases, delivering centres that create walkable neighbourhoods is a high priority, and in this context additional centres which improve walkability are encouraged.

Land use and infrastructure plans inform decisions for the location of new centres and the expansion of existing centres.

Where there is a prevalence of retail in an industrial area, there may be exceptional cases to support the development of a new centre. Any such opportunities should be informed by a net community benefit test supported by a strategic review of centres (which identifies the need for the centre) and an industrial land review (which identifies that the loss of industrial activity can be managed) for the local government area. These reviews are to be prepared by councils, and endorsed by the Commission. The centre should be:

- located where public transport services are commensurate with the scale of the centre
- directly opposite a residential catchment accessible by a controlled pedestrian crossing
- more than a stand-alone supermarket
- of quality urban design with amenity, informed by a master plan
- supported by planned and funded infrastructure commensurate with the needs of the centre.

For new centres in industrial areas, the economic impact of the centre should be assessed and deemed to have an acceptable impact on the operation of existing businesses in the locality and the viability of surrounding centres.

## Fairfield

Fairfield City Centre has the largest concentration of commercial office, retail and community services floor space to the population of the local government area. Its unique commercial and retail focus is driven by local culture, including main street and bazaar-style shops and services.

There is opportunity to create more spaces for business start-ups and social enterprise, grow the centre’s culturally specialised services including translation, re-training new arrivals, and health care, and develop its authentic cultural food and night-time economy.

Fairfield Park, a significant open space and leisure precinct, including a gymnasium and aquatic centre; Fairfield Youth and Community Centre; and Fairfield Adventure Park are within reach of Fairfield City Centre and transport interchange. This integrates into the Greater Sydney Green Grid via an extensive walking and cycling network along creek lines extending from Chipping Norton Lakes to Western Sydney Parklands.



Maintaining housing affordability for existing residents, and increasing the number of affordable rental units to welcome new residents will be a challenge into the future. Fairfield City Council is undertaking an urban design study for the redevelopment and revitalisation of key sites within the city centre. One of the core objectives of the study is to unlock additional housing potential close

to public transport, open space and services, making use of the centre’s strong connections to Liverpool and Parramatta.

Fairfield	Jobs
2016 estimate	5,400
2036 baseline target	6,000
2036 higher target	10,000

Actions	Responsibility
<div>57. Strengthen Fairfield through approaches that:<ul style="list-style-type: none"><li>a. investigate opportunities for feasible redevelopment and increased density close to the Fairfield Transport Interchange</li><li>b. enhance the public realm and encourage new connected civic plazas and public open spaces, including better walking and cycling links to nearby Fairfield Park and Prospect Creek corridor</li><li>c. build on the emerging concentration of multicultural support services and support the current business and legal sector</li><li>d. increase the liveability of the centre by activating the public realm, including developing the vision for an ‘eat street’ and growing the night-time economy</li><li>e. facilitate the attraction of office/commercial floor space and allow for innovation including smart work hubs</li><li>f. improve east-west connectivity within Fairfield City Centre from surrounding suburbs prioritising pedestrian, cycle and public transport facilities.</li></ul></div>	Fairfield City Council, other planning authorities and State agencies

## Katoomba

Katoomba is a significant tourist destination, with associated employment opportunities. Within the 'City of the Arts', Katoomba draws on its unique heritage, arts and cultural activities, supported by a Cultural Centre and World Heritage Exhibition. Katoomba has a transport interchange and a diverse mix of uses, including commercial, retail, health and education facilities. The centre provides services for the local community and includes large employers such as Blue Mountains City Council and Katoomba Hospital. There are opportunities to build on the centre's assets to promote economic activity and consolidate Katoomba's revitalisation.



Katoomba	Jobs
2016 estimate	2,700
2036 baseline target	3,000
2036 higher target	5,500

### Actions

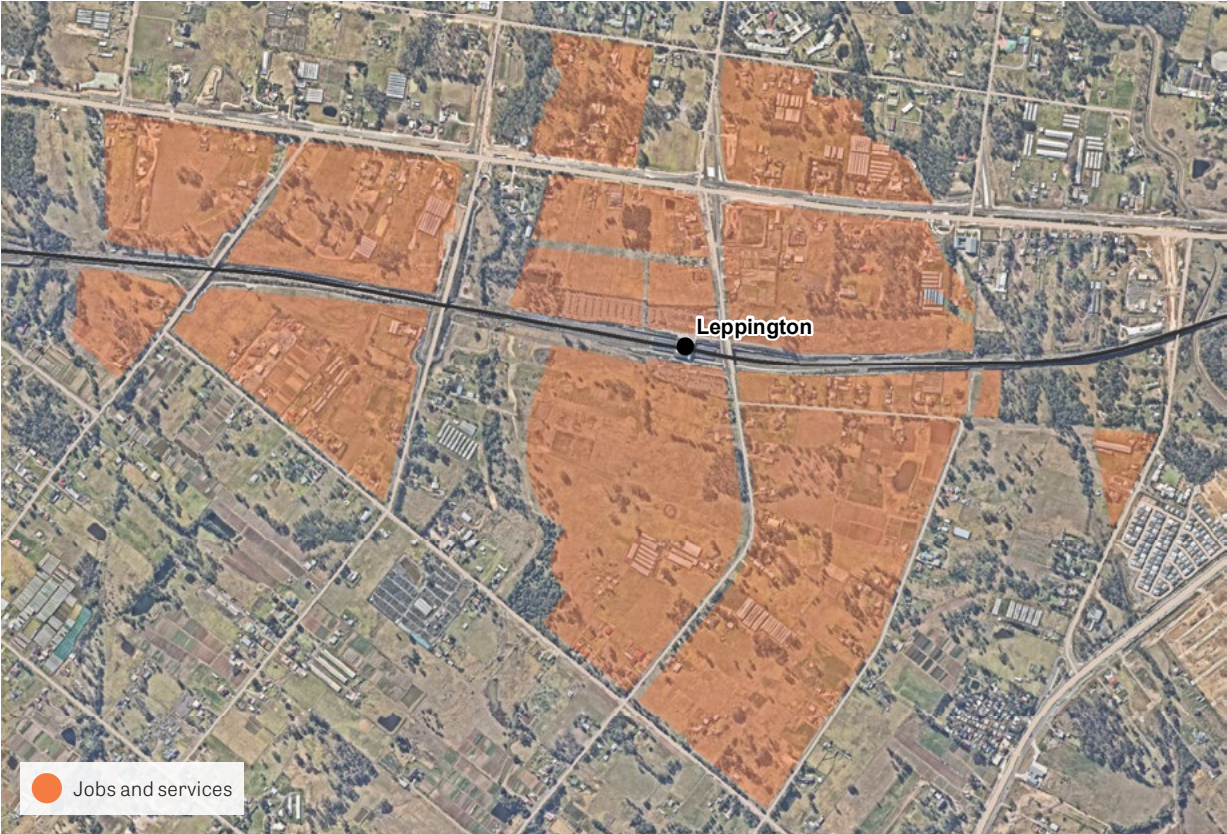
58. Strengthen Katoomba through approaches that:
- encourage new lifestyle and entertainment uses to activate streets and grow the tourism and night-time economies
  - facilitate the attraction of office/commercial floor space and provide opportunities to allow commercial and retail activities to innovate, including smart work hubs
  - enhance the public realm
  - activate secondary streets.

### Responsibility

Blue Mountains City Council,  
other planning authorities and  
State agencies



# Leppington



Leppington is a designated Priority Precinct. The NSW Department of Planning and Environment is working with Camden and Liverpool City councils to undertake the planning of the new centre on the T2 Inner West and Leppington and T5 Cumberland lines. Leppington Station services a catchment covering precincts such

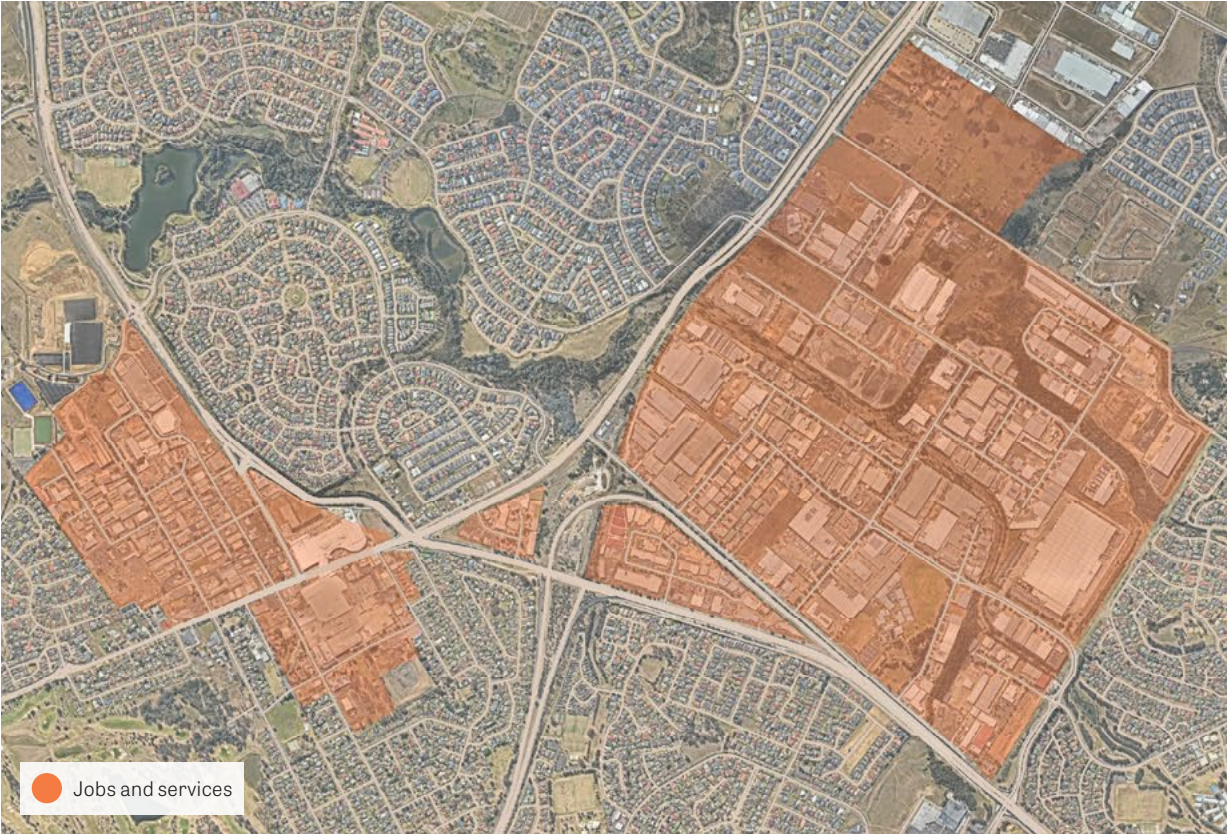
as Leppington, Leppington East, Austral and Edmondson Park within the South West and Western Sydney Airport Priority Growth Areas. With Bringelly Road to serve as one of the major gateways to the Western Sydney Airport, Leppington is expected to be a prominent town centre in the future.

Leppington	Jobs
2016 estimate	400
2036 baseline target	7,000
2036 higher target	12,500

Actions	Responsibility
<div>59. Strengthen Leppington through approaches that:<div><div>a. develop a masterplan for the Leppington town centre in collaboration with Camden and Liverpool City Councils, stakeholders and the community</div><div>b. coordinate the release and rezoning of land for residential, employment and other urban development in Leppington town centre in accordance with the State Environmental Planning Policy (Sydney Region Growth Centres) 2006 and to support the District's housing and job targets</div><div>c. coordinate and deliver enabling infrastructure to support future development.</div></div></div>	<div>NSW Department of Planning and Environment, Camden Council, Liverpool City Council, other planning authorities and State agencies</div>



# Narellan



The Narellan town centre has transitioned from a shopping centre to a hub providing all of the services and facilities that a community needs. It provides employment opportunities in a range of industries, services, professions and has potential for increased residential density and a range of dwelling typologies.

Narellan, at the heart of a rapidly growing district, has potential for increased commercial office, retail and community services to cater for the future population growth. The vision of the Narellan town centre will reflect the history and heritage of the Camden Local Government Area, while providing opportunities for the growing community.

Narellan	Jobs
2016 estimate	10,600
2036 baseline target	14,000
2036 higher target	16,500



## Actions

60. Strengthen Narellan through approaches that:
- a. investigate the capacity of key infrastructure to support additional growth
  - b. undertake an Urban Design Review for the Centre and review planning controls
  - c. review the vision for the Narellan District Centre.

## Responsibility

Camden Council, other planning authorities and State agencies

## Richmond-Windsor



Richmond and Windsor are two of the five original Macquarie Towns, established in December 1810. They are located upstream of the 20 original Macquarie Farms also established in 1810. Richmond-Windsor's role and function has traditionally been to provide accommodation and services to support a rural population and agricultural activity.

Over time, the role of the centre has expanded to include retail and commercial services and major health facilities including the Notre Dame University medical teaching campus.

The centre has significant heritage values including some of the oldest

buildings in Australia and an emerging tourism base focused on colonial history, rural character, agriculture, environmental assets including UNESCO World Heritage areas and the Hawkesbury River.

Located at Clarendon – midway between the two original Macquarie Towns – is a cluster of aviation, University, TAFE and equine activities.

Over 450 aerospace workers work within the precinct, including Royal Australian Air Force, United States Air Force, Northrop, Airbus Group Australia Pacific, Lockheed Martin, Standard Aero, GE Aviation, L3 Aviation Products and CAE.

The Western Sydney University Hawkesbury Campus, the Hawkesbury Institute for the Environment and the Hawkesbury Racing Club contribute significantly to employment research and training in the area.

Richmond-Windsor	Jobs
2016 estimate	10,300
2036 baseline target	12,000
2036 higher target	16,500



### Actions

61. Strengthen Richmond-Windsor through approaches that:
  - a. support complementary land uses around the agglomeration of education and defence uses in Richmond
  - b. support master planning processes for Richmond and Windsor that encourage new lifestyle and entertainment uses, employment opportunities, activate streets and places, grow the tourism economy and respect and enhance the significant heritage value and assets
  - c. facilitate the attraction of office/commercial floor space and provide opportunities to allow commercial and retail activities to innovate, including smart work hubs.

### Responsibility

Hawkesbury City Council, other planning authorities and State agencies



## St Marys



St Marys has a mix of jobs, commercial and retail activities, with industrial and urban services land north of the rail line, and the town centre with retail, commercial and residential uses south of the rail line. There has been recent growth in apartment living opportunities in and around the centre.

St Marys	Jobs
2016 estimate	8,300
2036 baseline target	10,000
2036 higher target	11,500

Actions	Responsibility
<p>62. Strengthen St Marys through approaches that:</p> <ul style="list-style-type: none"> <li>a. review and maximise opportunities from its location at the intersection of the north-south and east-west corridors</li> <li>b. support the role of St Marys as a centre by enabling a mix of land uses to encourage a diverse and active night-time economy</li> <li>c. facilitate the attraction of a range of uses that contributes to an active and vibrant place</li> <li>d. improve transport connectivity and walkability within and to St Marys</li> <li>e. support greater housing diversity and densities</li> <li>f. activate primary and secondary streets and deliver contemporary urban public spaces</li> <li>g. support and demonstrate innovation.</li> </ul>	<p>Penrith City Council, other planning authorities and State agencies</p>

## 5

# Sustainability

Improving sustainability will involve: incorporating natural landscape features into the urban environment; protecting and managing natural systems cooling the urban environment; innovative and efficient use and re-use of energy, water and waste resources; and building the resilience of communities to natural and urban hazards, shocks and stresses.

All aspects of sustainability rely on maintaining and managing green infrastructure. Green infrastructure is the network of green spaces, natural systems and semi-natural systems that support sustainable communities. It has four connected elements: waterways; urban bushland; urban tree canopy and green ground cover; parks and open spaces.

The Western City District has large tracts of bushland, scenic hills, floodplains, rivers and major waterways set amongst urban neighbourhoods, farmland and rural towns and villages. The District is the hottest and driest part of Greater Sydney and will grow significantly over the next 40 years.

The Greater Sydney Green Grid will provide cool, green links throughout the District – the regional network of high quality green spaces that supports walking, cycling and community access to open spaces – and with urban tree canopy lining streets and neighbourhoods.

Maintaining and improving the health of the Hawkesbury-Nepean and Georges rivers and South Creek as natural, cultural and recreational assets also contribute to cooling the environment and providing habitat for aquatic ecosystems. As the South Creek corridor is developed, the creek and its tributaries will form the defining structural elements of the new Western Parkland City, its centres and its neighbourhoods.

The District's extensive rural areas include farmland and mineral resources which supply fresh local produce and construction materials as well as bushland which can provide habitat for local wildlife and offset sites for biodiversity.

Its climate and natural landscape can create natural hazards such as bushfire, flooding, storms and heatwaves. Natural and urban hazards will be exacerbated by climate change. Mitigating climate change is important as is supporting actions that assist communities to adapt to the impacts of climate change will be important.

For the District an integrated approach to improving sustainability can be achieved by the following Planning Priorities:

- Protecting and improving the health and enjoyment of the District's waterways.
- Creating a Parkland City urban structure and identity, with South Creek as a defining spatial element.
- Protecting and managing bushland and biodiversity.
- Increasing urban tree canopy cover and delivering Green Grid connections.
- Protecting and enhancing scenic and cultural landscapes.
- Better managing rural areas.
- Delivering high quality open space.
- Reducing carbon emissions and managing energy, water and waste efficiently.
- Adapting to the impacts of urban and natural hazards and climate change.



## Green Infrastructure and Greener Places

Green infrastructure is fundamental to creating a high quality of life and is important in creating a region that is climate resilient and adaptable to future needs. The Government Architect NSW is working on a Green Infrastructure Framework to guide the delivery of green infrastructure across NSW through planning, designing and managing green infrastructure as an interconnected network.

The Green Infrastructure Framework will have three key components:

- **Bushland and Waterways** – delivering green infrastructure for habitat and ecological health
- **The Urban Tree Canopy** – delivering green infrastructure for climate change adaptation and resilience
- **Parks and Open Space** – delivering green infrastructure for people.





## Planning Priority W12

### Protecting and improving the health and enjoyment of the District's waterways

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 25: The coast and waterways are protected and healthier** and the corresponding strategies.

The Western City District's waterways shape its landscape and character. They are natural assets, cultural resources and recreational destinations. As the District grows, greater housing density around waterways, and more people looking to use waterways for recreation, will mean that these assets will need to be carefully managed so they continue to support a wide range of activities.

The Western City District is the hottest and driest in Greater Sydney. The waterways and rivers of the District are part of an overall natural system and contribute to the 'green infrastructure' that cools and greens the District. The District's waterways support groundwater dependant ecosystems, which benefit from continuing protection and management. They support threatened ecological communities and accommodate the disposal of stormwater and wastewater. More than 75 per cent of the District's population lives within a kilometre of a waterway (many of these are intermittent), highlighting the role waterways play in creating a sense of place and connecting communities to the natural landscape, even within a relatively hot and dry landscape. The District's catchments and waterways are shown on Figure 25.

The District's three major waterways – the Hawkesbury-Nepean River, South Creek and Georges River – are key elements of the District's landscape and character. Some of the District's waterways – such as the Grose and Colo Rivers, which are important tributaries of the Hawkesbury-Nepean River – are in a near-natural state and protected in World Heritage Listed national parks. Significant swamps and wetlands include the Blue Mountains Swamps, Cranebrook Wetland, and Georges River Voyager Point Wetlands. These provide habitat for threatened species and help to filter and clean water as it flows into creeks and waterfalls.

Many of the District's waterways have extensive floodplains, affecting significant areas of the Hawkesbury-Nepean Valley between Wallacia and Sackville, and parts of South Creek Valley. Flooding in the Georges River valley can affect communities in places such as Liverpool, Warwick Farm, Lansvale, and Lansdowne, with areas of greater risk in Chipping Norton and Moorebank. This draft plan addresses resilience to flooding and other hazards in more detail in Planning Priority W20.

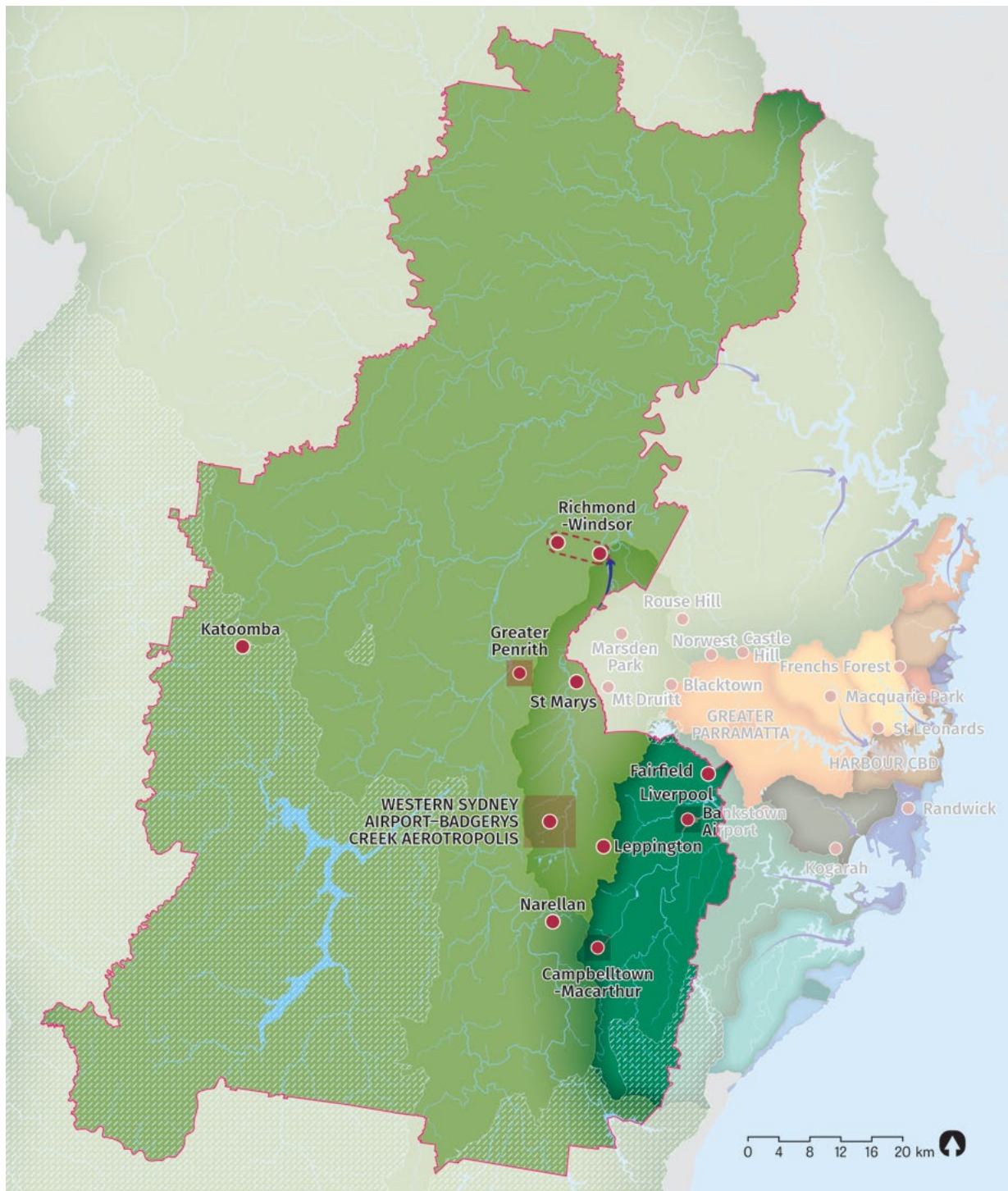
A legacy of historical land uses, contaminated land, aged infrastructure and the pattern of urban development have impacted some of the District's waterways. Other waterways, such as the Georges River are in better health, provide habitat and are popular for swimming.

Urban development, the clearing of vegetation and more impermeable surfaces have resulted in elevated run-off, reduced water quality and loss of habitat. Urban stormwater carries litter and contaminants into the District's waterways. The District's waterways often flow through more than one local government area and are managed by a number of agencies and stakeholders, so water quality and waterway health is best managed at a catchment and sub-catchment level.

Growth and new investment provide an opportunity to improve the necessary health and quality of the District's waterways and riparian corridors, through improving public access to, and along, the foreshores; providing connected green space around the foreshores; conserving cultural heritage; protecting flora and fauna, and urban bushland; and recovering and reinstating more natural conditions in highly modified waterways.

Enhancing community access to the waterways within the District should be prioritised. This includes access for pedestrians as well as boats and

**Figure 25:** Western City District catchment and waterways



District Boundary	River Flow Direction	South Creek Sub-catchment
Metropolitan City Cluster	Sydney Drinking Water Catchment	Georges River Basin
Strategic Centre	Hawkesbury Nepean River Basin	Waterway

other watercraft. The delivery of the Greater Sydney Green Grid connections (refer to Planning Priority W15) will enhance connections to the Hawkesbury-Nepean River and Georges River.

There is legislation, as well as policies and plans, already in place to improve the health of waterways and to manage water resources. For example, the *Fisheries Management Act 1994* protects aquatic biodiversity and the Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River protects the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context. NSW Government agencies and councils also manage the health of waterways through planning and development decisions, environmental programs and through the management of public land.

The *Metropolitan Water Plan 2017* is the NSW Government's plan to ensure there is sufficient water to meet the needs of the people and environment, now and for the future. It established the WaterSmart Cities program, which will explore new ways to supply drinking water, and manage stormwater and wastewater in a more integrated, cost-effective and sustainable way.

Local land-use planning controls also protect environmentally sensitive coastlines, waterways and foreshores and the health of catchments.

Protecting and improving the environmental health of the District's waterways safeguards its health. An integrated approach to the protection and management of waterways will also rely on more comprehensive approaches to the monitoring and reporting of water quality and waterway health. Councils implement sustainable urban water management approaches and encourage water sensitive urban design.

The draft District Plan aims to integrate the objectives for waterways, that are set out in legislation, policies and plans, by prioritising the management of waterways as green infrastructure. This involves:

- reconceptualising waterways as an infrastructure asset that can provide environmental, social and economic benefits to communities
- integrating approaches to protecting environmentally sensitive waterways within a larger network of green infrastructure

- addressing the cumulative impacts of development and land management decisions across catchments in a way that improves water quality and waterway health.

Collaboration and coordination across levels of government and with the community is needed to deliver the green space, urban cooling and integrated water management outcomes for the District.

Future work will apply the lessons from previous management of the District's rivers, notably the Georges River Combined Councils' Committee, which facilitates a coordinated approach to the management of the Georges River.

Catchment-scale management and coordination can:

- solve multiple problems – for example, catchment condition and water scarcity, or addressing water quality impacts on aquifers, estuaries and the marine estate
- set objectives for the District's waterways and enable them to be achieved in innovative and cost-effective ways
- enable both public and private benefits to be achieved – for example, stormwater from private land could provide a benefit to public management of green space and urban waterways.

Strategic planning needs to manage the cumulative impact of activities and associated infrastructure such as mooring, marinas and boat launching facilities while ensuring public access to the waterways and opportunities for swimming, and small boat and kayak launching from publicly-owned land.

## Hawkesbury-Nepean River

The Hawkesbury-Nepean River has a 21,400 square kilometre catchment – one of the State's largest catchments east of the Great Dividing Range. The river system extends beyond the boundaries of Greater Sydney, stretching from south of Goulburn, and west of Lithgow to the Brooklyn Bridge in the north. The river and its tributaries flow through remote bushland and mountainous terrain, fertile agricultural land and urbanised areas, and it joins the ocean at a spectacular estuary.

The river system provides drinking water to most of Greater Sydney, the Illawarra and Central Coast, with major water storages at Warragamba Dam, Nepean



Dam, Avon Dam, Cordeaux Dam, Cataract Dam and Mangrove Dam. The river system also supports a \$259 million agriculture industry.<sup>18</sup> Its water quality and health can be threatened from the impacts of urban and rural runoff, mining, wastewater discharges and water extractions for irrigation and drinking water supply.

### South Creek

South Creek is Western Sydney's longest urban freshwater creek, rising near Oran Park and joining the Hawkesbury River near Windsor. Its catchment includes well-established urban areas, new and rapidly growing neighbourhoods and rural land. Rural activity and urban development has affected the health and liveability of the Creek and the Hawkesbury River downstream.

Significant population growth will occur within the catchment, particularly in new neighbourhoods being planned within South West and Western Sydney Airport Priority Growth Areas. This population growth, as well as growth in economic activity and the delivery of infrastructure to support Western Sydney Airport and the Badgerys Creek Aerotropolis, will provide an opportunity for careful management to enhance and improve the health of South Creek and its tributaries.

As the District grows, greater housing density around waterways, and more people looking to use waterways for recreation, will mean that these assets will need to be carefully managed so that they continue to support a wide range of activities. The size of the South Creek corridor, its character

and the scale of growth expected over the next few decades will require specific approaches, which are set out in Planning Priority W13.

### Georges River

Georges River is a major feature of the Western City District, the Central River City and, as it flows east, the Eastern Harbour City. Its catchment flows through a varied landscape from the steep, heavily wooded upper reaches near Appin to the urbanised lower reaches. Vegetation communities in the catchment are primarily influenced by the distribution of shale (Cumberland Plain) and sandstone (Woronora Plateau) geologies.

Woronora Dam and Prospect Reservoir – both within the Georges River catchment – are part of Greater Sydney's drinking water supply network. Tributaries include important creeks such as Cabramatta Creek and Prospect Creek which flow through suburban and urban areas of Fairfield and Liverpool. The river provides a riverside setting for Liverpool strategic centre and also flows through Chipping Norton Lakes, providing an attractive location for waterside recreation.

#### Related government initiative:

- NSW Office of Environment and Heritage, *Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions* (2017).

 Actions	Responsibility
63. Protect environmentally sensitive waterways.	Councils, other planning authorities, State agencies and State-owned corporations
64. Enhance sustainability and liveability by improving and managing access to waterways and foreshores for recreation, tourism, cultural events and water-based transport.	Councils, other planning authorities, State agencies and State-owned corporations
65. Improve the health of catchments and waterways through a risk-based approach to managing the cumulative impact of development including coordinated monitoring of outcomes.	Councils, other planning authorities, State agencies and State-owned corporations
66. Reinstate more natural conditions in highly modified urban waterways.	Councils, other planning authorities, State agencies and State-owned corporations

# Planning Priority W13

## Creating a Parkland City urban structure and identity, with South Creek as a defining spatial element

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 26: A cool and green parkland city in the South Creek corridor** and the corresponding strategy and action.

South Creek is at the heart of the Western Parkland City. Rapid and sustained growth in the Western Parkland City, particularly in Priority Growth Areas close to South Creek and tributaries such as Kemps Creek, Lowes Creek and Badgerys Creek, will see its population grow to well over 1.5 million by 2056.

The draft *Greater Sydney Region Plan* vision for South Creek is to transform its water management, while using the creek corridor to form the spine of the Western Parkland City (refer to Figure 26 and Figure 27). This conceptualises a green corridor that provides sites for parks, community facilities, and ecological services including nutrient capture, urban cooling, walking and cycling trails, and local habitat. Areas of higher density and high quality public spaces orientate towards waterways, making the most of this green infrastructure.


Walking and cycling trails will connect the creek's open spaces and regularly spaced bridge crossings will enable people to experience the landscape and connect communities. The design of bridges will respect the local context and environment, and support the movement of wildlife.

Maintaining riparian corridors in public ownership for future generations will support habitat, create opportunities for new open space, including sporting facilities, and help to support healthy waterways by managing flows of water and nutrients.

*South Creek will be a green corridor that provides sites for parks, community facilities, and ecological services including nutrient capture, urban cooling, walking and cycling trails, and local habitat.*

Retaining more water in the landscape, for example by creating new wetlands, irrigating the urban tree canopy and maximising opportunity that smaller intermittent streams provide, will help mitigate the urban heat island effect and manage flows of stormwater.

Creating contiguous corridors of public open space and expanding the urban tree canopy (refer to Planning Priority W15) will also help mitigate the urban heat island effect, manage flows of stormwater and create attractive locations for new and growing communities that support liveability and productivity.

 Actions	Responsibility
67. Implement the South Creek Corridor Plan and use the design principles for South Creek to deliver a cool and green Western Parkland City.	Councils, other planning authorities, State agencies and State-owned corporations

**Figure 26:** South Creek urban design principles



### New city centre

- Pedestrian-oriented promenade with active frontages
- Density and fine grain
- 300–400m bridge spacing
- Mass transit 1–2 blocks from creek
- Regional civic anchors
- High transport connectivity



### New inner city neighbourhood

- Fine grain residential – terraces and mid rise apartments
- 400–600m bridge spacing
- Mass transit 2 blocks from creek
- Local civic anchors



### Established suburbs

- Studios and apartments added
- Connections between streets and to creek
- Programmed activity space
- Multiple pedestrian walkways
- Shared street promenade



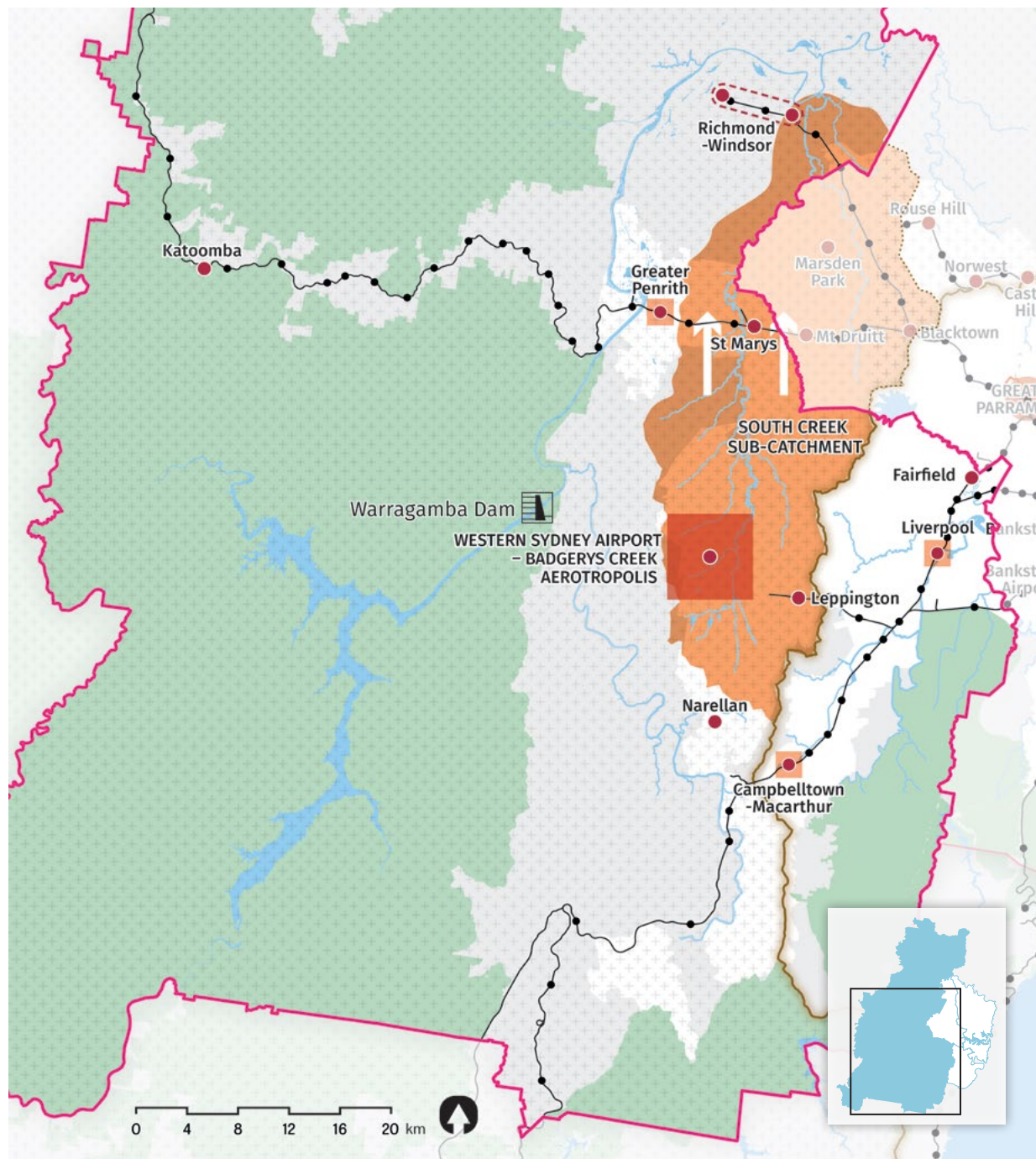
### New business and industrial areas












- Creek-facing employment hubs
- Realigned car parking
- Recreation spaces for workers
- Accessible transit plaza
- Pedestrian only promenade





Figure 27: Western City District's South Creek catchment



 District Boundary	 Inland (Creek) – South Creek	 Waterways
 Metropolitan City Cluster	 Hawkesbury–Nepean	 Metropolitan Rural Area
 Strategic Centre	 Water Flow Direction	 Protected Natural Area
 Urban Area	 Drainage Catchment	

# Planning Priority W14

## Protecting and enhancing bushland and biodiversity

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 27: Biodiversity is protected, urban bushland and remnant vegetation is enhanced** and the corresponding strategy.

Objective 27 in the draft *Greater Sydney Region Plan* outlines how the NSW Government seeks to protect and manage biodiversity values across Greater Sydney, from national and state biodiversity conservation legislation to information such as biodiversity mapping. This Planning Priority reinforces the importance of Objective 27 and provides a context to District issues.

Bushland areas protected in national parks and reserves support the District’s significant biodiversity, while bushland and remnant vegetation throughout the District’s urban and rural areas also provide habitat, help cool the environment and support cleaner waterways and air.

Bushland covers 60 per cent of the Western City District.<sup>19</sup> While most of this bushland is located in the Protected Natural Area (the major landscape area at the western edge of the District, including the Greater Blue Mountains World Heritage Area), there are valuable areas of bushland and remnant vegetation within the urban and rural parts of the District as well (refer to Figure 28).

Many areas of urban bushland are on public land managed as green infrastructure by councils, while some is privately owned.

Urban bushland, close to some of the District’s most densely populated areas, supports opportunities for nature-based recreation and enhance liveability. Areas of bushland at the edges of urban neighbourhoods need to be managed and enhanced to reduce impacts from urban areas, such as pollution and nutrients from stormwater, weeds and litter.

In delivering the Western Parkland City, strategies must be developed for the identification, protection and management of bushland and biodiversity.

A strategic approach to protecting the biodiversity in the District involves investing in connected bushland corridors and protecting larger pockets of remnant vegetation, as large and connected areas of bushland give the District’s wildlife the greatest chance of survival. This strategic approach complements the delivery of the Greater Sydney Green Grid.

Strengthening the protection of bushland in urban areas will help to conserve the District’s biodiversity, preserve its scenic landscape, and enhance its tourist and recreational values. Remnant vegetation should be recognised as an asset that can be incorporated into the planning and design of neighbourhoods, for example in parks, school grounds and as street trees.

Bushland in the District’s rural areas will be protected and managed through place-based planning, including incentivising offset delivery.

The *Biodiversity Conservation Act 2016* provides a framework and tools to avoid, minimise and offset impacts on biodiversity through the planning and development assessment process.

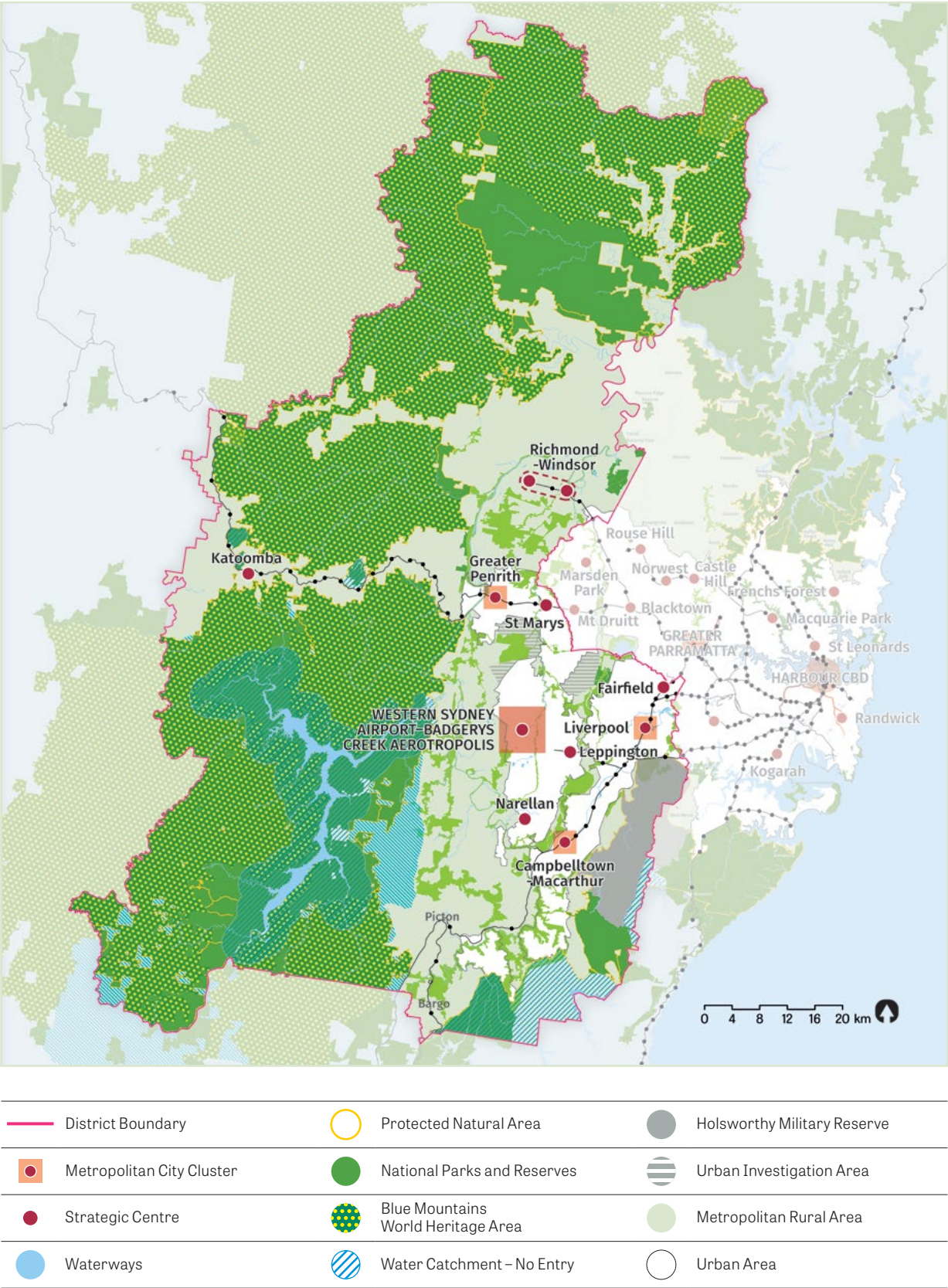
**Useful link:**

- Cumberland Subregion Biodiversity Investment Opportunities Map (BIO Map)

 Actions	Responsibility
68. Protect and enhance biodiversity by: a. supporting landscape-scale biodiversity conservation and the restoration of bushland corridors b. managing urban bushland and remnant vegetation as green infrastructure.	Councils, other planning authorities and State agencies



Figure 28: Western City District Protected Natural Area and Metropolitan Rural Area





## Planning Priority W15

### Increasing urban tree canopy cover and delivering Green Grid connections

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 30: Urban tree canopy cover is increased** and **Objective 32: The Green Grid links parks, open spaces, bushland and walking and cycling paths** and the corresponding strategies.

The Greater Sydney Green Grid is a long-term vision for a network of high quality green spaces that connects communities to the natural landscape. It links tree-lined streets, waterways, bushland corridors, parks and open spaces to centres, public transport and public places. The Greater Sydney Green Grid builds on the District's established open space, the *Regional Tracks and Trails Framework* and the emerging Principle Bicycle Network.

Tree-lined streets, urban bushland and tree cover on private land form the urban tree canopy. The urban tree canopy is a form of green infrastructure that mitigates the urban heat island effect, with a 10 per cent increase in tree canopy cover reducing the land surface temperature by 1.13 degrees Celsius. The urban tree canopy also supports cleaner air quality and water and provides local habitat. Trees remove fine particles from the air and help insulate against urban noise pollution. This is particularly important along busy road corridors where air quality can be improved. The urban tree canopy can also help make communities more resilient, by reducing the impact of heat waves and extreme heat.

#### The urban tree canopy

In the Western City District, the urban tree canopy is widespread in the towns and villages of the Blue Mountains, which are close to national parks, but sparse in some urbanised areas including Prairiewood, Bonnyrigg and Green Valley. Nineteen per cent of the District's urban areas have tree canopy cover – lower than some other Districts in Greater Sydney. Figure 34 shows tree canopy cover in the urban area in 2011.

Trees are valued by residents and contribute to the streetscapes, character and amenity of the District.

As the District continues to grow and change, the urban tree canopy will come under pressure. This means that the urban tree canopy will become even more important for supporting sustainable and liveable neighbourhoods.

The tree canopy may be formed by a mix of native and exotic, deciduous or evergreen trees, which provide shade in summer while allowing sunlight into homes and onto roofs for solar power, particularly in winter.

Therefore, urban renewal and transformation projects will be critical to increase urban tree canopy cover. This can be complemented by other green cover, including rain gardens, green roofs and green walls. Green cover can help slow and store stormwater and improve water quality, filtering pollution before it reaches the District's waterways.

Extending the urban tree canopy in public and private areas requires the resolution of issues such as the design of road space, competition with above and below ground infrastructure and the need to protect access to sunlight for homes and solar energy panels.

Along many busy roads, where there is limited space to plant new trees, there may be opportunities to plant other forms of green ground cover, such as garden beds and hedges, that can help improve air quality.

The District's councils generally provide guidance on enhancing tree canopy and tree cover in the urban environment, and information on street trees. Some encourage permeable surfaces to allow rainwater to soak into the ground and reduce stormwater run-off, which supports the growth of canopy trees and vegetation, and reduces pollution, flooding and urban heat.

Where trees are lost as a result of development, some councils have developed programs to plant replacement trees in the public realm.

The NSW Department of Planning and Environment's *Apartment Design Guide* and the new *Greenfield Housing Code* guide the requirements for landscape areas that can support the urban tree canopy.

### Connecting the Greater Sydney Green Grid

Enhancing the amenity and activity within, and accessibility to, the Greater Sydney Green Grid will promote a healthier urban environment, improve community access to recreation and exercise, encourage social interaction, support walking and cycling connections and improve resilience.

The draft *Greater Sydney Region Plan* describes how the Greater Sydney Green Grid sets a long-term vision for a network of high quality green areas. The long-term vision for the Greater Sydney Green Grid is shown in Figure 29.

This vision will be delivered incrementally over decades, as opportunities arise and detailed plans for connections are refined. Green Grid Priority Projects have been selected to provide District-scale connections that link open space, waterways and bushland. Table 4 lists the Green Grid Priority Projects for the District.

Councils will lead delivery of the Greater Sydney Green Grid through land use planning and infrastructure investment mechanisms such as development and land use controls, agreements for dual use of open space and recreational facilities, direct investment in open space, and other funding mechanisms such as Section 94 Contributions and Voluntary Planning Agreements.

State regional and district parklands and reserves form a principle element of the Greater Sydney Green Grid for both biodiversity and recreation purposes.

The NSW Government supports the delivery of regional open space and Green Grid connections through the Metropolitan Greenspace Program. The NSW Government also supports the delivery of regional open space using special infrastructure contributions.

Transport for NSW is establishing a Principal Bicycle Network in collaboration with councils. This network will be integrated with Green Grid.

In some areas, rail lines and other linear infrastructure prevent connectivity. Where feasible, planning and investment must consider opportunities for connections across rail lines, roads and other linear infrastructure.

Useful link:

- NSW Urban Green Cover Technical Guidelines

 Actions	Responsibility
69. Expand urban tree canopy in the public realm.	Councils, other planning authorities and State agencies
70. Progressively refine the detailed design and delivery of: <div><div>a. Greater Sydney Green Grid priority opportunities</div><div>b. connections that form the long-term vision of the network.</div></div>	Councils, other planning authorities and State agencies
71. Create Greater Sydney Green Grid connections to the Western Sydney Parklands.	Councils, other planning authorities and State agencies

**Table 4:** Western City District Green Grid Priority Projects

Priority Projects	
<b>1 South Creek</b>	Creating a continuous open space corridor along the entirety of South Creek that provides ecological protection and enhancement, better stormwater treatment and a regionally significant corridor for recreation uses. The 2017-2018 Metropolitan Greenspace Program provided \$500,000 grant funding for the Governor Philip Park Upgrade, which is linked to this priority project.
<b>2 Kemps Creek and Kemps Creek Nature Reserve</b>	Creating a regionally significant open space corridor that provides ecological protection and enhancement, improved water quality and recreational opportunities for growing communities around Kemps Creek. While Kemps Creek Nature Reserve is not accessible to the public at present, it can form part of an important corridor with a mix of conservation areas and areas open to the public for recreation.
<b>3 Penrith Lakes Parklands</b>	Creating diverse open space parklands and waterway facilities around the lakes and along the Nepean River, with pedestrian and cycle links from Penrith and important links with the Great River Walk project. The 2017-2018 Metropolitan Greenspace Program provided \$200,000 grant funding for Our River – Shared Path Tench Reserve, which is linked to this priority project.
<b>4 Ropes Creek</b>	Protecting and enhancing ecologically valued lands, improving water quality and stormwater runoff, and providing a diverse and connected sequence of recreational open spaces, walking and cycling trails, including a green link to connect Cecil Hills, Erskine Park, Minchinbury, Mount Druitt, Oxley Park, St Marys and Ropes Crossing.
<b>5 Scenic Southern Escarpment</b>	Connecting the north and south open spaces at Wentworth Falls Lake, providing access to the lake with a potential for education on natural heritage and increasing access to Pitt Park sports field and the TAFE.
Other important projects to deliver the Greater Sydney Green Grid in the Western City District are:	
<b>6 Blaxland Creek and Bushland Reserve</b>	Protecting important future open spaces for the Western Sydney Airport Priority Growth Area.
<b>7 Bunbury Curran Creek and Bow Bowling Creek</b>	Using the open space corridors along the creeks to provide open space, urban greening, active transport and stormwater treatment along the corridor.
<b>8 Camden Park and Menangle to Georges River Open Space Corridor</b>	Connecting a band of open space in a unique geographic setting where the Nepean and Georges River are only four kilometres apart.
<b>9 Cranebrook to Windsor Nature Reserve Corridor</b>	Planning for the Wianamatta Nature Reserve, Castlereagh Nature Reserve and Windsor Downs Nature Reserve to protect and enhance regionally significant ecological communities and connect them to improve resilience, while also improving the water quality and treatment of stormwater along Rickabys Creek and providing open space and links to other areas.
<b>10 Eastern Escarpment open space and trails</b>	Connecting a series of recreational and tourist open space facilities along the escarpment to maximise unique landscape and views. The 2017-2018 Metropolitan Greenspace Program provided \$225,000 grant funding for Knapsack Reserve, which is linked to this project.



- 
- 11 Five Fairfield Creeks – Clear Paddock and Cabramatta Creeks**

Expanding on existing parklands to create a continuous network on high quality parkland and walking and cycling corridors, from the Western Sydney Parklands to the Georges River. The Five Fairfield Creeks are a network of creeks that flow into the Georges River at Chipping Norton Lakes. They are Cabramatta Creek, Hinchinbrook Creek, Clear Paddock Creek, Orphan School Creek and Green Valley Creek.

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  - 12 Georges River Parklands and Chipping Norton Lakes**

Enhancing the Georges River as a regional open space and walking and cycling corridors, as well as protecting and enhancing the wetlands, ecological communities and improving stormwater management from surrounding development.

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  - 13 Great Western Highway Penrith to Blackheath Corridor**

Creating a safe and separated east-west walking and cycling connection from Penrith to Blackheath. The 2017-2018 Metropolitan Greenspace Program provided \$593,154 grant funding for the Great Blue Mountains Trail, which is linked to this project.

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  - 14 Kayess Park Open Space Corridor, Ingleburn**

Creating an east west green corridor that connects Georges River to communities at Ingleburn, Minto, Bow Bowing and Raby.

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  - 15 Nepean Creeks – Peach Tree, Mulgoa and Surveyors Creeks**

Enhancing and protecting these assets and increasing access and recreational opportunities.

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  - 16 Prospect Creek and Prospect Reservoir Parklands**

Creating a continuous open space and active transport corridor from the Western Sydney Parklands and Prospect Reservoir to the Georges River.

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  - 17 Shanes Park and Wianamatta Regional Park**

Protecting important areas of biodiversity that also provide connections to Ropes Creek and South Creek.

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  - 18 South Western Creeks, Badgerys and Cosgrove Creeks**

Planning for open space along tributaries of South Creek that will play an important role in providing open space for growing communities in the South West Priority Growth Area.

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  - 19 The Upper Canal**

Protecting drinking water infrastructure while making use of the space along the canal as open space, urban greening and active transport corridor.

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  - 20 Warragamba Pipeline Open Space Corridor**

Consider using surplus easement lands for recreational open space, urban greening and walking and cycling trails, connecting to Mulgoa, Badgerys Creek, Kemps Creek, Blaxland Creek and Horsley Park.

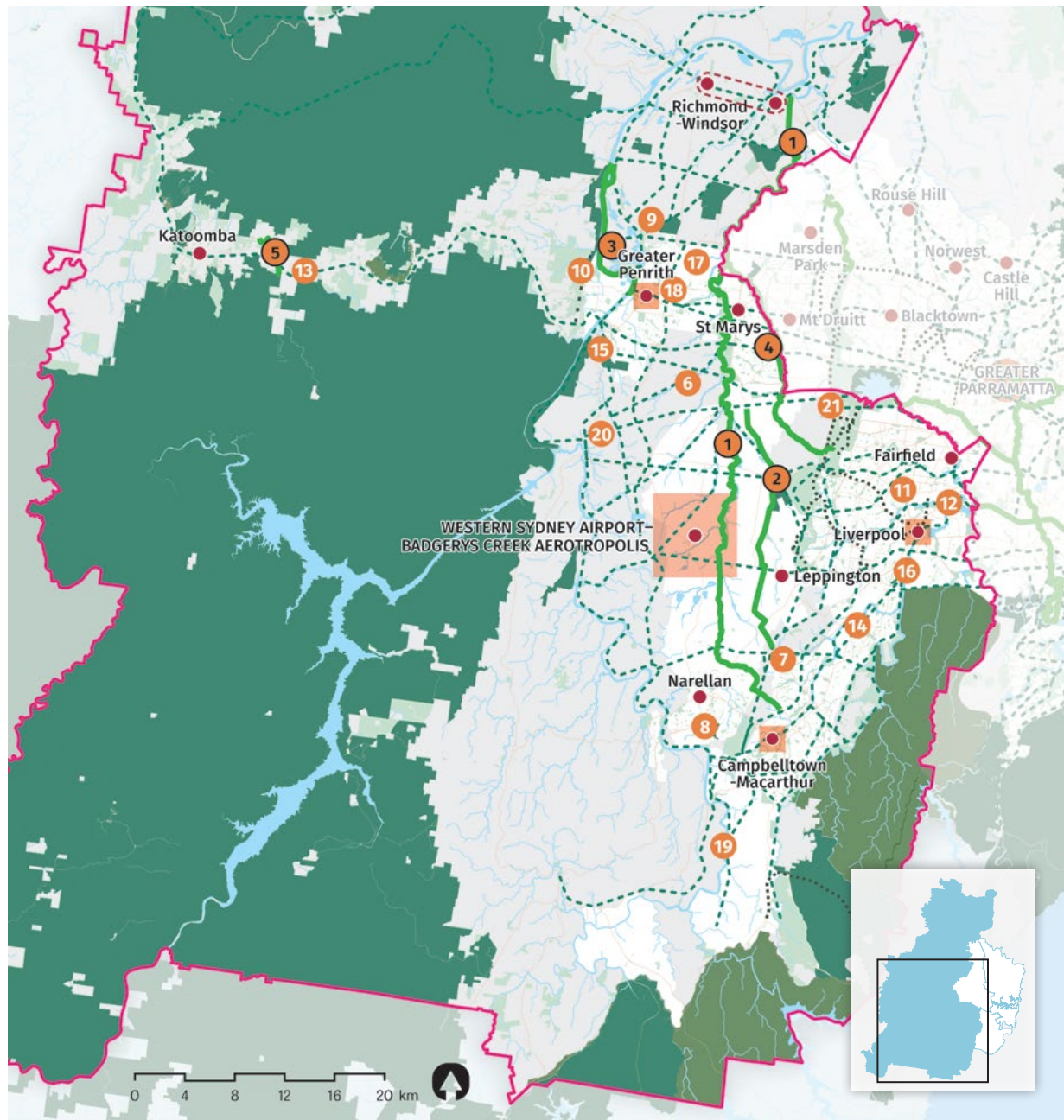
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  - 21 Western Sydney Parklands and Eastern Creek**

Improving connectivity from adjacent Green Grid projects such as the Five Fairfield Creeks and Prospect Creek and Prospect Reservoir Parklands into the Western Sydney Parklands.

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**Figure 29:** Western City District Green Grid opportunities



	District Boundary		Projects Important to District		Road
	Metropolitan City Cluster		Existing Tracks and Trails		National Parks and Reserves
	Strategic Centre		Green Grid Priority Corridor		Protected Natural Area
	Metropolitan Rural Area		Future Green Grid Opportunities		Public Open Space
	Priority Corridors		Urban Area		Waterways

Source: Greater Sydney Commission, 2017, adapted from Sydney Green Grid, report published report prepared by Tyrell Studio and Office of the Government Architect for the Greater Sydney Commission.

Planning Priority W16

Protecting and enhancing scenic and cultural landscapes

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 28: Scenic and cultural landscapes are protected** and the corresponding strategies.

The scenic and cultural landscapes of the Western City District contribute to the identity and international profile of Greater Sydney. Scenic and cultural landscapes encourage an appreciation of the natural environment, protect heritage and culture, and create economic opportunities, particularly for recreation and tourism. Aboriginal culture is deeply entwined in the landscapes of Greater Sydney.

Scenic and cultural landscapes can complement green infrastructure, particularly where scenic landscapes include waterways and urban bushland. Scenic and cultural landscapes can often be prone to natural hazards, for example escarpments, which can be prone to land slip and erosion.


The Greater Blue Mountains World Heritage Area is internationally recognised and celebrated for its beauty and for the history of human interaction with its landscapes. Images of the Three Sisters and the escarpments of the Blue Mountains have become symbols of Greater Sydney as a green city within a magnificent landscape.

Other scenic landscapes in the Western City District, including the Western Sydney Parklands, Mulgoa Valley, the Razorback Range at Picton and the Scenic Hills between Campbelltown and Camden, and the rural hills and ridgelines of the Camden and Wollondilly areas, create a distinct setting for neighbouring urban communities. Within the District's priority growth areas, vistas to historic colonial-era homesteads have been protected through the planning and design process.

The Wollondilly, Blue Mountains and Hawkesbury local government areas benefit from substantial areas of protected national parks, rivers and creeks, and water catchments that provide outstanding landscapes and views. Rural towns and villages in the valleys and plains to the east of the national parks are set between a series of hills and ridgelines that are special to the District's character and identity.

Ridgelines are highly valued elements of scenic landscapes, and development should not diminish their scenic quality. Retaining or creating vistas along new east-west road links in priority growth areas could take advantage of views to the escarpment of the Blue Mountains to the west and to the ridgelines of the Western Sydney Parklands and Scenic Hills to the east and south east. Similarly, the flatter and drier landscape of the Cumberland Plain could feature scenic waterway crossings to improve liveability and emphasise connections with the natural landscape.

Continued protection of the Western City District's scenic and cultural landscapes is important for the sustainability, liveability and productivity of the District. It can complement the protection of biodiversity and habitat, help manage natural hazards and support tourism. Protecting scenic and cultural landscapes can also help preserve links to Aboriginal cultural heritage.

 Actions	Responsibility
72. Identify and protect scenic and cultural landscapes, specifically the Scenic Hills and the escarpments of the Blue Mountains.	Councils, other planning authorities and State agencies
73. Enhance and protect views of scenic and cultural landscapes from the public realm.	Councils, other planning authorities and State agencies



## Planning Priority W17

### Better managing rural areas

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 29: Environmental, social and economic values in rural areas are maintained and protected** and the corresponding strategies.

The Western City District's rural areas contribute to habitat and biodiversity, support productive agriculture, provide mineral and energy resources, and sustain the local rural towns and villages. They are part of the larger Metropolitan Rural Area.

The District's rural areas are framed by bushland and national parks to the west, and cover 28 per cent of the District (refer to Figure 28). They include the floodplains along the Hawkesbury River, the historic Mulgoa Valley, the hills and steep ridgelines of Campbelltown and Wollondilly Shire, and areas of outstanding cultural heritage value.

Greater Sydney's agricultural production in 2015–16 was \$645 million – equal to five per cent of NSW total agricultural value.<sup>20</sup> Metropolitan Rural Area farmland has supplied Greater Sydney's fresh food for over two centuries, including oranges, apples, mushrooms and vegetables from this District.

The District's rural areas include poultry, egg production and dairy activities, irrigated horticulture such as leaf vegetables and mushrooms, and nurseries for cut flowers and turf.

*The Western Sydney Airport will be a catalyst for agricultural exports from the region.*

There are extractive industries around Londonderry and the Hawkesbury River producing materials such as clay and sand, while the Camden, Picton, Wilton, Appin and Bargo areas have coal and coal seam gas resources.

The District's rural areas provide opportunities for people to live in a pastoral or bushland setting. Urban development is not consistent with the values of the Metropolitan Rural Area. The draft *Greater Sydney Region Plan* takes a strategic approach to managing Greater Sydney's needs for new land

release areas. Therefore, urban development in the Metropolitan Rural Area will only be considered in the investigation areas identified in the draft *Greater Sydney Region Plan*.

To the north of the Western Sydney Airport Priority Growth Area two areas form part of the Greater Penrith to St Marys Priority Growth Area investigations:

- Orchard Hills, north of the Defence Establishment Orchard Hills and west of St Clair
- east of the Northern Road at Luddenham between the Western Sydney Airport Priority Growth Area and the water pipeline.
- The Defence Establishment Orchard Hills land has been included in the Priority Growth Area Investigation to ensure coordination of existing and future land uses in the corridor.

To the east of the Western Sydney Airport Priority Growth Area is a third area:


- Horsley Park and Mount Vernon located west of the M7 Motorway.

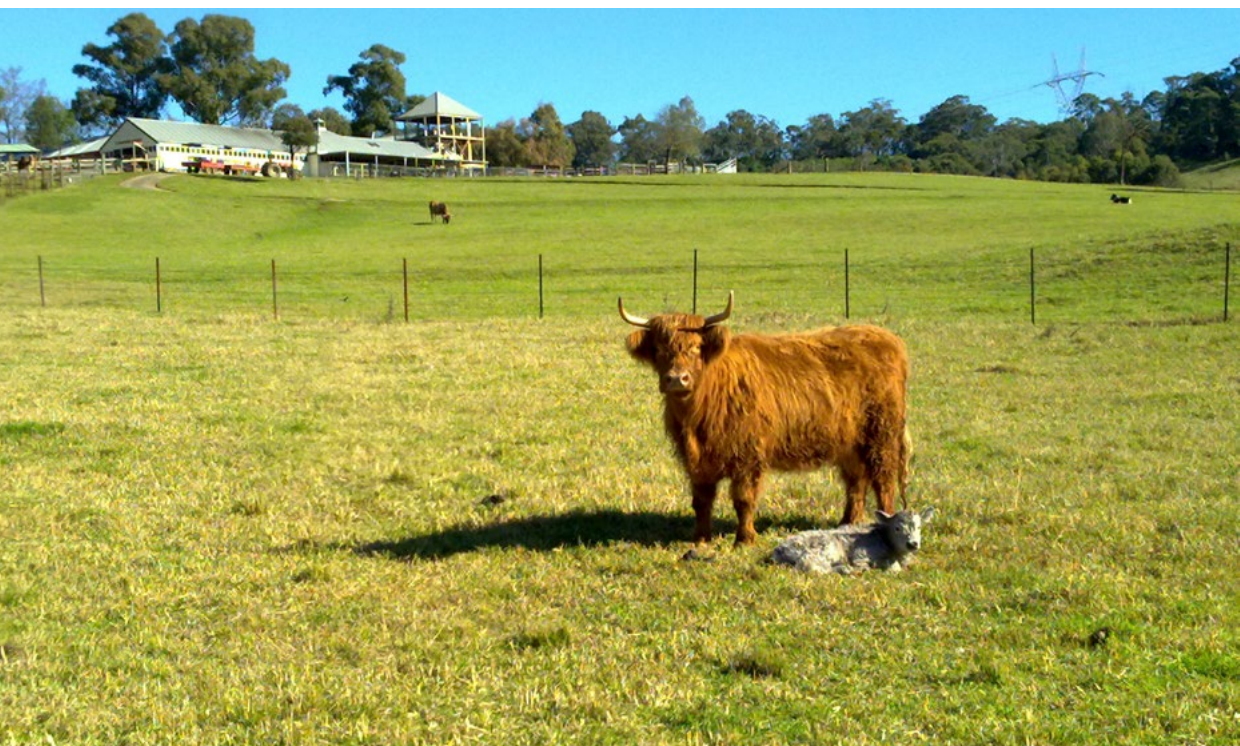
Design-led place-based planning in the Metropolitan Rural Area will help manage its environmental, social and economic values, maximise the productive use of land, and incentivise biodiversity protection for remnant vegetation. Increased demand for biodiversity offset sites and limiting urban development in the Metropolitan Rural Area will help make it more attractive for landowners to protect biodiversity on private land through stewardship agreements.

In some circumstances, careful planning of rural residential development can provide the necessary incentive to enable greater investment in the management of bushland, waterways and scenic landscapes, using effective buffers around rural industries.

The Western Sydney Airport will be a catalyst for agricultural exports from the region, with the District retaining significant peri-urban agricultural production. Current Western City District research and agricultural initiatives include:

- The **Western Sydney University's AgriPark Research Centre and campus** at Hawkesbury, which specialises in food technology and stone fruit horticulture
- The **Elizabeth Macarthur Agricultural Institute** at Menangle, which is the NSW Department of Primary Industries Centre of Excellence for Animal and Plant Health
- The **Sydney Science Park** in the Western Sydney Airport Priority Growth Area at Luddenham, which will be a fully integrated community creating more than 12,000 knowledge based jobs, catering to over 10,000 students and home to over 10,000 residents. Research and education partners include Birling National Avian Laboratories Centre; the CSIRO's first dedicated Innovation Zone and 'Urban Living Lab' in NSW; and the NSW Government's first STEM-inspired school (Catholic Education Diocese of Parramatta).

 Actions	Responsibility
74. Maintain or enhance the values of the Metropolitan Rural Areas using place-based planning to deliver targeted environmental, social and economic outcomes, including rural residential development.	Councils and other planning authorities
75. Limit urban development to within the Urban Area, except for the investigation areas at Horsley Park, Orchard Hills, and east of The Northern Road, Luddenham.	Councils, other planning authorities, State agencies and State-owned corporations



## Planning Priority W18

### Delivering high quality open space

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 31: Public open space is accessible, protected and enhanced** and the corresponding strategy and action.

Public open space is a form of green infrastructure that enhances the character of the Western City District's neighbourhoods, supports healthy and active lifestyles, and brings communities together. As the district grows, providing for and developing innovative ways to optimise open space areas for recreation, sport and social activity, as well as establishing physical links that support social networks and create a sense of community will become increasingly important.

The key considerations for planning open space are quality, quantity and distribution. The Greater Sydney Green Grid will help improve access and distribution. There will be relatively few opportunities to increase the quantity of public open space, and therefore greater emphasis will be needed on improving the quality and distribution of open space including sporting facilities.

Councils already identify innovative solutions for the shortfall in active open space, including making better use of existing sportsgrounds, converting existing open space into sports fields, and partnering with schools to share spaces outside school hours.

People in urban neighbourhoods should be able to walk to local open space. In high density neighbourhoods, public open space is used like a shared backyard, providing a green communal living space. Open space in high density neighbourhoods needs to be durable, multi-purpose and accessible to a wide variety of users. High density neighbourhoods also need to have high quality open space within close proximity.

Delivering connectivity of walking and cycling trails is an important objective to maximise their utility.

In local and strategic centres, local open space is important to provide places for workers to relax and for people to meet and socialise. It also provides for tree and vegetation planting in the centre. Place-based planning can identify opportunities to improve the quality, management and use of existing open space, and to provide new open space.

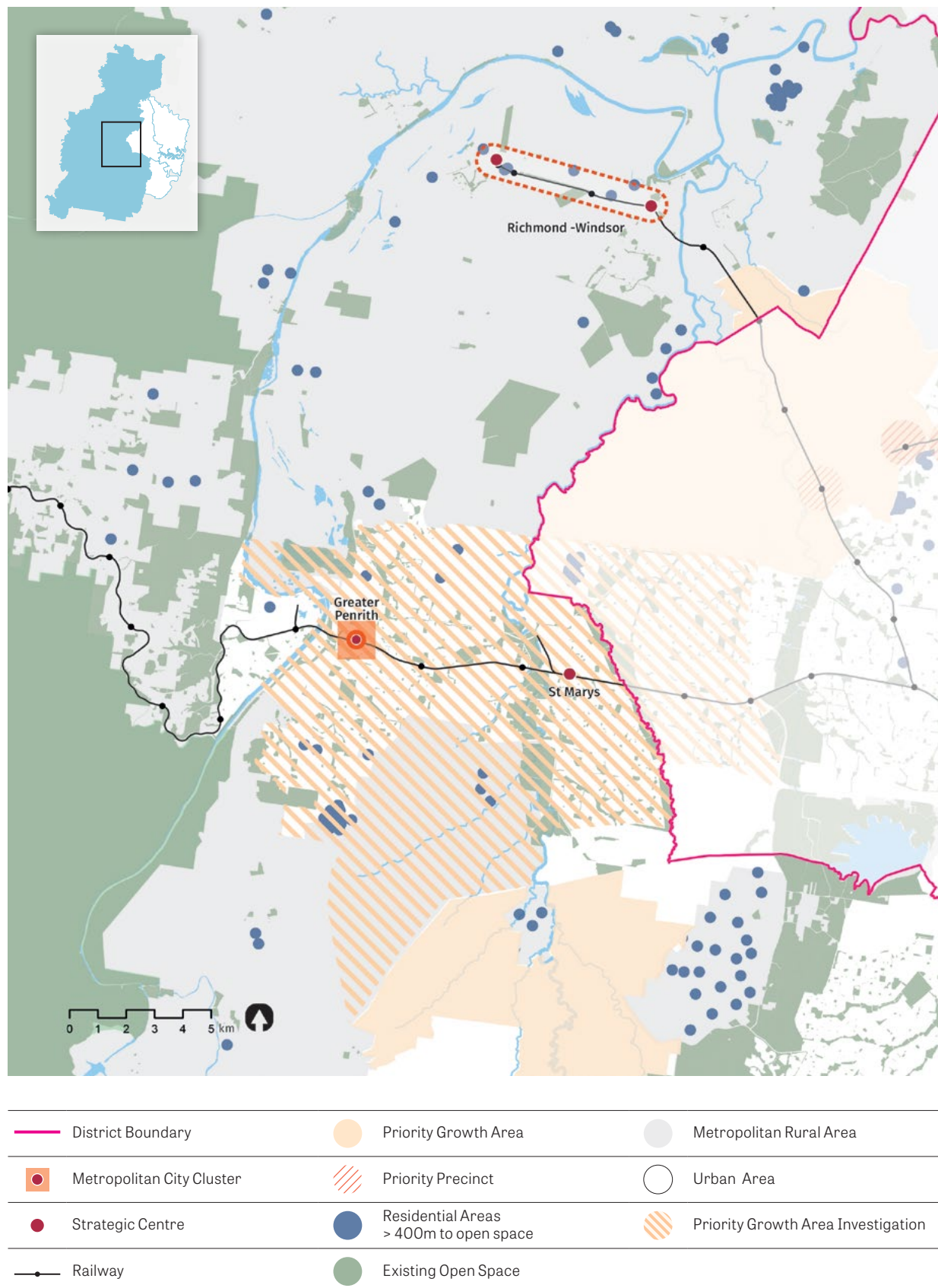
Almost 91 per cent of the District's residents live within 400 metres of open space (refer to Figures 30 and 31). Understanding the open space needs of the community will help determine the quantity, quality and distribution that will be required. The Greater Sydney Green Grid is one mechanism to deliver better regional-scale open spaces and walking and cycling links between open spaces. In the Western Sydney Airport and South West Priority Growth Areas, new areas of open space will be created to meet the needs of growing communities, including a major open space corridor along South Creek. New open space will also be created within Wilton Priority Growth Area and Greater Macarthur Priority Growth Area.

The District's Greater Sydney Green Grid projects will improve regional-scale open spaces and walking and cycling links.

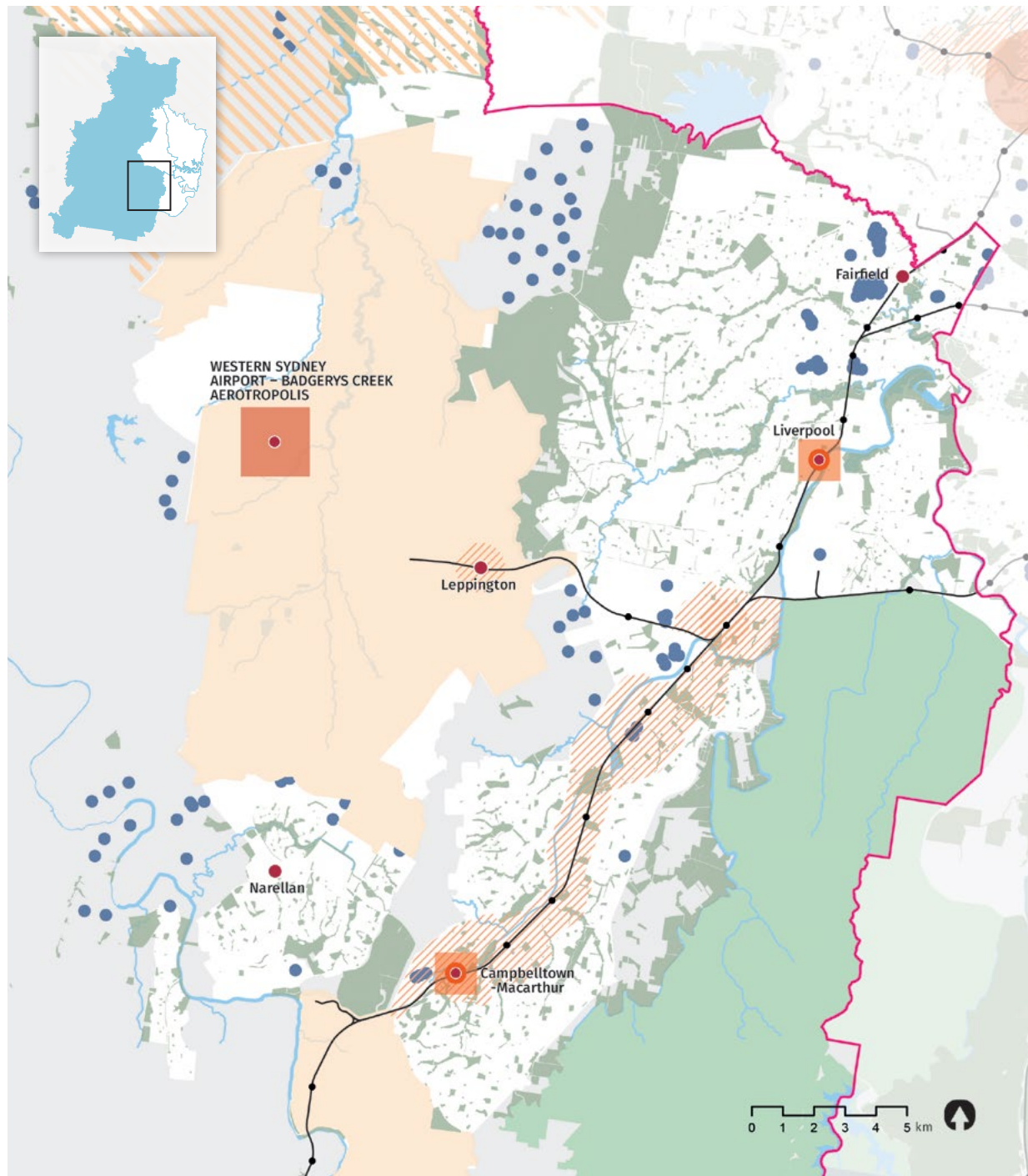
The Government Architect's Office is developing an open space toolkit, a resource for councils to use for open space planning.



Figure 30: Western City District access to open space – north




**Figure 31:** Western City District access to open space – south



	District Boundary		Priority Growth Area		Metropolitan Rural Area
	Metropolitan City Cluster		Priority Precinct		Urban Area
	Strategic Centre		Residential Areas > 400m to open space		Priority Growth Area Investigation
	Railway		Existing Open Space		



 Actions	Responsibility
<p>76. Maximise the use of existing open space and protect, enhance and expand public open space by:</p> <ul style="list-style-type: none"> <li>a. investigating opportunities to expand a network of diverse, accessible, high quality open space that responds to the needs and values of communities as populations grow</li> <li>b. investigating opportunities to provide new open space so that all residential areas are within 400 metres of open space and all high density residential areas are within 200 metres of open space</li> <li>c. requiring large urban renewal initiatives to demonstrate how access to high quality and diverse local open space is maintained or improved</li> <li>d. planning new neighbourhoods with a sufficient quantity of new open space</li> <li>e. delivering shared and co-located sports and recreational facilities, including shared school grounds and repurposed golf courses</li> <li>f. delivering on, or complementing, the Greater Sydney Green Grid.</li> </ul>	<p>Councils, other planning authorities, State agencies and State-owned corporations</p>





## Planning Priority W19

### Reducing carbon emissions and managing energy, water and waste efficiently

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 33: A low-carbon city contributes to net-zero emissions by 2050 and mitigates climate change; Objective 34: Energy and water flows are captured, used and re-used; and Objective 35: More waste is re-used and recycled to support the development of a circular economy** and the corresponding strategies.

The significant growth and development planned for the District will mean that demand for energy and water and the generation of waste will increase. Without new approaches to the use of energy and water and management of waste, greenhouse gas emissions are likely to increase.

The District has an opportunity to include precinct-wide energy, water and waste efficiency systems for land release, urban renewal, industrial and urban services land, centres and Collaboration Areas. Adopting a place-based approach is necessary to achieve the best sustainability outcomes, including renewing and replacing inefficient infrastructure and organising utilities, car parking, amenities, open space, urban green cover and public spaces.

Better design of precinct-wide energy, water and waste systems will encourage a circular economy that improves efficiency. A circular economy means designing waste out of the system. For example, a food manufacturing plant could send waste to an adjacent organic waste-to-energy facility.

#### A low-carbon District

More efficient use of energy and water in the District will reduce impacts on the environment and the District's greenhouse gas emissions. The Commission has been seeking to better understand greenhouse gas emissions for each District across Greater Sydney and will continue to explore opportunities for planning initiatives to support the NSW Government's goal of achieving a pathway towards net-zero emissions by 2050. Potential pathways towards net-zero emissions in the District include:

- new public transport infrastructure, electric vehicles and autonomous vehicles to connect

residents to their nearest strategic centre or metropolitan city cluster within 30 minutes

- new building standards and retrofits to design energy, water and waste systems to operate as efficiently as possible (for residential and non-residential buildings)
- building and precinct-scale renewables
- waste diversion from landfill.

How Greater Sydney's urban structure and built form develops in the future can support NSW's transition towards net-zero emissions. More closely integrating land use with transport planning will help slow emissions growth by locating new homes near public transport and high quality walkways and cycle paths.

Building on existing public transport connections with electric vehicle transport hubs, shared autonomous vehicles and other innovative transport technologies can further reduce greenhouse emissions, noise and air pollution. Emerging transport technologies will reduce the need for parking spaces and help reduce congestion. There is an opportunity to apply these new technologies in the Western Sydney Airport Priority Growth Area.

Designing high efficiency homes and incorporating renewables will reduce emissions and reduce costs. This means improving the energy and water efficiency of buildings, and reducing waste in urban renewal projects and infrastructure projects.

Recycling local water and harvesting stormwater creates opportunities for greening public open spaces including school playgrounds. Recycling water diversifies the sources of water to meet demands for drinking, irrigating open spaces, keeping waterways clean and contributing to Greater Sydney's water quality objectives.

## Recycling and reducing waste

In coming years, several large landfills in Greater Sydney will close as they reach capacity, meaning waste will have to be transported outside of the region or new facilities developed. This limits economic and transport efficiency, and increases costs. Additional sites for waste management in Greater Sydney would improve efficiencies in managing waste.

The planning and design of new developments should support the sustainable and effective collection and management of waste. The Environment Protection Authority has prepared a range of guidelines and other information to assist in the sustainable management of waste.


Separating organics from other forms of waste, and valuing it as a resource which can be processed through a waste-to-energy facility to recover energy, will reduce waste being diverted to landfill.

Recovering energy and capturing methane through organic waste to energy also helps to reduce greenhouse gas emissions.

In higher-density neighbourhoods, innovative precinct-based waste collection, re-use and recycling would improve efficiency, reduce truck movements and boost the recycling economy. Where possible, additional land should be identified for waste management, reprocessing, re-use and recycling.

### Useful links:

- Environment Protection Authority *Waste Guidelines and Information*
- Environment Protection Authority *NSW Waste and Resource Recovery Strategy 2014-21*
- NSW Office of Environment and Heritage *Climate Change Fund Draft Strategic Plan*

 Actions	Responsibility
77. Support initiatives that contribute to the aspirational objective of achieving net-zero emissions by 2050, especially through the establishment of low-carbon precincts in Priority Growth Areas, Priority Precincts, Collaboration Areas, State Significant Precincts and Urban Transformation projects.	Councils, other planning authorities, State agencies and State-owned corporations
78. Support precinct-based initiatives to increase renewable energy, and energy and water efficiency, especially in Priority Growth Areas, Priority Precincts, Collaboration Areas, State Significant Precincts and Urban Transformation projects.	Councils, other planning authorities, State agencies and State-owned corporations
79. Protect existing, and identify new, locations for waste recycling and management.	Councils, other planning authorities and State agencies
80. Support innovative solutions to reduce the volume of waste and reduce waste transport requirements.	Councils, other planning authorities and State agencies
81. Encourage the preparation of low-carbon, high efficiency strategies to reduce emissions, optimise the use of water, reduce waste and optimise car parking provision where an increase in total floor area greater than 100,000 square metres is proposed in any contiguous area of 10 or more hectares.	Councils, other planning authorities, State agencies and State-owned corporations
82. Investigate potential regulatory mechanisms such as a Protection of the Environment Policy (PEP) that sets low-carbon, high efficiency targets to be met through increased energy efficiency, water recycling and waste avoidance, reduction or re-use. This could include a framework for the monitoring and verification of performance for precincts in Priority Growth Areas, Priority Precincts, Collaboration Areas, urban renewal precincts and housing growth areas that are planned to have an increase in total floor area greater than 100,000 square metres.	Environment Protection Authority

## Planning Priority W20

### Adapting to the impacts of urban and natural hazards and climate change

In giving effect to the draft *Greater Sydney Region Plan*, this Planning Priority delivers on **Objective 36: People and places adapt to climate change and future shocks and stresses**; **Objective 37: Exposure to natural and urban hazards is reduced**; and **Objective 38: Heatwaves and extreme heat are managed** and the corresponding strategies.

The District's climate and natural landscape can create natural hazards such as heatwaves, bushfire, flooding and storms. Climate change will exacerbate these natural hazards, leading to higher temperatures and changes in rainfall, with consequent flooding. While planning for resilience has traditionally focused on responses to natural hazards and climate change, it is increasingly being used to consider a wider range of social and economic shocks and stresses.

Effective planning has a fundamental role in reducing the exposure to natural and urban hazards and building resilience to shocks and stresses. Growth and change needs to be considered at a local level, and when making decisions about growth and considering cumulative impacts at district and regional levels.

#### Natural and urban hazards

The climate, vegetation, topography and pattern of development in the District mean that bushfire and flooding will continue to be a hazard. Placing developments in hazardous areas or increasing the density of development in areas with limited evacuation options increases risk to people and property.

Climate change is likely to result in a longer bushfire weather season with more bushfires, and longer lasting heatwaves with more extremely hot days. Currently areas of the District such as Penrith experience on average 20 very hot days (above 35 degrees), with projections for an additional five to 10 days per year in the near future. Heatwaves kill more people than bushfires, with disadvantaged and elderly people most affected.

The size and topography of the Hawkesbury-Nepean Valley means it has the greatest flood exposure in NSW. Unlike most other river catchments in Australia, the Hawkesbury-Nepean Valley floodplain has significantly higher depths during flood events created by several narrow gorges in the Valley that constrict the flow of floodwater downstream. There is a complex interaction between the main flow of the river and the multiple rivers and creeks that contribute to the catchment creating what is known as a bathtub effect. Evacuation of people in extreme events is made complicated by the size of the area affected and the need to evacuate certain areas early before they become isolated by rising flood waters.

Some communities are built on 'flood islands' that can also become isolated during floods, and key evacuation routes can face congestion or inundation during higher floods. This creates challenges for urban development and emergency management planning in the catchment.

Penrith Lakes is a former quarry site being rehabilitated into lakes, wetlands and parklands, located mostly within the Metropolitan Rural Area. As Penrith Lakes is in the Hawkesbury-Nepean Valley floodplain, planning for any future development will need to carefully consider significant risk to people and property from flooding during extreme events. Investigations undertaken by the Hawkesbury-Nepean Flood Risk Management Taskforce identified that there is no ability for intensive urban development to occur at Penrith Lakes, due to the characteristics of the site as well as the limited ability of either existing or future infrastructure to create the necessary road evacuation capacity to service the new development and maintain evacuation routes for places such as Richmond and Londonderry.





Some alternate forms of development may be considered, where these avoid increasing risks to people and property, including evacuation impacts. The amendment to State Environmental Planning Policy (Penrith Lakes Scheme) 1989 allows tourism, employment and limited residential development in areas subject to operational plans that build flood resilience and avoid creating communities that require evacuation.

Flooding constraints also exist in other areas across the District, many of which are undergoing significant growth and redevelopment. This includes the Penrith City Centre, where drainage works are underway to manage flooding. Strategic planning for growth in flood-prone areas must consider flood resilience to ensure buildings and communities can withstand flood events and quickly return.

Past and present urban development and activities can also create urban hazards such as noise, air pollution and soil contamination. Compared to many cities around the world, Greater Sydney enjoys excellent air quality, which enhances its reputation as a sustainable and liveable city. However, the combined effect of air circulation patterns in the Sydney Basin, local topography, and proximity to different sources of air pollution such as wood-fire smoke, can lead to localised air quality issues.

Transport movements along major roads and rail corridors generate noise and are a source of air pollution. The degree of noise or air pollution can be related to the volume of traffic and the level of truck and bus movements. The design of new buildings and public open space can play a significant role in reducing exposure to noise and air pollution along busy road and rail corridors. Public transport, walking and cycling, as well as electric cars provide opportunities to reduce air pollution.

Soil and groundwater contamination is another urban hazard which will require careful management as the District grows, and land uses change. This is particularly important when planning for more sensitive land uses such as schools, open space and low-density residential neighbourhoods, in areas with potential for pre-existing contamination. State Environmental Planning Policy No. 55 – Remediation of Land and its associated guidelines manage the rezoning and development of contaminated land.

Greater Sydney, particularly its rural land, is at risk from biosecurity hazards such as pests and diseases that could threaten agriculture, the environment and community safety. Biodiversity hazards are being managed by the NSW Government through the *Greater Sydney Peri Urban Biosecurity Program*.





In planning for future growth, consideration of natural hazards and cumulative impacts includes avoiding locating growth and development in areas exposed to natural hazards and limiting growth in existing communities that are exposed and vulnerable to natural hazards. In exceptional circumstances, there may be a need to reduce the number of people and amount of property that are vulnerable to natural hazards, through managed retreat of development.

Traditionally, planning in NSW has considered the 1 in 100 chance per year flood event. Given the significant depths between the 1 in 100 chance per year flood and the probable maximum flood in the Hawkesbury-Nepean Valley, a risk based approach that considers the full range of flood sizes is more appropriate.

The impact of extreme heat on communities and infrastructure networks can also be significant. More highly developed parts of the District can be exposed to extreme heat as a result of the urban heat island effect. Increasing the tree canopy is important to help reduce those impacts. The *State Heatwave Sub Plan*, which sits under the *NSW State Emergency Management Plan*, details the control and coordination arrangements across State and local government for the preparation for, response to, and immediate recovery from a heatwave.

Current guidelines and planning controls also focus on minimising hazards and pollution by:

- using buffers to limit exposure to hazardous and offensive industries, noise and odour
- designing neighbourhoods and buildings that minimise exposure to noise and air pollution in the vicinity of busy rail lines and roads, including freight networks
- cooling the landscape by retaining water and protecting, enhancing and extending the urban tree canopy to mitigate the urban heat island effect.

*More highly developed parts of the District can be exposed to extreme heat as a result of the urban heat island effect.*

Minimising land that interfaces with hazardous areas can reduce risks. Clearing vegetation around developments on bushfire-prone land can help reduce risks from bushfire, but must be balanced with protecting bushland, and its ecological processes and systems. Planning on bushfire-prone land should consider risks and include hazard protection measures within the developable area. The Rural Fire Service requires new development to comply with the provisions of *Planning for Bush Fire Protection 2006*.



Figure 32: Vulnerability to heatwaves

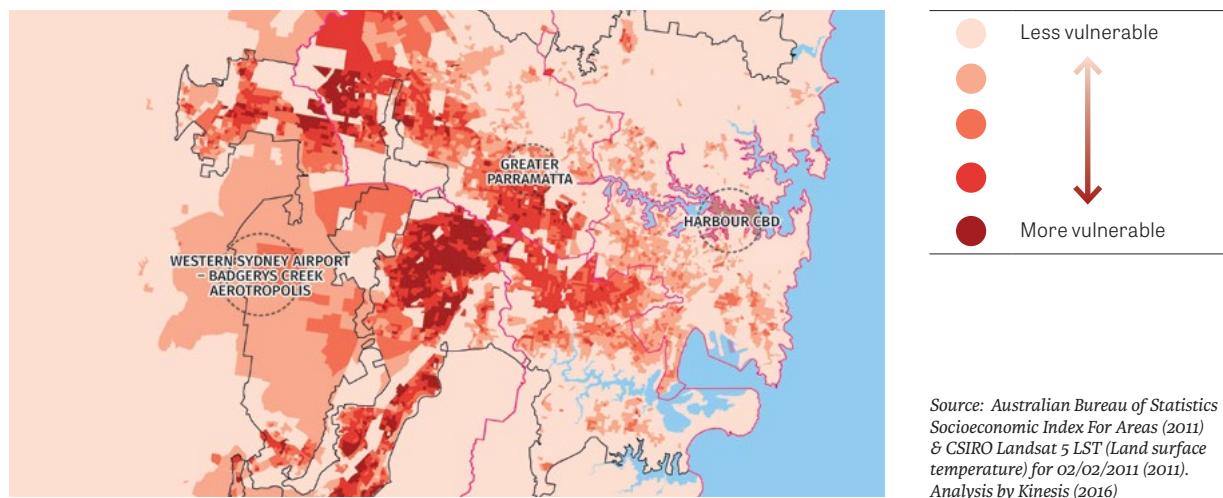


Figure 33: Land surface temperature during a heatwave

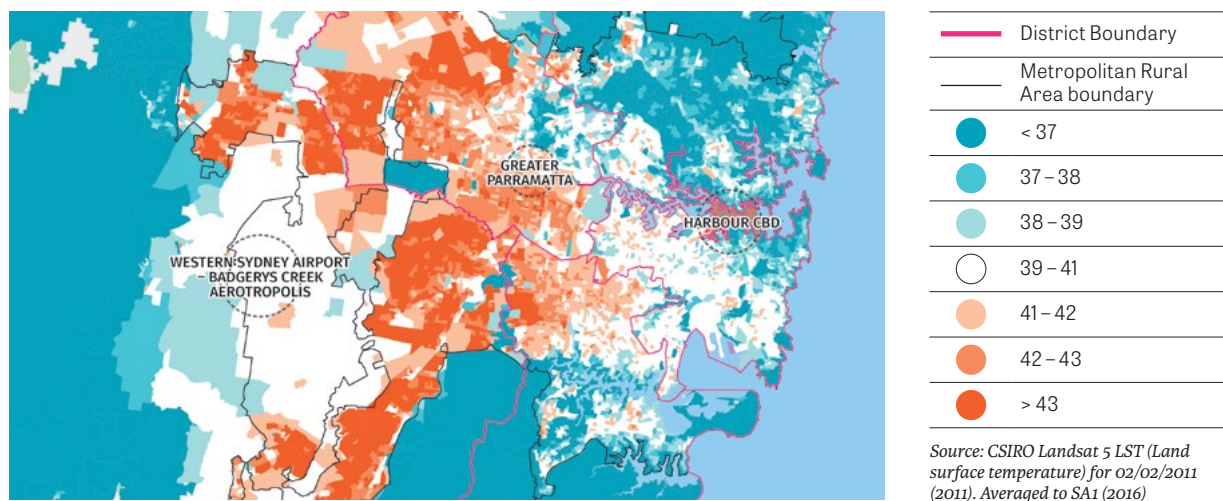
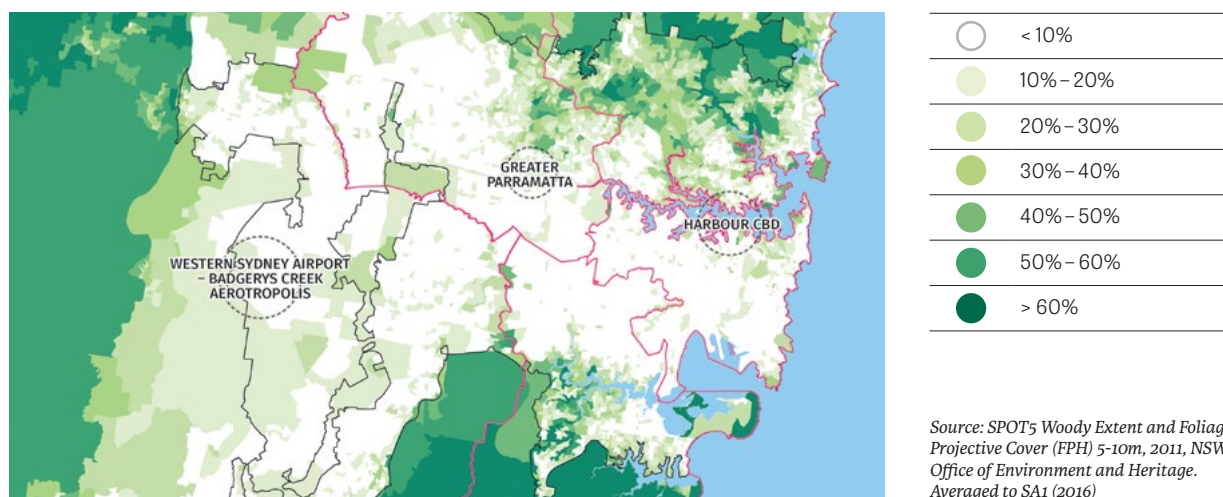


Figure 34: Tree canopy cover at 2011





### Adapting to climate change

The most significant natural hazards and acute shocks that affect the District include bushfire, flooding and urban heat. These natural phenomena will be exacerbated by climate change.

Air temperatures in Greater Sydney are expected to increase due to climate change and increasing urbanisation. With projected increases in heatwaves and the number of extreme temperature days, taking action to cool the city, in conjunction with supporting the community to adapt to a changing climate, is increasingly important. Increasing the tree canopy is important to help reduce those impacts.

Figure 32 shows different levels of vulnerability to heatwaves. Areas are ranked by their combined level of socioeconomic disadvantage and exposure to heat during a heatwave and Figure 33 shows land surface temperatures during heatwave conditions. Figure 34 shows tree canopy cover as at 2011.

The way neighbourhoods and buildings are planned and designed can help communities adapt and be more resilient to extreme heat. Increased tree canopy and green ground cover, verandahs and awnings, and minimising dark coloured materials and surfaces will minimise these effects.

Water-play features and connections with water will become essential elements of urban areas. The incorporation of green walls, green roofs and initiatives such as rain gardens should be designed into urban environments. More cooling elements should also be used in construction and building materials. Retaining more water in the landscape and integrating waterways in the design of new communities will help create a greener and cool city.


### Shocks and stresses

Councils across the District are participating in the 100 Resilient Cities initiative and considering ways to respond to shocks and stresses that could strengthen community resilience.

The Australian Government has released *Australia's Strategy for Protecting Crowded Places from Terrorism*, which provides a framework for making public places safer and more resilient. This strategy is accompanied by tools which councils, building owners and managers can use to implement protective measures that will strengthen community resilience.

#### Useful links:

- Floodplain Development Manual 2005
- Planning for Bush Fire Protection 2006
- State Heatwave Sub Plan
- Adapt NSW
- NSW Emergency Risk Management
- Australia's Strategy for Protecting Framework Crowded Places
- 100 Resilient Cities

 Actions	Responsibility
83. Support initiatives that respond to the impacts of climate change.	Councils, other planning authorities and State agencies
84. Mitigate the urban heat island effect and reduce vulnerability to extreme heat.	Councils, other planning authorities and State agencies
85. Respond to the direction for managing flood risk in the Hawkesbury-Nepean Valley as set out in <i>Resilient Valley, Resilient Communities – Hawkesbury-Nepean Valley Flood Risk Management Strategy</i> .	Councils, other planning authorities and State agencies

## 6

# Implementation

District plans are the first step in the implementation of the region plan for the Greater Sydney Region. They must give effect to the region plan. More particularly, they have to outline the planning priorities consistent with the region plan, and the actions to achieve the priorities.

Successful implementation of the district plans is more than updating council local environmental plans. It also requires:

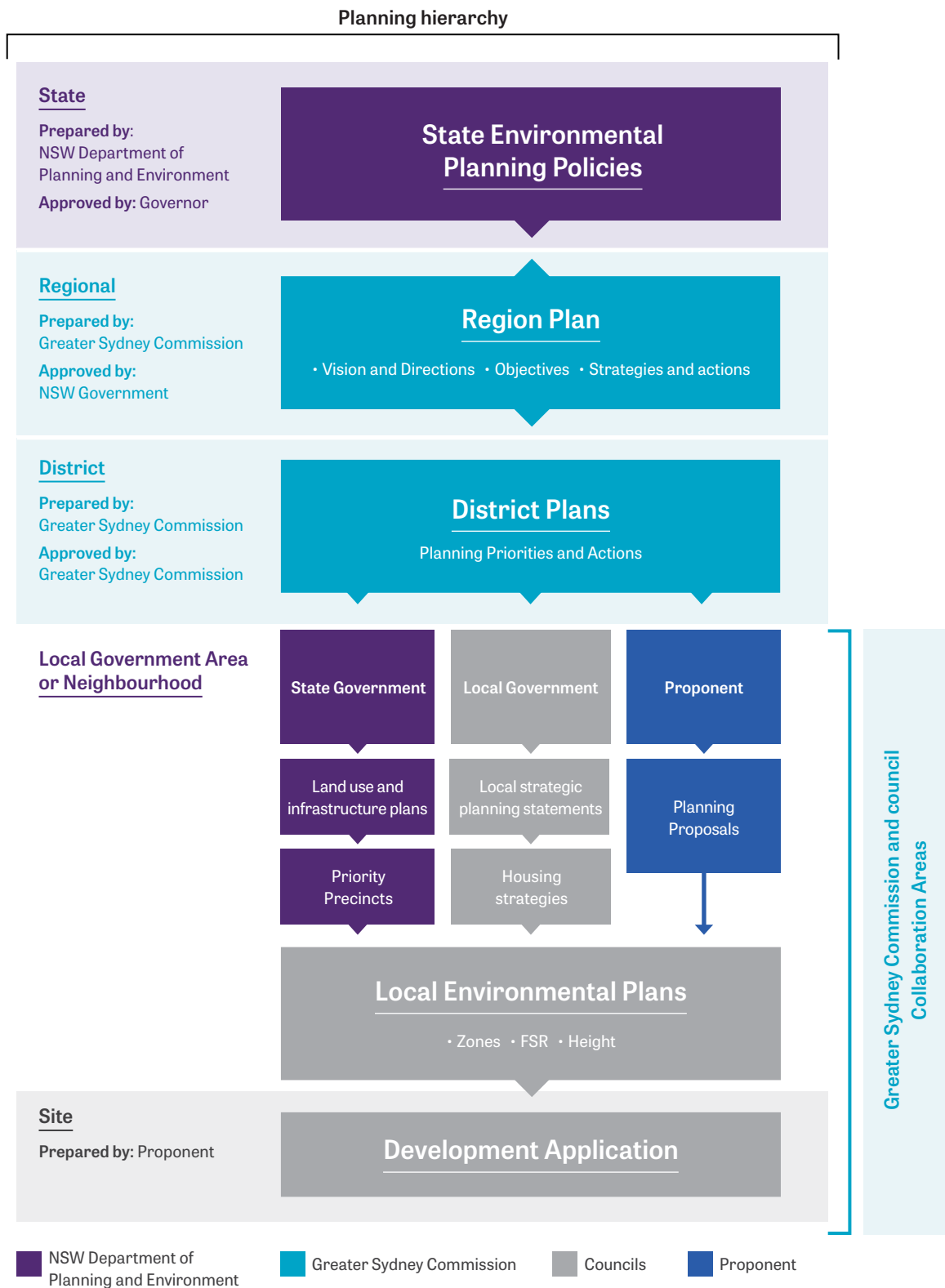
- collaboration across government and with local government and the private sector where each have clear roles and responsibilities (refer to Figure 35)
- private sector investment in line with the expectation for housing, commercial, retail and industrial development
- infrastructure delivery which is responsive to the draft District Plan's priorities and growth patterns across the District
- ongoing engagement to inform implementation activities
- annual monitoring of the performance of the draft District Plan and the status of delivering the actions.

On finalisation of the district plans, councils are required to update their local environmental plan to give effect to the district plan. The NSW Government has outlined, in the recently released *A Fair Go for First Home Buyers*, that councils are to complete the update of their local environmental plan within three years of the district plans being finalised or within two years for those councils receiving funding under the 'Priority Councils' initiative.

As drafts, district plans have a role in informing the preparation of planning proposals. Information Note 6, released concurrently with the draft district plans, outlines the status of the district plans in regard to planning matters.

In undertaking strategic planning processes, and/or preparing or considering planning proposals, planning authorities must give effect to the draft District Plan, specifically the planning priorities and actions.

**Figure 35:** Roles of planning authorities in Greater Sydney





## Monitoring and reporting

The draft *Greater Sydney Region Plan* outlines metrics to monitor the performance of that Plan. The same metrics will be used to monitor the performance of this draft District Plan. The Commission will report annually to the NSW Government on the metrics as outlined in Table 5.

Monitoring and reporting will provide transparency to the community and other stakeholders. The Commission will also provide an annual report to the NSW Government on the status of the actions in this draft District Plan.

In addition, the Commission maintains a data hub — an online profile of the region. Incorporating data from the latest Australian Bureau of Statistics Census of Population and Housing, the data hub helps to track broad trends, identify geographic differences and explain how the region is changing. Data is regularly updated.

On the making of the District Plan, each council is to report to the Commission on the:

- review by the council of the local environmental plans for the area
- preparation of planning proposals under section 55 of the *Environmental Planning and Assessment Act, 1979* to give effect to the District Plan.

## Next steps

This draft District Plan is on formal public exhibition until 15 December 2017. The draft District Plan is aligned with the draft *Greater Sydney Region Plan*.

Public exhibition is an opportunity to contribute to the future of the Western City District by providing feedback on the proposed planning priorities and actions in this draft District Plan.

A range of engagement activities will help the public to get involved in the future of the Western City District – visit the dedicated engagement portal at [www.greater.sydney](http://www.greater.sydney) to find out more.

This is an opportunity to participate in the story of *Our Greater Sydney 2056 – A metropolis of three cities – connecting people*.

**Table 5:** Metrics to monitor the Plan

10 Directions	Plan metric (service)
 1. A city supported by infrastructure	<ul style="list-style-type: none"> <li>Number of land use plans supported by infrastructure plans (NSW Department of Planning and Environment, Greater Sydney Commission, Councils).</li> </ul>
 2. A collaborative city	<ul style="list-style-type: none"> <li>Proportion of agreed outcomes achieved in Collaboration Areas.</li> </ul>
 3. A city for people	<ul style="list-style-type: none"> <li>Annual survey of community sentiment.</li> </ul>
 4. Housing the city	<ul style="list-style-type: none"> <li>Number of councils on track to deliver housing targets.</li> <li>Number of councils with schemes that implement Affordable Rental Housing Targets.</li> </ul>
 5. A city of great places	<ul style="list-style-type: none"> <li>Percentage of dwellings within walking distance of a local or strategic centre.</li> <li>Percentage of dwellings within walking distance of open space.</li> </ul>
 6. A well-connected city	<ul style="list-style-type: none"> <li>Percentage of dwellings located within 30 minutes by public transport of a metropolitan city centre /cluster.</li> <li>Percentage of dwellings located within 30 minutes by public transport of a strategic centre.</li> </ul>
 7. Jobs and skills for the city	<ul style="list-style-type: none"> <li>Growth in jobs in the following metropolitan and strategic centres, Blacktown, Campbelltown - Macarthur, Greater Parramatta, Greater Penrith, Harbour CBD, Kogarah, Liverpool, Macquarie Park and Western Sydney Airport / Badgerys Creek Aerotropolis.</li> <li>Change in number of people employed locally (five year).</li> </ul>
 8. A city in its landscape	<ul style="list-style-type: none"> <li>Proportional increase in Greater Sydney covered by urban tree canopy.</li> </ul>
 9. An efficient city	<ul style="list-style-type: none"> <li>Number of precincts with low carbon initiatives.</li> </ul>
 10. A resilient city	<ul style="list-style-type: none"> <li>Number of local government areas undertaking resilience planning.</li> </ul>

## 7

## Endnotes

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*Note: The source of population, dwellings and household data in this draft Plan is from the NSW Department of Planning and Environment, 2016 NSW State and Local Government Area Population and Household Projections and Implied Dwelling Requirements 2016 to 2036. Population projections provide an indication of the size and age-sex structure of the future*

*population if specified assumptions about future fertility, mortality and migration are realised. The projections are based on final 30 June 2011 Estimated Resident Populations (ERPs) supplied by the Australian Bureau of Statistics (ABS). Finalised ERPs incorporating the 2016 Census of Population and Housing are not expected from the ABS until mid-2018.*



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