

WESTERN
PARKLAND CITY

BLUEPRINT

Western Parkland City Blueprint, September 2022

© State of New South Wales through the
Western Parkland City Authority

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 Western Parkland City Authority

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 Western Parkland City Authority



Chair's Foreword

Together, the *Western Parkland City Blueprint* and *Economic Development Roadmap – Phase 1* outline how the Western Parkland City will become the most green, connected and advanced City in the Indo-Pacific region. They identify the critical government priorities to successfully accommodate growth in the region, attract global talent, and overall build a more liveable Parkland City. Strong economic development and world-class sustainability will underpin the realisation of a future focused Western Parkland City.

To keep pace with the growth and scale of the Parkland City, it is expected the City could require 15-30 per cent of the NSW infrastructure spend – the equivalent of \$60 billion to \$120 billion in today's terms – over the next 15 years. The NSW and Commonwealth governments and the eight Western Parkland Councils have together made a \$20 billion down payment on the infrastructure that will catalyse this economic opportunity and kick start its success.

Past approaches to planning and investment in Greater Sydney have focused on providing communities with residential housing before jobs, transport and services. This has led to a patchwork of suburban growth, poorer liveability outcomes, missed opportunities for investment and jobs, and costly retrofitting of critical infrastructure and services.

The *Western Parkland City Blueprint* and *Economic Development Roadmap – Phase 1* provide a fundamental shift away from this approach by prioritising jobs-led growth to align the delivery of services and infrastructure with housing growth. The focus of the *Western Parkland City Blueprint* and *Economic Development Roadmap – Phase 1* will help shape the future of the Parkland City to fill the gaps in services, infrastructure and job-creating activity.

As the City evolves over time, the Authority will continue to update the priorities and identify opportunities for increased collaboration and alignment with the Western Sydney City Deal and Six Cities Region Plan. The commitment to working with our partners from across the three levels of government to address the comprehensive feedback received on the draft documents will also continue.

The Bradfield City Centre at the heart of the Aerotropolis is a key deliverable for the Authority and enhances the importance of the work undertaken on the Place-based Infrastructure Program (PIC). An updated PIC program will connect state and local infrastructure and inform infrastructure prioritisation decisions to deliver jobs led growth and sustainable communities, to benefit of the whole Western Parkland City. Learnings from this work and the construction of the Bradfield City Centre will be applied throughout the Western Parkland City and include initiatives such as the Koori Perspectives Circle, transitioning to net zero, applying circular economy principles to buildings, multi-utility corridors, and air freight facilities.

I look forward to playing a role in implementing the *Blueprint*, and its partner document the *Economic Development Roadmap – Phase 1*, and watching the transformation of the Western Parkland City.

Jennifer Westacott, AO
Chair, Western Parkland City Authority

Acknowledgement of Country

Aboriginal people have had a continuous connection with the Country encompassed by the Western Parkland City ('Parkland City') from time immemorial. They have cared for Country and lived in deep alignment with this important landscape, sharing and practising culture while using it as a space for movement and trade.

We acknowledge that four groups have primary custodial care obligations for the area Dharug/Darug, Dharawal/Tharawal, Gundungurra/Gandangara and Darkinjung. We also acknowledge others who have passed through this Country for trade and care purposes: Coastal Sydney people, Wiradjuri and Yuin.

Western Sydney is home to the highest number of Aboriginal people in any region in Australia. Diverse, strong and connected Aboriginal communities have established their families in this area over generations, even if their connection to Country exists elsewhere. This offers an important opportunity for the future of the Parkland City.

Ensuring that Aboriginal communities, their culture and obligations for Country are considered and promoted will be vital for the future of the Parkland City. A unique opportunity exists to establish a platform for two-way knowledge sharing, to elevate Country and to learn from cultural practices that will create a truly unique and vibrant place for all.

The Western Parkland City Authority wishes to acknowledge Aboriginal people as the traditional custodians of this land. Through thoughtful and collaborative planning, we seek to demonstrate our ongoing commitment to creating places in which Aboriginal people are supported socially, culturally and economically.

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Executive Summary

What is the Western Parkland City Blueprint?

The vision we set today and the investment decisions we make in the years to come will drive the success of the Western Parkland City as Australia's first truly 22nd Century City.

The *Western Parkland City Blueprint* continues the fundamental shift away from incremental planning and puts forward the next set of short-and medium-term priorities for Government investment that will leverage the initial \$20 billion infrastructure investment and help to achieve the Parkland City vision.

The Blueprint has been compiled by analysing the priority needs for services and infrastructure, the pipeline of future projects slated for investigation, and the opportunities for new and augmented government action. Appendix A sets out preliminary inputs by local government areas (LGAs) that may be considered for future investigation, coordination and/or investment to support the delivery of the Parkland City.

The Blueprint identifies a series of directions for each vision theme of green, connected and advanced to help guide Government decision-making. Each set of directions is accompanied by priorities for Government action that is required to deliver the ambition of the Parkland City vision first established in the Greater Sydney Region Plan.

The Blueprint has a critical interdependency with the *Economic Development Roadmap – Phase 1* (Roadmap). The Roadmap provides an overarching strategy for how we can maximise the economic growth opportunities for the Parkland City, with subsequent phases focusing on key industry sectors.

What is the role of the Western Parkland City Authority?

The NSW Government established the Western Parkland City Authority (WPCA) to coordinate infrastructure, attract investment and deliver the Bradfield City Centre. The WPCA has been tasked with guiding growth and investment for the entire Parkland City, and this Blueprint and the Economic Development Roadmap – Phase 1 is central to that work.

Through the Blueprint, the WPCA sets out the infrastructure priorities that will deliver the vision for the Parkland City.

Western Parkland City Blueprint: Shifting the Fundamentals

1. Build for the long term: by bringing forward decisions to avoid costly retrofitting. This will shift all levels of government from incremental planning on a project-by-project basis to establishing and coordinating delivery for long-term investment needs and options.
2. Unlock the economic potential of the Parkland City: by shifting to a jobs-led approach to growth and making economic and talent attraction a key component of delivery decisions.
3. Align and increase investment in infrastructure: by identifying the infrastructure investment envelope so Government can plan ahead for the medium-to long-term where the Parkland City does not just 'catch-up' but leaps ahead as a city ready for the 22nd century.
4. Make community central to planning and delivery: by engaging upfront and on an ongoing basis with existing communities as the Parkland City grows and changes to drive equity, liveability and amenity for residents, workers and visitors.
5. Recognise the Parkland City as a green, connected and advanced City in its own right: by shifting from a peripheral expansion of Greater Sydney to a Parkland City that is driven by innovation, sustainability and a world-renowned city in a parkland.

What are the highest priorities?

The Parkland City will account for over 20 per cent of NSW's population growth by 2036, with nearly 1.39 million people. To keep pace with this growth, the Parkland City may require 15-30 per cent of the NSW infrastructure spend – the equivalent of \$60 billion – \$120 billion in today's terms – over the next 15 years.

The next set of critical projects are required to maximise the benefits of the Government's \$20 billion investment in infrastructure.

These include:

Rail: Complete investigations to prioritise a metro connection between Bradfield City Centre and Leppington, linking Bradfield City Centre to Glenfield and Liverpool by 2031 and providing the communities of South West Sydney with access to jobs in the Aerotropolis.

Precinct Activation: Deliver road packages, utilities and digital infrastructure and rapid and frequent buses for the Aerotropolis, South West, Greater Macarthur and Wilton Growth Areas to support activation of enterprise lands, jobs growth and connected communities.

Parks and Open Spaces: Establish new parks in the Thompsons Creek and South Creek corridor and

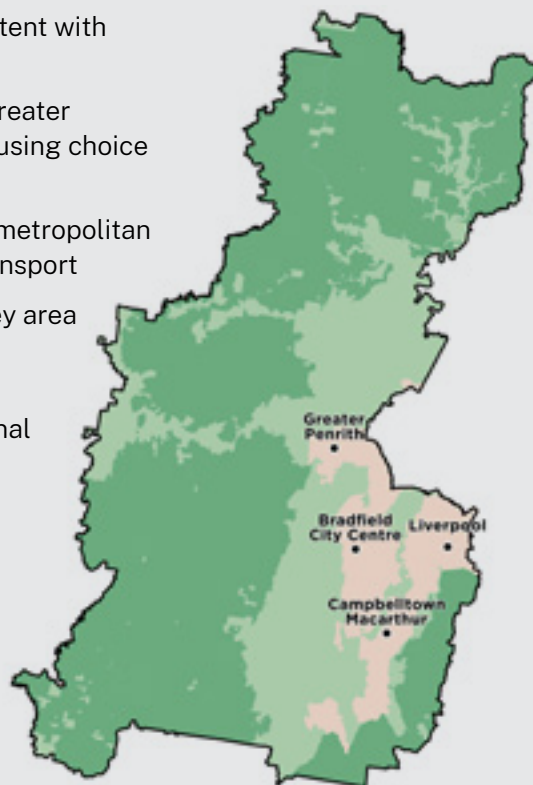
provide additional open space throughout the City, along with increasing tree canopy and green cover in public spaces to reduce heat and increase well-being.

Economic Development: Drive investment attraction and innovation with a strong and predictable infrastructure pipeline, improved capability in advanced manufacturing and cyber security, integrated skills pathways with industry and enhanced health and education precincts.

Sustainability: Progress towards net zero before 2050 by moving away from fossil fuels to a 100% renewable energy mix. This includes delivering Bradfield City Centre as a net zero city that maximises onsite renewable energy generation, smart technology and green infrastructure, and leading in renewable energy as part of a multi-utility corridor pilot in surrounding precincts.

Western Parkland City Snapshot

- +200,000 jobs in the next 20 years consistent with the City Deal
- +184,500 dwellings consistent with the Greater Sydney Region Plan providing greater housing choice and affordability
- 30-minute City based on four connected metropolitan centres that improve the use of public transport
- 800,000 hectares – 65% of Greater Sydney area
- +\$20 billion investment including:
 - \$5.3 billion Western Sydney International Airport;
 - \$4.4 billion Western Sydney Infrastructure Roads package;
 - \$11 billion Sydney Metro – Western Sydney Airport; and
 - \$1.1 billion investment to catalyse the Bradfield City Centre as an initial precinct in the Aerotropolis.



63%
of the city's land
is protected

28%
is metropolitan
rural land only

9%
is dedicated
to existing or
future urban
areas

What is the vision?

The vision is for a green, connected and advanced Parkland City:



Delivering a Green City: The Parkland City will be a green and resilient city with a unique natural landscape that protects biodiversity and supports an increasingly sustainable and compact urban form.

Our investments will enable the City to become a true 'parkland', promoting green infrastructure through networks of open space and waterways and increasing the tree canopy. The City will also attract green economic opportunities in sustainable industries.

In the development of Bradfield City Centre, the WPCA will aim to achieve Australia's first hydrogen ready and net zero city.



Delivering a Connected City: The Parkland City will be a globally and locally connected City supported by physical, digital and social infrastructure.

The new 24/7 Western Sydney International Airport will be a major contributor to the City being one of the most connected places in Australia. The first and subsequent stages of the metro line, rapid bus corridors and more walkable neighbourhoods will allow for better access to jobs, services and amenities.

The City will also be a model for digital equity, innovation and cyber security. It will be designed to respect and Connect with Country and our First Nations people and celebrate our cultural diversity.



Delivering an Advanced City: The Parkland City will be a leader in the advanced manufacturing sector with advanced education and skills to match.

The Parkland City will support the growth of clean, green and advanced industries. It will also grow our health and education precincts and leverage existing strengths in freight and logistics, construction and tourism.

This will improve the diversity of local job opportunities, rebalancing job distribution and improving wage equity across Greater Sydney.

Delivering the vision

A summary of the green directions and critical priorities are set out below. More detailed analysis and further supporting priorities can be found in Section 4: Delivering a green City.



Delivering a green City

Vision	Directions	Priorities
<p>A resilient city with a unique natural landscape, biodiversity and sustainable urban form</p> <p>A true 'parkland' prioritising green infrastructure, promoting liveability, and attracting economic opportunities in green and clean tech</p>	<p>Improve the City's amenity by expanding open space and parks, increasing tree cover and water retention in the landscape, and connecting parks and waterways with a network of walking and cycling links.</p>	<p>G1: Establish a network of green infrastructure in greenfield areas by delivering new parks in the Aerotropolis and Growth Areas including a new regional park at Thompsons Creek to provide open space in new urban areas.</p>
	<p>Support integrated water cycle management by delivering new water recycling facilities, designing place using water sensitive design principles and protecting water catchments.</p>	<p>G2: Improve integrated water cycle management capability including the delivery of the Upper South Creek Advanced Water Facility, to increase the availability and efficiency of water in the Parkland City.</p>
	<p>Protect and enhance biodiversity and the natural environment</p>	<p>G3: Deliver the Cumberland Plain Conservation Plan, including actions to protect koalas.</p>
	<p>Strengthen resilience to climate change and natural hazards with a focus on floods, bushfires, severe storms and extreme heat and designing systems that are resilient to climate change, reduce the urban heat island effect, promote energy efficiency and support decarbonisation.</p>	<p>G4: Develop and finalise the Regional Land Use Planning Framework for the Hawkesbury-Nepean valley.</p> <p>G5: Promote pathways to deliver net zero emissions before 2050, including delivering Bradfield City Centre as a net zero city.</p>

Figure 1: Delivering a green City



Delivering the vision

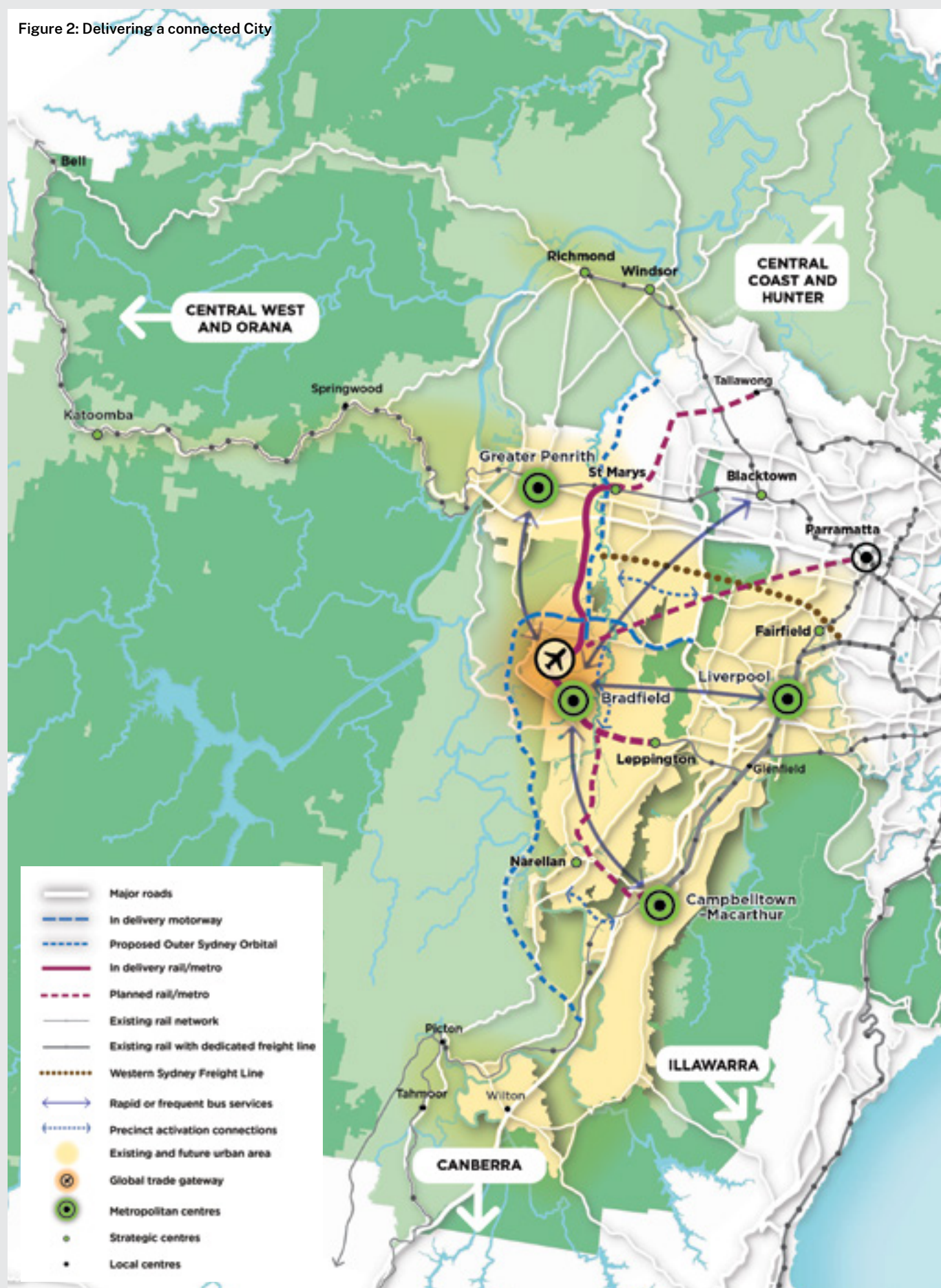
A summary of the connected directions and critical priorities are set out below. More detailed analysis and further supporting priorities can be found in Section 5: Delivering a connected City.



Delivering a connected City

Vision	Directions	Priorities
<p>A 30-minute city where residents live close to jobs, services and amenities</p> <p>A globally connected City</p>	<p>Improve transport links, becoming a 30-minute city, enabling faster, more equitable and sustainable movement of people between residential, commercial and industrial areas.</p> <p>Plan and deliver active transport connections including walkways and cycleways.</p> <p>Plan the City as a smart city with enhanced digital connections, 5G and high levels of cyber security.</p>	<p>C1: Prepare a Western Parkland City transport structure plan increasing north-south and east-west links across the City.</p> <p>C2: Complete investigations to prioritise a metro connection between Bradfield City Centre and Leppington, linking Bradfield City Centre to Glenfield and Liverpool by 2031.</p> <p>C3: Deliver Bradfield City Centre as a digitally enabled smart city and cyber-secure location, to enable growth in advanced industries. Pilot the delivery of 5G and address digital blackspots across the Parkland City.</p> <p>C4: Complete investigations and staging for North-South extension of Sydney Metro-Western Sydney Airport connecting Bradfield City Centre and Western Sydney International (Nancy-Bird Walton) Airport south towards Campbelltown-Macarthur and north towards Schofields/Tallawong and the East-West link connecting Westmead to Bradfield City Centre via the Airport.</p> <p>C5: Investigate potential for additional transit orientated nodes to optimise rail investments.</p>
	<p>Expand the freight infrastructure network to allow for more efficient movement of goods within the City, across the State, and around the world via the Western Sydney International (Nancy-Bird Walton) Airport and Ports Botany and Kembla.</p>	<p>C6: Develop the Mamre Road Intermodal and progress the delivery of the Western Sydney Freight Line (2036) to connect the Parkland City to Port Botany.</p>
<p>A social and culturally connected City, linked internally, to Country, to the region and internationally</p>	<p>Enable integrated delivery to align infrastructure with housing and jobs growth and support efficient provision of services, digital connectivity, and social and community infrastructure.</p>	<p>C7: Deliver road activation packages in the Aerotropolis, South West, Greater Macarthur and Wilton Growth Areas and support delivery of rapid, frequent and local bus connections.</p> <p>C8: Pilot a multi-utilities approach and investigate renewable energy opportunities to support early and efficient activation of the Aerotropolis.</p>
	<p>Strengthen Connection to Country, collaborate with Aboriginal communities and incorporate relevant principles in city design.</p>	<p>C9: Give a stronger voice to the Aboriginal people of the region by growing economic participation and supporting Connection to Country outcomes.</p>
	<p>Support connected and inclusive communities including a more equitable provision of culture and arts across the City.</p>	<p>C10: Plan and deliver regional-scale arts, cultural and community facilities, and foster growth in creative industries.</p>

Figure 2: Delivering a connected City



Metro Stage 2 Bradfield to Glenfield includes investigation of a range of options between the two centres

Delivering the vision

A summary of the advanced directions and critical priorities are set out below. More detailed analysis and further supporting priorities can be found in Section 6: Delivering an advanced City.



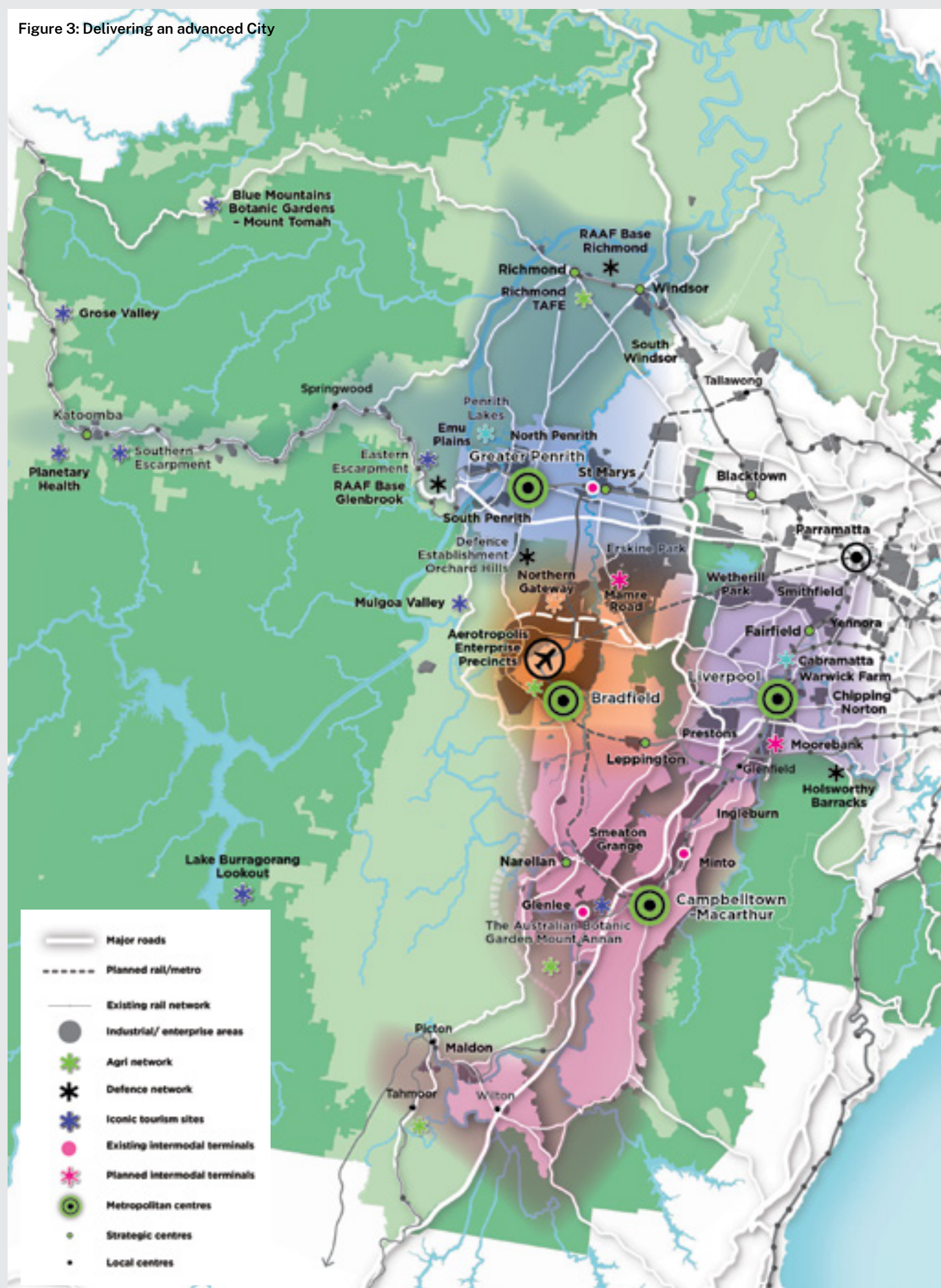
Delivering an advanced City

Vision	Directions	Priorities
<p>A catalyst for economic growth in the Parkland City and beyond</p> <p>Precincts for growing innovative industries and services</p> <p>A driver for skills development and talent attraction</p>	<p>Foster innovation and develop strategically important and globally competitive capabilities.</p>	<p>A1. Deliver on the outcomes of the Economic Development Roadmap –Phase 1 and Smart Western City Program.</p>
	<p>Grow city strengths and specialised services supported by investment in infrastructure and amenities.</p>	<p>A2. Deliver urban renewal in centres including Penrith-St Marys, Campbelltown-Macarthur, and Liverpool, to deliver housing diversity and to improve education, health and employment outcomes.</p> <p>A3. Deliver skills and drive talent attraction through the establishment of the New Education and Training Model (NETM), a program that will provide industry-led skills training through micro-credentials, and increase university opportunities.</p>
	<p>Expand and enhance skills and employment pathways in target industries and attract global talent.</p>	<p>A4. Deliver the Advanced Manufacturing Research Facility, a future hub for advanced manufacturing, metal science and semi-conductor innovation.</p> <p>A5: Investigate the options to attract more migrants and grow local talent with skills for high tech industries.</p>

Economic Development Roadmap – Phase 1

The Economic Development Roadmap –Phase 1 has been developed to complement the foundations set out in the Blueprint. The Roadmap -Phase 1 focuses on the priority economic investments and enablers needed to play a vital role in Australia's post-COVID economic recovery and to be an engine room for economic growth over the coming decades.

Figure 3: Delivering an advanced City



Delivery Horizons

The Blueprint's ambition to build for the long term and shift away from incremental planning means decisions need to be prioritised to support the vision to create the most green, connected and advanced City in the Indo-Pacific region. This will also provide greater alignment across government agencies and deliver more certainty for city building stakeholders and the community.

Strategic Alignment

This Blueprint supports the delivery of the vision for the Parkland City that was established in 2018 in the *Greater Sydney Region Plan: A Metropolis of Three Cities* and the *Western City District Plan*. The vision for Greater Sydney includes the goal of building “on its social, economic and environmental assets to improve the quality of life for all its residents and to uphold its status as one of the top cities of the world.”

The Region Plan is supported by the *Future Transport Strategy 2056* and the *State Infrastructure Strategy*.

The Blueprint encompasses the six domains of the *Western Sydney City Deal* and a range of other Commonwealth, State and local government strategies which influence development and growth across the Parkland City.

In bringing together the delivery elements of these plans and strategies, the Blueprint provides a foundation for coordination.

In this context, the Blueprint identifies a range of priorities across each of the green, connected and advanced themes and draws out critical priorities for immediate consideration.

Some priorities need significant further analyses and testing, some are more advanced than others, whilst all involve multiple stakeholders and address complex policy issues. Consequently, timeframes are allocated to each priority to support prioritisation of resources at the same time as ensuring a ‘no regrets’ approach to planning the City.

In all cases, realising the vision for the Parkland City will require significant and consistent investment over a long period of time. This Blueprint is put forward by the WPCA as its current view of the priority investments required for the Parkland City vision, subject to the input of other stakeholders.

Coordinated Planning and Delivery

Coordinating investment involves an assessment of priorities and their sequencing. Progressing the priorities generally involves three stages as follows:

- **Identification of Strategic Merit:** Government determines whether to proceed with formal investigation of the priorities and investment decisions—such as addressing Government assurance processes;
- **Under Investigation:** Government is investigating whether action on the priority or investment is feasible—such as preparing a detailed business case to secure funding allocation; and
- **In Delivery:** Government has committed funding and actions to responsible authorities—such as detailed delivery and construction phase.

The delivery horizon timeframes recommended for priorities set out in the Blueprint are defined as:

- **Immediate – 2022/23:** the next 6-18 months with a particular focus on unlocking opportunities in the existing centres and greenfield / Aerotropolis areas;
- **Short Term – 2022 – 2026:** being the next five years with a particular focus on growing a nationally competitive advantage and delivering a joined-up City; and
- **Medium Term – 2026 onwards:** to futureproof the economic growth and delivery decisions for the Parkland City.

Planning and Delivery Partnerships

Engagement with the eight Western Parkland Councils has provided initial input to the preparation of the Blueprint. This includes a line of sight of funded and unfunded infrastructure in each LGA.

The preliminary inputs have been drawn from a range of local plans, strategies and initiatives prepared by or for the Western Parkland Councils.

These preliminary inputs include funded and unfunded infrastructure preferences and proposals. Not all have been confirmed and/or endorsed by local Councils or the relevant NSW Government agencies. Rather they form the basis of further discussions in collaboration with the WPCA, relevant NSW Government agencies and local Council (refer Appendix A).

The WPCA also has a key role to play in advocating for the City and collaborating widely across the private sector to facilitate development and investment attraction.

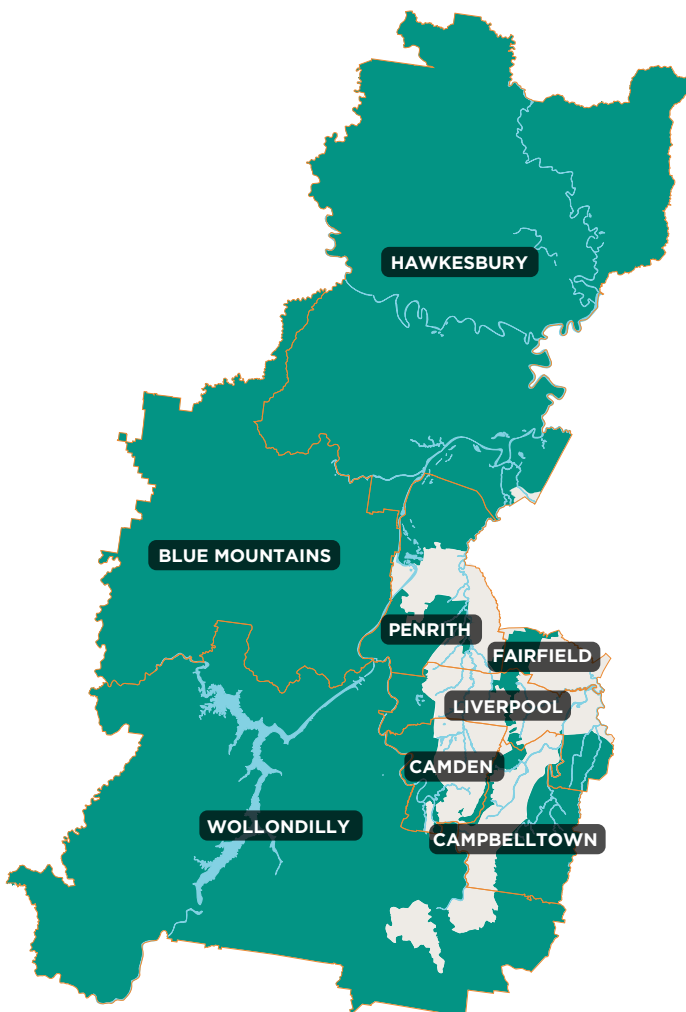
Next steps

This Blueprint has been prepared by the WPCA to provide a central resource on the existing, future and emerging priorities required to deliver the vision for the Parkland City. Accordingly, many of these priorities will require further planning and consultation before governments commit the resources for detailed investigation and implementation.

The WPCA will continue to work closely with Commonwealth and local governments, and NSW Government agencies to:

- Address coordination issues identified in the Blueprint;
- Progressively deliver the priorities;
- Continue to engage with stakeholders on emerging issues; and
- Advocate for priority investment decisions.

Figure 4: Local Government Areas



1. The Role of the Blueprint

The Blueprint will be a living document, and its investment priorities will be updated to guide the successful development of the City as it grows. It will feed into annual State Budgets and inform agencies' plans and strategies, including the NSW State Infrastructure Strategy and the Future Transport Strategy.

The Commonwealth and NSW Governments have already made substantial investments in the Parkland City to support this growth. They have committed \$5.3 billion to the Western Sydney International (Nancy-Bird Walton) Airport creating a game-changing economic anchor at the City's centre. They have committed more than \$15 billion to associated road and rail infrastructure in and around the Aerotropolis Precinct and \$1.1 billion to activate a new economic hub for nationally significant industries at Bradfield City Centre in the Aerotropolis.

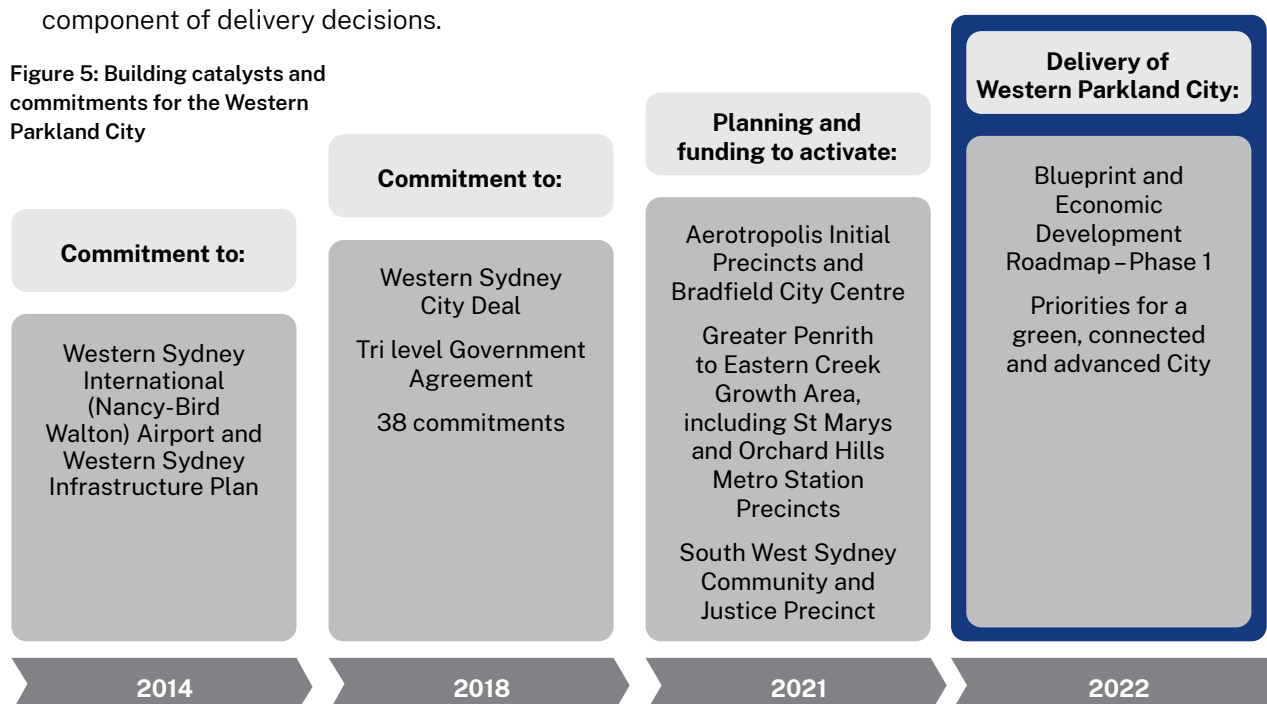
The NSW Government is also committing \$5 billion to WestInvest to match these economic developments with improvements in liveability.

- Build for the long term: by bringing forward decisions to avoid costly retrofitting. This will shift all levels of government from incremental planning on a project-by-project basis to establishing and coordinating delivery for long-term investment needs.
- Unlock the economic potential of the Parkland City: by shifting to a jobs-led approach to growth and making economic and talent attraction a key component of delivery decisions.

- Align and increase investment in infrastructure: by identifying the infrastructure investment envelope so Government can plan ahead for the medium-to long-term where the Parkland City does not just 'catch-up' but leaps ahead as a city ready for the future.
- Community is central to planning and delivery: by engaging upfront and on an ongoing basis with existing communities as the Parkland City grows and changes to drive equity, liveability and amenity for residents, workers and visitors.
- Recognise the Parkland City as a green, connected and advanced City in its own right: by shifting from a peripheral expansion of Greater Sydney to a Parkland City that is driven by innovation, sustainability and a world-renowned City in a parkland.







The Blueprint has been prepared in conjunction with the Economic Development Roadmap – Phase 1. Figure 6 on the following page shows the relationship between the documents.

Figure 5: Building catalysts and commitments for the Western Parkland City



The commitment to the Metropolis of Three Cities changes the urban structure of Greater Sydney. There is now an opportunity to shift the Parkland City away from its longstanding radial settlement pattern to become a complete connected multi-centre city (refer Figure 7), shaping its own provision of jobs, services, and investment. The vision for the City involves long term transformation to 2056 and beyond.

Collectively, the Blueprint will allow us to move away from more traditional incremental approaches of city building towards a more holistic, effective and collaborative model.

VISION: The most green, connected and advanced City in the Indo-Pacific region			
1. BLUEPRINT City-shaping investments required for a liveable City		2. ECONOMIC DEVELOPMENT ROADMAP – PHASE 1 Investments required to accelerate economic growth	
GREEN	 Build a Parkland City, sustainably manage resources, develop the green economy and enriched networks of open space and waterways	GLOBALLY COMPETITIVE	 Foster innovation and develop strategically important and globally competitive capabilities
CONNECTED	 Build a City that is physically, socially and culturally connected within the region and globally	CITY STRENGTHS	 Grow city strengths and specialised services supported by investment in infrastructure and amenities
ADVANCED	 A City that catalyses economic growth through innovation and globally competitive capabilities that leverages city strengths and a skilled workforce	WORKFORCE SKILLS	 Expand and enhance skills and employment pathways in target industries and attract global talent

This model is to be applied across the three levels of Government established by the Western Sydney City Deal and will be led by the WPCA. This new approach will allow us to unlock the economic potential of the Parkland City as the engine room not only of the NSW's economy, but also of the national economy. Concurrently, it will enhance liveability, rebalance jobs with homes and help address social disadvantage.

In doing this, we seek to create not only the newest City, but the most green, connected and advanced City in the Indo-Pacific region.

The WPCA developed this Blueprint to highlight the substantial scale of growth expected in the Parkland City and set out the current gaps and opportunities in infrastructure, services, and industry. This provides the basis to identify a set of investment decisions and priorities to shape the city for success, and support its green, connected and advanced vision that will enhance environmental, social, economic and sustainability outcomes across the City.

The Blueprint brings together the next set of short and medium term investment priorities that will enable precinct activation, with the WPCA focusing on coordinating the integration of land use and infrastructure planning to support the progressive delivery of priorities.

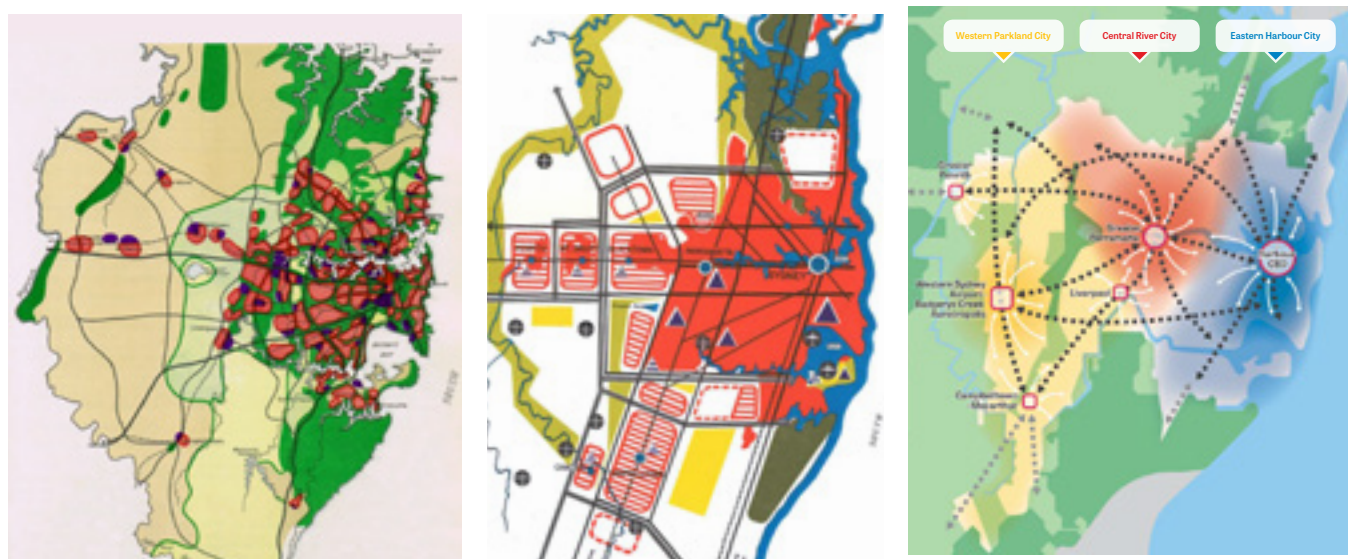
The Blueprint also considers regional and inter-city connections, particularly interdependencies with the Central River City. To support the coordination and delivery of priorities, the WPCA is progressively developing a City-wide platform to provide data and resources to inform growth and infrastructure requirements.

The following City Snapshots showcases the enormous scale of growth expected in the Parkland City over the coming decades, and Section 2 outlines the current gaps in infrastructure, services, economic opportunities, community, and culture.

Greater Sydney Region Plan

The Greater Cities Commission, formerly the Greater Sydney Commission, has been charged with creating a Six Cities region. This builds on the Greater Sydney Region Plan – A Metropolis of Three Cities. The region has been expanded to cover the Greater Newcastle-Lower Hunter, Central Coast and Illawarra-Shoalhaven Cities and will examine the importance of regional links with the Western Parkland City.

Figure 7: Evolution of Greater Sydney – 1948, 1968 and 2018 Greater Sydney Region Plans



SNAPSHOT: Current economic activity

- The Parkland City's economy had an estimated gross regional product (GRP) of \$59 billion in 2019/20.
- \$21 billion invested in the airport, roads and rail, and in the Bradfield City Centre.
- Place based infrastructure planning for Greater Penrith, the Aerotropolis and a link to Glenfield identified a total capital cost of infrastructure to be around \$100 billion over 20 years.
- More than 38,000 homes to be delivered by 2026.
- Largest employment sectors: health and social assistance, construction, retail trade and manufacturing.
- Fastest growing sectors: health and social assistance, education and training, construction, and transport, postal and warehousing.
- 35% jobs located in industrial areas compared to 21% Greater Sydney average.

SNAPSHOT: By 2036 the Parkland City will need:

Over \$5 billion investment in infrastructure and transport services per year

- 5,545 hectares protected and 11,000 hectares of biodiversity conservation;
- 70 megalitres of new wastewater supply (Upper South Creek catchment);
- Supporting Greater Sydney's aim to plant more than 5 million trees in urban areas (by 2030);
- 20-40 kilometres of new rail, with new stations and bus/rail interchanges, and supporting bus services;
- Aerotropolis area; more than 35 kilometres new major road network;
- 3-5 additional schools per year; and
- More than 2,000 hectares of serviced new employment lands (based on 2019 projections for growth by 2036).

SNAPSHOT: Forecast change

The population will grow from 1.06 million (2016) to 1.39 million by 2036, this is almost three times the size of Canberra. This growth will be accommodated in existing urban and greenfield areas with the greenfield area set to double the current urban area by 2056.

- Jobs in metropolitan and strategic centres is forecast to grow from 115,000 (2016) to 183,000 by 2036.
- Jobs in employment lands is forecast to grow from 130,000 (2016) to 210,000 jobs by 2036.
- Housing: the number of dwellings is forecast to grow from 373,000 (2016) to more than 550,000 by 2036.
- Open space: currently 1,850 hectares of active open space and more than 450,000 hectares of National Parks and reserves.

SNAPSHOT: Annual growth

- Annual average jobs growth of over 10,000 per year is forecast with almost 4,000 to be located in centres.
- Annual take up of enterprise land is currently around 50-75 hectares per annum of 150 hectares per annum total for Greater Sydney and this is set to increase as forecasts show that by 2041 the Parkland City will be the only sources of greenfield enterprise land for Greater Sydney.
- Annual average supply of 9,250 additional dwellings is needed to meet housing targets, making up almost one quarter of Greater Sydney's total demand and shifting to more compact and walkable renewal and greenfield communities.
- Equivalent of two new suburbs per year requiring at least two new primary schools and a new high school.

2. Opportunities and Challenges

The Parkland City has many strengths. Ranging from its world heritage environment, waterways and rural areas to its rapidly growing and diverse migrant population with specialist skills.

The Parkland City's growth rate is significantly higher than for Greater Sydney and indeed most established cities around the world. Over the decade to 2021, the population grew by 194,000 people to a total 1.16 million people (1.85% per annum). Looking forward to 2036, this growth rate will be approximately 1.26% per year, creating a City of nearly 1.39 million, three times the population of Canberra. This represents approximately 20% of the population growth of NSW by 2036.

The Parkland City's urban areas are changing to accommodate this growth which will be across both existing urban areas and new greenfield areas. The city network of centres will include growth in the established Metropolitan Centres of Penrith, Liverpool and Campbelltown-Macarthur.

The new greenfield areas will double the urban area of the Parkland City.

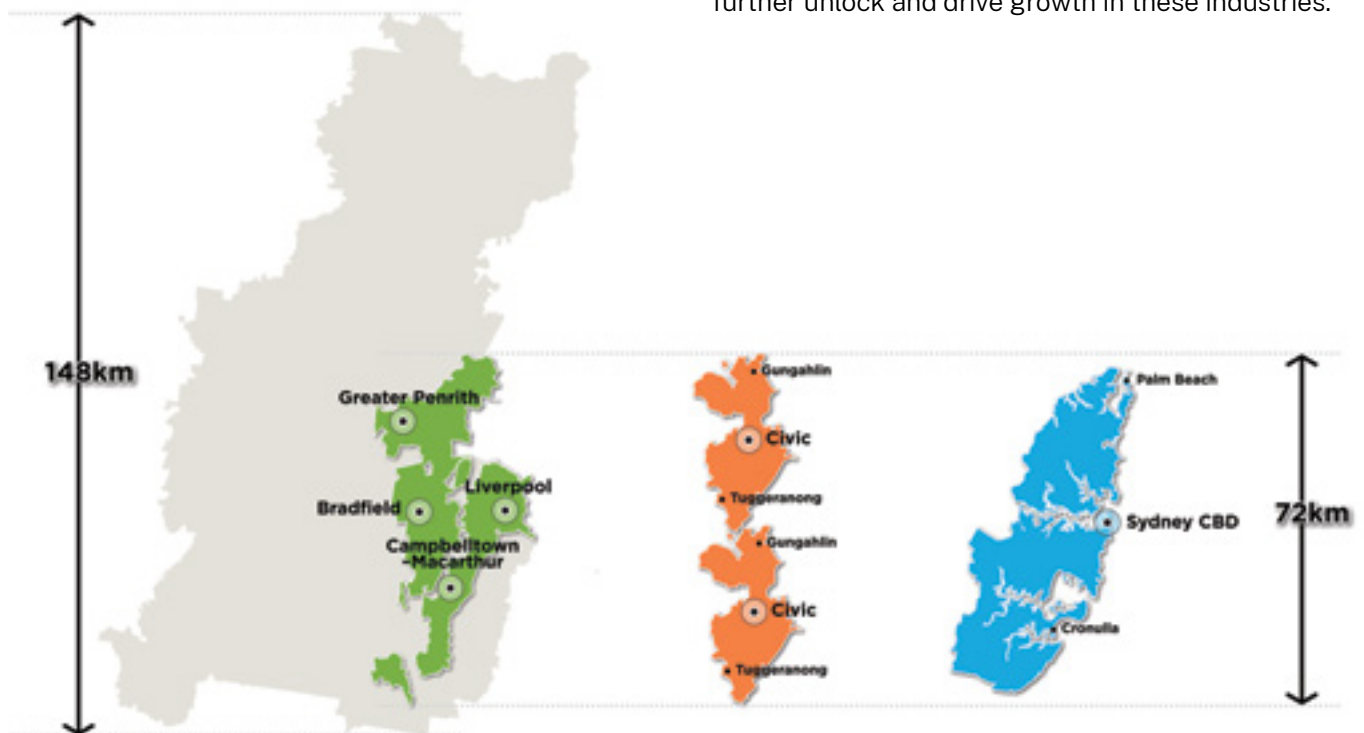
The urban development front of the Parkland City is stretched across a 72-kilometre corridor which is unprecedented for any greenfield area in Australia. This is depicted in Figure 8.

This future urban growth in the extensive greenfield areas around the Bradfield City Centre and in the Camden, Campbelltown and Wollondilly LGAs will transform the Parkland City from a series of metropolitan centres and villages to a City in its own right – a City with its own identity and fair share of services, jobs, infrastructure, art and culture.

The Parkland City's endowments already support several globally competitive industries that are of national significance. Industries such as advanced manufacturing, freight and logistics, and defence have a significant and growing presence, together with agribusiness and the visitor economy.

The Western Sydney International (Nancy-Bird Walton) Airport and Aerotropolis Precinct will help to further unlock and drive growth in these industries.

Figure 8: Scale of the Western Parkland City



In addition to these nationally significant industries, many people-oriented industries service the population of the Parkland City. The established Metropolitan Centres of Campbelltown-Macarthur, Liverpool and Penrith are hubs for community service, health and education.

Precincts within these centres are increasingly the focus for innovation and research. Continued investment in these centres will enable even greater economic opportunities and more high-skilled jobs.

The development fronts and areas of high growth and change are as follows:

Existing and identified future growth areas

Renewal areas

- | | |
|--------------------------------|--|
| Centres and communities | <ul style="list-style-type: none"> • Penrith Metropolitan Centre and The Quarter, including Kingswood and Werrington communities. St Marys Strategic Centre, including the new metropolitan transport interchange. • Liverpool Metropolitan Centre including the Liverpool Innovation Precinct, Fairfield Strategic Centre, and local centres at Villawood, Fairfield Heights, Cabramatta, Canley Vale, Carramar, Yennora/Fairfield East and Smithfield. • Campbelltown-Macarthur Metropolitan Centre, including the Campbelltown Health and Education Precinct and South West Sydney Community and Justice Precinct. • Glenfield-Macarthur renewal corridor including the Glenfield Precinct, and future Metro Precincts including Narellan Strategic Centre. |
|--------------------------------|--|

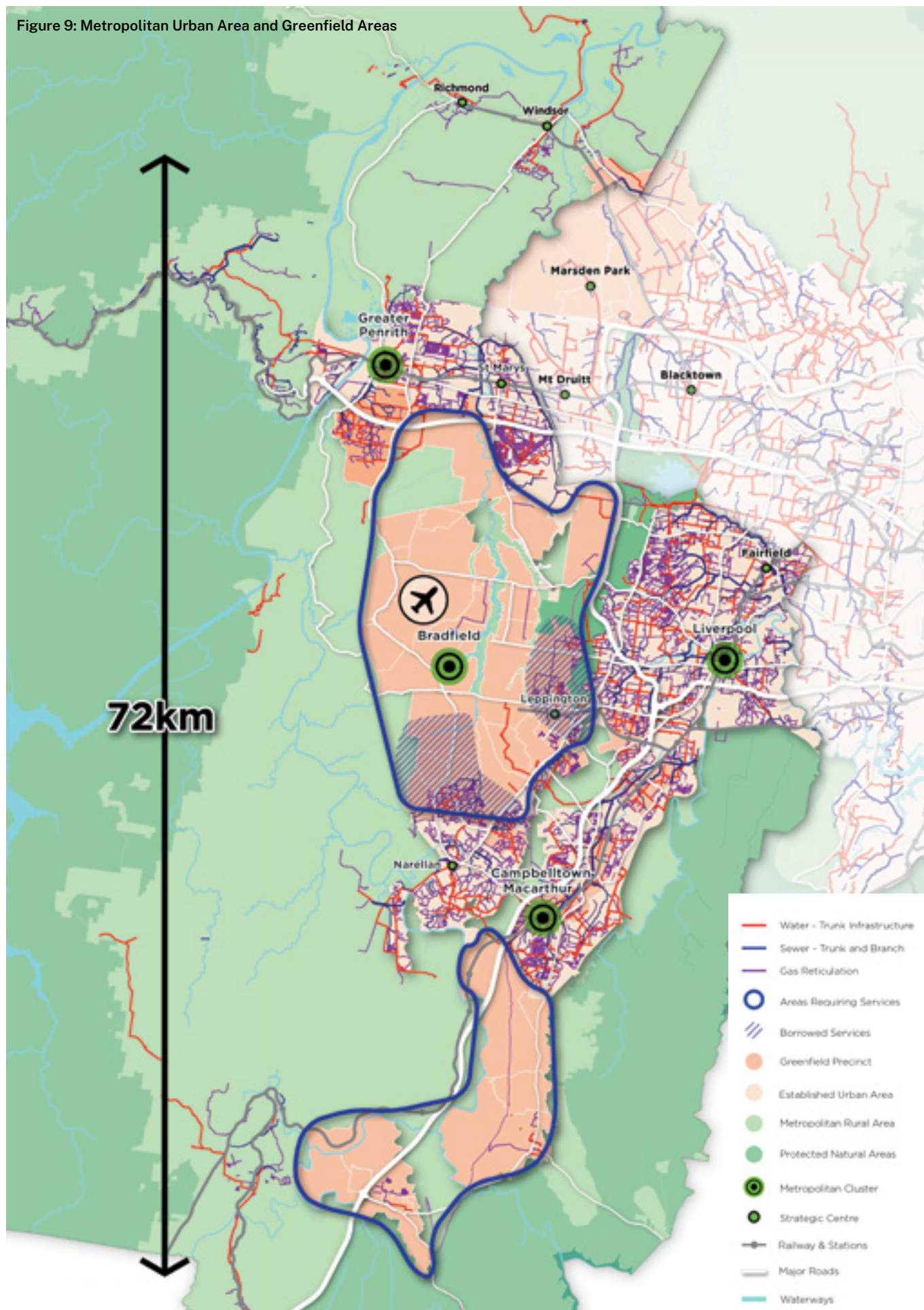
Enterprise and employment lands

- Penrith-Hawkesbury Area: principal employment precincts: Erskine Park, St Marys, Emu Plains, North Penrith and North Richmond.
- Liverpool-Fairfield Area: principal employment precincts: Wetherill Park, Smithfield, Hoxton Park, Prestons, Warwick Farm and Moorebank.
- Macarthur principal employment precincts: Minto, Ingleburn, Smeaton Grange, Glenlee, Menangle Park and Maldon.

Greenfield areas

- | | |
|--|--|
| Centres and communities | <ul style="list-style-type: none"> • Penrith Area: Greater Penrith to Eastern Creek Growth Area Precincts, including the Orchard Hills Precinct and precincts in Blacktown LGA. • Vineyard Precinct in the North West Growth Area, including interfaces with Box Hill and Marsden Park Precincts in Blacktown LGA. • Aerotropolis Growth Area: Bradfield City Centre to be activated prior to 2026, Luddenham Metro Precinct, Luddenham Village enhancement, and future communities at Rossmore. • Potential at Horsley Park Urban Investigation Area South. • South West Growth Area Precincts including Austral, Leppington, Oran Park, Gregory Hills, Catherine Fields and Lowes Creek. • Greater Macarthur Growth Area including new communities in Menangle Park, Gilead and Appin. • Wilton Growth Area including the Wilton Town Centre. |
| Enterprise and employment lands | <ul style="list-style-type: none"> • Aerotropolis Growth Area: Penrith LGA: Mamre Road Precinct, Northern Gateway Precinct, North Luddenham, and Sydney Science Park. Greater Macarthur-Wilton: jobs in mixed-use centres, potential area adjoining Wilton Growth Area. • Aerotropolis Growth Area: Liverpool LGA: Aerotropolis Core Precinct, Agribusiness Precinct, Badgerys Creek Precinct and longer term opportunities at Kemps Creek and Rossmore, along with potential at Horsley Park Urban Investigation Area North. • Greater Macarthur-Wilton Growth Areas: jobs in mixed-use centres, and the potential area adjoining Wilton Growth Area. |

Figure 9: Metropolitan Urban Area and Greenfield Areas



Further investment can unlock the full potential of the Parkland City's existing strengths, creating ecosystems that attract more businesses to the region, and opportunities that attract more skilled workers and bring higher productivity. Opportunities include partnering with industry to support life-long learning, optimising extensive greenfield lands to build sustainable industries that can evolve over time and delivering a compact mixed-use urban form in centres.

Despite the many opportunities, the Parkland City faces several well documented challenges that require active government intervention to resolve.

A key challenge is the sheer scale and rapid rate of change occurring across the Parkland City and the associated cost of servicing it. As a consequence, gaps in infrastructure and services have become apparent in many of the City's greenfield and urban renewal areas.

The liveability of the Parkland City's citizens is also under pressure. In the past few years alone several significant shocks and stresses were experienced across the City including flooding and bushfires. The City's vulnerability to these hazards is growing as is their frequency.

These service and liveability gaps compound existing economic and social challenges in the City, such as high youth unemployment and limited opportunities for higher education locally. Opportunities exist to provide more services relating to youth justice infrastructure, human services related to homelessness and community services to cater for cultural diversity and a higher population of Aboriginal and Torres Strait Islander peoples.

The Commonwealth and NSW Governments have decisively intervened to avoid seeing the Parkland City grow into a dormitory for Greater Sydney. A key decision in this context being the \$5.3 billion commitment to the Western Sydney International (Nancy-Bird Walton) Airport creating a game-changing economic anchor at its centre. This decision has resulted in additional transformative investments, including the \$4.4 billion Western Sydney Metro-Western Sydney Airport and the \$1.1 billion investment to catalyse the Bradfield City Centre as an initial precinct in the Aerotropolis.

The March 2022 Federal Budget's infrastructure list further signals this intervention to support the growth of the Parkland City. This includes \$77.5 million business case funding for the Sydney Metro-Western Sydney Airport Stage 2 and \$15 million for Western City Road Transport Network planning in the Aerotropolis. The importance of local infrastructure was also recognised through the Federal Budget, with \$232.5 million for Mulgoa Road Stage 2, \$95.6 million for the Picton Bypass and Picton Road planning.

The NSW Government has committed \$5 billion to the WestInvest Program to fund transformation infrastructure projects. To drive local economic outcomes the Program has six focus areas: quality green and open spaces, community infrastructure, school modernisation, arts and cultural facilities, high street activation and local traffic programs. The Program has made \$3 billion available to NSW Government agencies to deliver transformational projects and \$2 billion towards community project grants. Of this, \$400 million will be directly allocated to local Councils and the remainder will be allocated to a range of stakeholders through a competitive process.

State Infrastructure Strategy 2022-2042

The State Infrastructure Strategy 2022-2042 sets out the infrastructure needs and priorities for the next 20 years. It recognises the need for a diverse combination of infrastructure investment, including recommendations on medium and smaller projects, and mega-projects.

In the Parkland City, the Strategy recommends the need to protect priority rail corridors, including the Sydney Metro-Western Sydney International Airport to Leppington and Campbelltown-Macarthur corridor, and to deliver the Western Parkland City Transport Program.

The Strategy acknowledged the draft Blueprint with its focus on improved road and rail access. The Strategy recommends the delivery of a rapid bus network to improve access to key centres in the Western Parkland City and to improve connectivity with the Central River City. To support the growth of the Western Sydney International (Nancy-Bird Walton) Airport and the Aerotropolis, it recommends the upgrade of Elizabeth Road, the Eastern Ring Road and Fifteenth Avenue as priorities.

Services and infrastructure

Challenges in keeping pace with historic and planned future growth put liveability under pressure. This Blueprint represents a significant opportunity for the city to relieve this pressure and further improve amenity and quality of life for residents.

Currently, the City is one of the State's most multicultural places. It is home to people from 195 countries including Vietnam, Iraq, England, New Zealand and India. As a result, 36% of the Parkland City's population speak one of more than 200 languages other than English in their homes. Of the City's residents, 3% or approximately 35,000 of the City's residents are Aboriginal or Torres Strait Islanders, compared with 1.74% of Greater Sydney's total population. This cultural richness brings a wide range of skills, languages, cultures and experiences.

The Parkland City is also home to a greater proportion of young people and children than Greater Sydney. This means the City has a smaller proportion of working age adults (25-64) than the region.

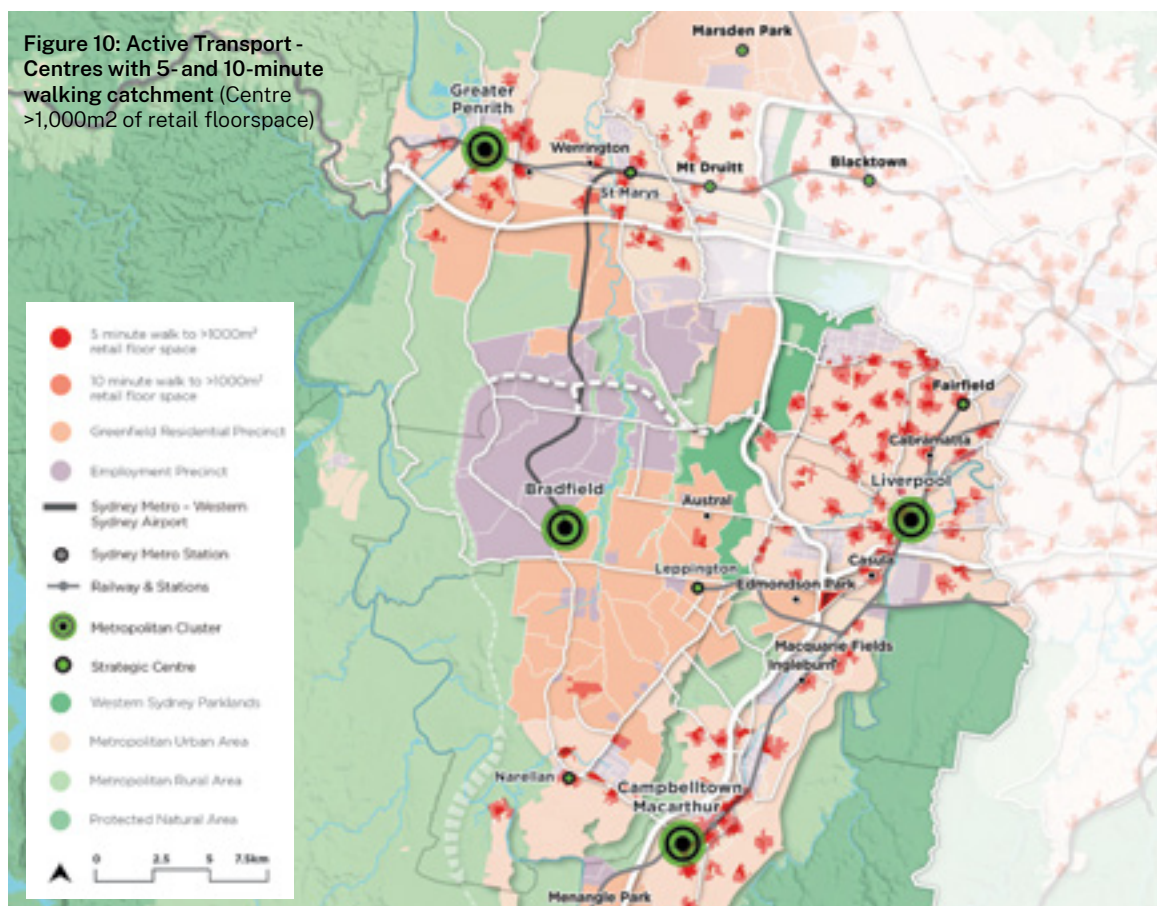
Rapid population growth and urbanisation is changing the structure of the Parkland City as

development expands into designated growth areas and the Aerotropolis. This growing and shifting population will require more health, education, transport, utilities, community and social infrastructure and services.

Demand for education facilities is recognised in the Western Sydney City Deal and includes a commitment for the NSW Government to establish a permanent VET facility in the Aerotropolis. This will have a focus on construction, aviation and aeronautical-related engineering to support residents of the Parkland City to access jobs of the future.

The need for services and infrastructure is especially critical to activate and support greenfield areas surrounding the Western Sydney International (Nancy-Bird Walton) Airport, Bradfield City Centre and the Aerotropolis, along with the South West, Greater Macarthur and Wilton Growth Areas. This is highlighted in Figure 9.

Services in urban renewal areas will also need to be augmented. A key component of renewal and regeneration is improved amenity and public domain. The need to improve opportunities for walking is shown in Figure 10.



Delivering enabling infrastructure and services of this scale requires significant coordination. It involves multiple layers of government as well as private providers. Without careful planning there is a risk that infrastructure provision will be slow, costly, or inefficient. Optimising existing infrastructure and upgrading constrained facilities will also play an essential role in renewal and greenfield development.

As the Parkland City is reshaped, stakeholders will need to maintain and enhance connections for people and businesses in the area. These connections include:

- **Transport:** The Parkland City is the interface of Greater Sydney with broader road and rail connections in NSW. Maintaining and enhancing transport linkages and services across the City is critical to leveraging its existing advantages while also achieving its aspiration to be a 30-minute city with increased access via public transport;
- **Walking, cycling and local centres:** There is major opportunity to increase walking and cycling in the Parkland City. An important metric is proximity to public open space within five or 10 minutes' walk of homes (Figure 10). Currently, only 18% of residents have access to centres within a 10 minute walk. This compares to 63% in the Central River City;

- **Parks and recreation:** The Greater Sydney Outdoors Study prepared by Department of Planning and Environment (DPE) in 2019 showed that despite high levels of participation in outdoor recreation activities, these rates were generally lower than the Greater Sydney average. Surveys indicated that Parkland City residents feel they have less access when it comes to outdoor recreation opportunities and they would like to see more recreation opportunities closer to where they live;
- **Digital connectivity:** There is substantial opportunity to increase digital inclusion across the Parkland City. The City currently includes some of Greater Sydney's lowest scoring areas for digital inclusion. For example, the Australian Digital Inclusion Index score for the Parkland City is 71.6, compared to 75.9 in the Eastern Harbour City and 74.3 in the Central River City; and
- **Community:** There is scope to build social connections in the Parkland City, with a common base of interest across cultural, creative, sporting, and other recreational pursuits. Health and education infrastructure will need to keep pace with growth across the Parkland City. Hospitals and schools will need to expand to support the fast-growing population. This challenge will be especially pronounced in the large greenfield development zones, as outlined in Figure 9.

Figure 11: Percentage of dwellings located within 30 minutes of a metropolitan centre or strategic centre by public transport

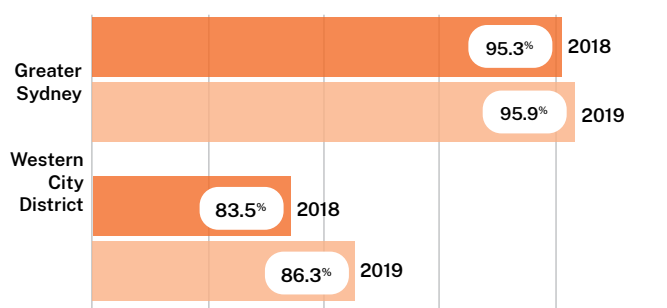
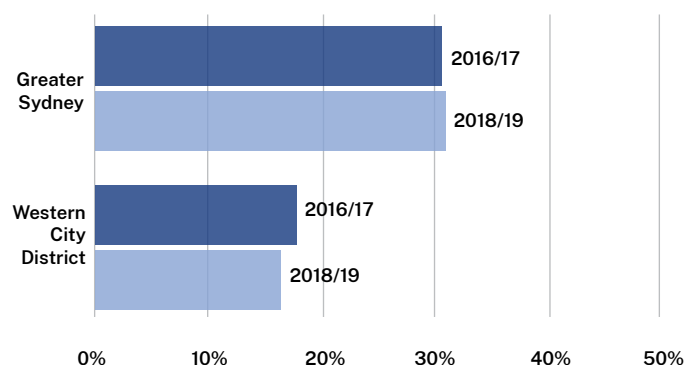


Figure 12: Walking (including to another mode of travel) as a proportion of total trips (Source: Greater Sydney Commission)



Improving resilience and sustainability

In the past few years, the Parkland City has experienced several significant natural hazard events including floods, bushfires, and above average extreme heat days compounded by a lack of tree cover / water in the environment as well as the recent impacts on the community of the COVID-19 pandemic. Climate change modelling predicts a future with more bushfires and longer lasting heatwaves with more extremely hot days. The modelling also predicts more frequent severe storms, increasing the risk of flooding and storm damage.

Population growth in potentially vulnerable areas means that these issues are particularly important to the Parkland City. Almost two-thirds of the Parkland City is protected natural area, and the city is home to important ecological communities.

Four challenges arise:

- **Fire:** Most of Greater Sydney's vulnerability to bushfire is in the Parkland City. Bushfires severely impacted three of eight LGAs – Blue Mountains, Hawkesbury and Wollondilly – in 2019/20;
- **Flood:** The Hawkesbury-Nepean floodplain particularly exposes the Parkland City to flood risk. The region experienced a one-in-twenty year flood in March 2021 with significant damage to property and infrastructure. The region has also experienced two major flood events in April and July 2022, with the NSW Government establishing an independent flood inquiry. Flooding also occurs in the Georges River, Upper Nepean and the Stone Quarry Creek catchments;
- **High temperatures:** The Parkland City has the highest number of days over 35 degrees in Greater Sydney. Recent trends suggest that many parts of the city are becoming hotter. Low tree cover, lack of water and water retention and the use of building materials that trap heat exacerbate this problem; and
- **Biodiversity protection:** The Parkland City includes a variety of unique biodiversity and endangered fauna, flora and ecological communities. To minimise the impacts of climate change in greenfield precincts, areas of biodiversity value should be protected and enhanced. The Cumberland Plain Conservation Plan is an example of how the NSW Government is protecting biodiversity while supporting the growth of the Parkland City.

COVID-19 pandemic

The COVID-19 pandemic was an unforeseen event that has profoundly affected the state of urban environments. It has highlighted to government, industry and communities the complex and fragile nature of our urban ecosystems, the value of the natural environment for citizen wellbeing and the need to plan for greater urban resilience.

As a driver of change, the pandemic has had positive and negative impacts. The impacts have also varied across time. That is, some impacts have been immediate. For example, reduced air and vehicle travel has improved air quality; some are likely to be longer term such as changes in where we work and how we travel to work; while others are yet to be determined such as changes in our preference of where we live and what this means to the growth and character of our urban areas.

Initial research has identified emerging implications for the Parkland City:

- Greater rates of home working, thereby greater need for local services / larger homes to accommodate this;
- Potential acceleration in demand for housing as people are increasingly willing to trade off travel times for house size as we work at home more;
- The growing appreciation of access to parks and green spaces;
- The growing need for digital equity and reliability;
- Potential changes to how infrastructure priorities are assessed such as a greater focus on digital assets and cyber security in light of this increased in online activity; and
- Fluctuations in car use – initially showing a reduction in use, yet current indications are that this may reverse with higher rates of car usage, at least in the short term, for health safety reasons.

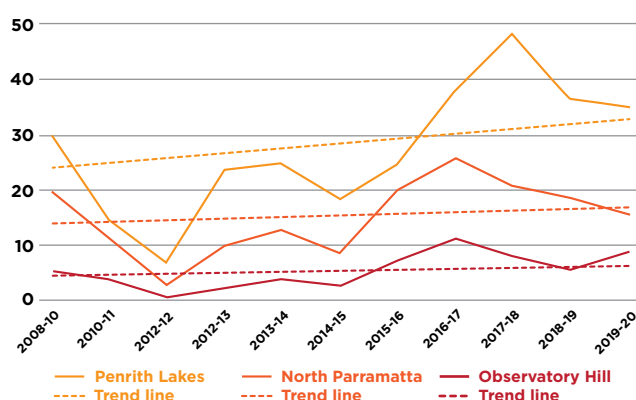
The rapid development of the Parkland City highlights the importance of protecting open space and biodiversity. Parks and conservation areas will be important to achieving a green and liveable city, especially in greenfield development areas. Rapid growth will also strain the city's water supply, which also supplies drinking water for most of Greater Sydney.

As we look to the future, we need to do things differently to support amenity and sustainability. There are opportunities to improve resilience and environmental outcomes, particularly as the areas earmarked for urban use are developed. The Parkland City must adapt to ensure it is resilient to higher temperatures, fire, and floods.

There are plentiful opportunities for real economic change in the Parkland City. However, under a 'business as usual' approach, there are risks that the City will be a dormitory for Greater Sydney, perpetuating an imbalance in access to jobs, and failing to support the creation of the desired 200,000 jobs as set out in the Western Sydney City Deal. This could mean potentially missing high value economic opportunities.

The Parkland City has existing economic strengths that could mitigate these risks and build a platform for further growth. It has enabling social and economic infrastructure such as logistics hubs and innovation precincts. Its human capital includes strong manufacturing and logistics expertise and a highly diverse migrant population. It is endowed with natural attractions like the UNESCO declared Greater Blue Mountains World Heritage Area and the Hawkesbury – Nepean and Georges Rivers.

Figure 13: Number of days at or over 35° (July 2009 – June 2020)

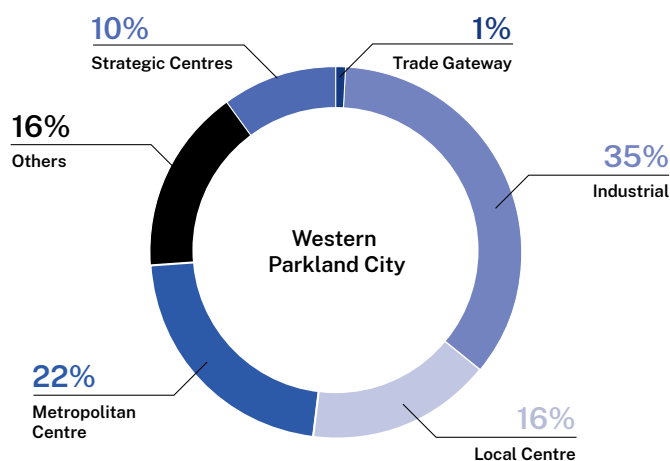


These endowments currently support several nationally significant industries in the Parkland City, which service markets well beyond the city itself. Defence industries have a strong presence, there are significant agribusiness industries and there is a robust visitor economy. The Western Sydney International (Nancy-Bird Walton) Airport and Aerotropolis Precinct will unlock further growth in these industries.

In addition to these nationally significant industries, many people-oriented industries service the population of the Parkland City. The established Metropolitan Centres of Campbelltown-Macarthur, Liverpool and Penrith are hubs for them and collective account for over 92,000 jobs (2016). Their health and education precincts are centres for innovation and research. Continued investment in these centres will unlock even greater economic opportunities and more high-quality jobs.

An example of a firmly established precinct is the Liverpool Innovation Precinct which brings together government, education and industry to build on its strengths to grow its health service delivery footprint. This state-shaping precinct will be a hub for healthcare robotics, advanced manufacturing and logistics.

Figure 14: Job locations in the Western Parkland City



3. Vision

The vision is for a green, connected and advanced Parkland City:



Delivering a Green City: The Parkland City will be a green and resilient city with a unique natural landscape that protects biodiversity and supports an increasingly sustainable and compact urban form.

Our investments will enable the City to become a true 'parkland', promoting green infrastructure through networks of open space and waterways and increasing the tree canopy. The City will also attract green economic opportunities in sustainable industries.

In the development of Bradfield City Centre, the WPCA will aim to achieve Australia's first hydrogen ready and net zero city.



Delivering a Connected City: The Parkland City will be a globally and locally connected City supported by physical, digital and social infrastructure.

The new 24/7 Western Sydney International (Nancy-Bird Walton) Airport will be a major contributor to the City being one of the most connected places in Australia. The first and subsequent stages of the metro line, rapid bus corridors and more walkable neighbourhoods will allow for better access to jobs, services and amenities.

The City will also be a model for digital equity, innovation and cyber security. It will be designed to respect and Connect with Country and our First Nations people and celebrate our cultural diversity.



Delivering an Advanced City: The Parkland City will be a leader in the advanced manufacturing sector with advanced education and skills to match.

The Parkland City will support the growth of clean, green and advanced industries. It will also grow our health and education precincts and leverage existing strengths in freight and logistics, construction and tourism.

This will improve the diversity of local job opportunities, rebalancing job distribution and improving wage equity across Greater Sydney.

Inputs into the Blueprint and Economic Development Roadmap – Phase 1

Figure 15 sets out the key strategies, policies and plans that informed the preparation of the Blueprint and Economic Development Roadmap –Phase 1.

Figure 15: Inputs into the Blueprint and Economic Development Roadmap – Phase 1



4. Delivering a Green City

The Parkland City will be the most green and resilient City in the Indo-Pacific region, with a unique natural landscape, biodiversity, and a green urban form. The City will be protected and enhanced to become a true ‘parkland’, sustainably promoting amenity, and attracting green economic opportunities.

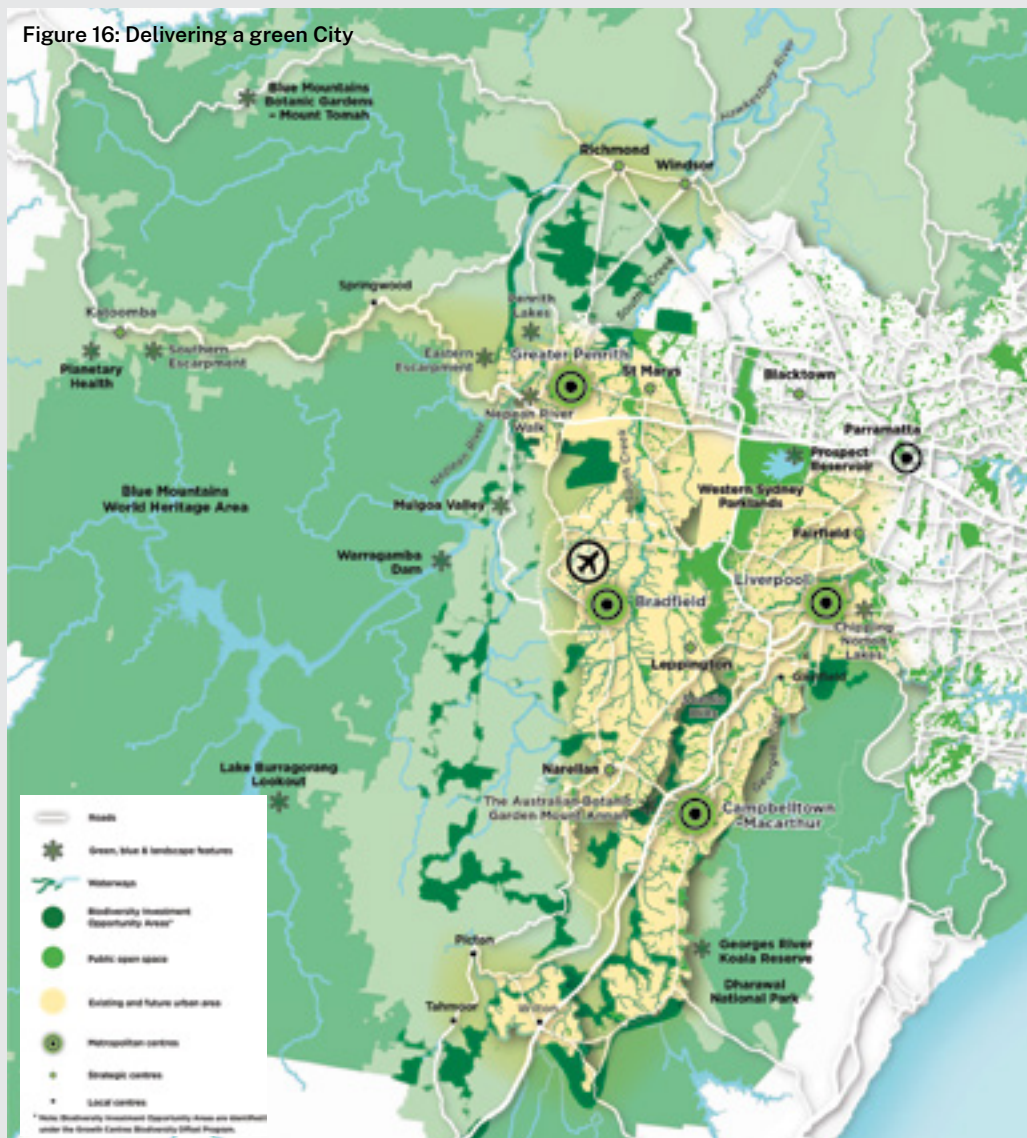
There are four City environments to consider as part of the green City:

- **Protected Natural Area:** around 63% of the City is protected natural area containing world heritage and nature reserves, drinking water catchments and cultural heritage. These values need to be protected and enhanced;
 - **Metropolitan rural area:** around 28% of the City, is balancing social, economic and environmental outcomes including significant koala habitat, and opportunities for biodiversity protection. These values need to be defined and managed;
 - **Greenfields area:** around 4.5% of the City including the urban development of the Wianamatta-South Creek catchment and parts of the Georges River catchment in the south, form the basis of the planning for these new areas; and
 - **Existing urban areas:** around 4.5% of the City where opportunities include enhanced open space, increased tree canopy and improved stormwater and flood management can enhance the natural values and amenity as part of urban renewal and public domain projects.
- Protecting and enhancing green space, environmental and cultural heritage areas, waterways, flora and fauna, and rural areas will be foundational to forming a unique and vibrant landscape throughout the city. A green Parkland City will improve quality of life in the city, help unlock new economic opportunities for residents, and allow for more sustainable long-term development in the region.
- The directions and priorities are driven by the following key considerations:
- **Resilience and climate change:** The Parkland City’s communities have shown strength and resilience in the face of recent fires, floods and the COVID-19 pandemic. However, modelling of climate change shows a longer bushfire season with more intense bushfires, longer lasting extreme heat with more extremely hot days and more frequent and severe storms, increasing the risk of flooding and storm damage;
 - **Water Quality:** The Parkland City is also home to the majority of Greater Sydney’s drinking water catchment and a metropolitan framework protects the water quality within the catchment. This is supported by local requirements to manage water quality in developing areas;
 - **Biodiversity:** The Parkland City has diverse and important biodiversity values. The protection, recognition and enhancement of these values is essential for the region’s many unique native plants and animals to be maintained. The largest impacts on biodiversity in the Parkland City is on threatened ecological communities such as Cumberland Plain Woodland and Shale Sandstone Transition Forest due to the greenfield development program. The Cumberland Plain Conservation Plan’s strategic conservation planning for Western Sydney is one of the largest strategic conservation plans undertaken in Australia; and
 - **Green infrastructure:** An integrated approach that promotes a ‘blue-green grid’ –will enhance the protected network of accessible natural places, ecosystems and recreational opportunities on waterways and in parks and open spaces -improving liveability and amenity to support a thriving Parkland City. These include:
 - increased tree canopy with careful consideration in the vicinity of the new Western Sydney International (Nancy-Bird Walton) Airport;
 - an integrated water cycle management approach that reduces water usage, keeps more water in the environment and supports water quality; and
 - initiatives for reducing urban heat island effect through smart materials selection.

Vision

- A resilient city with a unique natural landscape, biodiversity and sustainable urban form; and
- A true ‘parkland’ prioritising green infrastructure, promoting liveability, and attracting economic opportunities in green and clean tech.

Figure 16: Delivering a green City



Directions

Improve the City's amenity by expanding open space and parks, increasing tree cover and water retention in the landscape, and connecting parks and waterways with a network of walking and cycling links.

Support integrated water cycle management by delivering new water recycling facilities, designing place using water sensitive design principles and protecting water catchments.

Protect and enhance biodiversity and the natural environment.

Strengthen resilience to climate change and natural hazards with a focus on floods, bushfires, severe storms and extreme heat and designing systems that are resilient to climate change, reduce the urban heat island effect and support decarbonisation.

G1 Priority	<p>Establish a network of green infrastructure in greenfield areas by delivering new parks in the Aerotropolis and Growth Areas including a new regional park at Thompsons Creek to provide open space in new urban areas.</p> <p>Summary: New greenfield developments include areas for public open space and stormwater management creating a network of green infrastructure that provides amenity and supports recreation. In the Aerotropolis this includes establishing new parks in Thompsons Creek and along the South Creek corridor to form a central organising design feature that ensures the protection and enhancement of its ecological and stormwater functions. The provision of new public open space through the Parkland City Growth Areas need to cater for the growth of new urban areas and increase tree canopy cover on streets and in public spaces to increase the liveability and wellbeing of growing communities.</p> <p>Delivery Horizon: Immediate: A program established for the delivery of new parks in the Aerotropolis: DPE working with WPCA, and Penrith and Liverpool Councils.</p>
G2 Priority	<p>Improve integrated water cycle management capability including the delivering of Upper South Creek Advanced Water Facility, to increase the availability and efficiency of water in the Parkland City.</p> <p>Summary: Water cycle management initiatives to maintain and improve water quality and keep more water in the environment will be delivered City-wide as part of urban renewal and greenfield development by Councils and other delivery agencies. Central to the new regional scale water cycle management approach in the Aerotropolis and South West Growth Area is the delivery of Sydney Water's Upper South Creek Advanced Water Facility (Stage 1 by 2025).</p> <p>Delivery Horizon: Short Term: Water cycle management initiatives will be developed by Sydney Water in consultation with DPE and Councils, includes delivering Stage 1 of the Upper South Creek Advanced Water Facility by 2025.</p>
G3 Priority	<p>Deliver the Cumberland Plain Conservation Plan, including actions to protect koalas.</p> <p>Summary: The Cumberland Plain Conservation Plan has been finalised and released by DPE. It will enable the delivery of additional housing, jobs and infrastructure while protecting the many unique native plants and animals in the Parkland City. NSW biodiversity approvals are now in place and the NSW Government is currently pursuing Commonwealth approval for the Plan.</p> <p>Delivery Horizon: Immediate: To be completed by DPE.</p>
G4 Priority	<p>Develop and finalise the Regional Land Use Planning Framework for the Hawkesbury-Nepean Valley.</p> <p>Summary: DPE is developing a Regional Land Use Planning Framework for the Hawkesbury-Nepean Valley floodplain. This framework will deliver greater consideration of flood risk and the careful management of population growth in the valley, to assist in improving the resilience of the valley to floods. SES is working closely with DPE to finalise the framework.</p> <p>Delivery Horizon: Ongoing: Plan to be implemented by DPE and development delivery processes.</p>
G5 Priority	<p>Promote pathways to deliver net zero emissions before 2050, including delivering Bradfield City Centre as a net zero city.</p> <p>Summary: Opportunities to be investigated to accelerate the delivery of net zero initiatives including improved building efficiency, building and precinct scale renewable energy, increased public transport and vehicle efficiency, as well as waste recycling and diversion from landfill and the potential to achieve a low carbon economy. WPCA committed to deliver the first carbon neutral buildings in Bradfield City Centre by 2023.</p> <p>Delivery Horizon: Short Term: Investigations of pathways by WPCA and DPE in consultation with Councils, including the delivery of the first carbon neutral buildings in Bradfield City Centre by 2023.</p>

G6 Priority	Continue to protect the Metropolitan Rural Area from urban development. This includes existing towns and villages where developments must be on a scale that enhances local character and amenity.	
	Summary: The metropolitan planning framework, the Greater Sydney Region Plan and the prevailing State Environmental Planning Policies identify extensive areas to accommodate greenfield development. The Region Plan states that further growth in the towns and villages of the rural areas and Blue Mountains be limited to local growth consistent with the local character.	Delivery Horizon: Ongoing: implementation through planning controls – Councils and DPE.
G7 Priority	Enhance tourism and recreation precincts, including Penrith Lakes, Lake Burragorang and The Australian Botanic Garden Mt Annan.	
	Summary: To support liveability for the community and support growth in the visitor economy the enhancement of existing destinations can support a regional network of recreation and tourism uses, including regional walking trails adventure and other outdoor activities, environmental education and recognition of Aboriginal cultural heritage.	Delivery Horizon: Short to Medium term: WPCA and Councils in consultation with Destination NSW.
G8 Priority	Develop renewal projects to enhance the networks of green infrastructure blue-green grid with place-making opportunities to improve public domain outcomes and to support growing communities.	
	Summary: The blue-green grid is the name given to the network of open spaces and tree canopy cover that follow the waterways and link the open spaces across the Parkland City. Urban renewal provides opportunities to retrofit past concrete drainage solutions to more naturalised ways that enhanced water quality. In the new greenfield development areas, there is the opportunity with careful planning of parks and stormwater to link new parks and places and create green corridors, as is being proposed in the Aerotropolis. This also includes addressing urban heat and improving amenity through increased tree canopy and green cover. This aligns with the government initiative of Greening our City which aims to plant one million trees by 2022.	Delivery Horizon: Immediate -Short Term: DPE and Councils across various projects and precincts.
G9 Priority	Leverage and maximise placemaking programs and funds, including City Deal Liveability Fund, Metropolitan Greenspace program and the WestInvest \$5 billion program.	
	Summary: The importance of parks and quality public spaces was recognised in the Western Sydney City Deal by the three levels of Government and supported by a joint Liveability Program. The need for more parks and quality open spaces has been emphasised by the Covid-19 pandemic and a range of programs to enhance and expand regional networks as well as enhance local places, and strengthen the urban forests. This includes further funding through programs such as the Greening Our City Program, Streets as Shared Spaces, Transforming Sydney's Streets initiative and the 50-year vision for Greater Sydney Open Space and Parklands. There may also be opportunities to utilise WestInvest to increase tree cover in the public domain and enhance parks.	Delivery Horizon: NSW Government and Councils across various projects and programs.
G10 Priority	Plan and respond to climate change – including increased frequency and severity of bushfires, extreme heat, hot days, severe storms and flooding events.	
	Summary: City-wide collaboration can help to reduce how communities, places and infrastructure are exposed to natural and urban hazards and build resilience to shocks and stresses. DPE will provide information to support state and local government responses. Local government initiatives include the Blue Mountains City Council commitment to establishing the Blue Mountains Planetary Health Initiative.	Delivery Horizon: Immediate -Short Term: NSW Government and Councils across various projects and programs.

G11 Priority	Support the ongoing bushfire recovery in the Blue Mountains, Hawkesbury and Wollondilly LGAs.	
	<p>Summary: Resilience NSW, Emergency Services and local councils are working with affected communities in planning and recovery. Ongoing implementation of planning for bushfire protection includes managing development in bush fire affected areas as well as initiatives to improve evacuation routes and use of technology in developing more resilient communications networks.</p>	<p>Delivery Horizon: Immediate to Short Term: NSW Government, including Resilience NSW, and Councils across various projects and programs.</p>
G12 Priority	Plan and implement urban heat island mitigation measures, particularly by incorporating green infrastructure in the landscape through design measures in new developments.	
	<p>Summary: The increasing trend of more hot days and more extreme heat impacts has far reaching impacts for community and businesses alike. The heat island effect is caused by a concentration of building materials in the urban environment that absorb heat which can significantly increase temperature. This effect can be reduced with greater consideration of building materials and incorporation of more natural elements in the design of development, as well as through investing in green tech and delivering function green and blue infrastructure.</p>	<p>Delivery Horizon: Immediate to Short Term: DPE and Councils across various projects and precincts.</p>
G13 Priority	Design circular economy pathways and systems that are resilient to climate change and promote energy efficiency.	
	<p>Summary: Investigate opportunities to design out waste and deliver Bradfield City Centre as a circular city, using circular economy principles, energy efficient systems and onsite renewable energy generation.</p>	<p>Delivery Horizon: Short Term: WPCA to pilot initiatives in Bradfield City Centre.</p>

Supporting planning initiatives

Quality green, open and public spaces are an important part of liveable and healthy communities. This includes a range of free and publicly accessible parks, gardens, sportsfields, walkable shaded streets and plazas, and libraries, museums and galleries.

The Greater Sydney Region Plan recognises the importance of green infrastructure and healthy built environments, and its valuable economic, social and environmental benefits. This is further enriched when integrated with social, educational and cultural facilities.

Green infrastructure is defined as the network of green spaces, natural systems, and semi-natural systems that support sustainable communities and includes waterways; bushland; tree canopy and green ground cover; parks; and open spaces that are strategically planned, designed, and managed to support a good quality of life in an urban environment.

‘Greener Places’ has been developed by the NSW Government Architects Office to provide an integrated design framework for the planning, design and delivery of green infrastructure. Green infrastructure needs to be considered as essential infrastructure that responds to four key principles – integration, connectivity, multifunctionality and participation.

The NSW Government’s 50-year vision for the Greater Sydney Parklands recognises the regional significance of the Western Sydney Parklands as Australia’s largest urban park at 5,280 hectares, providing a liveable, culturally and economically rich environment. As the City grows, the Western Sydney Parklands will continue to play a critical role.

Protecting and enhancing access to rivers and waterways, flora and fauna, scenic and rural landscapes and the network of open spaces and protected areas is the foundation of the City’s parkland setting. The Parkland City also contains nationally significant environmental and tourism destinations including the Fernhill Estate, Penrith Lakes and Mount Annan Botanic Gardens. For example, the Mount Annan Botanic Gardens has the potential to enhance heritage and biodiversity and focus on cultural land management.

Water

The Parkland City is characterised by a diverse network of waterways, including rivers, creeks, wetlands, intermittent waterways and extensive floodplains. Across the Parkland City there are three water catchments – the Hawkesbury-Nepean-South Creek, Upper Nepean and Lower Nepean, as well as the Georges River Catchment.

The Western Sydney Parklands and the scenic hills form a green ribbon along the ridge that separates the Georges and South Creek catchment. The floodway at Penrith reinforces the lower Nepean and Upper Nepean catchments at the base of the Blue Mountains.

The delivery of Wianamatta-South Creek and its tributaries as a defining spatial element is the most significant opportunity to create the Parkland City landscape setting and identity. The Wianamatta South Creek sub-catchment includes a 80 km long riparian corridor that is the landscape structure in the Parkland City around which the greatest increase in residential population will occur. DPE are currently preparing a place-based delivery strategy for the Wianamatta-South Creek Precinct in the Aerotropolis.

Water resources are also being addressed by DPE through the:

- NSW Water Strategy which establishes the approach to maintain and build the resilience of the State’s water resources, including climate change and variability; and
- Greater Sydney Water Strategy (part of the suite of strategies aligned with the NSW Water Strategy) which aims to deliver priorities and actions for the delivery of water, wastewater, recycled water and stormwater services to ensure these services are integrated into land use planning.

Resilience - Flooding

The regional significance of the Hawkesbury Nepean floodplain has been the focus of NSW Government led investigations to reduce and manage flood risk. This includes the potential Warragamba Dam raising, strategic land use review and road planning.

Major flooding in the Georges River last occurred in the 1980s and a program to significantly minimise impacts on affected properties was successfully completed in the following decade.

In the South West of the Parkland City flooding is experienced in the Upper Nepean catchment west of Cobbitty as well as in the Stone Quarry Creek catchment through Picton in Wollondilly LGA.

Strategic conservation planning

Strategic conservation planning prepared by DPE enables the delivery of housing, jobs and infrastructure while protecting biodiversity values through:

- new conservation lands in public ownership, including new or expanded national parks and reserves;
- privately owned biodiversity stewardship sites, where the landowner enters into an agreement to protect biodiversity;
- ecological restoration and tree planting;
- planning controls that manage impacts on biodiversity;
- mitigation measures such as wildlife fencing and weed management; and
- education and research programs.

A plan for conservation of Cumberland Plain Woodland in the Western Parkland City was first established over ten years ago for the North West and South West Growth Centres. The commitments were formalised through Biodiversity Certification of the State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Growth Centres SEPP) under State legislation and later under the Growth Centres Strategic Assessment approval under Commonwealth legislation.

The 'Delivering a green City' map identifies the priority investment areas under the Growth Centres Biodiversity Offset Program which was established in 2008. These areas are the first preference for where biodiversity certification funds should be invested in the North West and South West Growth Areas, with preference given to protecting intact vegetation for the long-term retention of biodiversity values.

The NSW Government has finalised the Cumberland Plain Conservation Plan, with NSW biodiversity approval now in place to support planned growth and infrastructure delivery. The Plan incorporates the Wilton Growth Area, Greater Macarthur Growth Area, Western Sydney Aerotropolis and Greater Penrith to Eastern Creek Investigation Area as well as major transport corridors, including the Western Sydney Freight Line and the Outer Sydney Orbital. It is noted that the NSW Government is currently pursuing Commonwealth approval for the Plan.

The Cumberland Plain Conservation Plan addresses the 31 principles identified in expert advice from the Chief Scientist and Engineer on koala protection measures in the Wilton and Greater Macarthur Growth Areas. It seeks to protect over 5,300 hectares of koala habitat and threatened ecological communities, including the Cumberland Plain Woodland.

Deerubbin Local Aboriginal Land Council Penrith Structure Plan

The Deerubbin Local Aboriginal Land Council's (LALC) Penrith Structure Plan represents economic, community, cultural and environmental opportunities, including the delivery of biodiversity conservation outcomes. The Penrith Structure Plan received strategic declaration on 18 November 2021 and proposes to deliver over 1,100 hectares of land protected under the NSW Government's Cumberland Plain Conservation Plan. It also proposes seed collection, a Nursery and Centre for Ecological Restoration of Western Sydney Bushland – Indigenous-led regeneration, as well as a Bushland Cemetery and residential development on urban-capable lands.

Strategies, policies and programs

The NSW Government has a number of key strategies, policies and programs to ensure the delivery of green infrastructure across Greater Sydney and NSW helps to create healthier, more liveable and more sustainable urban environments.

Aerotropolis and Mamre Road Precinct Planning frameworks

To support the delivery of green and sustainable places, the planning of the Aerotropolis and Mamre Road Precinct identified new standards for permeable surfaces and an open space and stormwater network. This will be delivered as part of a regional approach to water cycle management in the Aerotropolis Initial Precinct and in the adjoining Mamre Road Precinct.

Regional Stormwater Authority

A regional stormwater approach has been identified for greenfield precincts in the Aerotropolis and Mamre Road area. Sydney Water, as the new regional stormwater authority in this area, is developing a Stormwater Catchment Framework. This framework proposes guiding principles for Sydney Water, in partnership with local Councils, DPE and developers, to manage trunk drainage in the Aerotropolis and Mamre Road Precincts.

Sydney Water aims to utilise natural water channels and waterways in lieu of buried concrete pipes and drains. Sydney Water will also work with Penrith and Liverpool Councils on the delivery of non-trunk drainage infrastructure.

This approach will provide a region-wide integrated water system. This approach has multiple benefits including a cooler, greener Parkland City, healthier waterways and alignment with Aboriginal cultural values through the use of natural and non-intrusive design.

Connecting with Country framework

The Draft Connecting with Country framework supports improving the health and wellbeing of Country to help realise three strategic goals—reduce of the impacts of natural events, value and respect Aboriginal cultural knowledge and ensure Country is cared for appropriately and sensitive sites are protected. The draft framework is for developing connections with Country to inform planning, design and delivery of built environment projects.

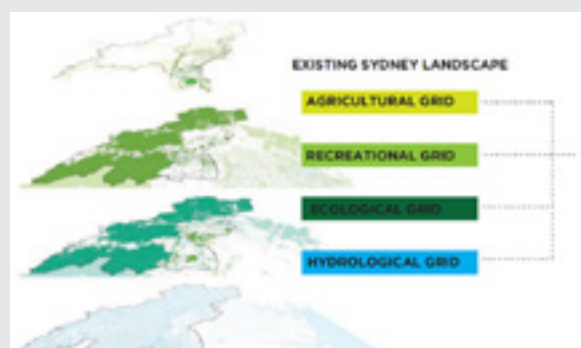
Strategies, policies and programs

Sydney Green Grid

Greater Sydney's Green Grid sets a long-term vision for a network of high quality green connection, parks and open spaces. The Green Grid will connect town centres, public transport hubs and major residential areas.

This will help Greater Sydney be a cool, resilient city that encourages healthy living and enhances biodiversity. The Green Grid is made up of four composite landscape layers—the recreational grid, the ecological grid, the hydrological grid and the agricultural grid. The Green Grid brings together these landscape layers to ensure the efficient function of both urban and environmental areas through the creation of a cohesive network.

Figure 17: Layers of the Green Grid
Source: NSW Government Architects Office



Greener Neighbourhoods Program

The Greener Neighbourhoods Program provides Greater Sydney Councils with best-practice guidance, data and supporting grant funding to implement strategic approaches to urban forest management. This includes:

- The Greener Neighbourhoods Guide—provides guidance to enable Councils to understand, plan for, monitor and manage urban forests and promotes best practice and consistency in urban forest planning. This includes guidance for preparing or updating urban forest strategies and tree canopy targets for different land uses and building typologies;
- Tree canopy capture—an updated tree canopy dataset for 2019 showing the extent of tree canopy cover across Greater Sydney with additional captures to be undertaken biannually from 2022; and
- Funding support—providing Councils with funding to support strategic urban forest management, such as street tree master plans, enhancement of tree asset databases and analysis to support priority tree planting areas. To-date, all Western Parkland Councils have received funding through a first round of grants to support green infrastructure projects.

5. Delivering a Connected City

The Parkland City will be the most connected City in Australia. It will be a 30-minute city where residents live close to jobs, services and amenities. The city will be physically, socially and culturally connected within the city, to Country, and to the region and the wider world.

Achieving the aspirations of a 30-minute city, connecting people to jobs, to community and recreational facilities, and services including health and education, requires accessible and integrated public and active transport networks.

The directions and priorities are driven by the following key considerations:

- **Transport** - global connections and City-shaping opportunities are principal drivers for growing the economy of the Parkland City and re-balancing economic and social opportunities for the community.
 - This will create a true 30-minute City. Current and planned transport investments must leverage the Western Sydney International (Nancy-Bird Walton) Airport as the global gateway of the Parkland City. This includes planning for the Western Sydney Freight Line to connect the activities of Port Botany with Greater Sydney's largest employment land supply in the Parkland City.
 - This ensures that being global connects locally, including the planning for the last mile. Rail investments, such as Sydney Metro-Western Sydney Airport, play a critical role providing opportunities for high amenity, mixed use precincts around stations (including active transport connections, public space, community facilities and green space) and an alternative, more sustainable transport option.
 - Transport networks must be designed for both movement and places. This includes separating arterial corridors that service freight vehicles from the pedestrianised main streets of town centres. The expansion of public transport and walking and cycling networks supports the long-term vision to transition the Parkland City to be less car dependent.
 - Transport networks must also respond to technology changes, such as on-demand services which change how we travel and receive goods and services. Autonomous vehicles and e-bikes are creating enhanced accessibility and will potentially be mainstream transport options as precincts are developed in the future. The planning of transport systems needs to be adaptable and allow for shifts in mode share away from private vehicle use, as well as the introduction to the mainstream use of drones and other innovations.
- **Utilities** – the planning of extensive greenfield areas has included infrastructure strategies setting out water, wastewater, stormwater, energy, gas and telecommunication infrastructure needs. Many of these strategies provide limited certainty on infrastructure provision, timing and funding and are reliant on commercial development decisions. The rate of growth is critical to understand when development thresholds for delivery will be reached or where investment is needed to enable development. As development progresses, it is the rate of take up that drives delivery of infrastructure.
- **Digital Infrastructure** – digital connectivity is essential infrastructure and will be a critical enabler for investment attraction. Businesses and communities now expect seamless, reliable, high-speed connectivity to be readily available for new developments. Digital infrastructure is currently evolving to 5G and beyond, which is set to evolve to a 0.03-second City. However, currently part of the Parkland City suffers from poor coverage with blackspots in the Metropolitan Rural Area. In new greenfield areas digital infrastructure must be rolled out at the same time as development with new network exchanges delivered as development occurs.
- **Connection to Country** – Aboriginal peoples' continued Connection with Country over the course of millennia is a source of valuable wisdom and knowledge that can guide all of us to improve the way we plan and design the places where we live, work and play. By Connecting with Country, all of us – Aboriginal and non-Aboriginal people – can work together collectively, respectfully, and with open minds to unite our complementary knowledge. A more collaborative approach is needed to give Aboriginal communities a stronger voice. This requires trusted relationships, particularly between Government and Aboriginal people and communities so that there is a better understanding of a holistic view of the cultural landscape of the Parkland City.
- **Connected Communities** – the Parkland City requires a wide range of social, community and cultural infrastructure to service its diverse communities. Infrastructure and services will need to be expanded in more places to keep pace as the Parkland City grows and changes. This includes both State and local services, with Council often being the first point of contact for many services.

Vision

- A 30-minute city where residents live close to jobs, services and amenities;
- A globally connected City; and
- A social and culturally connected City, linked internally, to Country, to the region and internationally

Figure 18: Delivering a connected city



Metro Stage 2 Bradfield to Glenfield includes investigation of a range of options between the two centres

Directions

Improve transport links, becoming a 30-minute city, enabling faster, more equitable and sustainable movement of people between residential, commercial and industrial areas.

Plan and deliver active transport connections including walkways and cycleways.

Expand the freight infrastructure network allow for more efficient movement of goods within the City, across the state, and around the world via the Western Sydney International (Nancy-Bird Walton) Airport and Ports Botany and Kembla.

Enable integrated delivery to align infrastructure with housing and jobs growth and support efficient provision of services, digital connectivity and social and community infrastructure.

Plan the City as a smart city with enhanced digital connections, 5G and high levels of cyber security.

Strengthen Connection to Country, build partnerships with Aboriginal communities and incorporate relevant principles in city design.

Support connected communities including a more equitable provision of culture and arts across the City.

C1 Priority	<p>Prepare a Western Parkland City transport structure plan increasing north-south and east-west links across the City.</p> <p>Summary: An integrated network strategy will provide a program to align the delivery of transport networks with land use development, including the staging and sequencing of both new and upgraded City-shaping and City-serving transport networks and the integration of transit-oriented, urban renewal and greenfield development outcomes.</p> <p>Delivery Horizon: Immediate: Transport for NSW (TfNSW) to complete an integrated network strategy in consultation with WPCA, DPE and Councils.</p>
C2 Priority	<p>Complete investigations to prioritise a rail / metro connection between Bradfield City Centre and Leppington / Glenfield, linking Bradfield City Centre to Glenfield and Liverpool by 2031</p> <p>Summary: Subject to business case outcomes, deliver a metro connection from Bradfield City Centre to Leppington by 2031. This will provide an integrated north-south connection between St Marys to Leppington and provide access to jobs in the Aerotropolis for the communities of South West Sydney.</p> <p>Delivery Horizon: Immediate: TfNSW complete the investigations and business case for a metro connection between Bradfield City Centre and Leppington.</p>
C3 Priority	<p>Deliver Bradfield City Centre as a digitally enabled smart city and cyber-secure location, to enable growth in advanced industries. Pilot the delivery of 5G and address digital blackspots across the Parkland City.</p> <p>Summary: The delivery of high-speed, reliable digital connectivity will ensure Bradfield City Centre is cyber secure, which is an attractor for investment attraction and innovation. There are also opportunities to improve digital connectivity and address blackspots throughout the Parkland City to align with the initiatives in DPE's Smart City Program. DPE will implement these initiatives in consultation with other relevant NSW Government agencies. This includes the delivery of high quality digital connectivity including 5G, fibre and digital plumbing networks. This critical infrastructure will help drive resilience and liveability outcomes and support new industries, innovation and knowledge jobs of the future.</p> <p>Delivery Horizon: Short: WPCA to deliver cyber secure City Centre and DPE by 2025/26. WPCA and Councils to progress DPE's Smart Cities Program to improve digital connectivity.</p>
C4 Priority	<p>Complete investigations and staging for north - south extension of Sydney Metro - Western Sydney Airport connecting Bradfield City Centre and Western Sydney International (Nancy-Bird Walton) Airport south to Campbelltown-Macarthur and north to Schofields/Tallawong and the east-west link connecting Westmead to Bradfield City Centre via the Airport.</p> <p>Summary: An integrated transport network is critical to achieve a true a 30 minute City. A 30-minute city provides good connections throughout the City, including a range of interconnected north-south and east-west rail links providing access to metropolitan and strategic centres across Greater Sydney.</p> <p>Delivery Horizon: Immediate: TfNSW to progress early planning works for the North-South extension of Sydney Metro-Western Sydney Airport connecting Bradfield City Centre and Western Sydney International (Nancy-Bird Walton) Airport to Campbelltown-Macarthur and Tallawong and the East-West link to Parramatta.</p>
C5 Priority	<p>Investigate potential for additional transit orientated nodes to optimise rail investments.</p> <p>Summary: Transit-oriented nodes should be centred along transport corridors to optimise the investments in rail, deliver sustainable, compact urban typologies and provide greater access to a clustering of places, services, activities and amenities.</p> <p>Delivery Horizon: Short Term: TfNSW and DPE investigate in consultation with WPCA and relevant councils as part of ongoing planning for growth in the Parkland City.</p>

C6 Priority	Develop the Mamre Road Intermodal and progress the delivery of the Western Sydney Freight Line (2036) to connect the Parkland City to Port Botany.	
	<p>Summary: The Western Sydney Freight Line (WSFL) will help unlock the potential of Greater Sydney's largest employment land supply in the Parkland City. The corridor identification will provide early certainty to industry and the community on the WSFL and will provide opportunities to enhance the global and multimodal role of the Aerotropolis Precincts.</p>	<p>Delivery Horizon: Immediate: DPE and TfNSW to finalise the corridor identification and protection for the Western Sydney Freight Line corridor and TfNSW to complete business case.</p>
C7 Priority	Deliver road activation packages in the Aerotropolis, South West, Greater Macarthur and Wilton Growth Areas and support delivery of rapid, frequent and local bus connections.	
	<p>Summary: There are extensive greenfield areas in the Parkland City in the Aerotropolis, Greater Macarthur, South West and Wilton Growth Areas that require the activation of transport infrastructure and services to optimise the housing and employment growth potential. Key connections and upgrades are required to support the movement of people and goods, increase accessibility and improve network safety across the Parkland City. Critical roads (funded and unfunded) that have been identified include Elizabeth Drive, Eastern Ring Road, Fifteenth Avenue, Raby Road, Spring Farm Parkway and Picton Road, and Badgerys Creek Road, Appin Road, Jersey Road and Rickard Road.</p> <p>Refer to the Implementation and Governance section for more information on the Greenfields Committee.</p>	<p>Delivery Horizon: Immediate: TfNSW, WPCA and DPE to jointly establish a coordinated program for the delivery of road activation packages, supported by a network of rapid, frequent and local bus services, for greenfield areas. This includes key east-west links, such as Elizabeth Drive, Eastern Ring Road, Fifteenth Avenue, Raby Road, Spring Farm Parkway and Picton Road, and north-south links such as Badgerys Creek Road, Appin Road, Jersey Road and Rickard Road.</p>
C8 Priority	Pilot a multi-utilities approach and investigate renewable energy opportunities to support early and efficient activation of the Aerotropolis.	
	<p>Summary: The acquisition of land for multi-utilities corridors as part of major road corridors supports the early and efficient activation of the Aerotropolis. Multi-utility corridors are an opportunity to integrate world-class infrastructure across the Parkland City by grouping utilities and services into a single space to minimise redundancies, reduce land required for infrastructure, futureproof infrastructure, and improve the safety and performance of services.</p> <p>There are also opportunities to investigate renewable energy solutions across the Parkland City, such as Bradfield City Centre being hydrogen-ready.</p>	<p>Delivery Horizon: Immediate: WPCA to complete the business case for multi utilities corridors including opportunities to support the distribution of renewable energy.</p>
C9 Priority	Give a stronger voice to the Aboriginal people of the region by growing economic participation and supporting Connection to Country outcomes.	
	<p>Summary: Collaboration and partnerships will provide Aboriginal Communities with a stronger voice to be heard as part of policy and decision-making outcomes.</p>	<p>Delivery Horizon: Immediate: Coordinate a cross-government approach for engagement with Aboriginal Communities</p>
C10 Priority	Plan and deliver regional-scale arts, cultural and community facilities, and foster growth in creative industries.	
	<p>Summary: Industry and talent are attracted to high amenity and liveable places which includes cultural and community facilities. The Parkland City has the opportunity to deliver regional-scale cultural and community facilities and grow creative industries that meets the needs of its diverse and growing population.</p> <p>WPCA in consultation with Create NSW and industry partners will investigate opportunities for a regional-scale facility that promotes advanced industries and sustainability in the Bradfield City Centre.</p> <p>Other types of cultural infrastructure being explored includes opportunities for the Parkland City such as Aboriginal cultural infrastructure, central library including event, cultural and maker spaces, enhancement of existing major cultural facilities, artist and creative industries precincts and screen industry production facilities.</p>	<p>Delivery Horizon: Immediate: WPCA and Create NSW to:</p> <ul style="list-style-type: none"> • develop a program for the delivery of regional-scale arts, cultural and community facilities • undertake investigations for initiatives to grow creative industries and commence business cases for facilities / programs.

Collaboration with Aboriginal Communities and Caring for Country

Aboriginal people's Connection with Country is based on 60,000 years of experience and observation of environments. This means Aboriginal peoples' continued Connection with Country is a source of valuable wisdom and knowledge that can guide and improve the way we plan and design places in the Parkland City. Consulting with Aboriginal communities can bring collaboration and the sharing of knowledge to achieve a holistic and enriched landscape view of caring for country. It is recognised that there are four groups that have primary custodial care obligations for the area: Dharug/Darug, Dharawal/Thawaral and Darkinjung.

The NSW Government Architect Office has developed guidelines to help inform a Connection to Country approach to place making. This approach requires stronger relationships to be forged with Aboriginal communities.

A Connection to Country approach is a place-based approach that recognises Aboriginal cultural values. In the Parkland City this means much greater coordination is needed across growth and development processes to support the development of relationships and understanding to building greater capacity for incorporating Connection to Country as the City grows. These include:

- increasing Aboriginal identified roles to guide planning and delivery in realising opportunities for Connection to Country;
- more engagement earlier on areas undergoing change so opportunities are better understood and incorporated into project outcomes; and
- NSW State agencies working together to take a place-based approach to consultation to avoid a project-by-project approach.



Yarning circle, source: WPCA

Western Sydney City Deal commitments

Commitment 15: The Australian Government will establish an Indigenous Business Hub in the Western City, to capitalise on the opportunity for Indigenous businesses and entrepreneurs. The hub will deliver coordinated business support services to support a thriving Indigenous business sector.

Commitment 16: The NSW Government will deliver an Indigenous small business and skills package across the Western Parkland City, including a new Opportunity Hub in Liverpool and an expansion of the Opportunity Hub in Campbelltown to help connect Indigenous school leavers with jobs; an Indigenous Business Connect Program to support Indigenous people to start or grow a business; 50 additional Bert Evans scholarships and mentoring support for young people; and a dedicated Aboriginal Enterprise Development Officer Program.

Commitment 38: The three levels of government commit to work with Indigenous organisations in the Western Parkland City, to realise economic, social and cultural outcomes for Aboriginal people in Western Sydney.



Dharawal National Park, Minerva Pools, source: WPCA

C11 Priority	Complete the Western Sydney Infrastructure Plan including Bringelly Road, The Northern Rd and M12.	
	<p>Summary: The completion of the Western Sydney Infrastructure Plan (WSIP) will see the Commonwealth and NSW Governments \$4.4 billion investment benefit the Parkland City's growing population. The WSIP will relieve pressure on existing infrastructure and unlock the economic capacity of the Parkland City by easing congestion and reducing travel times.</p>	<p>Deliver Horizon: Immediate to Short Term: TfNSW and Councils to deliver new and upgrade transport infrastructure as part of the Western Sydney Infrastructure Plan.</p>
C12 Priority	Protect the land corridor for the Outer Sydney Orbital (freight / motorway links) from Macarthur to North-West Growth Area	
	<p>Summary: The Outer Sydney Orbital is for a future motorway and dedicated freight rail line between the Aerotropolis and Western Sydney International (Nancy-Bird Walton) Airport through to the Hume Motorway near Menangle in the south, with ultimate connection to the Illawarra, and through to Richmond Road in the north, with ultimate connection to the Central Coast. This connection will improve regional accessibility and economic outcomes.</p>	<p>Delivery Horizon: Short to Medium Term: TfNSW to finalise gazettal of the Outer Sydney Orbital corridor.</p>
C13 Priority	Protect and plan the Fifteenth Avenue corridor and rapid bus services between Bradfield City Centre and Western Sydney International (Nancy-Bird Walton) Airport to Campbelltown-Macarthur, Liverpool, Penrith and Parramatta.	
	<p>Summary: The early planning and protection of the Fifteenth Avenue corridor and other rapid bus corridors from the Aerotropolis to the Metropolitan Centres of Campbelltown-Macarthur, Liverpool, Penrith and Parramatta will link residential areas with high employment areas. The Fifteenth Avenue corridor also promotes a concentration of higher density urban forms to support affordability, deliver place-based outcomes and to optimise the infrastructure investment.</p> <p>As part of TfNSW's transition for more sustainable transport options, new buses in the Parkland City will include zero emissions buses.</p>	<p>Delivery Horizon: Short Term: TfNSW in consultation with DPE, WPCA and Councils to complete investigations across key north-south and east-west intra-City links to metropolitan centres.</p>
C14 Priority	Upgrade the Great Western Highway between Katoomba and Lithgow including dual carriageways and tunnel investigations.	
	<p>Summary: The Great Western Highway is the main regional road connection to the west. Its upgrade will reduce congestion, improve road safety and provide better connections for agricultural products. Detailed planning is needed to manage the impacts of the freight network, particularly on the amenity of villages and the impact on tourism.</p>	<p>Delivery Horizon: Short to Medium Term: TfNSW to finalise investigations of the Great Western Highway by 2023 and to complete construction by 2028.</p>
C15 Priority	Improve regional connections to Illawarra, including upgrades to Picton Road.	
	<p>Summary: Regional road connections to the Illawarra, including Picton Road, connect Wollondilly to Wollongong and Port Kembla. Investigations are currently underway to upgrade Picton Road to improve safety, performance and accessibility. Future challenges that will need to be considered include the steep Illawarra Escarpment and navigating long term alignment and capacity issues.</p>	<p>Delivery Horizon: Short Term: TfNSW and Councils to finalise investigations of upgrades to Picton Road by early 2022.</p>
C16 Priority	Deliver a new Richmond Bridge as a key regional link connecting Hawkesbury with the Blue Mountains.	
	<p>Summary: The Strategic Centres of Richmond and Windsor play an important role in servicing their surrounding communities, along with smaller towns and villages. To address congestion, safety and flooding issues, options to upgrade Richmond Bridge are being investigated with a preferred option identified.</p>	<p>Delivery Horizon: TfNSW to finalise investigations and commence upgrades to Richmond Bridge by 2022.</p>

C17 Priority	<p>Promote the delivery of urban forms and public domain networks that enhance physical activity and increase the economic value of places by providing:</p> <ul style="list-style-type: none"> • a greater number of destinations within walking and cycling distance; • a greater diversity of land uses; • shorter distances and safe access to transit options; • developments that promote inclusivity and universal design; and • creative activation of the public domain including public art. <p>Summary: The Parkland City has a lower average of access to local centres and open space than Greater Sydney. Collective action in renewal and greenfield precincts together with regional initiatives such as the Green Grid and Principal Bicycle Network are needed to improve opportunities for walking and cycling. Creative activation, particularly public art, in the public domain improves amenity in these spaces and encourages use by communities.</p> <p>Buildings and the public domain should also explore opportunities for inclusivity and provide greater access through universal design. To support jobs growth, housing needs to be located in accessible locations. A diversity of urban forms for housing should also consider the integration of social and affordable housing into developments in renewal and greenfield areas to enable greater access to employment, services and amenities.</p> <p>Delivery Horizon: Ongoing: NSW Government and Councils across various projects and programs.</p>
C18 Priority	<p>Support the conservation and enhancement of heritage including though applying adaptive reuse and protecting and enhancing heritage to foster distinctive local places.</p> <p>Summary: There are opportunities to protect, conserve and enhance heritage values as part of the planning and design of places, along with supporting and promoting the adaptive reuse of heritage buildings. An example is the walking trail at Fernhill House (part of the Fernhill Estate) situated in the Mulgoa Valley which is a low impact and sensitive tourism attraction.</p> <p>Delivery Horizon: Ongoing: NSW Government and Councils across various projects and programs.</p>
C19 Priority	<p>Deliver community and social facilities and services that foster social inclusion, diversity and equity.</p> <p>Summary: Community and social facilities and services needs to capture a large and diverse population over an expansive area in the Parkland City.</p> <p>The inclusion of these facilities and amenities should not only be located in metropolitan centres but in larger centres such as Katoomba and Richmond-Windsor that serve large population catchments. Services should bolster inclusion and the ability of all Parkland City residents to participate in civic life.</p> <p>Greater connectivity is also an important part of building resilient communities. Facilities and amenities help foster and support a sense of community in times of stress.</p> <p>Delivery Horizon: Ongoing: NSW Government and Councils across various projects and programs.</p> <p>Immediate: NSW Government and Councils are initiating a project to gather data and build an evidence base to support policy and program interventions to support digital equity and inclusion across the Parkland City.</p>

Transport infrastructure: Corridor protection

Western Sydney Freight Line

The Western Sydney Freight Line is critical enabling infrastructure that is required to provide a dedicated rail connection between the Parkland City and Port Botany. The project also includes the development of a new Western Sydney Intermodal Terminal (IMT) located along the proposed route within the Mamre Road Precinct. Together, the new freight line and the intermodal terminal will provide the missing link in the freight network to enable the efficient movement of freight across Greater Sydney, support the productive handling of freight in the growing industrial areas and distribution centres and encourage more goods to move by rail to reduce the growth in road congestion. Its corridor protection is vital, as it is expected that more than 80% of import containers will have an origin or destination in the Parkland City and will facilitate an increase in freight rail mode share.

This corridor protection is being achieved in two components:

- Western corridor component – The section of the alignment from the future Outer Sydney Orbital (near Luddenham) to the M7 at Horsley Park. In June 2020, the NSW Government announced the protection of a section of Stage 1 corridor and the Western Sydney Intermodal Terminal in the Mamre Road Precinct; and
- Eastern corridor component – connects from the M7 at Horsley Park to the Southern Sydney Freight Line near Leightonfield. This provides a connection onto the dedicated freight rail network through to Port Botany. The Eastern corridor component is currently under investigation by TfNSW, along with other government agencies and key stakeholders, who are in the early planning to identify alignment options. TfNSW, together with other Government agencies and key stakeholders, are progressing with planning to identify corridor options and undertaking business case preparation.

Mamre Road Intermodal Precinct

The Mamre Road Precinct is located within the Western Sydney Employment Area and provides around 850 hectares of industrial land. The Precinct protects a site for a freight intermodal terminal to be serviced by the Western Sydney Freight line and with access to the M4 and M7. The NSW Freight and Ports Plan 2018-2023 sets out the need to identify, protect and provide access to intermodal terminals across Western Sydney. The site protected for the intermodal terminal is subject to a potential business case in conjunction with the Western Sydney Freight Line. TfNSW is currently working with DPE and landholders to ensure the intermodal terminal has sufficient capacity to meet strategic needs.

Outer Sydney Orbital

The Outer Sydney Orbital is a proposed multi-modal corridor that is vital to connecting the Western Parkland City to the Illawarra and the Central Coast. It will provide for essential transport connections including a dedicated freight network to support the Six Cities vision. The Outer Sydney Orbital will enable a safer more reliable road network, enable efficient movement in and out of the Aerotropolis and provide freight with the ability to bypass the City for through movements. The Outer Sydney Orbital corridor is included in the Cumberland Plain Conservation Plan ecological offset program and supports broader open space and environmental outcomes. Corridor identification and protection is the first stage in delivering the future infrastructure.

- Stage 1 has been confirmed by the government and the corridor is protected through the Western Sydney Aerotropolis. It supports the planned Western Sydney Freight Line, connecting to the Main West Rail Line, as well as linkages to the planned intermodal terminal at Mamre Road.
- Stage 2 will connect the Aerotropolis and Western Sydney International Airport, south to the Hume Highway in Menangle with connection to the Illawarra. Stage 2 corridor investigations are being undertaken in three sectors.
 - Sector 1: between the Hume Motorway and Picton Road;
 - Sector 2: Appin and Picton Road corridors upgrades; and
 - Sector 3: Illawarra connections, including a potential new Illawarra Escarpment crossing.
- Stage 3 will connect Western Sydney to the Central Coast and main north rail line, and provides for onward connection to the Port of Newcastle.

Fast rail

TfNSW is developing a Fast Rail Strategy which is a long-term blueprint for a future Fast Rail network. This will build on the Government's NSW 2040 Economic Blueprint, 20 year Economic Vision for Regional NSW, regional plans, the NSW State Infrastructure Strategy 2022-2042, the recently released Future Transport and the Six Cities Discussion Paper. The transformational fast rail network will include dedicated new fast rail lines. These significant reductions in travel times will enable improved connections between the Six Cities across Greater Sydney, Central Coast, Hunter, and the Illawarra regions, and will better connect regional centres to cities and international gateways. The 2022-23 NSW Budget committed \$274 million over four years for further detailed planning and early works of the Fast Rail Network. A further \$500 million has been committed, subject to funding agreements with the Australian Government, for the first stage of works.

Aligning Growth with Infrastructure

Major renewal and greenfield development can take many years in planning and require a sustained program to support delivery. Case study of the new community at Edmondson Park (refer to page 45) shows how a large residential precinct is being delivered over time. The case study of Erskine Park (page 46) provides an insight into how relatively quickly an industrial area can develop.

Key elements to enable integrated planning outcomes include:

Integrated land use and infrastructure planning

- Ensure that infrastructure provision caters for the ultimate residential and industry capacity of an area. This includes planning for new and emerging technologies, along with industry-specific infrastructure requirements, rest stopping / service centres and decoupling facilities for industry to ensure that lower order plans appropriately consider these facilities to enable freight and industry.

Orderly development

- Support for timely coordination and alignment of infrastructure to drive renewal and greenfield areas to activate development and investment opportunities.

Governance to support collaborative place-based approach

- A multi-stakeholder governance framework to coordinate the efficient and timely delivery of infrastructure with growth. For example, utility authorities and Transport for NSW collaboration on multi-utility corridors – currently investigating world-leading approach to infrastructure designed to improve efficiencies and minimise disruption.

Coordination, funding and delivery

- Enhanced staging and sequencing to manage city-wide growth over a 72 km front particularly as land costs increase and development viability is challenged by the scale of infrastructure needed to activate precincts and places.
- The WPCA to advise on:
 - Cross-agency coordination and delivery programs and the need to address development feasibility to ensure precinct and place activation; and
 - Prioritisation of infrastructure delivery; recognising funding limitations of and reforms to State and local infrastructure development contributions policy. This covers all types of infrastructure, including transport, utility and services, energy, digital connectivity, green and blue infrastructure, and community, social, and cultural infrastructure.

Monitoring to inform decision making

- Monitoring and reporting processes should be used to inform infrastructure investment decisions including addressing changes in dwellings, jobs growth and mix, the 30-minute city, and tree coverage.
- Universal access to common data sets is critical to ensure growth is successfully managed. This includes the NSW Spatial Digital Twin which has set a foundation for shared data and a common platform for data digitalisation.

Infrastructure Contributions Planning

Strategic planning requires a strong evidence base to ensure that integrated land use and infrastructure outcomes are identified early on and development is aligned with infrastructure provision.

Funding mechanisms need to be established to ensure the coordinated sequencing and delivery of infrastructure provision. In the Parkland City, infrastructure contribution mechanisms are used in greenfield areas to support the delivery of State and regional infrastructure.

The Western Sydney Growth Areas Special Infrastructure Contribution (SIC) has been in

place since 2011 and applies to the North West and South West Growth Areas in the Parkland City. The SIC supports funding towards transport infrastructure, schools, emergency services, health facilities open space and biodiversity conservation, and planning and design.

In 2018, DPE prepared draft SICs for the Greater Macarthur and Wilton Growth Areas and in March 2022 finalised the SIC for the Aerotropolis.

Following recommendations from the Productivity Commission, DPE has recently undertaken consultation on ways to simplify and enhance the State contributions system and the development of a new approach to regional infrastructure contribution.

Housing across the Parkland City

Steady supply of housing opportunities

Jobs-led growth is a focus to help reshape the economic balance of Greater Sydney. This growth needs to be matched by providing housing in the right places at the right time. This will support the growth of centres, enterprise areas and industrial precincts.

The Greater Sydney Region Plan sets a five-year housing target from 2016 to 2021 for the Parkland City of 39,850. The Plan also sets a 20 year strategic housing target of 184,500 across the Parkland City (as shown in Figure 19).

Between 2016 and 2021, the Parkland City delivered just over the Greater Sydney Region Plan's target, with 40,470 housing completions.

The Western Parkland Councils' Local Housing Strategies also identified 6-10 year housing targets between 2021 and 2026. These strategies show that the Parkland City could accommodate 38,910 -42,010 dwellings. Recent updates to DPE housing supply forecast data, taking into account impacts of Covid-19 pandemic, show that during this period the figure is likely to be closer to 35,130 dwellings.

The Greater Cities Commission has been tasked with setting five, ten and 20-year housing targets for all LGAs across the Six Cities and promoting a diversity of housing types. This will embed housing growth in

strategic planning policies upfront. This will ensure the delivery of housing supply and choice meets the growing and changing needs of communities.

Housing 2041: NSW Housing Strategy

In May 2021 the NSW Housing Strategy was released. The Strategy recognises that housing needs to be well-designed and well located. This ensures people and households have access to employment and educational opportunities. It also addresses the role of affordable and social housing in supporting the needs of low income and vulnerable people and households, as well as wellbeing, inclusivity and economic sustainability.

The delivery of social and affordable housing can be provided through a range of models such as:

- build-to-rent;
- new communal living models;
- incentives to build mixed tenure communities with a portion of affordable or social housing;
- working with community partners to deliver; and
- affordable rental housing.

Figure 19: 2016–2026 Housing Completions, Targets and Supply Forecast

	Previous 5 years 2016/17-2020/21		Forecast Forward 2021/22-2025/26
Local Government Area	Western City District housing targets 2016/17-2020/21	Completions (DPE Regional Housing Activity Monitor)*	5 Year Housing Supply Forecast#
Blue Mountains	650	672	370
Camden	11,800	11,529	9,990
Campbelltown	6,800	6,385	4,975
Fairfield	3,050	1,683	2,090
Hawkesbury	1,150	989	580
Liverpool	8,250	9,591	9,060
Penrith	6,600	7,982	5,330
Wollondilly	1,550	1,693	2,735
Western Parkland City Total	39,850	40,470	35,130

* Excludes ancillary dwellings (eg. granny flats).

DPE Medium Growth Scenario

Monitoring Development Activity

Development activity has significantly increased over the last five years in the Parkland City. The tracking of development approvals shows a surge in non-residential development proposals, ongoing high rates of housing growth, and a significant increase in and for utilities and road infrastructure. The following case studies highlight the delivery of transport and servicing needed to support the delivery of development. In Edmondson Park, the delivery of the heavy rail and local road network enabled transit-oriented development with higher densities around a transit hub. In Erskine Park, industrial development was enabled through Sydney Water servicing and the new link road.

Case Study: Erskine Park, Penrith LGA

The Erskine Park Employment Lands Precinct forms part of the Western Sydney Employment Area in the Penrith LGA. The vision for the precinct was to provide land for economic and employment development with a strong commitment to environmental protection and enhancement.

The Western Sydney Employment Area includes other precincts such as Eastern Creek, Ropes Creek, South of Warragamba Pipelines, Mamre Road and Mamre West. The Erskine Park precinct covers around 364 hectares of which around 280 hectares were developed by 2020.

Development Timeline:

- 1994 Rezoning of the Erskine Park Employment Area
- 2009 Western Sydney Employment Area announced, including the Erskine Park Employment Lands Precinct or in development
- 2010 Approximately half of the Erskine Park Employment Lands Precinct developed
- 2015 Sydney Water servicing provided to 67 hectares
- 2016 Erskine Park Link Road completed linking the M4 and M7
- 2020 Development nearing completion and expansion of the precinct to the south is underway



2004 – development planning



2010 – development



2020 – development nearing completion

Case Study: Edmondson Park, Liverpool and Campbelltown LGAs

In the 1990s, the Department of Defence decommissioned and sold a large portion of the Ingleburn Army Site to the NSW Government which together with rural private rural land holdings to the north combined to form the Edmondson Park Precinct.

In 2004, the preliminary master planning for Edmondson Park was completed. The Priority North West and South West Growth Areas were introduced in 2005 which sought to extend the urban areas of Greater Sydney to accommodate new housing release areas. In 2006, with the making of the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*, Edmondson Park was identified as a designated area for growth.

Development Timeline:

1998	Planning commenced
2006	Planning for biodiversity conservation
2008	Rezoned with potential for up to 9,000 dwellings
2010	Utilities trunk infrastructure being delivered
2011	First lots completed
2015	Heavy rail delivered and station opened
2021	Town centre activation
2021	70% housing yield delivered



6. Delivering an advanced City

The Parkland City will be the most advanced City in the Indo-Pacific region through a skilled workforce, leveraging its new global gateway, innovation and investment to capture national advantage and leveraging city strengths and people-oriented industries.

There are economic challenges to overcome in the Parkland City. In the past economic growth has been driven by housing growth and industrial development resulting in a deficiency in jobs growth compared with population growth. The opportunity is now to shift to jobs-led growth of the City leveraging the airport as the global gateway to expand markets, invest in existing City strengths and diversify the economy with greater skilled jobs.

The Economic Development Roadmap –Phase 1 prepared concurrently with the Blueprint provides more detailed guidance and priorities to support economic growth and development. It has helped inform the Blueprint including highlighting the importance of:

- Planning and delivering programs which enhance the liveability and access to amenities such as access to arts and cultural facilities and enhancements to the public realm;
- The need to engage with emerging industries and sustainable practices including accelerating progress towards net zero, transitioning to a circular economy and potential to achieve a low carbon economy;
- The role of established metropolitan centres and opportunities to grow economic opportunities in strategic and local centres;
- Destination management planning to identify opportunities to expand visitor markets and enabling tourism infrastructure;
- Supporting investment opportunities including connecting business to opportunities created by NSW State and Commonwealth grant programs;
- Availability, speed and reliability of digital infrastructure to support and attract industry and enhance access to education opportunities; and
- Arts and cultural, health and education facilities support liveability and wellbeing to attract investment.

The directions and priorities for an advanced City are driven by the following key considerations:

- **Global competitiveness** -A 24/7 international airport will allow for new economic opportunities

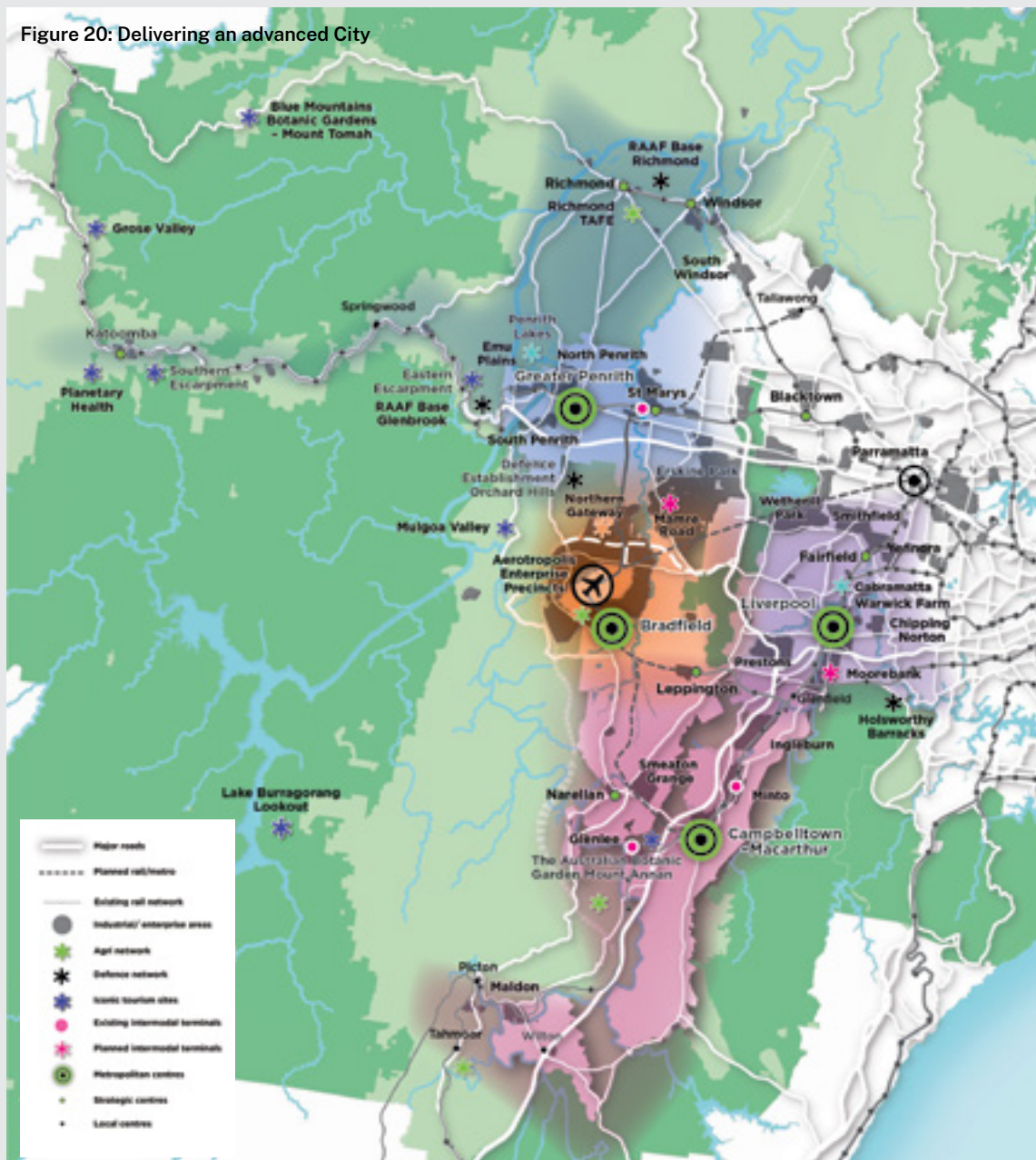
by improving supply chains for export-oriented businesses including maximising agribusiness opportunities through 36 hour farm gate to plate supply chain. At the same time the airport will attract international visitors, increasing regional spend across the range of tourism and entertainment related sectors;

- **More than half of Greater Sydney's industrial land** supply is located in the Parkland City. This enables the existing major freight and logistics and construction industries to be protected while expanding and enhancing their operations. An advanced City will also facilitate the growth of new and emerging industries such as heat tech, freight tech and the circular economy, in particular in greenfield areas;
- **City strengths** -the Parkland City has an established economy with many strengths which lay a strong economic foundation for growth. One third of jobs in the Parkland City are in major centres. The Metropolitan Centres of Penrith, Liverpool and Campbelltown-Macarthur have a strong focus on health and education with scope for greater specialisation and evolution;
- **Growing a skilled workforce** and fostering innovation requires strong links and partnerships between industry, research institutes and educational facilities, and government to strengthen the Parkland City's national competitive advantage. Exemplar projects of this model include the Advanced Manufacturing Research Facility, the NUW Alliance's Multiversity and the NSW Government's New Education and Training Model; and
- **Enablers** -growing and diversifying the economy of the Parkland City requires a liveable community to attract talent and businesses. This includes creating a liveable City with high quality urban amenity and a vibrant arts and cultural sector. With half of the Parkland City's urban area yet to be developed investing in the infrastructure to build on these existing endowments will be critical. These investments will need to cover a range of areas from parks to arts and cultural facilities.

Vision

- A catalyst for economic growth in the Parkland City and beyond;
- Precincts for growing innovative industries and services; and
- A driver for skills development and talent attraction.

Figure 20: Delivering an advanced City



Directions

Foster innovation and develop strategically important and globally competitive capabilities.

Grow city strengths and specialised services supported by investment in infrastructure and amenities.

Expand and enhance skills and employment pathways in target industries and attract global talent.

A1 Priority	<p>Deliver on the outcomes of the Economic Development Roadmap – Phase 1 and Smart Western City Program.</p> <p>Summary: The Economic Development Roadmap –Phase 1 contains priorities to underpin economic recovery and drive economic growth across the Parkland City. It identifies opportunities to grow nationally competitive industries as well as leverage city strengths. The Economic Development Roadmap – Phase 1 will activate a range of sector specific strategies to target specific investment attraction opportunities. The Smart Western City Program targets digital connectivity, smart city technologies and data sharing to support population and jobs growth.</p> <p>Delivery Horizons: Short Term: WPCA to progress Economic Development Roadmap –Phase 1 Priorities.</p> <p>Immediate: DPE, Councils and other relevant stakeholder to continue to progress initiatives under the Smart Western City Program.</p>
A2 Priority	<p>Deliver urban renewal in centres including Penrith-St Marys, Campbelltown-Macarthur and Liverpool, to deliver housing diversity and to improve education, health and employment outcomes.</p> <p>Summary: The development, renewal and regeneration of centres supports a network of integrated centres and optimises existing transport connections. Targeted development programs include:</p> <ul style="list-style-type: none"> • Urban regeneration of St Marys in consultation with the community as it grows as an important transit hub, and Planning and delivery of The Quarter health and education precinct around TAFE NSW, University of Sydney and Western Sydney University Campuses and Nepean Hospital; • Planning and delivery of the Liverpool Innovation Precinct and enhanced River setting (Liverpool City Council, NSW Health); and • Implementation of the Reimagining Campbelltown City Centre including the Justice and Health and Education Precincts (Campbelltown City Council, Department of Community and Justice, NSW Health). <p>Delivery Horizons: Planning and delivery will include:</p> <ul style="list-style-type: none"> • Immediate: Department of Communities and Justice (DCJ) to complete the NSW Court redevelopment business case and partner with Campbelltown City Council and the Commonwealth to complete the Precinct Master Plan; • Immediate: DPE, Penrith City Council and the community to progress the St Marys Town Centre Structure Plan and develop the Orchard Hills precinct plan; and • Short Term: Council and NSW Government agencies progressing public domain priority projects to support investment in the Liverpool Innovation Precinct.
A3 Priority	<p>Deliver skills and drive talent attraction through the establishment of the New Education and Training Model (NETM), a program that will provide industry-led skills training through micro-credentials, and increase university opportunities.</p> <p>Summary: Manufacturing workers across the Parkland City can access industry training needs as part of the NSW Government's \$37.4 million NETM.</p> <p>The NETM helps build talent across the Parkland City, where businesses can propose the design of micro-credentials and work directly with the education sector to provide opportunities for high-skilled, high-paid jobs.</p> <p>The NETM targets skills gaps in key industries and will help feed the pipeline of skilled workers in industries such as advanced manufacturing, aerospace, defence and pharmaceuticals manufacturing.</p> <p>The pilot stage of the NETM allows for up to 3,000 students to participate in 100 micro-credentials.</p> <p>Delivery Horizons: Immediate: WPCA to deliver the New Education and Training Model.</p>

A4 Priority	Deliver the Advanced Manufacturing Research Facility (AMRF), a future hub for advanced manufacturing, metal science and semi-conductor innovation.	
	<p>Summary: The delivery of the First Building (the Advanced Manufacturing Facility (AMRF) Stage 1) in Bradfield City Centre is underway.</p> <p>The AMRF received \$260 million funding in mid-2022 to help deliver a shared space for industry and universities to work together, using the latest technologies and research in advanced electronics and manufacturing.</p> <p>Stage 1 of the AMRF will provide 2,000m² as well as broad advanced manufacturing capabilities to support a range of applications. The full-scale facility will provide a specialised manufacturing system for high capability, high value electronics and semiconductors.</p>	<p>Delivery Horizons: Immediate: WPCA to deliver Stage 1 of the Advanced Manufacturing Research Facility.</p>
A5 Priority	Investigate the options to attract more migrants and grow local talent with skills for high tech industries.	
	<p>Summary: A large part of investment attraction is developing a skilled workforce and releasing opportunities for innovation and investment. This can be accelerated through talent attraction in targeted sectors and form a crucial part of investment attraction.</p>	<p>Delivery Horizons: Immediate: WPCA to investigate options to attract more skilled migrants.</p>
A6 Priority	Attract Australian space and defence manufacturing industries and capabilities.	
	<p>Summary: Develop the national security quarter for space, defence and aviation in the Bradfield City Centre and grow defence sector leveraging defence RAAF Bases at Richmond, Glenbrook and Holsworthy (Defence NSW).</p>	<p>Delivery Horizon: Ongoing: WPCA, Investment NSW, Councils and Defence NSW.</p>
A7 Priority	Support expanding market in agriculture sector through improved access to international markets via Western Sydney International (Nancy-Bird Walton) Airport, and grow existing agricultural industries and enhanced role of research institutions.	
	<p>Summary: The Integrated Logistics Hub (ILH) Airfreight Interface Concept contemplates what is needed to connect the broader landside network of the Aerotropolis's Agribusiness Precinct with the entry and exit point of the airside Western Sydney International Airport Cargo Precinct, including its tenants and customers.</p> <p>The Airfreight Interface Concept seeks to increase NSW's trade competitiveness in high value or time/temperature sensitive air cargo imports and exports. It is envisaged the Airfreight Interface Concept will include:</p> <ul style="list-style-type: none"> • dedicated first and last-mile operational channels for ambient, chilled and live air cargo products; and • the use of shared assets and infrastructure. <p>The ILH Airfreight Interface Concept Report was released in October 2021, followed by a Request for Information (RFI) process.</p>	<p>Delivery Horizon: Immediate: WPCA to investigate opportunities to support the development of an agri-business hub.</p>

A8 Priority	<p>Develop and implement a rural lands strategy which supports agricultural production.</p> <p>Summary: Several Councils have substantial areas for agricultural activity. With the new airport providing new export opportunities there is potential to enhance the agricultural potential balanced with managing social and environmental outcomes of the rural area.</p> <p>Delivery Horizon: Short Term: Councils to develop an integrated rural land strategy for the Parkland City.</p>
A9 Priority	<p>Prepare a Western Parkland City Destination Management Plan to support growth in the visitor economy.</p> <p>Summary: A Destination Management Plan is needed to address a range of opportunities including expansion of eco-tourism and adventure tourism sector, enhancement of the indigenous tourism experience, and develop a coordinated network of destinations.</p> <p>Delivery Horizon: Short Term: Destination NSW, WPCA, Councils and other relevant NSW Government agencies to develop and implement a Destination Management Plan.</p>
A10 Priority	<p>Support the circular economy and enhance specialisations in sustainability.</p> <p>Summary: The WPCA can utilise the investment in the Bradfield City Centre by creating a 'sandbox' for a range of industry and tech such as circular economy, clean tech, heat tech and renewable energy and pilot 22nd century innovations in urban amenity.</p> <p>Delivery Horizon: Ongoing: WPCA to implement and test initiatives.</p>
A11 Priority	<p>Target construction industry strengths and specialisations including the NSW Institute of Applied Technology for Construction (Penrith).</p> <p>Summary: The Parkland City has an existing strength in the construction sector with workers active across Greater Sydney. Opportunities to grow this sector and enhance productivity and innovation include increasing demand for pre-fabrication and sustainable building material and technologies.</p> <p>Delivery Horizon: Short Term: TAFE NSW will deliver the NSW Institute of Applied Technology Construction at its Kingswood campus by 2023.</p>
A12 Priority	<p>Target transport infrastructure investments to support and expand global and national trade gateways</p> <p>Summary: The potential of the freight and logistics sector to take advantage of the new global gateway at the Western Sydney International Airport and support export-oriented industries and take advantage of growth in e-retail and imports driven by a growing population will depend on further investments in transport infrastructure and the protection of key freight routes.</p> <p>Delivery Horizon: Immediate to Short Term: TfNSW in consultation with DPE and Penrith, Liverpool and Campbelltown Councils.</p>

A13 Priority	<p>Support opportunities for new centres, the expansion of existing centres and new local industrial areas to match the significant projected population growth in metropolitan urban areas.</p> <p>Summary: One of the fastest areas of growth in employment in the Parkland City is in small business. Providing opportunities for small business to expand in local areas is an important step for many successful businesses to grow as they scale up and build on existing networks.</p> <p>Delivery Horizon: Short Term: Western Parkland Councils through local economic development strategies.</p>
A14 Priority	<p>Leverage assets to support arts, culture and community interests including Campbelltown and Penrith Sports Stadiums and Arts and Entertainment Centres in Campbelltown, Penrith and Liverpool.</p> <p>Summary: Place-based planning and public domain improvements in the vicinity of key assets can support and enhance existing assets to be part of an expanded precinct and play a wider role for communities and businesses and grow the visitor economy.</p> <p>Delivery Horizon: Short Term: Western Parkland Councils through local economic development strategies.</p>
A15 Priority	<p>Targeted employment and skills initiatives to support Settlement City role of Fairfield Council.</p> <p>Summary: Fairfield is a gateway city for many new migrants and over decades has built up a strong network of social services. Opportunities to enhance this role include developing wider skills programs that improve opportunities for employment both in the Greater Sydney and regional NSW.</p> <p>Delivery Horizon: Short Term: DCJ, Department of Education in consultation with Fairfield Council.</p>

7. Implementation and Governance

The role of the Western Parkland City Authority

The Parkland City's vision is to become the most green, connected, and advanced City in the Indo-Pacific region. To achieve this vision, the WPCA is responsible for delivering, coordinating, and attracting investment to the Parkland City.

The WPCA is responsible for driving the delivery of the vision for the Parkland City in three key ways:

- facilitating coordination by bringing together agencies, Councils, industry representatives, businesses and community groups to achieve optimal outcomes;
- development delivery with a current focus on the delivery of Bradfield City Centre; and
- investment attraction to optimise the Western Sydney City Deal outcomes and to drive jobs growth.

WPCA collaborates widely across the public and private domains. In particular, the WPCA works collaboratively with all levels of government under the enduring tri-government arrangement set out by the Western Sydney City Deal. This includes partnering with local Councils.

In this context, WPCA sought preliminary strategic inputs from Western Parkland Councils to support greater coordination of State and local government investigations and investments in the delivery of the Parkland City. Preliminary inputs are drawn from a range of local plans, strategies and initiatives, and initial consultation with Western Parkland Councils. Set out in Appendix A, these local considerations include funded and unfunded infrastructure, including:

- Green infrastructure;
- Transport connectivity;
- Digital connectivity;
- Liveability and wellbeing; and
- Economic and development

Forums for ongoing collaboration with the Western Parkland Councils include through the Western Sydney City Deal governance and Western Sydney Planning Partnership.

Greenfields Committee

A Greenfields Committee, chaired by DPE, has been established. A key role of this Committee is to address the alignment and funding of infrastructure and the staging and sequencing issues in greenfield areas. The Committee is an information-sharing forum to identify issues and engage with Councils on local considerations.

This includes road activation packages and utility considerations critical to unlocking the development of land for housing and jobs. This Committee provides an important interface with relevant NSW government agencies, Councils and delivery stakeholders.

Monitoring and Reporting

The reporting on priorities will be carried out by WPCA as part of the regular annual review of the Blueprint. The priorities are set out under each of the themes and include a delivery horizon which identifies roles and responsibilities and delivery timeframes.

Six key measures have also been identified to monitor the delivery of the vision. These will also be reported as part of annual reviews of the Blueprint and are detailed on the following page.

The WPCA will also leverage monitoring of the Parkland City undertaken by the Commonwealth and NSW governments as well as Councils. These measures include the Australian Digital Inclusion Index, DPE's Greater Sydney Region Urban Vegetation Cover and the Greater Sydney Commission's reporting on the implementation of the Western City District Plan. These measures may also include transport related indicators such as freight and mode split.

As part of the Smart Western City Program a wealth of data will also become available such as environmental monitoring and smart metering reporting. Pilots are already being funded through the Smart Places Acceleration Program in the Parkland City such as the Smart Kerbs pilot in Liverpool LGA to better manage opportunities for active and public transport options and to improve safety outcomes.



Green

Measure 1: Parkland for people

Increase the proportion of homes in urban areas within 10 minutes' walk of quality green, open and public space and where possible, increase tree canopy and green cover in both greenfield and renewal areas.

This measure was first identified as a government initiative for increasing the green spaces in NSW and recognises that green, open and public spaces are important to everyone. Our public spaces support our health and well-being and environmental resilience. They also play an important role in the overall experience of the City, contributing to the lifestyle and wellbeing of an area. This forms an important consideration as part of the City's investment attraction offer.

Measure 2: A net zero City

Develop low carbon, high efficiency strategies to deliver net zero emissions before 2050, including carbon neutral buildings in Bradfield City Centre.

The NSW Government has announced how it will fast-track climate action through energy and emissions reduction initiatives. There are two key reasons this measure is important for the Parkland City – the first being the elevated impacts of climate change on the community through natural hazards and urban heat, the second being the opportunity that greenfield and urban renewal projects present to build a more sustainable city.



Connected

Measure 3: 30-minute City

Progress towards a 30-minute City with better access to a wider range of jobs and services.

This measure aligns with the direction for a 30-minute City in the Greater Sydney Region Plan. In 2020, the Greater Sydney Commission's Pulse of Greater Sydney reported that the Western Parkland City scored lower than the Greater Sydney average on the 30-minute measure of public transport access to metropolitan and strategic centres.

This emphasises the importance of the Metro/rail extensions and rapid bus network to improve connections across the City.

Measure 4: Collaboration with Aboriginal communities

Collaboration to give a stronger voice to the Aboriginal people of the region to support Connection to Country outcomes.

Western Sydney is home to the highest number of Aboriginal people in any region in Australia. A unique opportunity exists to establish a platform for two-way knowledge sharing, to elevate Country and to learn from cultural practices that will create a truly unique and vibrant place for all.



Advanced

Measure 5: Jobs

The City will support the creation of more than 200,000 additional jobs and greater job diversity by 2036.

The fundamental shift to put the economic potential of the Parkland City at the centre of planning and delivery priorities means that jobs growth is prioritised. This is essential to rebalancing the economy and job opportunities across the Greater Sydney and driving economic recovery.

Measure 6: Skills

The City will educate and train today's workforce for the jobs of the future.

The Parkland City has a significant opportunity to work in partnership with industry to grow a skilled workforce targeting nationally competitive industries. The micro credential model offers a more agile way to deliver training and provides industry with the ability to adapt, innovate and improve productivity over time at a scale available in few other places in Australia.

Next Steps and Delivery

This Blueprint has been prepared by the WPCA to provide a central resource on the existing, future and emerging priorities required to deliver the vision for the Parkland City. Accordingly, many of these priorities will require further planning and consultation before governments commit the resources for detailed investigation and implementation.

The WPCA would like to acknowledge the contributions provided by the Western Parkland Councils in the development of the Western Parkland City Blueprint and Economic Development Roadmap –Phase 1. The WPCA welcomes the opportunity to continue to collaborate and engage with local government in the progressive implementation of priorities.

The WPCA will continue to work closely with the Western Parkland Councils and NSW Government agencies, including the Department of Planning and Environment (DPE), Transport for NSW (TfNSW), NSW Treasury, Infrastructure NSW and the Greater Cities Commission. This will support the WPCA to:

- continue to build a stronger City-wide evidence base to inform government investment decisions. This evidence base will also help City-building partners to understand the different City-shaping and temporal layers that make up the Western Parkland City;
- influence and inform State and local strategies, policies and plans, including the development of State Infrastructure Strategy 2022-2042, and Six Cities Discussion Paper and updates to City Plans;
- continue to collaborate with peak bodies, Councils, NSW Government agencies and other organisations to establish greater transparency and help progressively implement the priorities identified in the Blueprint; and
- strengthen the WPCA's coordination role, particularly to support the WPCA's advisory and consultative role in planning processes and delivery of development activities across the Western Parkland City.

Appendix A – Preliminary Inputs by Local Government Area (funded and Unfunded)

This section provides a list of preliminary local infrastructure that may be considered for future investigation, co-ordination and / or investment to support the delivery of the Parkland City.

The preliminary inputs have been drawn from a range of local plans, strategies and initiatives prepared by or for the Western Parkland Councils. These have been grouped in adjoining and overlapping areas as follows:

- Penrith-Hawkesbury-Blue Mountains;
- Liverpool-Penrith;
- Macarthur (Camden, Campbelltown, Wollondilly); and
- Aerotropolis (parts of Liverpool and Penrith).

These preliminary inputs include funded and unfunded infrastructure preferences and proposals. Not all have not been confirmed and/or endorsed by local councils or the relevant NSW Government agencies. Rather, they form the basis of further discussions in collaboration with the WPCA, relevant NSW Government agencies and local Council.

GREEN – Green infrastructure

Regional Objectives

- Ensuring the Western Parkland City stays green.
- Sustainable ‘parkland’ environment that features open space, waterways, and flora and fauna.

Regional Priorities

- Expand the Green Grid network of regional tracks and trails and linkages between public open space throughout the Parkland City.
- Address urban heat island effects and achieve green-blue grid objectives.

CONNECTED – Transport and walkable neighbourhoods, digital connectivity, and liveability and well-being

Regional Objectives

Transport and walkable neighbourhoods

- Improved access internally and beyond
- 30 minute City
- Better public transport
- Better road connections
- Less congestion
- Equality of access for residents in all towns, villages, centres and areas across the Western Parkland City

Digital connectivity

- Digital connectivity
- High quality digital access

Liveability and wellbeing

- Infrastructure to support population growth in the Western Parkland City
- A renewed and positive vision/ reputation for the Western Parkland City
- Affordable and quality housing and neighbourhoods
- Affordable family activities and attractions and all the services our communities need

Regional Priorities

- North South Rail –metro or rail line from Schofields to Macarthur and including South West rail link, as originally outlined in the City Deal
- Rapid Bus Service –Delivery of rapid bus services from the Metropolitan Centres of Penrith, Liverpool and Campbelltown-Macarthur (and from Parramatta to serve Fairfield residents) to the new Western Sydney International Airport and Aerotropolis prior to the opening of the Airport in 2026
- Integrated Transport Plan a joined up plan that encompasses various transport modes (freight, passenger and active) at the State, regional and subregional level and covers the full area of the eight Councils
- Full rail freight capacity study –provision of safe and efficient movement of freight
- Enhanced mobile phone coverage in blackspot areas of the Parkland City –significant need to aid emergency communications given flood and bushfire events
- 5G connectivity to support growing industries such as health/education/advanced manufacturing)
- Access to high quality, large capacity, consistent connections
- Equal digital access for all Parkland Council residents to allow data and technology to be a channel to promote social and economic wellbeing across all LGAs
- Suggested need for a social infrastructure delivery plan to identify infrastructure benchmarks and current service levels
- Provision of both hard and soft infrastructure and funding needed

ADVANCED – Economic development

Regional Objectives

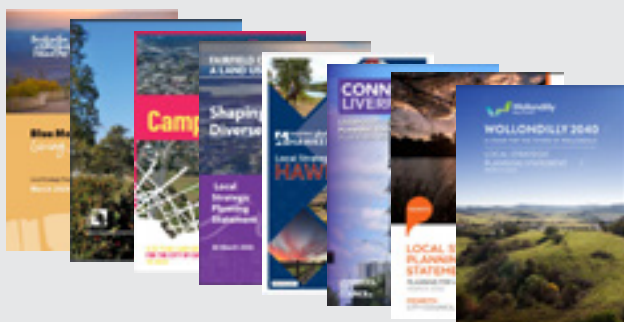
- Greater number of local jobs
- Greater diversity of local jobs with equity in access
- Support for businesses in a post-pandemic environment
- Increased volume of serviced employment and growth area lands

Regional Priorities

- Attracting investment
- Support for our strategic centres
- Fostering of industry
- Growth and nurturing of an innovation ecosystem
- Regional Economic Development Strategy

Local Strategic Planning Statement

The Western Parkland Councils finalised their Local Strategic Planning Statements (LSPS) in 2019 and 2020. LSPSs place greater emphasis on upfront strategic planning to establish the 20 year vision for a LGA and to identify local priorities to update statutory planning policies and plans. LSPSs provides the line of sight at a local scale to implement local priorities identified in the Greater Sydney Region Plan. Updates to LSPSs and other strategic policies and plans prepared by the Western Parkland Councils will continue to inform updates to the *Blueprint*.



Further information

Further information on the Western Parkland Councils can be found at:

Western Parkland Councils:
wpcouncils.nsw.gov.au

Data portal:
data.wpcouncils.nsw.gov.au/pages/home

Blue Mountains City Council:
www.bmcc.nsw.gov.au

Camden Council:
www.camden.nsw.gov.au

Campbelltown City Council:
www.campbelltown.nsw.gov.au/home

Fairfield City Council:
www.fairfieldcity.nsw.gov.au/Home

Hawkesbury City Council:
www.hawkesbury.nsw.gov.au

Liverpool City Council:
www.liverpool.nsw.gov.au

Penrith City Council:
www.penrithcity.nsw.gov.au

Wollondilly Shire Council:
www.wollondilly.nsw.gov.au

Penrith – Hawkesbury – Blue Mountains

Preliminary inputs by local government area (funded and unfunded)

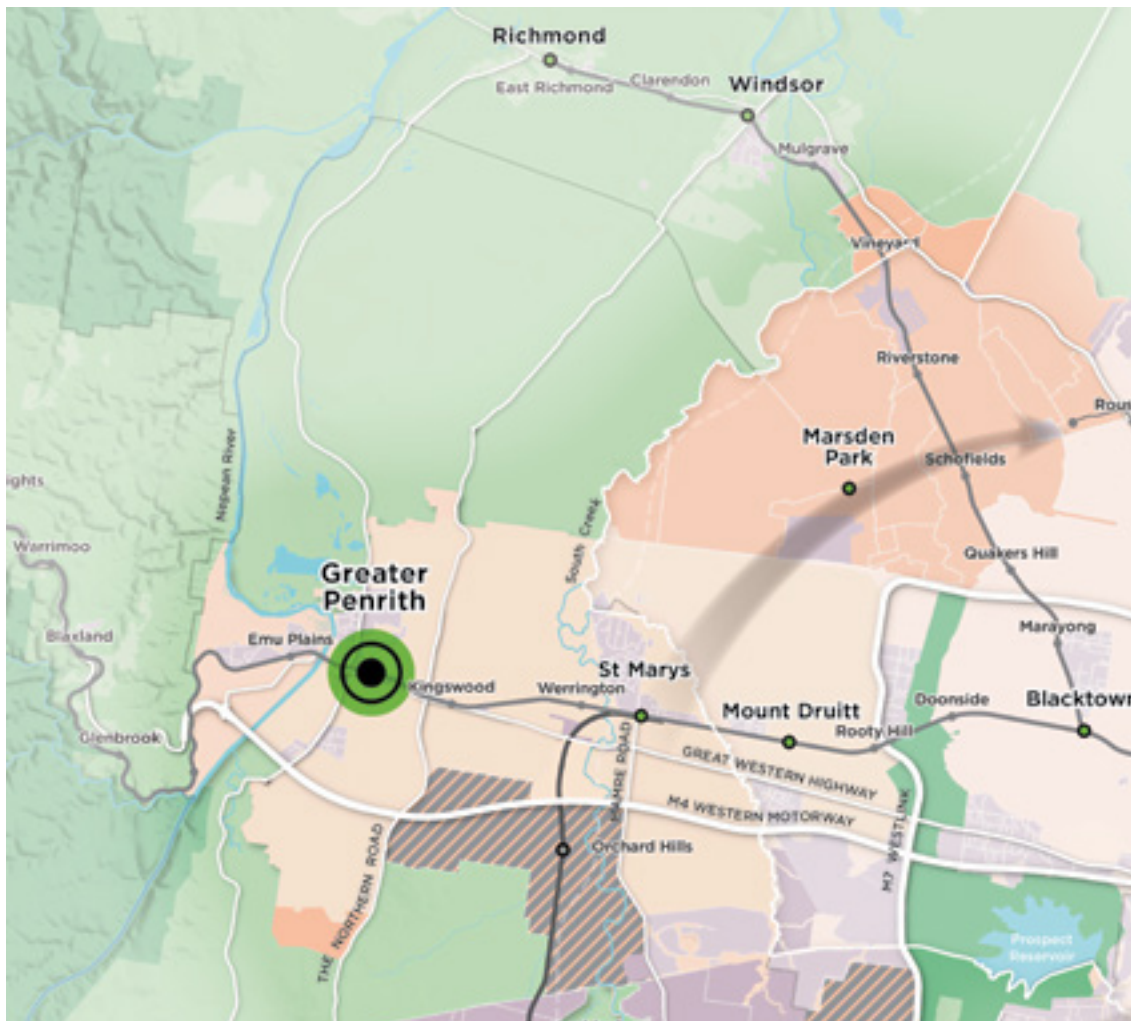
This section provides a list of preliminary local infrastructure for the LGAs of Penrith, Hawkesbury and Blue Mountains that may be considered for future investigation, coordination and/or investment to support the delivery of the Parkland City.

The preliminary inputs have been drawn from a range of local plans, strategies and initiatives prepared by or for the Western Parkland Councils.

These preliminary inputs include funded and unfunded infrastructure preferences and proposals. Not all have not been confirmed and/or endorsed by local Councils or the relevant NSW Government agencies. Rather, they form the basis of further discussions in collaboration with the WPCA, relevant NSW Government agencies and local Council/s.

Key City-shaping and Regional Infrastructure Inputs:

- Sydney Metro –Western Sydney Airport will connect Bradfield City Centre and Western Sydney International Airport to the regional rail network to the north at St Marys. The new 23km railway will link residential areas with new and established employment hubs and centres;
- Complete investigations for remaining Parkland City metro network, including from St Marys to Tallawong with an interchange with the Richmond Line;
- Rapid bus services –to provide short term connections from Penrith to Western Sydney International Airport and the Aerotropolis;
- Great Western Highway - \$4.5 billion Commonwealth and NSW Government's commitment to upgrade the highway between Katoomba and Lithgow. This includes the final 34 kilometres of dual carriageway over the Blue Mountains and investigations for a tunnel to bypass Mount Victoria. This will connect the Blue Mountains to the Central West region and regional NSW.



- Finalise gazettal of land corridor for the delivery of Western Sydney Freight Line to provide a dedicated freight rail connection with Port Botany;
- Finalise the gazettal of land corridor for the Outer Sydney Orbital (freight /motorway links) from Greater Macarthur to Penrith and coordinated planning with Aerotropolis;
- Richmond Bridge upgrade –allocated \$500 million by the Commonwealth and NSW Governments must deliver an additional bridge between Richmond and North Richmond to improve congestion and traffic flow;
- Richmond Road upgrade –1.5 kilometres upgrade of Richmond Road in the North West Growth Area included in the Growth Centres SIC.

Key Intra-City Transport Infrastructure Inputs:

Western Sydney Employment Area (WSEA)

- Mamre Road upgrade –north-south connection Great Western Highway at St Marys to M7 and Elizabeth Drive improving connections to WSEA and Aerotropolis. Stage 1 –road upgrade M4 to Erskine Park Road from 4 to 6 lanes, 6 intersection upgrades and a shared path. Concept designs commenced in 2020.
- Southern Link Road –DPE identified a preferred network, including Southern Link Road, to support WSEA. The road will provide a main east-west connection from Mamre Road to the M7 (by extending Bakers Lane) with 2 north-south links at Lenore Drive and Archbold Road extension to provide access to the Horsley Park Urban Investigation Area.
- Archbold Road upgrade and extension –the north-south connection providing access to WSEA between the Great Western Highway and the M4. This will include future planning to extend to Old Wallgrove Road to provide reliable, safe and efficient traffic movements.
- Erskine Park Road upgrade –road widening to a 4 lane dual carriageway with intersections upgrades and a shared path to improve road safety and efficiency.

Metropolitan Rural Area

- Mulgoa Road upgrade –north-south connection from Penrith city centre to the M4. The road will upgrade and widen 6.5km from Andrews Road to Glenmore Parkway.

Other preliminary inputs (that may be considered for future investigation, coordination and/or investment to support the delivery of the Parkland City) identified by local government include:

Blue Mountains

- Blue Mountains-Western Line rail connection –enable connection services and interchange infrastructure on the Western Line to optimise connections to North-South rail link and holistic approach to Greater Western Highway upgrade between Katoomba and Lithgow.
- Great Western Highway entries –to Katoomba at Yeamans Bridge and to Springwood at Hawkesbury Road.
- Further upgrades to Bells Line of Road, including upgrades following floods in March 2021.
- Katoomba master plan –implementation of the master plan to strengthen Katoomba as a Strategic Centre and in other areas reflect locally appropriate growth including the principles of Planetary Health.
- Eastern Escarpment green grid walking track and bikeway connectivity and Grand Cliff Top Walk.
- Katoomba Hospital redevelopment.
- Planetary Health Centre of Excellence – Council-led initiative in partnership with Western Sydney University, Monash University and the University of Technology Sydney, the Institute for Sustainable Futures and NPWS to leverage the status of the Blue Mountains within a UNESCO declared World Heritage Area.
- Growing economies –sustainable, visitor and circular economies.
- Need for greater resilience of transport and integrated water cycle infrastructure to address climate change impacts.

Hawkesbury

- Richmond Line duplication and fully accessible and serviced railway stations.
- Clarendon Precinct connection –including transport and master planning to support education cluster and to increase links to the Aerotropolis.
- Bells Line of Road upgrade.
- Resilience to natural hazards and services west of Hawkesbury –including evacuation centres, emergency services hub and digital connectivity.

- Biodiversity offsets and tree plantings for urban heat.
- Hawkesbury water and sewer connections –including new, upgrades and connections to recycled water.
- Sustainability and circular opportunities, including waste facilities, EV charging network and community batteries.
- Cross boundary community and cultural facilities, including domestic violence services and refuge, eco-tourism, and flood management/evacuation.
- Agricultural industries –including equine industry, farm gate trails and art and culture trails.
- Housing strategies –including affordable housing and diversity.

Penrith

- Enhanced regional connection of road network, eg. future Castlereagh Connection, upgrade Werrington Arterial Stage 2, Luddenham Road, Great Western Highway, and further upgrades to the Northern Road where it crosses the T1 rail line.
- Rapid bus services –from existing metropolitan centres to Western Sydney International Airport
- Protection of transport corridors.
- Road network capability –for efficiency and safety, and to connect intermodals (i.e., St Marys).
- Enhance active transport routes and green grid across the Western Parkland City.
- Infrastructure to support centres and Health and Education Precincts.
- Provision of utilities in urban release and employment areas including aerotropolis precinct planning.
- Supportive infrastructure to build community resilience and preparedness during and after an event, including integrated planning for safe flood and bushfire evacuation.
- Regional Affordable Housing Scheme.
- Serviced supply of well-connected employment lands to improve economic development and growth.
- Community and social infrastructure, including schools.

Liverpool – Fairfield

Preliminary inputs by local government area (funded and unfunded)

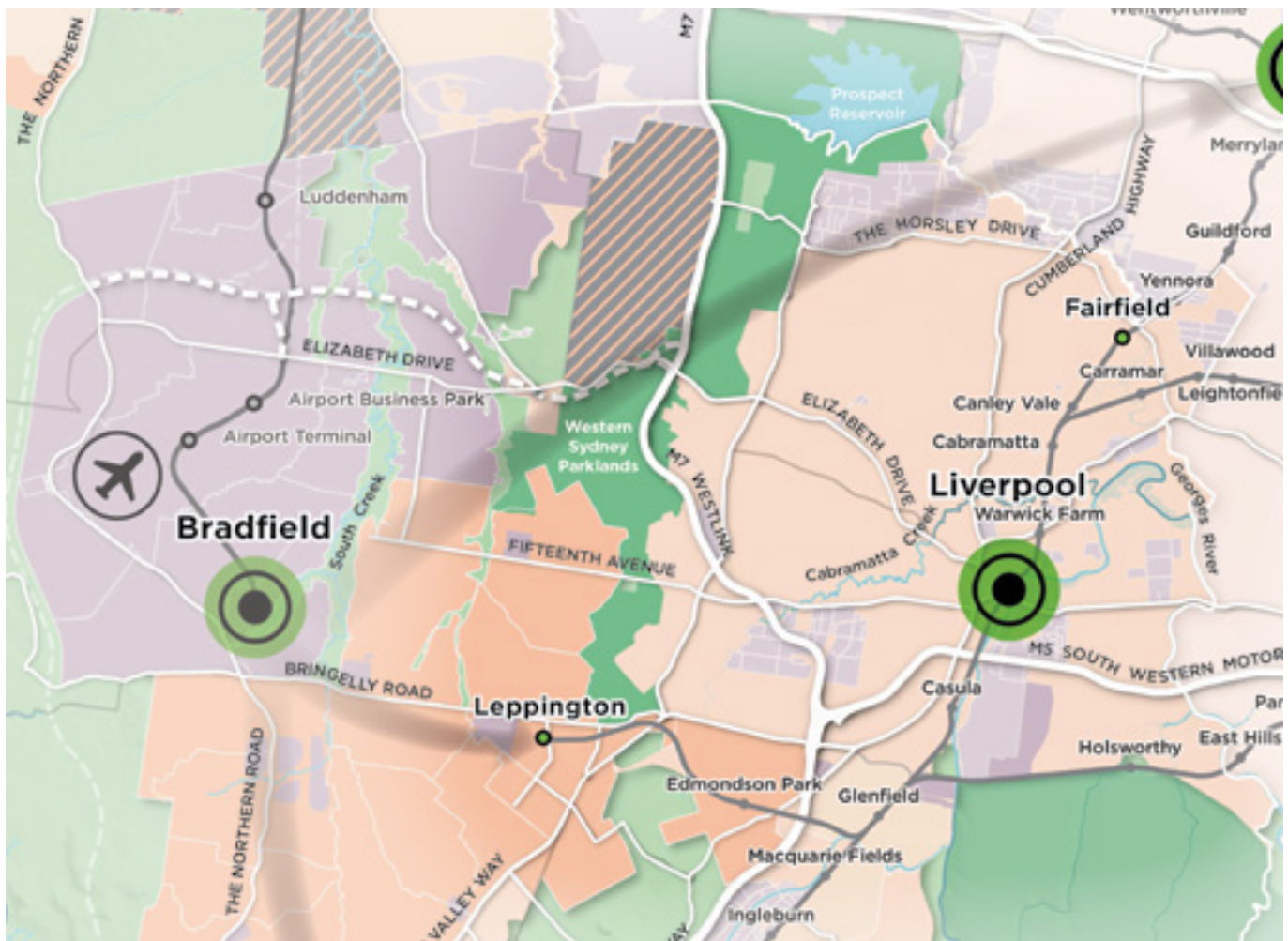
This Section provides a list of preliminary local infrastructure for the LGAs of Liverpool and Fairfield that may be considered for future investigation, coordination and/or investment to support the delivery of the Parkland City.

The preliminary inputs have been drawn from a range of local plans, strategies and initiatives prepared by or for the Western Parkland Councils.

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Key City-shaping and Regional Infrastructure Inputs:

- Complete investigation and delivery of rail link between Bradfield City Centre, connecting Bradfield City Centre to Glenfield and Liverpool by 2031. Investigate frequent bus services between Bradfield City Centre –Leppington-Glenfield by 2026.
- Complete investigations, business case and priority staging for North-South extension of Sydney Metro-Western Sydney International Airport and future connection from the Airport to Parramatta Metropolitan Centre.
- Rapid bus services –to provide connections between metropolitan centres to the Western Sydney International Airport and Bradfield City Centre and Liverpool City Centre.
- Western Sydney Freight Line route linking Western Sydney Aerotropolis to Port Botany.



Western Sydney Employment Area

- Southern Link Road – DPE identified a preferred network, including Southern Link Road, to support WSEA. The road will provide a main east-west connection from Mamre Road to the M7 (by extending Bakers Lane) with 2 north-south links at Lenore Drive and Archbold Road extension to provide access to the Horsley Park Urban Investigation Area.

Current Transport investigations (Liverpool Council)

- Hoxton Park Road upgrade – will provide dedicated bus lanes to connect Liverpool Metropolitan Centre with the Aerotropolis. The upgrade is being investigated as part of NSW Government and Liverpool City Council's preparation of the Liverpool to Airport Connection Masterplan. The NSW Government is investigating this as part of the rapid bus connect Liverpool with the Aerotropolis, with the upgrade included as part of this broader investigation.

Other preliminary inputs (that may be considered for future investigation, coordination and/or investment to support the delivery of the Parkland City) identified by local government include:

Fairfield

- Metro extension to Parramatta – investigations to extend the metro line from the Western Sydney International Airport through to Parramatta should include stations at Prairiewood and Cecil Park.
- Western Sydney Freight line route to be finalised to give certainty to landowners.
- Rapid bus connection to Parramatta to Aerotropolis via Bonnyrigg to be a 'one seat' journey.
- Key road connections and upgrades including:
 - Victoria St extension to new Southern Link Rd at M7 to connect Smithfield Wetherill Park industrial area and the new intermodal terminal;
 - Improvements to Horsley Drive/Victoria St/Cumberland Highway intersections at Smithfield;
 - Improvements to Elizabeth Drive from M7 to Liverpool, particularly through Mt Pritchard and Bonnyrigg;
 - Increase capacity of Bareena St overbridge at Canley Vale;
 - Increase capacity of right hand turns off Cowpasture Rd, especially between Elizabeth Dr and Edensor Rd; and

- Pine Road Level Rail Crossing upgrade and enhanced City Connect Bus services.
- Rail stations – stations need to be fully accessible and have commuter carparks.
- Health and education infrastructure, including Fairfield hospital upgrade and expansion.
- Cultural and sporting facilities including, Cabravale Leisure Centre expansion, Endeavour Sport Park upgrade and Regional Multicultural and Indoor Sports Centre.
- Regional Multicultural and Indoor Sports Centre.
- Town centre public domain upgrades – to complement 'eat streets' and shopping.
- Wetherill Park TAFE upgrade and expansion – to upskills workers and youth.
- Funding support needed to naturalise drainage channels and increase planting and tree canopy cover - along rivers and on public land - to help mitigate urban heat impacts.
- Support migrants and refugees who in settle in Fairfield.
- Smithfield and Wetherill Park strategy – to support the industrial areas to continue as a significant employment hub.
- Waste management – future waste and disposal options.

Liverpool

- Western Bypass – the Brickmakers Creek Corridor.
- Moore Street reconfiguration.
- Heathcote Road and Moorebank Avenue upgrade – upgrade intersection as the easterly entrance to Liverpool CBD.
- Edmondson Avenue upgrade.
- Planning to support 30-minute City concept, particularly in new release areas and providing appropriate services.
- Utilities and services – for investment attraction and to meet housing targets.
- Liverpool City Centre transformation.
- Leveraging the Liverpool Innovation Precinct.
- Lurnea integrated community hub.
- Light Horse Park embellishments.
- Local amenities to support investment attraction – such as community services and amenities, education).
- Environmental education centre.

Macarthur

Preliminary inputs by local government area (funded and unfunded)

This Section provides a list of preliminary local infrastructure for the LGAs of Campbelltown, Camden and Wollondilly that may be considered for future investigation, coordination and/or investment to support the delivery of the Parkland City.

The preliminary inputs have been drawn from a range of local plans, strategies and initiatives prepared by or for the Western Parkland Councils.

These preliminary inputs include funded and unfunded infrastructure preferences and proposals. Not all have not been confirmed and/or endorsed by local Councils or the relevant NSW Government agencies. Rather, they form the basis of further discussions in collaboration with the WPCA, relevant NSW Government agencies and local Council/s.



City-shaping and Regional Infrastructure Inputs:

Planning and investigations for city shaping and major intra-city connections have been identified by Blueprint, SIC infrastructure schedule and local government. These are preliminary inputs and includes a mix of funded and unfunded projects:

- Complete investigation and delivery of rail link between Bradfield City Centre, connecting Bradfield City Centre to Glenfield and Liverpool by 2031. Investigate frequent bus services between Bradfield City Centre –Leppington-Glenfield by 2026;
- Complete investigations, business case and priority staging for North-South extension of Sydney Metro-Western Sydney Airport including connection to Oran Park, Narellan and the Campbelltown–Macarthur Metropolitan Centre;
- Rapid bus services –to provide connections between metropolitan and strategic centres to the Western Sydney International Airport and Bradfield City Centre;
- Finalise the gazettal of land corridor for the Outer Sydney Orbital (freight/motorway links) from Greater Macarthur to Penrith and coordinated planning with Wilton and Greater Macarthur and regional links to Illawarra; and
- Picton Road upgrade –the NSW Government is investigating opportunities to upgrade Picton Road between the Wilton Growth Area, the Hume Motorway interchange and the M1 Princes Highway.

Key Intra-City Transport Infrastructure Priorities and Preferences:

South West Growth Area

(refer to the Growth Areas SIC and progress on the 2022 review of the Growth Area Structure Plan)

- Rickard Road transit boulevard –connecting Leppington and Oran Park (through Catherine Field) for dedicated bus and active transport connections to improve connectivity to the South West Growth Area.
- South West Growth Area links –to improve east-west connectivity across the Scenic Hills between Campbelltown and Camden identified in the Special Infrastructure Contribution, including Raby Road.

Greater Macarthur Growth Area (refer to the proposed Greater Macarthur SIC)

- Spring Farm Parkway Stage 1 - \$206 million for detailed design and committed funding.
- Spring Farm Parkway Stage 2 - east-west arterial road connecting the Hume Motorway to Menangle Park recognised as a priority for further investigation and business case development.
- Menangle Park-Appin Link Road –upgrade the link between Menangle Park and Appin to improve connectivity and safety across the Greater Macarthur Growth Area.
- Appin Road upgrade –the NSW Government is undertaking detailed designs for two upgrades to support safety improvements to Appin Road between Rosemeadow and Mt Gilead, and Mt Gilead and Appin. This will service the Greater Macarthur Growth Area.

Wilton Growth Area (refer to proposed Wilton SIC)

- Wilton Growth Area infrastructure –critical actions identified in the Wilton 2040 Plan include:
 - Wilton interchange and Picton Road upgrades;
 - On and off ramps connecting the Hume Motorway to North Wilton;
 - Active transport connections across Wilton; and
 - Public transport interchange located in the town centre.
- Upgrade Broughton Pass to address road capacity constraints to the link between Wilton and Appin.

Metropolitan Rural Area

- Picton Bypass - \$3 million allocated to TfNSW to investigate potential options for the future alignment of the bypass.

Other preliminary inputs (that may be considered for future investigation, coordination and/or investment to support the delivery of the Parkland City) identified by local government include:

Camden

- Rapid bus services in 2026 via The Northern Road and Narellan Road that will connect to Oran Park and Narellan through Campbelltown.
- Spring Farm Parkway Stage 2 –extension of link from the M31 Hume Motorway to the Camden Bypass to include consideration of south facing ramps to provide direct access to southern extent of the Motorway.
- Camden Valley Way upgrade –between The Northern Road and Bringelly Road from 4 lanes to 6, and intersection upgrades.
- Camden Bypass Link -new strategic link between Camden Bypass and Camden Valley Way to address intersection congestion.
- Leppington utility infrastructure network to address capacity issues, particularly for sewer, to support rezoned land.
- Sewer pumping station early delivery (SP1209 unlocks 33,000 dwellings in South West Growth Area).
- Deliver Camden Green and Blue Grid, including South Creek, Kemps Creek, Camden Nepean River Walk, Mt Annan and Upper Canal Gledswood Hills.
- Provision of tertiary education and training facilities.
- Community, social and infrastructure – including a needs analysis, spaces and place strategy, sportsground strategy and for community education.
- Service supply of well-connected employment lands to improve economic development and growth.

Campbelltown

- Rapid bus services from existing metropolitan centres to Aerotropolis –to provide an attractive alternative transport choice.
- Transport connections to deliver 30-minute city and active transport links.
- Freight route and rectification works -to ensure all key freight routes have appropriate capacity (roads, bridges and intermodals), particularly to Minto and Ingleburn industrial areas.
- Integrated water solutions –to enable the growth of the Parkland City.
- Multi-jurisdictional justice infrastructure –providing communities with access to justice infrastructure.
- Programs to enable health and education clusters to mature into Innovation Districts.

- Social and cultural infrastructure program –to expand the offering (e.g., Arts Centre and Sports Stadium expansion).
- Key connections –to economic hubs, employment lands and to TAFE.
- Better utilise TAFE assets to address vocational needs.
- Enhance Green –Blue links including regional recreation trails (i.e., Wedderburn to Glenfield Georges River Trail), and Bow Bowling Creek.

Wollondilly

- Rail electrification Macarthur to Picton/Wilton and prioritisation of Rapid bus services –from Campbelltown through to Wilton in short term.
- Maldon Dombarton Rail link –to connect the freight line from Bradfield City Centre to Port Kembla via the Greater Macarthur and Wilton Growth Areas.
- Regional connectivity infrastructure –duplication of Blaxland Crossing (or second crossing) for access to the Western Sydney International Airport and Bradfield City Centre, a full upgrade of Picton Road, and replacement of Wilton Road Cataract River Bridge.
- Sewerage infrastructure in Campbelltown and Wollondilly -with the urgent Picton STP upgrade.
- Social Infrastructure include South-West hospital located in Wilton catering for growing population and Wilton high school and potential schools at Appin.
- Eco-tourism infrastructure –to link the Great Burragorang Walk to the Eastern Escarpment.
- Education forward planning matching vocational and tertiary education with growth.
- Open space and sportfields strategy to service local and regional catchments.
- Biodiversity and green infrastructure, including the Cumberland Plain Conservation Plan and green grid strategy.
- Road classification to support key route safety and capacity improvements and rural road connections needed to support rural villages and visitor.
- Activation of additional employment areas to increase local job supply (e.g. Wilton, Maldon).

Aerotropolis

Preliminary inputs by local government area (funded and unfunded)

This section provides a list of preliminary local infrastructure for parts of the LGAs in and surrounding the Aerotropolis including Liverpool and Penrith, as well as parts of adjoining LGAs of Campbelltown and Fairfield. This list may be considered for future investigation, coordination and/or investment to support the delivery of the Parkland City.

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Key City-shaping and Regional Infrastructure Inputs:

- Complete investigation and delivery of rail link between Bradfield City Centre, connecting Bradfield City Centre to Glenfield and Liverpool by 2031. Investigate frequent bus services between Bradfield City Centre – Leppington-Glenfield by 2026.
- Complete investigations, business case and priority staging for North-South extension of Sydney Metro -Western Sydney Airport connecting to:
 - Campbelltown-Macarthur;
 - Tallawong; and
 - Parramatta.
- Rapid bus services –to provide connections between metropolitan centres to the Western Sydney International Airport and Bradfield City Centre:
 - Penrith;
 - Parramatta; and
 - Campbelltown-Macarthur.
- Complete delivery of western Sydney Infrastructure Plan including:
 - Bringelly Road upgrade-upgrades 4.3km of Bringelly Rd between King Street, Rossmore (completed);
 - The Northern Road to 4 lanes (with an allowance for 6), a shared path, new bridges over South Creek and 3 new signalised intersections (final stages of completion); and
 - M12 providing direct access to the Western Sydney International Airport at Badgerys Creek and Sydney's motorway network at the M7.
- Finalise the gazettal of land corridor for the Outer Sydney Orbital (freight/motorway links).
- Western Sydney Freight Line linking Aerotropolis to Port Botany.

Intra-city Transport Infrastructure Inputs:

Aerotropolis and Western Sydney Growth Areas:

Key road links identified in SIC infrastructure schedules include:

- Elizabeth Drive upgrade –east-west connection from the Northern Road at Luddenham through to Liverpool, with 14km from Badgerys Creek to the M7 upgrades and widened to service the Western Sydney International Airport and the Aerotropolis, noting contribution provisions for:
 - Elizabeth Drive (West) –between The Northern Road and Badgerys Creek;
 - Elizabeth Drive (East) -between Badgerys Creek and Duff Road near the M7/M12 interchange; and
 - M12 delivered upgrades –a 1.6 km section of Elizabeth drive at the M12-airport entrance, and a 2 km section east of Duff Road to the M7 incorporating the M7-M12 interchange.
- Fifteenth Avenue smart transit (FAST) corridor –to provide a direct rapid bus route between Liverpool and Bradfield City Centre and the Western Sydney International Airport. The FAST corridor connects at Cowpasture and Hoxton Park Roads (near the M7) through Austral and Rossmore and providing a landscaped parkway with public and active transport connections, noting contribution provisions for:
 - Fifteenth Avenue Part 1 –Cowpasture Road to Kemps Creek; and
 - Fifteenth Avenue Part 2 –Kemps Creek to Western Road.
- Eastern Ring Road –is proposed as the primary arterial road which will have a focus on freight traffic to service the Aerotropolis precincts.
- Denham Court Road link to Leppington –from Camden Valley Way to Campbelltown Road.
- Edmondson Avenue Stage 1 link from Bringelly Road to Fifteenth Avenue.

Further utility, social infrastructure and economic development priorities are identified in the planning package for the Western Sydney Aerotropolis in consultation with Penrith, Liverpool and Fairfield Councils.

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Western Parkland City Blueprint
September 2022

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