

Greater Sydney
Commission

Draft South West District Plan

Co-creating a Greater Sydney
November 2016

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How to be involved

This draft District Plan sets out aspirations and proposals for Greater Sydney's South West District, which includes the local government areas of Camden, Campbelltown, Fairfield, Liverpool and Wollondilly. It has been developed by the Greater Sydney Commission.

This draft District Plan is on formal public exhibition until the end of March 2017, and will be finalised towards the end of 2017 to allow as many people as possible to provide input.

You can read the entire draft District Plan at www.greater.sydney and send feedback:

by email:

engagement@gsc.nsw.gov.au

• **by post:**

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Draft South West District Plan
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- Call us on **1800 617 681**

Before making a submission, please read our privacy statement at www.gsc.nsw.gov.au/privacy

For more information visit www.greater.sydney call us on 1800 617 681 or email engagement@gsc.nsw.gov.au

Draft South West District Plan Exhibition



You can view these supporting components, as well as *Our vision – Towards our Greater Sydney 2056*, our proposed 40-year vision for Greater Sydney, at www.greater.sydney.

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Chief Commissioner's Foreword

On behalf of the Commissioners and staff of the Greater Sydney Commission, I acknowledge the traditional owners of the lands that include the South West District.

We acknowledge the living culture of the traditional custodians of these lands, recognise that they have occupied and cared for this country over countless generations, and celebrate their continuing contribution to the life of Greater Sydney.

This draft District Plan sets out a vision, priorities and actions for the development of the South West District of Greater Sydney.

Of all our Districts in Greater Sydney, the South West is undergoing the most dramatic change. One of the key issues for the community is transport in all its forms – investment in new public transport and roads, as well as walking and cycling is essential to support this growth. These growing and new communities also need access to smart jobs, which will be significantly boosted by the once-in-a-lifetime opportunity of the Western Sydney Airport.

Importantly, as the population grows and many more homes, workplaces, transport and public spaces are created, we must encourage the highest quality urban design. We want to work across government and the private sector to deliver functional, sustainable and welcoming places, spaces and streets and a diversity of housing types and price points so that more people can afford to live in the area that best suits their needs.

Everyone benefits when there is more clarity on our planning for Greater Sydney and better guidance on what we should prioritise. In getting this right, we recognise that collaboration will be key. There is a diversity of opportunities and challenges in the District, with many different people,

places and organisations involved. The Greater Sydney Commission has been established to bring together all the various parties with an interest in the District's future and channel this collective energy into better planning outcomes.

By taking a leadership role, we can make sure that public resources and expertise are brought together to create a more productive, liveable and sustainable city.

We will advocate for effective infrastructure to keep pace with population growth and adequately monitor and plan for demographic changes such as increases in the proportions of children and the frail aged in the community. We will support the coordination of every area of government activity and delivery – transport, infrastructure, land use, housing, health, education, heritage and environment. We will work positively with the private sector and local government.

I thank everyone from the community, industry, councils, government and the many stakeholder groups who have spoken to us and contributed their ideas and wisdom to develop this draft District Plan. I encourage everyone to take time to review this draft District Plan and provide feedback. Your suggestions, comments and opinions will be crucial in making this Plan a living and working document to guide the South West District's future.

Lucy Hughes Turnbull AO
Chief Commissioner



District Commissioner's Foreword

The South West District is Greater Sydney's urban parkland, where urban lifestyles meet rural living and residents enjoy the best of both worlds. It's rich in Aboriginal, colonial and migrant history and heritage and is one of the most culturally diverse communities in Australia.

It's also one of the fastest growing districts in Greater Sydney. Over the next 20 years, its population will increase to over one million people and our mostly rural landscape will undergo dramatic changes.

The biggest game changer will be the new Western Sydney Airport and the transport and jobs it will bring. The South West District has the potential to become Australia's most connected place and to transform the South West's current locational disadvantage into its key advantage. The proposed Western Sydney City Deal between the Australian and NSW Governments, working with local government will also drive this growth.

Greater Sydney's history and its future meet in the South West District, presenting us with great opportunities as well as complex challenges.

Our opportunity is to re-create the South West as part of the emerging city of many centres, jobs and opportunities around Western Sydney Airport: our challenge is to ensure the provision of jobs, transport and social infrastructure keeps pace with our population growth.

Our opportunity is to create great places, not just to build houses for a new population almost the size of Canberra's, and do so in just 20 years: our challenge is to manage the scale of urban growth and renewal to deliver high quality urban design, housing diversity and choice, as well as affordable housing.

Our opportunity is to strengthen our identity as an urban parkland district, set around three rivers, nestled in rural hinterland and cradled by

bushland and rugged mountains: our challenge is to protect and enhance our rivers and bushland, our visual landscape of scenic hills and ridgelines, and our access and connections to them.

Our opportunity is to create and maintain places and communities where people can work, shop, attend school and enjoy recreation and leisure activities within walking distance or a short drive from their home: our challenge is to be an inclusive district that welcomes new residents, celebrates and builds on our modern, thriving multicultural community, builds social cohesion, and engages everyone in community life and the decisions that affect them.

This draft District Plan is part of a conversation between all of us who live and work here, about how we can come together to realise these opportunities and address the challenges: to create great places to live and the kind of South West District to which we aspire.

I'm eager for as many people as possible to get involved as we finalise this draft District Plan. It's an important first formal step in helping to shape the decisions that will drive the District's future.

Sheridan Dudley

South West District Commissioner





Photo credit: Campbelltown City Council

Our vision – South West District 2036

20-year vision, priorities and actions for the South West District

South West Sydney 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.

With its positive image and reputation as the lifestyle capital of Sydney, the South West District will be a global innovation gateway and a destination of choice for existing and new communities, local residential development and visitors.

The District's physical expanse, highly valued natural topography, enriching landscape and vibrant and cohesive community will offer a greater range of distinct and authentic precincts with culturally diverse food, inspiring stories and genuine experiences.

Drawing on its rich Aboriginal, colonial and migrant heritage, the District's thriving tourism industry and world-class health and education facilities will make it a leader in health-related innovation and employment. Health and education hubs in Campbelltown-Macarthur and Liverpool will provide a range of business, investment and work opportunities. The District will draw on these distinct yet complementary centres that form part of the 'string of pearls' around the Western Sydney Airport, a national and international gateway.

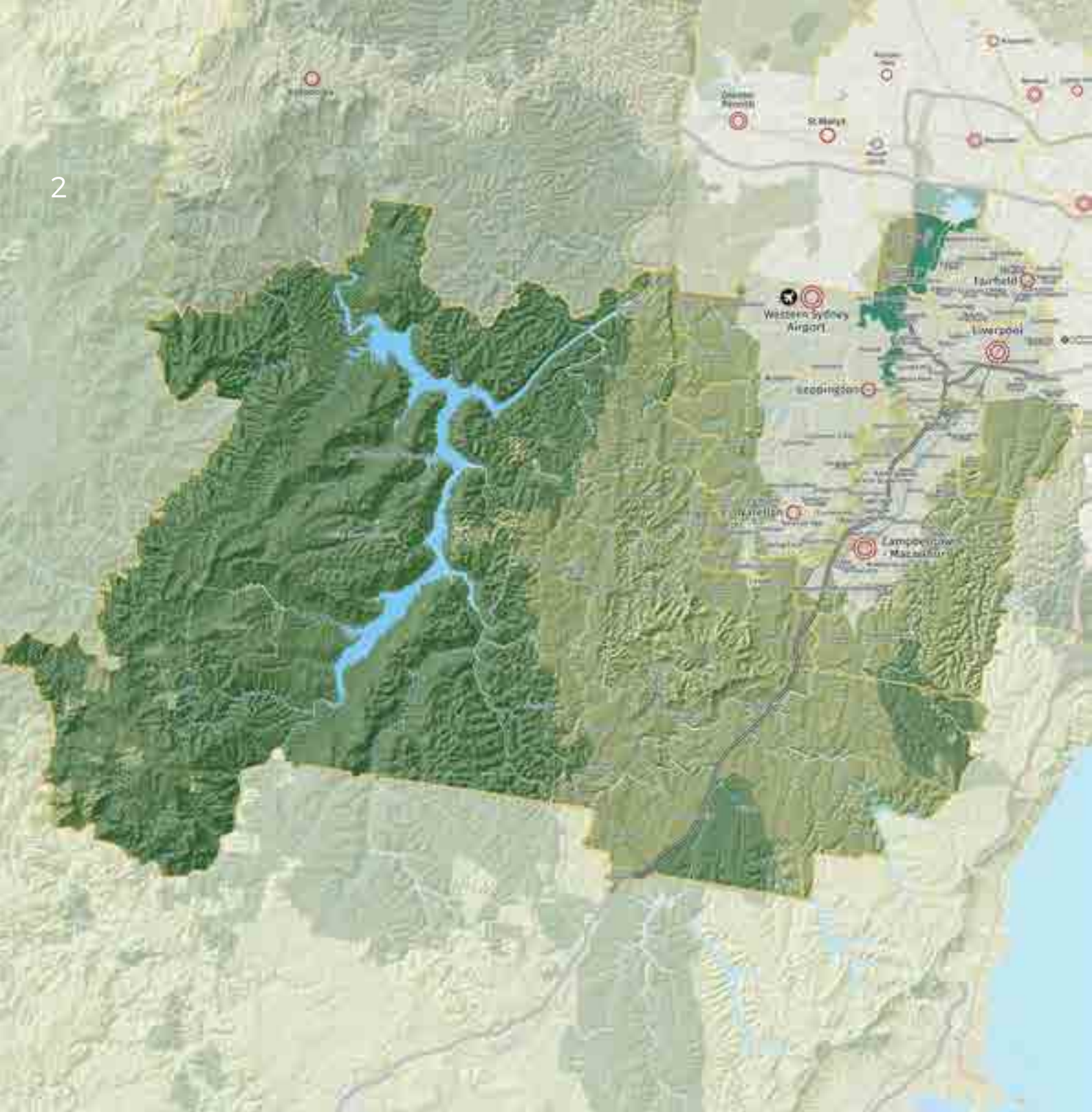
The District will be a great place to live with a wide variety of housing choices that are located close to jobs and which accommodate the needs of a growing and diverse population. People will enjoy a choice of shopping

experiences in the strategic centres of Campbelltown-Macarthur and Liverpool, the district centres of Fairfield, Leppington and Narellan, and local centres with distinctive characters such as Cabramatta, Camden and Picton.











The District's many active and safe places, vibrant main streets and public areas will be connected by integrated, safe and reliable public transport, roads, cycleways and pedestrian links.

A range of jobs will be close to where people live, in industries such as health, aged care, hospitality, retail, food production, construction, freight and logistics and resource and mineral extraction. A well developed, advanced manufacturing sector will support the medical and tertiary education sectors.

Opportunities for new businesses will emerge in the expanding suburban areas around Austral and Leppington as well as the new aerotropolis. The strong and progressive rural sector will continue to help feed Greater Sydney while leveraging the export opportunities provided by the new airport. The District will also continue to take advantage of its connections to the Southern Highlands, the Illawarra, Canberra, major ports and freight facilities.



South West District

	Strategic Centre		Local Government Boundary (LGA)		Suburb and Boundary		Highway
	District Centre		National Parks and reserves		Railway		
	District Boundary		Waterways		Motorway		

South West District: Priorities and actions

This draft District Plan identifies priorities and actions to realise the vision for the District. This section lists the overarching priorities that will inform strategic planning and summarises the actions outlined in each chapter.

Action tables in this section identify outcomes, lead agencies and partner agencies (partners). Further detail on the priorities is included throughout this draft District Plan in terms of implementation and monitoring priorities (Chapter 1) and productivity, liveability and sustainability priorities (Chapters 3, 4 and 5 respectively).

Key:

AA	Aboriginal Affairs
CCNSW	Cemeteries and Crematoria NSW
CHPs	Community Housing Providers
DoE	Department of Education
DoI	Department of Industry
DPE	Department of Planning and Environment
EPA	Environment Protection Authority
GSC	Greater Sydney Commission
INSW	Infrastructure NSW
OEH	Office of Environment and Heritage
OGA	Office of Government Architect
TfNSW	Transport for NSW

Implementation and monitoring actions (Chapter 1)

Action	Outcome	Lead agency	Partners
IM1: Align land use planning and infrastructure planning	Inform the NSW Government's infrastructure decision-making	GSC	INSW, TfNSW, NSW Health
IM2: Develop a framework to monitor growth and change in Greater Sydney	Inform the ongoing actions and infrastructure investments of Government required to deliver <i>A Plan for Growing Sydney</i> and the District Plans	GSC	-
IM3: Develop an interactive information hub - the Greater Sydney Dashboard	Enhance the community's understanding of the performance and characteristics of Greater Sydney	GSC	-
IM4: Report on local planning	Improve the understanding of the effectiveness of District Plans in delivering on the stated priorities and actions	GSC	Councils

Productivity priorities and actions (Chapter 3)

The proposed priorities and actions for a productive South West District draw significantly from the once-in-a-lifetime opportunity of the Western Sydney Airport and the development of the Western City. This will significantly influence land use patterns, and associated investment will drive jobs growth. Liverpool and Campbelltown-Macarthur will be the focus as health and education super precincts, with both providing a mix of retail and civic uses. The overarching priorities are:

- Creating a framework to deliver the Western City
- Integrating land use and transport planning to drive economic activity
- Planning for job target ranges for strategic and district centres
- Growing and diversify the economic opportunities of the District's strategic centres
- Growing jobs in the health and education sectors
- Coordinating infrastructure planning with population growth - enhancing local access
- Strengthening the diversity of employment choice

Productivity Actions

Action	Outcome	Lead agency	Partners
P1: Establish the Western Sydney City Deal	Increase in total jobs	Australian and NSW Governments	Councils
P2: Develop and implement an economic development strategy for the Western City	Increase total jobs and proportion of health and education and knowledge and professional services jobs	DoI	GSC, Jobs for NSW, AA
P3: Develop and implement a centres framework for the District	Increased investment, increased jobs, reduced retail escape expenditure	GSC	Councils
P4: Review the role and staging of the Leppington town centre in the context of the Western Sydney Airport and Western Sydney City Deal	Investor certainty	GSC, Camden Council	DPE, Liverpool & Campbelltown Councils
P5: Develop and implement a Framework for the Enterprise corridor	Increased investment, increased jobs	DPE	GSC, Councils
P6: Identify transport improvements which deliver east west and north south connectivity	Improved transport connectivity	TfNSW	-
P7: Build the Badgally transport connection, including an active transport link	Improved transport connectivity	TfNSW	-
P8: Prioritise the planning of Spring Farm Parkway	Improved transport connectivity	TfNSW	-
P9: Develop a threshold for greenfield dwelling numbers based on transport provision	Development linked to infrastructure	DPE	-

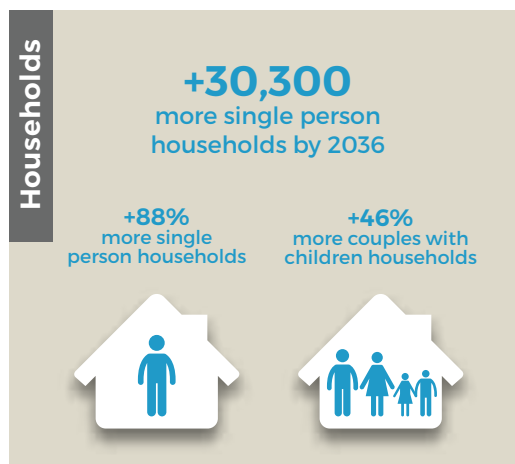
Action	Outcome	Lead agency	Partners
P10: Encourage and support the use of public transport	Increased public transport patronage	TfNSW	-
P11: Develop specific guidelines to inform the planning of new communities in land release areas	Improved integrated land use, transport and environmental planning and improved productivity, liveability, and sustainability outcomes	DPE	-
P12: Develop a South West Priority Growth Area land use and infrastructure plan	Improved infrastructure decision making and investor certainty	DPE	Councils, TfNSW, GSC
P13: Designate Liverpool as a Collaboration Area	Increase in total jobs and increase in total health and education and knowledge and professional services jobs	GSC	TfNSW
P14: Support the development and delivery for the Campbelltown-Macarthur strategic centre of a CBD transformation plan	Increase in total jobs and increase in total health and education and knowledge and professional services jobs	GSC	Campbelltown Council
P15: Plan for the Liverpool health and education super precinct as part of the Liverpool Collaboration Area	Increase in health and education jobs	GSC	NSW Health
P16: Work with State agencies, especially Sydney Water, to enable the timely delivery of infrastructure for employment and urban services land	Timely land release / land development	DPE, utility providers, Councils	-
P17: Set parameters for the delivery of local jobs as a condition of approval for rezoning in new release areas	Increase in total local jobs	DPE	GSC
P18: Plan for and facilitate the attraction of new jobs in Wilton New Town	Increase in total local jobs	DPE	Wollondilly Council
P19: Identify and plan for efficient movement of freight to, from and within the District, with least impact on residents' amenity	Improved freight transport connectivity	NSW Government	-
P20: Provide adequate access to and from the Moorebank Intermodal Terminal	Improved freight transport connectivity	TfNSW	-
P21: Leverage the South West District's potential as a visitor destination	Increased visitation	Destination NSW, Councils	GSC
P22: Developing better understanding of the value and operation of employment and urban services land	Increase in total jobs	GSC	Councils

Liveability priorities and actions (Chapter 4)

The proposed priorities and actions for a liveable South West District recognise significant population growth must be accompanied by high quality urban design and a diversity of homes, streetscapes, jobs and things to do. Historic country towns such as Camden and Picton and multicultural hubs like Cabramatta will be protected. Planning for new communities will be supported with coordinated planning for social infrastructure and public transport.

The overarching priorities are:

- Improving housing choice
- Improving housing diversity and affordability
- Coordinating and monitoring housing outcomes and demographic trends
- Creating great places
- Fostering cohesive communities
- Responding to people's need for services



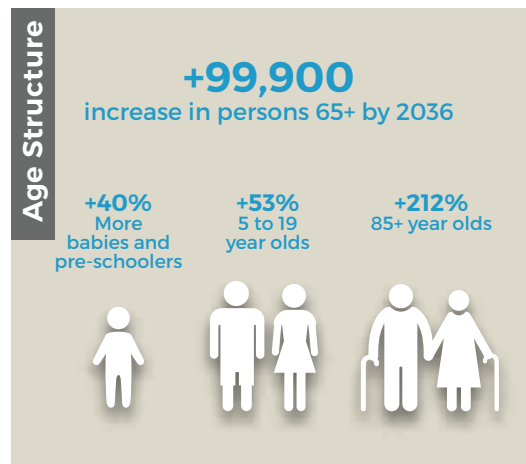
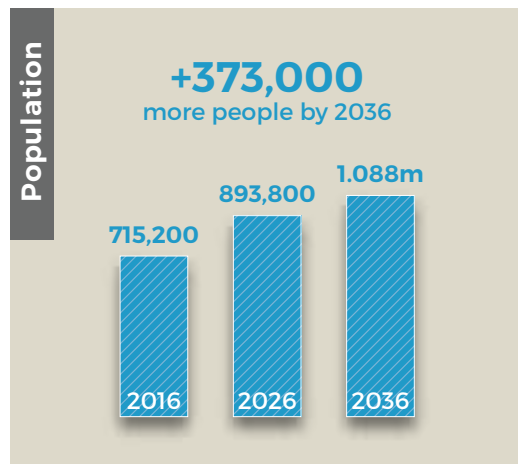
Liveability Actions

Action	Outcome	Lead agency	Partners
L1: Prepare local housing strategies	Increase in diversity of housing choice	Councils	-
L2: Identify the opportunities to create the capacity to deliver 20-year strategic housing supply targets	Creation of housing capacity	GSC	Councils, DPE
L3: Councils to increase housing capacity across the District	Creation of housing capacity and increase in diversity of housing choice	Councils	-
L4: Encourage housing diversity	Increase in diversity of housing choice	DPE	-
L5: Independently assess need and viability	Increase in affordable rental housing	GSC	Industry, CHPs, DPE
L6: Support councils to achieve additional affordable housing	Increase in affordable housing	GSC	Councils, DPE
L7: Provide guidance on Affordable Rental Housing Targets	Increase in affordable rental housing	GSC	DPE, Councils, State agencies, CHPs
L8: Undertake broad approaches to facilitate affordable housing	Increase in affordable housing	GSC	Councils, including CHPs.
L9: Coordinate infrastructure planning and delivery for growing communities	Change in industry perceptions (surveyed)	GSC	DPE
L10: Provide data and projections on population and dwellings for local government areas across Greater Sydney	Contribute to more informed infrastructure investment decisions, strategic planning and plan making	DPE	-
L11: Provide design-led planning to support high quality urban design	Contribute to improved sustainability, productivity and liveability outcomes	OGA	GSC
L12: Develop guidelines for safe and healthy built environments	Contribute to improved health outcomes and increased walking and cycling	GSC	DPE
L13: Conserve and enhance environmental heritage including Aboriginal, European and natural	Identification and protection of heritage elements	OEH, DPE, AA	GSC, Councils
L14: Develop a South West District sport and recreation participation strategy and sport and recreation facility plan	Contribute to informed decision making for sport and recreation infrastructure and increased participation	Office of Sport	Councils
L15: Support planning for shared spaces	Increase in the provision of community facilities, including open space	GSC	State agencies, organisations, providers
L16: Support planning for school facilities	Improved education infrastructure decision making	DPE	NSW Property, DoE
L17: Support the provision of culturally appropriate services	Improved decision making with the aboriginal community	GSC, AA	-
L18: Support planning for emergency services	Contribute to improved decision making for emergency services operators	DPE	-
L19: Support planning for cemeteries and crematoria	Improved decision making for new cemeteries	CCNSW	-

Sustainability priorities and actions (Chapter 5)

The proposed priorities and actions for a sustainable South West District will focus on the District's many waterways, including the Nepean River, Georges River and South Creek, and the many vistas, landscapes and ridgelines that shape the District's environment. Areas of native vegetation, biodiversity and ecological communities will be protected, as will the Metropolitan Rural Area - rural land in areas like Wollondilly and Camden that includes transitional land between urban and rural areas, land use for food production and landscapes with highly valued scenic views. The overarching priorities are:

- Enhancing the South West District in its landscape
- Protecting the natural beauty of District's visual landscape
- Protecting the District's waterways
- Protecting and enhancing biodiversity
- Delivering Sydney's Green Grid
- Managing the Metropolitan Rural Area
- Creating an efficient South West District
- Planning for a resilient South West District
- Managing flood hazards in the Hawkesbury-Nepean Valley



Sustainability Actions

Action	Outcome	Lead agency	Partners
S1: Protect the qualities of the Scenic Hills landscape	Protection through statutory controls	GSC	DPE, Councils
S2: Review criteria for monitoring water quality and waterway health	Improved water quality and waterway health	OEH	GSC
S3: Protect the South Creek environment and development approaches to achieve excellent environment performance	Improved water quality and waterway health, and integration of South Creek into land use planning	GSC	EPA
S4: Improve the management of waterways in Priority Growth Areas	Improved water quality and waterway health	DPE	-
S5: Monitor water levels and water quality in Thirlmere Lakes	Improve water quality and waterway health	OEH	-
S6: Develop a Strategic Conservation Plan for Western Sydney	Protection and management of areas of high environmental value	OEH, DPE	GSC
S7: Update information on areas of high environmental value	Protection and management of areas of high environmental value	OEH, DPE	Councils
S8: Use funding priorities to deliver the South West District Green Grid priorities	Delivery of the green grid priorities	GSC, TfNSW, OEH	Councils
S9: Develop support tools and methodologies for local open space planning	Improved utilisation of open space and increased provision of open space	GSC	-
S10: Update the Urban Green Cover in NSW Technical Guidelines to respond to solar access to roofs	Protection of solar access to roofs	OEH, DPE	-
S11: Identify land for future waste reuse and recycling	Identification of land for waste management	EPA, DPE	Councils
S12: Embed the NSW Climate Change Policy Framework into local planning decisions	Contribute to energy efficiency, reduced emissions and improve environmental performance	GSC	Councils, OEH
S13: Support the development of initiatives for a sustainable low carbon future	Contribute to energy efficiency, reduced emissions and improve environmental performance	GSC, Councils, DPE	-
S14: Support the development of environmental performance targets and benchmarks	Contribute to improved environmental performance	GSC	NSW Climate Council, Australian Government, utility providers
S15: Incorporate the mitigation the of urban heat island effect into planning for urban renewal projects and Priority Growth Areas	Contribute to reductions in ambient temperatures	DPE	-
S16: Review the guidelines for air quality and noise measures for development near rail corridors and busy roads	Improved land use and transport decision making	EPA, DPE	-
S17: Identify and map potential high impact areas for noise and air pollution	Improved land use and transport decision making	EPA	DPE, Councils
S18: Address flood risk issues in the Hawkesbury-Nepean Valley	Protection of life and property	DPE, INSW	GSC, Councils



1 Introduction

This draft District Plan proposes a 20-year vision for the South West District, which includes the local government areas of Camden, Campbelltown, Fairfield, Liverpool and Wollondilly. It has been developed by the Greater Sydney Commission in consultation with State agencies and the community, with technical input from councils.

The South West District will transform over the next 20 years. It was one of the first districts to be settled in the early colony and is now one of Greater Sydney's fastest growing districts. The investment in the Western Sydney Airport will be driven by the Australian and NSW Governments with local government through the Western Sydney City Deal. With the Airport's associated transport infrastructure and the growing employment hubs in Campbelltown-Macarthur and Liverpool, more of the District's people will be able to work closer to where they live and reduce the time they spend commuting.

Our work on this draft District Plan builds on the District's characteristics, while drawing on a robust body of technical material that looks into Greater Sydney's changing demographics, economy, housing, open spaces and many other characteristics. It also incorporates feedback garnered through our #GreaterSydney engagement during 2016.

#GreaterSydney: Insights from the community

Our conversations with the community through our #GreaterSydney engagement have provided valuable insights into what the community values about the District and what people want to see changed. We have sought to encapsulate these inputs into this draft District Plan.

People in the South West told us they want better access to jobs, infrastructure and places for sport, recreation and leisure. They want better transport infrastructure and services, especially as the population grows, and they want to spend less time commuting.

People are keen to see more diverse and affordable housing options within the District, including a mix of low, medium and high density housing.

They know that as the population grows, new areas will be developed – and they want these new places to be well-designed, sensitive to the heritage and character of the area, and environmentally sustainable.

We see this draft District Plan as a first step in the planning for the South West District. We want as many people as possible to continue to engage with us as we work to develop the draft District Plan further towards finalisation at the end of 2017.

We intend to achieve this by building collaboration and listening into everything we do.

1.1 The role of district planning

Planning in Greater Sydney has traditionally happened at two levels. The NSW Government developed overarching plans that considered Greater Sydney's growing population, where people will live and what kind of jobs and transport they will need; while local government developed local environmental plans to identify how land can be used, including for housing, businesses and parks.

What has been missing is the district-level planning that connects local planning with the longer-term metropolitan planning for Greater Sydney. To facilitate this connection, Greater Sydney is designated into six Districts that represent neighbouring groups of council areas with similar features and common communities of interest. You can see a map of the six Districts at our website www.greater.sydney.

City planning is dynamic. In preparing this draft District Plan during 2016, we have been mindful of the changing technologies and evolving thinking that will impact Greater Sydney to 2036.

The city-making implications of issues such as driverless cars, emerging business trends, climate change and housing affordability will require further research and testing. For these reasons, this draft District Plan represents a moment in time but will, with your feedback and our commitment to ongoing research, be a living document to better navigate the issues influencing Greater Sydney to 2036.

The *Environmental Planning and Assessment Act 1979* (EP&A Act) requires each District Plan to:

- provide the basis for strategic planning in the District, having regard to economic, social and environmental matters
- establish planning priorities that are consistent with the objectives, strategies and actions of *A Plan for Growing Sydney*
- identify actions required to achieve those planning priorities.

This draft District Plan meets these requirements by:

- progressing the directions of *A Plan for Growing Sydney*
- identifying planning priorities for the District and the actions to achieve them.

This draft District Plan translates and tailors metropolitan planning priorities for each District by giving effect to the four goals of *A Plan for Growing Sydney*:

- Goal 1: A competitive economy with world-class services and transport
- Goal 2: A city of housing choice, with homes that meet our needs and lifestyles
- Goal 3: A great place to live with communities that are strong, healthy and well connected
- Goal 4: A sustainable and resilient city that protects the natural environment and has a balanced approach to the use of land and resources.

To do this, this draft District Plan interweaves these goals by describing proposed priorities and actions for the District in terms of:

- A productive city (Goal 1)
- A liveable city (Goals 2 and 3)
- A sustainable city (Goals 3 and 4).

This draft District Plan is accompanied by a draft amendment to *A Plan for Growing Sydney*, as noted in Section 1.1.1 and detailed in Chapter 2.



This draft District Plan includes three chapters focusing on the means to enhance the District's productivity, sustainability and liveability in accordance with *A Plan for Growing Sydney* and the Commission's mandate.

Many elements discussed in these chapters are interrelated. For example, the issue of housing is as much about liveability as it is about productivity and sustainability; our planning for jobs is as important to a productive city as it is to liveable and sustainable city.

While we use chapters to discuss policy areas, we recognise that cohesive and vibrant cities have overlapping components and an integrated approach to city making is crucial to success.

"It is not a vaguely idealistic plan. It has been based on proven facts, and if its authors have looked upward to the stars they have kept their feet upon the ground. We feel that it is a commonsense scheme, practical in its economics and finance."

"It recognises that, next to our people, the land is our greatest asset. Realisation of the Plan in measured stages will unlock the land for its best community use, so that present and future citizens may be able to meet the challenge of advances in technology, economics, social sciences and culture, and secure their benefits for all."

County of Cumberland Plan, 1948

As noted above, legislation requires district planning to give consideration to the Greater Sydney Region Plan, currently *A Plan for Growing Sydney*. District planning must also consider priorities identified by the Minister for Planning and other relevant plans, strategies and NSW Government policies including:

- the Premier's and State Priorities (September 2015) that seek to create jobs, encourage business investment and increase housing supply
- the Ministerial Statement of Priorities (January 2016) that includes strategic planning for Parramatta, Penrith, Liverpool and Campbelltown
- updates to the State Infrastructure Plans for 2015/16 and 2016/17
- the Western Sydney City Deal (Memorandum of Understanding signed October 2016)
- the initiatives of Jobs for NSW.

These matters, which give greater clarity to Greater Sydney's strategic planning framework, combined with the evolving nature of Greater Sydney, emerging technologies and the complexity and dynamism of city planning, have generated new thinking in strategic planning for Greater Sydney.

1.1.1 Draft amendment to *A Plan for Growing Sydney*

To allow our planning for Greater Sydney to relate to our best understanding of the future, this draft District Plan introduces a longer-term, transformational focus on the patterns of development needed for Greater Sydney to be a productive, liveable and sustainable Global Sydney. This ambitious 40-year vision for Greater Sydney as a metropolis of three cities is detailed in Chapter 2.

This 40-year vision is a draft amendment to *A Plan for Growing Sydney*. It is on exhibition alongside this draft District Plan so that feedback around the concept of Greater Sydney as a metropolis of three cities can inform the review of *A Plan for Growing Sydney*. You can download a standalone version of the draft amendment, titled *Towards our Greater Sydney 2056* by visiting www.greater.sydney.

In this context, this draft District Plan foreshadows how the proposed amendment could influence planning for the District's productivity, liveability and sustainability while also giving effect to *A Plan for Growing Sydney*.

Concurrent with the review of *A Plan for Growing Sydney* in 2017, Transport for NSW will develop the Future Transport Strategy and Infrastructure NSW will review the *State Infrastructure Strategy*.

Given the important interconnected nature of these and other NSW Government strategies, the Commission, Transport for NSW and Infrastructure NSW will align work programs to the end of 2017 to include:

- inputs, assumptions and scenario analysis to inform the development of the plans and strategies
- events for community and stakeholder engagement
- timeframes for key milestones.

This approach will not only allow for a better and more integrated outcome for Greater Sydney but a more transparent approach for stakeholders.

1.1.2 What this draft District Plan means for local planning

As a document for discussion, this draft District Plan proposes actions that could influence how different levels of government plan for the District, and how public and private investment decisions are made – directly influencing growth and change.

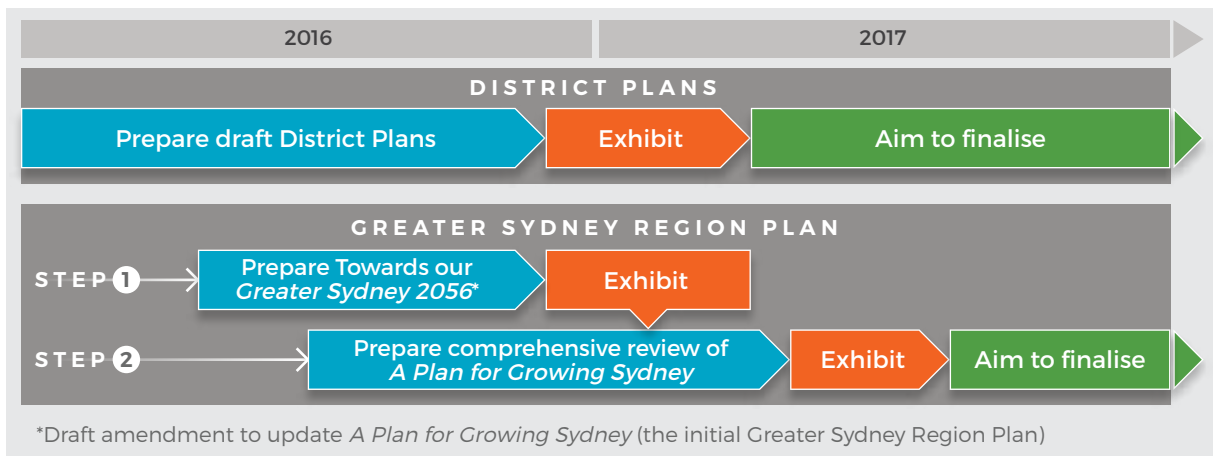
For local government, this draft District Plan will:

- inform the preparation of local environmental plans
- inform assessments or planning proposals
- guide strategic land use, transport and infrastructure planning across local government areas
- inform infrastructure planning.

Section 75A1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) requires local environment plans to be updated to give effect to each District Plan as soon as practicable after a District Plan is made.

This process may require a comprehensive review or be staged to reflect the local government area priorities identified in each District Plan, and to allow for more targeted engagement on these priority areas. This approach will also help councils to manage resources.

Figure 1-1: The regional and district planning process (2016/2017)



Source: Greater Sydney Commission, 2016

1.1.3 Status of the draft District Plan

While councils are required to give effect to District Plans as soon as practicable after a District Plan is made, draft District Plans will guide the preparation of planning proposals under Part 3 of the Act. This is established by the Department of Planning and Environment's *Guide to Preparing Planning Proposals* (August 2016).

The Guide lists assessment criteria for a planning proposal, which include but are not limited to consideration of the strategic merit of the proposal, the site-specific merit of the proposal and consistency with strategic plans, including draft District Plans, State environmental planning policies and Ministerial directions.

Local environmental plans will continue to determine whether development is permitted or prohibited on land. While a draft District Plan or District Plan is not a mandatory matter for consideration in the determination of a development application, a consent authority may decide to consider a draft District Plan or District Plan to the extent it relates to the objects of the EP&A Act.

The inclusion of *Our vision – Towards our Greater Sydney 2056* in Chapter 2 of this draft District Plan foreshadows our research and the evolution of our thinking that will inform the review of *A Plan for Growing Sydney* during 2017. It does not replace the legal status of *A Plan for Growing Sydney* as the current Greater Sydney Region Plan.

Planning principles

A Plan for Growing Sydney identified three planning principles that remain current and underpin many of the priorities of this draft District Plan.

Principle 1: Increasing housing choice around all centres through urban renewal in established areas

Increasing housing close to centres and stations makes it easier to walk or cycle to shops or services, and to travel to work or other centres; reduces traffic congestion; and makes our neighbourhoods more community oriented.

Increasing the variety of housing available makes it easier for people to find a home that suits their lifestyle, household size and their budget.

Locating new housing in centres delivers a range of economic, environmental and social benefits to the community. Research by the Organisation for Economic Cooperation and Development (OECD) has similarly found that productivity benefits arise from a more compact city.

Principle 2: Stronger economic development in strategic centres and transport gateways

Locating jobs in around 30 to 40 large centres across Greater Sydney provides the greatest benefits to the city's overall productivity.

Greater Sydney's largest and most important hubs for business and employment are 'strategic centres' and 'transport gateways'.

These locations will be an important focus for future growth because of their size, diversity of activities, their connections (mainly to the rail network), and the presence of major institutional activities such as health and education facilities or Greater Sydney's major airports and port.

Principle 3: Connecting centres with a networked transport system

The public transport network connects people to centres. In doing this, it connects people to jobs, education facilities, health centres and hospitals, and sporting, cultural and entertainment facilities.

Centres rely on efficient transport to serve their customers, support their growing business and freight functions, and to connect to the global economy.

Efficient links within centres improves convenience for customers, and efficient links into centres and between centres helps people to get to jobs, schools, universities, shops and leisure activities.

Making it easy to get to centres and offering a range of services at centres makes them a focal point for the community and increases prospects for economic growth and job creation.

1.2 Implementation

The final District Plan will be formally reviewed every five years, but as a living document, we plan to update it more regularly in response to new government infrastructure, policies, emerging trends or other factors influencing its currency.

1.2.1 Managing implementation

This draft District Plan identifies a number of implementation mechanisms.

 <p>Existing actions</p>	<p>Existing government policies and actions that may be improved through stronger collaboration or the clarity provided from district-level planning.</p>
 <p>Our actions</p>	<p>New actions that will be the Commission's responsibility to lead and deliver.</p>
 <p>New collaborations</p>	<p>New collaborations that the Commission will lead and deliver in partnership with local government and/or State agencies.</p>
 <p>NSW Government actions</p>	<p>New actions that are the responsibility of State agencies, with the relevant agency identified.</p>
 <p>Planning priorities</p>	<p>Priorities designed to provide guidance for strategic planning or plan-making by the relevant planning authority.</p>
 <p>Collaboration areas</p>	<p>Specific parts of Greater Sydney identified as Collaboration Areas, where a significant productivity, liveability or sustainability outcome is achieved through the collaboration of different levels of government and in some cases the private sector or landowners.</p>

As the Commission is an independent agency, some actions and priorities included within this draft District Plan may not be NSW Government policy and may be subject to a business plan.

1.2.2 Planning for land use and infrastructure

As Greater Sydney grows, we need to more efficiently and effectively align land use planning and infrastructure investment. This is one of our key objectives. It forms the basis of the work we have commenced with State and local government to identify the infrastructure required to deliver this draft District Plan and prioritise it by place and time.

Our insights, as described within this draft District Plan, are drawn from our knowledge of:

- existing NSW Government infrastructure commitments and existing investigation areas for new housing
- forecasts in terms of population increases and locations where growth is anticipated, including jobs in centres
- annual monitoring of changes in development activities across Greater Sydney, with a primary focus on housing.

With these insights, we can provide greater clarity around the future location of new land uses in Greater Sydney. This feeds into the planning for infrastructure, from city-shaping infrastructure such as new rail lines that are usually planned by the NSW Government, to local infrastructure such as local roads or parks and community facilities that are usually planned by councils.

For NSW Government infrastructure planning, we will utilise our cross-agency Infrastructure Delivery Committee to facilitate collaboration on infrastructure issues across districts and Greater Sydney. We will also develop an Annual Infrastructure Priority List for the NSW Government to inform decision-making on infrastructure provision at a State, district and local level.

For local government infrastructure planning, our insights into expected and actual growth in housing can present an opportunity for councils to align their capital programs and infrastructure scheduling, and collaborate across council or district boundaries as required. This will assist the timely delivery of infrastructure, make the best use public resources, and could ultimately lead to stronger coordination between State and local planning for infrastructure and land uses.



Action IM1: Align land use planning and infrastructure planning

To support the efficient and effective alignment of land use planning and infrastructure:

- the Commission will prepare an Annual Infrastructure Priority List in conjunction with Infrastructure NSW to support the productivity, liveability and sustainability of the District as it grows, consistent with Action 1.11.6 of *A Plan for Growing Sydney*.

1.2.3 Infrastructure funding and delivery

Infrastructure is presently funded through a range of mechanisms:

- The NSW Government Budget including:
 - agency programs for education, health and transport
 - funding programs such as the Housing Acceleration Fund, Metropolitan Greenspace Program and Environmental Trust
- Australian Government funding
- State infrastructure contributions
- local infrastructure investment
- local development contributions and associated programs
- voluntary planning agreements.

In addition to these mechanisms is the concept of value capture or 'sharing'. Value sharing uses part of the economic uplift that new infrastructure and planning generates to help fund that infrastructure. New transport infrastructure, for example, can unlock a number of 'benefit streams', including direct transport benefits such as reduced travel times, and wider benefits such as reduced congestion and lower fuel consumption.

When new or upgraded infrastructure is provided in an area, many of these benefits are effectively monetised because local land values increase, reflecting the market's willingness to pay for these benefits. Value sharing enables the funder of the infrastructure – for example, the NSW Government or a local council – to participate in the market uplift and offset some of its costs.

If properly executed, value sharing can:

- unlock new funding to make economically beneficial infrastructure more affordable
- spread the costs of new infrastructure more equitably among its beneficiaries
- improve projects by providing incentives for governments to plan and design infrastructure with wider land use benefits in mind.

We recognise that, like all regulation and interventions in the market, value sharing mechanisms need to be equitable while also being efficient in terms of their operation and compliance. Value sharing mechanisms also need to be effective in terms of meeting objectives in a timely manner.

Value sharing mechanisms will only succeed with clarity around the planned infrastructure and how this will be funded – whether partially or wholly by the value sharing mechanism – or what elements or areas will be funded in response to the development (for example, whether the shared funding will go towards open space and public areas, community infrastructure, roads or upgrades to utilities).

It also requires an understanding of the total amount, duration and rate of value sharing (such as dollars per square metre) that can be set while maintaining the financial feasibility of development. In some areas, this could mean that rezoning may be delayed until development is feasible, given the amount of supporting infrastructure required.

A number of NSW Government-led urban renewal areas, priority precincts and priority growth areas are addressing this through the use of infrastructure schedules.

We will continue to work across government on the amount, mechanisms and purpose of value sharing to create a more consistent approach to capturing value for public benefit, complementary with other existing mechanisms.

1.2.4 Monitoring

The Greater Sydney Dashboard

The Greater Sydney Dashboard will be an interactive web-based tool that will provide access to indicators for cross-District issues such as jobs and housing targets to assist decision-making. It will be used to gain insights from our collaborations and build on evidence already commissioned by various State agencies and councils. The Dashboard will also include a data store to assist decision-making and strategic planning.

Monitoring the growth and change of Greater Sydney is critical to inform planning. *A Plan for Growing Sydney* requires us to establish a monitoring and reporting process to check on progress against the actions identified in our strategic planning documents.

Our Greater Sydney Dashboard will include indicators that outline how Greater Sydney and the District are performing against this draft District Plan's aspirations. In line with the requirement of *A Plan for Growing Sydney*, we are investigating metrics in terms of Greater Sydney's productivity, liveability and sustainability. We will include specific environmental reporting on:

- carbon emissions across Greater Sydney, in accordance with the C40 (Carbon Disclosure Protocol) requirements
- potable water consumption, water recycling and wastewater production across Greater Sydney
- air quality across Greater Sydney.



Action IM2: Develop a framework to monitor growth and change in Greater Sydney

As the District Plan is finalised alongside the review of *A Plan for Growing Sydney* and other strategic planning documents, we will have a stronger understanding of the metrics to measure Greater Sydney's economic, social and environmental performance.

To do this we will:

- develop a framework for the monitoring and reporting of the final Regional and District Plans that will consider the issues and outcomes from actions and priorities.

Action IM3: Develop an interactive information hub - the Greater Sydney Dashboard

To provide access to the latest data across a range of metrics, we will:

- develop the Greater Sydney Dashboard to include data and measures across a range of city-making areas, from population figures to environmental outputs.



Action IM4: Report on local planning

The Greater Sydney Dashboard will also monitor the implementation of each District Plan's actions and priorities. In the first instance, this will involve each council reporting to the Commission under section 75AI of the EP&A Act on:

- its review of relevant local environmental plans to give effect to the District Plan as made
- the preparation of planning proposals under section 55 of the EP&A Act to give effect to the draft and final District Plans.

1.3 Next steps

This draft District Plan and the supporting *Our vision – Towards our Greater Sydney 2056* are on formal public exhibition until the end of March 2017.

Public exhibition is an opportunity for people to contribute to the future of the South West District by providing direct feedback on the proposed priorities and actions in this draft District Plan. The draft District Plan will not be finalised until at least the end of 2017 to allow it to be aligned with the review of *A Plan for Growing Sydney* in 2017. Importantly, this will also provide the opportunity for newly-elected councillors to amalgamated councils to comment.

We need the community to tell us if our plans create the right places for them. We need business to tell us if they think they will be competitive and can offer new jobs within these proposed settings. We need strategic planning practitioners to tell us if the plans can be implemented. We need industry to tell us if they'll be willing to invest in the required housing and workplaces and to do so to world-class standards. We need State agencies to confirm that the proposed priorities and actions align with their portfolio's longer-term planning.

A range of engagement activities will help the public to get involved in the future of the South West District – visit the dedicated engagement portal at www.greater.sydney to find out more.

This is an opportunity to participate in the story of Our Sydney, your home.

By far the greatest and most admirable form of wisdom is that needed to plan and beautify cities and human communities.

Socrates

Key Concepts and Terms at a Glance

For more terms see the glossary at the end of this document or at www.greater.sydney

Greater Sydney is defined as the 33 local government areas of Bayside, Blacktown, Blue Mountains, Burwood, Camden, Campbelltown, Canada Bay, Canterbury-Bankstown, Cumberland, Fairfield, Georges River, Hawkesbury, Hornsby, Hunters Hill, Inner West, Ku-ring-gai, Lane Cove, Liverpool, Mosman, Northern Beaches, North Sydney, Parramatta, Penrith, Randwick, Ryde, Strathfield, Sutherland, The City of Sydney, The Hills, Waverley, Willoughby, Wollondilly and Woollahra.

Eastern City: The metropolis of three cities includes the established Eastern City, which spans the North, Central and South Districts and the strategic centres of Northern Beaches Hospital, Macquarie Park (also associated with Central City), Chatswood, St Leonards, North Sydney, Sydney City, Randwick Health and Education, Green Square-Mascot, Sydney Airport, Port Botany and Kogarah.

Central City: The metropolis of three cities includes the developing Central City, which is anchored by Greater Parramatta and the Olympic Peninsula (GPOP) in the West Central District and the strategic centres of Blacktown (also associated with Western City), Norwest, Macquarie Park (also associated with Eastern City) and Rhodes.

Western City: The metropolis of three cities includes the emerging Western City focused on the proposed Western Sydney Airport. The Western City will encompass the West and South West Districts and include the strategic centres of Penrith, Liverpool, Campbelltown-Macarthur and Blacktown (also associated with Central City).

Global Sydney is the combination of the Western, Central and Eastern Cities.

Sydney City includes the contiguous areas of Sydney CBD, Barangaroo, Darling Harbour, Pyrmont, The Bays Precinct, Camperdown-Ultimo Health and Education, Central to Eveleigh, Surry Hills and Sydney East.

Greater Parramatta includes Parramatta City, and the precincts of Westmead, Parramatta North, Rydalmere and Camellia.

Parramatta City covers the central business district of Parramatta.

Strategic centres have one or more of the following characteristics:

- a higher proportion of knowledge-economy jobs, principally relating to the presence of major hospitals, tertiary education institutions, stand alone office development or a combination of these
- the presence of existing or proposed major transport gateways
- a major role in supporting the increased economic activity of the Eastern, Central or Western Cities.

Strategic centres also tend to have over 20,000 jobs.

District centres play a significant district role due to the presence of one or more of the following characteristics:

- the scale of retail activity, generally over 50,000 square metres of floor space
- the presence of health and education facilities that serve the district and the local community
- the level of transport services.

District centres also generally have between 5,000 to 10,000 jobs.





2 Our vision Towards our Greater Sydney 2056

Our 40-year vision to enable a more productive, liveable and sustainable Greater Sydney

This chapter outlines a draft amendment to *A Plan for Growing Sydney* that aligns with the vision established by this draft District Plan. It is the first step in the comprehensive work that will take place next year to review *A Plan for Growing Sydney*.

This amendment reconceptualises Greater Sydney as a metropolis of three cities, and is presented with this draft District Plan to reflect the most contemporary thinking about Greater Sydney's future. As a draft amendment for consideration, this allows the community and stakeholders to provide feedback to the draft District Plan while understanding the context of an emerging Greater Sydney, which will inform our review during 2017.

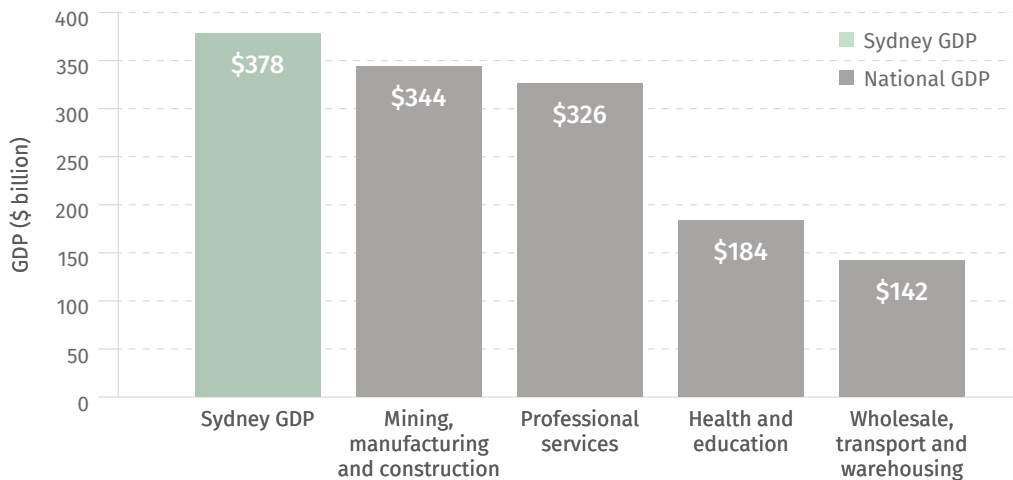
You can read a standalone version of this chapter by visiting www.greater.sydney.

A changing, growing Greater Sydney

Think about Greater Sydney as you know it today. Not only has it completely transformed in its structure and role from when it first flourished in the 19th Century, it has already surpassed the ambitious city on the Harbour that spread its reach and created its new suburbs throughout the 20th Century.

Today, Greater Sydney is an economic powerhouse, generating nearly a quarter of Australia's Gross Domestic Product (GDP). Its economy – at \$378 billion per year – is bigger than the combined value of Australia's manufacturing, mining and construction industries (Figure 2-1). Its financial strengths make it a great place for business.

Figure 2-1: Greater Sydney GDP compared to national industries (2015)



Source: Australian Bureau of Statistics, Catalogue 5204.0 Australian System of National Accounts

Greater Sydney is home to nearly 4.7 million people, which includes 2.4 million workers. Its Eastern City, traditionally known as Sydney CBD, is the epicentre of Australia's financial sector and home to key national institutions such as the Reserve Bank of Australia and Australian Securities Exchange (ASX). Other world-renowned institutions – such as the Sydney Opera House, Art Gallery of NSW, Museum of Contemporary Art and National Institute of Dramatic Art (NIDA) – highlight Greater Sydney's cultural and artistic credentials.

It also offers many local places that provide a diversity of lifestyle choices, from beachside to bushland settings, to busy main streets and ever-changing suburbs across its districts.

Greater Sydney's current structure – with economic activity and the transport network centred on Sydney City – has served it well, yet a singular focus on one city centre cannot continue as Greater Sydney grows, particularly when the city centre sits at the geographic edge, rather than at its geographic heart.

In a city-based economy like Australia's we need to get Greater Sydney's structure and spatial layout right.

Looking to comparable global cities, we know that few are orientated around a single large central business district like Greater Sydney. Instead, leading global cities develop alternatives in terms of where economic activity is located, how it is distributed and how different areas of economic activity are organised.

We associate these structures not only with improved productivity, but also with environmental and social benefits, as they allow for more connected and sustainable communities that provide greater opportunities without the need to travel long distances.

Compare this with Greater Sydney. Already, the location of the majority of Greater Sydney's jobs in the east, combined with an increasing number of people living in the west, has created capacity constraints such as higher levels of congestion, lower rates of housing affordability and uneven access to employment choices.

Greater Sydney is that rare place: a city that is globally competitive while also sharing the lifestyle assets of smaller, highly liveable centres. Thanks to strong economic and population growth, a strong pipeline of planned investments and the need to respond to the fundamental challenges of Greater Sydney's geographic structure, now is the right moment to shape its positive transformation.

These moments are rare in Greater Sydney's history and the ability to grab them is even rarer. Think about the significance of the Sydney Harbour Bridge, the Sydney Opera House and the 2000 Sydney Olympic Games.

The building of the Harbour Bridge was more than just a connection between north and south: it signalled Greater Sydney's maturity and its confidence in the future. The Opera House was not just developed as a place to see a show – instead, it put Greater Sydney on the global stage, attracting visitors from across the world and establishing rich cultural offerings. The Olympic Games were more than a sporting event – they regenerated Greater Sydney's geographic heart and transformed thinking about an area that had been neglected.

The once-in-a-generation opportunity

We are at a transformational point. We have an opportunity to shift Greater Sydney's spatial structure in a way that benefits all existing and future citizens.

If there is a single change – one moment in time – that motivates this approach, it is the planned investment in the Western Sydney Airport. This is a game changer for Greater Sydney and will provide, in around 40 years, tens of thousands of jobs.

Given the magnitude of this change, together with the scale of growth expected in Western Sydney, we need to plan now for a sustainable supporting transport network. As the new economic activity around the Western Sydney Airport starts to emerge and as the success of the Sydney City in the east continues, the Greater Parramatta and the Olympic Peninsula (referred to as GPOP) will develop its role as Greater Sydney's second city region.

Put simply, now is the time to conceive and plan for Greater Sydney maturing into a metropolis of three cities: a metropolis that will collectively create Global Sydney.

'Greater Sydney has the potential to develop its global economic brand from its current professional and corporate services Eastern City focus towards a broader story that also embraces education, innovation, technology, and advanced production industries. The development of the Central City and the emergence of the Western City, catalysed by Western Sydney Airport, gives Greater Sydney a real opportunity to be a diverse and differentiated global economic powerhouse.'

Greg Clark, urbanist and global advisor on cities and investment

This means a shift away from thinking of Greater Sydney as a place anchored by an economically strong single central business district – a monocentric approach – and instead looking at the outstanding assets in three cities and the many local places and connections between these cities – a genuine polycentric approach, as shown in Figure 2-2.

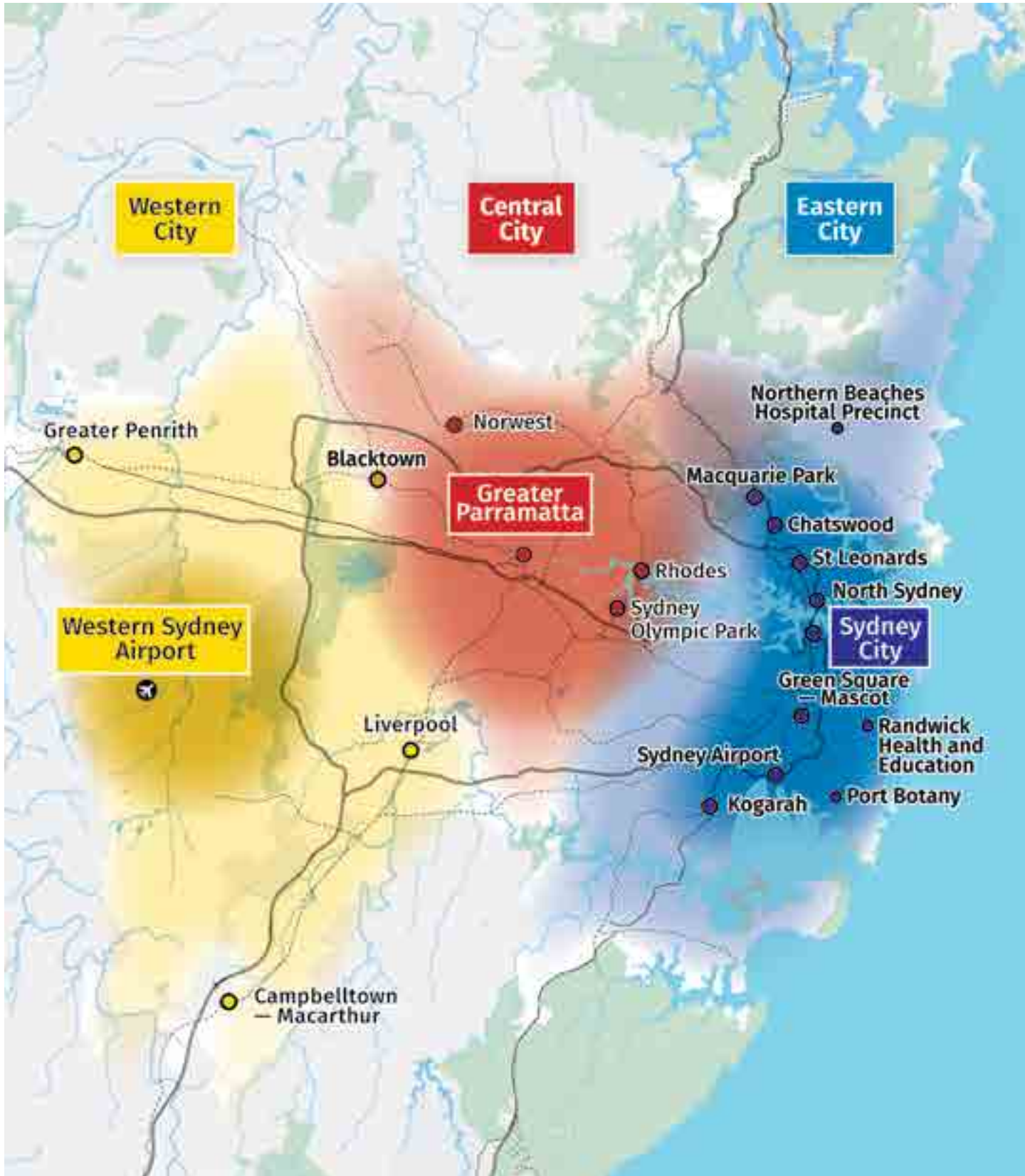
Western Sydney City Deal

The Australian and NSW Governments have agreed to work with local government on the development of a Western Sydney City Deal, a generational deal to deliver almost 100,000 jobs, more housing and better transport for outer Western Sydney in what is the nation's largest ever planning and investment partnership. The Western Sydney City Deal is intended to drive a new economy in the emerging aerotropolis that incorporates the areas immediately around the Western Sydney Airport, and the broader region.

The Western Sydney City Deal pledges to:

- target additional infrastructure investment to increase public transport and reduce traffic congestion, so people can spend more time with their families
- deliver more jobs closer to homes and services, with a focus on youth and Aboriginal training and skills development
- increase housing through better planning and density done well, and streamlining approvals across all three levels of government
- support clean air, green spaces, vibrant arts and cultural initiatives.

Figure 2-2: A metropolis of three cities: Global Sydney.



Source: Greater Sydney Commission, 2016

The metropolis of three cities acts as a central organising strategy in the planning for Greater Sydney as an eight million-strong metropolis by 2056. It will guide future decision-making and the priorities of government and industry to move to a more productive, sustainable and equitable city.

The **established Eastern City** is the currently established Sydney City and economic corridors to its north through to Macquarie Park and south through Sydney Airport and Port Botany to Kogarah.

It is an economic engine – especially in the financial, business and professional services and innovation start-up sectors – with a beautiful harbour, sought-after suburbs and a large proportion of knowledge-intensive jobs.

There are many opportunities to enhance the Eastern City, such as the renewal of government-owned land near Sydney City and tackling congestion. Our planning must support and enable the continued growth of the Eastern City's global industries and branding.

The established city contains significant heritage precincts such as The Rocks, Millers Point, Macquarie Street and the Royal Botanic Gardens and the Domain. The Harbour foreshores include significant evidence of Aboriginal occupation and interaction with the landscape.

Of the three cities, the **developing Central City** with GPOP at its heart is anticipated to experience the most significant urban transformation over the next 10 to 15 years. Aboriginal occupation of this area dates back 30,000 years. Historically, Parramatta is an early colonial settlement and significant heritage is a key aspect of its identity. Its central metropolitan location will be one of its greatest advantages. By 2036, it will be one of Greater Sydney's administrative and business centres, and the Westmead health and education precinct will continue to grow and lead best practice in medical and education-related industries.

It will be an important area for advanced manufacturing and innovation-driven enterprises. It will offer more opportunities for 21st Century smart jobs, will build its own global brand and, with planned transport investments, will be an easier place to get to and move around in. It is critical that the Central City has strong transport connections and transport capacity to the established Eastern City and the emerging Western City.

By 2056, the Western Sydney Airport will be the focus of the **emerging Western City**. For the first time in over 100 years, this major catalyst will provide the opportunity to change the shape and structure of an extensive area of Greater Sydney.

The emerging Western City will also offer the strategic advantage of creating a greater diversity of jobs and greater social opportunities for the thousands of citizens in the centres of Penrith, Blacktown, Liverpool and Campbelltown-Macarthur.

The economic growth generated by the Western Sydney Airport will offer the opportunity to furnish the emerging Western City with affordable and diverse housing, transport and social infrastructure and jobs needed to create a place people will want to call home.

This new central organising strategy of Greater Sydney as a metropolis of three cities has led to a reconsideration of the approach to centres in *A Plan for Growing Sydney*. A new hierarchy of centres is proposed, which defines three types of centres: strategic, district and local.

These centres vary in terms of scale and contribution to Greater Sydney's job growth and productivity as well as service provision to local communities. In brief:

- strategic centres, including transport gateways, have the scale, industries and location needed to specifically support a city with smart jobs and the success of the Eastern, Central and Western Cities
- district centres have jobs, facilities and services that support district populations
- local centres have a range of local jobs and services for local catchments.

Our vision for Greater Sydney to 2056 represents the economic, social and environmental integration of a metropolis of three cities. It acknowledges that Greater Sydney is more likely to develop in a sustainable manner when it has a strong, productive economy underpinning a fair and liveable lifestyle and allowing a focus on Greater Sydney's natural environment, resilience and efficiency.

This vision can be delivered through a number of metropolitan priorities, summarised in the table below.

A Productive Sydney	A Liveable Sydney	A Sustainable Sydney
A growing city	An equitable, polycentric city	A city in its landscape
A city with smart jobs	A city of housing choice and diversity	An efficient city
A 30-minute city	A collaborative city	A resilient city





3 A Productive City

“Successful cities grow. Cities that attract jobs, investment, institutions, tourists, will also attract population, both from within their countries and from abroad. Population growth is a hallmark of city success but it brings with it critical choices and challenges that must be addressed.”

Greg Clark, urbanist and global advisor on cities and investment

The recently announced commitment to pursue a City Deal between the Australian and NSW Governments and in collaboration with local government has the potential to set the foundation for transformation of the South West District, as a major driver of Greater Sydney’s emerging Western City. The economic opportunity created by the Western Sydney Airport will allow the South West District to shift from a place to accommodate homes for Greater Sydney’s housing market to an attractor of major economic activity.

The District will be a place of many centres, which are part of the Western City. The main strategic centres of Campbelltown-Macarthur and Liverpool (together with Penrith and Blacktown) will support the Western Sydney Airport and the growing population. In the long term the area will develop to the size of Adelaide. This draft District Plan therefore seeks to outline the priorities and actions which can facilitate the attraction of the jobs, health and education facilities, shops and other services and facilities to support a community of that size, with the Western Sydney Airport being the catalyst for much of this change.

Campbelltown-Macarthur and Liverpool will grow as strategic centres of health and education precincts, smart jobs, housing diversity and attractive destinations for visitors. These centres will support and service both the new and established communities. Investment in transport infrastructure will strengthen and grow the diversity of employment choice.

Ultimately, instead of looking east and competing for resources, the District’s centres and its people will now be able to look south west and work together to develop the new Western City of jobs and opportunity around the Airport.

The South West District Productivity Profile

The South West District Productivity Profile describes the District’s economy in terms of employment growth, job types and locations, economic output and other data. This informs the way we plan for the District’s economy and the type of jobs that the District will need to accommodate in the future.

You can view the full Productivity Profile by visiting www.greater.sydney. A summary is provided in section 3.1.

This draft District Plan outlines the proposed priorities and actions to drive the South West District’s productive economy. It draws on *A Plan for Growing Sydney’s* Goal 1, which seeks to grow a competitive economy with world-class services and transport, as well as the priorities from *Our vision – Towards our Greater Sydney 2056*.

A number of metropolitan aspirations will be instrumental to the growth of the South West District’s economy:

- **A metropolis of three cities** will drive the development of the Western City around the Western Sydney Airport, a once-in-a-lifetime opportunity for Greater Sydney and the South West District to significantly influence land use patterns in the surrounding areas. Associated investment will drive jobs growth, including knowledge-intensive jobs, and investment that will significantly contribute to the District’s economic growth.

This builds on Direction 1.5 of *A Plan for Growing Sydney*, and the recent Australian and NSW Government announcement to pursue a Western Sydney City Deal, the \$3.6 billion investment in road infrastructure from the Australian and NSW Governments, and the NSW Government’s ongoing planning for transport corridors to support Western Sydney Airport and surrounding areas.

- **Growing smart jobs in strategic centres and world-class health and education super precincts** by prioritising land use planning to encourage investment in Liverpool and Campbelltown-Macarthur, which contain established health and education super precincts, retail centres and civic and government facilities. This builds on Direction 1.10 of *A Plan for Growing Sydney*, specifically Action 1.10.2.

3.1 The South West District – an emerging economy

The South West District contains a diversity of employment activities including major health and education super precincts at Liverpool and Campbelltown-Macarthur, strategic industrial precincts and significant agricultural activities. Between 2011 and 2015, its economy grew by just under 9% (compared to 13% for Greater Sydney), representing an increase in gross value add (GVA) of approximately \$1.8 billion.

The District is home to approximately 715,000 people, almost 16% of Greater Sydney's population, and has grown by more than 189,000 people in the last 20 years (Table 3-1). It contains over 237,000 jobs, which represents approximately 10% of all jobs across Greater Sydney, up from 158,000 jobs in 1996. Despite this the South West District's share of jobs rose slowly from 9% to 10% between 1996 and 2016.

Over the long-term, the District's land release areas have the potential to attract a population close to the current total of the whole District. With this growing population and the development of the Western Sydney Airport, the District has the potential to be transformed into a nationally significant health, education, trade, logistics, advanced manufacturing and science hub.



Photo credit: Campbelltown City Council

Table 3-1: South West District: Historical population and employment growth (1996-2016)

	Population			Jobs		
	1996	2016 Projection	1996-2016 % Growth	1996	2016 Projection	1996-2016 % Growth
South West District	525,950	715,200	36%	158,000	237,100	50%
Greater Sydney	3,553,100	4,682,000	32%	1,722,700	2,439,800	42%

Source: (Population) Department of Planning and Environment, 2016 NSW State and Local Government Area Population and Household Projection and Implied Dwelling Requirements 2016 to 2036; (Jobs) Transport Performance and Analytics (TPA) (formerly known as Bureau of Transport Statistics), Transport for NSW, Greater Sydney Employment Forecasts, 2011 to 2041 (2016 Release)

Economic activity in the District started in the very early years of European settlement of NSW where the Camden area was the original 'cowpastures', hence Cowpasture Road. Over time, centres such as Liverpool and Campbelltown were established and since the middle of the 20th Century, significant urban development, including employment and urban services areas, has occurred.

With nearly half of the long-term potential development of the District still to come, including the transformative Western Sydney Airport, the District's economy is still very much emerging, and the locations of many new centres and commercial areas are yet to be resolved.

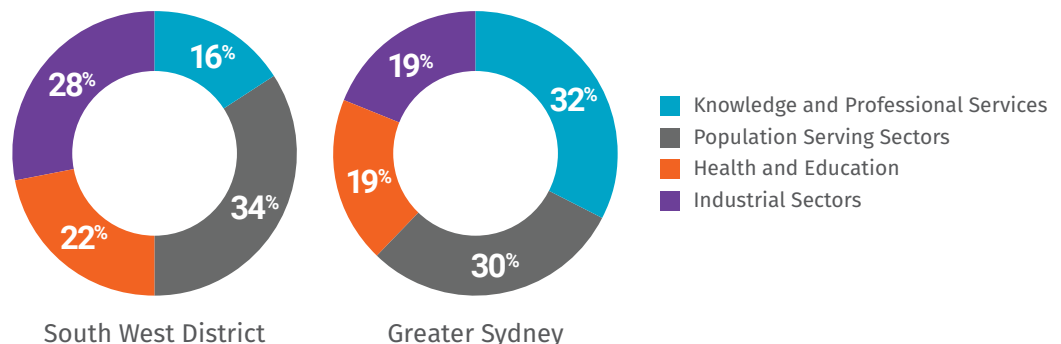
Investment in new infrastructure, such as roads, public transport and utilities is core to the District's prosperity. The location of this infrastructure and the timeliness of delivery will significantly influence the potential of this emerging economy.

3.1.1 Current economic profile and recent growth

The District's jobs are categorised as knowledge-intensive and professional jobs, health and education jobs, population serving jobs and industrial jobs. This categorisation helps us to understand why different types of industries locate in different parts of Greater Sydney.

Our analysis shows that the District contains a higher proportion of population-serving, health and education and industrial jobs compared to the Greater Sydney average and a lower proportion of knowledge-intensive jobs (Figure 3-1). In the last 20 years the most significant employment growth has been in health and education (86%), highlighting the role of this sector and its future potential. In terms of absolute employment, the greatest increase in jobs was in the population-serving sector which reflects the population growth that has occurred in the South West District.

Figure 3-1: Employment profile by sector in South West District vs Greater Sydney (2016)



Source: Transport Performance and Analytics (TPA) (formerly known as Bureau of Transport Statistics), Transport for NSW, Greater Sydney Employment Forecasts, 2011 to 2041 (2016 Release)

Table 3-2: Jobs by sector (1996 and 2016)

	Total	Knowledge and Professional Services	Population-serving sectors	Health and Education	Industrial
1996 (Census)	158,000	23,500	52,200	28,300	54,100
2016 (Projection)	237,200	37,800	79,600	52,700	67,100
Change	79,200	14,300	27,400	24,400	13,000
% growth 1996-2016	50	61	52	86	24

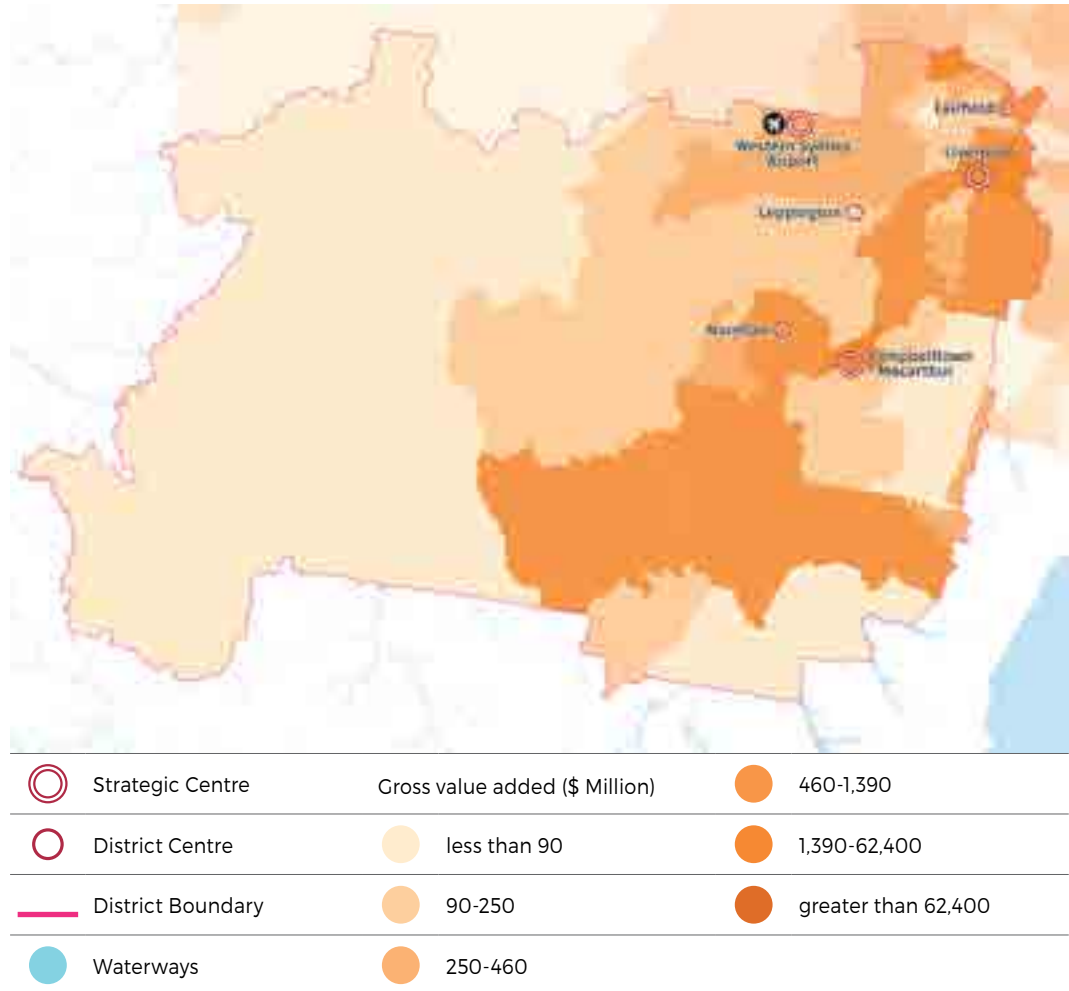
Source: (Jobs) Transport Performance and Analytics (TPA) (formerly known as Bureau of Transport Statistics), Transport for NSW, Greater Sydney Employment Forecasts, 2011 to 2041 (2016 Release)

The South West District benefits from an existing concentration of health and education institutions and strategically significant employment and urban services land. Figure 3-2 illustrates the economic contribution of these assets and shows the spatial distribution of economic activity in terms of GVA, which measures the value of goods and services in a particular area.

The District's strongest areas of economic activity include Liverpool, Campbelltown-Macarthur and the employment and urban services precinct at Wetherill Park. Growing employment areas around the Western Sydney Airport will make a significant contribution to Greater Sydney's economy over the next 20 to 40 years.



Figure 3-2: South West District's gross value add (2015)



Source: Australian Bureau of Statistics, Catalogue 5204.0, Australian System of National Accounts

Figure 3-3 shows areas of high labour productivity, a measure that indicates the areas that generate higher economic value per hour worked. This helps us to understand important economic places such as Wetherill Park.

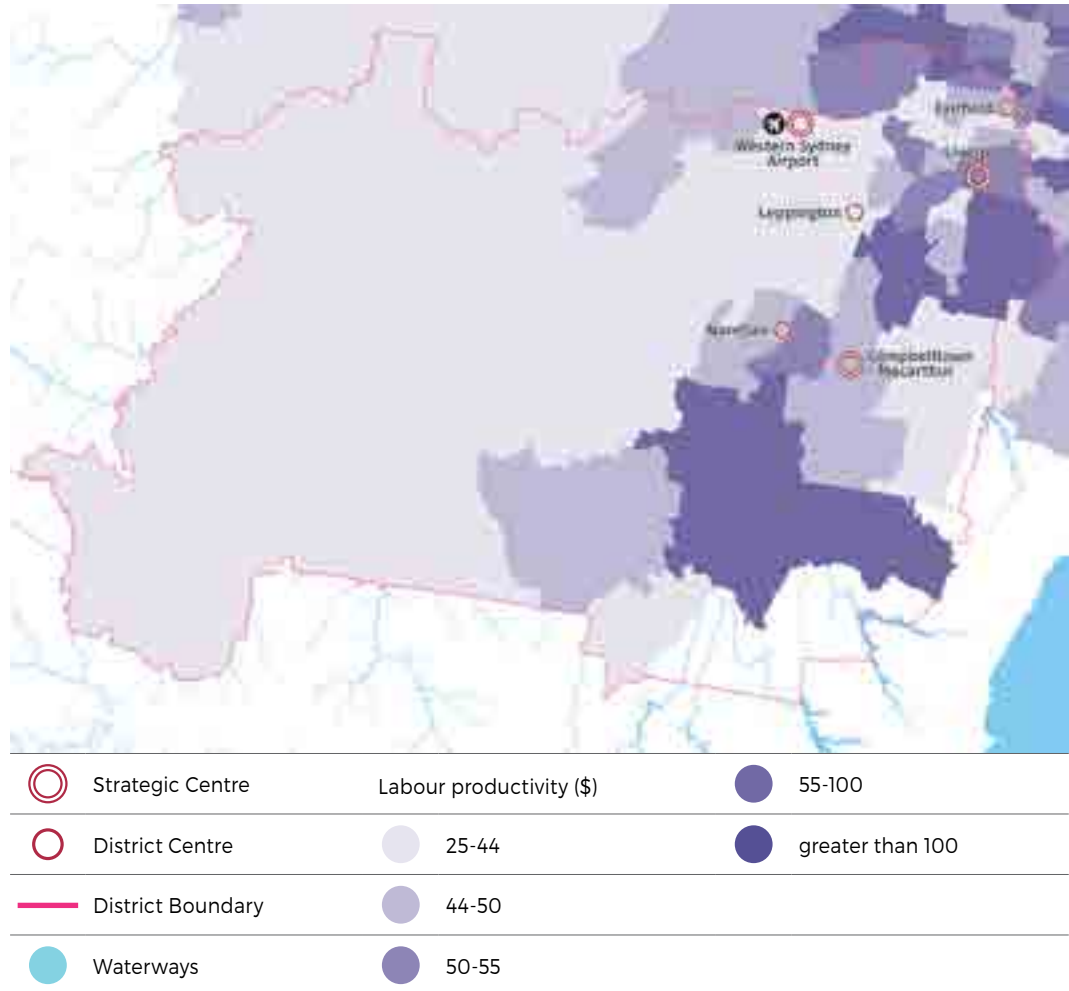
Looking forward, employment and urban services land will be crucial for employment and economic activity. Concentrations around Wetherill Park, Prestons, Smeaton Grange, Ingleburn and Minto are supported by major road infrastructure including the M31, M4, M5 and M7 Motorways, which makes these areas highly accessible and attractive to businesses and provides potential for job growth.

As well as employment and urban services areas, the South West District's centres have distinct employment profiles. We classify Liverpool, Campbelltown-Macarthur and Western Sydney Airport as strategic centres,

and Fairfield, Leppington and Narellan as district centres, reflecting their current and future roles (see Section 3.4 for more detail on centre classifications).

The District's agricultural clusters include irrigated horticulture (vegetables and herbs) in Warragamba/Silverdale, multi-use irrigated horticulture in Cobbitty and Camden and poultry sheds across Campbelltown and Wollondilly local government areas. The District also produces flowers and dairy products, with one of the southern hemisphere's largest dairies operating at Bringelly. The agriculture sector employs 2,000 people – only 1% of the District's employment – yet makes an important contribution to Greater Sydney's food supply and accommodates nearly 30% of Greater Sydney's jobs in the agriculture, forestry and fishing sector.

Figure 3-3: South West District's labour productivity (2015)



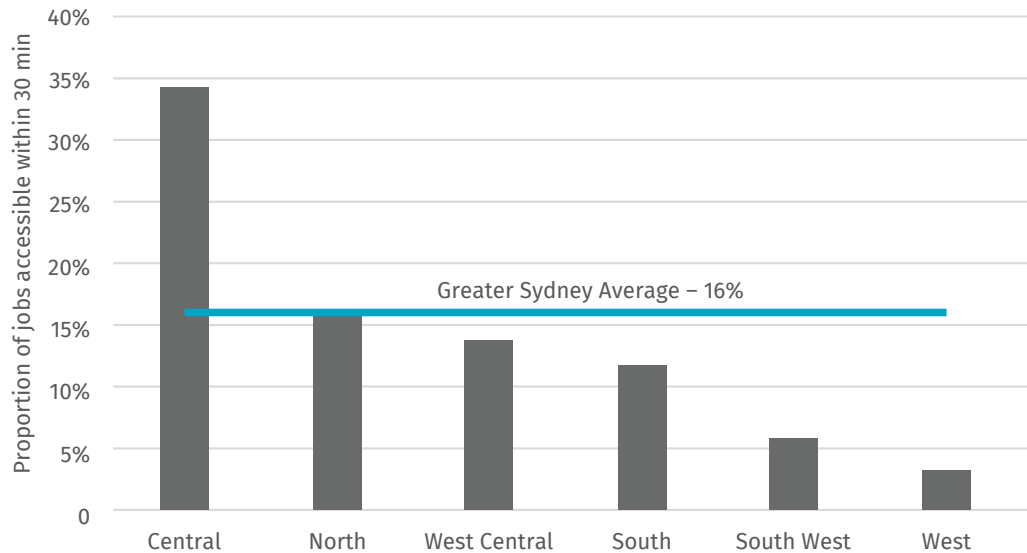
Source: Australian Bureau of Statistics, Catalogue 5204.0, Australian System of National Accounts

3.1.2 Access to jobs

Our research shows that during the morning peak, approximately 6% of Greater Sydney's jobs can be accessed by South West District residents within 30 minutes by public transport or private vehicle. This is lower than the 16% average across Greater Sydney.

This means South West District residents face longer commute times in order to access a greater diversity of jobs.

Figure 3-4: South West District residents' access top jobs in the AM peak (2016)



Source: Transport Performance and Analytics (TPA) (formerly known as Bureau of Transport Statistics), Transport for NSW, Strategic Travel Model (STM) outputs, 2016

This level of access creates barriers to jobs and business investment, as well as social activities, education and other services. In the South West District, some areas of employment are not well connected to others or to where people live. For some people, the cost of travel inhibits their ability to access education and work.

The District's dispersed nature of job locations means more people drive to work than the Greater Sydney average and only 10% of workers travel to work via public transport compared to 20% across Greater Sydney. This reflects the generally limited public transport options across the District.

Lower employment density, a less diversified District economy and lower access to employment centres have a cumulative impact on economic development in the District.

3.1.3 Economic opportunities

Notwithstanding these challenges, the South West District is increasingly well placed to take advantage of a number of important economic opportunities, assets and investments to build its economic strength.

Western Sydney Airport and supporting infrastructure

Infrastructure such as the planned \$3.6 billion road upgrades to several roads in the area including The Northern Road and Bringelly Road, the new M12 Motorway, and in the long term, the South West Rail Link extension and the Outer Sydney Orbital - will offer unparalleled opportunities for economic growth. This in turn will support the 24-hour airport and connect existing and proposed freight and passenger corridors within the District. These changes have the potential to grow the national and international tourism and export markets and better connect the District to regional cities such as Newcastle, Wollongong and Canberra.

Western Sydney Priority Growth Area

The new Western Sydney Priority Growth Area will provide local people with better access to jobs within and around the Western Sydney Airport, as well as infrastructure and services for local residents. This area will be the focus of the new Western Sydney City Deal.

Greater Macarthur Priority Growth Area –

The Greater Macarthur Priority Growth Area will focus on the Campbelltown-Macarthur strategic centre and will coordinate land use and infrastructure planning for urban renewal around seven train station precincts from Glenfield to Macarthur. It also includes new land release areas of Menangle Park, Mount Gilead and a new town at Wilton.

South West Priority Growth Area – The South West Priority Growth Area will be planned with a range of centres, including a new district centre at Leppington, to provide economic opportunities and better access to jobs for residential communities.

Strategic centres – Liverpool and Campbelltown-Macarthur strategic centres include large concentrations of employment and major health and education facilities, civic and justice facilities, heritage assets and access to a range of parks and recreational facilities. These centres will continue to be a major focus for the growth of population driven services, advanced manufacturing and knowledge-intensive jobs.

New communities – New communities in priority growth areas have the potential to accommodate a planned population close to 600,000 people over the next 20 to 40 years – this is more than one and a half times the size of Canberra. These new communities will create demand for commercial development including new centres, employment and services lands.

Natural and multicultural assets – These include national parks, Aboriginal sites, rural landscapes, the local koala population, local community events like Cabramatta's Moon Festival, venues like the Campbelltown Arts Centre, and towns and villages. Local multicultural areas like the hub of sari shops in Liverpool could contribute to a thriving visitor economy for both domestic and international visitors.

Collectively, these assets will drive economic activity in the South West District. The continued growth of Greater Parramatta and better transport connections between Parramatta, Liverpool and Campbelltown-Macarthur would better link residents in the South West to centres with a high concentration of knowledge-intensive employment.

3.1.4 District priorities

This Chapter outlines the productivity priorities and actions for the South West District.

The priorities are presented in two ways. Firstly, each heading outlines a priority area, and we provide context and detail to expand on the outcomes sought. Some headings cover factual issues only; these are not included in the list below.

Secondly, within the broad priority areas there are, in many cases, more detailed priorities. We identify the specific purpose of these priorities in each case by detailing how they relate to strategic planning and planning proposals.



Photo credit: Fairfield City Council

The priorities should be considered in strategic planning activities and planning proposals as appropriate.

The full list of productivity priorities covered in this section are outlined below.

Creating a framework to deliver the Western City

- the Western Sydney City Deal - Governance
- elements of the Western City
- identifying alignments and preserving regionally significant east-west and north-south rail and road corridor for the Western City
- identify economic development priorities for the Western City
- planning for 21st Century aerotropolis with 21st Century amenity
 - create high quality urban amenity across the Western City
- creating a polycentric city of jobs and opportunity around the Western Sydney Airport

integrating land use and transport planning to drive economic activity

- improving District significant east-west and north-south connectivity
- utilise the natural attributes of the District as economic building blocks
- integrating land use and transport planning for greenfield areas

planning for job target ranges for strategic and district centres

- plan for the growth of centres

growing and diversifying the economic opportunities in the District's strategic centres

- growing the diversity, level and depth of jobs and the vibrancy of Liverpool strategic centre
 - manage growth and change in strategic and district centres, and as relevant, local centres
- growing the diversity, level and depth of jobs and the vibrancy of Campbelltown-Macarthur strategic centre

growing jobs in the health and education

sectors

- foster 'Smart Liverpool' – a city of business innovation and health and education excellence
- promote and grow Campbelltown - the emerging health and medical university city
- support the growth of tertiary education opportunities
- encourage additional private hospital development in the strategic, district and local centres

coordinating infrastructure planning with population growth – enhancing local access

- facilitate local employment in land release and urban renewal areas
- supporting the growth of retail floor space
 - prioritise the provision of retail floor space in centres
- facilitating jobs growth in Wilton New Town in line with population growth

strengthening the diversity of employment choice

- provide for efficient movement of freight to and within the District with least impact on residents' amenity
- retain and grow the agricultural, horticultural and rural industry
- facilitate visitor destination potential of the South West District
- protect and manage employment and urban services land – a pipeline of employment
 - protect and support employment and urban services land.

3.2 Creating a framework to deliver the Western City

Our vision – Towards our Greater Sydney 2056 introduces the emerging Western City, focusing on the proposed Western Sydney Airport. The Western City will sit across the West, South West and West Central Districts and include the strategic centres of Penrith, Liverpool, Campbelltown-Macarthur and Blacktown. This recognises the importance of the Western Sydney Airport as a catalyst that can transform the area over the next 40 years and enhances Sydney's gateway capacity in line with Direction 1.5 of *A Plan for Growing Sydney*.

Our vision is that by 2056, Western City will be transformed into:

- a trade, logistics, advanced manufacturing, tourism, health and science hub
- a city with well-designed, highly functioning and vibrant centres and local places
- a protected and valued parkland city.

To deliver on this vision, we will need coordination across three tiers of government and engagement with the community, and will need to provide clear direction for the private sector, which will, in the main, develop and invest in the area.

This collaborative approach will need to recognise and capitalise on the transformative opportunities that can collectively drive the delivery of the Western City.

3.2.1 The Western Sydney City Deal – governance

In October 2016, the Australian and NSW Governments agreed to work together with local government to deliver an agreed Western Sydney City Deal by mid-2017. City Deals will improve the lives of people through better transport, improved housing supply and affordability, better access to jobs and improved environmental outcomes.

Australia's growth as a knowledge-based economy, and the prosperity this offers, goes hand in hand with the growth of our cities and the regions surrounding them. To achieve success in the 21st Century, Western Sydney, and other regions across Australia, need to be productive and accessible, as well as liveable and sustainable, with a clear focus on meeting the needs of people.

City Deals will formalise the partnership across the three levels of government and define priorities, actions, timeframes and accountabilities for achieving joint goals. City Deals will improve collaboration between all levels of government by coordinating governance, strategic planning, investment and reform. The establishment of City Deals will require all levels of government to bring reforms, planning or asset contributions, and investments to support improved outcomes in our cities.

The Western Sydney City Deal will bring the Australian, NSW and local governments together with a common purpose: to have a measurable impact on the productivity, liveability and sustainability of the area.

The City Deal will complement our planning decisions to 2036 and influences our vision to 2056 to:

- improve connectivity in the Western City and with other areas of Greater Sydney through investment in road and rail infrastructure
- attract investment to stimulate the growth of knowledge-intensive jobs and jobs in industries such as freight, logistics and tourism, and to drive better social and economic outcomes for communities, particularly vulnerable groups
- help to ensure the supply and types of housing meet demand and are affordable
- maintain or improve environmental outcomes through biodiversity conservation.

The City Deal will include clear roles for each level of government to provide funding, undertake policy and regulatory reforms, contribute land, make land use planning changes and provide other support to achieve the desired economic, social and environmental objectives. The City Deal will also include clear ongoing governance arrangements.

We know that by 2036, the population of the emerging Western City west of the M7 Motorway will be more than one million, growing to 1.5 million by 2056. The City Deal is a generational deal with a commitment to deliver almost 100,000 jobs and better transport for outer Western Sydney – the nation’s largest ever planning and investment partnership for the District compared to Greater Sydney.

If we can broaden Greater Sydney’s global economic footprint, particularly from Parramatta to the west, and leverage the investment in the Western Sydney Airport, we can help to facilitate a strong and diverse base of new jobs in the area, connected to a workforce located within 30-minutes of employment opportunities.

It is for this reason that we view the Western Sydney Airport as an intergenerational game changer for Greater Sydney and particularly Western Sydney. It could, by the middle of the century, provide a globally significant agglomeration of knowledge jobs in an Airport city, or Aerotropolis, and transform the centres of Penrith, Blacktown, Liverpool and Campbelltown-Macarthur.



Action P1: Establish the Western Sydney City Deal

The Australian and NSW Governments will work with Blue Mountains, Camden, Campbelltown, Fairfield, Hawkesbury, Liverpool, Penrith and Wollondilly Councils to deliver the Western Sydney City Deal. The City Deal agreement will be in place by mid-2017.

3.2.2 Elements of the Western City

The Western City encompasses a number of important elements:

- the Western Sydney Airport site (1,780 hectares)
- the core of the Western Sydney Airport Aerotropolis, which is included in the land defined by the Western Sydney Priority Growth Area.
- the strategic centres of Penrith, Blacktown, Liverpool and Campbelltown-Macarthur
- the full extent of the urban areas of Penrith, Camden, Fairfield, Liverpool, Campbelltown and Blacktown Local Government Areas.

Western Sydney Airport

The Australian Government forecasts that about five million people will use the Airport in its first year of operation in the mid-2020s, with annual passengers projected to increase to about 37 million by 2050. This is about the same number of annual passengers using Sydney Airport today. Ultimately, the Western Sydney Airport will have the capacity to cater to more than 80 million passengers per year.

The Airport and its surrounds will be a substantial source of economic and employment activity, particularly for the West District and South West District. We expect to

Figure 3-5: Western Sydney Airport aerotropolis and the string of pearls



Source: Greater Sydney Commission, 2016

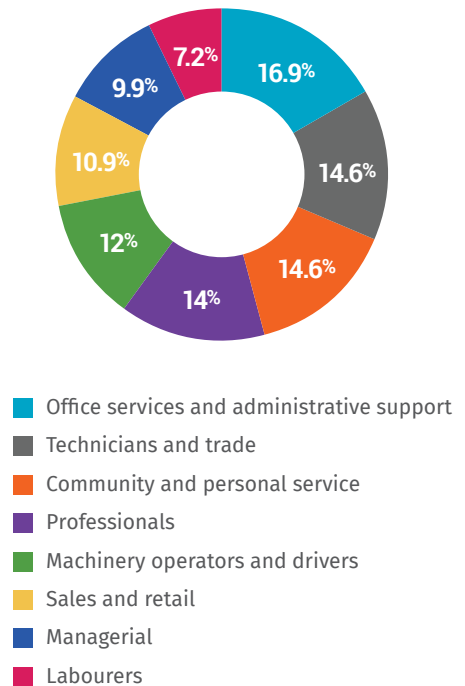
see a range of employment types, including a variety of professional services and high-tech industries such as logistics, trade, aerospace and defence industries, advanced manufacturing and tourism.

The Australian Government released the final Western Sydney Airport Environmental Impact Assessment in September 2016. The Assessment shows that construction and operation of the Airport are expected to generate significant economic and employment effects which will grow as passenger demand increases.

Construction of Stage 1 development is expected to create employment opportunities and value add for the economy.

- about 3,180 full time equivalent jobs during the peak construction activity of which approximately 84% would be in Western Sydney
- \$2.3 billion in value-add across greater Sydney during the construction period with approximately \$1.9 billion or 83% of the value-add being created in Western Sydney.

Figure 3-6: Typical mix of job types created by an airport



Source: Western Sydney Airport EIS fact sheet

During the operation of Stage 1, the airport is expected to continue its role as a substantial source of economic and employment opportunities in the Western City. The operation of Stage 1 in 2031, for example, would:

- create about 8,730 full time direct on-site jobs
- potentially create a further 4,440 full-time on-site jobs within business parks on the site
- generate about \$77 million in value add for Western Sydney
- generate about \$145 million in value add for the rest of Greater Sydney
- drive growth in business profits, productivity and household income.

The Western Sydney Airport will also drive employment in tourism and related industries and support the growth of tourism, accommodation, and services in the surrounding centres.

The core Western Sydney Airport Aerotropolis

The land surrounding the Western Sydney Airport, defined as the Western Sydney Priority Growth Area is the core of the Western Sydney Airport Aerotropolis. It will be focused on agglomerating world-class knowledge intensive airport-related industries.

Aerotropolis developments around the world have transformed regions like Western Sydney by bringing together high quality jobs and opportunities, while also achieving industry leading environmental outcomes.

Five recent global examples of aerotropolis developments show the size of the assets and benefits (Table 3-3).

Key learnings from these global exemplars and from work already undertaken by the Department of Planning and Environment, Liverpool City Council and Penrith City Council will inform the deliberations of the Western Sydney City Deal. This includes land use and infrastructure planning for the area that will guide new infrastructure investment, identify locations for new homes and jobs close to transport, and the coordination of services in the area.

The strategic centres

Four established strategic centres – Liverpool, Campbelltown-Macarthur, Penrith and Blacktown, – will provide Western City's foundational urban centres. These centres will provide the supporting urban infrastructure, housing and jobs to enable the Western City's growth. They will also be the places where people can access services and lifestyle benefits such as entertainment and recreation areas.

Table 3-3: Comparative data for three aerotropolises

2015	Incheon (Seoul)	Dallas Fort Worth	Amsterdam	Tokyo Haneda	Tokyo Narita International
Traffic (million passengers/year)	49	64	62	75	37
Traffic movements	300,200	682,261	450,679	379,670	232,182
Cargo (tonnes/annum)	2,600,000	770,000	1,620,000	900,000	2,000,000
Airport area (hectares)	5,116	7,200	2,787	1250	1,400
Added value (per annum, USD)	\$10bn	\$17bn	\$12bn	\$18.5bn	
Airport jobs	60,000	55,000	60,000	38,000	74,000
Related jobs	200,000	157,000	120,000	158,000	81,000

Source: Extract from NACO Aviation/Urban Planners "draft" report (October 2016) for NSW Government

3.2.3 Identifying alignments and preserving regionally significant east-west and north-south rail and road corridors for the Western City

The successful delivery of the Western City will require improved north-south and east-west transport connections and the resolution of land use planning for the Western Sydney Priority Growth Area, as identified in *A Plan for Growing Sydney*.

The Australian and NSW Governments are funding a 10-year, \$3.6 billion road investment program known as the Western Sydney Infrastructure Plan to support integrated transport in the region and capitalise on the Western Sydney Airport. The program includes:

- an upgrade for The Northern Road to a minimum of four lanes from Narellan to Jamison Road, Penrith
- a new east west M12 Motorway to Western Sydney Airport between the M7 Motorway and The Northern Road
- an upgrade for Bringelly Road to a minimum of four lanes between The Northern Road and Camden Valley Way
- the Werrington Arterial Road, which will be built by upgrading Kent Road and Gipps Street to four lanes between the Greater Western Highway and the M4 Motorway and providing ramps to the M4 Motorway
- an upgrade of the intersections of Ross Street and the Great Western Highway
- a \$200 million package for local road upgrades to be delivered over 10 years.

As identified in *A Plan for Growing Sydney*, Transport for NSW has also preserved, or is working to preserve, corridors in the area:

- The South West Rail Link extension, which will provide a north south connection through the South West Priority Growth Area and the Western Sydney Employment Area, including the proposed Western Sydney Airport. The corridor connects Leppington Station to Bringelly and then heads north to the T1 Western Line near St Marys and south to Narellan. The NSW Government is also considering the possibility of extending the corridor south to the existing T2 Inner West and Southern Highlands Line
- Preferred corridor for the Outer Sydney

Orbital, which will provide a north south connection for a future motorway and freight rail line. The Outer Sydney Orbital will provide better connections within Greater Sydney and to regional NSW and Newcastle, Wollongong and Canberra.

- The NSW Government is working to identify the Western Sydney Freight Line and intermodal terminal, identified in the NSW Freight and Ports Strategy as a critical freight link facilitating movements and logistics within Greater Sydney and to regional markets.

In addition, recognising the important role of rail transport in supporting both the growth of the Western City and the Western Sydney Airport, the Australian and NSW Governments are undertaking a *Western Sydney Rail Needs Scoping Study* to examine the passenger rail transport needs of Western Sydney and the Airport. A Discussion Paper released in September 2016:

- acknowledges the level of population and employment growth forecast for Western Sydney and associated transport challenges associated
- provides an overview of the transport projects underway in Western Sydney
- examines the rail demand in Western Sydney
- provides an overview of the initial set of rail options identified to service Western Sydney and the Western Sydney Airport.

The *Western Sydney Rail Needs Scoping Study* will inform the final South West District Plan, the development of the Future Transport Strategy and the review of *A Plan for Growing Sydney*.

Sydney Metro West

The NSW Government has announced a new underground metro railway line will be built between Parramatta City and Sydney City to help cater for Sydney's growth.

Sydney Metro West will provide a direct connection between Parramatta City and Sydney City, linking communities not previously serviced by rail as well as supporting growth between the two major centres.

The Sydney Metro West project will focus on a corridor between the Parramatta River and existing T1 Western Line, because of the greater potential to transform communities, create new ones and link them using a new state-of-the-art public transport system.

Beyond this corridor, opportunities to extend the line east and west will also be considered.

- advanced manufacturing and manufacturing clusters
- tourism and services economy
- aerospace and defence industries
- other specific industries as required.

The economic development strategies will also draw on the work of Jobs for NSW as detailed in their *Jobs for the Future* report. This report outlines the aspirations for future employment growth in NSW and how private and public sectors can contribute to achieving it.

Jobs for NSW

Jobs for NSW is a private sector-led NSW Government-backed initiative which was established by the NSW Premier and NSW Minister for Industry in 2015 to drive investment and facilitate jobs growth across NSW.

The body has been tasked with overseeing the \$190 million Jobs for NSW Fund and assisting the NSW Government in delivering on its commitment to create 150,000 new jobs across NSW by March 2019.

Jobs for NSW is focused on driving growth in industries and sectors where NSW has or could have a global competitive advantage, including start-ups and fast-growth small-to-medium enterprises in target industries such as tourism, goods exports and advanced manufacturing, with the overall aim of growing the NSW economy.

Jobs for NSW is also providing grants and partnerships to guide emerging businesses.

3.2.4 Identify economic development priorities for the Western City

With the emergence of Greater Sydney as a metropolis of three cities, the Department of Industry, in collaboration with the Commission, councils, the investment community and other stakeholders will prepare and implement economic development strategies for each of the three cities.

This is a new approach for Greater Sydney – it leverages the skills of government to lead the agglomeration of jobs and industry so that we can work across public and private organisations to achieve the ambitions of *Our vision – Towards our Greater Sydney 2056* and the aspirations of this draft District Plan.

The three economic development strategies, while similar, will reflect our aspirations for the Western, Central and Eastern Cities. They will work across sectors and will include, where relevant:

- specific planning for health and education super precincts
- the goals of Growing the First Economy of NSW – a framework for Aboriginal economic prosperity, developed in conjunction with Aboriginal Affairs



Action P2: Develop and implement an economic development strategy for the Western City

The Department of Industry, in collaboration with the Commission, Jobs for NSW, Aboriginal Affairs and other State agencies and local councils as relevant, will develop an economic development strategy for the Western City.

3.2.5 Planning for a 21st Century aerotropolis with 21st Century amenity

Design excellence will be a critical requirement for the Western Sydney Priority Growth Area, a focus of much of the investment for the aerotropolis. Delivery on this will require a number of considerations, including:

- taking advantage of the natural attributes of the area including utilising South Creek as a central organising design element
- considering how the edges of major transport infrastructure is treated, specifically allowing for tree planting and options for activity to address road corridors.
- creating 'urban' places that focus on people.



Productivity Priority 1: Create high quality urban amenity across the Western City

The economic prosperity of the District will be influenced by the quality of the public realm, and urban design of centres, commercial areas and infrastructure. To create a strong sense of place, the relevant planning authorities must establish an urban design framework for the development of centres, commercial areas and transport infrastructure.

3.2.6 Creating a polycentric city of jobs and opportunity around the Western Sydney Airport

The vision for the Western City and an aerotropolis needs to recognise that the Western Sydney and South West Priority Growth Areas will, over the long term, attract a population of close to 600,000 people.

A Plan for Growing Sydney identifies an employment corridor from Leppington to the Western Sydney Airport along the alignment of the proposed extension of the South West Rail Link and the Bringelly and Northern Roads – the Bringelly Road Enterprise Corridor. In the long term, this corridor could be connected to the Moorebank Intermodal Terminal and Campbelltown Road via upgrades and extensions of Cambridge Avenue, Glenfield.

Direction 1.4 of *A Plan for Growing Sydney* emphasises the need for this corridor to have a “flexible and innovative regulatory environment”

to attract commercial activities that can take advantage of the area's transport access, proximity to the Airport and the Leppington district centre and the substantial new population in the South West Priority Growth Area.

This requires us to better understand the role and number of centres required to support the anticipated population and the aerotropolis, including Leppington. Further work will be undertaken to agree to the role and staging of the Leppington town centre, the Bringelly Road Enterprise Corridor and the potential role and function of other centres in the context of the emerging Western City.

To deliver on this priority and provide the community with reasonable access to goods, services and local employment, district and local strategic planning needs to:

- identify a network of centres to serve the District
- develop enabling planning controls for each centre, which allow for the needs of the community to be accommodated in the short, medium and long term
- develop a flexible innovative regulatory environment to enable a range of commercial activities, including an allowance for the Bringelly Road Enterprise Corridor to evolve over time.



Action P3: Develop and implement a centres framework for the District

To accommodate the retail and commercial needs of the Western Sydney and South West Priority Growth Areas, the Commission together with local councils, will develop a centres framework which covers the two Priority Growth Areas. It will consider:

- retail supply demand, into the long term
- providing opportunities for commercial activities into the long term
- tertiary education and health needs
- public transport and major road corridors
- the potential to create centres that interact with natural features such as South Creek
- 'corridors of opportunity' through the location of multiple centres along major transport corridors, to enhance the community's accessibility to goods, services and jobs
- the staging of centres.



Action P4: Review the role and staging of the Leppington district centre in the context of the Western Sydney Airport and Western Sydney City Deal

Since the original identification of Leppington as a centre in growth area planning for the District, there has been a range of significant changes in some of the planning assumptions for the area including the commitment to the Western Sydney Airport and significantly higher residential development yields. To best plan for the centre and respond to these changed planning assumptions it is proposed that:

- In the short term, an initial vision and outcomes will be developed between Camden Council, the Commission and Department of Planning and Environment, in consultation with Liverpool and Campbelltown Councils.
- These outcomes are to then be used to guide the decision making for planning proposals in and around the centre.
- In the longer term, the planning for the centre is to be guided by the District wide centres framework (see Action P3).



Action P5: Develop and implement a Framework for the Enterprise corridor

As an integral part of the planning for both the Western Sydney and South West Priority Growth Areas the Department of Planning and Environment will investigate the Bringelly Road Enterprise Corridor in consultation with the Commission and Camden Council, Liverpool City Council, and Campbelltown City Council. The investigation will include:

- the role and function of the Enterprise Corridor and how it could evolve over time
- the extent of the corridor and what centres should be located along it
- options and strategies for Leppington including the role and staging of the centre
- a review of existing employment and urban services land and to make sure future supply can help to retain jobs in the District in the short term and attract and grow smart jobs in the mid to long term.

3.3 Integrating land use and transport planning to drive economic activity

The scale of development in both new land release areas and urban renewal precincts in the South West District includes:

- The **Western Sydney Priority Growth Area**: The Department of Planning and Environment and local councils have undertaken studies and investigations to inform a land use and infrastructure plan for the area, which has the potential to yield approximately 100,000 dwellings over the long term.
- The **South West Priority Growth Area**: The Department of Planning and Environment, with input from the local councils is preparing a land use and infrastructure plan for the area, which has the potential to yield approximately 115,000 dwellings over the long term.
- **Greater Macarthur Priority Growth Area** including:
 - the Glenfield to Macarthur Urban Renewal Corridor for which the Department of Planning and Environment has prepared a draft urban renewal plan that identifies the potential for 15,000 dwellings
 - Wilton New Town, which is a declared growth area of approximately 16,000 dwellings with a new town centre
 - Mount Gilead and Menangle Park where development is anticipated to start in 2018
 - West Appin, an urban investigation area identified as having urban development potential for the long term when needed
- Liverpool and Campbelltown councils are preparing strategic plans for the Liverpool and Campbelltown-Macarthur strategic centres
- Infill development and urban renewal is ongoing in the Fairfield Local Government Area.

To deliver on the goals and directions of *A Plan for Growing Sydney* and the aspirations of *Our vision – Towards our Greater Sydney 2056* the interface and integration of planning between these different geographic areas is critical, particularly in terms of transport infrastructure.

Transport infrastructure investment can increase the desirability of particular locations for different land uses and redirect where households and businesses choose to locate. Since the location of some jobs (particularly knowledge-intensive jobs and industrial/freight and logistics activity) is heavily influenced by accessibility, we can use transport investments to create the investment and business environment to increase the number of jobs. In many cases, these different types of activities can be co-located.

In addition to the integration of land use and transport planning, the scale of the District's new land release areas affords an opportunity to integrate the land use network with the natural systems of the District in a way that both protects and enhances the environment and creates a strong sense of place. This is also

an important productivity consideration in that the amenity of an area can influence its attractiveness for investment and business.

Further, this spatial planning must work alongside skills development of the local workforce so that a skilled workforce is not travelling from across the rest of Greater Sydney to knowledge-intensive jobs in the South West District.

Within this context, this draft District Plan aims to deliver integrated planning outcomes that:

- deliver east-west and north-south transport connections and an effective public transport system
- zone land for jobs
- improve access for the people with the skills required to grow the District's economic activity
- deliver a high quality urban environment
- bring these elements together in an integrated land use and transport framework.



3.3.1 Improving District significant east-west and north-south connectivity

Greater Sydney's evolution to a metropolis of three cities will provide better access to hubs of major economic activity. Increasing the range of jobs and other opportunities that people can access within 30 minutes is a metropolitan aspiration as outlined in *Our vision - Towards our Greater Sydney 2056*. This requires better transport connections and stronger economic and employment centres.

With the significant employment and population growth planned for the District, timely provision of enabling transport infrastructure is a critical consideration for connecting people to jobs and places at the metropolitan and district levels.

To deliver increased accessibility and better transport connections our planning needs to:

- remove congestion and increase the capacity of the existing transport network
- increase the frequency of public transport services
- deliver new or improved bus routes
- invest in new transport infrastructure
- encourage walking and cycling opportunities
- plan for growth areas.

Access to the site of the Western Sydney Airport and within the Western Sydney Priority Growth Area is currently limited and will need to be substantially enhanced, as will access to the District's strategic centres as they grow as important hubs of employment and economic activity.

Currently, there is a lack of east-west and north-south connectivity within the South West District. Some of the District's road corridors such as Narellan Road and the M5, M7 and M31 Hume Motorway corridors experience major capacity constraints, resulting in increased journey time, unreliability and impact on liveability.

Of these, the M31 Hume Motorway connects Greater Sydney to regional NSW, Canberra and Melbourne. It carries both light and heavy vehicles through the District and also serves a local function allowing connections between Liverpool and Campbelltown-Macarthur. Narellan Road, one of the few east-west connections within the District, is regularly congested with significant delays currently experienced during the morning and afternoon/evening peak periods and weekends.

With the development of the Moorebank Intermodal Terminal and freight and logistics movements associated with the Western Sydney Airport, the South West District will become increasingly important in terms of moving people and goods.

The provision of additional east-west and north-south connections is necessary to relieve congestion and improve connectivity to serve the existing and new communities within the District.

Section 3.2.3 outlines regionally significant considerations and opportunities to enhance east-west and north-south transport connections.



Action P6: Identify transport improvements which deliver east west and north south connectivity

Transport for NSW is planning for improved east-west and north-south connections in the District to enable the efficient movement of people and services. In terms of district-significant access, Transport for NSW will also investigate:

- 30-minute access from Liverpool to Greater Sydney's Eastern City, Central City and within the Western City
- 30-minute access from Liverpool, Campbelltown, Camden/Narellan (and Penrith) to Western Sydney Airport
- increased capacity on the Hume Motorway between Picton Road and Narellan Road to facilitate 30 minute access to Campbelltown-Macarthur and Liverpool
- improved public transport and freight connectivity to Port Kembla and the Illawarra
- an Appin Road upgrade, including Appin bypass, to service Mount Gilead and a large part of the South West District's future population and improved connectivity with the Illawarra.
- the longer-term transport options that can improve the amenity of Picton.



Action P7: Build the Badgally transport connection, including an active transport link

As the only direct east west connection within the District between Camden Valley Way and Picton Road, Narellan Road is regularly congested with delays during both morning and afternoon/evening peaks and on weekends.

Transport for NSW will investigate the Badgally Road extension across the railway line, including walking and cycling opportunities, to link Oran Park, Harrington Grove, Gregory Hills, Catherine Field and Gledswood Hills into Campbelltown-Macarthur city centre with identified potential for future connectivity to the Georges River Parkway reservation.



Action P8: Prioritise the planning of Spring Farm Parkway

The future release and rezoning of the Menangle Park Mount Gilead Priority Growth Area could ultimately provide approximately 18,000 homes and 4,730 jobs. This requires more east-west links to Campbelltown-Macarthur and the Hume Motorway in addition to the upgraded Narellan Road.

Spring Farm Parkway would connect Camden Bypass at Spring Farm with the M31 Hume Motorway, Menangle Road and Appin Road. The road will provide relief to Narellan Road and Appin Road and support development in the Menangle Park and Gilead areas. The corridor is already zoned and protected.

Funding was provided in the 2016-17 Budget to progress road projects in the vicinity of Menangle Park and has been tentatively allocated to connections between Spring Farm Parkway and the M31 Hume Motorway to support the Menangle Park rezoning.

NSW Roads and Maritime Services will commence strategic planning for the section between Menangle Road and the rail line in early 2017, with the strategic design and business case planned to be completed in 2018.



Action P9: Develop a threshold for greenfield dwelling numbers based on transport provision

Planning in greenfield precincts should provide for the timely delivery of transport links and ensure that these are sequenced and coordinated with housing delivery, to meet the needs of the future population, in line with Direction 2.4 of *A Plan for Growing Sydney*.

The NSW Government, through the precinct planning process, will identify new transport connections and coordinate their delivery with the scale of residential development, setting a threshold for the number of new homes that can be constructed in each precinct prior to the delivery of the transport connection.



Action P10: Encourage and support the use of public transport

The delivery of a more accessible, integrated and comprehensive public transport network is crucial to people living in the South West District now, and will be especially so as the area grows.

The NSW Government will investigate:

- extending Sydney Metro from Bankstown to Liverpool and potentially to the Western Sydney Airport as a regionally significant initiative
- evolving the public transport network to improve connections to and between strategic and district centres
- better integration of the local bus networks with other transport options
- improving public transport links throughout the District especially outside peak times and at weekends, and provide regular services in outlying areas
- improving access to all transport interchanges
- providing bus access to and within the Western City, including a possible rapid bus route from Penrith to Liverpool via The Northern Road and Western Sydney Airport, and working with the future Western Sydney Airport operator on a comprehensive Airport Ground Transportation Strategy
- providing public transport options including point-to-point and on-demand services as new homes are built, delivering bus priority measures as roads are upgraded in greenfield areas and increasing services, operating over extended hours, so residents can access major centres and public transport interchanges from the day they move in to set an early public transport culture
- contributions to enable early provision of transport services in all greenfield development.

These opportunities will be considered in further detail as part of the development of the Future Transport Strategy in 2017.

3.3.2 Utilise the natural attributes of the District as economic building blocks

The natural attributes of an area, when combined with high quality design outcomes, can significantly add to the economic opportunities of an area. The preamble in Goal 3 in *A Plan for Growing Sydney* identifies the importance of creating places and suburbs where people want to live - places with character and vibrancy that offer a sense of belonging. This draft District Plan seeks to link the South West District's natural attributes with opportunities to create a memorable setting and identity for the District.

The District's urban amenity - a productivity consideration

Housing choices for the South West District, together with its urban amenity will influence the District's productivity. Unlike other areas of Greater Sydney, the South West District is, in some areas, being designed from scratch. The concept of design-led planning is covered in detail in Chapter 4, but is important to consider in terms of the District's overall productivity.

This is about more than the design of a strategic centre, health and education super precinct or new business park - it is about the design of the new neighbourhoods that will attract future workers and the general energy and excitement created by mixed areas of new workplaces, homes and entertainment areas.

Similarly, the quality of the urban amenity is paramount, from walkable communities to quality public realms in town centres, if the South West is to be an attractive place to invest and do business.

The District's extensive areas of bushland and rural areas cradle the urban areas in a series of concentric horseshoes. Many residents feel visually connected to a rural environment while living in an urban area – country feel, city living. This visual interface must be retained.

Other elements such as the Scenic Hills and Western Sydney Parklands rural and bushland settings provide a visual relief to the substantial urban areas. In addition, South Creek can also create a strong visual image through the District while also being a place where the built environment can connect with a natural setting. Along with the Nepean and Georges Rivers, the District's waterways can become a more prominent part of economic centres, particularly the Georges River in Liverpool. The significance of these elements is discussed in Section 5.3 and 5.4.

3.3.3 Integrating land use and transport planning for greenfield areas

The South West Priority Growth Area and Western Sydney Priority Growth Area are contiguous areas which will have the Western Sydney Airport as their centrepiece.

The integration of land uses and the transport system will influence the level of economic activity that can be attracted and the general liveability of the residents. Similarly, in the Greater Macarthur Priority Growth Area, the integration of land use and transport systems can support greater economic productivity and better quality of life.

Central to an integrated land use and transport outcome is how we plan for the location of major centres, major road and public transport corridors and the natural environment, for example, connecting centres to South Creek.

There appears to be a number of opportunities for road corridors which can connect the communities within and around the South West and Western Sydney Priority Growth Areas. The interrelationship of these corridors with the potential north-south and east-west rail corridors and the Bringelly Road Enterprise Corridor, will influence the ability to attract economic activity. Similarly, the ability to connect centres with the transport network and natural systems such as South Creek will

influence opportunities to create a strong local identity which also influences the level of economic activity which can be attracted to the area.

Our planning must also consider local issues such as the delivery of civic and justice facilities – law courts or police stations – and how to manage historic areas such as Camden.



Action P11: Develop specific guidelines to inform the planning of new communities in land release areas

Our planning needs to consider and coordinate a multitude of disciplines when creating the communities of the future, the precincts yet to enter the rezoning process in Priority Growth Areas and the precincts that may emerge as suitable for urban development. This planning will shape the character and identity of large parts of Western Sydney for many decades.

Many issues cross-over local government boundaries and rely on State legislation and decision-making, such as managing the health of river catchments and coordinating land use planning for regional and district infrastructure including transport, open space and retail. Local issues such as scenic landscapes and streetscapes are critical to making great places and can benefit from a broader approach.

Direction 2.4 of *A Plan for Growing Sydney* requires well planned greenfield precincts. *A Plan for Growing Sydney* also includes a priority for the South West to accelerate housing supply, choice and affordability and create great places to live. A Development Code for land release areas will target high quality urban design in areas that are regionally significant, as well as local considerations that can benefit from a broader approach. The Department of Planning and Environment will consider a range of environmental, social and economic factors in the Development Code, including:

- integrated land use and transport planning including local jobs growth and housing diversity
- catchment management, including riparian corridors, innovative use of floodplains and remnant vegetation
- district open space requirements
- responses to the urban heat effect

- place-making including incorporation of district level landscape elements and opportunities to highlight local identity
- planning for streets to make them safe and attractive for walking.



Action P12: Develop a South West Priority Growth Area land use and infrastructure plan

To provide a basis for the orderly and proper planning for the South West Priority Growth Area, the Department of Planning and Environment, in partnership with local councils, Transport for NSW, the Commission, and other State agencies as relevant, will prepare a South West Priority Growth Area land use and infrastructure plan which will consider, among other things:

- South Creek as the central organising element
- the integration of east-west and north-south transport corridors and South Creek with the identification of locations for new centres
- retention of the filigree of creeks that feed into South Creek and protection of tracts of Cumberland Plain Woodland and remnant vegetation
- the Bringelly Road Enterprise Corridor
- access to high frequency public transport within 800 metres of most dwellings
- minimising the need for six-lane divided roads that act as barriers between communities
- vistas that add to a sense of place, noting that only small building heights will effectively block major distant views
- landscaping around major transport infrastructure
- transport connections east to the M31 Hume Motorway and the established urban area of the Glenfield to Macarthur corridor, south to the communities around Narellan and north through the Western Sydney Priority Growth Area to the Penrith to Parramatta corridor.

3.4 Planning for job target ranges for strategic and district centres

As Greater Sydney transforms into a city of over six million people by 2036 and eight million people by 2056, we need to plan to attract and best distribute employment and economic growth.

Recent projections of future employment consider projected population growth and age profiles, broad economic conditions and trends, sector and industry outlooks and Greater Sydney's planned investments.

These updated projections have revised the forecast demand for jobs across Greater Sydney from 689,000 by 2036 to 817,000 additional jobs.

This is a significant growth opportunity for Greater Sydney as a global city, representing business confidence and economic growth.

We do, however, need to plan for how Greater Sydney attracts and accommodates these jobs in the right locations - the kind of places that we know are supported by land use and infrastructure investment and are attractive from a commercial perspective.

3.4.1 Plan for the growth of centres

A Plan for Growing Sydney identified 28 strategic centres, and four transport gateways, as places to provide more jobs close to home.

In developing *Our vision – Towards our Greater Sydney 2056*, the Commission's research found that some centres make a substantially greater contribution to the economy of Greater Sydney. On this basis we have redefined the approach to consider a hierarchy of centres ranging from strategic to district and local. We define strategic centres as having one or more of the following characteristics:

- a higher proportion of knowledge-intensive jobs, principally relating to the presence of major hospitals, tertiary education institutions, stand-alone office development or a combination of these
- the presence of existing or proposed major transport gateways
- a major role in supporting the increased economic activity of the Eastern, Central and Western Cities
- generally generate over 20,000 jobs.

The work to support *Our vision – Towards our Greater Sydney 2056* also identified that there was a range of centres (some of which had been classified as strategic centres in *A Plan for Growing Sydney*) that in fact play a significant district role due to the presence of one or more of the following characteristics:

- the scale of retail activity, generally over 50,000 square metres of floorspace
- the presence of health and education facilities that serve the district and the local community
- the level of transport services
- generally generate between 5,000 to 10,000 jobs

These centres have been identified as district centres.

It is the presence and scale of the health and education facilities, transport gateway infrastructure and knowledge-intensive jobs that is the key differentiator between strategic and district centres. In that, the government has greater potential to leverage economic activity off existing infrastructure which can enhance the global competitiveness of Greater Sydney.

The differentiation does not intend to impact on the ability for either a strategic or a district centre to attract retail or commercial activity (including office development) of any scale, subject to the normal local planning and development assessment process.

Local centres vary in size from a few shops on the corner to a vibrant main street. They are on a smaller scale than district centres and generally serve the local population.

We have nominated job targets for the District's strategic and district centres to provide guidance to councils and NSW Government agencies as to the likely and potential scale of employment growth and to inform land use and infrastructure planning. Our experience emphasises the value of providing these targets as a range to account for varying economic conditions, investment opportunities and local aspirations.

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

On this basis, there will be a need to review the list of strategic and district centres as part of the regular review of the regional plan for Greater Sydney, starting with the review of *A Plan for Growing Sydney* in 2017.

As the South West District transforms over the next 20 to 40 years, with a city-making new population in land release areas alone, new strategic, district and local centres will emerge to accommodate the economic activities of the District.

Maps of Strategic and District Centres are on pages 58, 60, 69, 70 and 71.

We have also calculated a job target range for Western Sydney Airport. The 2036 baseline target is 29,000 and the 2036 higher target is 34,000.

Table 3-4: South West District job target ranges for strategic and district centres (2016-2036)

Centre	Centre Type	2016 Estimate	2036 Baseline Target	2036 Higher Target
Liverpool	Strategic	29,000	36,000	39,000
Campbelltown-Macarthur	Strategic	20,400	27,000	31,000
Fairfield	District	5,400	6,000	10,000
Narellan	District	10,600	14,000	16,500
Leppington	District	400	7,000	12,500

Source: Transport Performance and Analytics (TPA) (formerly known as Bureau of Transport Statistics), Transport for NSW, Strategic Travel Model (STM) outputs, 2016

3.5 Growing and diversifying the economic opportunities in the District's strategic centres

3.5.1 Growing the diversity, level and depth of jobs and the vibrancy of Liverpool strategic centre

Liverpool has the potential to be a centre of knowledge-intensive jobs, housing diversity, with a health and education super precinct and attractive visitor destinations. The Liverpool local government area is already home to about 200,000 residents, and this will exceed 330,000 by 2036.

More importantly, there is an extraordinary level of activity proposed in and around the Liverpool City Centre including:

- proposals for new dwellings
- the Moorebank Intermodal Terminal
- the proposed University of Wollongong and Western Sydney University campuses
- City of Liverpool's projects for the centre.

This activity, coupled with the centre's proximity to the junction of the M7, M5 and M31 Hume Motorway offers opportunities for Liverpool to leverage the Western Sydney Airport and its associated major roads upgrades.

The Liverpool City Centre also has significant institutional assets including the proposed new Western Sydney University and the University of Wollongong campuses, TAFE NSW South Western Sydney campus and numerous schools. Its health facilities include Liverpool Hospital, which is the largest hospital in NSW, as well as a principal teaching hospital for the University of NSW and Western Sydney University, a significant medical precinct and the Ingham Institute, a world-renowned leading cancer research facility.

Other significant attractors of the Liverpool Strategic Centre include a substantial retail centre and town centre, Council offices and chambers, major industrial areas adjacent to the commercial area at Moorebank and the nearby Warwick Farm Racecourse.

To maximise the opportunities for population and employment growth, and to achieve the desired environmental sustainability and liveability outcomes in Liverpool, a number of interlinked issues need to be properly integrated. They include:

- the high rate of developer interest particularly the currently industrial riverfront, which is constrained by access, flooding, open space provision and related issues from Moorebank to Warwick Farm
- the exhibition of the draft Georges River Masterplan
- pressure to rezone employment and urban services land into residential while requiring adequate land for employment purposes
- pressure on the congested and flood prone road network between the railway line, the M5 Motorway and Henry Lawson Drive, especially as 10,000 truck movements per day are projected to be generated by the Moorebank Intermodal Terminal
- limited north south road connections east of the rail line from the M5 Motorway to the M31 Hume Motorway, insufficient east-west connections from the proposed new developments to the city centre between the M5 Motorway and the M31 Hume Motorway, and requirements for additional roads and bridges over the river and rail line in the mid-to longer-term.

- increased health and education offerings and the potential links to a new private hospital as well as health ancillary and support services in the adjoining town centre area
- required land for schools and other community services
- the Liverpool City Council City Centre Projects to revitalise the city centre.

Other considerations include:

- substantial government land holdings
- lack of pedestrian connections to the river and ability to access and use the riverfront
- understanding building heights and objectives for public areas around the Georges River
- poor urban amenity and underutilisation of land around the station
- the role of the Liverpool Sewage Treatment Plant in relation to South West Priority Growth Area
- the major stadium proposal and assumed conversion of parkland to residential
- previous conversion of parkland to parking and lack of recognition of the potential of Brickmakers Creek to the west of the centre
- the need to establish and strengthen active travel linkages to the west.

Liverpool City Council's *Economic Development Strategy 2013-2023* identifies a number of priorities for future growth of Liverpool:

- marketing Liverpool as the business destination of choice in South West Sydney for business and investment
- working with existing businesses in Liverpool by assisting them to link to programs and services by the Australian and NSW Governments that help these firms grow, innovate and improve their competitiveness.
- targeting the attraction of new jobs generating business investment to Liverpool, with a focus on the area's competitive advantages in health, education and medical research, distribution and logistics, professional services, retail and construction
- activating the City Centre and developing vibrant places that attract residents, visitors and workers to Liverpool
- working with prospective and existing local employers to create local employment and self-employment opportunities
- building community awareness and ownership of activities that strengthen Liverpool's economic base.
- Working with the Australian and NSW Governments to advocate for infrastructure and services in the Liverpool Local Government Area commensurate with Liverpool's regional city status.



Productivity Priority 2: Manage growth and change in strategic and district centres, and, as relevant, local centres

When undertaking planning for strategic, district and local centres, the relevant planning authority should consider:

- opportunities for existing centres to grow and new centres to be planned to meet forecast demand across a range of retail types
- the need to reinforce the suitability of centres for retail and commercial uses while encouraging a competitive market
- the commercial requirements of retailers and commercial operators such as servicing, location, visibility and accessibility
- the use of the B3 Commercial Core Zones in strategic centres and where appropriate in district centres to reinforce and support the operation and viability of non-residential uses including local office markets

When preparing strategic plans the relevant planning authority needs to demonstrate how its planning for centres has considered strategies to:

- deliver on the strategic and district centres job targets
- meet the retail and service needs of the community
- facilitate the reinforcement and/or expansion of allied health and research activities
- promote the use of walking, cycling and integrated public transport solutions
- provide urban spaces such as meeting places and playgrounds
- respond to the centre's heritage and history
- promote community arts and cultural activities
- reflect crime prevention through environmental design (CPTED) principles such as safety and management
- manage the transition between higher intensity activity in and around a centre and lower intensity activity that frames the centre.

How these matters are taken into account is to be demonstrated in any relevant planning proposal.













Action P13: Designate Liverpool as a Collaboration Area

A strategic whole of government approach to coordinated planning and infrastructure delivery will maximise the investment, productivity and jobs outcomes for the wider Liverpool City Centre. This requires coordinated activities across state and local government, an agreed vision to provide clarity to the private sector for investment and to the community on desired outcomes, and clarity in infrastructure priorities.

In response, we have designated the broader Liverpool strategic centre as a potential collaboration area. Subject to the availability of resources, we will work with different levels of government and, if required, the private sector or landowners, to bring together all interested parties to define the area's assets, benefits, potential, governance and funding arrangements.



















A Collaboration Area is a place where a significant productivity, liveability or sustainability outcome is better achieved when different levels of government and in some cases the private sector or landowners collaborate on an agreed outcome.

-  1 University of Wollongong - Future Campus
-  2 Ingham Institute Clinical Skills and Simulation Centre (UNSW)
-  3 South Western Sydney Clinical School (UNSW)
-  4 TAFE SWSI - Liverpool Campus
-  5 NSW Civil and Administrative Tribunal
-  6 NSW Dept of Family and Community Services
-  7 NSW Trustee and Guardian
-  8 Liverpool City Council
-  9 Liverpool Plaza
-  10 Westfield Liverpool

Boundary of Collaboration Area yet to be determined.



Figure 3-6: Liverpool Strategic Centre - existing activities

	Hospital		Moorebank Intermodal Terminal Project Area		Waterways
	University/TAFE		Existing Business Zones		Motorway
	Local Government Office		Existing Mixed Use Zone		Highway
	State Government Office		Existing Industrial Zone		Major Road
	Retail Hub		Local Public Open Space		Local Road
	Recreational Facilities		District Public Open Space		Railway

Planning for the Liverpool collaboration area will aim to:

- increase housing diversity and affordability
- improve and coordinate transport and other infrastructure links and accessibility to support job growth
- enhance smart job growth around the health and education super precinct
- improve the night-time economy, connectivity and mixed use in the centre
- improve urban amenity and the sense of place
- improve environmental outcomes around the Georges River.

Transport for NSW will also explore ways that transport actions and initiatives can contribute to these objectives for Liverpool City Centre.

3.5.2 Growing the diversity, level and depth of jobs and the vibrancy of Campbelltown-Macarthur strategic centre

Campbelltown-Macarthur has the potential to be a strategic centre of smart jobs, housing diversity, a health and education super precinct and an attractive destination, with better east west transport connections.

Campbelltown-Macarthur accommodates a range of educational facilities such as the Western Sydney University Campbelltown campus and NSW TAFE campus. Campbelltown public and private hospitals and the Western Sydney School of Medicine support the local and regional communities' health care needs. Campbelltown-Macarthur also has an important retail and civic role in the district.

The Campbelltown City Centre is a long-established business hub that requires rejuvenation to better serve the District's community. Our planning needs to make the centre a more attractive place, and make it easier to access and travel through to attract business investment.

In responding to these challenges the planning for Campbelltown-Macarthur needs to consider:

- the level of access to significant existing and future population to the west of the centre, including the communities in and around Narellan and Camden
- the benefits of connecting Badgally Road across the rail line to Broughton Street
- the level of urban renewal in the Greater Macarthur Priority Growth Area - The NSW Government has prepared a land use and infrastructure strategy for the Glenfield to Macarthur corridor, outlining its vision for the future of seven railway station precincts including Glenfield, Macquarie Fields, Ingleburn, Minto, Leumeah, Campbelltown and Macarthur.
- the NSW Government's identification of opportunities to deliver up to 35,000 home sites in Menangle Park and Mount Gilead and in a new town at Wilton. These new communities will form part of the catchment for the Campbelltown-Macarthur strategic centre.
- the ability of Campbelltown-Macarthur to accommodate and attract investment, including the quality of its public realm as an attractor.

Campbelltown City Council is currently preparing a CBD transformation plan for the Campbelltown-Macarthur city centre. The NSW Government will collaborate with council in the delivery of the transformation plan for the area as a distinctive city centre, focusing on opportunities to:

- sustain Campbelltown-Macarthur's role as a strategic centre and health and education precinct including the attraction of allied health activities and private health facilities
- recognise, plan and connect the centre's distinctive functional precincts to create improved centre legibility, promote activation, celebrate diversity in urban experiences, and attract visitor curiosity
- enhance strategic access to the City Centre from the South West Priority Growth Area, the Greater Macarthur, Western Sydney Airport, other strategic centres including Penrith and Liverpool, the Illawarra, Sydney City and Greater Parramatta and the Olympic Peninsula (GPOP)

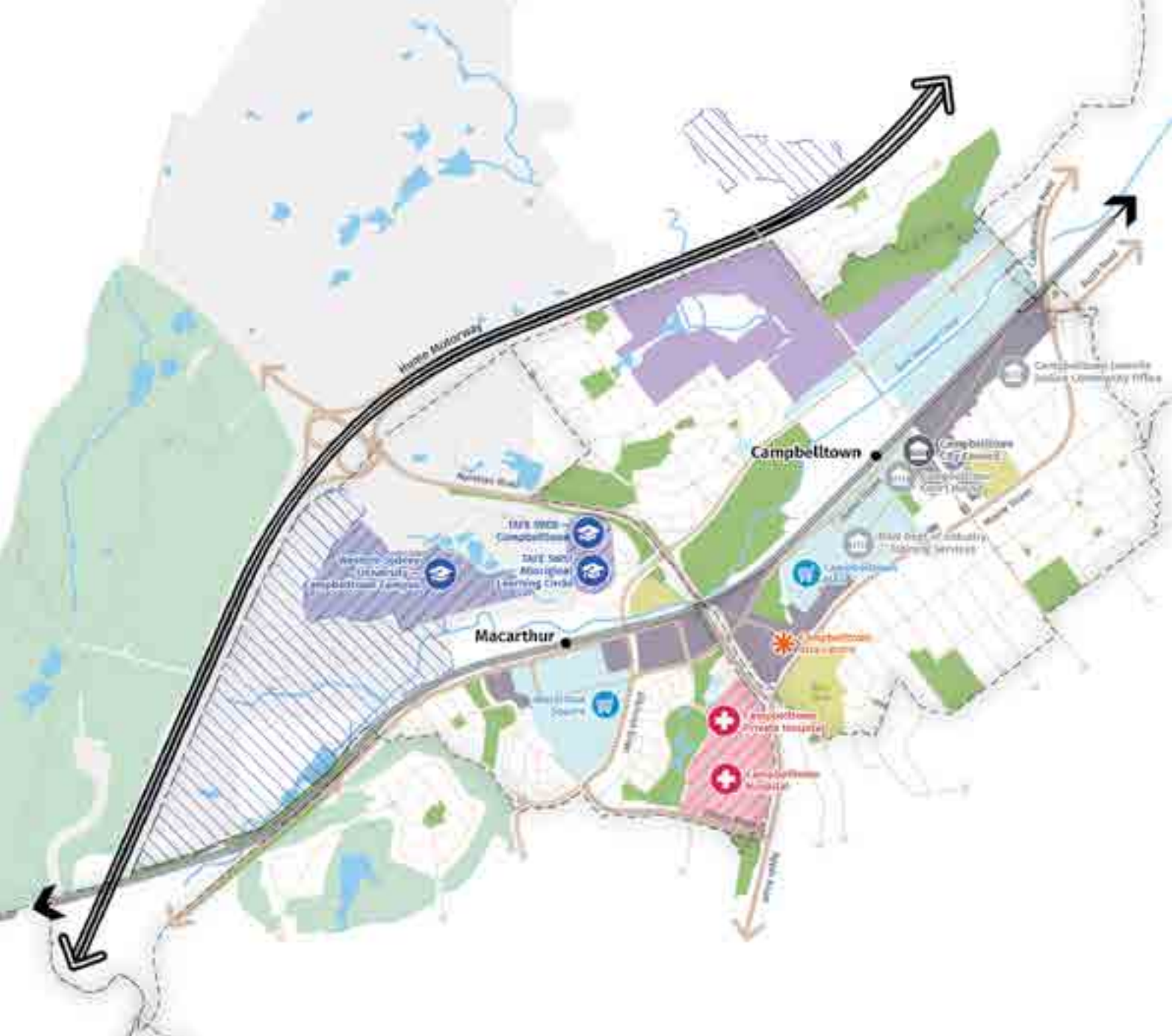


Figure 3-7: Campbelltown-Macarthur Strategic Centre - existing activities

	Hospital		Local Government Office		District Public Open Space
	University/TAFE		State Government Office		Regional Public Open Space
	UrbanGrowth NSW Project		Cultural Centre		Waterways
	Priority Growth Area Precinct		Scenic Hills		Railway
	Retail hub		Existing Business Zones		Railway Station
			Existing Mixed Use Zone		Motorway
			Existing Industrial Zones		Major Road
			Local Public Open Space		Local Road

- build on the centre's magnet infrastructure and its geographic positioning to foster economic development and jobs growth
- recognise and promote the City Centre's capacity to grow in tandem with the population growth earmarked for South West and Greater Macarthur
- maximise the uptake of extensive new development and redevelopment opportunities throughout the City Centre including a range of strategic land holdings owned by Council, to shape a distinctive city centre destination
- uplift the quality, functionality, connectivity and amenity of the City Centre's public domain
- attract businesses, innovation, jobs and development into the centre.
- involve key stakeholders such as Western Sydney University
- improve connectivity into and throughout the regional city for all modes of transport, for example, a potential extension of Badgally Road into Campbelltown-Macarthur city centre
- identify the required land and infrastructure to support the health sector in Campbelltown Hospital surrounds and the education sector in Western Sydney University surrounds.



Action P14: Support the development and delivery for the Campbelltown-Macarthur strategic centre with a CBD transformation plan

We will collaborate with the Campbelltown City Council and relevant government agencies to achieve a coordinated outcome to transform the Campbelltown-Macarthur strategic centre,

3.6 Growing jobs in the health and education sectors

The South West District already benefits from the existing concentration of health and education facilities in the strategic centres of Liverpool and Campbelltown-Macarthur. It has a higher proportion of health and education jobs (22%) compared with Greater Sydney (19%).

With the emergence of jobs and opportunities around the Western Sydney Airport, together with the continued growth in population, there is a significant opportunity to leverage off the existing strengths of these strategic centres to transform their economies through the creation of world class health and education super-precincts based around their universities and hospitals.

Smart jobs need access to a skilled workforce. While there is a strong presence of health and education jobs in the south West, there is a lower proportion of knowledge intensive jobs at 16% compared with 32% in Greater Sydney. Thus it is challenging for businesses in the District to find the right skilled talent to fill management and technical positions.

Health and education super precincts

Across Greater Sydney there are a number of locations where the proximity of health and education assets creates significant opportunity to drive economic activity and the prosperity of NSW. We have identified these as health and education super precincts. Health and education super precincts are important locations for knowledge-intensive jobs, innovation and service delivery. It is anticipated that by 2036, 21% of all Greater Sydney jobs will be in the health and education sectors.

Our health and education super precincts mirror closely the list of significant metropolitan health and education precincts identified in *A Plan for Growing Sydney*. The only exceptions are Rhodes - where there is no major education presence - and Rydalmere - where there is no major health presence.

Our approach to health and education super precincts will be refined further and confirmed in our review of *A Plan for Growing Sydney in 2017*.

Liverpool and Campbelltown-Macarthur are the South West District's health and education super precincts.

Currently the South West District lags behind in the provision of university education and opportunities.

In the entire District there are three university campuses - Western Sydney University at Campbelltown, the University of Sydney's Camden Farms and the University of New South Wales, South Western Sydney Clinical School at Liverpool Hospital. There are fewer than 9,000 university enrolments, compared with approximately 151,000 in the Central District.

The proportion of 25-34 year-olds with tertiary education qualifications in Western Sydney (16.5%) lags behind Greater Sydney (24.1%) by over 30%.

In the South West District, a lower proportion of residents (12%) hold a university qualification (Bachelor Degree and Post Graduate Degree) compared to the Greater Sydney average (27%). Conversely a higher proportion (29%) hold vocational qualifications (including Certificate III and Certificate IV) than the Greater Sydney average (28%).

Changes will begin to emerge in 2017 with the opening of two new university campuses by Western Sydney University and the University of Wollongong in Liverpool. Western Sydney University has plans to expand its medical and health programs at Campbelltown and the University of Sydney is planning to leverage its existing assets in the South West to expand its research and education activities.

Growing jobs in the health and education sectors delivers on Direction 1.10 in *A Plan for Growing Sydney*, specifically Actions 1.10.2 and 1.10.3.

3.6.1 Foster 'Smart Liverpool' - a city of business innovation and health and education excellence

In 2017 the University of Wollongong and Western Sydney University will both open new campuses in Liverpool which will be integrated into the City Centre, and there are plans for significant future development.

This will catalyse the growth of smart jobs and support the realisation of Liverpool City Council's *Economic Development Strategy 2013-2023*. The strategy targets the attraction of new jobs generating business investment to Liverpool with a focus on the area's competitive advantages in health, education and medical research, distribution and logistics, professional services, retail and construction sector.

More than 6,000 people are already employed in health and education in the Liverpool Local Government Area.

Liverpool Hospital is one of the largest hospitals in Australia and is a principal teaching hospital for both the University of New South Wales and Western Sydney University, providing medical student placements and an active education program for medical practitioners, nurses and health professionals.

There is a private hospital and the centre is also at the forefront of health and medical research, with the Ingham Institute for Applied Medical Research.

In addition, Liverpool TAFE has approximately 4,000 students enrolled each year.

University of Wollongong

The University of Wollongong's new South Western Sydney Campus in Liverpool – announced in May 2016 – will open in 2017. It will initially occupy two floors in the Liverpool City Council's Moore Street building before moving into larger premises in Liverpool's new Civic Place development, expected to be completed in 2019.

From the start of the 2017 academic year, the interim campus will offer programs reflecting Liverpool residents' preferences, spanning disciplines from the University's Faculty of Law, Humanities and the Arts, Faculty of Business, Faculty of Engineering and Information Sciences and Faculty of Science, Medicine and Health as well as University of Wollongong College university entry and vocational training programs.

The University plans to expand the campus to cater for more than 7,000 students by 2030.

Along with the new campus, the University announced the establishment of the Western Sydney Nursing Education and Research Centre (WesNER) to train the next generation of nurses and encourage them to study, train and work in the Liverpool area, which is due to commence in 2019.

University of Wollongong's South Western Sydney campus will provide greater choice for those preferring to study close to home and bring substantial economic and social benefits by keeping Liverpool City's brightest minds in the area. It will contribute alongside existing providers in the already strong health and medical precinct to meet the health needs of Liverpool's rapidly growing population while working with the Council and businesses to support innovation.

Western Sydney University

Western Sydney University's Liverpool city campus – announced in 2015 – will begin operations in January 2017. This will significantly expand higher education opportunities for residents, help transform the centre's knowledge economy and drive business development in the District.

The new 3,000 square metre Higher Education Centre, over three floors at 100 Macquarie Street, will be a high-quality, modern, technology-rich and highly-flexible space. This will add to the University's existing presence in the centre, via its Launch Pad start-up incubator at Moore Street, and as a clinical partner at Liverpool Hospital and the Ingham Institute.

Approximately 1,000 students are expected at the Higher Education Centre and its capacity will be significantly scaled up over the first two years, with a view to developing a large-scale campus.

As well as providing a suite of undergraduate and postgraduate courses in the areas of business, information technology and health, the University will also offer its highly successful pathways College – one of the leading pathways programs in Australia. The College will provide a range of diploma programs to students at Liverpool, which, after successful completion, gives them direct entry to the second-year of a Western Sydney University degree.

The Centre will also include the University's Launch Pad smart business centre, which brings together government, corporate and University expertise and provides mentorship to start-ups and early stage businesses. Embedding the Launch Pad Centre within the site adds another important dimension by helping to drive business and economic development and foster an entrepreneurial culture across the centre.

Liverpool health and education super precinct project

The dramatic increase and changing character of the population in the South West District presents a new opportunity for health, research and education investment around Liverpool Hospital to create a new health precinct.

As an important first step to achieving this goal, the Western Sydney Business Chamber is working with the South West Sydney Local Health District to commission an economic and planning study which will inform a Liverpool Health and Education Precinct.

A workshop with opinion leaders was held in November 2016 to create the scope for the research and to identify partners to fund the research.

The objectives of the workshop were to:

- understand the place of health and education in Liverpool's future
- understand the place of Liverpool Hospital as the core of a health and education precinct in the long-term future of the region (including what its critical niche might be).
- develop an alliance of organisations committed to the concept of a Liverpool health and education precinct and begin the exploration and delivery of that concept
- establish a governance structure for the above.

The outcomes of this research and further progress will be included in the final District Plan.



Action P15: Plan for the Liverpool health and education super precinct as part of the Liverpool collaboration area

We will support the growth and development of the Liverpool health and education super precinct through the work of the Liverpool Collaboration Area (see Action P13). NSW Health will be a key partner in delivering on this Action.

3.6.2 Promote and grow Campbelltown – the emerging Health and Medical University City

The South West District continues to be a heightened area of priority and emerging activity in research and higher education. In response to existing and projected demand for quality healthcare, Western Sydney University is consolidating and developing significant health initiatives in Campbelltown-Macarthur, centred around its School of Medicine and Nursing and Midwifery programs.

Over 7,000 students are already enrolled at the Campbelltown campus with 632 studying Medicine, almost 3000 enrolled in nursing and midwifery programs and approximately 2,100 enrolled in allied health programs.

Importantly, the health capacity the University is building in this area is afforded added sustainability by the fact that well over 50% of health and medicine related graduates choose to stay and work in the region once qualified.

It builds on the University's strong relationship with Campbelltown Hospital, which is currently undergoing a \$134 million redevelopment, and the growing health and medical precinct which surrounds it.

It is further enhanced by the completion of the new jointly NSW Government-University funded Macarthur Clinical School at Campbelltown Hospital.

The recently announced Campbelltown Sports and Health Centre of Excellence, funded by the Federal Government together with contributions from Campbelltown City Council, Western Sydney University, UrbanGrowth NSW and the AFL, to be established at the Western Sydney University, Campbelltown Campus provides further opportunities for growing health and education jobs in Campbelltown.

It will also include multiple gymnasiums, indoor courts, and training and playing fields. In addition to providing aspiring athletes a pathway to elite sport, the Centre will provide a myriad of health facilities providing individual and inter-professional health and medical services and be a 'Centre of Excellence' in service provision and clinical training across many of the Western Sydney University disciplines.

3.6.3 Support the growth of tertiary education opportunities

Growing health and education opportunities is important for the prosperity of the District. The Commission supports plans to expand health and education assets and activities in the South West District.

University of Sydney's Western Sydney Story

The University of Sydney has had a significant presence in the Western Sydney community since 1910. It is now one of the region's largest landholders and more than 10,000 of its students are from the local area. The University is continuing to grow its presence in Western Sydney through developing research, education and industry engagement activities across multidisciplinary activities including a significant presence at Camden focused on agriculture and veterinary science.

TAFE in the South West

TAFE NSW is Australia's largest provider of vocational education and training, and has a key presence across all six Greater Sydney districts. In the South West District TAFE NSW delivers training across six campuses to over 30,000 students each year.

As TAFE moves into a new "one TAFE" organisation, with a greater focus on collaboration with business and industry, it has the potential to play a significant role in the development of the health and education super-precincts at Liverpool and Campbelltown.

In Campbelltown over 7,000 students enrol each year on a campus adjacent to the Western Sydney University and close to the health precinct.

Liverpool enrolls over 4,000 students on a campus close to Liverpool Hospital. It encompasses the nearby Education and Training Centre which provides education, training and consultancy services to business, industry and the community with a focus on the delivery of training to develop a globally competitive workforce for local businesses and industry. It also provides English Language Training for overseas students through the TAFE International Education Centre (TIEC).

To support the development of the NSW Government's critical infrastructure projects, TAFE NSW is investing in new state-of-the-art

facilities to skill apprentices in the South West for key growth industries such as construction, electro technology, engineering, transport, warehousing and logistics.

TAFE NSW is also in discussions with Moorebank Intermodal terminal about the potential to establish a Skills Exchange model for the construction of the terminal and the worker engagement, and for training around smart transport and logistics in the longer term.

Other significant developments proposed for the South West include industry partnerships for the Western Sydney Airport. TAFE NSW is planning for the establishment of a Connected Learning Centre to provide students with greater access to facilitated online learning and support services in the areas of aviation and transport from Badgerys Creek and the establishment of a Skills Exchange on the construction site to train the workers and develop pathways into sustainable jobs.

In order to grow the proportion of smart jobs in the District, it is important to grow the skilled workforce by improving access to the relevant vocational education and training (VET), higher education facilities and training programs.

Recent NSW Government commitments include:

- changes to the VET funding eligibility and fees to improve take up, including 25,000 STEM scholarships
- the Infrastructure Skills Legacy Program
- the Smart, Skilled and Hired program which has Western Sydney as a focus area to train young people for employment.

3.6.4 Encourage additional private hospital development in the strategic, district and local centres

There are existing private hospitals at Liverpool (Sydney South West Private Hospital) and Campbelltown (Northside Macarthur Clinic and Campbelltown Private Hospital) which will be significant in the optimisation of the health and education super precincts in these Strategic Centres.

With the large population growth expected South West District there will be opportunities for additional private hospitals to service the community.

A development application has been lodged for the proposed Camden Private Hospital at Gregory Hills with the first stage of the \$330 million development expected to open in 2020. This 473 bed hospital would be one of the largest private hospitals in Sydney and is expected to generate approximately 3,200 direct and indirect jobs.

The new Camden Day Hospital in Elderslie is expected to open mid-2017.

The further development of private hospitals will support the creation of health and education smart jobs and should be encouraged in accessible locations where they can be aligned with the provision of allied health services and in home support services. The location of private medical facilities at key strategic and district centres will ensure they are accessible by public transport and in turn will add to the viability of those centres. Suitable locations for these facilities near public transport nodes should be planned at the earliest stages.

3.7 Coordinating infrastructure planning with population growth – enhancing local access

3.7.1 Facilitate local employment in land release and urban renewal areas

Successful development of the Western Sydney, South West and the Greater Macarthur Priority Growth Areas as well as additional greenfield and urban renewal precincts rely on the provision of transport infrastructure and local jobs and services to meet the needs of the future population.

In the Glenfield to Macarthur Urban Renewal Corridor, we will investigate opportunities to create local employment, and how to sequence local employment with the development and the delivery of infrastructure.

We will also support urban renewal around Fairfield, Canley Vale and Cabramatta stations that provides new housing and local employment.



Action P16: Work with State agencies, especially Sydney Water, to enable the timely delivery of infrastructure for employment and urban services land

The provision of utilities will enable an adequate supply of serviced employment and urban services land. Currently, utilities and service delivery is reactive – providers rely on growth projections and zoning plans to identify their infrastructure requirements. Better briefings and data sharing will promote better planning for infrastructure delivery.

The NSW Government will work with councils and utility providers to align the delivery of electricity, sewer and water infrastructure with demand for serviced industrial lands across the District. The provision of up-to-date demographic and housing data will assist in the delivery of this outcome – also refer actions L7 and L8 in Section 4.4.

The servicing of industrial and employment lands will align with the priority employment lands identified in the industrial and employment lands strategy to ensure that the land of highest strategic value for employment creation receives priority for service provision.



Action P17: Set parameters for the delivery of local jobs as a condition of approval for rezoning in new release areas

The South West District already has a high proportion of people who travel more than 30 minutes to their workplace. If large scale residential growth in the District is not matched by local job creation, the social and productivity problems associated with long commutes to work will increase. Population growth will drive demand for retail and hospitality jobs, local service industries, personal services, cafes, restaurants and urban services; however, these jobs are not sufficient to provide local employment for all new households.

The planned provision of job opportunities needs to accompany residential growth across the District. Rezoning of new residential release areas needs to be linked to the rezoning and development of land for employment opportunities.

Investigations are currently underway to determine how this objective can be achieved in practice without limiting residential development which is the pre-condition to local employment, services and health and education jobs.

The Department of Planning and Environment will continue these investigations in consultation with the Commission and councils to improve mechanisms for providing local jobs in new release areas.

3.7.2 Supporting the growth of retail floor space

Our retail demand and supply research forms part of our evidence base and background studies. This research estimates that, in 2015 there was approximately 10.87 million square metres of retail floor space across Greater Sydney, equating to 2.4 square metres per person.

Looking forward, using the medium population growth scenario, demand will be generated for over five million square metres of retail floor space across Greater Sydney between by 2036. As more than two thirds of this growth is forecast to occur within established areas, that may provide some constraints to retail supply, it is a matter we have identified as necessary for further research prioritisation.

As of 2015, the South West District contains approximately 1.5 million square metres of retail floor space (2.2 square metres per person).

More broadly Greater Sydney has a long history of focusing its retail offer within centres. This has positively reinforced the polycentric character of Greater Sydney that has provided convenient access to a range of goods and services for many communities, visitors and workers. It has also allowed for centres such as Parramatta, Chatswood, Bondi Junction, Liverpool, Hurstville and Penrith across Greater Sydney to have high concentrations of retail, housing and jobs collocated on the major transport corridors. This has also allowed for the efficient and effective use of both privately and publicly funded infrastructure.

In this context, our planning should reinforce Greater Sydney's strong focus on centres and support the expansion of existing centres to accommodate the growth in demand for retail and associated services. We should also investigate opportunities for new centres to be formed in appropriate locations that are supported by transport and other important forms of infrastructure.

Our retail dataset, available as part of our background studies, is a useful strategic planning tool that indicates current supply and where demand is likely to require increased retail development at a district and local government area level.



Productivity Priority 3: Prioritise the provision of retail floor space in centres

When preparing retail and commercial strategies to inform local planning, the following matters should be considered:

- existing and future supply and demand for retail floor space within the District based on the Department of Planning and Environment's medium population growth scenario
- the accessibility of different types of retail and commercial floor space to communities
- opportunities to allow retail and commercial activities to innovate
- the impacts of new retail and commercial proposals to the viability and vitality of existing and planned centres
- the need for new retail development to reinforce/enhance the public domain
- the net social, economic and environmental benefits of new supply within different locations

How these matters are taken into account is to be demonstrated in any relevant planning proposal.

3.7.3 Facilitating jobs growth in Wilton New Town in line with population growth

Wilton New Town has the capacity for more than 8,000 new jobs once it is fully developed, with capacity for more than 7,300 new jobs planned in a new centre at Wilton Junction.

We need to create jobs in a range of industries, including retail, education, trades and service industries and light industry within the New Town. To help create these jobs, growth must be supported by infrastructure, provided at the right time with the right level of capacity in line with population and economic growth. Some of the major transport infrastructure improvements that have been identified to support Wilton New Town include the widening of sections of Picton Road and the M31 Hume Motorway, upgrading the Picton Road/M31 Hume Motorway interchange and new rapid bus services connecting to Campbelltown-Macarthur.



Action P18: Plan for and facilitate the attraction of new jobs in Wilton New Town

The Department of Planning and Environment will:

- work with Wollondilly Council and other stakeholders to develop economic development strategies that can attract businesses to Wilton New Town and support job creation
- ensure that satisfactory arrangements are in place to deliver necessary infrastructure before land is zoned for urban development.

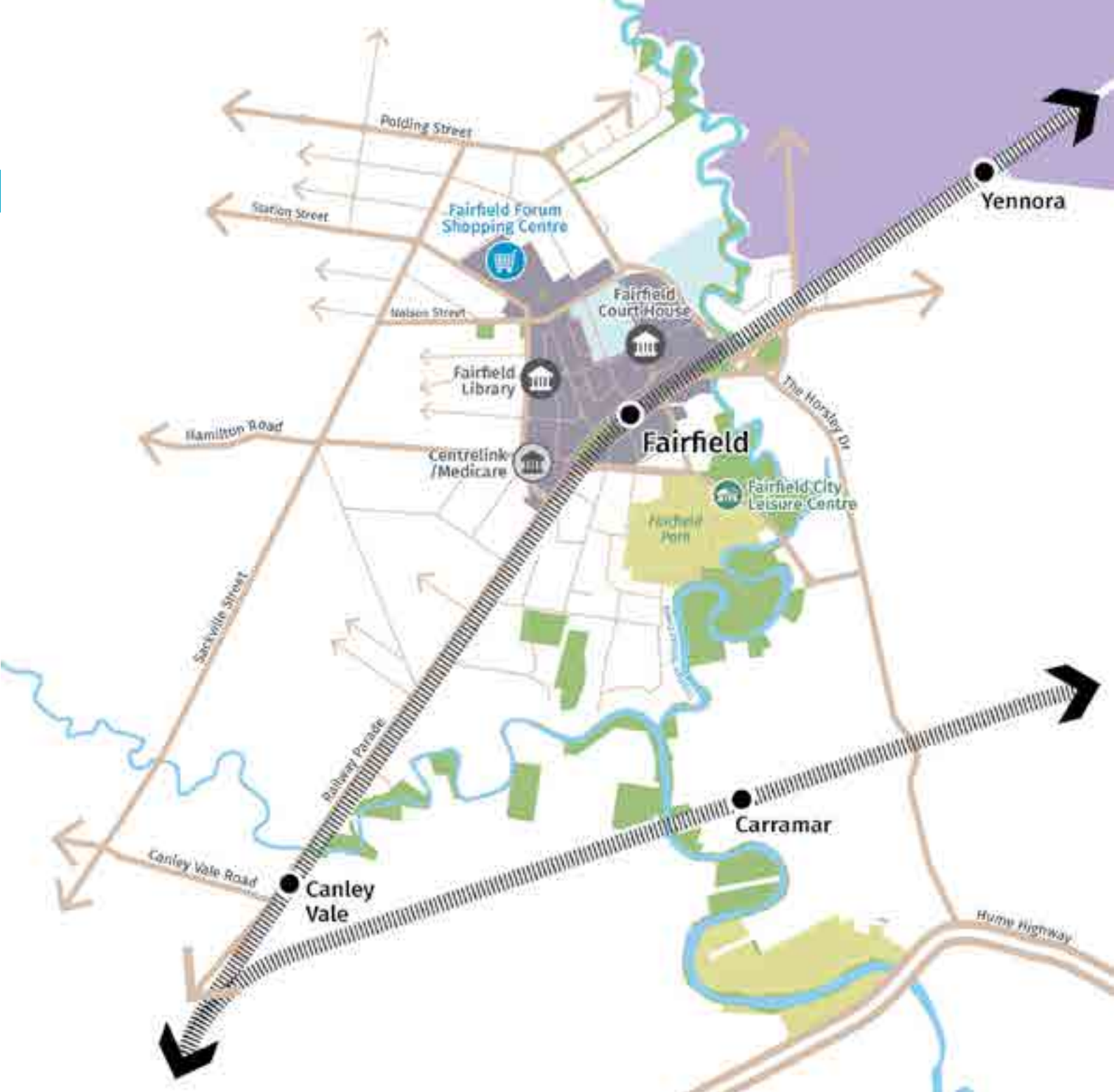


Figure 3-8: Fairfield District Centre - existing activities


	Retail hub		Existing Industrial Zones		Railway Station
	Local Government Office		Local Public Open Space		Motorway
	State Government Office		District Public Open Space		Major Road
	Cultural Centre		Regional Public Open Space		Local Road
	Existing Business Zones		Waterways		
	Existing Mixed Use Zone		Railway		



Figure 3-9: Narellan District Centre - existing activities

	UrbanGrowth NSW Project		Existing Industrial Zones		Waterways
	Local Government Office		Existing Business Zones		Highway
	Retail hub		Existing Mixed Use Zone		Major Road
	Tourism Centre		Local Public Open Space		Local Road
	Metropolitan Rural Area		District Public Open Space		



Figure 3-10: Leppington District Centre - existing activities

	Future TAFE		Existing Industrial Zones		South West Rail Line Extension Corridor
	Future Health Facility		Local Public Open Space		Railway
	Retail hub		District Public Open Space		Major Road
	Future Open Space		Regional Public Open Space		Local Road
	Existing Business Zones		Waterways		
	Existing Mixed Use Zone		Priority Growth Precinct		

3.8 Strengthening the diversity of employment choice

3.8.1 Provide for efficient movement of freight to and within the District with least impact on residents' amenity

Freight and logistics activities are an economic facilitator in any city. This statement is true for every class of freight – from air to rail and container freight, to the local delivery of parcels in vans. Our land use planning must therefore recognise, support and mitigate impacts of freight delivery. Maintaining the productivity of the District's freight network is an important consideration in this draft District Plan.

Freight activity and patterns are changing rapidly due to changes in consumer patterns and how and where products are manufactured. Products now travel longer distances to reach consumers.

The future of freight needs to build on the existing *NSW Freight and Ports Strategy* to be both agile and responsive, as well as cost effective and efficient, and with limited impacts on residents. New urban spaces will be required to accommodate service vehicles and deliveries at all hours.

The South West District will be a key destination for cargo arriving at Port Botany and will be home to nationally significant freight infrastructure including intermodal terminals, and significant local employment and urban services land and distribution centres.

The National Land Transport Network in the District includes the M7 Motorway, the M31 Hume Motorway and M5 Motorway corridors. The rail corridor also provides an important link for the movement of bulk and containerised freight to domestic, interstate and export markets.

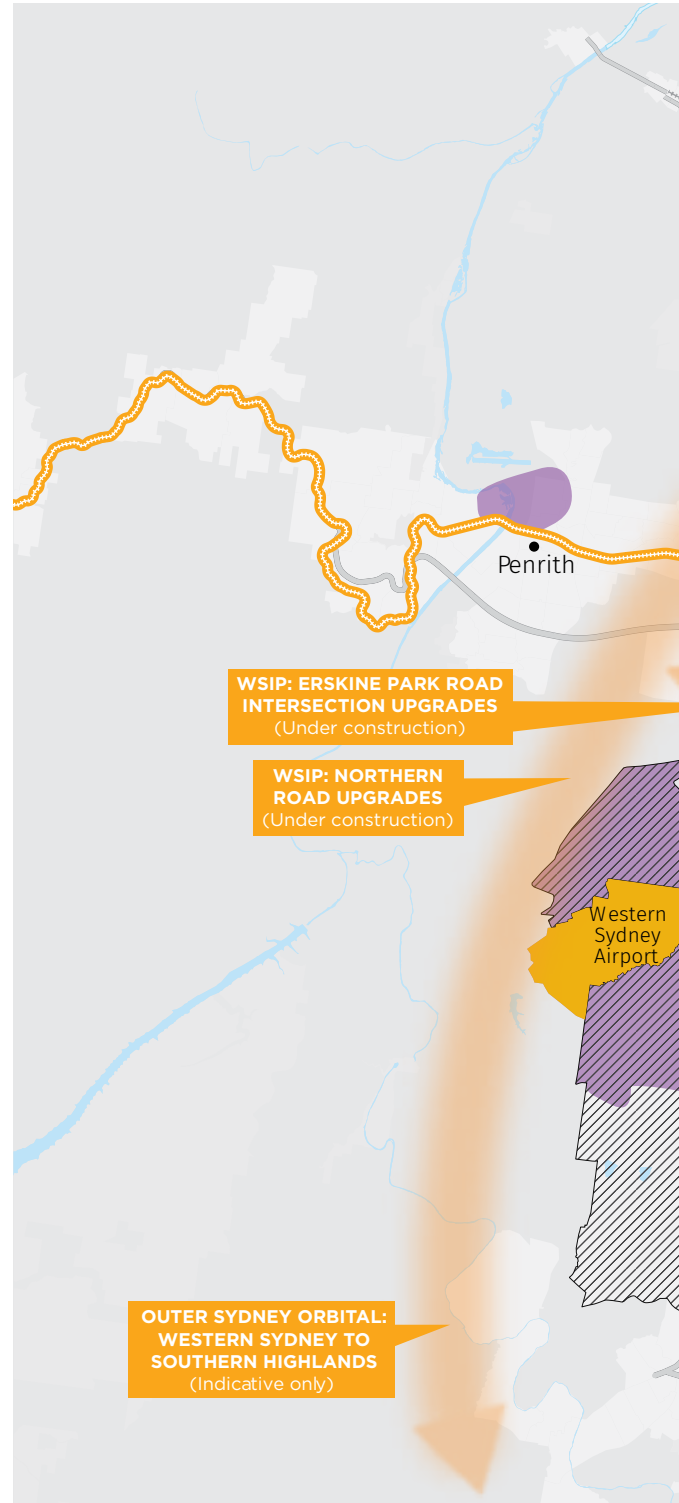
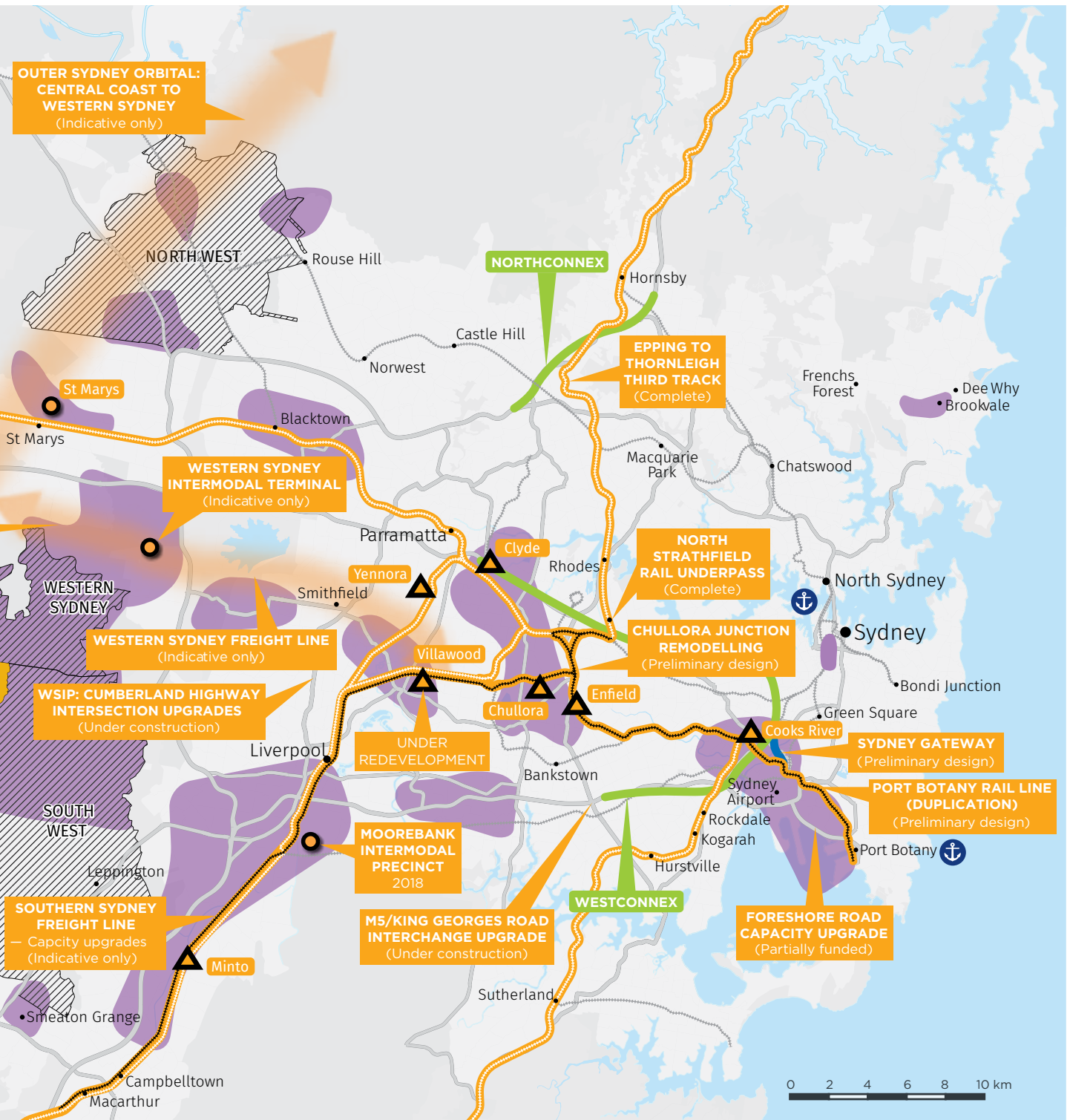











Figure 3-11: Greater Sydney's freight assets

Source: *Transport for NSW (2016)*



-  Dedicated freight rail
-  Shared freight rail
-  Sydney Trains network
-  Major freight road
-  Proposed intermodal terminal
-  Existing intermodal terminal
-  Freight activity precincts
-  Priority Growth Area
-  Proposed Transport Corridors (indicative only)



Action P19: Identify and plan for efficient movement of freight to, from and within the District, with least impact on residents' amenity

Figure 3-11 shows the existing, planned and under investigation freight network in the South West District. In the long term, freight and logistics activities in the District will be supported by:

- Moorebank Intermodal Terminal - Stage 1 currently under construction
- Outer Sydney Orbital - under investigation for preservation
- Western Sydney Fuel Pipeline and Intermodal - under investigation
- M12 Motorway - in planning.

Several freight corridors also need to be considered in addition to the Western Sydney Airport's expected logistics and servicing requirements. The NSW Government will continue to plan for suitable east-west and north-south rail and road corridors to link the Western Sydney Airport to Port Botany and Port Kembla.



Action P20: Provide adequate access to and from the Moorebank Intermodal Terminal

The Moorebank Intermodal Terminal, including a freight terminal with a shuttle to Port Botany, is due to open by July 2017. The terminal will increase Greater Sydney's rail freight capacity, reduce freight on the road network and link to the Australian Rail Track Corporation national rail freight network.

Transport for NSW will work with local government and other stakeholders to plan for adequate access to and from the Moorebank Intermodal Terminal, including north-south road connections on the east side of the rail line from the M5 Motorway to the M31 Hume Motorway and new roads and bridges over the river and rail line. This work will be considered in planning for the Liverpool collaboration area.

3.8.2 Retain and grow the agricultural, horticultural and rural industry

The South West District has a long history of productive agricultural and horticultural activity which continues to exist today. The District's Metropolitan Rural Area accommodates a mix of farming including the production of poultry meat and eggs, vegetables, turf, cut flowers and dairy which take advantage of their proximity to the Sydney markets. Residents of the South West District identify strongly with both their rural visual landscape and its remaining agricultural use which provide a sense of belonging.

The development of the Western Sydney Airport will potentially expand opportunities for increased agricultural exports.

The Sydney University Campus at Cobbitty/Brownlow Hill provides tertiary education in agriculture and veterinary science and includes the main plant breeding research facility for the Faculty of Agriculture, Food and Natural Resources. The Elizabeth Macarthur Agricultural Institute's Centre for Excellence for animal and plant health plays a vital role in the protection of Australia's economy, community and environment from animal pests and plant diseases. Many of the Elizabeth Macarthur Agricultural Institute's scientists are world leaders in their field with specialist teams dedicated to research improving Australia's agricultural competitiveness. The Western Sydney Airport will provide greater international access to these facilities and there are opportunities to expand on the smart jobs within these facilities and in their vicinity.

3.8.3 Facilitate visitor destination potential of the South West District

The South West District has distinctive natural and cultural assets that differentiate it from other areas in Greater Sydney:

- national parks and open spaces, including the Dharawal National Park offer a diverse bushland experience as well as cultural attractions with a number of special Aboriginal sites
- the natural landscape of the rural area and the rural towns and villages attract many visitors
- the agricultural sector provides tourism opportunities
- Australian Botanic Garden at Mount Annan is Australia's largest botanic garden with more than 2,000 species of native plants
- multicultural attractions include Vietnamese food trails in Cabramatta and Indian saris in Liverpool
- affordable tourism accommodation facilities in Liverpool, with good access to locations such as Sydney City, Blue Mountains and Canberra.

The NSW Government recently announced a \$43 million investment over four years in a major overhaul in the way regional and rural areas attract visitors. This includes the creation of six new Destination Networks throughout NSW. The Destination Networks are new entities that will replace the existing Regional Tourism Organisations to advance the interests of growing tourism in NSW. The South West District is covered by 'Destination Sydney Surrounds South'.

There is an opportunity to leverage the visitor destination potential of the South West's natural assets and multicultural community to develop tourism opportunities and a thriving visitor economy in the South West for both domestic and international visitors.



Action P21: Leverage the South West District's potential as a visitor destination

The Commission supports the initiative of Councils to develop and implement a District Tourism Strategy in conjunction with Destination NSW, leveraging opportunities in the following areas:

- environment and nature tourism
- adventure/sporting tourism
- rural tourism and food trail opportunities
- Aboriginal cultural heritage tourism (especially linked to Dharawal National Park)
- heritage tours across the District
- better access to natural areas
- the Australian Botanic Gardens at Mount Annan
- national parks and open spaces including Dharawal National Park, Bents Basin State Conservation Area, Western Sydney Parklands, Georges River Regional Open Space (and Environmental) Corridor, Koala Habitat Protection
- the multicultural diversity of the District for potential domestic and international investors in the Western Sydney Airport area.

Employment and urban services land

In 2006, the Employment Lands Task Force defined employment land as *“zoned for industrial or similar purposes in planning instruments [and] generally lower density employment areas containing concentrations of businesses involved in manufacturing; transport and warehousing; service and repair trades and industries; integrated enterprises with a mix of administration, production, warehousing, research and development; and urban services and utilities”*.

From 2008, employment lands were categorised into precincts. With the implementation of the Standard Instrument Local Environmental Plan, these precincts can now include other business zones that permit a number of industrial uses.

In this District Plan, the Commission has replaced the term ‘Employment Land’ with ‘Employment and urban services Land’. While this still describes the same type of land, the terminology reflects the evolving nature of employment areas, the jobs and economic activity they generate, and the way they support urban areas and industries (for example, by providing land for data centres, utilities and distribution centres) as well as local residents (for example, by providing land for panel beaters, council depots, vehicle repairs and household trades).

3.8.4 Protect and manage employment and urban services land – A pipeline of employment

Employment and urban services land supports activities that are critical to Greater Sydney’s productivity, sustainability and liveability. In this context Greater Sydney’s existing industrial, manufacturing, warehousing and distribution industries contribute to its role as Australia’s manufacturing capital. Furthermore good access to urban services locally reduces the need to travel to other areas, minimising congestion of the land transport system. We therefore need to ensure that our employment lands are efficiently managed and protected across Greater Sydney and within the South West District.

In 2015, approximately 3,400 hectares of the South West District was zoned for employment and urban services land. This land is spread across 42 separate precincts representing 25% of Greater Sydney’s total stock of employment and urban services lands. The South West District had 710.9 hectares of undeveloped employment and urban services lands in 2015.

The District’s employment and urban service land includes parts of Greater Sydney’s major employment and urban service areas including the corridor from Liverpool to Campbelltown and the Fairfield to Eastern Creek corridor which includes Wetherill Park.

A further 2,827 hectares of land is proposed to be rezoned for employment and urban service purposes in the District, the majority in the South West Priority Growth Area.

Table 3-5 large employment and urban service areas (more than 30 hectares) in the South West District by local government area, based on the Department of Planning and Environment’s *Employment Lands Development Program 2015*. Smaller parcels of employment land are also important to the economy of Greater Sydney.

Table 3-5: Major employment and urban services precincts (larger than 30 hectares) in the South West District (January 2015)

LCA	Precinct	Undeveloped land (hectares)	Developed land (hectares)	Total (hectares)
Camden	Leppington North	70.8	0	70.8
	Narellan	5.7	29.0	34.7
	Smeaton Grange	58.3	141.1	199.4
	Turner Road	35.3	4.2	39.5
Campbelltown	Campbelltown, Blaxland Road	36.8	100.2	137.0
	Ingleburn	14.8	300.5	315.3
	Minto	18.9	237.8	256.7
Fairfield	Fairfield East	0	99.5	99.5
	Lansvale	0.2	57.2	57.4
	Smithfield, South	0.2	42.4	42.6
	South of Sydney Water Pipeline	76.6	175.6	252.1
	Wetherill Park	33.8	525.3	559.1
Liverpool	Austral	44.8	0	44.8
	Chipping Norton	0.6	100.3	100.9
	Hoxton Park Airport	3.9	36.1	40.0
	Moorebank	11.7	324.4	336.1
	Yarunga/Prestons	118.0	225.0	342.9
Wollondilly	Maldon	64.3	105.0	169.3
	Picton	0.7	30.0	30.7

Source: Department of Planning and Environment, Employment Lands Development Program (2015)

Planning for the future of the South West District needs to provide a pipeline of sufficient employment and urban services lands to complement the Western Sydney Airport and provide opportunities for local jobs and urban services.

Allowing activities in the established employment and urban services areas to evolve over time while still retaining urban services and major freight and logistics facilities is essential. Office developments would be an appropriate

activity in these employment and urban services lands in the South West District.

Our research shows that the nature of employment and urban services land across Greater Sydney is changing as technologies and new industries emerge. The precincts are evolving into agglomerations of a mix of businesses as distinct from 'industrial' land. This trend is particularly apparent east of Parramatta.



Photo credit: Fairfield City Council

While some traditional industrial activities continue to be located in employment and urban services land precincts, there has been a significant increase in other types of business in these precincts too. For example, high value urban manufacturing uses have become common in some precincts, particularly those close to strategic centres. This has enabled an intensification of land use in some areas and a rise in demand for industrial strata units. There is also increasing pressure on a number of employment and urban services land precincts to be converted to residential or retail uses.

Action 1.9.2 of *A Plan for Growing Sydney* emphasises the importance of employment lands and urban services to Greater Sydney's productivity. The Commission's research has reaffirmed their value, underpinned by the economic contributions they make and strong demand for this comparatively scarce resource.

These lands are however under threat of erosion by alternative (and in financial terms - higher and better uses) uses such as residential or retail. Although the South West District has seen relatively little employment and urban services land rezoned for other uses, this has been evidence in other parts of Greater Sydney.

Such rezonings have the potential to have longer term growth and productivity implications for Greater Sydney. On this basis it is a priority of the Commission to take a precautionary approach to the conversion of employment and urban services lands in the absence of a District wide assessment of their value and objectives.

The Commission identifies as a priority the need for additional work to be undertaken in collaboration with councils to explore and where appropriate verify this precautionary approach and to step away from the industrial lands checklist suggested by *A Plan for Growing Sydney* during our review of this Regional Plan in 2017.



Productivity Priority 4: Protect and support employment and urban services land

Employment and urban service lands play a critical role in the efficient and effective function of the District. Owing to the comparative scarcity of this resource, a holistic and precautionary approach to their planning should be undertaken.

Accordingly, relevant planning authorities should take a precautionary approach to rezoning employment and urban services lands or adding additional permissible uses that would hinder their role and function. The exception being where there is a clear direction in the Regional Plan (currently *A Plan for Growing Sydney*), the District Plan or an alternative strategy endorsed by the relevant planning authority. Any such alternative strategy should be based on a net community benefit assessment (i.e. analysis of the economic, environmental and social implications) of the proposed exception taking into account a District-wide perspective in accordance with Action P22 described below.

How these matters are taken into account is to be demonstrated in any relevant planning proposal.



Action P22: Develop better understanding of the value and operation of employment and urban services land

In order to better understand the contribution of employment and urban services land to the District's productivity, liveability and sustainability we will work with Councils to further develop our research and understanding of how the District's employment and urban services land operate, the range of uses they support including their industry and supply chains, their interdependencies, key constraints, and opportunities to be improved. In doing this, the particular characteristics and value add of these locations will be identified to inform the preparation of appropriate planning.



4 A Liveable City

City areas with flourishing diversity sprout strange and unpredictable uses and peculiar scenes. But this is not a drawback of diversity. This is the point of it.

Jane Jacobs

The South West District is a mosaic of very different local places: from the established suburbs in Fairfield and Liverpool; to the new urban areas in Camden and rural residential living in Wollondilly; from the major heritage cities of Liverpool and Campbelltown; to thriving, vibrant, multicultural hubs like Cabramatta; and historic country towns such as Camden and Picton.

The District has many significant assets and attributes that make it liveable – these assets are why people come to live here and why they want to stay. For the young people to continue to call the District home, we need to continue to offer, and improve, the kind of lifestyle elements that make the District a great place to live.

The District's rich natural environment and visual landscapes of woodlands and ridgelines, creeks and rivers are like nowhere else in Greater Sydney. They provide a framework for the District's range of lifestyles and the opportunity to have the 'best of both worlds' – a rural lifestyle with city benefits.

The diversity and complexity of the South West District's communities is valued by residents and needs to be maintained and enhanced through the coming period of growth and change. Our aim is to conserve and enhance quality of life and local identity. We want to collaborate with communities and stakeholders to make the most of public investment in the District's infrastructure and urban places and address the issues that people tell us are important to them.

We must realise this within the context of significant population growth and, with this, the creation of new places.

We need to do more than just provide new houses but also provide new places with high quality urban design – suburbs and neighbourhoods that offer a diversity of homes, streetscapes, jobs and things to do – the kind of places where no street looks the same, and

where people feel a sense of belonging because they have many places to interact with each other.

This will require a focus on the type of housing that the District needs as it grows – not just in numbers, but the diversity that offers different price points and can help improve affordability.

It is also important in renewal areas where we want to provide a greater mix of social and private housing so that our communities are mixed and cohesive.

We need to supply housing in the places where people want to live, which will allow them to remain in their communities through the different stages of life.

As the District grows, we need to plan upfront to support new residents with the right mix of schools, health services, community facilities, walking and cycling connections. This needs to be achieved in a way that creates safe, engaging places for everyone.

This draft District Plan looks at how we can implement the liveability goals of *A Plan for Growing Sydney* as well as the priorities from *Our Vision – Towards Greater Sydney 2056*. In particular we draw on the goals that seek to develop a city of housing choice, with homes that meet our needs and lifestyles in a great place to live (Goal 2), with communities that are strong, healthy and well connected (Goal 3).

Our planning for Greater Sydney aspires to maintain and improve residents' quality of life by providing more housing and employment opportunities and the infrastructure that makes these opportunities accessible. We can help to create healthy and connected communities if we collaborate across the private and public sector and with communities, and base our decisions on quality evidence.

The South West District Liveability Profile

Our South West District Liveability Profile describes the District's population in terms of its existing characteristics, age, gender, country of birth, family type and how we expect these characteristics to change over time. This informs the way we plan for each group's unique needs.

You can view the Liveability Profile by visiting www.greater.sydney. We will continue to increase and build the profile so as to improve the quality and range of social data that forms the basis of smart strategic planning.

The Liveability Framework

Greater Sydney's Liveability Framework forms a foundation for planning and infrastructure delivery to be driven by consideration of people's needs at all stages of life. Use of the Framework to inform strategic plans would allow governments, planning authorities and services providers to work together across a common framework to plan for and enhance the District's liveability as our population grows.

The Liveability Framework places our physical and mental health and wellbeing at the forefront as Greater Sydney transitions from suburban to more urban places. It relies on strong partnerships between State agencies, local government, non-government organisations, private providers and communities.

Nine liveability outcomes have been derived from international best practice and refined through consultation with councils, interest groups and the community to form the Framework. Healthy liveable places demonstrate:

- housing choice by supporting affordable and appropriate housing for all
- urban design excellence by delivering high quality design that supports community safety, health and wellbeing, and enhances community assets and character
- connected communities by supporting walking, cycling and public transport movement between destinations
- sense of belonging and local identity by creating great places that are socially inclusive and promote respect and feelings of belonging
- social infrastructure provision by promoting an integrated approach to social infrastructure that includes health care, education, fresh food access, public open spaces and other community/cultural facilities
- community engagement delivered across all liveability outcomes by promoting community empowerment and ownership in shaping resilient cities
- culture and innovation by celebrating and promoting creative arts, digital technology, culture and innovation
- diversity of job opportunities by providing access to a range of jobs and learning/skills development
- environmental quality by managing the quality of and access to the natural environment

This draft District Plan addresses the need for good access to education, health, community and emergency services for people through every stage of their life. It takes a design-led planning approach that requires urban design that focuses on people in order to create great places to meet, work, exercise and socialise. This requires a focus on the whole picture: the streets, the neighbourhoods, the centres and suburbs that will be real, attractive places and

provide a great way of life for new and existing residents.

We want people to be able to access public spaces, shops, parks, sports and cultural facilities by foot or bicycle.

We want to plan for these places in a way that respects the District's natural and cultural heritage and recognises the continuing of traditional Aboriginal culture in the South West District.

4.1 The South West District's people

Many factors make the South West District a great place to live. The South West is home to unique centres with diverse cultural and social history as well as newly developing centres and communities like Oran Park in the South West Priority Growth Area.

We classify the District's larger centres – Campbelltown-Macarthur and Liverpool – as strategic centres. These larger hubs of jobs and activity contrast with heritage towns like Camden and Picton. The District's well-loved bushland recreation areas like Simmos Beach and Nattai National Park complement significant recreation reserves like the Western Sydney Parklands.

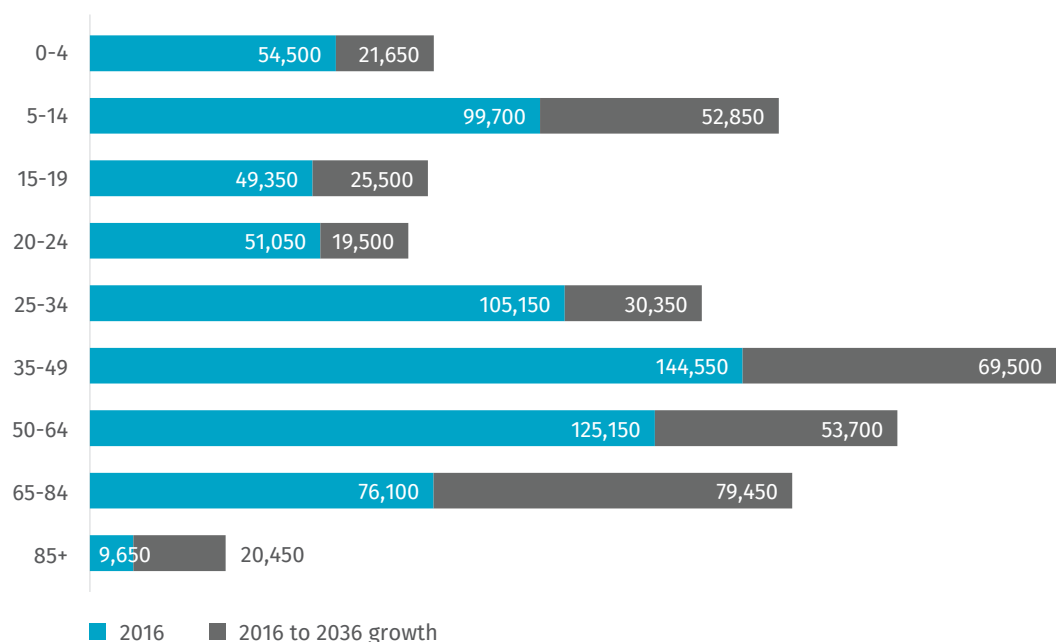
Community consultation in 2015 revealed that 56% of residents interviewed in the South West District considered the liveability of their area to be either 'excellent' or 'very good'. People particularly enjoy the range of indoor and outdoor recreational environments.

Residents noted that they chose to live in the South West for cost of living and housing affordability, safety, and proximity to family and friends. Each of these factors is fundamental to social inclusion and quality of life. Connections within a community to people and services, jobs and housing choice are what make a locality a great place to live.

By 2036, the District's population is projected to grow by an estimated 373,000 people, to around 1.088 million. This 2.1% annual average growth rate compares to projected growth of 1.6% for Greater Sydney as a whole.

To accommodate these new residents, we need to plan for new housing and new employment opportunities. As the District grows, we need to use this as an opportunity to renew and enhance our centres and places, and provide better access to health and education services, community infrastructure, parks and playgrounds.

Figure 4-1: South West District projected population growth by age group (2016 – 2036)



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

Table 4-1: South West District projected aggregate and proportional growth (2016 – 2036) by local government area by key age group

	Aggregate Growth 2016-2036							Proportional Growth 2016-2036					
	<1	1-4	5-19	20-64	65-84	85+	Total growth	<1	1-4	5-19	20-64	65-84	85+
Camden	2,070	8,280	30,300	79,600	19,100	4,350	143,700	177%	177%	169%	164%	255%	378%
Campbelltown	730	2,920	15,600	29,250	15,800	4,550	68,850	28%	28%	46%	30%	90%	253%
Fairfield	-140	-560	3,600	-2,050	15,150	4,450	20,450	-5%	-5%	9%	-2%	61%	125%
Liverpool	1,420	5,680	24,100	56,200	23,750	5,550	116,700	42%	42%	53%	44%	117%	218%
Wollondilly	250	1,000	4,750	10,050	5,650	1,550	23,250	34%	34%	44%	35%	97%	258%
SOUTH WEST	4,330	17,320	78,350	173,050	79,450	20,450	372,950	40%	40%	53%	41%	104%	212%
GREATER SYDNEY	17,080	68,320	333,450	824,100	386,800	110,650	1,740,400	26%	26%	40%	29%	71%	124%

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

4.1.1 South West District population age profile

We look at the District's changing age profile to understand how and where we need to plan for people at different stages of their life.

The distribution of population growth by age group in the District is projected to differ from Greater Sydney averages. For example, we expect to see higher rates of growth for babies (<1 year old) and preschool-aged children (1-4 years old) in the District, and around 53% growth in the number of school-aged children.

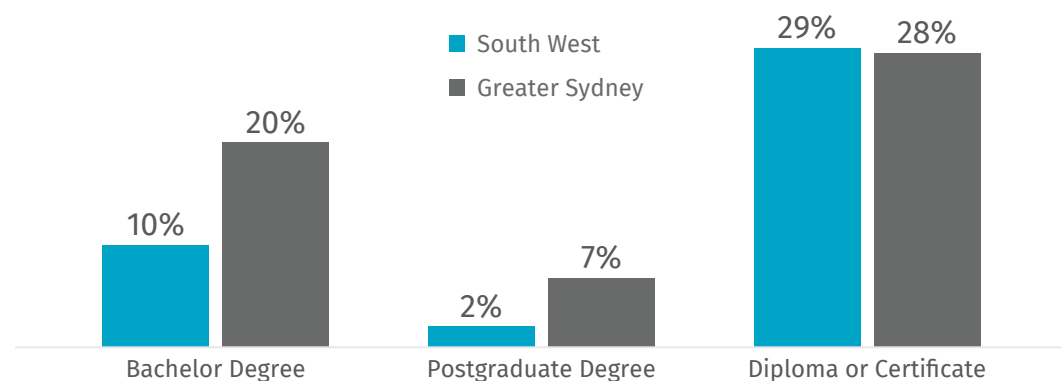
The proportional growth of working aged people will be greater than that expected for Greater Sydney, while the proportional growth in the number of people over 85 is likely to be much higher than that expected for Greater Sydney (Table 4-1).

4.1.2 South West District population characteristics

A higher proportion of the South West District's working population hold vocational qualifications (including Diploma or Certificate) than the Greater Sydney average. Conversely, a lower proportion of residents hold a university qualification (Bachelor Degree or Post Graduate Degree) compared to the Greater Sydney average.

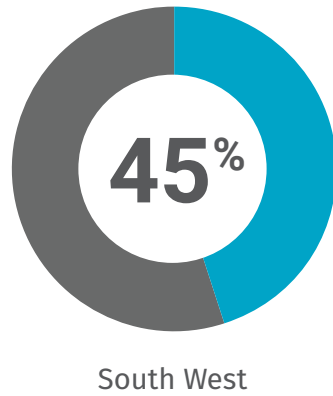
Average median household incomes are lower in the District than those across Greater Sydney, and there are significant spatial variations in socio-economic disadvantage. Our Liveability Profile shows that some neighbourhoods experience greater disadvantage, particularly in the Campbelltown and Liverpool local government areas.

Figure 4-2: South West District higher qualification attainment (2011)



Source: Australian Bureau of Statistics, 2011 Census of Population and Housing

Figure 4-3: South West District English as a second language



Source: Australian Bureau of Statistics, 2011 Census of Population and Housing

Up to 45% of the District’s households speak a language other than English at home, higher than the Greater Sydney average of 37%.

Aboriginal and Torres Strait Islander people comprise a higher proportion of total population than found across Greater Sydney (1.8% compared with 1.1% respectively). The majority of Aboriginal and Torres Strait Islander people live in Campbelltown and Liverpool local government areas.

The 2011 Census identified over 34,000 people living with a disability in the South West District, and we expect that this will increase over the

next 20 years as the population ages. In addition to this the 2015 Population Health Survey by the NSW Ministry of Health indicates that around 52% of the adult population in the South West District is overweight or obese. Obesity is a chronic medical condition which is associated with a range of debilitating and life threatening conditions.

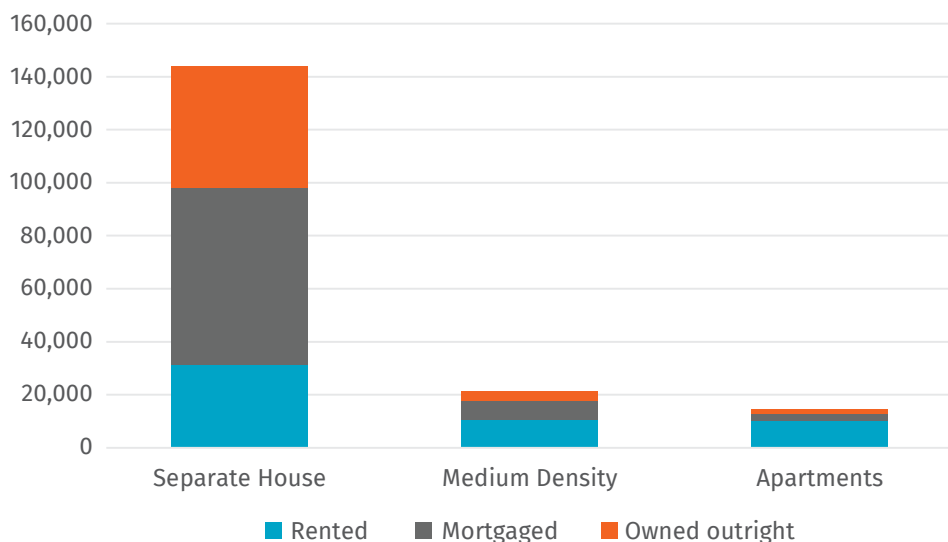
4.1.3 South West District dwelling and household characteristics

When we plan for the type of housing the District will need, we look both at the mix of housing types (for example, detached homes and apartments), as well as the household types (for example, single person households, or households with a couple and children) that exist already or are expected in the future.

This helps us to analyse how the market for different homes has changed over time and plan for different types of housing that people will need in the future.

The majority of people (78%) in the South West District live in detached houses, 12% in medium density type dwellings (including semi-detached, terrace and row housing) and 9% in apartments. Most detached dwellings (78%) are either owned outright or being purchased. Around 69% of apartments and 49% of medium density type dwellings are rented.

Figure 4-4: South West District dwelling structure by tenure type (2011)



Source: Australian Bureau of Statistics, 2011 Census of Population and Housing

The affordability of housing is an issue for people, with our community consultation finding that people in the South West District gave lower ratings to the availability of affordable housing to rent or buy and the overall cost of living.

Underscoring these concerns, a recent examination of house sales between 2005 and 2015 found a significant reduction in the availability of homes considered affordable for households on moderate incomes. This used the common measure of affordability that housing costs require no more than 30% of the household budget.

In terms of future household types, we expect to see the largest aggregate growth in couples with children (+48,200) and couple only (+31,200). The strong growth in single person households (+30,300) represents an 88% increase on today's levels.

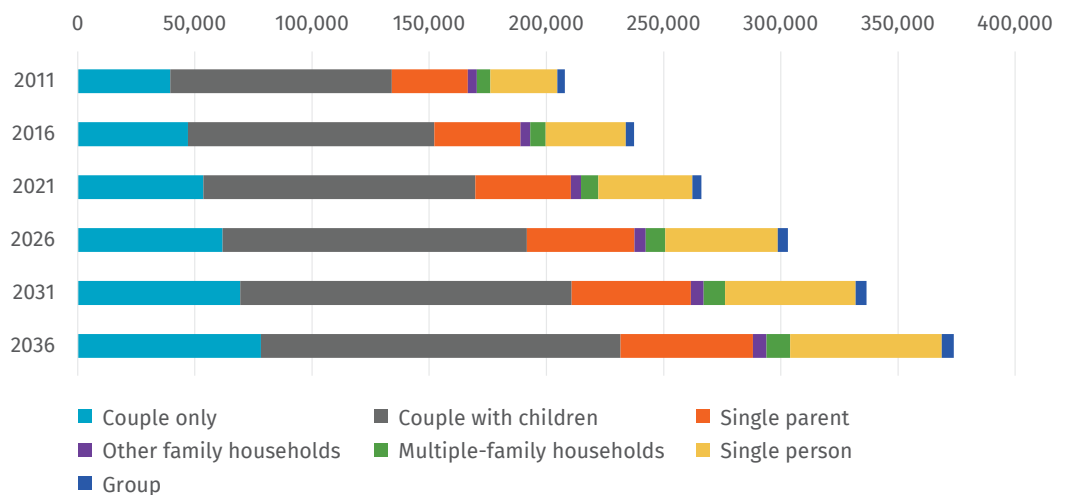
Households comprising couples with children will continue to be the dominant household type in the South West District, though the proportion is falling, especially in Fairfield Local Government Area (45% to 40%) and Liverpool

Local Government Area (from 47% to 43%). The greatest aggregate increase in single person households will be in Liverpool.

While there is an increased need for all housing types in the South West District, housing that can accommodate smaller households is in the greatest demand. This needs to include more terrace, row and courtyard housing in addition to apartment buildings, all of which will provide for more affordable price points than detached dwellings.

We will also need to enable development of flexible housing types including more large homes and culturally appropriate housing that can accommodate several family groups or generations living together, as well as more accessible and adaptable housing. Our planning must ensure that there is capacity for new housing that responds to local needs and housing market characteristics and provides proximity to public transport, health, education, infrastructure and services.

Figure 4-5: South West District projected household structure (2011 – 2036)



Source: 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

4.2 Liveability priorities

This chapter outlines the liveability priorities and actions for the South West District.

The priorities are presented in two ways. Firstly, each heading outlines a priority area, and we provide context and detail to expand on the outcomes sought. Some headings cover factual issues only; these are not included the list below.

Secondly, within the broad priority areas there are, in many cases, more detailed priorities. We identify the specific purpose of these priorities in each case by detailing how they relate to strategic planning and planning proposals.

The full list of liveability priorities covered in this chapter are outlined below.

Improve housing choice

- Prepare local housing strategies
- Understand the Greater Sydney housing market and demand
- Deliver South West District's five-year housing supply targets
 - Deliver South West District's five-year housing targets
- Establish South West District's 20-year strategic targets
- Create housing capacity in the South West District

Improve housing diversity and affordability

- Plan for housing diversity
 - Deliver housing diversity
- Support planning for adaptable housing and aged care
- Deliver affordable rental housing
 - Implement the Affordable Rental Housing Target
- Support social housing
 - Increase social housing provision
- Facilitate integrated infrastructure planning –managing growth.

Coordinate and monitor housing outcomes and demographic trends

Create great places – not just building houses

- Provide design-led planning
- Plan for safe and healthy places
 - Facilitate the delivery of safe and healthy places
- Facilitate enhanced walking and cycling connections
- Facilitate enhanced walking and cycling connections

Foster cohesive communities in the South West District

- Conserve and enhance environmental heritage including Aboriginal, European and natural
 - Conserve heritage and unique local characteristics
- Support the creative arts and culture
 - Foster the creative arts and culture
- Create opportunities for more recreation and community facilities
- Support planning for shared spaces
 - Share resources and spaces

Respond to people's need for services – developing complete communities

- Plan to meet the demand for school facilities
 - Support innovative school planning and delivery
- Plan for the provision of early education and child care facilities
- Plan for the provision of youth services
- Support the Aboriginal community
 - Provide socially and culturally appropriate services
- Support planning for health networks
- Support planning for health facilities and services
 - Support planning for health infrastructure
- Plan for emergency services
 - Support planning for emergency services
- Plan for cemeteries and crematoria
 - Support planning for cemeteries and crematoria.

4.3 Improve housing choice

All successful and growing global cities face the challenge of providing greater housing supply and choice. With Greater Sydney's robust economy, unprecedented levels of population growth and strong investment interest, demand for housing across Greater Sydney is rapidly increasing. Notable demographic change means that significant new and different forms of housing will be required in Sydney to 2036. The Commission is committed to achieving this outcome in a way that also builds a more inclusive city (particularly for the elderly and women) and a more equitable city (particularly for those entering the housing market for the first time). To achieve this the Commission will leverage existing and new infrastructure projects to enhance housing opportunities.

Key to planning for this growth is recognising that the nature of this demand varies by location, by community and by household. To meet the needs of different cultural, socio-economic and age groups a variety of housing choices must be delivered across Greater Sydney and the South West District. This supply must be achieved through a range of housing types, tenures and price points. We refer to the range of housing choices in this draft District Plan as the housing continuum (Figure 4-6).

More specifically the housing continuum refers to all types of housing including detached dwellings, apartments, terraces and villas. It refers to different tenures including dwellings that are owned outright, mortgaged or rented. It also refers to homes occupied by single people, families, groups as well as households living in housing stress, through to people on high incomes.

Figure 4-6: The housing continuum



Source: Greater Sydney Commission, 2016 adapted from City of Sydney Housing Issues Paper April 2015

Our Approach to the Housing Continuum

To improve capacity across the full housing continuum, our approach aims to support and enhance:

- **Delivery:** creating conditions to support the supply of housing in well-planned locations served by sufficient local and regional infrastructure
- **Capacity:** so that existing planning controls and new investigation areas are creating sufficient opportunity for housing supply targets by 2036
- **Diversity and adaptability:** the diversity of housing types including small lot housing, terraces and apartments in a variety of configurations (one, two and three+ bedrooms) and more adaptable and accessible forms of housing for older people, people with disabilities and families
- **Affordability:** building on the direction in *A Plan for Growing Sydney* by setting a target for the provision of affordable rental housing in new urban renewal and land release areas for the low and very low income households that are the most vulnerable. This also relates to supporting a supply of diverse housing types in the private market that are more affordable to key workers and moderate income households
- **Social housing:** the provision of social housing to meet the needs of the growing number of households requiring social housing (in 2016 there are 37,660 households in Greater Sydney on the waiting list) and to reduce homelessness.

NSW Government initiatives

Local government and State agencies are implementing policies and measures to support the delivery of housing across the continuum. Currently the Department of Planning and Environment is:

- implementing the *State Environmental Planning Policy (Affordable Rental Housing) 2009*, which allows for the development of new generation boarding houses in various locations with floor space incentives subject to environmental and design standards.

The Department of Family and Community Services is implementing:

- *Future Directions for Social Housing in NSW*, which aims to increase the number of households that transition out of social housing, using affordable rental housing as a stepping stone to the private rental market
- the *Communities Plus Program*, which improves diversity through mixed use renewal of existing areas of concentrated social housing
- the *Social and Affordable Housing Fund*, which will fund 3,000 additional social and affordable houses in its first tranche through innovative partnerships between community

housing providers, non-government organisations and the private sector.

In September 2016, the NSW Government released the discussion paper *Foundations for Change – Homelessness in NSW*, which aims to engage organisations and individuals to strengthen collective action to reduce homelessness. It focuses on the prevention of homelessness, rather than simply trying to manage it.

The private sector and agencies such as UrbanGrowth NSW and Land and Housing Corporation also work with councils in the South West District to improve housing choice, diversity and affordability. NSW Government-led projects in these areas seek to improve the quality of housing while providing a better mix of social and private housing to instil a greater sense of community.

Another important NSW Government partner in the housing continuum is the community housing sector. This sector has grown considerably in the last five to 10 years and plays an important intermediary role in providing housing choice. Support for this sector will bolster opportunities for people to move out of social housing and provide greater support for the most vulnerable households living in housing stress.

Our planning needs to complement and support these initiatives and projects. It is our role to work collectively across government, the not-for-profit and private sectors to find innovative solutions that can address housing affordability and diversity. This includes the provision of greater housing choice for people with a disability, and the provision of larger homes for intergenerational or group households, seniors as well as housing and aged-care options.

Figure 4-7 shows how the Greater Sydney Commission's proposed initiatives align with the current NSW government initiatives.

4.3.1 Prepare local housing strategies

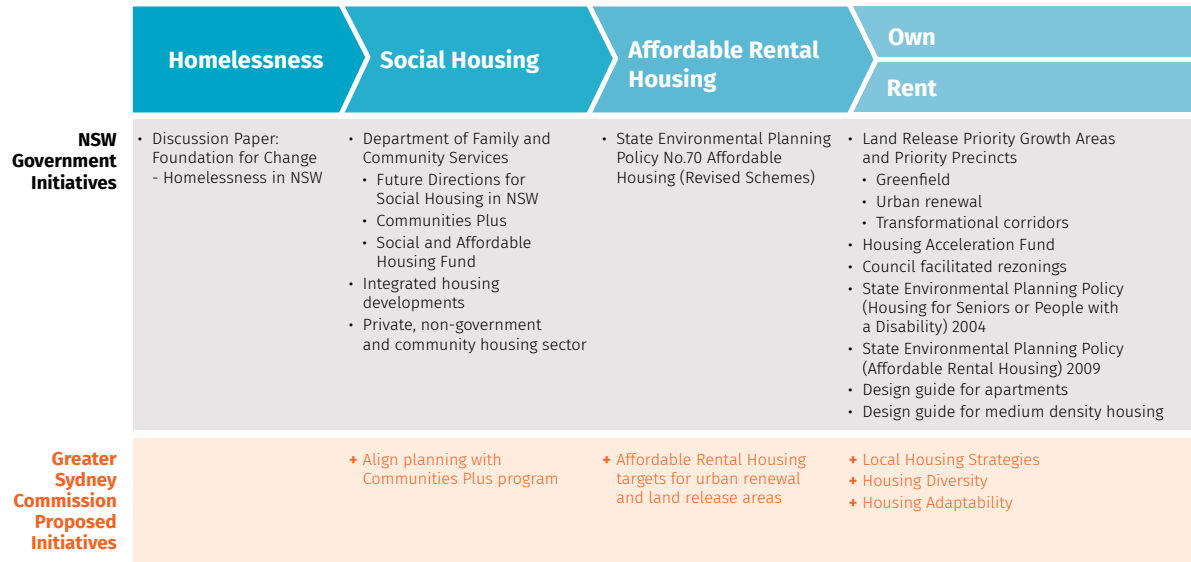
To provide a comprehensive understanding of how a district or local government area responds to housing need each Council will need to prepare a Local Housing Strategy. Alternatively Councils may agree to collaborate and prepare a District Housing Strategy. These strategies are to be underpinned by the housing continuum. The requirements are set out below and detailed in the following sections.

Action 1: Prepare local housing strategies

Councils will prepare local housing strategies and need to consider:

- the planning principles and directions in *A Plan for Growing Sydney*
- capacity to support the five-year housing target
- capacity to support the strategic housing need of the local government area for the next 20 years
- local demographic and socio-economic characteristics
- the local housing market including the feasibility of development for different housing types
- development staging and market take-up rates and how these aligns with demand
- challenges and opportunities relating to infrastructure provision
- urban form and place making
- accessibility of housing to employment opportunities
- ways to address housing diversity that responds to the needs of the existing and future local housing market including opportunities for, and blockages to, housing diversity and adaptability
- opportunities to improve housing affordability
- the prospective displacement of existing affordable housing
- opportunities for additional capacity around strategic and district centres and other areas with good transport connectivity and service provision
- specific local market complexities including addressing ways to incentivise the provision of larger group homes, smaller homes for singles and couples only, intergenerational homes and medium density housing required by the local community
- consider ways to provide adaptable housing in accordance with design guidelines by Livable Housing Australia.

Figure 4-7: NSW Government and Greater Sydney Commission housing initiatives

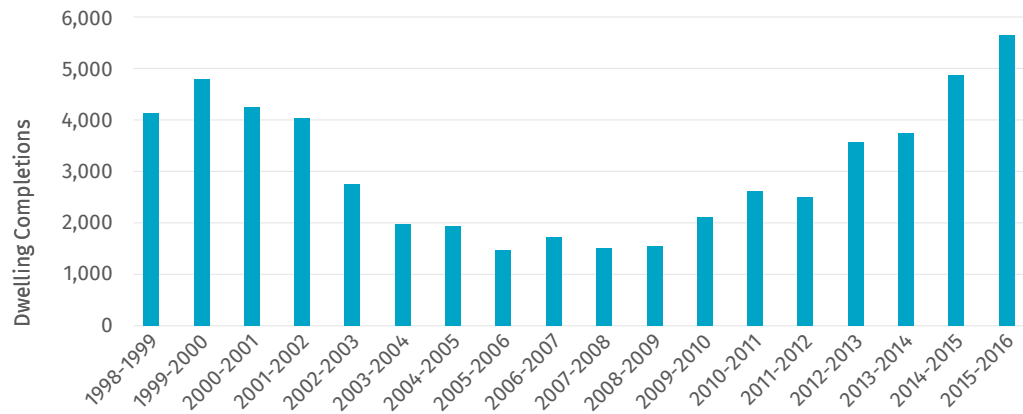


Source: Greater Sydney Commission 2016



Photo credit: Wollondilly Shire Council

Figure 4-8: South West District dwelling completions (1998-99 to 2015-16)



Source: Department of Planning and Environment, 2016 Metropolitan Housing Monitor Greater Sydney Region

4.3.2 Understand the Greater Sydney housing market and demand

To better understand how we can support the supply of new housing across the continuum in the South West District we need to first understand the factors influencing Greater Sydney's housing market together with the characteristics of more local housing markets operating within the District. The Housing Market Areas Map (Figure 4-11) provides a discussion on the specific housing markets identified in the South West District. A consideration of these factors should form the starting point for any local housing strategies.

Greater Sydney is experiencing a strong housing market with record levels of housing approvals fuelled by low interest rates, sustained population growth and a strong investor interest. Research provided by the Department of Planning and Environment tells us that dwelling approvals and completions are currently at their highest levels in 16 years for Greater Sydney and the South West District is experiencing high levels of completions after a period of decline and low production.

Figure 4-8 shows historic dwelling completions and Figure 4-9 shows additional dwellings across the District in the last five years and highlights development in the vicinity of Campbelltown-Macarthur, Liverpool and Fairfield, as well as growth in the South West Priority Growth Area.

Significant efforts in recent years by local and State government has provided substantial improvements in capacity to deliver a pipeline

of development across many parts of Greater Sydney. As a consequence, the 30,200 dwellings (excluding granny flats) completed across Greater Sydney in the 2015 / 2016 financial year is now closer to the estimated number of new dwellings we need each year to meet demand (36,250 dwellings per annum) than at any point in the past 16 years.

On this basis the Department of Planning and Environment estimates that Greater Sydney needs 725,000 additional dwellings over the next 20 years and 143,000 additional dwellings in the South West District.

The Commission considers that this projection is a minimum requirement for three reasons:

- it is based on the medium population growth scenario and if current trends continue, there is a prospect that a higher growth scenario could transpire leading to greater housing demand over the 20-year period of this draft Plan
- due to past undersupply in Greater Sydney's housing market there is 'pent up' demand at particular price points adding to demand for additional housing
- there is the case for a 'contingency' to be added to the demand estimates to address the two prior reasons along with any other unforeseen changes over the next 20 year period such as potential blockages to achieving supply.

Dwelling completions for Greater Sydney in 2016/2017 are anticipated to exceed the average annual demand figure of 36,250. This exceptional rate of supply, owing to the

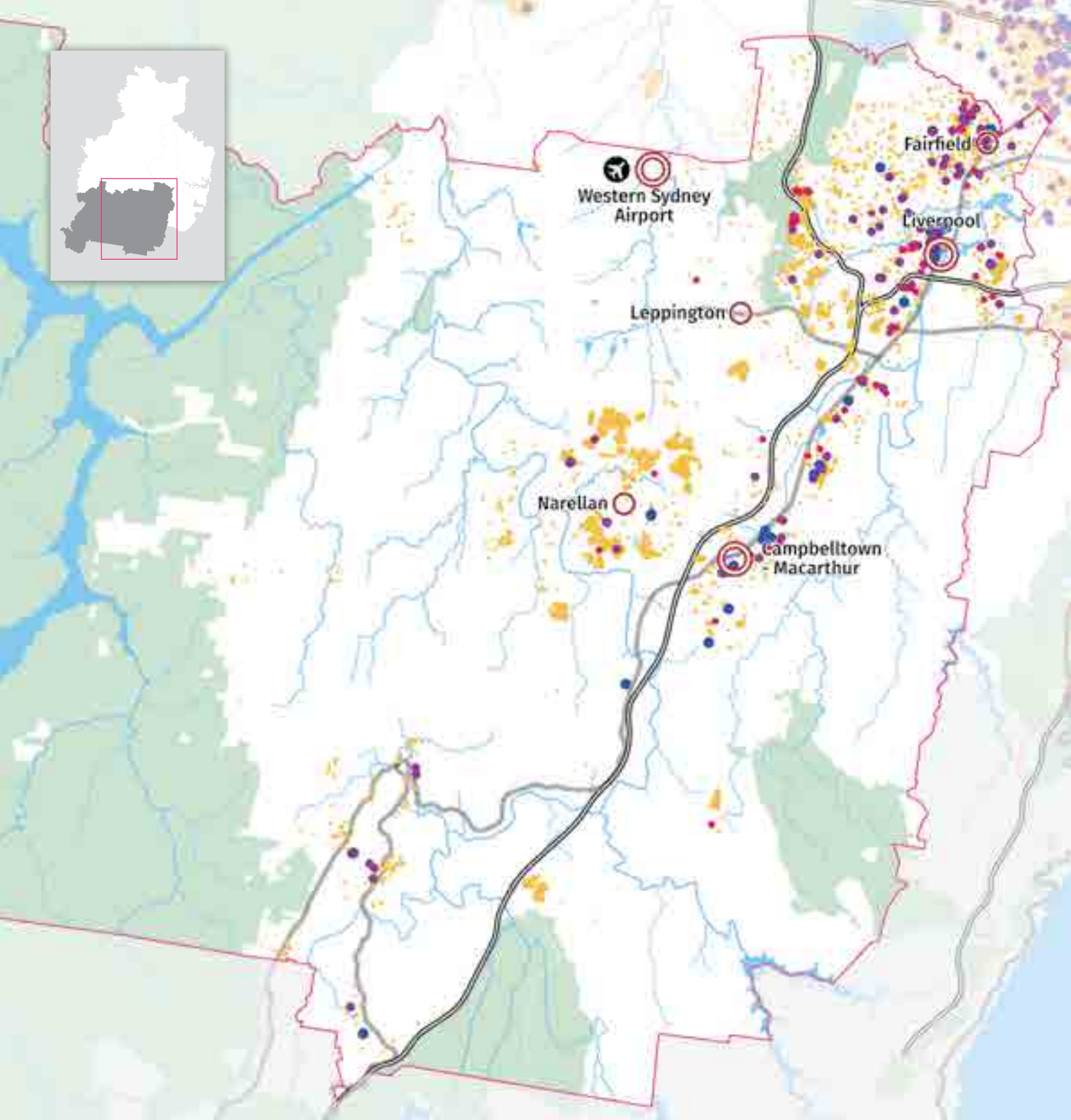
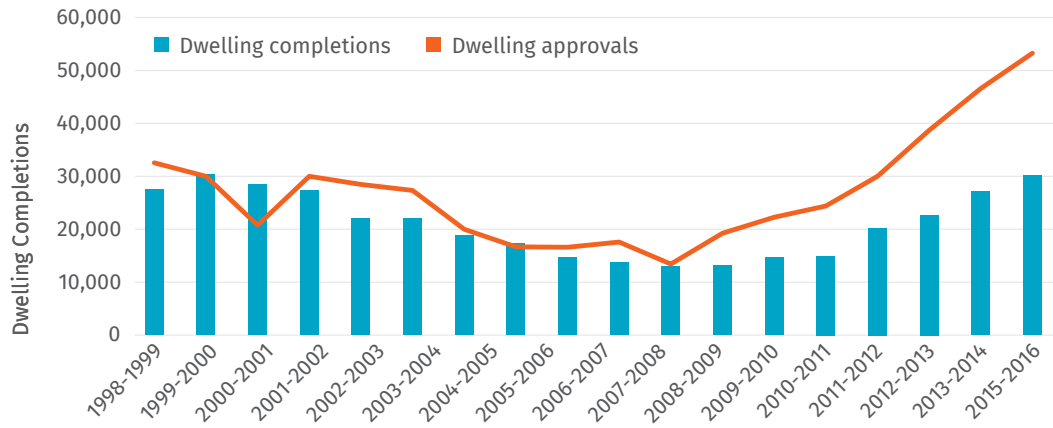


Figure 4-9: South West District dwelling completions (2010-11 to 2015-16)

	Strategic Centre		Metropolitan Rural Area		21+ Dwellings		Motorway
	District Centre		1-2 Dwellings		Scenic Hills		Highway
	District Boundary		3-5 Dwellings		National Parks and Reserves		Railway
	Urban Area		6-20 Dwellings		Waterway		Railway Station

Source: Department of Planning and Environment, 2016 Metropolitan Housing Monitor Greater Sydney Region

Figure 4-10: Greater Sydney historic dwelling completions and approvals (1998-99 to 2015-16)



Source: Department of Planning and Environment, 2016 Metropolitan Housing Monitor Greater Sydney Region

strong development pipeline, is anticipated to continue for the next few years under current market conditions. In fact, the rate of annual completions over the next few years is likely to reach the highest levels achieved since 1999/2000. Figure 4-10 shows the historic dwelling approvals and completions.

A peak of 37,800 completions per annum is possible under current market conditions. Even with this exceptional supply, this only modestly exceeds the average annual level of demand

and in turn only marginally counters the undersupply of housing that occurred over the past decade.

Furthermore given the timeframes associated with bringing new capacity on line and in turn delivering supply to the market, our research indicates that the planning system will need to continue to identify areas of additional capacity to sustain these outcomes going forward. Given the scale of the challenge to maintain this over the next 20 years we will start the



Greater Sydney Housing Market Areas

Research indicates that people living in Greater Sydney generally prefer to remain within their local area when they move, with 82% of residents moving to a new home within 15 kilometres of their former residence. For this reason we have investigated what this means for the South District so that people can have greater housing choice within their District.

The assessment of these preferences showed that Greater Sydney contains 18 housing market areas. The implication of these distinct housing market areas is that providing supply in one market demand area may not satisfy demand in another. Understanding need and capacity by individual housing markets will better provide for people's preferred housing choices.

South West District Market Areas

In the South West these areas are:

- Fairfield, centred on the established suburbs of Fairfield and Cabramatta
- Liverpool, including large areas of greenfield development such as the South West Priority Land Release Area
- Bankstown – Holsworthy, including four of the station precincts at Bankstown, Punchbowl, Wiley Park and Lakemba in the Sydenham to Bankstown Urban Renewal Corridor that are included in our supply forecasts.
- South West, including the South West Priority Growth Area, the proposed Greater Macarthur Priority Growth Area, Claymore Urban Renewal and Airds Bradbury Renewal Project.

The South West District also includes portions of the Penrith–Blue Mountains, Sutherland and Parramatta Housing Market Areas, though only in pockets that we consider too small to include in this plan. Instead they are addressed in the West, South and West Central District Plans respectively.

planning process to increase housing capacity opportunities in partnership with councils now.

On this basis, the Commission proposes a number of approaches to guide the process:

1. a five-year supply target by local government area (in accordance with Action 2.1.1 of *A Plan for Growing Sydney*)
2. a 20-year strategic housing target by local government area that allows for the planning for sustained capacity over the period of this draft Plan
3. the identification of new areas for housing to achieve these targets.

Each of these initiatives and how they relate to the South West District are explored further in the next section.

4.3.4 Deliver South West District's five-year housing targets

The Department of Planning and Environment's projections of population and household growth in South West District for the next five years translates to a dwelling need of 30,150 dwellings.

Owing to the current strong housing market, our testing using the Urban Feasibility Model – the Department of Planning and Environment's tool to understand housing capacity and the economic feasibility of residential development – confirms there are opportunities in the South West District to deliver beyond this minimum dwelling need in the short term. This is important to address pent up demand that has resulted from past undersupply. It is also important to address housing choice and affordability.

Therefore the Commission has identified a five year housing target that is based on both the District's dwelling need and the opportunity to deliver supply. The five year target relates to housing including traditional detached and attached houses, apartments and granny flats.

Fairfield has recently seen a substational increase in the number of granny flats.

The realisation of the housing targets relies on actions by the relevant planning authorities (from enabling planning controls through to development assessment), infrastructure provision and the continuation of current market conditions and industry's critical role in delivery.

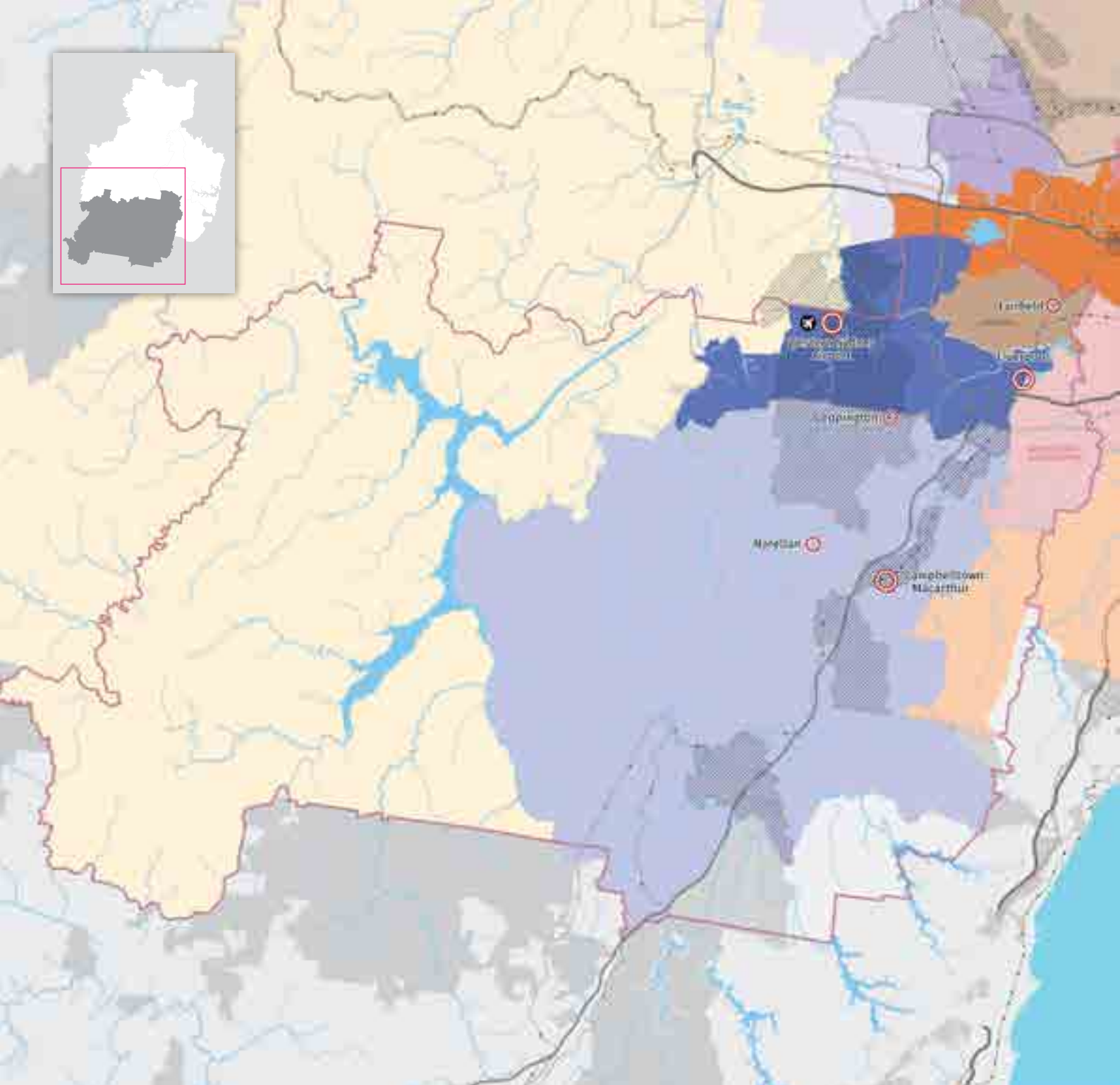


Figure 4-11: South West District housing market areas

Strategic Centre	Local Government Area (LGA)	Railway Station	Waterways
District Centre	Priority Growth Areas & Precincts	Motorway	National and State Parks
District Boundary	Railway	Highway	

Source: Greater Sydney Commission, 2016 adapted from *Implementing metropolitan planning strategies: taking into account local housing demand*, Technical Report (2013), City Futures Research Centre, UNSW.

HOUSING MARKET DEMAND AREAS

Penrith - Blue Mountains	Bankstown - Holsworthy	Parramatta
South West	Liverpool	
Sutherland	Fairfield	

Table 4-2: Five-year housing targets by local government area in the South West District

Local Government Area	2016-2021 Housing Target
Camden	11,800
Campbelltown	6,800
Fairfield	3,050
Liverpool	8,250
Wollondilly	1,550
South West District Total	31,450

Source: Greater Sydney Commission, 2016

NSW Government programs that increase capacity and supply including Priority Precincts, UrbanGrowth Transformation and Communities Plus projects support these targets.

In particular in Camden and Liverpool local government areas the Priority Growth Area programs led by the Department of Planning and Environment generate significant capacity for housing supply. This includes precincts at:

- Austral
- Leppington North
- Leppington (Stage 1)
- East Leppington
- Edmondson Park
- Oran Park
- Catherine Fields (Part)
- Turner Road

Other land release areas that are delivering housing supply outside growth areas include:

- Elderslie
- Harrington Grove
- Manooka Valley
- Spring Farm
- Blairmont
- Glenfield Road
- St Helens Park
- Aerodrome
- Pleasure Point
- Prestons
- South Hoxton Park
- Camden Park

The NSW government is also accelerating the capacity of housing supply across the District through the following projects:

- Claymore Urban Renewal
- Bonnyrigg Living Communities Project
- Airds Bradbury Renewal Project

Monitoring the realisation of these new homes in the South West District will help inform the preparation of the Commission's Annual Infrastructure Priority list and subsequent advice to the NSW Government.



Liveability Priority 1: Deliver South West District's five-year housing targets

It is a priority of the draft District Plans for Councils to deliver these five-year housing targets. Councils need to:

- plan to provide sufficient capacity and monitor delivery of the five-year housing targets
- liaise with the Commission to identify barriers to delivering additional housing in accordance with the targets

How these matters have been taken into account need to be demonstrated in any relevant planning proposal.

4.3.5 Establish South West District's 20-year strategic targets

Notwithstanding the existing strength of Greater Sydney's housing market, planning has a central role in ensuring sufficient capacity is created to support the delivery of a minimum of 725,000 additional new dwellings over the next 20 years across Greater Sydney.

This significant challenge requires sustained efforts by all councils. Given the timescales associated with development, a longer-term outlook and capacity-based approach is needed.

A capacity-based approach creates the opportunity to address a range of factors including:

- opportunities to address pent-up demand across Greater Sydney consistent with the estimates of the NSW Intergenerational

Report that there is unmet demand for a further 100,000 dwellings across NSW above the projection of dwelling need by the Department of Planning and Environment

- the prospect of the higher population projections for Greater Sydney being realised (the estimated demand for 725,000 additional dwellings by 2036 is based on the medium population projection scenario)
- the need to improve housing choice together with opportunities for people to live locally
- the productivity benefits of additional housing supply, consistent with the calculations provided by NSW Intergenerational Report
- the need for a contingency to support steady supply across each of Greater Sydney's districts in the case of unforeseen blockages
- that not all capacity built into the planning system is realised as development, nor are all approvals commenced or completed.

Councils should therefore start considering now, through the preparation of local housing strategies how additional capacity can be created from which the private and not for profit sector can deliver supply and housing choice. These housing strategies are to meet the District's 20-year housing target as a minimum.

In Wollondilly, Camden, Campbelltown and Liverpool local government areas there is significant capacity for housing supply into the long term generated through the Priority Growth Area programs led by the Department of Planning and Environment. These councils have an important role and focus on coordinating with State government in the delivery of these new communities. The opportunities for urban renewal and medium density are greatest along the existing rail corridors and in the northern part of the District

Table 4-3: South West District Minimum 20-Year Housing Targets 2016 – 2036

	Minimum 20 Year Housing Target 2016-2036
South West District*	143,000
Greater Sydney Total	725,000

Source: Department of Planning and Environment, 2016 NSW State and Local Government Area Population and Household Projections and Implied Dwelling Projections 2016-2036, NSW Government, Sydney

To ensure that new housing capacity opportunities leverage current and future infrastructure provision while improving Greater Sydney's equity and liveability, we will work with local and State Government, as well as communities and industry, to identify new and expanded opportunities for housing capacity in proximity to existing and planned infrastructure.

Once identified these areas can be incorporated as investigation areas within the final District Plans and the new Regional Plan for Greater Sydney to be developed in 2017. This process will also help us to establish a new and specific 20-year strategic target to 2036 for each local government area in 2017 and continue to inform our infrastructure priority list and advice to government.

The testing and progression of these areas through more detailed planning should then be undertaken via the preparation of council's local housing strategies and incorporate the Department of Planning and Environment's priority precinct program and other programs such as UrbanGrowth NSW and Communities Plus.

A framework to guide this process is set out in the following section and Section 4.2.6 provides preliminary analysis of these areas based on our initial research, Action L3 provides further guidance on where to focus investigation areas.

GSC **Action L2: Identify the opportunities to create the capacity to deliver 20-year strategic housing supply targets**

The Commission will:

- prepare 20-year strategic housing targets and include these in the final District Plan and the review of *A Plan for Growing Sydney*
- work with councils and the Department of Planning and Environment to identify investigation areas for additional housing capacity to form part of local housing strategies.

Strategic guidance for new housing capacity

A Plan for Growing Sydney's Goal 2 is for a city of housing choice, with homes that meet our needs and lifestyles. The Directions included:

- accelerate housing supply across Greater Sydney
- accelerate urban renewal across Greater Sydney – providing homes close to jobs
- improve housing choice to suit different needs and lifestyles
- deliver timely well planned land release precincts and housing

Since the release of *A Plan for Growing Sydney* the projections for growth have been revised upwards. The projections include multiple scenarios with the middle scenario of 725,000 additional dwellings over 2016-2036. This is an increase of 9% from *A Plan for Growing Sydney* owing to revised population projections. The projections for a high growth scenario require an additional 830,000 dwellings.

There is a need to accelerate housing supply across Greater Sydney to accommodate new housing growth while also responding to housing affordability. While the planning system cannot directly build new homes, we have a key role to play in creating opportunities for new housing in the right locations. We refer to this as 'capacity'.

To do this, we need clear criteria as to where additional capacity needs to be located. Our vision for accommodating homes for the next generation is intrinsically linked to planning for, and integration with, new infrastructure and services. We identify the opportunities to do this in three ways

Urban renewal

Urban renewal provides opportunities to focus new housing in existing and new centres with frequent public transport that can carry large numbers of passengers – meaning that more people can live in areas that provide access to jobs and services.

A Plan for Growing Sydney identifies possible urban renewal corridors. These opportunities need to be investigated further now to determine their ability to provide capacity for new housing in the medium (five to 20 years) and longer (20+ years) term. The need for this additional capacity

is greatest in the North and Central Districts.

In addition to the general guidance in *A Plan for Growing Sydney*, we propose the following criteria for investigating urban renewal corridors:

- alignment with investment in regional and district infrastructure. This acknowledges the catalytic impacts of infrastructure such as Sydney Metro Northwest and Sydney Metro City & Southwest, NorthConnex, WestConnex, Sydney CBD and South East Light Rail, Parramatta Light Rail and Northern Beaches Hospital and any other future projects committed to by the NSW Government. It also acknowledges the opportunities created by enhancements to existing infrastructure.
- accessibility to jobs, noting almost half of Greater Sydney's jobs are in strategic and district 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 within a decent travel time.
- the catchment area that is within walking distance of centres with regional transport.
- the feasibility of development, including financial viability across a range of housing configurations (one, two and three+ bedrooms) and consistency with market demand.
- proximity to services including schools and health facilities.
- consideration of heritage and cultural elements, visual impacts, natural elements such as flooding, special land uses and other environmental constraints.
- consideration of local features such as topography, lot sizes, strata ownership and the transition between the different built forms.
- delivery considerations such as staging, enabling infrastructure, upgrades or expansions of social infrastructure such as local schools, open space and community facilities.

Medium density infill development

Medium density development

within existing areas can provide a greater variety of housing sizes to suit individual household needs, preferences and budgets.

Many parts of suburban Greater Sydney that are not within walking distance of regional transport (rail, light rail and regional bus routes) contain older housing stock. These areas present local opportunities to renew older housing with medium density housing.

The Department of Planning and Environment's *Draft Medium Density Design Guide* shows how this local scale renewal can promote good design outcomes. The planning regulations that support delivery are set out in the Department's proposed Medium Density Housing Code.

Councils are in the best position to investigate opportunities for medium density in these areas, which we refer to as the 'missing middle'. Medium density housing is ideally located in transition areas between urban renewal precincts and existing suburbs, particularly around local centres and within the one to five-kilometre catchment of regional transport where links for walking and cycling help promote a healthy lifestyle.

New communities in land release areas

Greater Sydney's north west, west and south west contain land for new communities. The emerging shape of these new communities has shifted in recent years to take advantage of investment in infrastructure such as Sydney Metro Northwest or the rail line to Leppington.

Opportunities for more intense development around centres has seen a greater variety of housing types including apartments and terraces. A greater variety of housing choice is supported by housing diversity amendments to the *State Environmental Planning Policy (Sydney Region Growth Centres)* 2006. In the last decade there has been a major shift towards smaller lots which has resulted in a significantly higher dwelling yield.

Land release areas offer significant medium and long-term capacity in Greater Sydney's north west and south west.

4.3.6 Create housing capacity in the South West District

Over the last 10 years, a range of local government studies have investigated opportunities to increase capacity for housing supply in the South West District, including:

- Camden Residential Strategy (2008)
- Campbelltown Residential Development Strategy (2014)
- the draft Fairfield Residential Development Strategy for the east of the local government area (2014)
- Liverpool Residential Development Strategy (2008)
- Wollondilly Growth Management Strategy (2011).

A range of areas in the South West District are under investigation or already in the planning phase as part of the Priority Growth Area programs led by the Department of Planning and Environment. These will help to increase capacity beyond the five-year housing target.

The investigation of land for housing in the Kemps Creek, North Bringelly and North Rossmore areas in the Liverpool Local Government Area was originally undertaken as part of the South West Priority Growth Area. These precincts are now part of the Western Sydney Priority Growth Area and the City Deal for Western Sydney area. The precincts here are under investigation and will provide capacity for housing supply in the medium and long term.

Precincts in the South West Priority Growth Area that provide capacity for housing supply in the medium and longer term include

- Marylands
- Catherine Field North
- Catherine Field
- Lowes Creek
- Bringelly

Significant capacity is also being established through the Priority Growth Areas:

- Greater Macarthur Priority Growth Area including the Glenfield to Macarthur urban renewal corridor and land release precincts at Menangle Park, Mount Gilead and West Appin Urban Investigation Area
- Wilton New Town Priority Growth Area



Action L3: Councils to increase housing capacity across the District

In order to increase housing supply and choice councils are required to implement the following actions and where appropriate incorporate into local housing strategies:

Camden Local Government Area

The Council will:

- monitor the delivery of Camden's five-year housing target of 11,800 dwellings, recognising significant growth in the South West Priority Growth Area at Oran Park, Gregory Hills and Catherine Fields and other active greenfield areas
- continue to progress work on the South West Priority Growth Area with adjoining councils and the Department of Planning and Environment
- should the need for additional housing capacity be identified investigate opportunities for additional housing at local centres close to transport in the short to medium term that may assist in addressing housing diversity.

Campbelltown Local Government Area

The Council will:

- monitor the delivery of Campbelltown's five-year housing target of 6,800 dwellings, recognising significant growth in state-led growth areas at Edmondson Park, Leppington and Leppington East
- continue to progress work on the Greater Macarthur Priority Area and in partnership with Wollondilly Council and the Department of Planning and Environment
- continue to progress work on the South West Priority Growth Area with adjoining councils and the Department of Planning and Environment
- continue to progress work with Land and Housing Corporation projects including on the Airds Bradbury and Minto Renewal Projects with the Department of Family and Community Services

Fairfield Local Government Area

The Council will:

- monitor the delivery of Fairfield's five-year housing target of 3,050 dwellings recognising the existing opportunities under current planning controls
- progress the current program to implement Residential Development Strategy East to support additional housing
- progress work on the Bonnyrigg Living Communities Project
- in the medium term, investigate further local opportunities to address demand and diversity in and around local centres, in infill areas and at locations close to transport.

Liverpool Local Government Area

The Council will:

- monitor the delivery of Liverpool's five-year housing target of 8,250 dwellings recognising feasibility issues within the area
- investigate local opportunities to address demand and diversity in and around local centres and infill areas and at locations close to transport
- continue to progress work on the South West Priority Growth Area with adjoining councils and the Department of Planning and Environment
- continue to progress investigations in the Western Sydney Priority Growth Area in partnership with the State and Federal Government.
- work with Land and Housing Corporation to progress delivery of Community Plus projects at Liverpool and Warwick Farm.

Wollondilly Local Government Area

The Council will:

- monitor the delivery of Wollondilly's five-year housing target of 1,550 dwellings recognising proposals progressing in Picton, Tahmoor and Thirlmere
- should the need for additional housing capacity be identified investigate local opportunities to address demand and diversity in and around local centres and infill areas
- continue to progress work on the Greater Macarthur Priority Area in partnership with Campbelltown Council and the Department of Planning and Environment
- continue to progress work on the Wilton New Town Priority Growth Area in partnership with the Department of Planning and Environment.

4.4 Improve housing diversity and affordability

Quality of life relies on how connected people feel within society and how cohesive and safe their community is. Many people want to stay in the area where they have always lived, regardless of their stage of life. This keeps them connected to friends and family, GPs, services, community facilities and local clubs. Our planning can help to facilitate this, by providing a mix of all the different types of housing people need. This is known as housing diversity.

4.4.1 Plan for housing diversity

Of the new homes built over the last five years, detached homes were the dominant type of new housing, except in the Fairfield Local Government Area, where more multi-unit developments, such as apartment buildings were constructed. The proportion of medium density dwellings and apartments is growing in Campbelltown and Liverpool.

Where dwelling stock is mostly detached and the ageing population is expected to grow, there will be significant growth in demand for smaller homes. The South West District's increasing proportion of older people and people with a disability will require the delivery of additional smaller homes, group homes, adaptable homes and aged care facilities, recognising that the ability for people to adapt their existing housing is essential as they age and transition through life. More medium density row, terrace and villa homes are also required to provide greater diversity.

Planning for a diversity of housing needs to first consider the nature of existing housing stock (dwelling type or bedroom mix) and current and future needs. It then needs to consider the commercial feasibility of different housing types – for example, the financial viability of different housing types such as studios compared to three-bedroom apartments - as these can vary greatly in different areas.

We need innovative responses to feasibility barriers, particularly in areas where demand for smaller homes is combined with low floor space ratios and/or mostly detached dwellings, creating a barrier to building medium density housing. Some planning controls inhibit the development of larger intergenerational or group homes.

Due to planning context and recent economic conditions there has been a reasonable supply of apartments in Liverpool and Fairfield local government areas and this is expected to continue. This can provide transitional housing for seniors and more affordable homes for young people; however, they do not supply the full range of housing types. More medium density row, terrace and villa homes are also required to provide greater diversity. In addition, the South West District's increasing proportion of older people and people with a disability will require the delivery of additional smaller homes, group homes, adaptable homes and aged care facilities.

This projected growth in people aged 65+ in the South West District will also result in a proportional increase in demand for health and community services together with cultural activities that facilitate continued social inclusion. The ability to age in place, and in community, is fundamental to liveability, as it allows people to maintain established connections with neighbours, friends and family, and importantly, with health and community services.

A recent review of the Department of Planning and Environment's Apartment Design Guidelines provides consistent planning and design standards for apartments across NSW. The Department of Planning and Environment has prepared similar guidance for medium density housing.

Updated data on housing completions and types, housing market areas and demographic change will drive more appropriate planning responses.

Councils should consider the needs of the local population base in their local housing strategy and how to align local planning controls and good design outcomes for different types of housing.



Action L4: Encourage housing diversity

To encourage housing diversity the Department of Planning and Environment will:

- develop a toolkit to support the preparation of local housing strategies
- provide housing data to the development sector, councils and financiers to help them to understand the existing housing mix provision and meet the appropriate housing mix.



Liveability Priority 2: Deliver housing diversity

Relevant planning authorities should consider the needs of the local population base in their local housing strategy and how to align local planning controls that:

- address housing diversity that is relevant to the needs of the existing and future local housing market
- deliver quality design outcomes for both buildings and places.

How these matters have been taken into account need to be demonstrated in any relevant planning proposal.

4.4.2 Support planning for adaptable housing and aged care

Our planning should support adaptable housing that can be easily modified to become accessible to accommodate people who are aging or living with a disability. Adaptable housing can better accommodate these needs where it conforms to guidelines published by Livable Housing Australia. These guidelines relate to good housing design and adaptability and set out features that create long-term homes for the whole community, regardless of age, ability or changing life circumstances.

The best way to provide seniors housing and aged care is to co-locate them in places that have a mix of different uses and services, with good quality footpaths and pedestrian connections that make it easy for people to meet their day to day needs, or visit health services and community and cultural facilities. These places also need adequate parking for in-home care visitation services.

4.4.3 The Affordable Housing Challenge

The difference between housing affordability and Affordable Rental Housing

This draft District Plan uses two different but interrelated terms. Housing affordability is a broad term that we use to describe the challenges people across a range of income groups experience in finding affordable accommodation to rent or own.

If a household is spending more than 30% of their income on housing costs it is likely to impact their ability to afford other living costs such as food, clothing, transport and utilities. Because of this, these households are described as being in 'housing stress' and in need of affordable housing options.

In contrast Affordable Rental Housing is a specific term that we use to describe our approach to addressing the gap in housing provision for those on low and very low incomes.

The Greater Sydney housing market is recognised as one of the least affordable in the world. In the last decade alone, the ratio of house prices to incomes has continued to grow while median rents have increased in real terms. Our stakeholder engagement identified housing affordability as a key challenge for the South West District and more broadly for Greater Sydney.

This challenge is particularly acute in established areas undergoing urban renewal and gentrification, but is also evident in land release development. Development provides additional housing but can also reduce the affordability of housing and displace low income households.

More broadly, the provision of affordable housing across a range of tenures, types and price points is more than a liveability priority. Internationally, the provision of more affordable forms of housing is recognised to have notable productivity benefits. One London-based study found that over £1 billion a year would be lost in potential extra economic output if London failed to meet the affordable housing needs of its residents.

For this reason, this draft District Plan identifies a range of measures to improve affordability across the housing continuum. We want to encourage the supply of housing with a focus on the type of housing that the District needs as it grows, not just in numbers, but also in the diversity of housing types and sizes that offers different price points and can help improve affordability. However, housing supply and diversity are only part of the solution, and an Affordable Rental Housing target complements these approaches to the affordable housing challenge.

A target also complements other government initiatives to address affordability across the housing continuum that include the Department of Family and Community Services Social and Affordable Housing Fund and Communities Plus initiatives.

In addition, implementation of the Affordable Rental Housing target outlined here does not impede the operation of other existing planning controls that address affordable housing such as *State Environmental Planning Policy 70 - Affordable Housing (Revised Schemes)* and *State Environmental Planning Policy (Affordable Rental Housing) 2009*. This target does not preclude councils from negotiating additional affordable housing for moderate income households, nor does it affect existing planning mechanisms that secure affordable housing across the full income range, such as those in the City of Sydney or Willoughby.

4.4.4 Deliver Affordable Rental Housing

Affordable Rental Housing Targets

This draft Plan proposes an Affordable Rental Housing Target that builds on Action 2.3.3 of A Plan for Growing Sydney. It requires State and local governments to create affordable housing within government-led urban renewal projects. Our approach seeks to give greater clarity to councils and the development industry with regards to implementing Action 2.3.3.

While affordable rental housing targets are not new to Greater Sydney, to date the approach in significant developments such as Sydney Olympic Park, Rouse Hill, Redfern and Green Square has not been consistent. Our approach will be transparent, and tailored to the urban economics of the area in question so as not to hinder housing supply outcomes, and to meet the needs of Greater Sydney's most vulnerable.

The implementation of an Affordable Rental Housing target complements other approaches to the housing affordability challenge, such as increasing the supply of homes across Greater Sydney (as set out in the previous section of this plan) and assisting households that require government support via social housing.

Low and very low income households need the greatest help in securing affordable housing options. Recent research by the Australian Housing and Urban Research Institute found that the group of households most likely to be in long-term housing stress are couples with children (particularly those aged between 35 and 54) and households with a family member with a disability. Recent research estimates that Greater Sydney requires at least 4,000 to 8,000 additional affordable dwellings per annum to meet the needs of this income group.

Our approach to affordable rental housing has therefore been designed to meet the needs of Sydney's most vulnerable to:

- provide additional rental opportunities (in urban renewal and land release areas) in light of declining rental affordability across Greater Sydney
- support residents transitioning out of social housing

- provide housing opportunities closer to employment centres that will, in turn, reduce pressure on transport infrastructure.

Who is eligible for housing provided through this Affordable Rental Housing Target?

Affordable housing is defined under the EP&A Act as housing for very low income households, low income households or moderate income households.

Low and very low income households are the most vulnerable to housing stress because proportionally, they have less money for living costs once they have paid their housing costs.

This draft District Plan identifies the most vulnerable households as eligible for housing secured by Affordable Rental Housing Targets and defined by the income groups in the table below.

Household income	% of median Sydney income	2016/17 income range
Very low	50%	< \$42,300 per annum or \$813 per week
Low	50% – 80%	up to \$67,600 per annum or \$1,300 per week

People on moderate incomes also experience housing stress and often work in key service areas such as health and education. We will support housing affordability for these groups more generally by providing greater housing choice a mix of types and price points as discussed in section.4.3.1.

The Affordable Rental Housing Target therefore aims to:

- be directed to eligible households on low and very low incomes whose housing needs are not met by the market
- support a mix of household types within communities
- support the transition out of social housing
- support development of the community housing sector.



Liveability Priority 3: Implement the Affordable Rental Housing Target

Building on Action 2.3.3 of *A Plan for Growing Sydney*, when preparing planning proposals or strategic plans for new urban renewal or greenfield areas, the relevant planning authority will include an Affordable Rental Housing Target as a form of inclusionary zoning.

A target of 5% to 10% of new floorspace will be applied at the rezoning stage so that it can be factored into the development equation:

- within areas that have been shown, via a local housing strategy, or another form of appropriate research, to have current or future need for affordable rental housing
- to applicable land within new urban renewal or land release areas (government and private) subject to development feasibility assessed at a precinct scale
- to all new floor space (above the existing permissible floor space)
- in addition to local and State development contributions and cognisant of any public or private subsidy for affordable rental housing provision
- to provide a range of dwelling types including one, two and three+ bedroom homes
- in accordance with any relevant guidance developed by the Commission and Department of Planning and Environment.

The Affordable Rental Housing dwellings will be secured by the relevant planning authority and passed onto a registered Community Housing Provider to manage, further developing this emerging sector of the economy.

In this regard, we encourage the NSW Government to bring forward its own land to maximise affordable housing and Affordable Rental Housing.

How these matters have been taken into account need to be demonstrated in any relevant planning proposal.



Action L5: Independently assess need and viability

We will work with industry, community housing providers and the Department of Planning and Environment to enable clear and consistent implementation of the target that is cognisant of flow on housing supply implications.

Where required, we will act independently to verify the development feasibility of a nominated target. We will also provide advice to government and determine where exceptions may be granted - for example, where the provision of affordable housing would financially hinder the delivery of a critical or major component of city-making infrastructure.

We will undertake a strategic needs assessment for Affordable Rental Housing across Greater Sydney to support the work of relevant planning authorities in preparing their local housing strategies.



Action L6: Support councils to achieve additional affordable housing

In relevant areas, we will support councils and the Department of Planning and Environment in amending *SEPP 70 - Affordable Housing (Revised Schemes)*. The application of the target identified in this District Plan should not prejudice negotiations to secure affordable housing in other locations where this target is not applicable.



Action L7: Provide guidance on Affordable Rental Housing Targets

We will prepare a guidance note on Affordable Rental Housing Targets in collaboration with the Department of Planning and Environment, local government, State agencies, community housing providers, the private sector and the community.



Action L8: Undertake broad approaches to facilitate affordable housing

To address housing affordability more broadly, we will work with councils, industry, financial institutions and relevant State agencies (including community housing providers) to investigate or advocate for new opportunities, such as:

- planning approaches to support the community housing sector to better leverage housing affordability supply outcomes
- broader financing and taxation changes such as changes to asset classes for superannuation funds
- amendments to existing tenancy legislation to allow longer term rental leases to improve security of tenure
- more cost effective and innovative building approaches, including pre-fabricated and modular housing, collective housing, maximum car parking rates and more compact housing forms of suitable design quality.

4.4.5 Support social housing

Just under 18,500 South West District households receive social housing – this represents 5% of all District households. There are clusters of social housing in the Campbelltown area, Macquarie Fields, Bonnyrigg, Currans Hill, Liverpool and Fairfield.

There is considerable demand for social housing and this is expected to increase. Furthermore, in previous years there has been a net loss of supply. To reverse this trend the Department of Family and Community Services commenced Communities Plus. This program is a self-funded, accelerated development program designed to create integrated communities containing affordable housing, replacement and new social housing, as well as private homes.

Communities Plus

Communities Plus will deliver up to 23,000 new and replacement social housing dwellings, 500 affordable housing dwellings and up to 40,000 private dwellings across Greater Sydney.

Communities Plus is based on an asset management framework that leverages the value of the existing portfolio to accelerate supply.

Communities Plus will redevelop existing social housing estates by engaging private sector developers and Community Housing Providers to design, fund and build affordable, social and private housing. As each development is completed, new social housing properties are handed back to the Department of Family and Community Services as payment for the land, making the program entirely self-funded.

Community Housing Providers will manage the social housing properties and own and manage the affordable housing component, further developing this emerging sector of our economy.

Currently, many social housing sites are subject to planning controls based on historical land use, rather than reflecting the local environmental capacity for density and height uplift. The Commission and the Department of Planning and Environment are working with Land and Housing Corporation, councils, Transport for NSW and other State agencies to adapt planning controls to maximise outcomes for the Communities Plus projects and thereby the residents of Greater Sydney.

The South West District will continue to require social housing and much of this provision will come through Communities Plus.

Three neighbourhood projects have been identified by Communities Plus in the South West District at Liverpool and Warwick Farm.

A 1,758 square metre site on Bigge Street, Warwick Farm will be part of Stage 1 of Communities Plus, providing a mix of medium and high density homes.

Stage 2 projects comprise sites at Anderson Avenue, Liverpool and Mannix Parade, Warwick Farm.

This draft District Plan recognises and supports the ambition to provide a mix of housing on existing sites to create well-designed, socially cohesive communities.



Liveability Priority 4: Increase social housing provision

Relevant planning authorities and the Department of Family and Community Services (and the Land and Housing Corporation) should collaborate to optimise housing and community diversity outcomes on sites of social housing concentration.

Subject to appropriate consultation, feasibility considerations and environmental assessment, relevant planning authorities should translate optimal outcomes for social housing sites into land use controls.

How these matters have been taken into account need to be demonstrated in any relevant planning proposal.

4.4.6 Facilitate integrated infrastructure planning - managing growth

Action 3.1.1 of *A Plan for Growing Sydney* requires support for urban renewal by directing local infrastructure to centres where there is growth. A major challenge in creating capacity for additional housing, particularly in land release and major urban renewal areas, is the coordination of infrastructure and land use planning so that infrastructure is delivered

in the right place at the right time, in line with actual growth. This requires a detailed understanding of forecast growth and infrastructure investment programs across a range of providers and locations.

A more targeted and coordinated approach to planning and delivering regional, district and local infrastructure would achieve this, whilst also expediting investment and development, and potentially boosting the delivery of new housing.

This approach to coordinated infrastructure planning could involve:

- working with the private sector to advance designs for infrastructure to achieve greater certainty of delivery costs and constraints
- reviewing development forecasts annually to create more accurate information about timing and location of development
- staging development to get the most efficient use of existing infrastructure capacity
- staging infrastructure delivery using interim solutions including packaged wastewater treatment systems and temporary intersection improvements
- involving the community in decision making about infrastructure investment to ensure that it meets local needs.

This approach will help inform the update and review of funding arrangements for State infrastructure through Special Infrastructure Contributions, as well as inform the Commission's Annual Infrastructure Priority List.



Action L9: Coordinate infrastructure planning and delivery for growing communities

The Commission will work with the Department of Planning and Environment to better coordinate land use and infrastructure strategies at a State, district and local level to deliver infrastructure to growing communities as needed.

4.5 Coordinate and monitor housing outcomes and demographic trends

Through the housing continuum approach, we will draw together all the actions and programs across State and local government as well as the not-for-profit and private sectors to improve our understanding of where new homes are needed and the type of dwellings required. This, in turn, determines planning needs for education, transport, utilities and other infrastructure.

The construction of new homes is a major economic activity and requires a supply of skilled workers, access to capital and availability of materials. To support the construction of new homes all stakeholders need up to date information on housing supply to coordinate supply capacity, infrastructure and delivery.

The Department of Planning and Environment publishes annual housing completions, which will be improved by the inclusion of more detailed data describing all types of housing. Supply forecasts and completions data needs to consider all housing types so that the mismatch of supply and demand can be closely monitored and used to inform activities across the sector.

The Department of Planning and Environment also prepares demographic projections and provides advice on demographic trends. Population projections that accurately describe projected changes in population characteristics like age and household type also inform planning for education, emergency services, utilities and transport.



Action L10: Provide data and projections on population and dwellings for local government areas across Greater Sydney

The Department of Planning and Environment will:

- regularly prepare updates to 20-year population and dwelling projections for NSW by local government area
- prepare a housing needs assessment that will assist the preparation of local housing strategies
- continue to release 20-year projections of population growth, including:
 - projections for age profiles (including student population age cohorts)
 - households types
 - implied dwellings
- publish annual 10-year housing supply forecasts that:
 - include forecast supply by local government area
 - enhance the existing forecasts to include details of housing types
 - include housing completions across Greater Sydney, including those in new growth areas, to allow comparison of projections and completions.

4.6 Create great places – not just building houses

Culture and climate differ all over the world, but people are the same. They'll gather in public if you give them a good place to do it.

Jan Gehl, Danish architect and urban designer

The South West District is unique in Greater Sydney – a bushland city that is completely transforming. From a design perspective, this transformation must retain the highly valued liveability characteristics such as the bushland setting, vistas and waterways while renewing existing areas and creating new areas that help people to feel happy, healthy, safe and part of their community. This goes well beyond the planning for new homes, and instead requires a focus on whole new communities.

Our planning must do more than roll out vast expanses of poorly-designed housing across the landscape creating ugly, featureless estates, rather than creating new liveable, sustainable neighbourhoods. We need to recognise and build on the valued characteristics of individual neighbourhoods, and for the South West's new suburbs design new places, not just build houses.

Some of the District's older housing estates were so poorly designed that they have been completely replaced, such as in Bonnyrigg and Minto. Some more recently developed areas are less than ideal with almost identical houses, their footprint nearly covering entire small lots, ridgelines being built over, and the use of dark hard surfaces coupled with lack of green canopies, creating urban heat islands.

We need to move away from generic design and encapsulate the spirit and landscape of the South West District - places of woodlands and waterways, open space and green connections, and views to hills and tree-covered ridgelines.

This draft District Plan looks at how we can work across government to provide the kind of places and facilities that help to build a more cohesive community.

4.6.1 Provide design-led planning

Design-led planning aims to produce good quality integrated urban land use and transport as key elements of a people-centred, sustainable and liveable environment. It involves working with communities to identify the key strengths of a place – what makes it special – and ways to enhance this in the future. Clear, shared goals can then be used to shape future initiatives, decision-making, development proposals and funding.

The NSW Government's draft architecture and urban design policy, *Better Placed* (October 2016), seeks to deliver design excellence and a safe, equitable and sustainable built environment. It outlines the importance of successful design for cities and towns noting that:

- Cities and centres are linked through **economic** factors: they support industry and commerce, employment and services. Accommodating an agglomeration of people and activity is key to a city or centre's productivity.
- Collectively, urban development is responsible for significant **environmental** and greenhouse impacts, energy use and displacement of ecological and agricultural land.
- Cities and towns welcome and house people and **communities**. The coming together of people in urban places plays an essential social function in accommodating relationships.

The draft policy advocates design-led planning and notes that '*the role of urban design and architecture is essential to all three of these factors and is a key determinant of successful urban places*'.

The Draft Policy on Urban Design and Architecture establishes seven principles of urban design that are relevant to the District. These include:

Better Placed: Seven Principles

Principle 1: Contextual, local and of its place. The urban environment is where most of us live, work and recreate.

Places should be designed to be integral with local people and cultures and connected to their landscape and setting. In this way, a place will be 'of its location' - distinctive, resonant and engaging.

Principle 2: Sustainable, efficient and durable. Cities, towns and the infrastructure they require have both a positive and negative impact on environmental quality and climate change.

An urban area should be designed to be accessible and compact; to minimise consumption of energy, water and natural resources; and to avoid detrimental impacts on natural systems. It should be designed to respond and adapt to changes over time.

Principle 3: Equitable, inclusive and diverse. The city represents the coming together of the full spectrum of society in a mutually beneficial arrangement.

Cities and towns must accommodate and provide access to opportunities for all. Urban design should provide equitable access to housing, employment, public transport, public space and social opportunities.

Principle 4: Enjoyable, safe and comfortable. How people experience cities has a daily impact on people's lives, and investment in development and infrastructure can have an impact for decades and generations.

Urban design should be people focused, providing environments that are user-friendly, enjoyable, accessible and dignified.

Principle 5: Functional, responsive and fit for purpose. As the setting for our daily lives, the urban environment must work well for a wide range of purposes.

Urban design can influence the functionality and workability of urban areas permanently, and so design quality at the outset is essential.

Principle 6: Value-creating and cost effective. Substantial investment goes into the urban environment and infrastructure from a range of sources.

Well-designed urban places have the potential to be highly cost effective over the long term, creating ongoing and increasing value for all.

Principle 7: Distinctive, visually interesting and appealing. For most people the urban environment is where we live our daily lives.

The design of the city or precinct is fundamental to how it looks, feels and works for people. Poor design has a lasting, negative impact, while good design provides ongoing benefits for all.

The draft policy supports productivity, environmental management and liveability by fostering quality processes and outcomes in the delivery of housing, employment, infrastructure, open space and public areas.

Accordingly, this draft District Plan seeks to deliver several specific design-led planning outcomes, including:

- considerations for planning strategic and district centres (Section 3.4)
- design guidelines for medium density housing (Section 4.3)
- design guidelines for safe and healthy built environments (Section 4.6)
- urban agriculture, community and roof gardens for productive food systems (Section 4.6)
- integration of arts and cultural strategies, investment and actions into urban development (Section 4.7).
- support for enhanced sharing of community resources and spaces (Section 4.7)
- Aboriginal, European and natural heritage considerations (Section 4.7).

These areas emphasise the broad range of outcomes that need to be balanced when planning for an area. Design-led planning and the design principles inform the process for considering how to balance competing objectives while delivering on the core needs of the community such as sufficient housing, affordable housing, economic activity – thus jobs. This is particularly important in the context of the three guiding principles that underpin the planning for how Greater Sydney grows as outlined in *A Plan for Growing Sydney*.



Action L11: Provide design-led planning to support high quality urban design

To provide high quality urban design, we will support the NSW Government Architect in the development and implementation of design-led planning approaches, specifically for Collaboration Areas and planning for centres and precincts.

4.6.2 Plan for safe and healthy places

As documented by the Heart Foundation, healthy built environments help prevent physical and mental health problems. This is achieved through the provision of functional well connected streets and public spaces, in neighbourhoods that fulfil the services and social needs of residents. Building on Action 3.3.1 of *A Plan for Growing Sydney* guidelines for the planning, design and development of a safe and healthy built environment can potentially be more effective if they are incorporated into broader considerations outlined in the Liveability Framework and the Draft Policy on Urban Design and Architecture.

Design-led planning of the public realm – footpaths, squares, open spaces, parks and nature strips – should result in places and streets that are safe and functional that can support people to walk or cycle rather than drive.

Walkable, well-lit places and paths can provide a sense of safety for women, young children and older people, all of whom are often the first to sense that a neighbourhood is not safe – especially after dark.

Functional streets must also provide easy connections to day to day need and transport options. Co-located schools, transport and services in mixed use areas capable of growth

will improve the sustainability of these centres and their communities and enhance accessibility with the potential to reduce congestion.

Healthy built environments can also facilitate access to fresh seasonal food. Design-led planning for productive roof gardens, community gardens and other forms of urban agriculture can facilitate better health outcomes and greater community cohesion.

These characteristics of healthy safe environments can encourage more active lifestyles helping to reduce obesity and the rate of chronic illnesses such as diabetes and cardiovascular disease.



Liveability Priority 5: Facilitate the delivery of safe and healthy places

Relevant planning authorities should:

- facilitate the development of healthy and safe built environments
- consider the inclusion of planning mechanisms such as floor space bonuses to incentivise the provision of:
 - neighbourhoods with good walking and cycling connections particularly to schools
 - social infrastructure such as public libraries or child care
 - urban agriculture, community and roof gardens for productive food systems.

How these matters have been taken into account need to be demonstrated in any relevant planning proposal.



Action L12: Develop guidelines for safe and healthy built environments

The Commission will work with the Department of Planning and Environment to develop design-led planning guidelines for developing a safe and healthy built environment.

4.6.3 Enhance walking and cycling connections

We see better walking and cycling connections and end of trip facilities, such as lockers and showers at a workplace, as a way to increase activity levels and improve health and wellbeing. This requires thoughtful planning to enable well designed footpaths and cycling facilities that link to services and transport options.

Co-location of complementary land uses such as shops, schools, child care, community and recreation facilities helps people to interact and improves the viability of public transport, walking and cycling, while interconnected networks of footpaths and bicycle paths can connect people to these places, increasing activity levels and reducing congestion.

Within the eastern part of the District, most areas have access to at least one centre within a 30-minute cycle ride. In the north east of the District, it is possible to travel between at least two centres within 15 minutes. Walking is the first and last mode of transport for most typical trips – for example, from where people park to their workplace, or from their home to a bus stop. It is therefore a fundamental component of how we live our daily lives and of a liveable community.

The South West District offers many opportunities to increase walking and cycling for local trips given the large proportion of trips under five kilometres that are taken by car.

Transport for NSW is developing a Walkability Tool that will help to identify areas where improvements to the walking environment can be made. The tool assesses how easy it is to access services and destinations by foot, the relative comfort of walkways along adjacent roads and how easy it is for walkers to access public transport.

Transport for NSW's *Sydney's Walking Future* and *Sydney's Cycling Future* reflects the NSW Government's commitment to working with councils to make walking and cycling more convenient, safer and enjoyable. Funded through the Walking Communities program, improvements to the walking network will help to reduce the amount of time people spend at intersections, enhance facilities for pedestrians, and encourage more people to travel on foot.

Transport for NSW is also establishing Sydney's

Principal Bicycle Network. This will be made up of high quality, high priority routes that facilitate direct, barrier-free travel between centres. Routes will be separated from motor vehicles and local bicycle routes will connect in to form a finer grain cycling network.

The following Transport for NSW initiatives are under investigation:

- developing a Sydney Principal Bicycle Network aimed at connecting centres regardless of scale in collaboration with local government in the South West District
- completing the missing links in the existing bicycle network around Liverpool to improve access to Liverpool CBD including completing the network of cycleways within Liverpool City Centre
- connecting walking routes within two kilometres of Liverpool and Campbelltown-Macarthur and public transport interchanges.

Other walking and cycling projects in the South West District will continue to be delivered by both Roads and Maritime Services and local councils, and will be funded under the NSW Government's Walking and Cycling programs.

Transport for NSW and Roads and Maritime Services will continue to provide guidance to councils when making land use decisions that affect accessibility in and around centres.



Liveability Priority 6: Facilitate enhanced walking and cycling connections

Relevant planning authorities should facilitate enhanced walking and cycling outcomes by giving due consideration to the delivery of district and regional connections and walkable neighbourhoods.

How these matters have been taken into account need to be demonstrated in any relevant planning proposal.

4.7 Foster cohesive communities in the South West District

People are proud to call the South West District home. As the District grows, we have a responsibility to create cohesive communities each with their own sense of place. Our aim is to build on the District's strengths. The history, heritage and cultures of our District are expressed in the unique characteristics of our neighbourhoods. These valued qualities, together with the District's diverse communities give rise to local identity and a sense of belonging. Growing the great places of the South West District requires protecting, and where possible, enhancing these highly valued liveability characteristics.

Our consultation tells us that the cultural and social aspects of life in the South West District are important. People support multicultural businesses and the District's many multicultural events. It was noted that the District lacks a vibrant night time economy including safe places to go for a fun night out, especially for young people, without having to leave the District, and people called for more and safer public transport at night.

Through design-led planning we will work with communities to identify the key strengths of unique places within the District, and ways to enhance these in the future. We can enhance social cohesion and achieve this by protecting the heritage and local identity of the many unique neighbourhoods across the District.

By collaborating across the creative arts, business and communities we can foster cultural development and expression across the District. By protecting and enhancing existing access to natural landscapes, parks, sportsgrounds and recreation facilities we can encourage more active lifestyles. We will enhance liveability outcomes by greater sharing of sports and community facilities across the District.

Each of these elements of cohesive communities is discussed in more detail in this section.

4.7.1 Conserve and enhance environmental heritage including, Aboriginal, European and natural

The South West District's rich Aboriginal, cultural and natural heritage reinforce our sense of place and identity. This includes items listed on the State Heritage Register, such as Nepean Dam and Bonnyrigg House, and significant Aboriginal place listings, rock art sites and middens and conservation areas demonstrating early European settlement of Australia such as Camden Park/Belgenny Farm, Kirkham (Narellan), numerous colonial era homesteads (Oran Park, Harrington Park), and the Camden, Macarthur and Macquarie historic towns.

The District has a long history of Aboriginal occupation and cultural heritage which is an important component of a shared cultural fabric. We must appropriately recognise, protect and manage these assets in collaboration with relevant custodians and State agencies, as the District grows, and work with the Aboriginal community to identify and map the significant stories and cultural places in the District.

The South West was also the birthplace of Australia's rural industry - John Macarthur and his wife Elizabeth bred the first high quality merino sheep here and Australian wool became so superior it gained almost a worldwide monopoly as Australia 'rode on the sheep's back' for over 100 years.

Camden Town Centre enjoys exceptional heritage significance and a distinctive local character that has long been valued by the community. Its town centre is a highly attractive location for local businesses and new residents from the growing communities elsewhere in the South West District, who are drawn to Camden's heritage, character and high amenity. The popularity of Camden Town Centre means that the pressure to develop new homes and businesses needs to be managed carefully, so that the heritage values, amenity and the unique character of the centre are maintained.

As the place of settlement and new beginnings for many migrants, the South West District offers a range of distinct and authentic cultural precincts with culturally diverse food, inspiring stories and genuine experiences. The District has a successful and growing tourism sector that promotes unique experiences engaging with local Aboriginal heritage,

colonial settlement history and the history and development of agriculture in Sydney.

Places and items of heritage significance are protected by the *Heritage Act 1977*, the *National Parks & Wildlife Act 1974* and listed in local environmental plans for conservation. This protection can be further enhanced by the implementation of the best practice guidelines contained in the ICOMOS Burra Charter and the NSW Heritage Manual.

Also important to the District's values is its biodiversity including parks and landscapes that form significant parts of the Green Grid such as Nattai National Park, Dharawal National Park as well as the Georges River and Western Sydney

Parklands. Protecting and enhancing these diverse landscapes, water catchments and ridge lines will help ensure the South West District remains a great place to live.

This draft District Plan recognises that development must be more than sympathetic to the District's heritage - it must enhance it. Our heritage offers a point of difference that fosters connected communities and local identity. Opportunities to adaptively re-use character and heritage buildings through the development process should be used to protect and enhance places, spaces and qualities valued by the local community.



Photo credit: Brett Atkins and Wollondilly Shire Council



Action L13: Conserve and enhance environmental heritage including, Aboriginal, European and natural

To support high quality urban design and healthy places, the Office of Environment and Heritage, Department of Planning and Environment, and Aboriginal Affairs will collaborate to map Aboriginal-owned lands, places of significance, local community organisations and public art and place making projects and events celebrating Aboriginal history.

Relevant planning authorities need to identify, assess, manage and protect the heritage which underpins the community's pride of place.

The Commission will work with the Office of Environment and Heritage and councils to identify and share best practice in restoration, alterations, additions and adaptation of heritage items.



Liveability Priority 7: Conserve heritage and unique local characteristics

Relevant planning authorities should:

- protect Aboriginal, cultural and natural heritage and places, spaces and qualities valued by the local community
- require the adaptive re-use of historic and heritage listed buildings and structures in a way that enhances and respects heritage values
- protect the heritage values of Camden Town Centre and consider how its amenity and character can be maintained.

How these matters have been taken into account is to be demonstrated in any relevant planning proposal.

4.7.2 Support the creative arts and culture

High quality arts facilities in the South West include the Campbelltown Arts Centre, Fairfield Museum and Gallery, Casula Powerhouse, Camden Historical Museum, Trainworks Railway Museum at Thirlmere and the Powerhouse Youth Theatre at the Fairfield School of Arts.

Opportunities to participate in arts and cultural activities can foster local identity and sense of place. Recent research demonstrates that art in Western Sydney '*continues to break new ground, sets new standards, and rivals in excellence art created elsewhere in Australia, and overseas*'.

The events and activities that operate through these and many other local arts and cultural facilities help the South West District's residents to connect, celebrate and identify with one another.

The public domain is an important place for cultural exchange through public art, cultural programs and festivals. Many of these are organised locally and are enhanced by collaboration and partnerships across the District. Neighbourhood street fairs, festivals, fetes, indoor and outdoor exhibitions, workshops and community markets provide important opportunities for people of all ages and walks of life to experience and participate in arts and culture. Examples include Cabramatta's Tet Festival and Moon Festival, the Camden Show, the Fairfield Eid Festival, Wollondilly's Illuminarte Festival based on the Picton Centre, the Thirlmere Steam Festival, Warragamba DamFest, Campbelltown's Festival of Fisher's Ghost, and Fairfield City Showground multicultural festivals and markets. The work of local volunteers and support organisations across the District is further evidence of a strong community spirit.

In the District arts and culture promote local identity and provide for the needs of different groups in the community. Nurturing a culture of art in every day local spaces through design led planning can facilitate community cohesion and important liveability outcomes. Arts and cultural policy, investment and actions should be well integrated into urban development. This can be achieved through planning proposals for urban renewal areas and priority precincts that enhance access to the arts in all communities

and nurture a culture of art in everyday local spaces.

During the review of *A Plan for Growing Sydney* and the finalisation of the District Plan, we will further explore, in consultation with stakeholders, how the final District Plan can provide direction on the enhancement of arts, culture and night time activities for the District. This will assist us to work towards better access to the arts for all communities across Greater Sydney and will consider:

- the provision of community infrastructure (library/hubs) in planning for improved places
- delivering a diverse range of night-time activities in appropriate places, particularly in Liverpool and Campbelltown-Macarthur
- encouraging tourism in culturally diverse centres and districts
- cultural events and assets such as those listed above.



Liveability Priority 8: Foster the creative arts and culture

Relevant planning authorities should:

- integrate arts and cultural outcomes into urban development through planning proposals that nurture a culture of art in everyday local spaces, provide flexible, accessible performance spaces and enhance access to the arts in all communities
- give due consideration to the inclusion of planning mechanisms that would incentivise the establishment and resourcing of creative hubs and incubators and accessible artist-run spaces.

How these matters have been taken into account need to be demonstrated in any relevant planning proposal.

4.7.3 Create opportunities for more recreation and community facilities

Adequate provision of the whole range of recreation and community facilities contribute to a liveable city. These include local and regional recreation areas, parks and natural landscapes and community facilities such as libraries, event spaces, community centres and community gardens.

Our planning for the South West District presents unique challenges – creating great facilities and places in new greenfield suburbs while also enhancing the many community facilities that people value in established suburbs.

Young people tell us there are few local recreation and leisure opportunities for them – there are local playgrounds for small children and big facilities for organised sport, but few local centres where they can play sport more casually; and that even where there are, the lack of public transport, especially on weekends and after school, and the absence of cycle paths in many areas means they can't access them easily.

Community support service providers tell us that there aren't enough affordable, accessible local community facilities where they can provide their services and the ones that are available are often not serviced by public transport.

The Heart Foundation has identified that people who are not physically active are almost twice as likely to die from coronary heart diseases as those who are. As such, increasing the level of physical activity in the community is likely to have a major impact on public health.

Our planning should focus on allowing many activities to occur in the District's recreation spaces. We also need to look at more flexible use of underutilised public spaces to ensure we meet the demand for contemporary green spaces. We need to focus on multi-use recreation areas for a range of different user groups.

Future planning and decision-making should continue to enhance access to recreation and community facilities and accommodate new and shared use of facilities as required by the existing and future local communities.

The South West features valued recreation facilities and bushland areas. Future planning and decision-making should reinforce these distinguishing characteristics and continue to enhance access to these facilities.



Action L14: Develop a South West District sport and recreation participation strategy and sport and recreation facility plan

The Office of Sport will coordinate and support the bringing together of Councils to develop a Sport and Recreation Participation Strategy and a Sport and Recreation Facility Plan for the South West District.

4.7.4 Support planning for shared spaces

Making more productive and sustainable use of existing resources is good urban governance. Given the growing and changing population of the South West District to 2036, a more clearly articulated governance system for the shared use of community resources could be a game changer for Greater Sydney.

By working with State agencies and local government we can identify assets that are available for complementary community use and investment. One example of this is the opportunity for government and non-government schools to collaborate with local government to access school facilities and open space. Shared use of resources could extend to:

- schools' open space resources
- community facilities such as meeting rooms, gymnasiums or art facilities
- private open space resources such as swimming pools and golf courses
- services (waste, access, recycled water) for multiple buildings within a street frontage.

Shared spaces: Pilot project

The Hills Shire and NSW Department of Education are collaborating on a pilot project that seeks to allow shared use of government school facilities with the broader community.

While the approach taken in The Hills Shire will not fit all local communities, it is a major step forward in the process of providing better utilisation of public assets.

Across Greater Sydney this approach might provide opportunities to better integrate schools with local communities, particularly in dense urban environments where there are competing land use constraints and growing demands for access to open space and community facilities.



Liveability Priority 9: Share resources and spaces

Relevant planning authorities should consider the delivery of shared local facilities such as community hubs, cultural facilities and public libraries as multifunctional shared spaces.

How these matters have been taken into account need to be demonstrated in any relevant planning proposals.



Action L15: Support planning for shared spaces

To support the sharing of spaces we will:

- collaborate with State agencies, non-profit organisations, private providers and communities to identify opportunities for the shared use of community and school facilities
- support the NSW Department of Education's preparation of a joint venture template that will include the shared use of school playgrounds and other spaces
- where requested, provide strategic planning advice prior to sale regarding alternative uses of surplus government-owned land including schools.

4.8 Respond to people's need for services – developing complete communities

In accordance with Action 3.1 of *A Plan for Growing Sydney*, ensuring the District continues to be a great place to live requires the provision of the infrastructure and services that people need, from birth to the end of life. The full range of service needs must be realised including child care, schools, hospitals, health centres and aged care, as well as cemeteries and crematoria to support Greater Sydney's liveability.

The delivery of these services is the responsibility of many agencies and organisations that need to consider existing and future demand.

This section explores our approach to supporting the planning and delivery of these services.

4.8.1 Education infrastructure

In 2016, Government schools in the South West District accommodate more than 88,000 students representing 71% of the student population. In addition, just over 35,000 students attend non-government schools.

By 2036 significant growth in the primary and secondary school aged population is expected to result in an increase in school enrolments of around 63,200 or 51% based on the current enrolments in government and non-government schools.

Within the District, schools are concentrated in more densely populated areas in the developed areas in Liverpool, Campbelltown, Fairfield, and Camden. The District's 172 government schools are characterised by high utilisation rates and a significant amount of demountable classrooms for primary schools.

Recent major investment in government schools include:

- funding for upgrades to Ajuga Special Purpose School, Bardia Public School, Campbell House Special Purpose School, Cecil Hills Public School, Glenfield Park Special Purpose School, Oran Park Public School, Prestons Public School, William Stimson Public School and Glenfield High School
- a new special purpose school at Narellan
- a new primary school at Gledswood Hills
- a new high school at Oran Park.

Table 4-4: Actual (2016) and projected (2026 and 2036) NSW public school students for South West District

School Level	2016	2026	2036	2016-2036	Change
Government Primary	51,500	67,200	76,950	25,450	49%
Government Secondary	37,000	44,850	55,300	18,300	49%
Government Subtotal	88,500	112,050	132,250	43,750	49%
Non-Government Primary	18,850	24,700	28,750	9,900	53%
Non-Government Secondary	16,750	20,800	26,300	9,550	57%
Non-Government Subtotal	35,600	45,500	55,050	19,450	55%
Total	124,100	157,550	187,300	63,200	51%

Source: NSW Department of Education, 2016.

NSW Department of Education disclaim liability to the reliance of information in the *Child, Adolescent, and Student Projections 2016*. Information is correct only at the time of release and reflect the assessed observed current and retrospective trend. There is no certainty that these trends will be realised at any reported time point or geography. These projections are not targets and are made independently from Departmental policy direction.

Table 4-5: Count of schools by school type and sector for South West District (2016)

School Type	NSW Public Schools	Catholic	Independent
Primary	119	25	3
Secondary	38	12	7
Combined (K-12)	-	-	19
School for Specific Purposes	13	1	5
Environmental Education Centre	2	-	-
Total	172	38	34

Source: NSW Department of Education, 2016 and Catholic Education Commission, 2016 and Association of Independent Schools of NSW, 2016

4.8.2 Plan to meet the demand for school facilities

To ensure school planning meets demand (for example in greenfield areas), requires an understanding of where the school-age population is likely to increase, stabilise or decline and, therefore, when new classrooms or schools will be needed, or where capacity will become available. Integrated school investment solutions can then be developed based on the unique characteristics of the District's communities.

If no additional classrooms were to be provided until 2036 there will be significant shortfalls based on projected changes in the primary and secondary school aged population. There is significant increasing demand in the South West Growth Centre, Liverpool and Fairfield areas and the Greater Macarthur Release Area.

The Department of Education currently optimises use of its infrastructure in a number of ways including:

- the realignment of school catchment boundaries
- prioritising 'in catchment area' students
- increasing the size, amenity and functionality of existing schools
- using relocatable classrooms to manage fluctuations in enrolments.

While detailed demand for government school facilities and appropriate responses will be identified by the Department of Education, our planning must recognise that schools are critical infrastructure in growing communities. Furthermore our planning should support innovative approaches to the design and location of new and expanded school facilities.

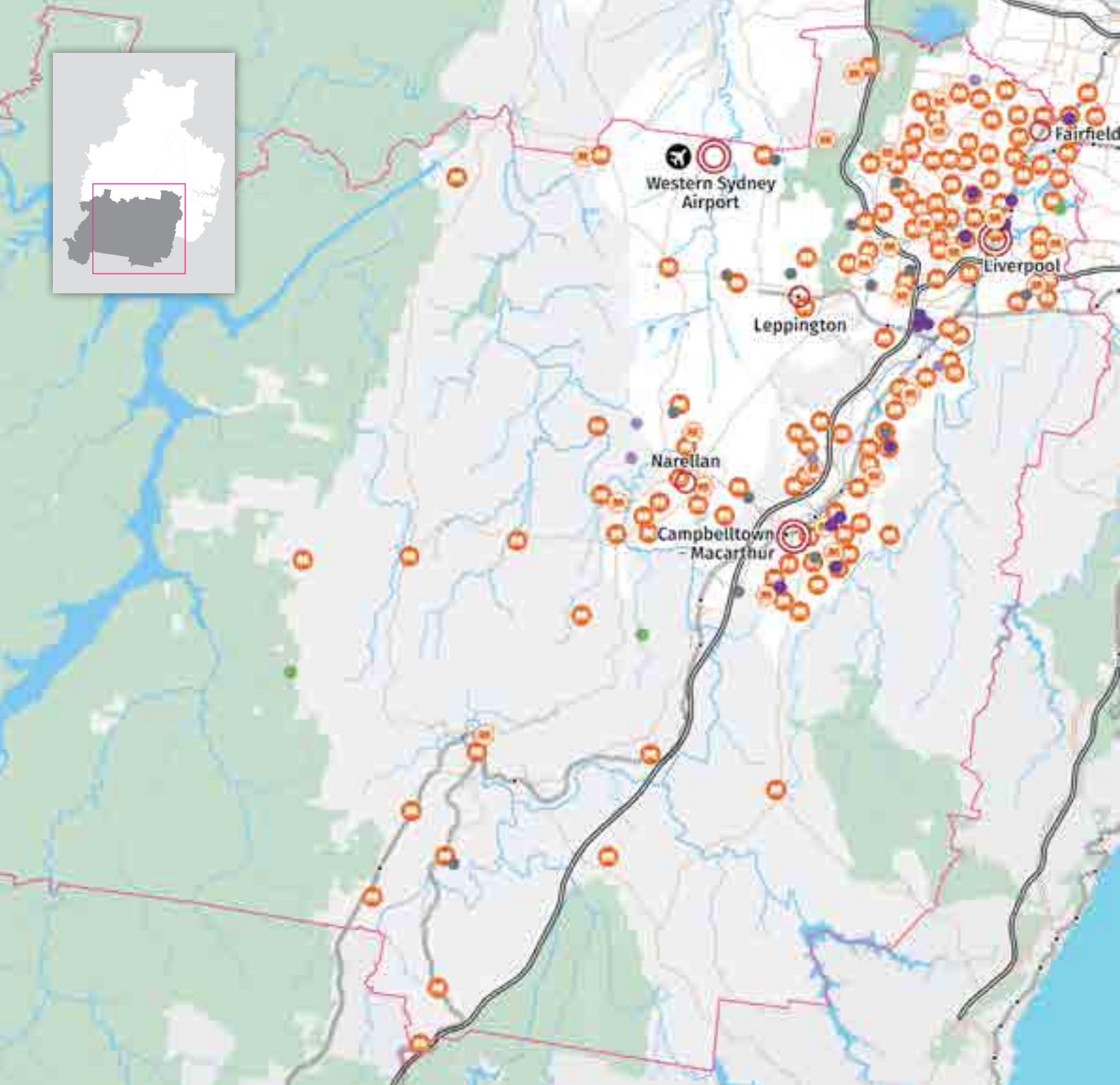




















Figure 4-12: Primary schools in the South West District (2016)

	Strategic Centre		Government Environmental Education Centre		Metropolitan Rural Area		Motorway
	District Centre		Government School for Specific Purposes		National and State Parks		Highway
	District Boundary		Non-Government Special School		Waterways		Roads
	Government Primary School		Non-Government Combined School		Railway		
	Non-Government Primary School		Urban Area		Railway Station		

Source: NSW Department of Education, 2016

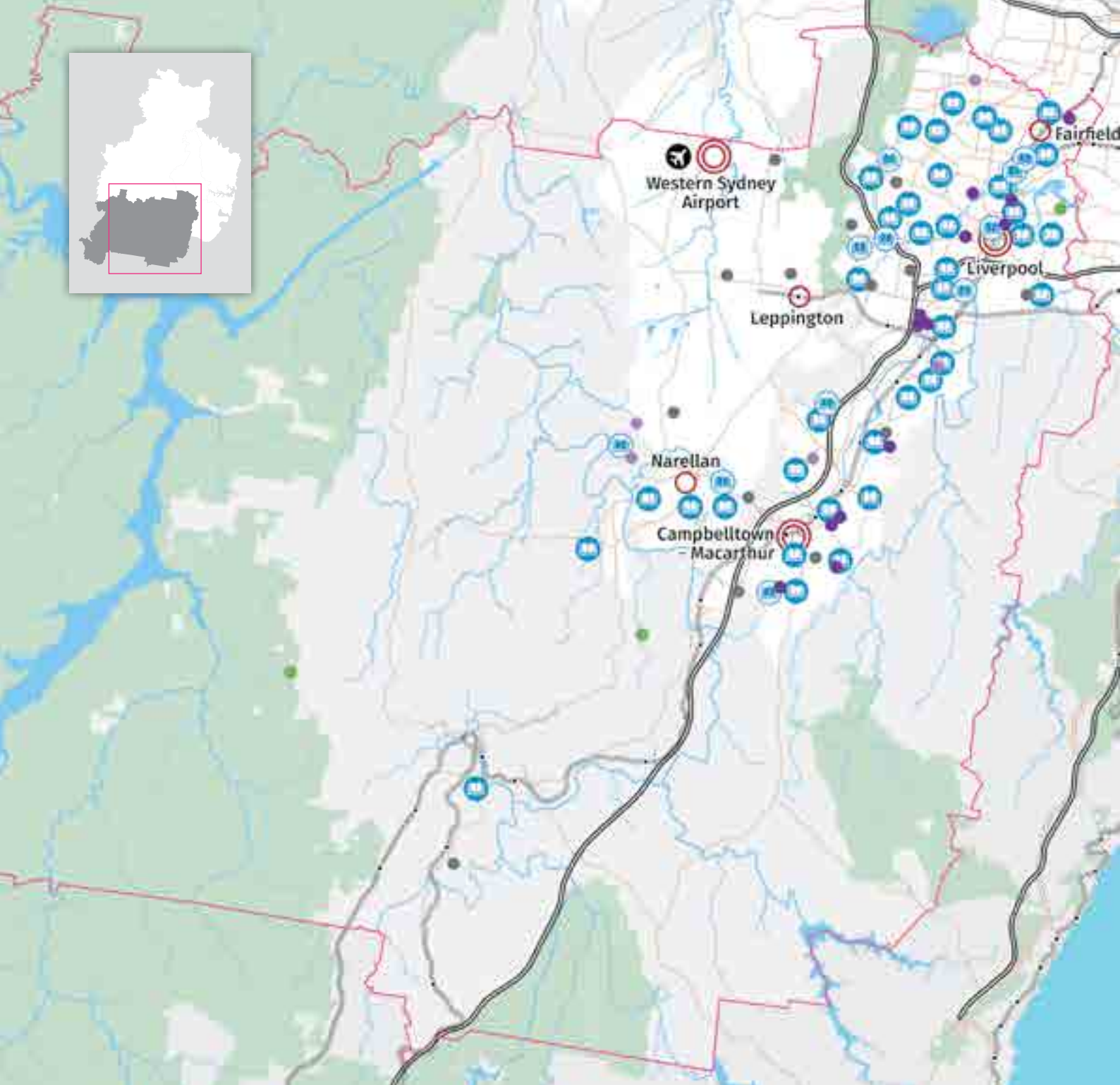


Figure 4-13: Secondary schools in the South West District (2016)

	Strategic Centre		Government Environmental Education Centre		Metropolitan Rural Area		Motorway
	District Centre		Government School for Specific Purposes		National and State Parks		Highway
	District Boundary		Non-Government Special School		Waterways		Roads
	Government Secondary Schools		Non-Government Combined School		Railway		
	Non-Government Secondary Schools		Urban Area		Railway Station		

Source: NSW Department of Education, 2016



Liveability Priority 10: Support innovative school planning and delivery

Relevant planning authorities should give due consideration to:

- innovative land use and development approaches including:
 - using travel management plans, that identify travel options, to reduce car use
 - enabling the development and construction of schools as flexible spaces, so they can facilitate shared use and change over time to meet varying community needs
- the inclusion of planning mechanisms that would incentivise the:
 - development of new schools as part of good quality and appropriate mixed use developments
 - the shared use of facilities between schools and the local community including playing fields and indoor facilities, so they can meet wider community needs.

How these matters have been taken into account need to be demonstrated in any relevant planning proposal.



Action L16: Planning for school facilities

To better support planning and decision-making across education, providers and relevant planning authorities the Department of Planning and Environment will:

- continue to release 20-year projections of the student population in the District
- annually release housing forecasts showing where and when school catchments will be affected by growth
- monitor housing completions in new growth areas to confirm where student populations are growing
- work with NSW Property and the Department of Education to identify the strategic potential of key government sites

- support the creation of a joint forum for government and non-government school sectors to work collaboratively to plan for future growth and change.

4.8.3 Plan for the provision of early education and child care facilities

Demand for early education and child care facilities will also increase in the South West District given the expected 21,650 new babies and toddlers that will reside in the District by 2036. Planning for these facilities in existing communities will increasingly require innovative approaches to the use of land and floor space, including co-location with compatible land uses such as primary schools and office buildings.

In order to meet the increasing demand for child care and early education facilities, the Department of Planning and Environment and Department of Education Communities are working jointly with other government and non-government agencies to improve the quality and availability of early childhood education and care facilities by streamlining the planning system and aligning it to the National Quality Framework for Early Childhood Education and Care. Out of school hours child care is essential for jobs growth and consistent with the Department of Education's arrangements for joint use.

4.8.4 Plan for the provision of youth services

The District's population is growing and its characteristics are also changing. The South West District is also multicultural and while older people will make up a greater proportion of residents in the future many other sectors of the community also require socially, culturally and age appropriate service provision.

The South West District has considerable demand for targeted youth services and facilities. Age appropriate cultural, social and employment facilities are important to support our youth and address issues such as mental health, homelessness, pre-employment training and job readiness in a socially appropriate manner.

4.8.5 Support the Aboriginal community

A significant proportion of Aboriginal and Torres Strait Islander people live in the South West District making up 1.8% of the population and mainly living in the Campbelltown and Liverpool local government areas.

Engagement with the Aboriginal community, built on trust and integrity, should be founded on a framework of self-determination and Aboriginal control, particularly in terms of the management of assets and cultural heritage, and the development of policies and strategies for economic and social opportunities.

Equity of access to appropriate whole-of-life social infrastructure can improve the Aboriginal community's health, wellbeing and economic participation. In particular consideration of targeted health and education services and child care and aged care services are required. Collaboration with the diverse Aboriginal communities of the District will be required to determine appropriate priorities.

Federal and State agencies are working with Aboriginal communities, local government and service providers to deliver high quality educational and health outcomes.

The NSW Government has committed to the establishment of an Aboriginal Centre of Excellence in Western Sydney. The \$20 million Centre will deliver programs and services that support young Aboriginal people to transition between education and employment.



Action L17: Support the provision of culturally appropriate services

The Commission and Office of Aboriginal Affairs will establish an ongoing engagement forum with Greater Sydney's Aboriginal community in order to better inform our planning. This will include representatives from Aboriginal Land Councils, Aboriginal youth and students, and Aboriginal service providers. Together, we will prepare and agree on an engagement strategy, and focus on deliverable actions that align with Aboriginal community aspirations in each District. Through this approach information can be provided to relevant planning authorities to support planning outcomes for the Aboriginal community.



Liveability Priority 11: Provide socially and culturally appropriate infrastructure and services

Relevant planning authorities should:

- collaborate with Federal and State agencies and service providers to integrate local and District social infrastructure for Aboriginal residents including preschools, child care and aged care services
- include appropriate planning mechanisms to incentivise the provision of these services required by local communities where appropriate.

How these matters have been taken into account need to be demonstrated in any relevant planning proposals.

4.8.6 Support planning for health networks

The health network encompasses the whole spectrum of health facilities and services for every segment of the community. The network includes hospitals and emergency services as well as associated surgeries, clinics, pathology and allied health providers. Co-location of business educational institutions and industry provides a competitive advantage. A strong health network is also a generator of local jobs.

Planning controls for productive health precincts and centres that allow complementary and ancillary services such as short-term accommodation, residential aged care, child care, specialist or allied health infrastructure will support better accessibility to services.

These services will co-locate to varying degrees in smaller centres and to a greater extent in the established health care precincts where the employment opportunities can be leveraged to improve transport networks and connectivity. For these reasons planning controls should support the creation of productive local health networks and consider the operational needs of providers.

As detailed in Chapter 3, Campbelltown-Macarthur and Liverpool have the potential to grow as strategic centres of health and education precincts. Planning controls will need to support the creation of productive health networks and consider the operational needs of providers. These health precincts support research and development capability and provide local jobs.

4.8.7 Support planning for health facilities and services

The South West District is served by the Liverpool tertiary hospital, with additional major hospitals at Campbelltown, Camden and Fairfield. Current planning for major new and improved health infrastructure includes:

- Campbelltown Hospital redevelopment stage 2
- Campbelltown Hospital Clinical School
- new major ambulance station at Liverpool, the largest in Greater Sydney
- HealthOne at Oran Park
- the HUB Community Health Centre at Miller
- community health programs such as local GP clinics, medical centres and other specialist health services as administered by the Australian Government's Primary Health Network



Liveability Priority 12: Support planning for health infrastructure

Relevant planning authorities should give due consideration to the need to support the co-location of ancillary uses that complement health precincts, including:

- residential aged care facilities
- housing for health workers
- visitor and short-term accommodation
- health and medical research activities
- child care
- non-critical patient care
- commercial uses that are complementary to and service the health precinct

Consideration should also be given to the protection of health precincts and super precincts from residential encroachment into key employment areas.

How these matters have been taken into account need to be demonstrated in any relevant planning proposal.

4.8.8 Plan for emergency services

NSW State Emergency Services, NSW Police, NSW Ambulance, Fire & Rescue NSW and NSW Rural Fire Service all work to protect the safety of our community. Not only do they prepare for, and provide assistance in, times of emergency they also build community resilience and reduce community concerns about personal safety and property security.

For all agencies, these highly mobile services need to be able to render assistance quickly and efficiently. The location of these services with a high level of transport connectivity is an essential requirement for emergency services, and needs to be considered in regional and local planning.

Early and ongoing collaboration with relevant planning authorities and communities is essential to delivering these services. The implementation of Crime Prevention Through Environmental Design principles through design-led planning is also required.

Improved reporting on housing completions and forecast supply by the Department of Planning and Environment will also support agencies to deliver services appropriately across the District, including improved risk profiling and an understanding of how emergency service catchments and demand will be affected by demographic change.



Action L18: Support planning for emergency services

The Department of Planning and Environment will provide demographic data and projections, as detailed in Action L10, to inform emergency service planning.



Liveability Priority 13: Support planning for emergency services

Relevant planning authorities must consider the operational and locational requirements of emergency services.

How these matters have been taken into account need to be demonstrated in any relevant planning proposal.

4.8.9 Plan for cemeteries and crematoria

Cemeteries and crematoria are important infrastructure, as all cities require land for burial or cremation and associated facilities such as chapels, reception centres and car parking.

Contemporary facilities often incorporate gardens, bushland settings and open space areas reflecting society's changing preferences.

Action L19: Support planning for cemeteries and crematoria

To support relevant planning authorities in planning for the full spectrum of their residents' lives, Cemeteries and Crematoria NSW will provide guidance on the appropriate location and development consent conditions for new cemeteries and appropriate land use controls and zoning. Once made available this information will be shared on our website.



Liveability Priority 14: Support planning for cemeteries and crematoria

Relevant planning authorities should give consideration to the need and locational requirements of cemeteries and crematoria.

How these matters have been taken into account need to be demonstrated in any relevant planning proposal.



5 A Sustainable City

The integration of environment and development concerns and greater attention to them will lead to the fulfilment of basic needs, improved living standards for all, better protected and managed ecosystems and a safer, more prosperous future

Agenda 21, 1992

The South West District is set out as a series of horseshoes, one inside the other. National parks, protected water catchments, rugged mountains and scenic hills cradle the horseshoe of the metropolitan rural lands where narrow roads curve through bushland and open paddocks and up scenic ridgelines, where historic towns and villages dot the landscape.

This draft District Plan proposes priorities and actions that can protect, conserve, maintain and enhance the District's biodiversity and natural beauty, its rural landscape setting and its scenic views, hills and ridgelines.

The Plan draws on *Our vision – Towards our Greater Sydney 2056*, which sets out the strategic basis for Greater Sydney as an efficient and resilient city. It also draws on the ambitions of *A Plan for Growing Sydney's Goal 3* for a great place to live with communities that are strong, healthy and well connected and *Goal 4* for a sustainable and resilient city that protects the natural environment and has a balanced approach to the use of land and resources.

This draft District Plan recognises that a metropolitan-wide approach to sustainability is needed to protect and enhance the environment. This means thinking of sustainability in terms of what is required for all of Greater Sydney and how best to then apply this thinking to protect and enhance the South West District's environment.

Collaboration will be needed to protect the District's environmental elements and to adapt and respond to a changing climate, build resilience to future shocks and create more efficient natural systems as the District grows. It also proposes to make Greater Sydney a net zero carbon emissions city by 2050.

Our vision for South Creek is key to this draft District Plan's approach to sustainability. As well as improving the health of the waterway and vegetation along the South Creek corridor, South Creek will become a spine for the District, a blue and green corridor within the landscape,

which is recognised and valued by people across Greater Sydney.

This chapter outlines the sustainability priorities and actions for the South West District.

The priorities are presented in two ways. Firstly, each heading outlines a priority area, and we provide context and detail to expand on the outcomes sought. Some headings cover factual issues only; these are not included in the list below.

Secondly, within the broad priority areas there are, in many cases, more detailed priorities. We identify the specific purpose of these priorities in each case, by detailing how they relate to strategic planning and planning proposals.

The priorities should be considered in strategic planning activities and planning proposals as appropriate.

The full list of sustainability priorities covered in this section are outlined below.

- enhancing the South West District in its landscape
- protecting the natural beauty of the visual landscape
- improve protection of ridgelines and scenic areas
- protecting the District's waterways
- maintain and improve water quality and waterway health
- managing the District's estuaries
- protecting and enhancing biodiversity
- avoid and minimise impacts on biodiversity
- delivering Sydney's Green Grid
- align strategic planning to the vision for the Green Grid
- protect, enhance and extend the urban canopy
- managing the Metropolitan Rural Area
- discourage urban development in the Metropolitan Rural Area
- consider environmental, social and

economic values when planning in the Metropolitan Rural Area

- provide for rural residential development while protecting the values of the Metropolitan Rural Area
- creating an efficient South West District
- support opportunities for District waste management
- planning for a resilient South West District
- mitigate the urban heat island effect
- integrate land use and transport planning to consider emergency evacuation needs
- use buffers to manage the impacts of rural activities on noise, odour and air quality
- assist local communities develop a coordinated understanding of natural hazards and responses that reduce risk
- managing flood hazards in the Hawkesbury-Nepean Valley.

The Greater Sydney Sustainability Profile

Our Greater Sydney Sustainability Profile can be viewed at www.greater.sydney. It provides maps and baseline information on the landscape and environmental characteristics of places across Greater Sydney, on flows of carbon, energy, water and waste, and on the resilience of communities across Greater Sydney to natural hazards.

It has been compiled to support the information contained in this chapter, and the reporting of information on the Greater Sydney Dashboard.

5.1 The South West District's environment

The South West District's natural environment is integrated into the urban environment as well as being its back-drop to the urban environment. The District is an urban parkland area intersected by three major waterways, enveloped on three sides by rural hinterland which is also surrounded by bushland, protected drinking water catchments, scenic hills and rugged sandstone plateaux.

The main water catchments for the District are the Nepean River Catchment and the South Creek Catchment, both of which flow into the Hawkesbury River, while the Georges River Catchment forms much of the south east of the District.

The District is primarily within the Sydney Basin Bioregion, one of the most species diverse bioregions in Australia. Four different subregions – Wollemi, Burragorang, Cumberland and Cataract – reflect the changing geographic and ecological characteristics from west to east across the District. The Wollondilly, Nepean and Georges Rivers and their tributaries flow through the District, with the riparian vegetation associated with these waterways providing connectivity in the landscape.



Photo credit: Camden Council

The Sydney Basin Bioregion

Because biodiversity does not recognise state, district or local government planning boundaries, governments across Australia have adopted a bioregional approach to conserving and managing biodiversity in the landscape.

Bioregions are relatively large land areas characterised by broad, landscape-scale natural features and environmental processes that influence the functions of entire ecosystems. Each bioregion displays its own patterns in the landscape, ecosystem processes and fauna and flora. Within each bioregion, smaller subregions have been defined based on differences in geology, vegetation and other biophysical attributes and are the basis for determining the major regional ecosystems.

Of the 85 bioregions recognised in Australia, 17 are in NSW. The Sydney Basin Bioregion extends from just north of Batemans Bay to Nelson Bay, and almost as far west as Mudgee. It is one of two bioregions contained wholly within the State.

As well as Greater Sydney itself, the Sydney Basin Bioregion encompasses Wollongong, Nowra, Newcastle, Cessnock and Muswellbrook.

It includes a significant proportion of the catchments of the Hawkesbury-Nepean, Hunter and Shoalhaven river systems, all of the smaller catchments of Lake Macquarie, Lake Illawarra, Hacking, Georges and Parramatta Rivers, and smaller portions of the headwaters of the Clyde and Macquarie rivers.

Conservation reserves and other public lands cover most of the western and southern areas of the District, including the Blue Mountains National Park, the Kanangra-Boyd National Park and Nattai National Park (all declared Wilderness Areas). In the east of the District, a smaller network of nature reserves, state conservation areas and regional parks and the Dharawal National Park form nodes for conservation within the landscape.

The District's ecological communities are diverse, reflecting its range of environments. Over the last 200 years, native vegetation has been cleared from much of the flatter,

more fertile areas to make way for agriculture and urban development. At least 21 of the vegetation communities in the District are listed as threatened, including Cumberland Plain Woodland, which is listed as critically endangered under both Commonwealth and NSW legislation. Less than 10% of the original Cumberland Plain Woodland remains.

Native vegetation has been cleared from large areas of the Cumberland Subregion and protecting the remaining vegetation is a high priority. Remaining vegetation is highly fragmented and is largely found on privately owned land. In the South West District, land values are high, there is strong competition for land and there is strong population growth. This places pressure on remaining bushland on private land. There are significant opportunities to protect, restore and connect areas of high value bushland in the South West District that can increase the sustainability and resilience of communities in the District.

The South West District is also home to a range of native species. Koalas inhabit the southern areas of the District and are a potentially genetically distinct population, related to the Illawarra and Southern Highlands koala populations. Significantly, the Campbelltown koala population is considered to have relatively low levels of disease, compared to other populations. Threatened species in the South West District include the Southern Brown Bandicoot, Broad-headed snake, Camden White Gum, Spike Rice-flower, Deans Paperbark, the Hairy Geebung and Bargo Geebung.

The South West District has areas of fertile and productive soils, concentrated in the floodplain along the Nepean River, which have been supporting agricultural activities for over 200 years.

The rural landscapes of the South West District also have important heritage and cultural values.

Due to its topography, climate and patterns of land use, the District is also subject to a number of environmental hazards, such as flooding, extreme heat and bushfires. The water quality of the Nepean River, Georges River, South Creek and other waterways have been degraded by stormwater runoff from urban areas and nutrient and sediment runoff from agricultural areas. Changes to flow rates, as a result of urban development, will need to be carefully managed to retain the structure of stream beds and banks.

5.2 Enhancing the South West District in its landscape

This draft South West District Plan considers the way the District's diversity of ridgelines, waterways, rural areas and vistas operate within its natural landscape, and how this will change over time. The South West District has an extraordinary opportunity to imagine and plan for a 'parkland city', with South Creek as its centrepiece, where the mosaic of activities and the natural landscape provide the foundation for the area's identity.

Rural and protected landscapes make up 86% of the South West District. While we expect to see a significant increase in the proportion of urbanised area in the future, this presents an opportunity to improve how urban development can help support healthy waterways and ecological systems. This change requires us to look at the successful master-planned communities that have been designed in the past, and ensure that the landscape drives the new communities of the future, so that when we look to ridgelines, we still see green and trees rather than houses.

This draft District Plan outlines our approach to supporting the South West District in its landscape, and creating it as a parkland city, by addressing four highly interconnected elements:

1. healthy waterways, which include natural, artificial and manipulated water systems of the District
2. areas of native vegetation, biodiversity and ecological communities
3. Sydney's Green Grid of parks and open space, which includes public areas used for sport and recreational activity, as well as the public areas and streets where people connect and linger
4. the Metropolitan Rural Area, the rural land in areas like Wollondilly and Camden that includes transitional land between urban and rural areas, land use for food production and landscapes with highly valued scenic views.

5.3 Protecting the natural beauty of District's visual landscape

Across Greater Sydney, communities have developed an appreciation of the visual beauty of scenic landscapes. Scenic landscapes are often associated with particular environmental attributes, and have social and economic value – they can provide communities with a sense of identity, preserve links to Aboriginal and colonial-era heritage and culture and provide opportunities for tourism and recreation.

The Scenic Hills are one of the most important scenic landscapes in the South West District. The Scenic Hills are a complex landscape of peaks and valleys with a prominent ridgeline running roughly north-south from Denham Court in the north to Mount Sugarloaf. This majestic and largely pastoral landscape marks the edge of the Cumberland Plain and is rich with Aboriginal and European cultural significance.

The Scenic Hills form a backdrop to the Campbelltown and Camden local government areas and are visible from many vantage points within and across the District. They are widely recognised as an environmental and cultural asset by the local community.

As the South West District grows, it will become more important to map and recognise these scenic landscapes and develop planning and design approaches to respect and protect them. In some places, such as the Scenic Hills, development controls will need to become more stringent to protect the natural beauty of the landscape, for example, by prohibiting development on the ridgeline.

The Western Sydney Parklands is one of Greater Sydney's most significant corridors of scenic beauty, stretching across the District from Fairfield to Bringelly Road. Since 1968, successive NSW Governments have invested in the Parklands, and now it has become one of Greater Sydney's most valuable assets, providing picnic grounds, protection for heritage and valuable bushland conservation, opportunities for urban farming in the city, major infrastructure corridors, tourism and business hubs and venues for sport. The open spaces and ridgelines of the Parklands provide an important landscape setting for the community.

The Western Sydney Parklands Trust has stewardship over the Parklands, and has developed the *Western Sydney Parklands Plan of Management 2020* and the *Parklands Plan of Management 2020 Supplement* to guide the management of the Parklands. Both of these plans will be updated in 2017. The Trust continues to ensure that both public and private investment in the Parklands, is managed carefully to enhance the scenic and environmental qualities of the Parklands. Ongoing management of the Parklands by the Trust will allow more people to enjoy them as Western Sydney grows.

Transport corridors can be major elements in the visual landscape. The design approach to major transport corridors should consider how the transport infrastructure fits into the landform, the natural and cultural qualities of the area, the views both to and from the corridor, the way people experience scenic landscapes, and how the transport corridor can complement and enhance the scenic qualities of the surrounding landscape.



Sustainability Priority 1: Improve protection of ridgelines and scenic landscapes

The scenic qualities of landscapes are already recognised and considered in some areas of Greater Sydney as part of the strategic planning and development process.

Councils should identify and map areas with high scenic value and develop strategies, planning and development controls that protect important scenic landscapes and vistas. Planning and development controls should prohibit opportunities for development on ridgelines that would diminish their scenic quality.

Councils the South West District are also encouraged to develop a district-wide framework for the identification and protection of important scenic landscapes, vistas and ridgelines which can be used by relevant planning authorities to protect the visual landscape, including landscapes within Priority Growth Areas.

How these matters have been taken into account is to be demonstrated in any relevant planning proposal.













Action S1: Protect the qualities of the Scenic Hills landscape

We will work in collaboration with the Department of Planning and Environment, Camden Council and Campbelltown City Council to deliver appropriate strategies and ensure land use planning controls are in place to protect the environmental, historic, visual and rural landscape character of the Scenic Hills to prevent urban development, urban encroachment and other inappropriate activities and development within the area.



Figure 5-1: South West District catchments and Waterways

	Strategic Centre		Hawkesbury Nepean River Basin		South Creek Subcatchment		Waterway
	District Centre		Parramatta River Basin		Coastal Catchment		
	District Boundary		Georges River Basin		Sydney Drinking Water Catchment		

Source: Greater Sydney Commission, 2016

5.4 Protecting the District's waterways

The District's rivers and waterways will be key to our future planning. Our planning must protect and enhance the Nepean and Georges Rivers and ensure South Creek is enhanced and featured as the principal spatial organising element for the South West Priority Growth Area and the Western Sydney Airport area that it also passes through.

Other important watercourses include Kemps Creek, Eastern Creek, Badgerys Creek, which flow into South Creek, Bunbury Curran Creek, Cabramatta Creek, Hinchinbrook Creek, Prospect Creek and Williams Creek which flow into the Georges River and the Cataract River, Bargo River and Bringelly Creek which flow into the Nepean River.

Much of Greater Sydney's drinking water catchment is found in the South West District, including the catchment of Lake Burragorang and catchments on the upper reaches of the Cataract River and Cordeaux River.

Voyager Point Wetlands on the Georges River near Holsworthy is listed on the Directory of Important Wetlands in Australia. The 50-hectare wetland is considered nationally important, as it is a good example of a freshwater wetland and supports native plants and animals considered endangered or vulnerable. It also provides habitat for migratory birds.

Some waterways within the District are protected within national parks while others have been affected by urban and agricultural development, changing the quality and quantity of these networks. Future urban development will also have an impact on the waterways in the South West District, particularly South Creek, which will need to be carefully managed.

Greater Sydney's other major waterways would benefit from clear strategic plans to guide protection, enhancement and access. Many waterways are managed by a range of stakeholders and we have a clear role to play in facilitating collaboration between these stakeholders. We will explore new forms of governance arrangements for the "Blue Grid" of waterways in this regard during the review of *A Plan for Growing Sydney* in 2017.



Sustainability Priority 2: Maintain or restore water quality and waterway health

The Office of Environment and Heritage and the Environment Protection Authority have developed a risk-based framework to assist decisions that maintain, improve or restore water quality in the strategic planning process to help meet the NSW Water Quality and River Flow Objectives.

Relevant planning authorities and managers of public land should:

- adopt the Office of Environment and Heritage and the Environment Protection Authority's framework to determine the appropriate stormwater and wastewater management targets that contribute to maintaining or improving water quality and waterway health to meet the community's values
- consider more water sensitive approaches to managing stormwater to meet the water quantity and quality targets, including harvesting and re-use of water and management of riparian corridors
- develop mechanisms to allow offsetting between sub-catchments, and facilitate cost-effective opportunities to meet the management targets for whole catchments and water quality objectives for receiving waters
- while management targets are being established, ensure that the quality of stormwater and wastewater from public land and new development in established urban areas maintains or improves the health of waterways, in line with community values and expectations of how waterways will be used.



Action S2: Review criteria for monitoring water quality and waterway health

State agencies and councils currently apply a range of approaches to managing the District's waterways, which often flow through more than one local government area, reducing the potential to meet water quality objectives.

For the South West District, these objectives cover a range of matters including protection of aquatic ecosystems, primary and secondary recreation, the attractiveness and cleanliness of the waterway and agricultural water for irrigation and livestock.

We support monitoring programs that have consistent indicators and criteria that track progress towards meeting the community's environmental values and long-term goals set out in the NSW Water Quality and River Flow Objectives (available from <http://www.environment.nsw.gov.au/ieo/>), noting that it can help target where management actions are needed to maintain water quality across the District. As data becomes available, it will be reported annually on the Greater Sydney Dashboard (see Section 1.2.4).

The Office of Environment and Heritage will:

- recommend criteria for monitoring water quality and aquatic ecosystem health for the different waterways in the District, linked to the NSW Water Quality and River Flow Objectives and national guidelines
- collaborate with councils and other stakeholders to undertake monitoring based on the recommended criteria for each waterway type, as resources become available
- encourage complementary monitoring programs that can help fill gaps in data on water quality and ecosystem health and raise community awareness and support for the protection of waterways
- provide open access to water quality and waterway health data through an Information Asset Register.



Action S3: Protect the South Creek environment and development approaches to achieve excellent environment performance

South Creek is one of the major tributaries of the Hawkesbury-Nepean River. South Creek begins in the South West District in Gregory Hills and flows north until reaching its confluence with the Hawkesbury River near Windsor. Its tributaries include Badgerys Creek, Kemps Creek, Ropes Creek and Eastern Creek.

While only 20% of the catchment is urbanised, this will increase to 80% over the next 50 years, including the development of Western Sydney Airport.

Some of the catchment includes natural and recreational areas used for recreational fishing and as habitat areas: however, approximately 74% of the catchment's waterways are degraded and the remaining 26% in a moderate condition.

Major issues include:

- poor water quality, including elevated nutrient levels
- significantly altered flows due to sewage treatment plant discharges and increased peak flows during wet weather, which is resulting in severe bank erosion
- algal blooms and excessive aquatic weed growth.

The degradation of South Creek has a downstream impact on the health and amenity of the Hawkesbury River, particularly between Windsor and Sackville.

Future development in the South Creek catchment represents an opportunity to deliver an integrated approach to development that supports community expectations for the waterway, as identified in the NSW Water Quality Objectives and River Flow Objectives. These guidelines helped to consider community values for water quality in decision-making.

Statutory mechanisms, such as a Protection of the Environment Policy as detailed under the *Protection of the Environment Operations Act 1997*, could specify waterway health outcomes that public authorities must consider. Similar guidance is being developed for the Illawarra-Shoalhaven Regional Plan (see case study).

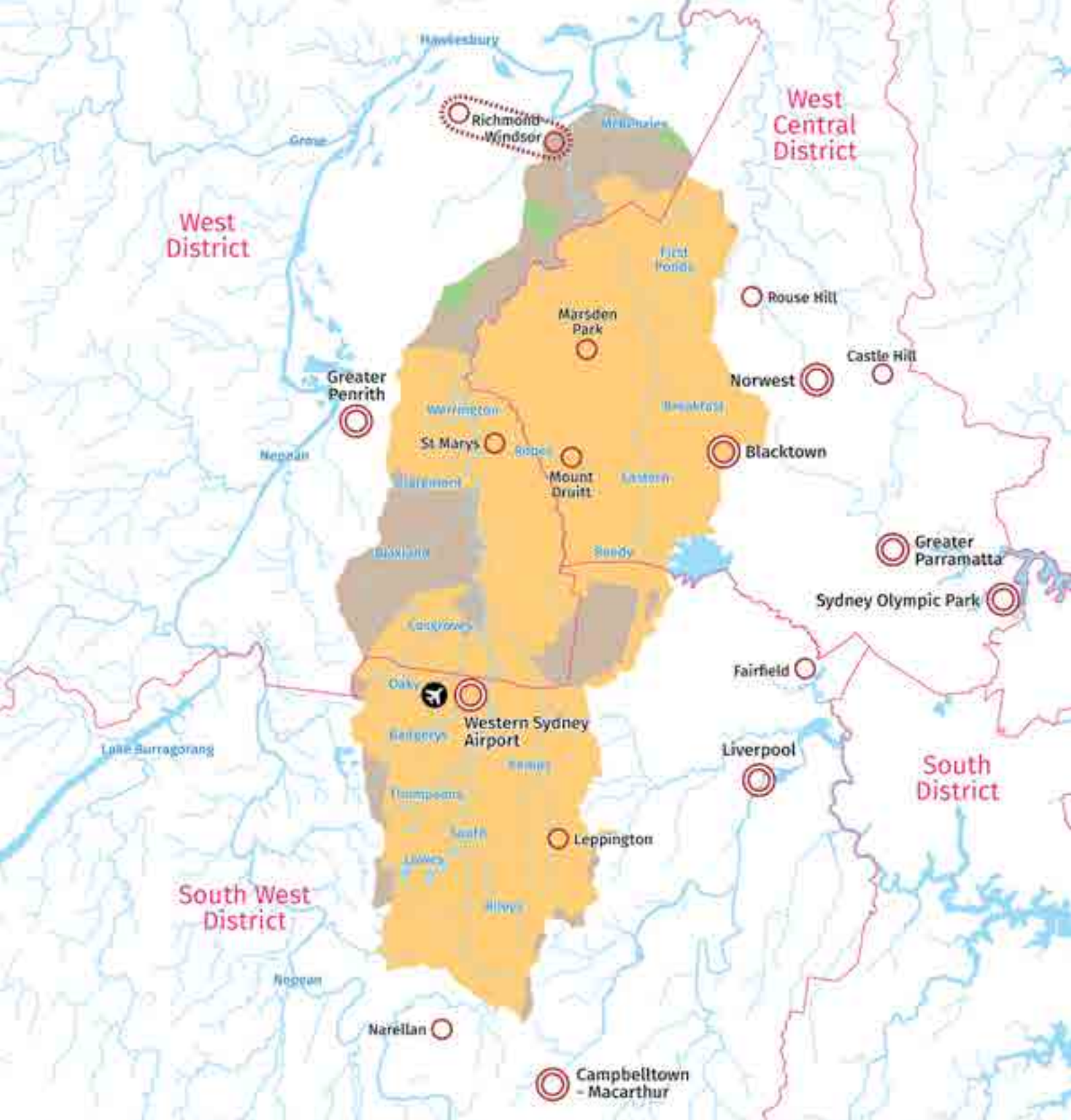


Figure 5-2: South Creek Catchment

	Strategic Centre		Centre Corridor		Metropolitan Rural Area		Urban Area
	District Centre		District Boundary		Predominantly Forest		Waterway

Source: Greater Sydney Commission, 2016

This approach could connect waterway health outcomes to local strategic planning and development control, while informing other programs and regulatory decisions in the catchment.

CASE STUDY: Working towards water sensitive growth

Lake Illawarra is a popular coastal location for tourists and supports a productive commercial and recreational fishery as well as a range of endangered ecological communities. Water quality issues in the lake are long-standing and evident in some parts of the lake.

The Illawarra-Shoalhaven Regional Plan adopts the Office of Environment and Heritage and the Environment Protection Authority's framework that protects community benefits associated with the ecological health of the lake from any adverse effects of development in the catchment. The risk-based framework can be used as a strategic planning tool for assessing water quality management requirements for new development, including design of water quality strategies and infrastructure, and tailoring development controls and conditions of consent to manage the quality of water reaching Lake Illawarra.

We will:

- work with the Environment Protection Authority and request the Authority lead an investigation into a Protection for the Environment Policy for the South Creek catchment, working with councils and other stakeholders
- coordinate investigation of innovative approaches to urban design, integrated water cycle management, biodiversity and riparian and open space management by other agencies and utilities
- aim for this investigation to define an identity and character of future urban development associated with the Western City.



Action S4: Improve the management of waterways in Priority Growth Areas

The South West Priority Growth Area and Western Sydney Priority Growth Area will be two of the main drivers of the District's greenfield land releases, providing land for new communities for the Western City.

The Department of Planning and Environment will establish a development code for Priority Growth Areas across Greater Sydney that includes guidelines for the management of riparian corridors, with the objective of stabilising banks, maintaining water quality, protecting woodland corridors, cooling the urban environment, improving amenity and providing habitat for native species and ecological communities.



Action S5: Monitor water levels and water quality in Thirlmere Lakes

The Thirlmere Lakes are part of the Greater Blue Mountains World Heritage Area. In recent years, there have been community concerns about low water levels in the lakes.

The Office of the Environment and Heritage will develop a program of research and monitoring to detect changes in water levels, effects on World Heritage values of Thirlmere Lakes and explore and evaluate any remedial action that may be applicable.

5.4.1 Managing the District's estuaries

In the South West District, the lower reaches of the Georges River, below the weir at Liverpool, are tidal and have been identified as part of the coastal estuary of the Georges River. Coastal estuaries can be affected by a range of coastal processes, such as wind, waves, storm events and changes to the climate. These processes continually influence the estuary and require effective management.

The *Coastal Management Act 2016* directly integrates coastal management and planning requirements into local land use planning responsibilities under the *Environmental Planning & Assessment Act 1979*. Coastal management programs will be required in councils' community and strategic planning and integrated planning and reporting under the *Local Government Act 1993*.

Coastal management programs will guide land use planning decisions so that they better reflect coastal management issues at a district level. They may be developed for the whole or any part of the coastal zone within a local government area or across a district.

The NSW Government will provide \$83.6 million across NSW from 2016 to 2021 to:

- enable the preparation of coastal management programs
- support coastal councils to implement coastal management programs
- support delivery of state-wide science and technical advice
- review and assess programs and proposals to ensure consistency with the new coastal management framework.

5.5 Protecting and enhancing biodiversity

People living in the South West District benefit socially and economically from biodiversity and natural ecosystems – our ambition for the District is to become a parkland city which will reinforce the area's cultural identity. Conservation of biodiversity is closely related to landscape, tourism and recreational values. Ecologically sustainable development requires a healthy environment which is capable of providing biodiversity and natural resources on which all economic activity depends.

Established urban areas in the South West District contain areas of bushland that are important for biodiversity, as well as for their contribution to the visual landscape, waterway health and other environmental processes. Many areas of urban bushland are on public land managed by local councils, while some urban bushland is found on privately owned land. We will examine opportunities to strengthen the protection of bushland in urban areas as part of the review of *A Plan for Growing Sydney* in 2017.

The protection of habitat in rivers and estuaries and aquatic threatened species should also be considered in future planning for the South West District. The *Fisheries Management Act 1994* contains separate offsetting measures to manage the impact of activities on aquatic habitats.

Conservation outcomes can be delivered more effectively and efficiently through strategic planning at the landscape level, rather than on a site-by-site basis. This is because strategic planning can consider opportunities to connect areas of biodiversity, the relationship between different areas and threats to natural features. Strategic planning can also consider the effects of conservation efforts across the landscape. District planning is, therefore, a vital part of the ongoing process of protecting and enhancing biodiversity in the landscape.

In 2014, the Independent Biodiversity Legislation Review Panel, as part of the review of biodiversity legislation in NSW, supported the consideration of biodiversity at the landscape scale and recommended the use of biodiversity certification, focused on proposed high-intensity development areas that also contain important environmental values.

The NSW Government has endorsed the Independent Panel's recommendations and in response, has developed a fresh approach to strategic conservation planning in Greater Sydney, with an initial emphasis on strategic environmental assessment and biodiversity certification of conservation planning in the South West, West Central and West Districts. In these districts, and particularly in the South West and West, strategic conservation planning will be a key strategy for balancing conservation outcomes with growth and development.

The objectives of strategic conservation planning for the South West District are to:

- maintain, and where possible improve, the conservation status of threatened species and threatened ecological communities
- achieve better outcomes for biodiversity conservation than the outcomes that could have been achieved by site-by-site or project-by-project efforts
- facilitate urban growth and development in line with *A Plan for Growing Sydney* and this draft District Plan
- provide an equitable model for recognising and recovering the cost of biodiversity impacts from urban growth and development
- reduce the potential for land use conflict
- reduce the cost and timeframes for development approvals, including approvals for infrastructure

The Commission supports this strategic approach to protecting biodiversity in the South West District. This complements the delivery of Sydney's Green Grid (see section 5.6). The Commission also supports the use of local knowledge and expertise to identify fine-grain opportunities to connect and enhance smaller pockets of biodiversity in the landscape.



Sustainability Priority 3: Avoid and minimise impacts on biodiversity

Efforts to protect biodiversity values should be based on avoiding and minimising adverse impacts to biodiversity, as far as practicable. Only when impacts cannot be avoided or minimised, should consideration be given to offsetting those impacts.



Action S6: Develop a Strategic Conservation Plan for Western Sydney

The Department of Planning and Environment, the Office of Environment and Heritage and the Commission will work in partnership to develop a Strategic Conservation Plan to introduce a new approach to protecting biodiversity in the West, West Central and South West Districts. Strategic conservation planning will:

- streamline assessments and reduce costs for major development projects and development in Priority Growth Areas
- provide opportunities to protect biodiversity offset sites in perpetuity on both public and private land, with funding for ongoing management
- help connect areas of biodiversity to waterways and Sydney's Green Grid
- provide certainty for the public and landowners and limit speculation on the future development potential of land in the Metropolitan Rural Area (see Section 5.7)
- integrate biodiversity planning across District boundaries
- retain existing vegetation and habitat where possible, and deliver offsets close to the place where biodiversity is lost

We will support the NSW Government's work to develop a Strategic Conservation Plan for the West, West Central and South West Districts.



Action S7: Update information on areas of high environmental value

Detailed information on areas of high environmental value is available from sources including the Office of Environment and Heritage and councils. High quality vegetation mapping is available for most of Greater Sydney. Where necessary, data and mapping will be ground-truthed to improve its accuracy and effort will be directed towards surveys that fill any information gaps.

The Department of Planning and Environment and the Office of Environment and Heritage will:

- work with councils to update map data layers on areas of high environmental value as new information becomes available
- continue to make data on areas of high environmental value available to relevant planning authorities and the public.

Biodiversity offsets to protect biodiversity

The NSW Government has introduced a biodiversity offsets scheme to help address the loss of biodiversity values, including threatened species, due to habitat degradation and loss.

Biodiversity offsets are a market-based scheme that provides a streamlined biodiversity assessment process for development, a rigorous and credible offsetting scheme as well as an opportunity for rural landowners to generate income by managing land for conservation.

'Biodiversity credits' can be generated by landowners and developers who commit to enhance and protect biodiversity on their land. These credits can then be sold, generating funds for the management of the site. Credits can be used to offset the loss of biodiversity that might occur as a result of development. The credits can also be sold to those seeking to invest in conservation outcomes, including philanthropic organisations and government.

5.6 Delivering Sydney's Green Grid

A *Plan for Growing Sydney* identifies the opportunity to create Greater Sydney's Green Grid, and noted that delivering a city-wide green grid would promote a healthier urban environment, improve community access to recreation and exercise, encourage social interaction, support walking and cycling connections and improve the resilience of Greater Sydney.

This draft District Plan builds on the concept of Greater Sydney's Green Grid. We see the Green Grid as a major legacy for future generations.

We have developed a long-term vision for Sydney's Green Grid with an appreciation of Greater Sydney's landscape and recognition of its diversity of elements and connections, including the Blue Grid of estuaries and waterways that shape the patterns of the District's development, the variety of parks and open spaces and connections to bushland, from local pockets of native vegetation to the Greater Blue Mountains World Heritage Area. Our detailed report, which outlines the conceptual approach behind Sydney's Green Grid is available in our background papers at www.greater.sydney.

By recognising the different ways people use open space now and into the future, and by planning for open space as a Green Grid, there are more opportunities to provide:

- **Amenity:** Open space, in particular less formal open spaces such as bushland or natural waterways, which can influence a place's character, with biodiversity and waterways having an intrinsic value that must be recognised when planning at a wider scale.
- **Activity:** With a growing population, more people will require access to more parks and sporting grounds for organised sport and recreation.
- **Accessibility:** These spaces need to be connected through a network of streets, places and public areas in a ways that make it easier to walk or cycle.

Our objectives for Greater Sydney's Green Grid are for a highly connected and diverse network that:

- increases access to open space
- promotes good health and active living
- creates new high quality public areas and places
- makes the urban environment more green
- enhances green spaces
- promotes green skills in bushland and waterway care and restoration
- improves access to sport and recreation
- delivers better tools for future open space planning.

The historic Upper Prospect Canal brings water from the dams of the Upper Nepean Catchment to the Prospect Reservoir along a 50 kilometre channel, which is a natural gravity flow, dropping about a metre every kilometre and flowing through bush as well as urban areas. This area could be envisioned as an amazing walkway or cycleway that connects to other elements.

Other open space areas include parts of the Blue Mountains National Park, Nattai National Park and Dharawal National Park; Bents Basin State Conservation Area, the Australian Botanic Garden Mount Annan, Gulguer Nature Reserve, the Western Sydney Parklands; and sporting and recreation areas such as Warwick Farm Racecourse and Campbelltown Sports Stadium.

Different types of open spaces serve different purposes. The Sydney Open Space Audit, available at www.greater.sydney, has categorised open space as either regional open space, district open space or local open space. Regional open space has a region-wide catchment, serving communities across Greater Sydney. District open space serves a number of neighbourhoods or suburbs, with a catchment that often extends across council boundaries.

Regional open space makes up almost half (49%) of the South West District's area and bushland makes up over 95% of all open spaces in the South West District. While the majority of regional open space in the South West District is protected in national parks and reserves, there are regional open spaces dispersed throughout the entire District. As a result, all residents including those in rural areas are located within 10 kilometres of regional open space.

Our long-term vision for Sydney's Green Grid in the South West District is shown in Figure 5-3.

We have identified two priority Green Grid projects for the South West District, as shown on Map 5-3 and described below.



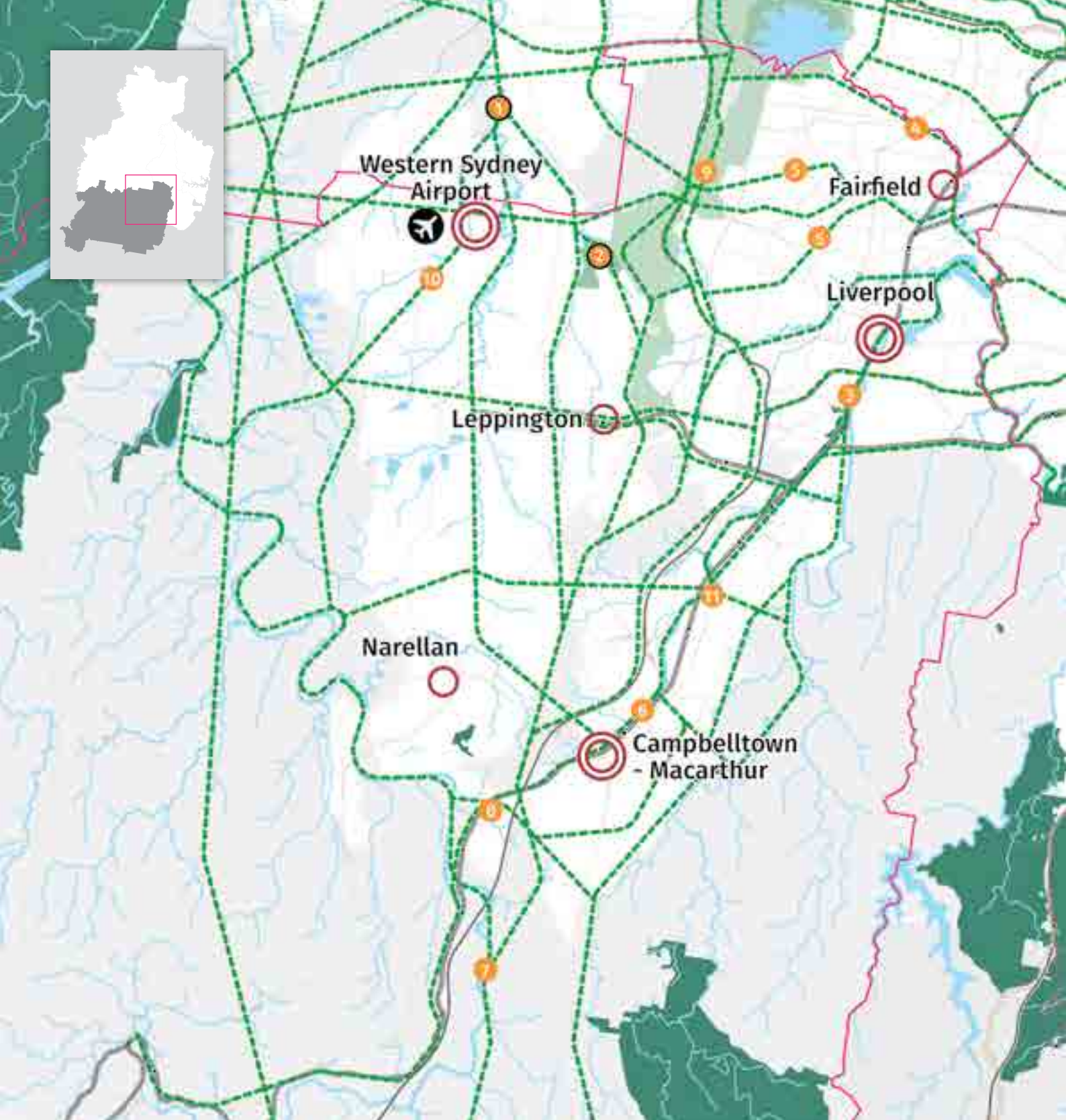


Figure 5-3: South West District open space and Green Grid

	Strategic Centre		Waterways		Highway
	District Centre		National and State Parks		Priority Projects
	District Boundary		Railway		Projects Important to District
	Metropolitan Urban Area		Railway Station		Green Grid Opportunities
	Metropolitan Rural Area		Motorway		

Priority Projects

1 South Creek Corridor

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.

2 Kemps Creek and Kemps Creek Nature Reserve

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, it can form part of an important corridor with a mix of conservation areas and areas open to the public for recreation.

Other important projects to deliver Sydney's Green Grid in the District

3 Georges River Parklands and Chipping Norton Lakes

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

4 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.

5 Five Fairfield Creeks – Clear Paddock and Cabramatta Creeks

Creating a continuous network of high quality parklands and active transport corridors for the region, 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.

6 Bunbury Curran Creek and Bow Bowling Creek

Using the open space corridors along the creeks to provide open space, urban greening, active transport and stormwater treatment along the corridor.

7 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.

8 Camden Park and Menangle to Georges River Open Space Corridor

Connecting a band of open space in a unique geographic setting where the Nepean and Georges River are only four kilometres apart.

9 Western Sydney Parklands and Eastern Creek

Improving connectivity from adjacent Green Grid projects into the Western Sydney Parklands.

10 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.

11 Kayess Park Open Space Corridor, Ingleburn

Creating an east west open space corridor that connects Georges River to communities at Ingleburn, Minto, Bow Bowling and Raby.



Sustainability Priority 4: Align strategic planning to the vision for the Green Grid

Consistent with Action 3.2.1 of *A Plan for Growing Sydney*, relevant planning authorities should consider opportunities to support the delivery of the South West District Green Grid. This could include how land use zones can be applied, how new development controls are written, or where voluntary planning agreements and agreements for dual use of open space and recreational facilities could contribute to delivering the Green Grid.

How these matters have been taken into account need to be demonstrated in any relevant planning proposal.

Trees in the urban environment provide many benefits. A green canopy provides shade to reduce the ambient temperature at ground level, provides habitat for biodiversity and enhances the look of the urban landscape. Trees in the urban environment also provide benefits by removing fine particles from the air and improving air quality. This is particularly important along busy road corridors. Some councils in Greater Sydney have already mapped areas at the greatest risk of becoming urban heat islands and are using this information to prioritise planting of shade trees to adapt and respond to a changing climate. The Draft Climate Change Fund Strategic Plan includes an action to increase tree canopy coverage in heat exposed suburbs.





Sustainability Priority 5: Protect, enhance and extend the urban canopy

When making strategic plans, relevant planning authorities should consider how tree canopy cover in land release and established urban areas can be protected and increased, with a focus on providing shade to streets.

Local councils should include green cover and shade tree planting along major transport corridors in local infrastructure investment planning, development control and design.

How these matters have been taken into account is to be demonstrated in any relevant planning proposal.



Action S8: Use funding priorities to deliver the District Green Grid priorities

Consistent with Action 3.2.1 of *A Plan for Growing Sydney*, councils have a leading role in delivering the South West District Green Grid priorities through their planning and investment in open space. Funding programs managed by the NSW Government can be used to extend and enhance open space as part of the Green Grid. These are:

- **Metropolitan Greenspace Program:** matches funding contributions from councils to improve open spaces for recreational purposes and to create links between bushland, parks, waterways and centres.
- **Environmental Trust grants programs:** fund projects that rehabilitate or regenerate the environment, or promote environmental education and sustainability.
- **Sydney's Walking Future and Sydney's Cycling Future programs:** aim to improve walking and cycling connections.

We encourage councils to apply for funding through these programs to deliver the South West District Green Grid priorities. We will oversee the distribution of Metropolitan Greenspace Program grants.



Action S9: Develop support tools and methodologies for local open space planning

As the South West District grows, demand for open space and recreation areas will increase. There may also be increased demand for different types of open space to meet changing community needs.

The Commission will provide local councils with a toolkit of resources and a consistent methodology that will help councils plan for the active recreation and open space needs of their communities. The toolkit will recognise the widely varying contexts that influence opportunities to provide open space across Greater Sydney.



Action S10: Update the Urban Green Cover in NSW Technical Guidelines to respond to solar access to roofs

The Urban Green Cover in NSW Technical Guidelines were developed to increase resilience to urban heat island impacts and help communities prepare for the impacts of climate change. The Guidelines cover vegetation, as well as permeable and reflective surfaces to minimise local temperatures and encourage evaporation from soil and plants. In the vegetation section, the guidelines identify issues that councils should consider when selecting trees such as tolerance to air and water pollution, drought or waterlogging, wind tunnelling, overshadowing and reduced sunlight, as well as lifespan and the location of underground and overhead services.

The Office of Environment and Heritage and the Department of Planning and Environment, through their participation in the Low Carbon Living Cooperative Research Centre, will review the Urban Green Cover in NSW Technical Guidelines to investigate taking solar access to roofs into consideration. This will mean trees selected to increase canopy cover do not overshadow roofs that have the potential to accommodate solar hot water systems and solar panels.

5.7 Managing the Metropolitan Rural Area

A Plan for Growing Sydney adopted the term Metropolitan Rural Area to describe the non-urban areas at the periphery of Greater Sydney. It is important to recognise that a significant proportion of this area's bushland is in public ownership in the form of national parks.

The Metropolitan Rural Area has a range of environmental, social and economic values, including scenic landscapes, habitat and biodiversity, mineral and energy resources, water supply catchments, tourism, heritage and cultural assets and areas of productive agriculture.

It also supports small rural villages and areas of low intensity rural-residential development, providing opportunities for people to live in a rural setting.

In the South West District, the Metropolitan Rural Area features open paddocks and the long roofs of the poultry sheds; dairy cows and persimmon trees; Asian greens and alpacas. It also includes the towns and villages of Picton, Tahmoor, Bargo, Cobbitty, The Oaks, Warragamba-Silverdale and areas of Horsley Park and Cecil Park west of Fairfield.

There is widespread support for the continuation of agricultural production in the Metropolitan Rural Area. For this to be achieved, it is important to recognise existing and potential conflicts between these different land uses and activities and the various pressures on continuing agricultural production. Ultimately, our ambition is to see the area as an interconnected system rather than individual activities on individual parcels of land. For example, there are many public values on private land including scenic values, ecosystems services such as riparian corridors that maintain water quality in creeks and waterways or biodiversity. Conversely, private values such as continuing poultry production requires appropriate setbacks and public infrastructure to operate.

Our approach to the challenges facing the Metropolitan Rural Area is similar to the approach we take for Greater Sydney as a whole – that is, to recognise the pressures as a dynamic force that can be harnessed and redirected to achieve social, economic and environmental benefits.

The interaction of these competing interests and the variation in landscape and patterns of activity is complex and varies across the Metropolitan Rural Area. It is not a matter of planning to avoid tensions between activities – these activities are already interspersed – it is instead a challenge to manage these interactions and develop approaches to distribute costs and benefits equitably, in the context of clearly defined outcomes.

Mapping the range of environmental, social and economic values has been completed as part of a report on considerations for district planning in the Metropolitan Rural Area, however mapping and understanding the range of values can only provide the basis for a more place-based or locality-specific approach to strategic planning that recognises the complexity of these areas. This will take time and require consultation due to the varying expectations of existing landowners and the public interest.

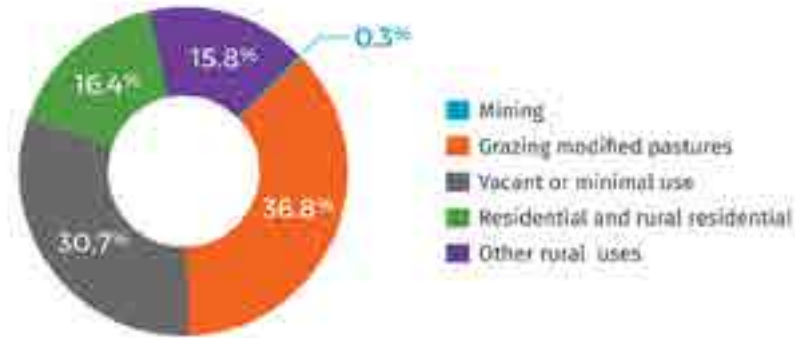
Despite the variation across the Metropolitan Rural Area, common tensions that will need to be resolved on a locality-by-locality basis include:

- biodiversity and ecosystem services on private land and the need to conserve and maintain them
- the value of land for agricultural production being less than the value from having access to, and being part of, the metropolitan area
- the impact of intensive agricultural production on adjoining properties
- pressures on the profitability and competitiveness of particular agricultural activities due to both national and global restructuring of agricultural production.

In Greater Sydney's semi-rural areas, land values are shaped by both the value of being close to the city (the urban effects) and the value of the land for agricultural production (the agricultural effect). Land values have increased due to demand for rural lifestyle properties that are close to the city.

The demand for lifestyle properties will increase. Lifestyle rural residents generally expect the amenity of suburbia and this often results in conflict with existing agricultural activities and inhibits future intensification. There is also an expectation that the services provided in

Figure 5-4: South West District Metropolitan Rural Area – land and uses on privately owned land



Source: Greater Sydney Commission, adapted from the *Considerations for District Planning in the Metropolitan Rural Area of the Greater Sydney Region* report, AgEconPlus 2016

urban areas including schools and community facilities, or mains water, sewerage and in some cases, roads with kerbs and guttering will be provided.

These conflicts, combined with the expectation that land can be subdivided or rezoned at a future date for urban development, can further reduce productivity, leading to under investment.

The long-term potential of the Metropolitan Rural Area needs to be seen in relation to the emerging Western City. From this perspective, there is potential for the Metropolitan Rural Area to become a parkland city with possible links to food processing and logistic terminals around the Airport for domestic consumption and export. These opportunities will be explored and developed as part of the review of *A Plan for Growing Sydney* in 2017.

More than 70% of the Metropolitan Rural Area within the South West District is publicly-owned land. Figure 5-4 above shows the different types of uses on privately owned land in the South West District's portion of the Metropolitan Rural Area, and highlights that most rural land is either used for grazing or is not actively used. Compared to other districts in Greater Sydney, the South West District has more land devoted to irrigated and intensive forms of agriculture.

There are three agricultural clusters in the South West District:

- irrigated horticulture, around Warragamba-Silverdale, with potatoes, lettuce, sweet corn and tomatoes being the most valuable horticultural products, with

some poultry production as well

- multi-use irrigated horticulture cluster, in the Cobbitty and Camden area, with poultry, vegetables and whole milk being the most valuable forms of production
- poultry sheds close to Appin, with some dairying as well.

Rural land in the South West District is used for a variety of agricultural activities. While grazing on pastures is the most common agricultural activity in the South West District in terms of the amount of land uses, the most valuable activities are the production of poultry and eggs, nurseries, cut flowers and turf and vegetable production.

There are also a number of extractive industry operations in the South West District, producing construction materials such as clay. These industries are vital as part of the overall supply of construction materials to support growth and urban development across Greater Sydney. *Sydney Regional Environmental Plan No.9 – Extractive Industry* sets out the NSW Government's approach to identifying and facilitating the development of extractive resources in Greater Sydney and the Central Coast. These types of mineral extractive industries used for construction are not subject to the Strategic Release Framework (available from www.resourcesandenergy.nsw.gov.au), which is directed to coal and petroleum (including coal seam gas) exploration.

There are substantial mineral resources in the south of the District in the Camden, Picton, Wilton, Appin and Bargo areas, linked to the

District's coal and coal seam gas resources. Coal mining already takes place, producing coal for energy and metallurgical coal, and mining and petroleum and gas titles also show areas with potential for mining in the future.

The NSW Government provides information on existing and potential future mineral and energy resource operations across Greater Sydney, such as in the Minerals Resource Audit, and this information can be found at the Common Ground website at www.commonground.nsw.gov.au.

Potential exists for land use conflicts. The NSW Government has policy and legislative tools to support the sustainable development of mineral and energy resources while protecting the environment, agricultural land, the health of communities and supporting growth in housing and employment. These policy and legislative tools include:

- phased land uses commensurate with development phases of a mineral (including extractive) and energy resource industry
- the *Environmental Planning and Assessment Act 1979*
- the *Protection of the Environment Operations Act 1997*
- the *Mining Act 1992* and the *Petroleum (Onshore) Act 1991*
- *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*
- Land Use Conflict Risk Assessment Guide
- Preliminary Regional Issues Assessment for Potential Coal and Petroleum Exploration Release Areas.

A Plan for Growing Sydney recommends a strategic framework and criteria to assist decision-making in the Metropolitan Rural Area. In line with Action 4.1.2 of *A Plan for Growing Sydney*, we have mapped and analysed overlapping multiple activities and Metropolitan Rural Area values for each district. A conclusion of this work is that given the complexity and variation across the area, a design-led response is likely to be more appropriate and effective than relying on generic criteria for managing the multiple interests and values, activities and conflicts that vary from locality to locality.

Design-led planning is a proactive, consultative planning process that identifies a desired outcome for a specific area, based on its characteristics, future opportunities and community values, as well as potential pathways to reach this outcome (see Section 4.6.1). This is a more holistic and integrated approach than a criteria response, which in this case manages growth and change on a site by site or project by project basis, applying a set of criteria to weigh up the benefits or costs of each project.



**Sustainability Priority 6:
Discourage urban development
in the Metropolitan Rural Area**

Urban development in the Metropolitan Rural Area is not consistent with the protection of the Area's existing values. Conversion of land to urban residential development is not necessary in the short to medium term given the supply of land for housing in other parts of Greater Sydney, and conversion of rural land to suburban development does not form part of the housing targets that have been defined for the District or individual local government areas.

In general, urban development in the Metropolitan Rural Area will not be supported unless the relevant planning authority has undertaken strategic planning in accordance with Sustainability Priorities 7 and 8.

Relevant planning authorities should not support planning proposals affecting land currently within a RU (rural) or E (environmental) zone unless:

- these are in areas identified in a regional plan or a district plan as urban investigation areas
- these also form part of, or are identified as a result of, strategic planning in accordance with Sustainability Priorities 7 and 8.

In the South West District, West Appin has been identified as an urban investigation area, consistent with Figure 2 and Action 2.4.2 of *A Plan for Growing Sydney*.



Sustainability Priority 7: Consider environmental, social and economic values when planning for the Metropolitan Rural Area

Agriculture and primary industries are essential to Greater Sydney and to the South West District's economy. They need to be planned and protected to avoid their transition to higher and better uses (in financial terms) such as suburban residential development.

In planning for the Metropolitan Rural Area, the relevant planning authority should undertake its own review of land use activities in the context of environmental, economic and social values, and consider our research regarding the multiple values and activities in their District to better understand how they are operating, the range of uses operating within them, their interdependencies, key constraints and opportunities to their effective operation and evolution.

On this basis, when planning for the Metropolitan Rural Area in the South West District, relevant planning authorities should consider how to:

- provide greater certainty with regards to built form outcomes in and around villages
- articulate the different landscape and heritage values and character of rural areas, with different planning and development controls
- clarify the what the future should be for rural lands to prevent speculation and protect against encroachment
- conserve Aboriginal cultural heritage
- maximise opportunities from the agriculture industry's proximity to Western Sydney Airport.

The resolution of a preferred alignment for the Outer Sydney Orbital will change the structure of major transport corridors in the South West District, and flowing from this, the relationship between transport corridors and land use boundaries. These relationships will be considered as part of the review of *A Plan for Growing Sydney* in 2017.





Sustainability Priority 8: Provide for rural residential development while protecting the values of the Metropolitan Rural Area

Rural landscapes provide opportunities for housing in rural towns and villages, as well as rural residential living that is already dispersed throughout the Metropolitan Rural Area. Any plans to expand rural towns and villages must first consider how these places fit in the landscape and how their valued characteristics can be protected and extended sympathetically in order to optimise their cultural and economic potential. This will involve analysis of the key characteristics of these towns and villages as part of a design-led approach.

Consideration of further subdivision for rural residential development should be approached in a similar way, with careful consideration of siting, impacts and potential to improve and ensure ongoing maintenance of biodiversity, ecological, scenic and productive values.

Relevant planning authorities should adopt a design-led approach to planning for localities that:

- considers siting and design principles for rural residential development that conserves the values identified in the report on considerations for district planning in the Metropolitan Rural Area
- considers restrictions on additional rural residential development that may be affected by existing or future rural and agricultural activity
- considers setbacks and defines appropriate buffers for rural activities
- investigates and develops innovative approaches to conserve and manage biodiversity, habitat and scenic landscapes.

Councils should liaise with the Commission to develop design-led approaches for the Metropolitan Rural Area and in the first instance use the design approaches outlined in the NSW Government's draft Architecture and Urban Design Policy, *Better Placed* (October 2016).

How these matters have been taken into account is to be demonstrated in any relevant planning proposal.

5.8 Creating an efficient South West District

Increasing a city's efficiency reduces impacts on the environment and the city's carbon footprint while increasing productivity. This means progressive reduction in carbon emissions, potable water use, and waste. It also means upgrading the District's grey grid of ageing infrastructure with a focus on urban renewal areas and precincts. Incorporating water sensitive urban design measures as areas develop will help vegetation growth and protect waterways. Maximising local water recycling and the potential for stormwater harvesting can create opportunities for greening public open spaces including parks, ovals and school playgrounds.

The NSW Government has a number of policies that aim to improve energy and resource efficiency and reduce greenhouse gas emissions. These include:

- NSW Climate Change Policy Framework
- Draft Climate Change Fund Strategic Plan
- NSW Government Resource Efficiency Policy
- Waste Avoidance and Resource Recovery Strategy 2014-21
- Metropolitan Water Plan.

Improving resource efficiency is critical to reducing greenhouse gas emission reductions to meet the NSW Government's target of net zero carbon emissions by 2050, in line with Australia's international commitments to combat climate change. The Commission's ambition is to make Greater Sydney a net zero carbon emission city by 2050.

Making more efficient use of water, energy, fuels and materials and improving the management of waste and recycling will help Greater Sydney become more sustainable and also help minimise risks from potential future rises in the costs of energy.

The NSW Climate Change Policy Framework

In December 2015, Australia and 194 other countries agreed on the United Nations Paris Agreement on climate change. The key objectives of the Paris Agreement include:

- a goal to limit the increase in global temperatures to well below 2°C and pursue efforts to limit the rise to 1.5°C
- a commitment to achieve net-zero emissions globally, by the second half of the century.

The NSW Government endorses the Paris Agreement, and has released the NSW Climate Change Policy Framework, outlining how NSW will take action that is consistent with Australia's commitment to the Paris Agreement.

The NSW Climate Change Policy Framework sets out two aspirational objectives for the State; to achieve net zero emissions by 2050; and to be more resilient to a changing climate. These long-term objectives aim to attract investment in renewable energy and energy efficiency, guide public and private sector decision-making, and help make NSW Government policy consistent with national and international policy on climate change.

To implement the NSW Climate Change Policy Framework, the NSW Government has prepared the *Draft Climate Change Fund Strategic Plan*, which sets out priority investment areas and potential actions using \$500 million of new funding from the \$1.4 billion Climate Change Fund over the period from 2017 to 2022, to help NSW make the transition to a net-zero emissions future and adapt to a changing climate.

5.8.1 Waste management

Waste management infrastructure across Greater Sydney is largely managed and owned by the private sector.

The South West District has a number of waste treatment facilities including landfills, transfer stations and organics treatment facility. A *Plan for Growing Sydney* noted the need for additional waste and recycling facilities to help manage demand as Greater Sydney grows.

The District's industrial precincts could house waste management facilities, including locations for recycling municipal waste, recycling commercial and industrial waste and recycling hazardous materials from households.



Sustainability Priority 9: Support opportunities for District waste management

When making plans, relevant planning authorities should:

- use appropriate land use zones to minimise the potential for conflict with the operation and expansion of existing waste facilities
- protect precincts that have functioning waste management facilities from encroachment by residential and other sensitive development
- consider ways to encourage design measures such as fully enclosing waste facilities to minimise dust, odours and noise impacts to mitigate the risks and potential impacts on surrounding communities.

How these matters have been taken into account is to be demonstrated in any relevant planning proposal.



Action S11: Identify land for future waste reuse and recycling

As the South West District grows, the need to manage waste will grow. In the new higher density neighbourhoods created around the centres of Liverpool or Campbelltown, there may be opportunities to improve the efficiency of waste collection services by introducing innovative precinct-based waste collection, reuse and recycling.

In accordance with Action 4.3.2 of *A Plan for Growing Sydney*, the Environment Protection Authority and the Department of Planning and Environment, in participation with councils, will identify additional land for waste management, reuse and recycling and how and where precinct-based waste collection services could operate within Greater Sydney.

5.8.2 Energy and water

Making more efficient use of energy and water is a cost effective way to reduce carbon emissions, reduce pressure on waterways and ecosystems and reduce costs. The NSW Government has released *A Draft Plan to Save NSW Energy and Money*, as part of the NSW Climate Change Policy Framework. Steps to reduce greenhouse gas emissions will rely on action at the local and district scale, as well as national and international efforts. Monitoring the use of energy and water can help guide and support targeted measures to make the South West District more efficient and sustainable.

We will report annually on carbon emissions across Greater Sydney on the Greater Sydney Dashboard in accordance with the C40 (Carbon Disclosure Protocol) requirements. Access to data will help support the identification of targeted and cost-effective initiatives to help meet the NSW target of net zero carbon emissions by 2050.

We will also report on a range of environmental measures in line with Action IM3 above (see Section 1.2.4)

Adopting a place-based approach and identifying Collaboration Areas enables us to plan for improved environmental performance. This could also improve the ability to:

- renew and replace inefficient infrastructure (greening the infrastructure 'grey-grid')
- organise utilities, car parking, amenities, open space, urban green cover and public spaces
- apply and further develop successful approaches from other areas of Greater Sydney.



Action S12: Embed the NSW Climate Change Policy Framework into local planning decisions

We will work with councils, the Office of Environment and Heritage and other State agencies to see how best to implement the NSW Climate Change Policy Framework across Greater Sydney. We will identify which actions in the *Draft Climate Change Fund Strategic Plan* could be delivered in partnership with State agencies and councils to improve energy efficiency, reduce emissions and improve environmental performance.



Action S13: Support the development of initiatives for a sustainable low carbon future

When identifying areas that are likely to undergo significant change, relevant planning authorities should identify areas that have the potential to become low carbon - high environmental efficiency areas. Our goal is to enable progressive reduction in carbon emissions potable water use and waste and to upgrade the District's ageing infrastructure, with a focus in the first instance, on NSW Government-led urban renewal areas, priority precincts and Priority Growth Areas.



Action S14: Support the development of environmental performance targets and benchmarks

Improving the energy and water efficiency of buildings, and reducing waste in urban renewal projects and infrastructure projects has a wide range of benefits, including reduced greenhouse gas emissions, reduced costs associated with energy use, and greater appeal to building owners and tenants.

Adopting innovative transport technologies, such as electric vehicles, can also help make the South West District more sustainable and efficient. Electric vehicles also have other benefits, such as lower levels of noise and air pollution that can be particularly valuable in densely-settled urban areas.

The Commission, in partnership with the NSW Climate Council, the Australian Government, State agencies and utility providers, will investigate ways to define environmental performance targets and benchmarks for areas and projects, and implementation measures to help reach these targets. This will include consideration of the potential growth in use of electric vehicles and options for standardised approaches to charging locations for electric vehicles.

We will also consider ways to move towards greater sharing of open source data to support better environmental performance.

5.9 Planning for a resilient South West District

The South West District's rivers, floodplains and bushland contribute to its character and lifestyle. With the District undergoing such substantial growth, this interface between urban activities and the natural landscape can bring risks including flooding and bushfires. Impacts from natural hazards have the potential to increase as the climate changes, requiring adaptive responses.

The NSW Government has a number of policies and programs that aim to make NSW more resilient to natural hazards and a changing climate. As well as the NSW Climate Change Policy Framework and the *Draft Climate Change Fund Strategic Plan*, AdaptNSW, the NSW and ACT Regional Climate Change Model and a number of other climate change adaptation programs are in place.

Urban resilience is “the capacity of individuals, communities, institutions, businesses and systems within a city to survive, adapt and thrive no matter what kinds of chronic stresses and acute shock they experience”.

100 Resilient Cities project

Greater Sydney's resilience challenge and 100 Resilient Cities

Around the world, leading cities are examining the challenge of urban resilience and exploring ways to become more resilient. 100 Resilient Cities is an international project developed by the Rockefeller Foundation, dedicated to helping cities around the world become more resilient to the physical, social and economic challenges that are a growing part of the 21st Century.

Cities in the 100 Resilient Cities network are provided with resources, including financial and logistical guidance, expert support, and access to a global network of cities, to develop a roadmap to resilience. Work is underway to develop a resilience strategy for Greater Sydney.

Greater Sydney's participation in the 100 Resilient Cities network is being led by the City of Sydney. We support the Resilient Sydney office – hosted by the City of Sydney – to develop a resilience strategy for Greater Sydney.

The most significant natural hazards and acute shocks that affect the South West District include bushfire, heatwaves and flooding (the next section takes a specific focus on flooding in the Hawkesbury-Nepean Valley). These natural phenomena will be potentially exacerbated by climate change.

Planning law in NSW requires new development on bushfire-prone land to comply with the provisions of the NSW Rural Fire Service's *Planning for Bush Fire Protection 2006* as consistent with s. 79BA of the *Environmental Planning and Assessment Act 1979*.

AdaptNSW is a NSW Government-led approach to understanding climate change and to managing risk and taking actions to adapt to extreme weather. Projections to 2030 across Greater Sydney are:

- Rain: Average annual rainfall is expected to increase by +1.7% in the Sydney Basin. Rainfall is projected to increase during autumn (+9.7%). Rainfall is projected to reduce in spring (-2.6%) and marginally in summer (-0.2%). Parts of the South West South West District are at risk of flooding and increases in the amount and intensity of rainfall could make this worse.
- Bushfire: The Forest Fire Danger Index (FFDI) quantifies bushfire weather conditions, combining observations of temperature, humidity and wind speed. Fire weather is classified as severe when the FFDI is above 50. Severe fire weather is projected to have a slight increase in summer months to 2030. Decreases are projected during autumn and across the Sydney Basin in spring. A reduction during autumn is likely due to increases in rainfall.
- Heat: Hot days, measured by the number of days a year with a maximum temperature over 35°C, are projected to increase by an average of four days per year by 2030. The South West District already experiences more hot days than other parts of Greater Sydney and exposure to extreme heat will be an ongoing challenge for the District.
- Cold: Changes in cold nights, measured by minimum temperature (less than 2°C) can have considerable impacts on native ecosystems and agricultural crops.

Placing development in hazardous areas or increasing housing density in areas with limited evacuation options increases risk to people and property from bushfire. Designing neighbourhoods to minimise the perimeter of land that interfaces with the hazardous areas can also reduce risks.

Although clearing vegetation around developments on bushfire-prone land can help reduce risks from bushfire, clearing must be balanced against the protection of bushland and its ecological processes and systems.

The Rural Fire Service will continue to require that new development comply with the requirements set out in *Planning for Bush Fire Protection 2006*.

Managing flooding is an important priority for communities across Greater Sydney. All local government areas in the South West District are exposed to some flood threat, whether from major rivers or local overland flow.

In NSW, councils have responsibility for managing flood risk, including the development of flood studies and floodplain risk management studies. The NSW Government provides councils with technical, financial and policy assistance in floodplain risk management. The NSW Government has also prepared the *Floodplain Development Manual 2005* to guide local planning for development on flood liable land.

Compared to many cities around the world, Greater Sydney enjoys excellent air quality, which enhances our reputation as a sustainable and liveable city. However, the combined effect of air circulation patterns in the Sydney Basin, local topography, and proximity to sources of different sources of air pollution such as wood-fire smoke, can lead to localised air quality issues, particularly in parts of the West and South West Districts. We will examine options to improve air quality as part of the review of *A Plan for Growing Sydney* in 2017.

Transport movements along major road 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. There are controls in place in the *State Environmental Planning Policy (Infrastructure) 2007* to assist in reducing the health impacts of rail and road noise and adverse air quality on sensitive adjacent development.

Reducing particle pollution is a priority for the NSW Government and the community as exposure can be particularly harmful. The national standard for particle pollution has been exceeded in Greater Sydney for up to 11 days per year in the last decade and the fine particle standard has been exceeded for up to 14 days per year. These events are often associated with extreme events such as bushfires and dust storms.

We support public transport, walking and cycling, and electric vehicles as opportunities to reduce air pollution, and will collaborate with the Office of Environment and Heritage and other agencies and utilities to report annually on air quality across Greater Sydney through the Greater Sydney Dashboard.



**Sustainability Priority 10:
Mitigate the urban heat island effect**

Relevant planning authorities should consider where the urban heat island effect is experienced, and the location of vulnerable communities and use strategic plans to reduce impacts from extreme heat.

How these matters have been taken into account is to be demonstrated in any relevant planning proposal.



**Sustainability Priority 11:
Integrate land use and transport planning to consider emergency evacuation needs**

Relevant planning authorities should coordinate with Transport for NSW and the State Emergency Service to consider land use and local road planning, so that it is integrated with emergency evacuation planning and takes into account the cumulative impact of growth on road evacuation capacity.

How these matters have been taken into account is to be demonstrated in any relevant planning proposal.



Sustainability Priority 12: Use buffers to manage the impacts of rural activities on noise, odour and air quality

When preparing strategic plans, relevant planning authorities will:

- work with the Environment Protection Authority, Department of Primary Industries and councils to identify approaches (that may include buffers) for agriculture and primary industry activities to manage land use conflict
- use strategic plans to prevent or limit development in areas that would be in conflict with agriculture and primary industry
- protect agriculture and primary industry activities from encroachment by residential and other sensitive development.

How these matters have been taken into account is to be demonstrated in any relevant planning proposal.



Sustainability Priority 13: Assist local communities develop a coordinated understanding of natural hazards and responses that reduce risk

The Commission, the NSW Government and local councils will continue to adopt a range of tools, resources and implement actions to adapt to climate change and reduce risks to public and private assets. The Commission will also explore ways to coordinate, improve and communicate information about risks associated with climate change to local communities.



Action S15: Incorporate the mitigation of urban heat island effect into planning for urban renewal projects and Priority Growth Areas

Air temperatures in the District and other parts of Greater Sydney are expected to increase due to climate change and increasing urbanisation. The highly urbanised environment in parts of the South West District can increase localised heat even more. The Office of Environment and Heritage has mapped areas where extreme heat is experienced and where it is likely to increase with climate change. These maps are available at www.climatechange.environment.nsw.gov.au.

The Department of Planning and Environment will consider ways to reduce the impact of the urban heat island effect in its planning for priority urban renewal precincts and corridors, and in the new Development Code for Priority Growth Areas across Greater Sydney.



Action S16: Review the guidelines for air quality and noise measures for development near rail corridors and busy roads

The Department of Planning and Environment will work with other State agencies to review *State Environmental Planning Policy (Infrastructure) 2007* and update the *Development Near Rail Corridors and Busy Roads - Interim Guideline* (Department of Planning 2008) to include contemporary air quality and noise information. This will include analysis of likely rail corridor and road vehicle movement patterns in 2036 to provide an understanding of where air quality and noise issues might need to be managed into the future.

The Environment Protection Authority, in collaboration with the Department of Planning and Environment and stakeholders, will develop principles for reducing emissions and exposure to air pollution. These will be able to be used by relevant planning authorities and will be considered when preparing strategic plans and making development decisions across Greater Sydney.



Action S17: Identify and map potential high impact areas for noise and air pollution

Across the South West District, the Environment Protection Authority and councils already provide a framework for the operation of potentially hazardous activities and manage any impacts on air quality and noise.

The Environment Protection Authority will work with the Department of Planning and Environment and councils to identify and map buffers around industries that have been granted a licence to pollute. Buffers will vary based on the level of risk and impacts on the surrounding community.

5.10 Managing flood hazards in the Hawkesbury-Nepean Valley

The NSW Government has identified Hawkesbury-Nepean Valley as having the greatest single flood exposure in NSW, posing a significant danger to life and property in Western Sydney.

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 floodwaters downstream. Limited flood warning time is a risk factor, and there is a complex interaction between the main flow of the river and the multiple rivers and creeks that contribute to the catchment. This creates challenges for urban development and emergency management planning in the catchment.

Already, up to 134,000 people live and work on the floodplain and could require evacuation during a flood; this population will double over the next 30 years. Over 25,000 homes and two million square metres of commercial space are subject to flood risk from the Hawkesbury-Nepean River between Bents Basin and Brooklyn Bridge. This risk will continue to increase as development intensifies in response to existing land use planning controls.

In 2016, the NSW Government released a Hawkesbury-Nepean Valley Floodplain Management Strategy. As part of this strategy, the NSW Government commenced detailed concept designs, environmental assessments and business case planning for the raising of Warragamba Dam wall for flood mitigation. If approved, this will significantly reduce the frequency of flooding for existing downstream settlements, including Windsor, Richmond and parts of Penrith but would not eliminate all flood risk in the Valley.

The Hawkesbury-Nepean Flood Risk Management Task Force

The NSW Government has established the Hawkesbury-Nepean Flood Risk Management Task Force to lead Stage Two of the review into flood management and preparedness in the Hawkesbury-Nepean Valley.

This follows Stage One – the *Hawkesbury-Nepean Valley Flood Management Review (March 2014)* – completed by the Department of Primary Industries, which looked at the current flood management and planning in the Hawkesbury-Nepean Valley to identify opportunities to improve the ways in which floods are managed.

In June 2016, the NSW Government announced the Hawkesbury-Nepean Flood Risk Management Strategy, which was developed by the Task Force, to reduce the potential flood risk to life and property in the Hawkesbury-Nepean Valley.

The Task Force continues to work closely with NSW Government agencies and other stakeholders to lead policy thinking and provide expert advice to State and local governments and to communities on ways to reduce flood risks in the Hawkesbury-Nepean Valley.

The key land use planning responses to flood risk will be refined once the NSW Government considers the final business case for the dam raising and additional associated flood risk management investigations across the floodplain. Directions on changes to planning controls will be considered to preserve the risk to life benefits of the dam raising, limit pressure on flood evacuation routes and reduce flood evacuation complexity.

Irrespective of the dam raising, a more strategic land use approach to regional flood risk is required to manage the existing and ongoing flood risk. Urban growth in the Valley must be carefully managed in terms of absolute numbers and in the distribution of homes and commercial development.

The application of appropriate flood related development controls and restrictions on new development are likely to continue to apply in key areas of risk across the floodplain. In addition, better integration of land use and road planning must account for the cumulative impact of growth on available flood evacuation road capacity and the complexity of flood emergency operations.

Key planning principles currently under investigation for future implementation as part of a formal statutory mechanism (such as a state environmental planning policy) include:

- avoiding intensification and new urban development on land below the current 1 in 100 chance per year flood event (1% annual exceedance probability (AEP) flood event)
- investigating the benefit of applying flood related development controls at levels higher than the current 1 in 100 chance per year flood level, in recognition of the higher flood depths above this current planning level and the potential impact on evacuation planning and property
- providing for less intensive development or avoiding certain urban uses in areas of higher flood risk, and allowing more intensive development in areas of lower flood risk, subject to an assessment of the cumulative impact of urban growth on regional evacuation road capacity and operational complexity of emergency management
- balancing desired development outcomes in centres with appropriate flood risk management outcomes
- avoiding alterations to flood storage capacity of the floodplain and flood behaviour through filling and excavation ('cut and fill') or other earthworks
- providing for the application of more flood compatible building techniques and subdivision designs.



Action S18: Address flood risk issues in the Hawkesbury-Nepean Valley

The Commission and other State agencies will continue to work together to reduce flood risks in the District in line with outcomes of the Hawkesbury-Nepean Valley Flood Risk Management Strategy.

In the interim, prior to the implementation of a statutory mechanism for the Hawkesbury-Nepean Valley, relevant planning authorities will need to demonstrate that the above principles have been addressed when making strategic plans to ensure that the cumulative growth in the Hawkesbury-Nepean Valley does not increase the risk to life.

Term	Draft District Plan definition
Central City	The metropolis of three cities includes the developing Central City, which is anchored by Greater Parramatta and the Olympic Peninsula (GPOP) in West Central District and the strategic centres of Blacktown (also associated with Western City), Norwest, Macquarie Park (also associated with Eastern City) and Rhodes.
Collaboration Area	A Collaboration Area is a designated place where a significant productivity, liveability or sustainability outcome can be better achieved through the collaboration of different levels of government and in some cases the private sector or landowners. It is also a place where the Commission will seek to lead or be a major player in facilitating the collaboration.
District centres	<p>District centres play a significant district role due to the presence of one or more of the following characteristics:</p> <ul style="list-style-type: none"> • the scale of retail activity, generally over 50,000m² of floor space • the presence of health and education facilities that serve the district and the local community • the level of transport services <p>District centres also generally have between 5,000 to 10,000 jobs.</p>
Eastern City	The metropolis of three cities includes the established Eastern City, which spans the North, Central and South Districts and the strategic centres of Northern Beaches Hospital, Macquarie Park (also associated with Central City), Chatswood, St Leonards, North Sydney, Sydney City, Randwick Health and Education, Green Square-Mascot, Sydney Airport, Port Botany and Kogarah.
Employment Lands Development Program	The Employment Lands Development Program provides information on planning for employment lands and business parks across metropolitan Sydney and is administered by the Department of Planning and Environment. The Program produces an annual report on the supply of and demand for employment lands.
Greater Parramatta	Greater Parramatta includes Parramatta City, and the precincts of Westmead, Parramatta North, Rydalmere and Camellia.
Greater Parramatta and the Olympic Peninsula (GPOP)	Greater Parramatta and the Olympic Peninsula (GPOP) is the first Collaboration Area of the Commission. GPOP spans 13 kilometres east-west from Strathfield to Westmead and seven kilometres north-south from Carlingford to Lidcombe and Granville and includes the strategic centres of Greater Parramatta and Sydney Olympic Park. The Parramatta River flows east through the heart of GPOP and the planned Parramatta Light Rail forms the GPOP spine.
Greater Sydney	Greater Sydney is defined as the 33 local government areas of Bayside, Blacktown, Blue Mountains, Burwood, Camden, Campbelltown, Canada Bay, Canterbury-Bankstown, Cumberland, Fairfield, Georges River, Hawkesbury, Hornsby, Hunters Hill, Inner West, Ku-ring-gai, Lane Cove, Liverpool, Mosman, Northern Beaches, North Sydney, Parramatta, Penrith, Randwick, Ryde, Strathfield, Sutherland, The City of Sydney, The Hills, Waverley, Willoughby, Wollondilly and Woollahra.

Term	Draft District Plan definition
Greater Sydney Dashboard	The Greater Sydney Dashboard will be an interactive web-based tool that will provide access to indicators for cross-District issues such as jobs and housing targets to assist decision-making. It will be used to gain insights from our collaborations and build on evidence already commissioned by various State agencies and councils. The Dashboard will also include a data store to assist decision-making and strategic planning.
Global Sydney	Global Sydney is the combination of the Western, Central and Eastern Cities.
Gross Domestic Product	Gross Domestic Product (GDP) is a measure of the size of a country's economy and productivity defined as the market value of all final goods and services produced in a country within a given period of time. (Source: Regional Development Australia, Sydney Metropolitan Region Economic Baseline Assessment Update, Final, July, 2013)
Gross Value Added	Gross Value Added is the measure of the value of goods and services in a particular area.
Health and education jobs	Health and education job categories are: Education; Health Care; and Social Assistance based on the Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006 used by the Australian Bureau of Statistics.
Health and education super precincts	Health and education super precincts are important locations for knowledge-intensive jobs, innovation and service delivery. They contain Greater Sydney's most important higher education and specialist health institutions and are assets that create significant opportunity to drive economic prosperity and social wellbeing.
Housing market areas	Greater Sydney's 18 housing market areas are based on research by the City Futures Research Centre at the University of New South Wales that identified that approximately 82% of all household moves made in Greater Sydney are within 15 kilometres of their previous home.
Industrial jobs	Industrial job categories are: Agriculture, Forestry and Fishing; Mining; Manufacturing; Electricity, Gas, Water and Waste Services; Wholesale Trade; and Transport, Postal and Warehousing based on the Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006 used by the Australian Bureau of Statistics.
Knowledge-intensive jobs	Knowledge-intensive job categories are: Information, Media and Telecommunications; Financial and Insurance Services; Rental, Hiring and Real Estate Services, Professional, Scientific and Technical Services; and Public Administration and Safety based on the Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006 used by the Australian Bureau of Statistics.
Local centres	Local centres vary in size from a few shops on a corner to a vibrant main street. They are on a smaller scale than district centres and generally serve the local population.
Local Environmental Plan	A Local Environmental Plan (LEP) is a statutory spatial plan which comprises planning controls that are typically the main mechanism for determining the type and amount of development that can occur on a parcel of land. In the Greater Sydney Region, LEPs can be made by the Minister for Planning or the Greater Sydney Commission.

Term	Draft District Plan definition
Metropolitan Rural Area	The Metropolitan Rural Area is the non-urban area within the Greater Sydney Region. It includes rural towns and villages, farmland, floodplains, national parks and areas of wilderness. Rural towns and villages are distinct from urban areas in that they provide mainly for local growth needs, as distinct from the needs of the broader Greater Sydney Region. The Metropolitan Rural Area creates a rural and bushland backdrop to Sydney and will be managed to balance local growth needs with environmental protection, resource management, agriculture, tourism and culture, research activity, military uses and community safety.
Parramatta City	Parramatta City covers the central business district of Parramatta.
Planning controls	The combination of land use zones and development standards that control the use and built form of development. Development standards may limit height, density, set back from the road or property boundary and lot size for development or subdivision.
Priority Growth Areas	Areas of Greater Sydney identified by the NSW Government as major greenfield development areas. Information about Priority Growth Areas is available on the Department of Planning and Environment's website.
Priority Precincts	Priority Precincts are areas that the Minister for Planning considers have a wider social, economic or environmental significance for the community or have redevelopment potential on a scale that is important in implementing the State's planning objectives. Priority Precincts are envisaged as larger areas, usually made up of multiple land holdings, capable of delivering significant additional growth and requiring coordination from State and local government to realise their potential.
Population serving jobs	Population serving job categories are: Retail Trade; Accommodation and Food Services; Arts and Recreation Services; Construction; and Other Services based on the Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006 used by the Australian Bureau of Statistics.
State Environmental Planning Policy	A State Environmental Planning Policy is a statutory plan, typically prepared by the Department of Planning and Environment and endorsed by the Minister for Planning. It can be a spatial plan for particular land in NSW, and/or it can set policy which applies to particular land or all land in NSW.
Strategic centres	<p>Strategic centres have one or more of the following characteristics:</p> <ul style="list-style-type: none"> • a higher proportion of knowledge-economy jobs, principally relating to the presence of major hospitals, tertiary education institutions, stand-alone office development or a combination of these • the presence of existing or proposed major transport gateways • a major role in supporting the increased economic activity of the Eastern, Central or Western Cities. <p>Strategic centres also tend to have over 20,000 jobs:</p>
Sydney City	Sydney City includes the contiguous areas of Sydney CBD, Barangaroo, Darling Harbour, Pyrmont, The Bays Precinct, Camperdown-Ultimo Health and Education, Central to Eveleigh, Surry Hills and Sydney East.

Term	Draft District Plan definition
Transport gateways	Transport gateways are locations with major ports or airports, and their surrounding precincts. They perform an essential and ongoing role to connect Sydney with locations across Australia and the world. Transport gateways are vital to Sydney's prosperity and often support large concentrations of complementary business activity and employment.
Urban Feasibility Model	The Urban Feasibility Model is a strategic planning tool developed by the Department of Planning and Environment which calculates the potential of an investigation area to deliver housing, based on planning and development controls and economic feasibility, framed by development costs and the local housing market.
Western City	The metropolis of three cities includes the emerging Western City focused on the proposed Western Sydney Airport. The Western City will encompass the West and South West Districts and include the strategic centres of Penrith, Liverpool, Campbelltown-Macarthur and Blacktown (also associated with Central City).

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