

Draft Western Sydney Aerotropolis Social Infrastructure Strategy

Report 1: Social Infrastructure Audit

GHD Report for the Western Sydney Planning Partnership

October 2020



GHD | Report for Western Sydney Planning Partnership - Draft Western Sydney Aerotropolis Social Infrastructure Audit,

Executive Summary

Objective of report

Social infrastructure will play a critical role in creating the communities that will live, work and visit the Aerotropolis. The character, as outlined in the vision for each of the individual precincts, will be critical in identifying and planning the social infrastructure that will need to be provided. Although each precinct will have its own requirements for local social infrastructure, regional infrastructure will need to consider the requirements of the Aerotropolis and the broader Western Sydney community.

This report has been prepared to inform a Social Infrastructure Needs Assessment, one of several studies being undertaken to inform the precinct planning process for the Aerotropolis. It provides a baseline report outlining:

- analysis of place
- review of government policies and commitments made in relation to social infrastructure for the Aerotropolis
- audit of existing infrastructure both within and servicing the Western Sydney Aerotropolis
- identification of gaps and opportunities for social infrastructure within the precincts

The Social Infrastructure Needs Assessment will consider the requirements for each individual precinct, while also understanding how infrastructure can contribute to the broader Western Sydney Aerotropolis community. Ultimately the Social Infrastructure Needs Assessment will be the connection between the design and the social construction of place that will activate the Western Sydney Aerotropolis.

Methodology

The methodology for this report has been informed by the Greater Sydney Commission's *Liveability Framework for Sydney* and key overarching plans, policies and frameworks. This report has been prepared through the following key tasks:

- Background Review and defining the study area to understand the social policy context, best practice standards and benchmarks for social infrastructure planning, as well as any community concerns, aspirations and objectives in relation to Western Sydney Aerotropolis. For the detailed background review see sections 4 and 5.
- Existing and future place analysis to understand the existing communities, land use and built form, movement networks, employment hubs and activity centres. For the detailed background review see section 3.
- Demographic analysis to understand the current characteristics of residential communities in the local and district study areas. For the detailed background review see section 6.
- Social infrastructure audit to understand existing provision, capacity and access to social infrastructure within the Western Sydney Aerotropolis and the immediate surrounding areas.
- Challenges and risk analysis to identify potential social challenges and risks of developing the Western Sydney Aerotropolis as they relate to the outcomes identified in the Greater Sydney Commission's Liveability Framework for Sydney.

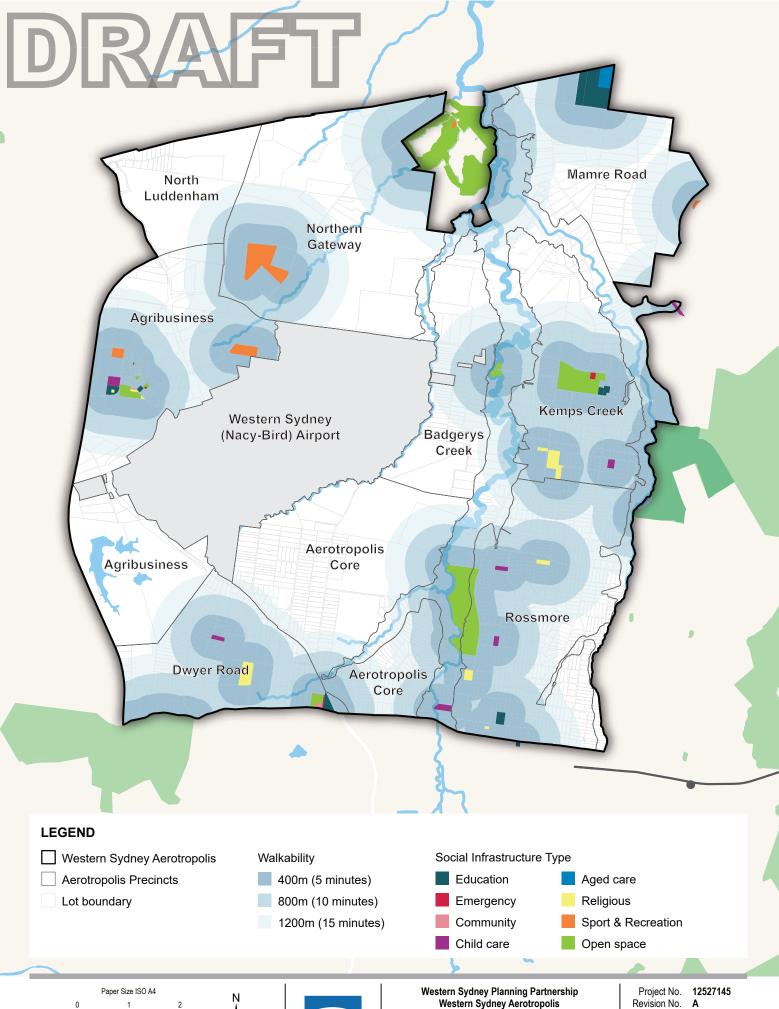
Social infrastructure audit

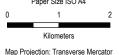
For the purpose of this report local and district social infrastructure within the Western Sydney Aerotropolis and 15 kilometres (the average distance travelled by car in 30 minutes at an average of 60 kilometres per hour) surrounding the Aerotropolis were identified, as well as key regional facilities in surrounding strategic and metropolitan centres within the Western Parkland City to provide further understanding to context and provision. There is a low level of provision of social infrastructure currently within the Western Sydney Aerotropolis, and these facilities are listed in Table E-1. Of note is that there are currently no health facilities within the area.

Table E-1 Existing Social Infrastructure within the Western Sydney Aerotropolis

Social infrastructure	Facility type	Number of facilities
Education	Government Primary School	3
	Non-Government Primary School	3
	Non-Government Combined school	2
	Non-Government High school	1
Emergency services	Rural Fire Service	3
Community facilities	Community centre	1
	Community Hall	1
Childcare	Long day care	6
	Out of School Hours Care	1
	Preschool	1
Aged care	Nursing Home	1
Cultural and art facilities	Cultural centre	1
Religious facilities	Place of worship	7
	Cemetery	2
Sport and recreation	Showground	1
	Sport Club	1
	Sports Complex	1
Open space and parks	Parks	8

Figure E-1 shows the existing social infrastructure located in the Western Sydney Aerotropolis, and the walkability catchments for each facility, which includes 400 metres (average 5 minute walk), 800 metres (average 10 minute walk) and 1200 metres (average 15 minute walk). For more detailed analysis of existing social infrastructure in and surrounding the Western Sydney Aerotropolis see section 7.





Map Projection: Transverse Mercator Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 56





Social Infrastructure Strategy

SOCIAL INFRASRUCTURE AUDIT WALKABILITY ANALYSIS

Date 17 Jun 2020

FIGURE E-1

Challenges

Table E-2 summarises the key challenges identified throughout the report that will be faced with the development of the Western Sydney Aerotropolis. These challenges have been aligned with the Greater Sydney Commission *Liveability Framework for Sydney* and broader challenges across the Metropolitan Sydney. For more detailed analysis of challenges and risks see section 8.

Table E-2 Challenges and risks summary

Liveability outcome	Challenge	
Canac of halonoing and local identity.	Rapid population growth	
Sense of belonging and local identity	Increasing cultural diversity and intolerance	
Connected communities	Access to public and active transport networks	
Urban Design Excellence	Place activation	
Companies and infrared market	Health inequality	
Supportive social infrastructure	Education attainment	
	A balance of white and blue collar jobs	
Diversity of job opportunities	The recent Covid-19 global pandemic and economic downturn	
Housing Choice	Housing affordability	
Culture and Innovation	Foster cultural inclusivity and expression	
Environmental Quality	Provision of quality open space	

Next steps

This report is the first in a series of three reports that will be used to plan the social infrastructure in the Western Sydney Aerotropolis. Using the baseline information contained in this social infrastructure audit, the following two reports have been prepared:

- Social infrastructure needs report to understand the future community and the needs
 of different users, including workers, visitors, tourists and residents, and make
 recommendations for the provision and staging of social infrastructure in the initial precincts
 up to 2056.
- Soft infrastructure needs discussion and Social Return on Investment Framework –
 to explore the concept of 'loveability' to move past hard infrastructure and make
 recommendations for activation programs which will assist in creating an affinity to place.

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Appendices

Appendix A – Demographics summary

Appendix B – Social Infrastructure audit

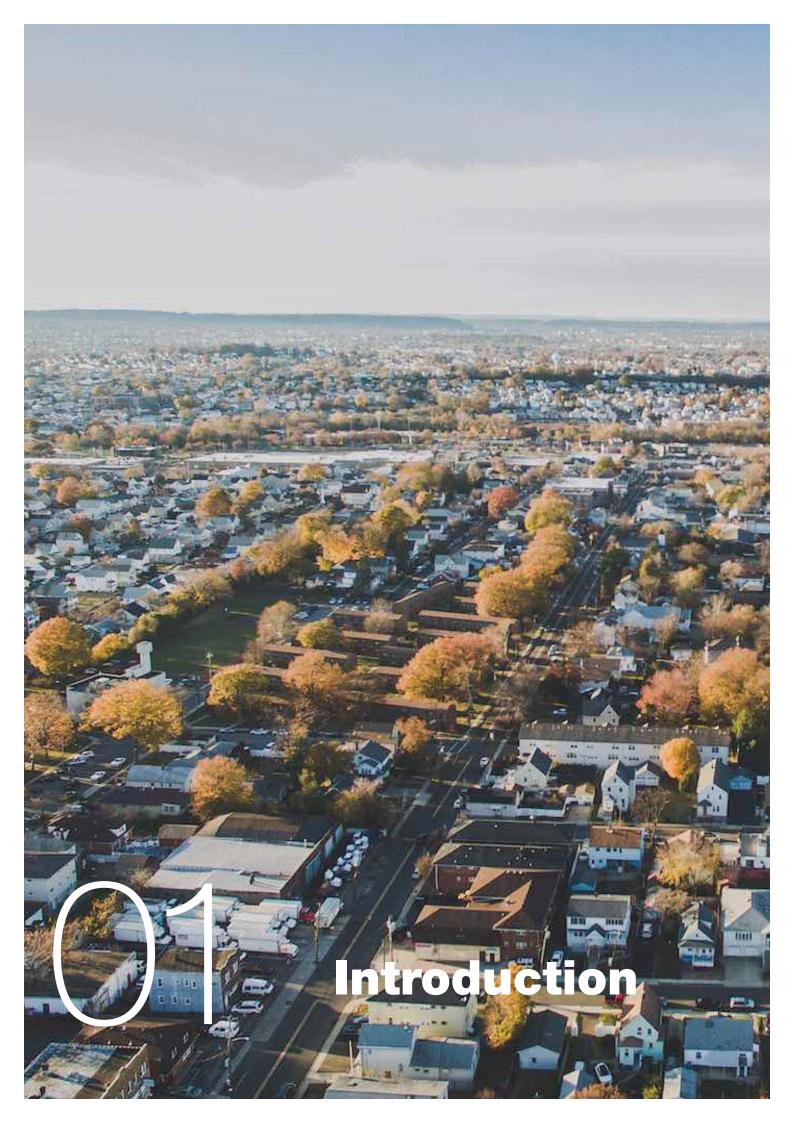
Glossary

Term	Definition
Aerotropolis	A metropolitan area where infrastructure, land uses and economy are centred on an airport and includes the outlying corridors, and aviation orientated business and residential development that benefit from each other and their accessibility to the airport.
Culturally and linguistically diverse communities	The cultural and linguistic diversity of a community or a population refers to people who were born overseas, have a parent born overseas or speak a variety of languages.
District social infrastructure	Social infrastructure that services the Aerotropolis with the catchment area extending across all of the precincts. Infrastructure would be accessible within 30 minutes, either by foot, bike, public transport or vehicle or within a 2 kilometre radius. District social infrastructure is typically provided by local government or the private sector, there may also be State Government Agency involvement
Initial precincts	The Aerotropolis Core, Northern Gateway, Wianamatta-South Creek, Badgerys Creek, Agribusiness and Mamre Road precincts are the focus of initial precinct planning for the Western Sydney Aerotropolis. The Western Sydney Planning Partnership are responsible for the planning for all initial precincts except Mamre Road which is the responsibility of the Department of Planning, Industry and Environment, for this reason Mamre Road is not included within this report.
Local social infrastructure	Social infrastructure that services the local neighbourhood within a precinct and should be accessible from most houses/workplaces by foot or bike in approximately 10 minutes or within a 400 metre radius. Within each of the priority precincts, it is anticipated that there will be multiple local catchments. Local social infrastructure is predominantly provided by local government or the private sector.
Place Infrastructure Compact (PIC)	The Place Infrastructure Compact is a strategic planning model that looks holistically at a place to better align growth with the provision of infrastructure and services. NSW government agencies, utility providers and local councils are brought together to identify future infrastructure planning needs for a selected area.
Regional social infrastructure	Social infrastructure that services the whole of the Western Parkland City, including multiple Local Government Areas, metropolitan and regional areas. Infrastructure would be accessible for users willing to use public transport or drive within a 5 to 10 kilometre radius. Regional social infrastructure is typically provided by State or Federal Government Agencies.
Social infrastructure	Social infrastructure incorporates the facilities and services that are used for the physical, social, cultural or intellectual development or welfare of the community. These include health-related services, education and training, social housing programs, police, courts and other justice and public safety provisions, as well as arts, culture and recreational facilities

Term	Definition
Western Parkland City	Broadly, Penrith, Liverpool, Campbelltown, Hawkesbury, Wollondilly, Camden, Fairfield and Blue Mountains LGAs, anchored around Liverpool, Greater Penrith and Campbelltown–Macarthur, with the new airport and Aerotropolis geographically at its centre.
Western Sydney Planning Partnership	A local government-led initiative comprising of representatives of all eight Western Parkland City councils as well as Blacktown Council, and representatives from the NSW Department of Planning, Industry and Environment, Transport for NSW, Sydney Water and the Greater Sydney Commission.
24/7 Precinct	The 24/7 concept is the offering of services, amenities and job opportunities 24 hours a day, 7 days a week, making it a desirable place for people to live, work and visit.

Abbreviations

Abbreviation	Detail
CALD	Culturally and Linguistically Diverse
CBD	Central Business District
DPIE	NSW Department of Planning, Industry and Environment
FRNSW	Fire and Rescue New South Wales
GSC	Greater Sydney Commission
LGA	Local Government Area
NUW Alliance	University of Newcastle, University of Wollongong and Western Sydney University alliance group.
OOSH	Out of School Hours
PIC	Place Infrastructure Compact
VET	Vocational Education Training
WSPP	Western Sydney Planning Partnership



1.1 Western Sydney Aerotropolis

The development of the Western Sydney International (Nancy-Bird Walton) Airport is a 'game-changer' for Sydney. The investment in the \$5.3 billion airport as well as other major transport links will create Sydney's newest city and will be one of the fastest growing regions in Australia, creating 200,000 jobs by 2028.

The Western Sydney Aerotropolis Plan (DPIE, 2020e) sets out the planning framework for the Western Sydney Aerotropolis (Aerotropolis) and identifies ten precincts that will undergo a precinct planning process. Each of the ten precincts will have its own character and identity that will contribute to achieving the vision of the Aerotropolis.

Although companies have committed to establishing significant offices within Aerotropolis, attracting a workforce is the biggest challenge to the Western Parkland City achieving its vision as a 'next generation city.' Social and cultural infrastructure are what bring life to an 18/7 precinct, which is a precinct that offers services, amenities and job opportunities 18 hours a day, 7 days a week, making it a desirable place for people to live, work and visit.

Social infrastructure will play a fundamental role in creating the communities that will live, work and visit the Aerotropolis. The character, as outlined in the vision for each of the individual precincts, will be critical in identifying and planning the social infrastructure that will need to be provided. Although each precinct will have its own requirements for local social infrastructure, regional infrastructure will need to consider the requirements of the Aerotropolis and the broader Western Sydney community.

Equally, having internationally competitive health and education facilities will provide significant opportunities and will also benefit the local community. Cultural infrastructure will service the large worker population but also to support a tourism and leisure economy and a nighttime economy that attracts locals and visitors.

Green infrastructure will also be critical to creating a sustainable and liveable Aerotropolis that attracts people to parks, recreation and open spaces. Integrating social infrastructure with green infrastructure will facilitate the vision of the Western Parkland City to create better health and wellbeing outcomes for the whole community of Western Sydney.

1.2 The Aerotropolis precincts

The Western Sydney Aerotropolis Plan (DPIE, 2020e) outlines the ten precincts that make up the 11,200 hectare Aerotropolis site surrounding the Western Sydney International (Nancy-Bird Walton) Airport. The Aerotropolis will grow into being a significant metropolitan cluster centrefor the Western Parkland City and become an economic hub for greater Sydney and the international and domestic gateway through the 24/7 Western Sydney International (Nancy-Bird Walton) Airport.

The Western Sydney Planning Partnership (WSPP) are responsible for planning five of the six initial precincts which are the focus of this Social Infrastructure Assessment. They are:

- Aerotropolis Core
- Northern Gateway Precinct
- Wianamatta-South Creek
- Badgerys Creek Precinct
- Agribusiness Precinct.

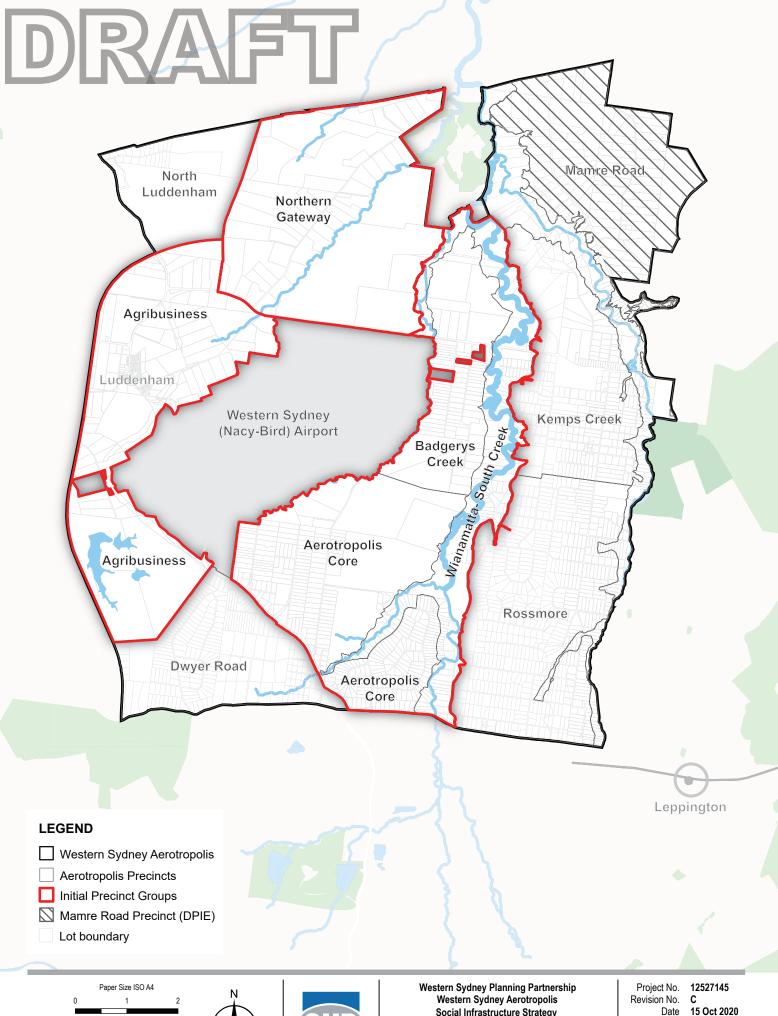
Of the remaining five precincts, Mamre Road initial precinct is being planned by the Department of Planning, Industry and Environment (DPIE). The remaining four precincts to be planned at a later phase include North Luddenham, Kemps Creek, Rossmore, and Dwyer Road precincts.

Only the five initial precincts are the subject of this study, with the remaining precincts to be addressed as part of future studies.

The five initial precincts outlined in the *Western Sydney Aerotropolis Plan* (DPIE, 2020e) are detailed in Table 1-1, with Figure 1-1 showing the location of all ten precincts.

Table 1-1 Overview of the five initial Aerotropolis precincts

Precinct	Features	Characteristics	Population
Aerotropolis Core	1,382 Ha Enterprise zone Potential for major public hospital and/or a private hospital University campus High school	Mix of employment uses to promote economic growth 24-hour hub and thriving night time economy Entertainment and retail Arts and cultural experiences World-class health and education hub	Workers – estimated 50,000- 60,000 Residents – estimated 20,000- 24,000
Northern Gateway	1,616 Ha Sydney Metro Greater West (first stage) Industry, commercial zoning	High technology associated with food production and processing Innovation hub on tourism, health, education, research	Workers – estimated 19,000- 21,000 Residents – estimated 8,000- 10,000
Wianamatta- South Creek	1,330 Ha Environment and Recreation zoning	Central green spine and area of biodiversity Connected open space network Wellbeing values and outdoor amenity Outdoor recreation	Workers – minimal No additional dwellings
Badgerys Creek Precinct	634 Ha Enterprise zoning	Airport and aviation related employment Industrial character	Workers – estimated 9,000– 11,000 No additional dwellings
Agribusiness Precinct	1,560 Ha Industrial and agricultural land	Catalyst for agricultural operations Natural landscape character Agricultural international export Retain peri-urban agricultural lands High quality agricultural produce and production	Workers – estimated 8,000- 10,000 Residents – minimal





Map Projection: Transverse Mercator Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 56





Social Infrastructure Strategy

SOCIAL INFRASRUCTURE AUDIT LOCAL STUDY AREA

FIGURE 1-1

1.3 Development of the precinct plans

Precinct plans are currently being prepared by the WSPP for the five initial precincts (discussed in section 1.2). The precinct planning will be sequenced to align population and economic growth with the planning and construction of new transport, services and community facilities for residents and workers, and with opening of the Western Sydney International (Nancy-Bird Walton) Airport (DPIE, 2020e).

The precinct plans will consider the rezoning of land and set development controls. The plans will:

- Provide detailed information on vision, objectives and land uses of the precincts.
- Integrate technical studies, including land use, transport and urban design to realise changed travel behaviours across the Western Parkland City.
- Include indicative layout plans and implementation provisions.
- Be consistent with and give effect to the Western Sydney Aerotropolis Plan (DPIE, 2020e), region and district plans, and relevant local strategic planning documents.
- Be coordinated with infrastructure requirements.
- Outline a statutory mechanism for development to occur.
- Inform the precinct planning process, particularly to ensure that sufficient and appropriately located land is identified and zoned within each precinct plan.

1.4 Purpose of this report

This report presents a social infrastructure audit for the Aerotropolis initial precincts. It also identifies gaps and opportunities for social infrastructure within the initial precincts.

This Social Infrastructure Audit Report is the first report in a series of three reports which comprise the social infrastructure the social infrastructure audit for the five initial Aerotropolis precincts as depicted in Figure 1-2. The three reports are:

- Report 1 Draft Western Sydney Aerotropolis Social Infrastructure Audit (this report)
- Report 2 Draft Western Sydney Aerotropolis Social Infrastructure Needs Assessment
- Report 3 Draft Western Sydney Aerotropolis Social Return on Investment Framework

This report informs Report 2 as it provides a baseline review of the Aerotropolis outlining an analysis of community and place, review of government policies and commitments made in relation to social infrastructure for the Aerotropolis as well as an audit of existing infrastructure both within and servicing the Aerotropolis.

Report 2 will focus on understanding the future community needs of different users of the initial precincts including residents, workers, tourists and visitors.

Report 3 focuses on the services and networks that could be provided in the study area to complement the built infrastructure, including the facilities and spaces outlined in this report and Report 2. It will illustrate opportunities and constraints that may affect the future community and provide a framework for the evaluation of social infrastructure over time in order to ascertain the if social infrastructure provision and activation programs are achieving the vision of the Aerotropolis.



Figure 1-2 Overview of the Aerotropolis Social Infrastructure Needs Assessment

The purpose of this Social Infrastructure Audit Report is to understand the existing social infrastructure that supports the Aerotropolis. This report presents a baseline including:

- analysis of place
- review of government policies and commitments made in relation to social infrastructure for the Aerotropolis
- audit of existing infrastructure both within and servicing the Aerotropolis
- identification of gaps and opportunities for social infrastructure within the precincts.

The Social Infrastructure Needs Assessment considers the requirements for each individual precinct, while also understanding how infrastructure can contribute to the broader Aerotropolis community. Ultimately the Social Infrastructure Needs Assessment will be the connection between the design and the social construction of place that will activate the Aerotropolis.

1.5 Structure of this report

This report presents a social infrastructure audit for the Aerotropolis initial precincts and is comprised of the following sections:

- **Section 1 Introduction:** sets the context for the study and outlines the purpose and structure of the report.
- Section 2 Methodology: summary of the social infrastructure audit methodology.
- Section 3 Existing place analysis: place based analysis of the existing local and
 regional study area taking into account the connection with the surrounding areas in the
 district study area.
- **Section 4 Western Sydney Aerotropolis:** summary of NSW Government strategic planning documents and Western Sydney Aerotropolis planning documents.
- Section 5 Social infrastructure planning: summary of state and local government social infrastructure plans and strategies and previous relevant social infrastructure studies.
- Section 6 Profile of existing communities: analysis the of existing residential population in the Aerotropolis.
- Section 7 Existing social infrastructure audit: analysis of existing local, district and regional social infrastructure servicing the Aerotropolis.
- Section 8 Challenges and risk analysis: outlines some of the key challenges and risks
 identified that will be faced with the development of the Aerotropolis.

1.6 Definition of social infrastructure

Social infrastructure incorporates the facilities, services and spaces that are used for the physical, social, cultural or intellectual development or welfare of the community. It includes physical infrastructure such as libraries, community centres and cultural facilities that facilitate the delivery of social services and activities. It also includes components of green infrastructure, including open spaces, parks, recreation areas and sport fields that support sport, recreational and leisure uses. Importantly, social infrastructure also incorporates the services, activities and programs that operate within these built facilities and spaces.

Social infrastructure is not limited to that provided by federal, state and local governments. It also includes those services and facilities that are operated by non-profit community organisations as well as the private sector. Table 1-2 provides examples of the types of facilities that are provided by these different sectors. For some facilities, such as childcare, several sectors may be providers while there are many examples of facilities where funding has been "pooled" or shared by different sectors.

Table 1-2 Providers of social infrastructure

Local Government	Federal or State Government	Private/Non-Government
Childcare	Out of School Hours Care	Childcare
Out of School Hours Care	Public schools	Out of School Hours Care
Libraries	Preschools	Entertainment facilities
Public space including green	Public hospitals	(cinemas, hotels etc.)
infrastructure such as open	Green infrastructure (e.g. open	Private hospital
space and parks	space and parks)	Private schools
Playgrounds	Sport stadiums	Commercial gyms and
Sports stadiums	Emergency services	recreation centres
Playing fields, pitches and	Playing fields, pitches and	Museums
courts	courts	Galleries/exhibition spaces
Walkways/cycle ways	Museums	Places of worship
Skate and BMX facilities	Gallery/exhibition spaces	Shopping centres and
Multipurpose halls and	Cultural centres	associated amenities
community centres	Public transport	Leisure and aquatic facilities
Cultural centres	-	
Leisure and aquatic facilities		

When planning and delivering social infrastructure, it is important to consider the size and geographic distribution of the population that it is servicing. It is standard practice for social infrastructure to be considered in accordance with a hierarchy that extends from local through to district and regional, as depicted in Figure 1-3.

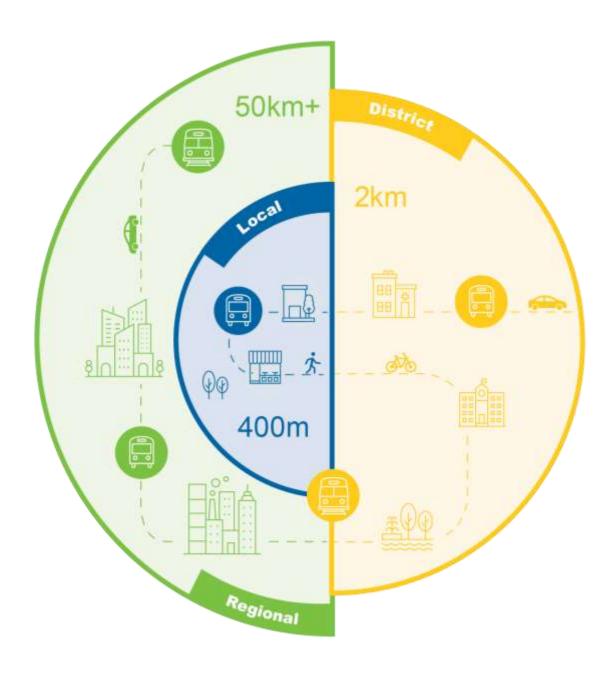


Figure 1-3 Social infrastructure hierarchy

1.7 Liveability Framework for Sydney

This Social Infrastructure Audit has been prepared through extensive desktop research of publicly available information sources to understand the current social and cultural environment of the study area. The Social Infrastructure Assessment will be guided by the *Liveability Framework for Sydney* (2017) prepared by the Greater Sydney Commission (GSC) and NSW Department of Planning and Environment (now DPIE). Liveability outcomes within the Framework assisted in framing the social and cultural challenges and risks for Aerotropolis.

The Liveability Framework provides an evidence-based, framework approach tailored to the Greater Sydney context in order to deliver great places for people and liveability benefits across Greater Sydney. The Framework's integrated approach is summarised in Figure 1-4, which identifies key considerations for achieving liveability improvements and suggests ways to achieve these outcomes acknowledging the need for flexible application for specific locations.

The Framework acknowledges the necessity for a 'people-centred' approach to planning and has been developed around the three key principals below:

- 1. **Equity:** equal access to employment and education, assets, services and resources to build human capital.
- 2. **Inclusion:** Emphasising all stages of life offering opportunities to all Sydneysiders whilst optimising intergenerational opportunities.
- 3. **Shared Benefit:** Sharing the public benefit associated with growth and change e.g. social infrastructure such as schools and open space, and ensuring the benefits of growth bring increased liveability across Sydney's places and communities.

With these three principles guiding the Framework, the GSC and DPIE have identified nine liveability outcomes for the communities of Sydney outlined in Table 1-3. The liveability outcomes have been used to identify potential challenges and risks to the Aerotropolis.

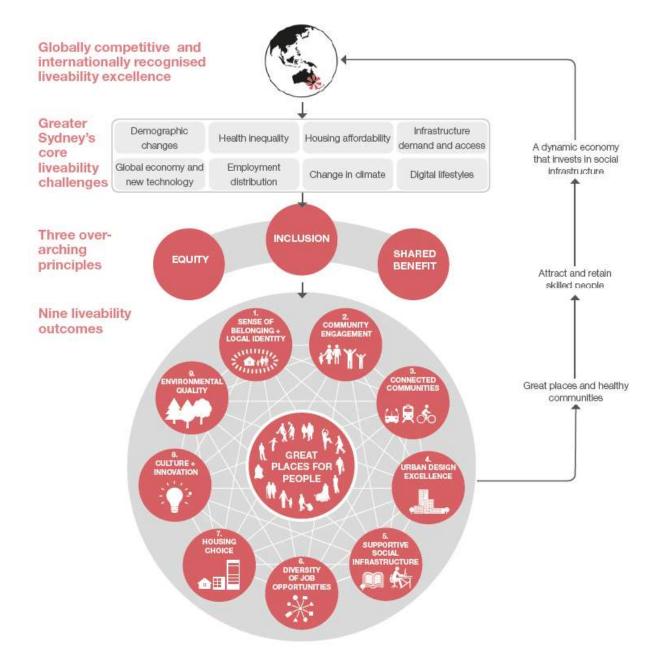


Figure 1-4 Liveability Framework: An Integrated Approach

Source: Liveability Framework for Sydney (GSC and DPIE, 2017)

Table 1-3 Nine liveability outcomes for Sydney

Outcome	Objective
Sense of belonging and local identity	Create places that celebrate Sydney's social diversity by understanding the history and heritage of a place and promoting social inclusion, respect and a sense of belonging.
Community engagement	Promote community participation through the integration of community engagement processes across all nine liveability outcomes to establish a sense of community empowerment and ownership in shaping resilient places.
Connected communities	Increase accessibility and connectivity by encouraging and supporting the uptake and use of all modes of active and public transport through infrastructure upgrades and awareness programs.
Urban design excellence	Deliver high quality design that supports and enhances community safety and health and wellbeing, and celebrates the community assets and local character.
Supportive social infrastructure	Ensure cultural and age appropriate facilities and services by promoting an integrated approach to social infrastructure that includes healthcare, education, supermarkets, public open spaces and other community/cultural facilities.
Diversity of job opportunities	Provide equitable access to a range of employment, education and skill development opportunities.
Housing choice	Increase diversity of housing stock with adaptable and universal design to support the provision of affordable and appropriate housing.
Culture and innovation	Enable innovation in business and urban design through the support and nurture of culture, creative, digital technology and innovation industries.
Environmental quality	Provide equitable access to open and green spaces that delivers high levels of environmental-quality including air, water, light and noise.

Source: Liveability Framework for Sydney (GSC and DPIE, 2017)

1.8 Scope and limitations

This report: has been prepared by GHD for Western Sydney Planning Partnership and may only be used and relied on by Western Sydney Planning Partnership for the purpose agreed between GHD and the Western Sydney Planning Partnership as set out in section 1.3 of this report.

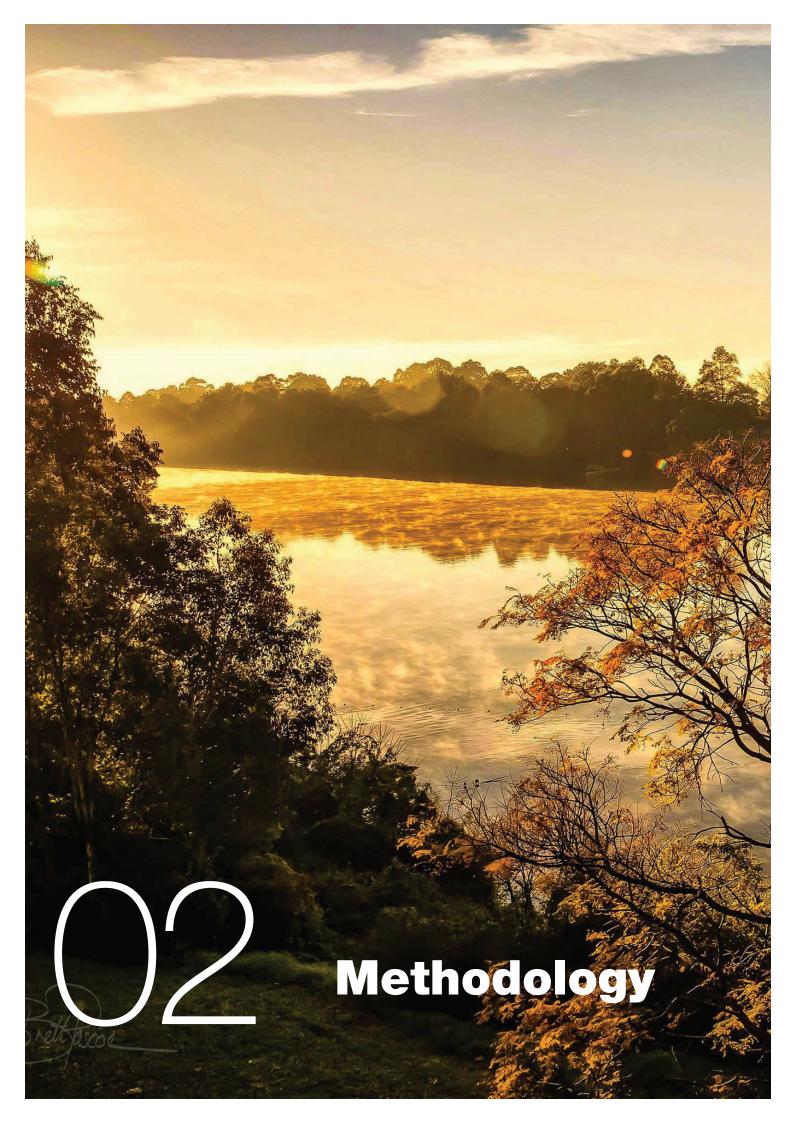
GHD otherwise disclaims responsibility to any person other than Western Sydney Planning Partnership arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has prepared this report on the basis of information provided by Western Sydney Planning Partnership and others who provided information to GHD (including Government authorities)], which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.



The methodology for this report has been informed by the *Liveability Framework for Sydney* (GSC and DPIE, 2017) as outlined in section 1.7 and key overarching plans, policies and frameworks as described in sections 4 and 5. This report has been prepared through the tasks outlined in the following sections.

2.1 Background review and defining the study area

A review of relevant previous studies and the relevant local and State strategies, policies and guidelines was undertaken to understand the social policy context, best practice standards and benchmarks for social infrastructure planning, as well as any community concerns, aspirations and objectives in relation to Aerotropolis. The background review informed the identification of the local and district study areas for this study which are described in Table 2-1 and shown in Figure 2-1 and Figure 2-2.

Table 2-1 Study area definitions

Study area	Definition
Local study area	The local study area is defined as the Western Sydney Aerotropolis and its ten precincts. This includes the following suburbs and Local Government Areas (LGAs):
	Liverpool LGA:
	● Part of Badgerys Creek
	Bringelly
	Part of Kemps Creek
	 Part of Luddenham
	 Greendale
	Rossmore
	Penrith LGA:
	 Part of Badgerys Creek
	● Part of Kemps Creek
	 Part of Luddenham
	The local study area includes 22 Statistical Area Level 1 (SA1) areas that are aligned with the ten precincts of the Aerotropolis which have been identified for the purpose of demographic analysis.

Study area	Definition
District study area	The district study area is defined as Western Parkland City, which includes the following Local Government Areas:
	Liverpool
	Penrith
	Camden
	Campbelltown
	Fairfield
	● Blacktown
	Wollondilly
	The district study area includes the existing centres of Liverpool, Greater Penrith and Campbelltown-Macarthur. The district study area includes 80 Statistical Area Level 2 (SA2) which have been identified for the purpose of demographic analysis.

The background review and study areas informed the place analysis, demographic analysis and social infrastructure audit to understand the communities and people that are currently accessing existing social infrastructure. This will also inform the potential future population and subsequent needs assessment in the Social Infrastructure Needs Assessment report.

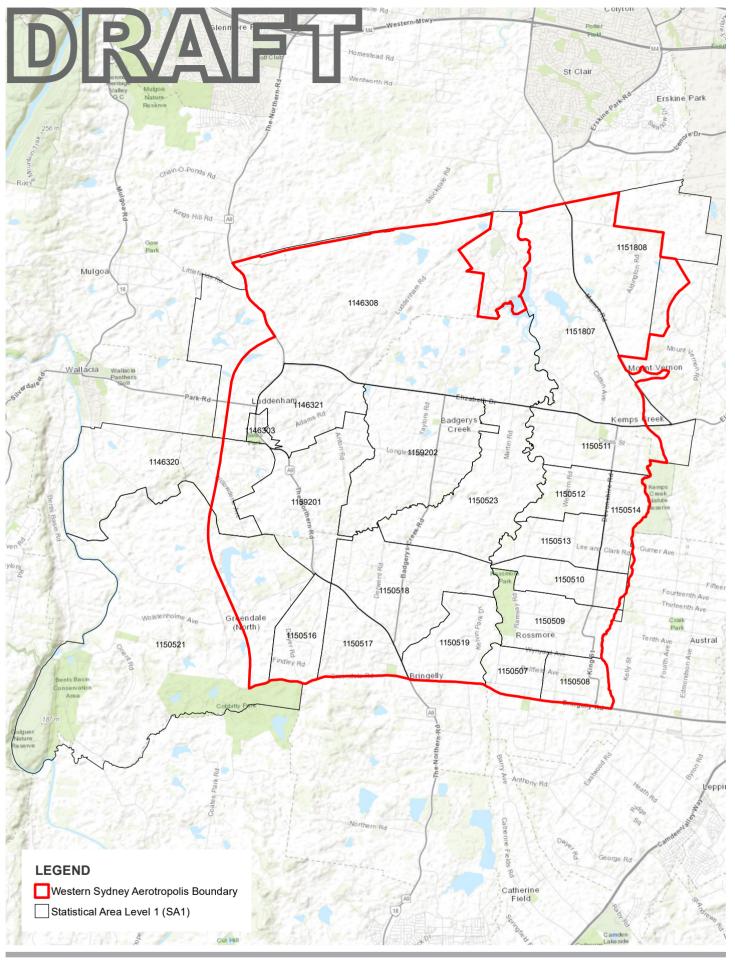
2.2 Existing and future place analysis

A desktop review of the local and district study areas was undertaken to understand the existing communities, land use and built form, movement networks, employment hubs and activity centres. The background review provides a basis to understand how the Aerotropolis will change, as outlined in the future local context of the Aerotropolis precincts. The future local context has been informed by the *Western Sydney Aerotropolis Plan* (DPIE, 2020e) which identifies the future resident and worker populations for each precinct. The existing and future local context has informed the discussion of challenges and risks in section 8, and will inform the gap analysis and recommendations in the Social Infrastructure Needs Assessment report.

2.3 Demographic analysis

An analysis of the existing population was undertaken to understand the current characteristics of residential communities in the local and district study areas. This included review and analysis of the 2016 Census data and Australian Social Health Atlas data to understand the existing community profile in the local and district study areas in comparison with the Greater Sydney Region.

A number of key social indicators including, but not limited to, population distribution, median age, cultural diversity, volunteering, unemployment and socio-economic disadvantage have been mapped to provide a visual overview of spatial distribution for the local and district study areas. These maps have enabled the community profile discussion to identify the particular precincts within the Aerotropolis which may have high proportions of vulnerable community groups including the young, the elderly, those under financial stress and those who experience a disability. In addition, precincts within the Aerotropolis have been identified which may have higher proportions of social indicators which demonstrate strong community connections and social capital (i.e. residential mobility and volunteering).









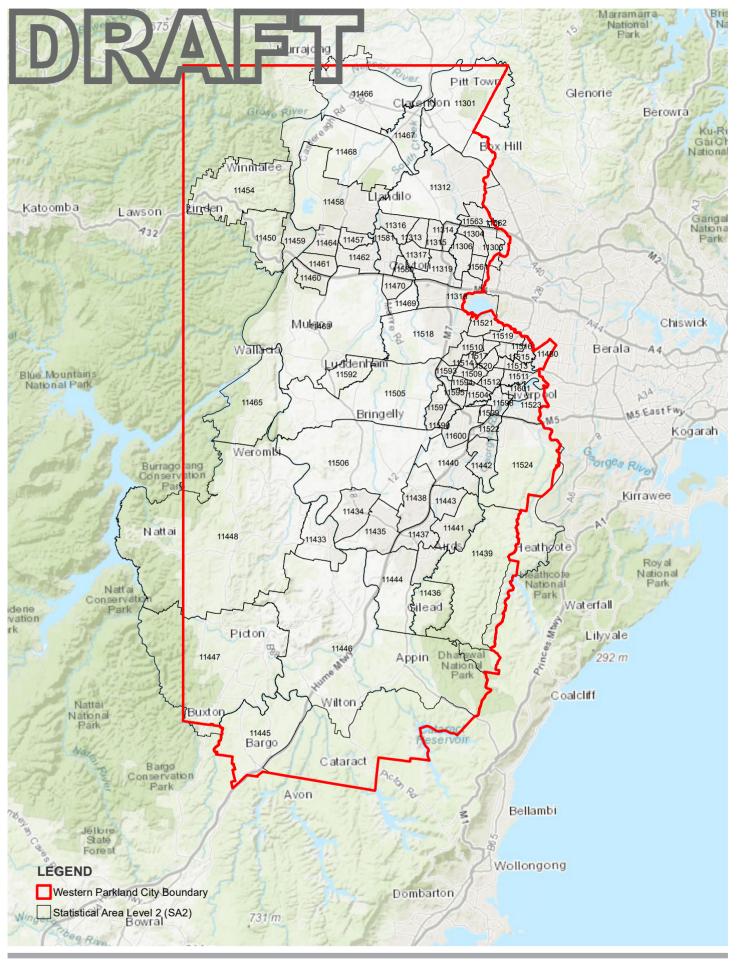
Western Sydney Planning Partnership Western Sydney Aerotropolis Social Infrastructure Strategy

SOCIAL INFRASRUCTURE AUDIT LOCAL STUDY AREA

Project No. 12527145

Revision No. A

Date 03 Jun 2020





Map Projection: Transverse Mercator Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 56



Western Sydney Planning Partnership Western Sydney Aerotropolis Social Infrastructure Strategy

SOCIAL INFRASRUCTURE AUDIT DISTRICT STUDY AREA

Project No. 12527145 Revision No.

03 Jun 2020 Date

FIGURE 2-2

2.4 Social infrastructure audit

The Aerotropolis is likely to have the greatest impact on the demographic profile and social infrastructure that services the existing and future population on a local and district level. This impact will be from achievement of the vision set through the *Greater Sydney Regional Plan* for a 30-minute city (where people can access their nearest strategic or metropolitan centre within 30 minutes) and the aspiration set through the *Western Sydney Aerotropolis Plan* (DPIE, 2020e) for the Aerotropolis to become a metropolitan centre. This report has considered the site's impact on existing social infrastructure within the local and district context of the site.

An audit of existing local and district social infrastructure within the local Aerotropolis study area and a 15 kilometres (or 30 minute driving) catchment of the local study area was undertaken to understand existing provision. In addition, an audit of key regional facilities in surrounding strategic and metropolitan centres within the Western Parkland City was undertaken. Of the social infrastructure identified within the local study area an analysis of standard walkability catchments, defined by The Heart Foundation (2009) were also undertaken, which includes:

- 400 metres which is an average five minute walk
- 800 metres which is an average 10 minute walk
- 1200 metres which is an average 15 minute walk.

The social infrastructure audit has informed the discussion of challenges and risks in section 8, and will inform the gap analysis and recommendations in the Social Infrastructure Needs Assessment report.

2.5 Challenges and risks analysis

Through the analysis of the findings from the previous tasks, the challenges and risks for Aerotropolis were identified. These reflect the findings in *Greater Sydney's Social Capital: It's Nature and Value* (Cred Consulting, 2017) and *Social Panel Advisory Paper* (GSC, 2016), and were developed in line with the liveability outcomes of the *Liveability Framework for Sydney* (GSC and DPIE, 2017). It should be noted that engagement with State Government and the Local Councils is anticipated to occur as part of later stages of the development of the Social Infrastructure Needs Assessment. The purpose of this Audit was to prepare a desktop research study of the existing social infrastructure to inform the precinct planning work. Further analysis of the challenges and risks will occur in later stages.



The local Aerotropolis study area forms an important part of the wider district study area of Western Sydney Parklands including Greater Penrith, Liverpool and Campbelltown-Macarthur. The study area will draw on and provide connectivity to this regional context.

The Aerotropolis is situated at the heart of the emerging Western Parkland City, as outlined in the *Greater Sydney Region Plan – A Metropolis of Three Cities* (GSC, 2018a), prepared by the Greater Sydney Commission. The Western Parkland City will develop from new transport links and significant infrastructure investment to generate new places to live, work and play.

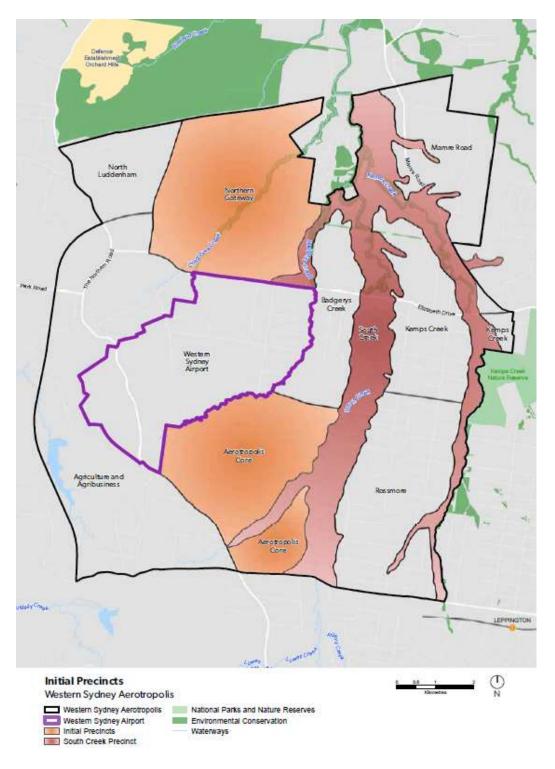


Figure 3-1 Western Sydney Aerotropolis initial precincts

Source: Western Sydney Aerotropolis, Land Use and Infrastructure Implementation Plan, Stage 1: Initial Precincts (DPIE, 2020d)

The Aerotropolis study area is currently an agricultural and peri-urban area with a relatively sparse population compared to the surrounding area. The Aerotropolis will include ten precincts, comprised of future land use zones including agribusiness, enterprise, environment and recreation, mixed use, infrastructure, and special purpose zones (SP1 and SP2). This zoning will alter the future community profile. The five precincts considered in the study area include:

- Aerotropolis Core,
- Badgerys Creek Precinct
- Areas adjoining Wiannamatta South Creek Precinct
- Northern Gateway
- Agribusiness.

3.1 Continuous Aboriginal connection

Western Sydney is rich in Aboriginal history and heritage significance and is also home to the largest Aboriginal population in Australia. The lands and waters that comprise the Aerotropolis and Greater Sydney have been the homelands of the Dharug, Eora, Gundungurra and Dharawal people for more than 60,000 years. This continual connection to the lands and water is evidenced by remnant cultural heritage sites and water courses and ridgelines than continue to define the landscape. The region's water courses hold important cultural and spiritual values for Aboriginal peoples, including Wianamatta—South Creek, which refers to 'mother' and 'place of water' in Dharug language (DPIE, 2020e).

Connecting with Country is an approach being championed by the NSW Government to give effect to the objectives of the *Environmental Planning & Assessment Act 1979* (EP&A Act) which states that Aboriginal culture and heritage are to be sustainably managed in the built environment. Using comprehensive and respectful approaches, planning for the Aerotropolis can build capacity and pathways for knowledge sharing between Aboriginal and non-Aboriginal communities (DPIE, 2020e). DPIE are investigating ways to incorporate Aboriginal heritage and knowledge into conservation and biodiversity practices through their work on the Cumberland Plain Conservation Plan, which recognises the ongoing connection that Aboriginal communities in Western Sydney have to the area.

3.2 District context: Western Parkland City

As discussed in section 1.1 the Aerotropolis is located within the Western Parkland City growth area and includes the established centres of Liverpool, Greater Penrith and Campbelltown-Macarthur. They form part of the Western Economic Corridor and western metropolitan cluster.

Unlike the higher density and urban environments of the Eastern Harbour City and Central River City, Western Parkland City moves from an urban low-density landscape, with pockets of centralised activity, to a peri-urban and rural landscape. This urban-rural transition includes assets unique to the 'third city' including rural townships, fertile agricultural land and tourist destinations in natural areas.

The region draws from its proximity to the Blue Mountains World Heritage Area, State Conservation Areas, and water catchments that service Greater Sydney. The townships of Richmond-Windsor and Katoomba are the largest rural centres, while areas east of the Westlink M7 toll-road, including Liverpool represent the main population centre in the Western Parkland City.

As the growing city of Sydney extends westwards, the growth areas of Greater Macarthur, Wilton, and South West are in a state of transition from low-density suburbs, rural settings, and small villages to increased residential development and commercial zoning.

The region lacks localised employment opportunities and associated public transport infrastructure to support the current population growth. Travel by car to the Central Business District varies from 60 to 90 minutes. The future proposed Outer Sydney Orbital motorway would connect residents, workers and freight through the Western Parkland City to join areas north to south.

Local employment and economic activity includes primary production, resource extraction, tourism, and localised retail activity. The Aerotropolis presents opportunities to redefine growth and provide a strategic approach to activation within the Western Parkland City. The following section presents a description of the local context within the Aerotropolis study area.

3.3 Local context: Western Sydney Aerotropolis study area

This section considers a place-based analysis of the Aerotropolis study area and takes into account the connection with surrounding areas in the Western Parkland City. An analysis of current demographics, existing social infrastructure and community facilities are explored in later sections, to this end, they have not been included in this place analysis.

3.3.1 Land use and built form

Current land uses transition from urban and residential areas along the eastern edge to rural and agricultural areas in the centre and to the west. The established areas of Rossmore and Kemps Creek, while remaining sparsely populated in relation to Greater Sydney, are the main urban centres moving towards the Wianamatta South Creek corridor. This is attributed to current residential, mixed use and commercial zoning in addition to smaller land parcels that follow the linear course of the east side of the creek corridor.

Areas of Bringelly and Luddenham include industrial and commercial uses and activities that support primary production industries. In areas of Luddenham land use has changed to flexible employment to support the ongoing growth of the western economic region.

The predominant land use throughout the Aerotropolis is zoned as rural small and primary production small lots. Luddenham is the primary village centre for rural activity and is situated west of the Aerotropolis Core. The agricultural lands include lifestyle lots and fresh produce production.

3.3.2 Connections and movement network

Connections to the Aerotropolis study area include peripheral access via major road links including the Westlink M7 toll-road and Western Motorway. Additional road connections are proposed including the Outer Sydney Orbital Corridor.

The current street network is limited with large parcels defining the existing road networks, therefore limiting walkability, other than along the eastern edge west of the Wianamatta South Creek corridor.

Public transport through the area is limited to a small bus network. The T2 Inner West and Leppington line provides connections north to Parramatta and east to Sydney CBD, while the T5 Cumberland line provides connections north to Richmond, both of which terminate to the southeast edge of Rossmore at Leppington Railway Station. Additional linear public transport network are proposed including the Sydney Metro Greater West and potential South-West Rail Link.

3.3.3 Environment and landscape character

The natural environment shapes the built form and street network throughout the Aerotropolis study area. Part of the Cumberland Plain, views extend along ridgelines that run north to south

towards the Blue Mountains from Luddenham and towards Western Parkland City from Cecil Hills.

The central defining natural feature is the Wianamatta South Creek corridor, a very significant place for the Aboriginal community. The corridor includes areas of open parkland and forested areas that form part of the Western Parkland City vision to create a sustainable approach to integrated water management through the Greater Sydney catchment area. Multiple waterways feed into the green spine, including Badgerys Creek and Kemps Creek. Tree canopy cover throughout the study area is predominantly along creek corridors. Kemps Creek Nature Reserve is a significant recreational space, located along the north-east edge.

3.3.4 Activity centres and employment hubs

The low-density character of the area has attributed a quieter character and minimal commercial and retail activity. The study area lacks a sense of place and a central 'heart' to provide a local destination. Current activity follows linear corridors that extend from developed areas to the east of the study area.

Major areas of commercial activity within the Aerotropolis area are along Bringelly Road in Rossmore and Elizabeth Drive in Kemps Creek, extending from established urban areas outside of the study area. Both activity centres run along linear corridors along the periphery of the study area and provide access to retail and food and beverage businesses.



Development of the Aerotropolis and the Western Parkland City is influenced by a number of strategic planning policies and frameworks. These policies and frameworks describe how the vision for the Aerotropolis and its ten precincts will be achieved. This section provides and overview of state government planning policies and planning documents relevant to the Aerotropolis.

This is followed by a review of commitments made by the NSW Government that will influence future social infrastructure provision and descriptions of future land use and place characteristics each of the ten precincts in Aerotropolis.

4.1 NSW Government Strategic Planning Frameworks and Commitments

NSW Government's strategic planning frameworks set the overall vision, mission and goals for development and growth of the Greater Sydney Region. This section describes NSW Government planning frameworks relevant to this assessment.

4.1.1 Greater Sydney Region Plan

The Greater Sydney Commission's *Greater Sydney Region Plan, A Metropolis of Three Cities* (2018a) sets out a forty year vision and a twenty year plan for the growth of Sydney. It seeks to respond to the needs of the growing and changing population and transform Greater Sydney into a metropolis of three cities where most residents live within 30 minutes of their jobs and other important services. The Greater Sydney Region Plan is based around ten directions related to infrastructure, people, housing, accessibility, green spaces and economic vitality.

It acknowledges the important role social infrastructure plays in creating more productive and liveable communities. It highlights the importance of providing social infrastructure that is colocated with important services and meets the changing needs of the community. Objectives and directions in the Greater Sydney Region Plan relevant to this assessment include:

- Deliver social infrastructure that reflects the needs of the community now and in the future.
- Sequence infrastructure provision across Greater Sydney using a place-based approach.
- Consider the adaptability of infrastructure and its potential shared use when preparing infrastructure strategies and plans.
- Consider co-locating social infrastructure with other services where possible.
- Optimise the use of available public land for social infrastructure.
- Public open space is accessible, protected and enhanced.
- The Green Grid links parks, open space, bushland and walking and cycling paths.

4.1.2 Western City District Plan

The Western City District, located in the Western Parkland City is one of five districts in Greater Sydney Region Plan. Development and growth of the Western City District is guided by the Greater Sydney Commission's Western City District Plan (2018b) which also guides the implementation of the Greater Sydney Region Plan at a district level. It supports the creation of more jobs and improved liveability in the Western City District. It also sets the boundary of the Western Sydney City Deal.

It adopts a place based and collaborative approach to maintain and enhance the liveability of the Western City District. Strategic directions in the *Western City District Plan* relevant to this assessment include:

- Providing services and social infrastructure to meet peoples changing needs.
- Providing housing supply, choice and affordability with access to jobs, services and public transport.
- Creating and renewing great places and local centres, and respecting the District's heritage.
- Creating a Parkland City urban structure and identity, with South Creek as a defining spatial element.
- Delivering high quality open space.

4.1.3 Western Sydney City Deal

The Western Sydney City Deal is a collaboration between the three tiers of government to drive the creation of new jobs, economic activities and knowledge intensive industries to diversify the economy in Western Sydney. Planning for the Western Sydney International (Nancy-Bird Walton) Airport and the Aerotropolis is coordinated through the Western Sydney City Deal.

The City Deal has 38 commitments at various stages of design and delivery. This includes the Western Parkland Liveability Program established to deliver improved community facilities and urban amenity, and enhance liveability to enable and complement new housing supply. Total funding for the Program will exceed \$190 million. Other Commitments in the Western Sydney City Deal relevant to this assessment are described in Table 4-1.

Table 4-1 Western Sydney City Deal Commitments

Project	Commitment
TAFE Skills Exchange	Joint venture between TAFE NSW, Western Sydney International (Nancy-Bird Walton) Airport and the Australian Government to establish a Skills Exchange near the airport. It will provide training for the airport and major projects construction workforce.
Education partnerships	The NSW Government is seeking to establish a partnership agreement on education to identify and deliver more education for the Western Parkland City.
STEM University	The NUW Alliance (University of NSW, University of Newcastle and University of Wollongong) Western Sydney University and the NSW Government will open a STEM University in the Aerotropolis in late 2026.
VET facility	Establishment of a permanent VET facility in the Aerotropolis with a focus on construction, aviation and aeronautical-related engineering to support residents of the Western Parkland City to access jobs of the future.
New public high school	New public high school in the Aerotropolis with vocational links to Western Sydney International (Nancy-Bird Walton) Airportand the aerospace and aviation industries, preparing students for future job opportunities.
Western Sydney Health Alliance	Local governments, in collaboration with health partners, will establish the Western Sydney Health Alliance to improve coordination and effectiveness of health services in the region, supporting healthier neighbourhoods.

Project	Commitment	
Indigenous Business	Establishment of an Indigenous Business Hub in the Western	
Hub	Parkland City for Indigenous businesses and entrepreneurs. The hub will deliver: facilitation of business support; and access to	
	short-term office space and connections to commercial	
	opportunities to support the Indigenous business sector.	

4.1.4 NSW State Infrastructure Strategy 2018-2038

Infrastructure NSW's NSW State Infrastructure Strategy 2018-2038 (2018) builds on the NSW Government's major long term infrastructure plans up until 2038. Combined with the Greater Sydney Region Plan, Transport Strategy 2056 and the Regional Development Framework, it brings together infrastructure investment and land use planning for cities and regions across the state. The strategy adopts an area based approach to infrastructure planning and investment decisions. The infrastructure response for the Western Parkland City relevant to this assessment includes:

- Providing social infrastructure, such as schools, social housing and hospitals, to support population growth.
- Providing additional cultural recreational infrastructure.
- Encouraging local council and private investment in recreation infrastructure.

4.2 Aerotropolis policy documents

To guide development of the Aerotropolis a series of planning documents were developed by the Department of Planning, Industry and Environment (DPIE) which reflect the underlying NSW State Government strategic planning documents described in section 4.1. This section describes all currently available planning documents developed by DPIE for the Aerotropolis.

4.2.1 Aerotropolis Land Use and Infrastructure Implementation Plan, Stage 1: Initial Precincts

The Department of Planning, Industry and Environment's *Aerotropolis Land Use and Infrastructure Implementation Plan, Stage 1: Initial Precincts* (LUIIP) (2020d) defines how the broader region's environment, waterway, infrastructure and economics will come together to create the Aerotropolis. It provides an overview of future land uses and the proposed sequence of development to ensure the delivery of infrastructure is aligned with population and economic growth. It prioritises the planning and development of the Aerotropolis Core and Northern Gateway and recognises South Creek and its catchment as the Western Parkland City's green spine. Potential infrastructure or rates of provision included in Stage 1 of the LUIIP relevant to this assessment include:

- NSW Health are investigating a site for an integrated health facility in a metropolitan or strategic centre location that could serve up to 250,000 people.
- Employment development must be within close proximity to local open space (min 3,000m2) and district open space (two to five hectares).
- High density areas with 60 dwellings per hectare or mixed use employment with greater than 60 jobs per hectare will live within 200 metres of open space.
- District-scale open space such as playing fields will be provided towards the edge of centres to maximise catchment areas. Sporting fields will be shared with educational institutions wherever possible.

- Child care facilities will be provided in local and employment-based centres to be convenient for workers. Co-location or integration of facilities will be considered, where appropriate.
- Opportunities will be sought to integrate cultural infrastructure into the delivery of other infrastructure projects, such as transport, education and health precincts.
- World class health and education facilities in the Aerotropolis Core, this could include a
 major public hospital, a private hospital, at least one university campus and a high school
 within a co-located hub.

4.2.2 Western Sydney Aerotropolis Plan

The Department of Planning, Industry and Environment's *Western Sydney Aerotropolis Plan* (2020e) builds on Stage 1 of the LUIIP and sets the vision for Aerotropolis as Australia's next global gateway, built around the Western Sydney International (Nancy-Bird Walton) Airport. The Plan sets out 10 objectives to shape decision making cross the four themes of the Greater Sydney Region Plan in Table 4-2.

Table 4-2 Themes and objectives

Theme	Objectives
Productivity	Objective 1: An accessible and well connected Aerotropolis
	Objective 2: High-value job growth is enabled, and existing employment enhanced
	Objective 3: Safeguarded airport operations
Sustainability	Objective 4: A landscape-led approach to urban design and planning
	Objective 5: A sustainable, low carbon Aerotropolis that embeds the
	circular economy
	Objective 6: A resilient and adaptable Aerotropolis
Infrastructure and	Objective 7: Infrastructure that connects and services the Western
Collaboration	Parkland City as it grows
	Objective 8: A collaborative approach to planning and delivery
Liveability	Objective 9: Diverse, affordable and well located housing
	Objective 10: Social and cultural infrastructure that strengthens communities

The Plan identifies the high level infrastructure that will shape and support the Aerotropolis while the precinct planning will identify the infrastructure required for each precinct. High level infrastructure in the Plan relevant to this assessment includes:

- The Blue-Green Grid, a network of blue and green spaces including waterways, riparian areas, bushland, parks, open spaces, tree canopy and private gardens.
- A research/ innovation, science, training and education area within the Aerotropolis Core.
- A cluster of leading science-based businesses, tertiary institutions and research facilities at the Sydney Science Park within the Northern Gateway.

4.2.3 Western Sydney Aerotropolis Development Control Plan

The Department of Planning, Industry and Environment's, *Western Sydney Aerotropolis Development Control Plan* (2020c) identifies the precinct planning principles, objectives and performance outcomes to allow precinct planning to progress. It also provides controls which guide development to achieve connectivity, liveability, productivity, and sustainability by"

- Giving effect to the Greater Sydney Region Plan and Western City District Plan.
- Encouraging development that responds to its context and is compatible with the Principles set out in the Western Sydney Aerotropolis Plan.
- Recognising and reinforcing the distinctive characteristics of the Western Parkland City.
- Adopting the principles set in the Government Architect NSW's Better Places and Greener Places.
- Building upon the objectives and principles under the Western Sydney Aerotropolis Plan and State Environmental Planning Policy (Western Sydney Aerotropolis) 2019.

4.2.4 State Environmental Planning Policy (Western Sydney Aerotropolis) 2020

The Department of Planning, Industry and Environment's *State Environmental Planning Policy* (Western Sydney Aerotropolis) 2020 (DPIE, 2020b) will facilitate the achievement of the State planning objectives for the Aerotropolis and a framework for the creation of the precinct plans.

Five different land use zonings will be applied to the precincts and can be viewed in Table 4-3 below.

Table 4-3 Land use zonings

Land Use	Objectives
Enterprise Zone	 To encourage employment and businesses related to professional services, high technology, aviation, logistics, food production and processing, health, education and creative industries.
	 To provide a range of employment uses (including aerospace and defence industries) that are compatible with future technology and work arrangements.
	 To encourage development that promotes the efficient use of resources, through waste minimisation, recycling and re-use.
	 To ensure an appropriate transition from non-urban land uses and environmental conservation areas in surrounding areas to employment uses in the zone.
	 To prevent development that is not compatible with or that may detract from the future commercial uses of the land.
	 To provide facilities and services to meet the needs of businesses and workers
Mixed Use Zone	 To integrate a mixture of compatible land uses in accessible locations.
	 To promote business, office, retail, entertainment and tourist uses.
	 To promote a high standard of public amenity and convenient urban living.
	 To provide for residential and other accommodation that includes active non-residential uses at street level.
	 To ensure an appropriate transition from non-urban land uses and environmental conservation areas in surrounding areas to urban land uses in the zone.

Land Use	Objectives	
Environment and Recreation Zone	 To protect, manage and restore areas of high ecological, scientific, cultural or aesthetic values. 	
	 To protect the ecological, scenic and recreation values of waterways, including Wianamatta South Creek and its tributaries. 	
	 To provide a range of recreational settings and activities and compatible land uses. 	
	 To protect and conserve the environment, including threatened and other species of native fauna and flora and their habitats, areas of high biodiversity significance and ecological communities. 	
Agribusiness Zone	 To encourage diversity in agribusiness, including related supply chain industries and food production and processing that are appropriate for the area. 	
	 To encourage sustainable and high technology agribusiness, including agricultural produce industries. 	
	 To enable sustainable agritourism. 	
	 To encourage development that is consistent with the character of Luddenham Village. 	
	 To maintain the rural landscape character and biodiversity of the area 	
SP2 Infrastructure Zone	To provide for infrastructure and related uses. • P	
	 To prevent development that is not compatible with or that may detract from the provision of infrastructure. 	
	 To facilitate development that is in keeping with the special characteristics of the site or its existing or intended use and that minimises adverse impacts on surrounding land. 	

4.3 Overview of commitments made by Government

The NSW Government has committed to providing high quality facilities and services in the Aerotropolis that are attractive, flexible and address the needs of the general community. This includes community centres, multi-purpose hubs, libraries and aquatic centres. Table 4-4 describes the social infrastructure referenced in the policy documents discussed in sections 4.1 and 4.2 that have been committed to being provided in the future Aerotropolis.

Table 4-4 NSW Government social infrastructure commitments for the Western Sydney Aerotropolis

Project	Commitment
TAFE Skills Exchange	Joint venture between TAFE NSW, Western Sydney International (Nancy-Bird Walton) Airport and the Australian Government to establish a Skills Exchange near the airport. It will provide training for the airport and major projects construction workforce.
Education partnerships	The NSW Government is seeking to establish a partnership agreement on education to identify and deliver more education for the Western Parkland City.
STEM University	The NUW Alliance (University of NSW, University of Newcastle and University of Wollongong) Western Sydney University and the NSW Government will open a STEM University in the Aerotropolis late 2026
Vocational Education and Training facility	Establishment of a permanent VET facility in the Aerotropolis with a focus on construction, aviation and aeronautical-related engineering to support residents of the Western Parkland City to access jobs of the future.
New public high school	New public high school in the Aerotropolis with vocational links to Western Sydney International (Nancy-Bird Walton) Airport and the aerospace and aviation industries, preparing students for future job opportunities.
Western Sydney Health Alliance	Wollondilly Shire Council, Campbelltown City Council, Fairfield City Council, Penrith City Council, Blue Mountains City Council, Camden Council, Hawkesbury City Council and Liverpool City Council in collaboration with health partners, will establish the Western Sydney Health Alliance to improve coordination and effectiveness of health services in the region, supporting healthier neighbourhoods.
Indigenous Business Hub	Establishment of an Indigenous Business Hub in the Western Parkland City for Indigenous businesses and entrepreneurs. The hub will deliver: facilitation of business support; and access to short-term office space and connections to commercial opportunities to support the Indigenous business sector.
Integrated health facility	NSW Health is investigating a site for an integrated health facility within the Aerotropolis in a metropolitan or strategic centre location supported by public transport. This could serve up to 250,000 people from around the Western Parkland City
Open space	The Blue-Green Grid is a network of blue and green spaces including waterways, riparian areas, bushland, parks, open spaces, tree canopy and private gardens. District-scale open space such as playing fields will be provided towards the edge of centres to maximise catchment areas. Sporting fields will be shared with educational institutions wherever possible

4.4 Future place context

The Western Sydney Aerotropolis Plan (DPIE, 2020e) states that the Aerotropolis comprises 11,200 hectares, incorporating land surrounding the future Western Sydney International (Nancy-Bird Walton) Airport site. The Aerotropolis will comprise ten precincts that will create a local economic hub and regional economy that supports activities at the airport and related industry.

Precincts included in this Social Infrastructure Needs Audit:

- Aerotropolis Core Precinct
- Badgerys Creek Precinct
- Wianamatta-South Creek
- Northern Gateway Precinct
- Agribusiness Precinct

In addition to the above precincts, Mamre Road Precinct is undergoing precinct planning by the Department of Planning, Industry and Environment (DPIE), and will therefore not form part of this study.

The Aerotropolis will become an economic hub for greater Sydney and the international and domestic gateway through the 24/7 Western Sydney International (Nancy-Bird Walton) Airport. The following section details the future place context for the precincts explored in this Social Infrastructure Needs Audit, noting place features, characteristics and estimated population.

4.4.1 Aerotropolis Core Precinct

The Aerotropolis Core will be the centre of the Aerotropolis, surrounding the Western Sydney International (Nancy-Bird Walton) Airport and attracting a diverse population of workers, residents and visitors. This precinct will be the place to meet, connect and socialise.

Central to its success will be the co-location of health and education facilities to create an innovation hub. The Aerotropolis Core will facilitate investment and jobs that will benefit from the Western Sydney International (Nancy-Bird Walton) Airport.

Table 4-5 Aerotropolis Core Precinct place context

Place features and objectives	Place characteristics Population
 1,382 Ha Enterprise zone Potential for major public hospital and/or a private hospital University campus High school 	 Mix of employment uses to promote economic growth 24-hour hub and thriving night time economy Entertainment and retail Arts and cultural experiences Workers (estimated 50,000-60,000) 24,000) 24,000) 24,000)
Source: Western Sydney Aeros	

4.4.2 Badgerys Creek Precinct

Adjoining the Western Sydney Airport's eastern border, Badgerys Creek will facilitate aviation operations with its working population catering to the demand for employment generated from its proximity to the Western Sydney International (Nancy-Bird Walton) Airport.

Badgerys Creek's working population will utilise the services and amenities available in the Aerotropolis Core to the south and Northern Gateway to the west. The precinct will provide the necessary road infrastructure to support the airport.

Table 4-6 Badgerys Creek Precinct place context

Place features and objectives	Place characteristics	Population
612 HaEnterprise zoning	Airport and aviation related employmentIndustrial character	Workers (estimated 9,000–11,000)

Source: Western Sydney Aerotropolis Plan (DPIE, 2020e)

4.4.3 Wianamatta-South Creek

Wianamatta-South Creek will be the central green spine of the Aerotropolis, it will attract residents, workers and visitors from all precincts in addition to the surrounding region. This open space network will form part of the broader Western Sydney Parkland's connected green and blue infrastructure. Surrounding precincts will orient towards the green spine and will improve the amenity and wellbeing for all.

Table 4-7 Wianamatta South Creek place context

Place features and objectives	Place characteristics	Population
1,392 HaEnvironment and Recreation zoning	 Central green spine and area of biodiversity Connected open space network Wellbeing values and outdoor amenity Outdoor recreation 	Workers (minimal)

Source: Western Sydney Aerotropolis Plan (DPIE, 2020e)

4.4.4 Northern Gateway Precinct

The Northern Gateway will create early investment and jobs through transport infrastructure such as the Sydney Metro Greater West. This will be the gateway for the thousands of workers across the precinct and connect Western Sydney International (Nancy-Bird Walton) Airport visitors to Greater Sydney and the CBD.

The precinct will have a high technology associated with food production and processing, connecting to the agribusiness precinct and fertile agricultural land beyond Sydney's metropolitan reaches. This centre for high technology will attract tourism, health, education and research.

Table 4-8 Northern Gateway Precinct place context

Place features and objectives	Place characteristics	Population
1,616 HaNorth-South Rail Link (first	High technology associated with food production and	 Workers (estimated 19,000-21,000)
stage)	processing	 Residents (estimated
Industry, commercial zoning	 Innovation hub on tourism, health, education, research 	8,000-10,000)

Source: Western Sydney Aerotropolis Plan (DPIE, 2020e)

4.4.5 Agribusiness Precinct

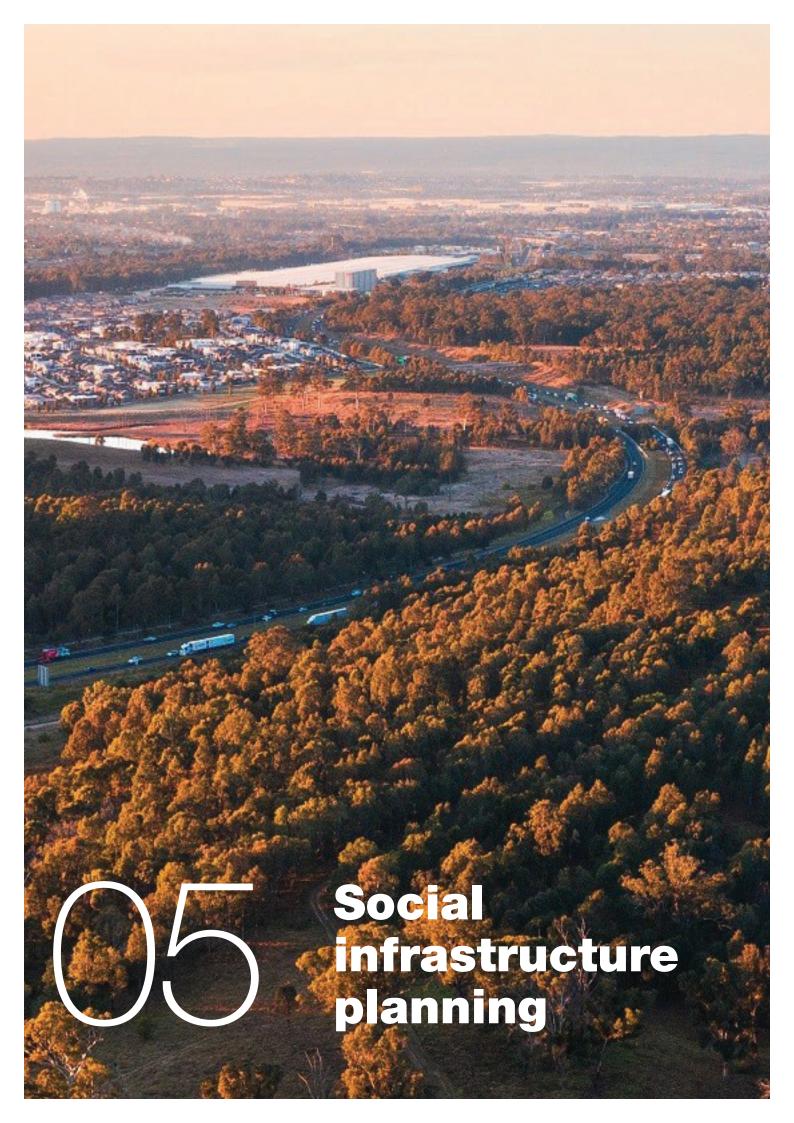
This peri-urban precinct will stimulate investment in new industries that benefit from the proximity to Western Sydney International (Nancy-Bird Walton) Airport and agricultural land. The precinct will build on existing agricultural operations and natural landscape character. It will be the export hub for high quality regional produce, including fresh food, pre-prepared meals and flowers, to the international market. Business operations will be enabled through the 24/7 open access to airport.

Table 4-9 Agribusiness Precinct place context

Place features and objectives	Place characteristics	Population
1,572 HaIndustrial and agricultural land	 Catalyst for agricultural operations Natural landscape character Agricultural international export Retain per-urban agricultural lands High quality agricultural produce and production 	 Workers (estimated 8000-21,000) Residents (minimal)

Source: Western Sydney Aerotropolis Plan (DPIE, 2020e)

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This section of the report outlines the key NSW Government and local council policy positions in regard to the provision of social infrastructure. Some of these policies outline benchmarks and principles that will need to be considered within the precinct plans for the Aerotropolis. This section also outlines previous social infrastructure studies undertaken for different areas across the Western Parkland City that would service some or all of the Aerotropolis that are relevant to this assessment.

5.1 NSW Government Social Infrastructure Benchmark Policies

This sections describes relevant NSW State Government policies in regards to the provision of social infrastructure relevant to this assessment.

5.1.1 Greener Places and Draft Greener Places Design Guide

NSW Government Architect's Office *Greener Places* (2020c) and *Draft Greener Places Design Guide* (2020a) contain a framework that guides the planning, design and delivery of green infrastructure in urban areas across NSW. The aim of Greener Places is to create a healthier, more liveable, and sustainable urban environment by improving community access to recreation and exercise, supporting walking and cycling connections, supporting and maintain Aboriginal culture and heritage, and improving the resilience of urban areas. Integration, connectivity, multi functionality and participation are the four key principles of Greener Places. Implementation actions for each of the principals relevant to this assessment includes:

- Consider equitable access to open space for diverse range of social groups, ensuring inclusion for people with disabilities.
- Improve the public domain and green corridors to encourage walking, cycling, and jogging both in urban areas and along river and creek corridors.
- Enhance the capacity of urban green space to deliver multiple benefits for people and wildlife.
- Develop design-led planning processes that empower communities through collaboration and public participation design.
- Ensure that the quantity, quality, distribution, and accessibility of green space enables the
 delivery of multifunctional open spaces that meet community needs, promote active and
 passive recreation, flood and stormwater management, and local habitat improvements.
- Align the green infrastructure network with NSW infrastructure and urban renewal initiatives, particularly longer term transport plans.

The *Draft Greener Places Design Guide* provides performance indicators for open space for recreation as outlined in Table 5-1.

Table 5-1 Open space performance indicators

Туре	Access	Distribution	Size
Local: high density areas >60 dwellings/ha	2–3 minute walk / 200 metre walking distance to a local park (barrier free)	200 metres from most houses 400 metres from schools and workplaces	Minimum size is 3000m². In high-density areas, parks are sometimes as small as 1500m². Smaller spaces can provide local amenity but are not adequate for a diverse range of recreational needs.
Medium – low density areas <60 dwellings/ha	5 minute walk / 400 metre walki ng distance to a local park	400 m from most houses	Minimum size of a local park is 5,000–7,000m ²
District	25 minute walk / 2 km proximity to a district park District parks also provide local access	2 km from most houses	2-5 ha public open space
Regional	Up to 30 minutes travel time on public transport or by vehicle to regional open space Regional parks also provide local access and district access	5–10 km from most houses	> 5 ha public open space

5.1.2 Cultural Infrastructure Plan 2025+

Create NSW's *Cultural Infrastructure Plan 2025*+ (2019) provides the strategic framework for how the NSW Government will invest in and support cultural infrastructure across the state until 2025 and beyond. It states that much of Western Sydney has limited purpose built cultural infrastructure, however through significant cultural investment the area can develop to meet the expectations of future generations for a high-amenity high-experience urban life.

The plans vision for the Western Parkland City is 'cultural infrastructure helps drive new locations for jobs and investment'. The strategic focus is to integrate cultural infrastructure as part of the new Western Sydney International (Nancy-Bird Walton) Airport and Badgerys Creek Aerotropolis and co-locate culture within emerging centres of creative industries, technology and innovation. The plan identifies opportunities in the Western Parkland City which include:

- Iconic cultural facility.
- Aboriginal cultural infrastructure.
- Incorporation of performing arts facilities as part of new education infrastructure.

5.1.3 Greater Sydney Outdoor Study Report

The NSW Department of Planning, Industry and Environment's *Greater Sydney Outdoor Study* (2019) offers an insight into the recreational habits and aspirations of those who live in Sydney. The study surveyed thousands of Greater Sydney residents to understand what people like to do for outdoor recreation across five separate Districts. The study found that Sydneysiders prefer to enjoy experiences on foot, visit destinations and explore spaces that are inclusive, free from membership or scheduling and have a range of recreation activities.

When asked what their aspirations were for Greater Sydney participants said that they wanted open space and recreation areas to be protected, close to where they live, safe and include a range of recreation opportunities. In the Western City District the most popular recreation activity was walking, hiking, jogging or running followed by relaxing in open space. Most participants from the Western Sydney District agreed they would like to see more outdoor recreation areas near them and most agreed that they are a great way to bring the community together.

Western City District residents said they would like to see:

- More open spaces nearby and help build a greater sense of community.
- Higher quality parks with good facilities and improvements to existing walking and cycling networks so people can get around better without a car.
- Protection of existing open spaces and other recreational areas for future communities.
- More opportunities for swimming and water based activities in the local area.
- Open spaces that feel safe and provide for multiple uses.

5.1.4 Planning New Schools, School Safety and Urban Planning Advisory Guidelines

The Asset Management Directorate of the NSW Department of Education and Communities has developed the *Planning New Schools, School Safety and Urban Planning Advisory Guidelines* (2014) as non-statutory general advice to facilitate the planning of new schools. The document acknowledges that predicting where and when a new school is required is complicated by a range of social, economic and land use variables. According to the document a school will only be funded, built and operated where there is demonstrated need for a new school. Consideration is therefore given to:

- Compliance with the Education Act 1990.
- Budget availability and competing priorities for funding of other infrastructure projects.
- Enrolment forecasting and demographic profiling.
- The effect on surrounding, existing schools.
- The capacity of existing schools to take new enrolments or be expanded to take them.
- The property tenure options that are available.
- The education model proposed.
- Dwelling occupation and take-up rates.
- Housing development staging.
- Housing market characteristics.

The document also provides a checklist for considering the range of issues that should be addressed when identifying a site for a new school. In regards to site area it is recommended

that a primary school/special purpose school be up to 3 hectares and a secondary school up to 6 hectares. It is recommended that schools be located central to residential areas with the majority of students within a 1.6 kilometre catchment area.

5.1.5 People places – State Library

The third edition of People Places builds on the two previous versions and the State Library of NSW's work since 2000 and guides the development of public library buildings. The planning tools, needs assessment process and benchmarking outlined in People Places has been widely used and accepted by councils across NSW, placing increased emphasis on the changing nature and role of libraries.

5.1.6 Integrated Primary and Community Care Development Plans for the South West Growth Centre

In 2012 the South Western Sydney Local Health District released their Integrated Primary and Community Care (IPCC) Development Plans for the South West Growth Centre (2012). The plan identifies that IPCC is the prime vehicle to provide for emerging health care needs in the Growth Centre. This reflected strong clinical advice to the effect that the hospital inpatient and ambulatory care needs of Growth Centre residents would best be met through increased capacity at existing hospital facilities within close proximity to the Growth Centre boundaries (Liverpool, Campbelltown and Camden).

Three levels of IPCC provision are preferred:

- Team General Practices: Private practices with less than five General Practitioners supported by a lesser number of practice nursers with private allied health professionals providing visiting in reach services. The catchment population would 4,000 – 5,000 people.
- Primary Care Clinics: larger private practices with around six to eight General
 Practitioners and up to four training posts, practice nurses, community nursing, on site
 allied health therapy, visiting medical specialists, early childhood nursing and potentially
 associated services e.g. pharmacy, diagnostic imaging, dental etc. The catchment
 population would be 15,000 18,000 people.
- Regional IPCC Centre: a hub for multidisciplinary and specialist medical ambulatory care and potentially day surgery for the entire population. There would be mixed public and private service provision. A range of Community Health services appropriate to the population catchment of the RIPCC would be co-located. The catchment population would be 75,000 to 100,000 people.

5.2 Local government policies

The Aerotropolis sits within the Penrith and Liverpool LGAs. To help guide social infrastructure planning for the Aerotropolis this section summarises relevant social infrastructure planning document from both Councils.

5.2.1 Liverpool City Council

The documents discussed below are related to social infrastructure planning in the Liverpool LGA. They outline the challenges and priorities for social infrastructure provision in the LGA, open space benchmarks and a hierarchy for community facilities.

Community Strategic Plan, Our Home, Liverpool 2027

Liverpool City Council's Community Strategic Plan Our Home, Liverpool 2027 defines the vision and priorities of the community. The vision for Liverpool is rich in nature, rich in opportunity, creating community; our place to share and grow. The Plan acknowledges that development of the Western Sydney International (Nancy-Bird Walton) Airport will provide various opportunities for the LGA which will allow it to thrive and establish its strong connection to Sydney's South West.

With such a diverse and multicultural society ensuring that services reach a broad range of citizens in an equitable way while accommodating those most in need was recognised as a challenge. In the Plan the community identified the need for more community events and activities and community facilities that are accessible and multi-purpose. The community also identified the need for more green space, clean safe public places and well planned, attractive and people friendly urban environments.

Community Facilities Strategy

The Strategy aims to transform Liverpool City Council's ageing stock of community facilities into a world class network of modern facilities that are attractive, flexible, address community need, and become a hub for community interaction.

The current provision of community facilities in the LGA are identified as single purpose and are not co-located with other services or near public transport. Most facilities are nearing the end of their economic life. The Strategy identifies four major challenges to the future operation of community facilities, these are:

Meeting the needs of a growing population

- Managing an ageing stock of facilities
- Funding and financing new facilities and renewal upgrade works
- Timely delivery of new facilities in the release areas.

The Strategy adopts a three level hierarchical approach for the planning and delivery of community facilities described in Table 5-2.

Table 5-2 Community facility hierarchy

Hierarchy	Catchment	Size
District	District catchment of typically 20-50,000 persons. Co-located in activity centres where there are local shops and services, and are located near public transport. Typically co-located with libraries.	1 500-2 500 sqm.(with library)
Neighbourhood	Local catchment of 8-10,000 residents. Provides local based services and spaces.	Minimum floor space of 1,000 sqm with have access to outdoor space.
Specialised	Facilities which provide for a specific need e.g. environmental education, day respite care, work hub and small business incubator, and integrated homeless service	N/A

Recreation, Open Space and Sports Strategy 2018 – 2028

The Strategy guides the future provision and management of Liverpool's recreational, open space and sporting priorities. The vision for Liverpool City Council is to create best practice recreation, open space and sports facilities for the community that connect residents and foster a healthy community. Central to the Strategy is the desire to create distinctive 'places for people' that encourage greater opportunities for meetings and daily activities, enabling one to be among, to see, and to hear others.

The Strategy identifies a number of strategic issues facing Liverpool City Council that this Strategy responds to, these are:

- Meeting the needs of a growing population
- Improving Liverpool's place on the regional sporting stage
- The shrinking backyard the rise of higher density living
- The rise of unstructured recreation and decline of organised sport
- Shared space and partnerships
- Climate change adaptation

Table 5-3 describes the open space benchmarks used in the strategy.

Table 5-3 Open space benchmarks

Classification	Size	Estimated service group	
Regional / state:	More than 10,000m ²	Local and neighbouring communities	
District	5,000m ²	Serves two or more neighbourhoods	
Neighbourhood:	1,500m ² to 5,000m ² or more	Serves 1,000 dwellings or more	
Local	500 to 1,500m ² or more	Services less than 1,000	
Pocket	100 to 500m ²	Services less than 500	
Natural	Generally 3,000m ² or more	Serves the local community	

Liverpool Population and Social Infrastructure Study, 2019

This study assesses the current provision of social infrastructure in the Liverpool Local Government Area and identifies opportunities for the embellishment or provision of additional facilities. By 2041 the LGA will an experience an 83 per cent increase in population, three quarters of which will come from growth in greenfield areas. The Study indicates that while opportunities exist for the provision of social infrastructure in greenfield areas, provision will be more of a challenge in areas of urban consolidation.

The study concludes that there is sufficient open space to meet estimated demand through to 2041. However it is not evenly distributed across the LGA and what is available may not meet the needs of the community. For community centres the study recommends five additional district level facilities and the rationalisation of 21 to 38 existing local facilities.

5.2.2 Penrith City Council

The documents discussed below are related to the provision of social infrastructure in the Penrith LGA. They outline the strategic directions for the provision of sport and recreation facilities, open space benchmarks and required infrastructure to support forecast growth in the LGA.

Sport and Recreation Strategy

Penrith City Council's *Sports and Recreation Strategy* (2019) is a plan for the future provision and enhancement of sport, play, recreation and open space facilities across the city. Core objectives of the Strategy relevant to this assessment includes planning for growth and ensuring that the provision and delver of open space meets the needs of the city's current and future population. Open space provision rates are provided within the Strategy for infill development and differ between low, medium and high density. There are also rates of provision for Greenfield development.

The Strategy divides the Penrith LGA into 12 aggregated areas for the implementation of upgrades and new facilities. The South East Area borders the Aerotropolis, residents and workers in this area may use social infrastructure in the Aerotropolis and vice versa. Strategic action items for the South East Area of the Penrith LGA relevant to this assessment include:

- Apply open space provision benchmarks for new release areas. In additional allocate up to 60 hectares of open space to replace existing sport, play and recreation provision to potentially displaced by transport corridors
- Investigate the development of ten indoor court centres and aquatic centres as port of the new sportsground and recreation precinct to accommodate estimate population increases

- Develop a new district play space at Sydney Park
- Deliver additional sporting fields as part of the Sydney Science Park precinct at Luddenham
- Integrate walking trails, cycling, mountain biking and informal active recreation activities.

Rates of provision for high density infill development are described in Table 5-4

Table 5-4 Open space provision rates

Open space type	Minimum rate	Access from home	Land size
Local	0.2 hectares per 1,000 people	100 per cent within 400 metres of local or district open space	0.3 hectares – 0.5 hectares
District	1 hectares per 1,000 people	100 per cent within 400 metres of local or district open space)	2 hectares with an average size 0.5 to 1 hectares
Sporting	1.4 hectares per 1,000 people	80 per cent access to two spaces within 2 kilometres	minimum land size of 10 hectares with an average of greater than 10 hectares
Linear	1 hectare per 1,000 people	100 per cent within 800 metres	Minimum size of 20 metres wide
Citywide	1 hectare per 1,000 people	100 per cent within public transport)	minimum size of 20 hectares

Penrith Regional City Infrastructure Strategy

Penrith City Council's *Penrith Regional City Infrastructure Strategy* (2008) identifies the critical infrastructure that will be required to support forecast growth and to identify the means by which this infrastructure may be funded and managed. The Strategy concluded that Penrith City Council has an adequate provision of local and regional social infrastructure to support the current community however, there was found to be a shortage of district social infrastructure.

The Strategy uses rates of provision from the Growth Centre Planning Standards which were used to make the following recommendations for additional social infrastructure:

- Two community health centres.
- 17 primary schools.
- Six high schools.
- One police station.
- One Ambulance.
- Two youth centres.
- Two multipurpose centres including a senior citizen's centre.
- One aquatic centre.
- Two libraries.

- 14 Childcare services.
- One community and neighbourhood centre.
- 70 hectares of open space.

5.3 Social infrastructure studies

In recent years a series of social infrastructure studies have been undertaken that have made recommendations regarding the future provision of social infrastructure that would service some or all of the Aerotropolis. The following provides a review of the findings of each of the studies that have been undertaken.

5.3.1 Draft Western Sydney Airport Growth Area Social Infrastructure and Open Space Study

ARUP prepared the *Draft Western Sydney Airport Growth Area Social Infrastructure and Open Space Study* (2017) which highlights the existing social infrastructure and open space within the Aerotropolis and explores the potential needs of future residents and workers. Future population projections used in the study stated that by 2056 the Aerotropolis would have 56,971 dwellings, 122,488 residents and 169,952 workers. Using these population projections and benchmarks provided in the Growth Centres Development Code for Greenfield areas (2006), the Draft Development Contribution Guideline (2009) and relevant council documents, a series of social infrastructure and open spaces were recommended. This included:

- 25 small multipurpose community neighbourhood centres and five district community centres.
- Four performing arts and cultural centres, eight branch libraries and one regional library.
- 26 primary schools and nine secondary schools.
- Six community health centres and one level 3 Integrated Primary Community Care facility.
- Three ambulance facilities and eight fire stations.
- 15 long day care services, 24 Outside of school hours care, 24 per-schools and nine occasional care centres.
- 201 hectares for active recreation and 171 hectares for passive recreation.

5.3.2 South Creek Corridor Social Infrastructure and Public Open Space Study

Elton Consulting prepared the *South Creek Corridor Social Infrastructure and Public Open Space Study* (2018) which provides a high level assessment of the future requirements for social, community and recreation facilities in the South Creek Catchment. The study states that by 2056 the South Creek Corridor will have a population of 1,433,300 people.

The study recommends an increase in provision of social infrastructure to support future communities in the South Creek Corridor. Specifically it recommends:

- Ten hub facilities (combination of community, library and cultural).
- 100+ schools and universities in the CBD's.
- 45+ multipurpose sport hubs.
- 15 leisure centres.

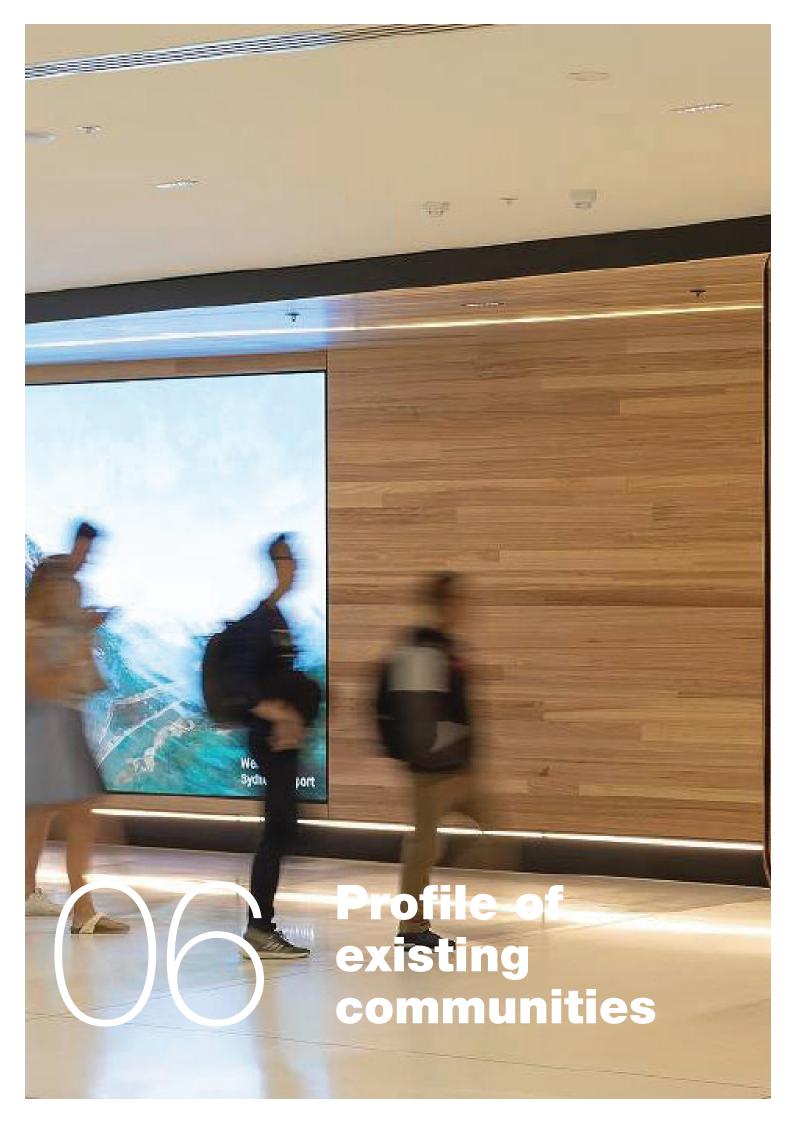
- 18+ specialist sport facilities.
- 60+ major parks.

5.3.3 South West Growth Centre and Western Sydney Employment Area Social Infrastructure Assessment

GHD prepared the South West Growth Centre and Western Sydney Employment Area Social Infrastructure Assessment (2015). It assesses the provision of regional social infrastructure across the SWGC and how this will be impacted by release of additional precincts in the area. The assessment uses a framework found within the Social Infrastructure Assessment for the Greater Macarthur Investigative Area as the basis for assessing the provision of regional social infrastructure. The assessment acknowledges that these are to be used as a guide as there are no established benchmarks for the provision of social infrastructure.

The assessment states that by 2036, the South West Growth Centre is anticipated to have 211,975 dwellings and 585,000 people. Using these projections the assessment identified a number of facilities that may need to be provided to accommodate the future population when full development of the Western Sydney Employment Area is achieved, they are:

- Multiple ambulance standby points to be located according to demand.
- Sport and recreation facilities to meet the needs of the local workers.
- South Creek has potential to be regional open space.
- One fire station and one police station will be required within Western Sydney Employment Area.
- At full development 1900 childcare places equating to 38 centres with a capacity of 50 children.



The following sections provide an analysis of the existing population based on 2016 Census data and Australian Social Health Atlas data, as described in the methodology (section 2), to understand the current social environment of the Aerotropolis. The Western Parkland City study area will influence and be influenced by the development of the Aerotropolis study area, particularly in regards to the community characteristics and provision of social infrastructure. Therefore, analysis of the current community profiles is key to understanding the community and the characteristics that are likely to influence demands for social infrastructure in the future which will inform the gaps analysis and recommendations in the Social Infrastructure Needs Assessment report.

These characteristics include age and household structure, as some key services are age cohort specific like preschool, schools, youth services, and aged care. Other variables such as tenancy and income indicate participation and utilisation trends of social infrastructure. Additionally, characteristics such as residential mobility and volunteering indicate the existing levels community connections and social capital. For a complete demographic summary refer to Appendix A.

6.1 Existing communities

6.1.1 Population distribution and growth trends

Population distribution

In 2016, the Aerotropolis study area had a total population of 8,443 persons, of which sections of Rossmore Precinct and Kemps Creek Precinct Bringelly had the highest population. In comparison, the Western Parkland City region had a total population of 1,194,606 in 2016, with the majority of the population clustered around centres such as Liverpool and Campbelltown. Figure 6-3 provides a spatial snapshot of population distribution in 2016 across the local Aerotropolis study area and district Western Parkland City study area.

Population growth

Figure 6-1 demonstrates the estimated resident population growth trend for the Aerotropolis, Western Parkland City and Greater Sydney between 2011 and 2019.

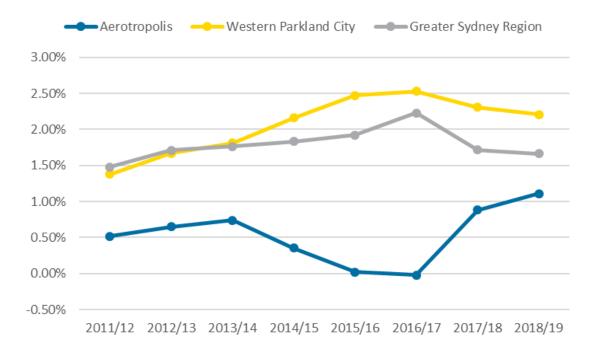


Figure 6-1 Estimated Resident Population (ERP) growth trends

Data source: Australian Bureau of Statistics (2019)

Internal and overseas migration

Net internal migration rate¹ estimates for 2017/18 indicate a total net loss of 27,951 people from Greater Sydney which is -30.9% of the estimated resident population change. This significant loss of people to internal migration is occurring the most within the Eastern City and South City Districts with key local government areas such as Burwood, Waverly, Woollahara and Georges River indicating net losses of over 100%. However, the Western City District was the only district within Greater Sydney to experience a net growth in internal migration, as shown in Figure 6-2. Camden, which had a 77.2% net internal migration rate, is the fastest growing LGA nationally (.id consulting pty ltd, 2019). Western City District is attracting a lot of migration out

¹ Net migration rate (NMR) is the difference of immigrants (people coming into the area) and emigrants (people leaving the area) in a period of time, as a percentage of the change in population of that period of time. A positive value represents more people entering the country than leaving it, while a negative value means more people leaving than entering it.

from Sydney where people are leaving these areas seeking newer, larger or more affordable housing, particularly families with children. While the Western City District does not experience the highest proportion of direct overseas migrants, secondary overseas-migration is a significant contributor to internal migration, where migrants that initially moved to areas such as the Eastern and South Districts are moving out for the larger, more affordable housing.

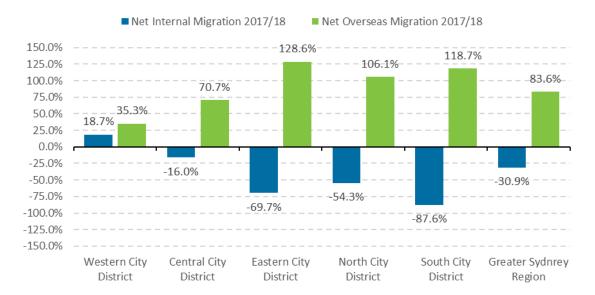
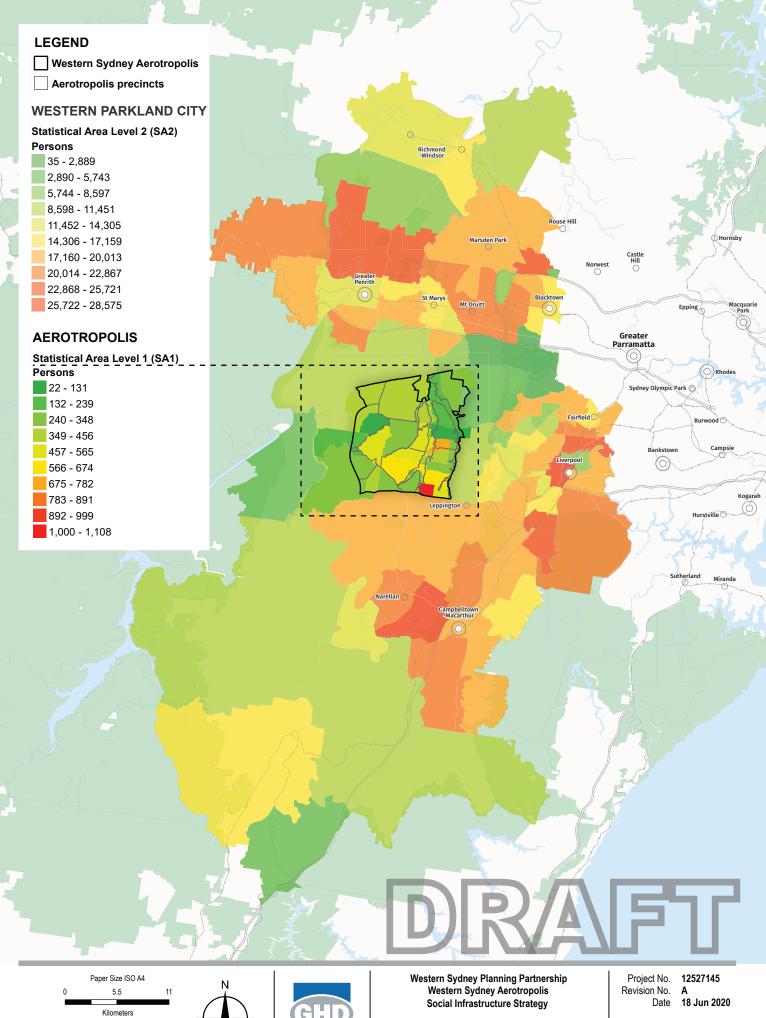


Figure 6-2 2017/18 Net Internal and Overseas Migration Rates

Data source: .id consulting pty ltd (2019)

Additionally, under the *Offshore Humanitarian Program* 67.5% of all humanitarian migrants entering Greater Sydney between 2012 and 2016 chose to reside in the Western Parkland City. Overall 25.9% of all migrants entering the Greater Sydney area, including humanitarian, family stream visa and skilled visa, resided in Western Parkland City between 2012 and 2016 (PHIDU, 2020).









SOCIAL INFRASRUCTURE AUDIT POPULATION DISTRIBUTION

FIGURE 6-3

6.1.2 Age profile

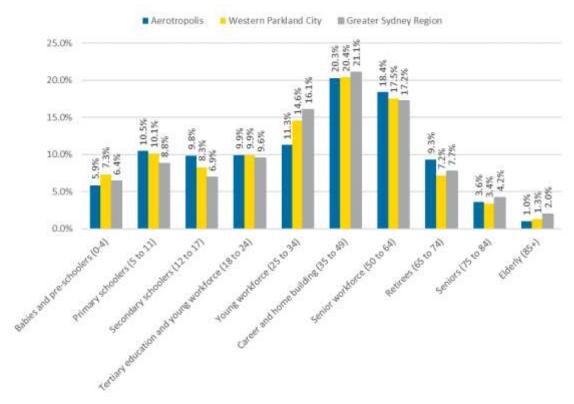


Figure 6-4 Age profile

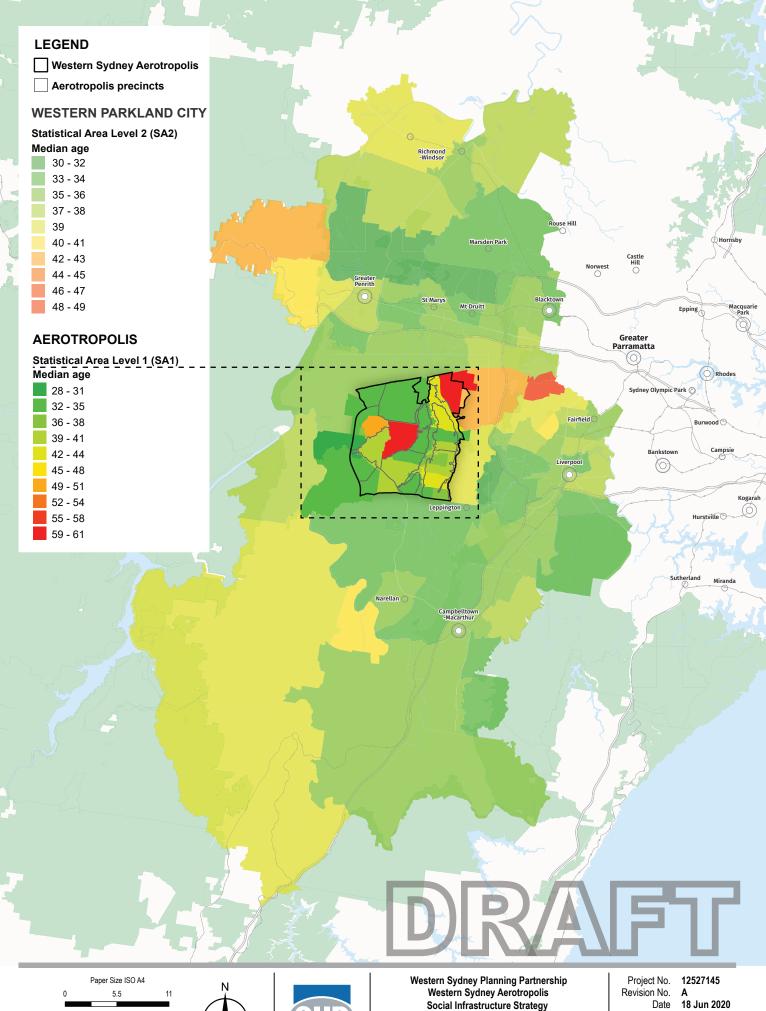
The Aerotropolis study area and Western Parkland City region have a younger age profile compared to Greater Sydney. 26.2% of residents in the Aerotropolis study area and 25.7% of residents in the Western Parkland City region are aged under 18 years, compared to 22.2% in Greater Sydney.

Other key age indicators in the Aerotropolis study area include the following:

- a higher proportion of people aged over 65 years (14%) compared to Western Parkland City region (11.9%) and Greater Sydney (13.9%).
- a median age of 37 years which is similar to 36 years in Greater Sydney. The precincts
 within the Aerotropolis which had the highest median age range (59-61) are Mamre Road
 and Western Sydney International (Nancy-Bird Walton) Airport, as seen Figure 6-5 which
 provides a spatial snapshot of median age across the Aerotropolis study area and district
 Western Parkland City study area.
- a higher dependency ratio² (52) compared to Western Parkland City (50) and Greater Sydney (48). Figure 6-6 provides a spatial snapshot of dependency ratios across the Aerotropolis study area and district Western Parkland City study area. The precinct with the highest dependency ratio is Mamre Road, which also had a high median age as previously outlined.
- a higher proportion of primary school aged children (10.5%) compared to Western Parkland City (10.1%), but a lower proportion compared to Greater Sydney (8.8%).
- a significantly lower proportion of young workforce (11.3%) compared to Western Parkland City (14.6%) and Greater Sydney (16.1%).

² Dependency ratio: An age-population ratio of those typically not in the labour force, including dependent minors (0 to 14 years) and those who have exited the labour force (65+ years). It is used to measure the productive population. A low dependency ratio means that there is a sufficient working population to support the dependent population. Shows the total number of dependents per hundred people in the working age cohorts.

GHD | Report for Western Sydney Planning Partnership - Draft Western Sydney Aerotropolis Social Infrastructure Audit,



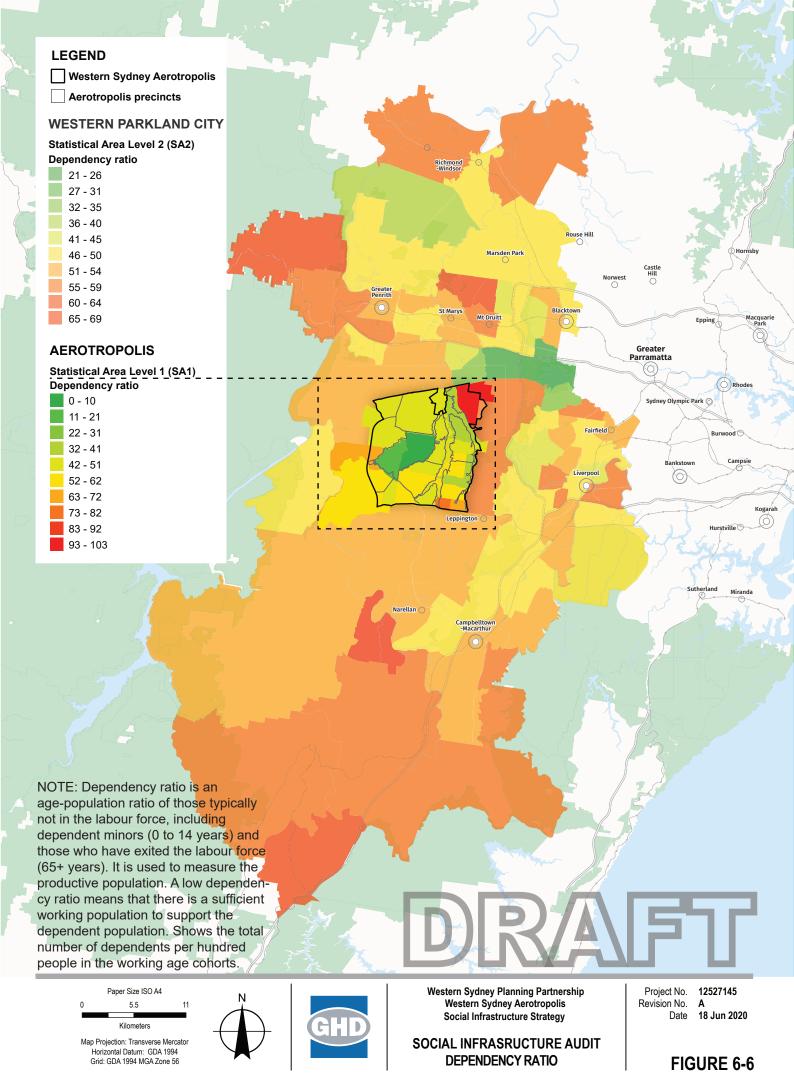






SOCIAL INFRASRUCTURE AUDIT MEDIAN AGE

FIGURE 6-5



6.1.3 Indigenous population

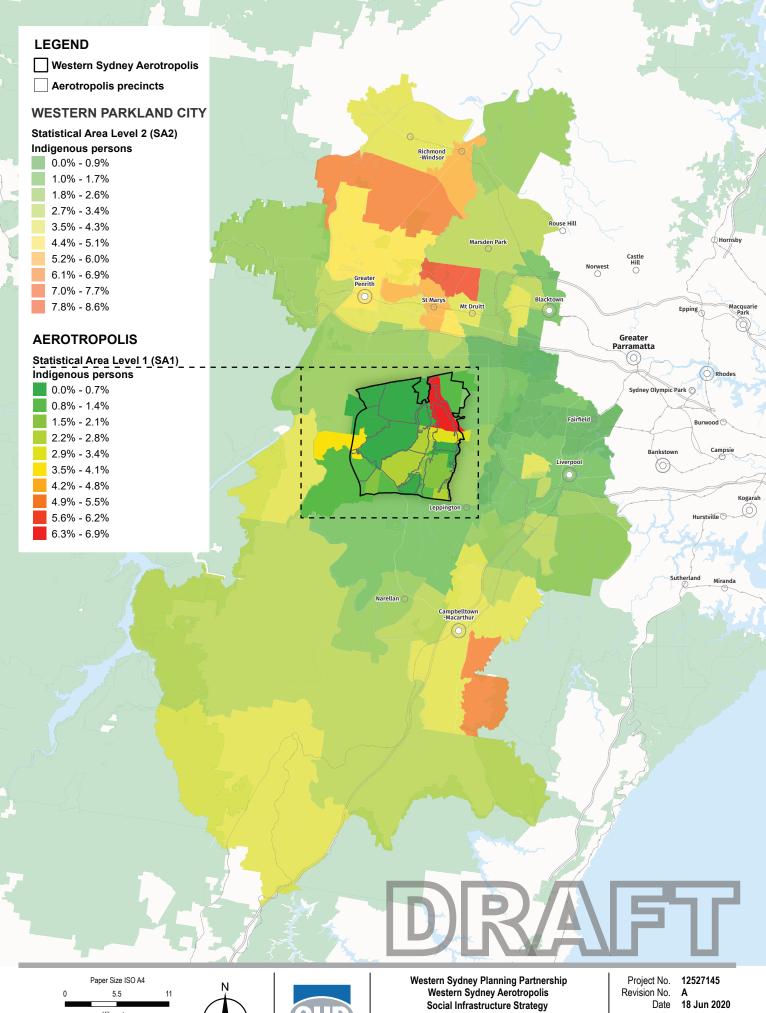
The Aerotropolis had a lower proportion of Aboriginal and Torres Strait Islander people (1.6%) compared to Western Parkland City (2.7%) and Greater Sydney (2.2%). Western Sydney has the largest Aboriginal population at around 32,000 Aboriginal and Torres Strait Islander people. The areas with the highest proportions of Aboriginal and Torres Strait Islander people in the Western Parkland City are located around St Marys and Campbelltown, with the Mamre Road Precinct having the highest proportion of Aboriginal and Torres Strait Islander people in the Aerotropolis. Figure 6-7 provides a spatial snapshot of the distribution of the Indigenous population across the local Aerotropolis study area and district Western Parkland City study area.

6.1.4 Cultural diversity

In addition to having the largest Aboriginal and Torres Strait Islander populations in Australia, Western Parkland City is one of the most culturally diverse with 37% of the population speaking one of more than 200 non-English languages in their homes. This could partially be attributed to the high proportions of migrants entering Australian through the *Offshore Humanitarian Program* residing in Western Sydney, as discussed in section 6.1.

The Aerotropolis has a lower proportion of people who speak non-English languages in their home at 30% compared to Western Parkland City and Greater Sydney (35.8%). The top five languages spoken at home other than English in the Aerotropolis are Italian (6.6%), Eastern Asian languages (4.2%), South Slavic (3.1%) and Maltese (2.3% and Ino-Aryan (1.1%). Of those that do speak a non-English language at home 5.6% indicated not speaking English well or not at all in the Aerotropolis, which is lower than Western Parkland City (7.1%) and Greater Sydney (6.4%).

This trend is also reflected in the proportion of people who were born in a non-English speaking country residing in the local Aerotropolis (22.2%) being significantly lower than Western Parkland City (29.4%) and Greater Sydney (30.4%). However, Dwyer Road and Mamre Road precincts have the highest proportions of people born in a non-English speaking country for the Aerotropolis, as seen in Figure 6-8. For migrants born in predominantly non-English speaking countries, the rate at which they adapt to living in Australia is directly related to the rate at which they achieve proficiency in English. Their proficiency in English has profound implications for the ease with which they are able to access labour markets, develop social networks, become aware of and utilise services, and participate in many aspects of their community (PHIDU, 2020).



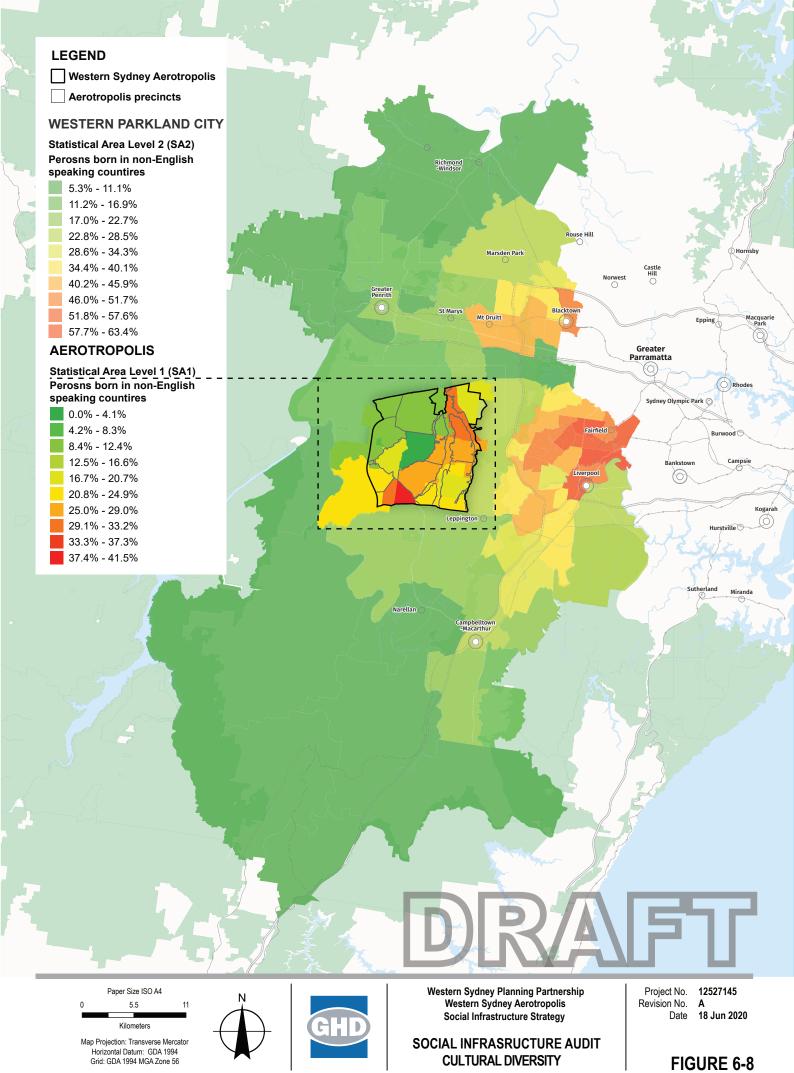






SOCIAL INFRASRUCTURE AUDIT INDIGENOUS PERSONS

FIGURE 6-7



6.1.5 Household composition

The most prominent household type in the Aerotropolis study area was family households (82.8%), which is similar to the Western Parkland City region (80.9%) but higher than Greater Sydney (73.6%), as seen in Figure 6-9. This is reflective of the high proportion of people aged under 18 years residing in the Aerotropolis (section 6.1.2) and the proportion of couples with children (54%), which was higher than Western Parkland City (52%) and greater Sydney (49.5%). Furthermore, the Aerotropolis had a lower proportion of lone person households (15.3%) compared to Western Parkland City region (16.9%) and significantly lower than Greater Sydney (21.6%).

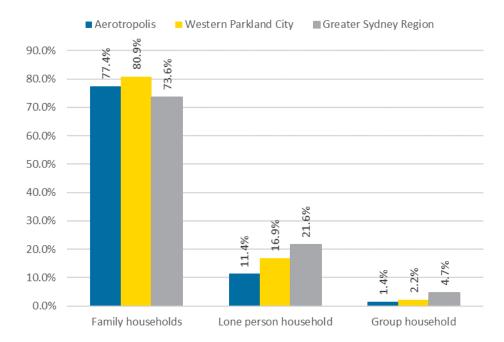


Figure 6-9 Household type

Source: Australian Bureau of Statistics (2019)

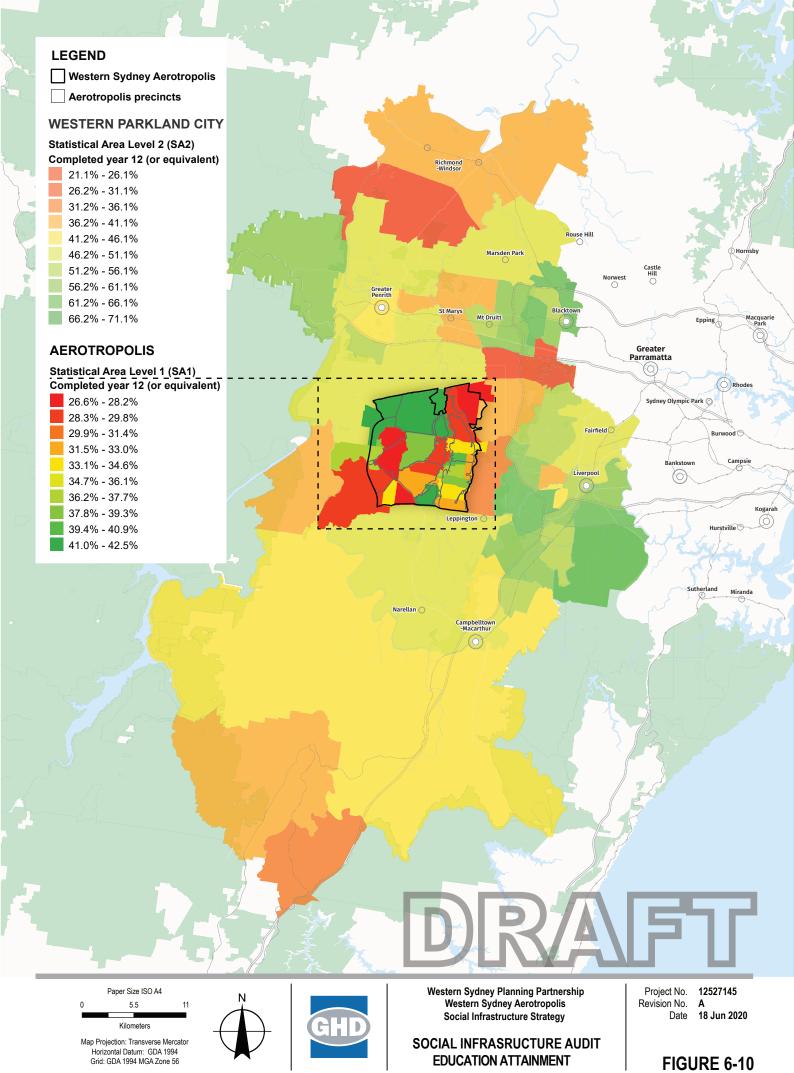
Notably, the Aerotropolis (19.2%) and Western Parkland City (19.4%) had more one parent households than Greater Sydney (15.2%). Compared with other family types, one parent families are considered to be at a higher risk of disadvantage, with respect to income, housing, employment and social participation. Many single parent families also experience poorer health, and are major users of publicly-funded services (PHIDU, 2020).

6.1.6 Education

Almost half of the primary and high school aged children living in the Aerotropolis study area attended a government school at 47.3% and 41.4% respectively, with 52.7% and 58.6% attending a Catholic or Independent school. This was a much lower government school attendance rate when compared to Western Parkland City which had 69% of primary aged students and 60.2% of high school aged students attending a government school and, which is similar to Greater Sydney (68% and 54.4% respectively).

The Aerotropolis also had a much lower proportion of people attending a university or tertiary education facility at 10.2% compared to Western Parkland City (13.2%) and Greater Sydney (19.2%). This could likely be correlated to the limited tertiary educational facilities located within the local study area (discussed further in section 7.2.1) in comparison with other metropolitan centres in Western Parkland Sydney and Greater Sydney.

Additionally, the Aerotropolis had a significantly lower proportion of persons who had completed Year 12 (35.4%) compared to Western Parkland City (50.2%) and Greater Sydney (62.1%). Figure 6-10 demonstrates the precincts within the Aerotropolis that had lower proportions of people who have completed year 12 are Mamre Road, Dwyer Road, Badgerys Creek and the southern section of Agribusiness. People who complete year 12 are more likely to make a successful initial transition to further education, training and work, with education increasing choice of occupation, income and job security and equips people with the skills and ability to control many aspects of their lives that influence wellbeing (PHIDU, 2020).



6.1.7 Employment and income

The Aerotropolis had higher proportions of the population who indicated their weekly household income was \$1,000 - \$1,999 (33.3%) and \$2,000-\$2,999 (21.6%) when compared to Western Parkland City (27.8% and 19.6% respectively) and Greater Sydney (24.5% and 18.3% respectively). Notably, the proportion of low income households³ is significantly higher for Western Parkland City at 42.4% compared to Greater Sydney at 35.4%. Lower income households are much more likely to rely on the provision of public services (PHIDU, 2020).

The Aerotropolis top five industries were construction (18.3%), retail trade (11.1%), agriculture, forestry and fishing (9.7%) manufacturing (9.3%) and transport postal and warehousing (8.5%). This differed from Western Parkland City and Greater Sydney which both had health care and social assistance as their top industry (11.3% and 11.6 % respectively).

The Aerotropolis top five occupations were managers (18.5%), technicians and trades (17.7%), clerical and administrative (15.4%), machinery operators and drivers (11.3%) and professionals (11.0%). This differed to Western Parkland City and Greater Sydney which both indicated the top occupation as professionals (16.2% and 26.3% respectively), as shown in Figure 6-11.

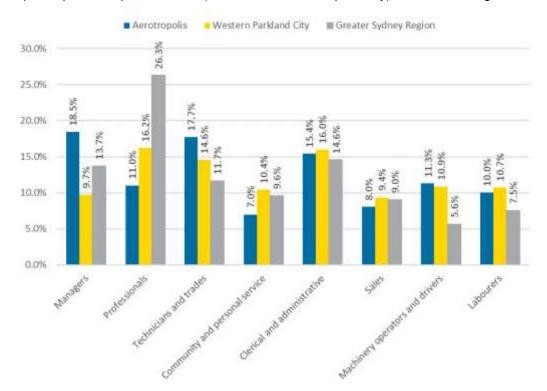


Figure 6-11 Occupation

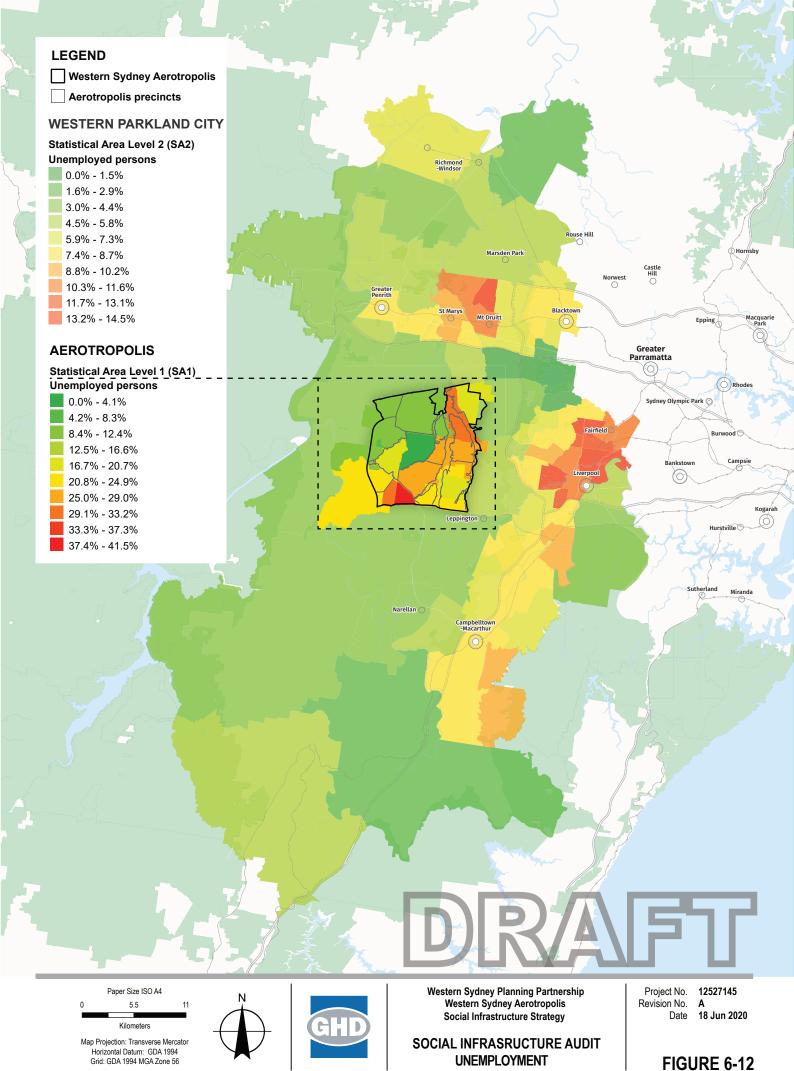
Labour force⁴ participation was higher in the Aerotropolis study area at 63.2% compared to Western Sydney Parklands (60.2%) and Greater Sydney (61.6%). Furthermore, the Aerotropolis has a lower unemployment rate⁵ at 4.8% compared to Western Parkland City (7.1%) and Greater Sydney (6.0%). Figure 6-12 provides a spatial snapshot of unemployment rates across the local Aerotropolis study area and district Western Parkland City study area.

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³ A household in the lowest quintile (groupings that result from ranking all households or people in the population in ascending order according to some characteristic, such as their household income, and then dividing the population into five equal groups, each comprising 20% of the estimated population) of equivalised household disposable income (ABS, 2013)

⁴ The labour force is the labour supply available for the production of economic goods and services in a given period, and is the most widely used measure of the economically active population. Persons in the labour force are classified as either employed or unemployed according to their activities during the reference week by using a specific set of priority rules (ABS, 2013).

⁵ The number of unemployed persons expressed as a percentage of the labour force (ABS, 2013).



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Due to the recent economic crisis as a result of the global COVID-19 pandemic it is anticipated that unemployment rates across greater Sydney will have increased. The Australian Bureau of Statistics (2020) has indicated about 43,900 people have lost their jobs in NSW with the unemployment rate rising to 6.4% from 6.3% in 2016. Unemployment (particularly long-term unemployment) can have negative effects on health and wellbeing, especially on the emotional and mental health of those who are unemployed and their families (PHIDU, 2020).

6.1.8 Tenancy and dwelling structure

Most dwelling types in the Aerotropolis study area are separate, detached houses at 98.7%, a higher proportion to Western Parkland City (79.0%) and Greater Sydney (56.9%). The Aerotropolis study area is of lower density with dwelling types including semi-detached (0.2%) and flats or apartments (0%) almost non-existent compared to Western Parkland City (12.7% and 7.4% respectively) and Greater Sydney (14.0% and 28.1% respectively).

Home ownership (with a mortgage or fully owned) was lower in the Aerotropolis (61.0%) compared to Western Parkland City (65.6%) and Greater Sydney at (62.4%). However, the Aerotropolis also had a lower proportion of people renting (20%) compared to Western Parkland City (30.8%) and Greater Sydney (34.1%), with a higher proportion of those indicating another landlord type, as shown in Figure 6-13.



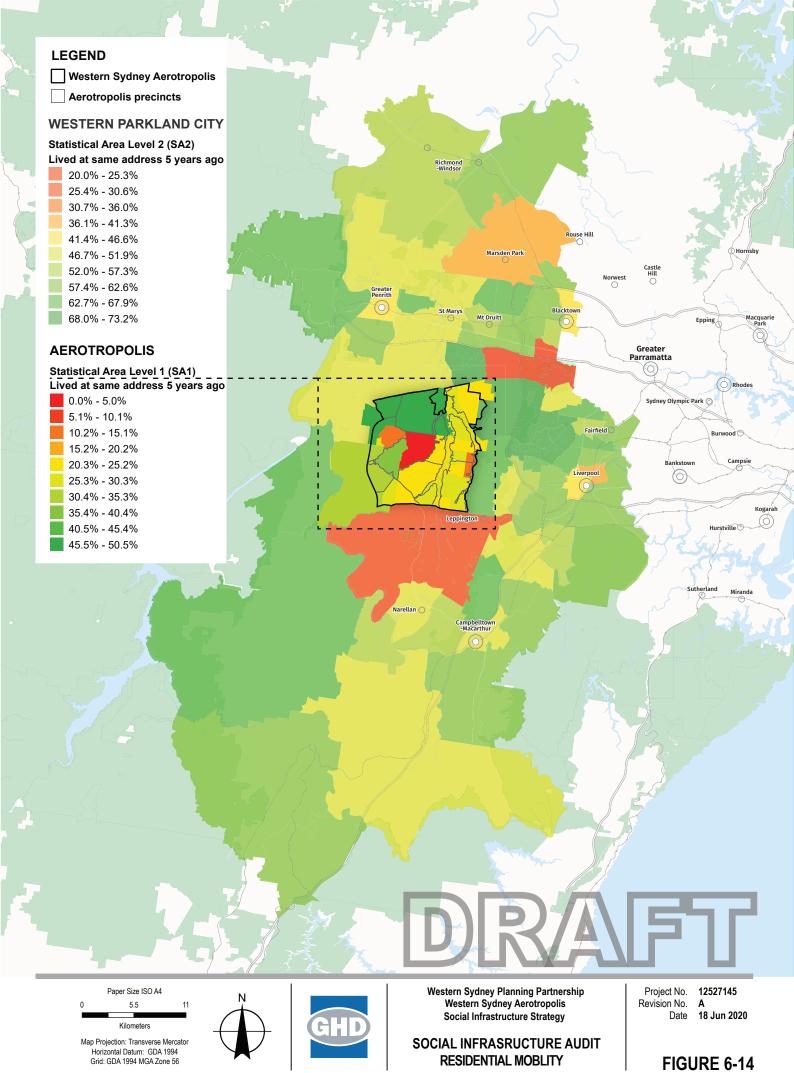
Figure 6-13 Tenancy type

Notably, in Western Parkland City there are higher proportions of the population living with rental stress (32.5%) and mortgage stress (12.2%) compared to Greater Sydney (25.7% and 9.9% respectively). A family or individual is considered to be in housing stress if they are in a low-income bracket and pay more than 30% of their income on rent or mortgage repayments. Housing stress is increasing due to low investment in public housing, demographic shifts and increases in the number of households including through family breakdown; and a tendency for affluent people to want to live near employment centres, which increases rents and forces low-income earners out of even relatively low-standard, un-renovated housing (PHIDU, 2020).

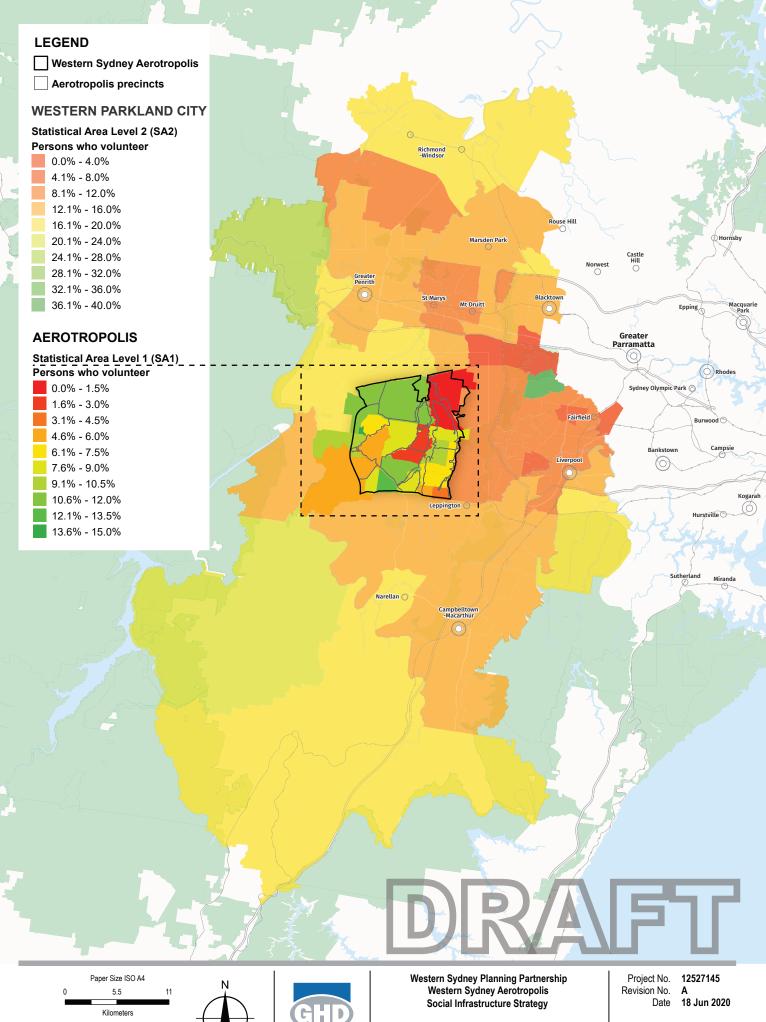
6.1.9 Residential mobility and volunteering

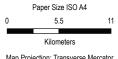
In the Aerotropolis 28.6% residents indicated they had lived at the same address for five or more years, which is significantly less than Western Parkland City (57.8%) and Greater Sydney (53.2%). Figure 6-14 shows the precincts within the Aerotropolis with the lowest rates of residential stability include the northern section of Agribusiness, Aerotropolis Core, Badgerys Creek and Mamre Road. Additionally, the Aerotropolis had 8.0% of residents indicate they had participated in volunteering activities, which is lower than Western Parkland City (13.0%) and Greater Sydney (16.7%). The precincts within the Aerotropolis which have the lowest rates of volunteering are Badgerys Creek and Mamre Road, as seen in Figure 6-15.

Generally, a community that shows indicators of low residential stability and community participation such as volunteering is indicative of having fewer social connections.



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Map Projection: Transverse Mercator Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 56



SOCIAL INFRASRUCTURE AUDIT VOLUNTEERING RATES

FIGURE 6-15

6.1.1 Need for assistance

The Aerotropolis study area (5.4%) and Western Parkland City (6.0%) both had higher proportions of people requiring assistance with core activities than Greater Sydney (4.9%). People who require assistance with core activities are those who are defined as experiencing disability and need assistance in their day to day lives with any or all core activities including self care, body movements or communication. The higher proportion of people requiring assistance with core activities in the Aerotropolis could be attributed to higher proportions of persons aged over 65 discussed further in section 6.1.2.

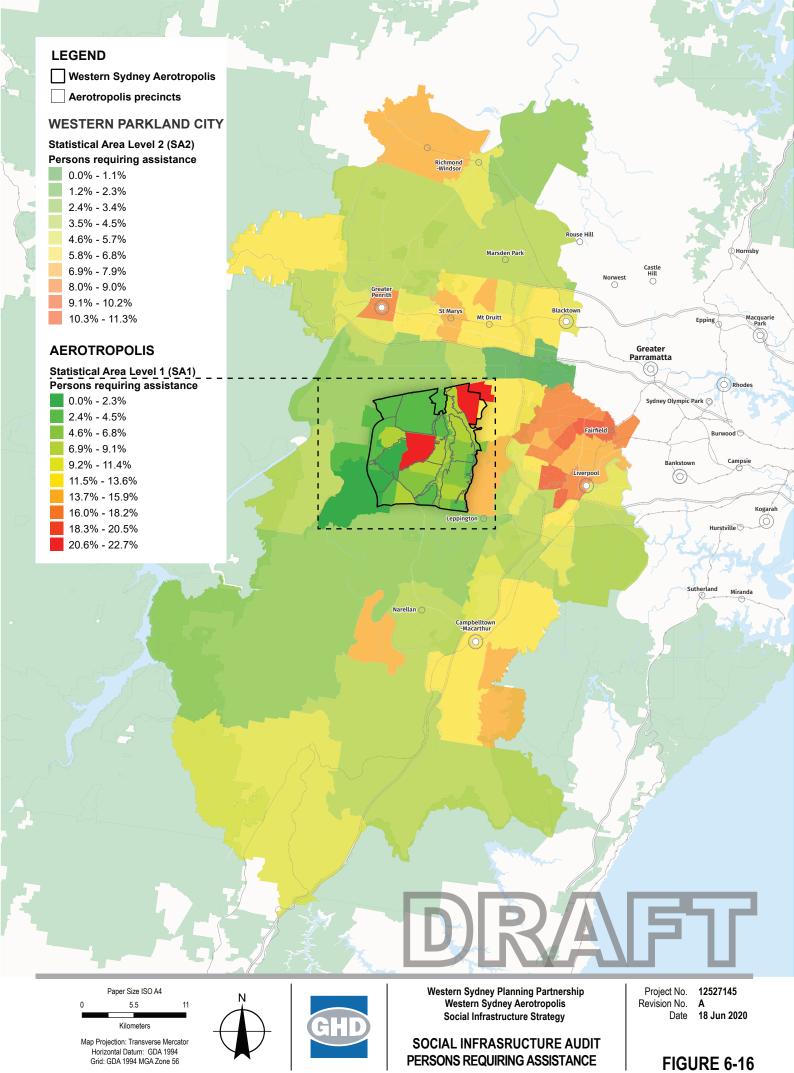
Figure 6-16 provides a spatial snapshot of persons requiring assistance across the local Aerotropolis study area and district Western Parkland City study area.

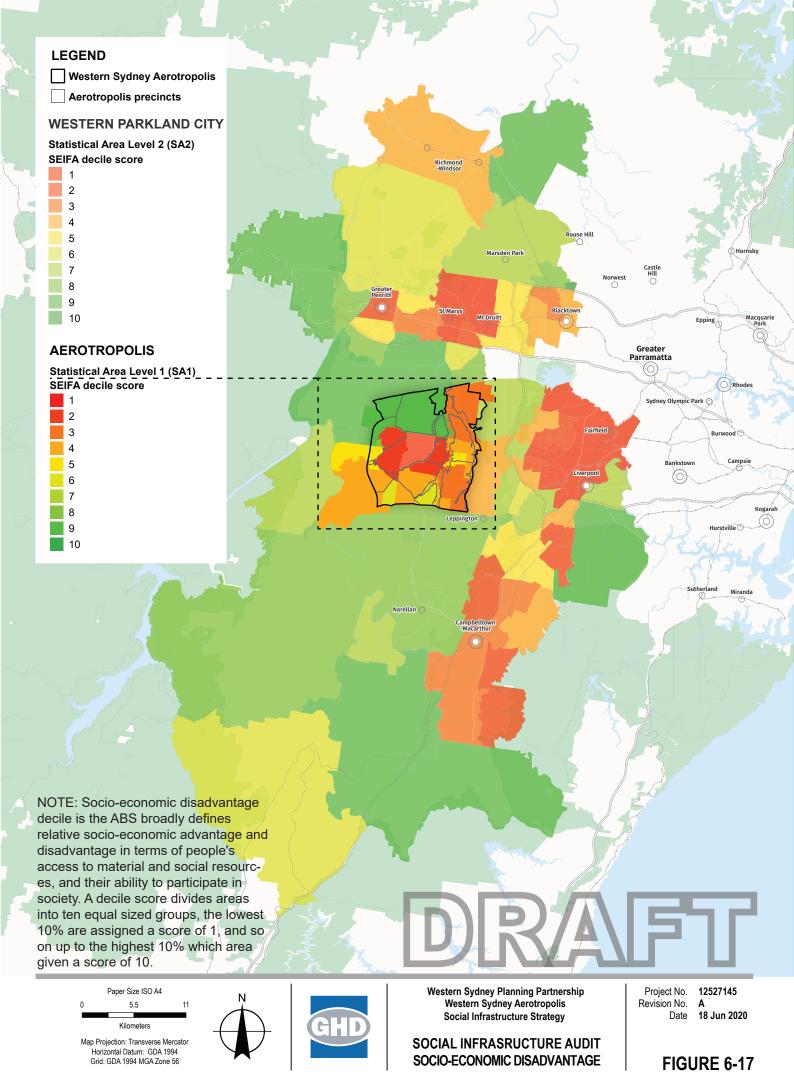
6.1.2 Socio-economic disadvantage

As seen in the spatial snapshot for socio-economic disadvantage (Figure 6-17) the majority of the southern and eastern Aerotropolis area is indicated to have a low socio-economic disadvantage decile score including the precincts of Dwyer Road, Rossmore, Kemps Creek Badgerys Creek, Mamre Road and Agribusiness. Similar sores are generally seen in the higher populated areas of Western Parkland City. The Australian Bureau of Statistics broadly defines relative socio-economic advantage and disadvantage in terms of people's access to material and social resources, and their ability to participate in society. A decile score divides areas into ten equal sized groups, the lowest 10% are assigned a score of 1, and so on up to the highest 10% which area given a score of 10 (Australian Bureau of Statistics, 2013).

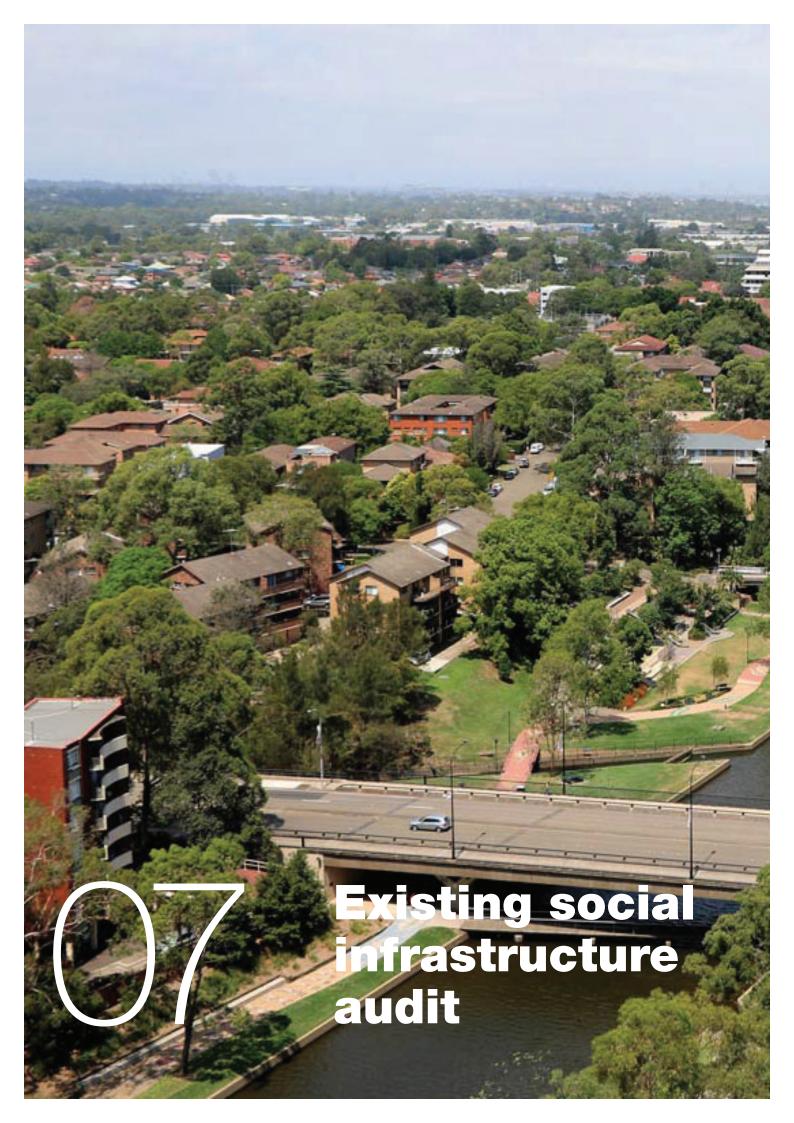
This could be attributed to these areas also having relatively low proportions of people who have completed year 12 or equivalent (Table 7-9), higher proportions of people who are unemployed (Figure 6-12).

Overall, there are higher proportions of people living in Western Parkland City who reside in social housing (5.7%) and who receive rent assistance from the Australian Government (20.5%), compared to Greater Sydney (3.6% and 13.8% respectively). This is reflective of the higher proportion of low income households in Western Parkland City (discussed in section 6.1.7). The distribution of public rental housing and rental assistance is an indicator of socioeconomic disadvantage. Public housing tenants and those who receive rental assistance typically include vulnerable groups such as single parents, those who are unemployed, the elderly, those who experience a disability; and Aboriginal and Torres Strait Islander peoples. With the decline in housing affordability in Greater Sydney these vulnerable groups are increasingly welfare-dependent (PHIDU, 2020).





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The following section provides an overview of the existing social infrastructure within and surrounding the Aerotropolis site including education, health, emergency services, community facilities, child care, aged care, cultural and art facilities, religious facilities, sport and recreation facilities and parks and open spaces.

As discussed in section 1.6, local and district level social infrastructure by nature and distribution service a smaller section of the population (up to 20,000 or 50,000 people depending on facility type), with some precincts within Aerotropolis projected to grow to between 10,000 people (Northern Gateway) and 24,000 people (Aerotropolis Core) Aerotropolis is likely to have the greatest impact on the demographic profile and social infrastructure that services the existing and future population on a local and district level.

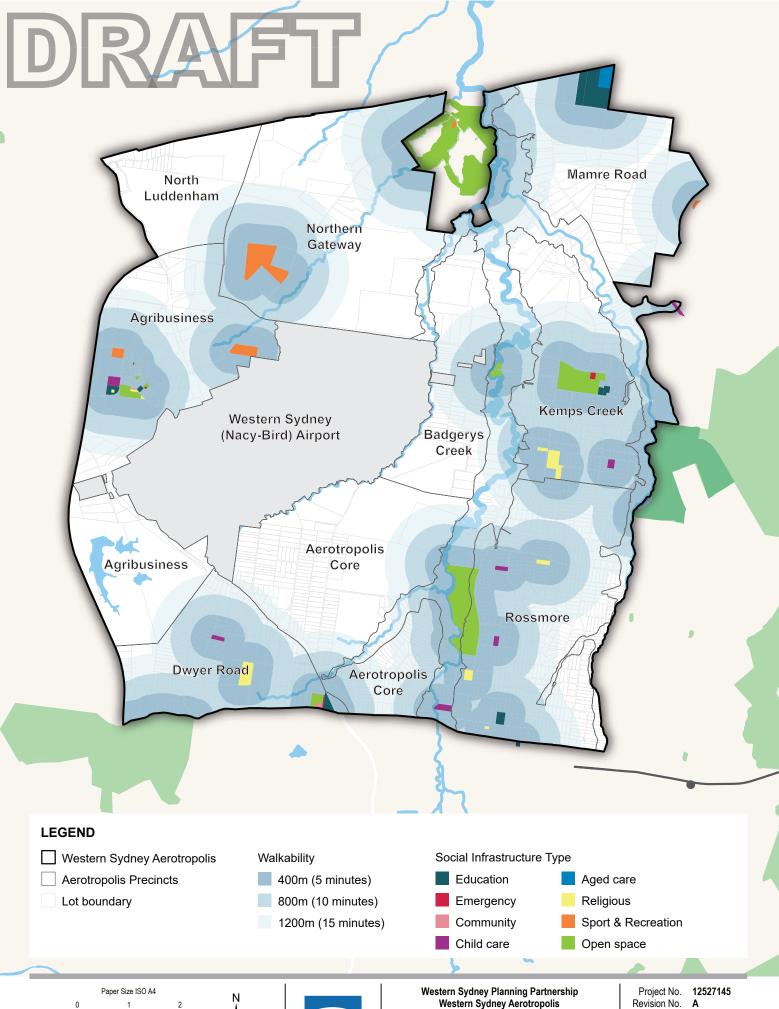
Therefore, local and district social infrastructure within the Aerotropolis have been identified and assessed based on their current capacity and walkability where relevant. Depending on the facility type capacity has been determined based on desktop research using local government and industry directories, this capacity would need to be confirmed in consultation with relevant stakeholders. In addition, local and district facilities in the 15 kilometres (the average distance travelled by car in 30 minutes at an average of 60 kilometres per hour) surrounding the Aerotropolis have been identified, as well as key regional facilities in surrounding strategic and metropolitan centres within the Western Parkland City to provide further understanding to context and provision. Refer to Appendix B for the complete social infrastructure audit.

7.1 Walkability

Walking has numerous social and individual benefits including the improvement of health and wellbeing, increasing social equity, and reducing impacts on the environment. It is also an essential consideration in planning and urban design as it enables easy access to facilities and services for more vulnerable community members such as; very young, old, children and those people who experience a disability. Walkability is a concept which is known as a degree of measurement for 'pedestrian-friendliness' of an area which includes factors such as connectivity, convenience and comfortability (Reihaneh. R, Maryam. I.E, Aida. J.K, 2017). For the purpose of this assessment existing connectivity is assessed to provide a preliminary understanding of existing gaps, and inform the social infrastructure needs assessment and recommendations for the redevelopment and potential future population of the site.

There is some existing social infrastructure located within the Aerotropolis including education, community, child care, aged care, religious and sport and recreational facilities, as well as emergency services and open space. Of the social infrastructure identified within the Aerotropolis site standard radial walkability catchments, which includes 400 metres (average 5 minute walk), 800 metres (average 10 minute walk) and 1200 metres (average 15 minute walk) have been applied (The Heart Foundation, 2009). Figure 7-1 shows the existing social infrastructure located in the Aerotropolis, and the walkability catchments for each facility.

Figure 7-1 identifies precincts with relatively fair walkability to a range of existing social infrastructure include the northern section of Agribusiness Precinct, the southern section of Kemps Creek, Dwyer Road and the western section of Rossmore. Contrastingly, precincts with poor walkability include Aerotropolis Core, North Luddenham, Northern Gateway, Badgerys Creek, Mamre Road and the southern section of Agribusiness. Poor walkability in these precincts is due to a lack of social infrastructure or a non-diverse range of social infrastructure within walkable distance.





Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 56





Social Infrastructure Strategy

SOCIAL INFRASRUCTURE AUDIT WALKABILITY ANALYSIS

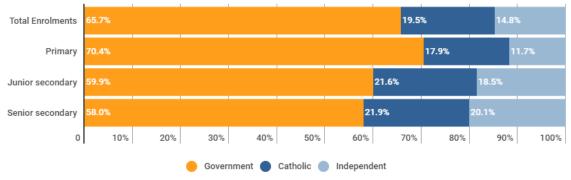
Date 17 Jun 2020

FIGURE 7-1

7.2 Local and district infrastructure

7.2.1 Education facilities

Education facilities can be provided by the government and the private sector. NSW public schools provided by the NSW Department of Education have defined local enrolment areas. Being part of the public system every child is entitled to enrol in a particular public school based on their residential address. However, the private sector plays a role in the provision of education services with Catholic and independent schools, which are not bound by local enrolment areas. Across Australia enrolments in Catholic and independent schools has grown over the last decade and trends shown in Figure 7-2 indicate the proportion of students enrolled in catholic or independent schools increases in high school (ISCA, 2019).



Source: Australian Bureau of Statistics

Figure 7-2 Full-time enrolments by sector and level in Australia, 2019

Source: Independent Schools Council of Australia (ISCA) (2019)

The NSW Department of Education estimates that an extra 77,978 students will need to be accommodated in both government and non-government schools in the Western Parkland City by 2036. Growth in students is projected to be greatest in Camden (26,403), Liverpool (21,072), Campbelltown (13,541) and Penrith (11,008) local government areas (Greater Sydney Commissions, 2018^b).

The Aerotropolis currently intersects five local enrolment areas for government primary schools and four local enrolment areas for government high schools. In addition, within a 15 kilometre catchment of the Aerotropolis there are 20 non-government primary schools, 18 non-government combined schools and 10 non-government high schools. Table 7-1 outlines the government and non-government school facilities servicing the Aerotropolis and their enrolments in 2019, and Table 7-2 provides a summary of the number of non-government schools within 15 kilometres of the Aerotropolis and their combined total enrolments in 2019.

^{*}The ABS classifies independent Catholic schools as Catholic, rather than Independent.

Table 7-1 Existing schools servicing WSA

ID	Facility Name		Enrolments (2019)		
		Boys	Girls	Total	
Govern	ment Primary School (K-6)				
57	Kemps Creek Public School	73	77	150	
62	Luddenham Public School	42	39	81	
32	Bringelly Public School	61	47	108	
80	Rossmore Public School	52	20	72	
24	Austral Public School	124	162	286	
	Total	352	345	697	
Non-G	overnment Primary School (K-6)				
134	Bellfield College Junior Campus	308	318	626	
139	Holy Family Primary School	126	120	246	
158	Trinity Catholic Primary School	238	118	120	
	Total	672	556	992	
Govern	nment High School (7-12)				
4	Cecil Hills	712	688	1400	
21	St Clair High School	340	335	675	
14	John Edmondson High School	587	587	1174	
9	Glenmore Park High School	474	435	909	
	Total	2,113	2,045	4,158	
Non-G	overnment Combined School (K-12)				
105	Christadelphian Heritage College	122	123	245	
111	Mamre Anglican School	341	298	639	
	Total	463	421	884	
Non-G	overnment High School (7-12)				
124	Emmaus Catholic College	401	433	834	
Government School for special purpose (K-12)					
95	Fernhill School (med/high needs)	61	34	95	
98	Les Powell School (med/high needs)	45	31	76	
	Total	106	65	171	
Non-G	overnment School for Special Purpose (K-12)				
162	St Marys Flexible Learning Centre	40	41	81	

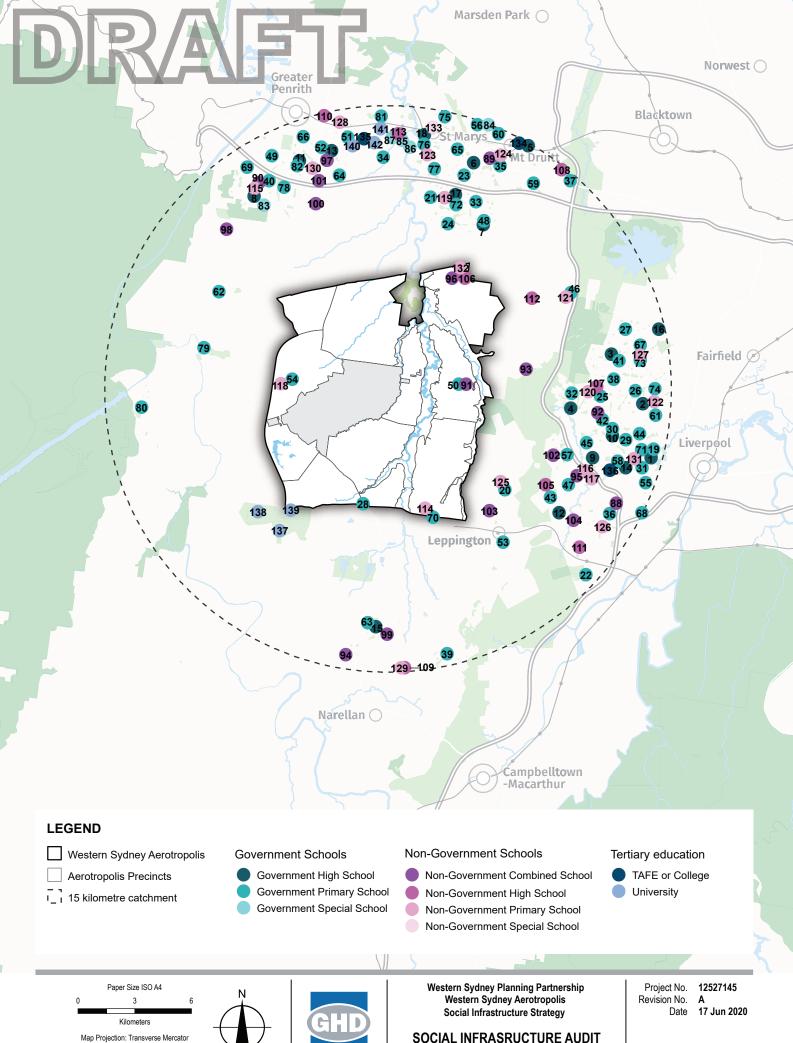
Table 7-2 Existing non-government schools within 15 km of WSA

Non-government school facility	Total no.	Total enrolments (2019))19)
		Boys	Girls	Total
Primary School (K-6)	20	5,094	5,196	10,347
High School (7-12)	10	4,619	3,740	8,388
Combined School (K-12)	18	7,715	9,088	16,803
School for special purpose (K-12)	1	81	40	41

The Western City District contains key centres such as Liverpool and Penrith that provide important opportunities for tertiary and vocational education and training which allow people to gain and refine skills for employment and connect with other people in the community. TAFEs and universities are also employment hubs for knowledge-intensive industries (Greater Sydney Commission, 2018b). There are also three tertiary education facilities and three university campuses within a 15 kilometre catchment of the Aerotropolis including:

- Mount Druitt TAFE College
- Nepean TAFE College Kingswood Campus
- TAFE NSW Miller College
- University Of Western Sydney Penrith Campus
- University Of Western Sydney Werrington North Campus
- University Of Western Sydney Werrington South Campus

Figure 7-3 indicates the location of all education facilities within a 15 kilometre catchment of the Aerotropolis and a full audit is provided in Appendix B.



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SOCIAL INFRASRUCTURE AUDIT EDUCATION FACILITIES

7.2.2 Health facilities

The NSW Ministry of Health is responsible for the provision and management of the NSW public health system, which operates more than 230 public hospitals, as well as providing community health and other public health services, for the NSW community through a network of local health districts.

The Aerotropolis is located within two local health districts (LHD) including South Western Sydney LHD and Nepean Blue Mountains LHD, with Western Sydney LHD intersecting the 15 kilometre catchment of the Aerotropolis. There are currently no community health facilities located within the Aerotropolis. However, there are nine community health centres, one early childhood health centres and one disability services located within a 15 kilometre catchment. The facilities which are closest to the Aerotropolis are outlined in Table 7-3

Table 7-3 Health facilities located closest to the Aerotropolis

ID	Facility Name	Proximity to Aerotropolis	Description
Commu	unity health centres		
3	Hoxton Park Community Health Centre	About 6km east of the Rossmore Precinct	Providing community health services including: Child, Youth & Family Services, Community Health Nurse Services, Counselling, Sexual Assault Services, Aged Day Care and Respite services.
6	St Clair Community Health Centre	About 3km north of the Mamre Road Precinct	Providing services that range from health promotion, through prevention and early detection to assessment, treatment and continuing care.
Early childhood community health centres			
11	Miller Early Childhood Health Centre	About 7km east of the Rossmore Precinct	Providing maternal, child and family health service.
Disabili	ty services		
10	Mount Druitt Headspace Community Centre	About 7km north east of the Mamre Road Preciinct	Headspace Mount Druitt provides free information, support and services to young people, aged 12 - 25, and their families and friends. Services include mental health, general health, alcohol and other drug services as well as work support.

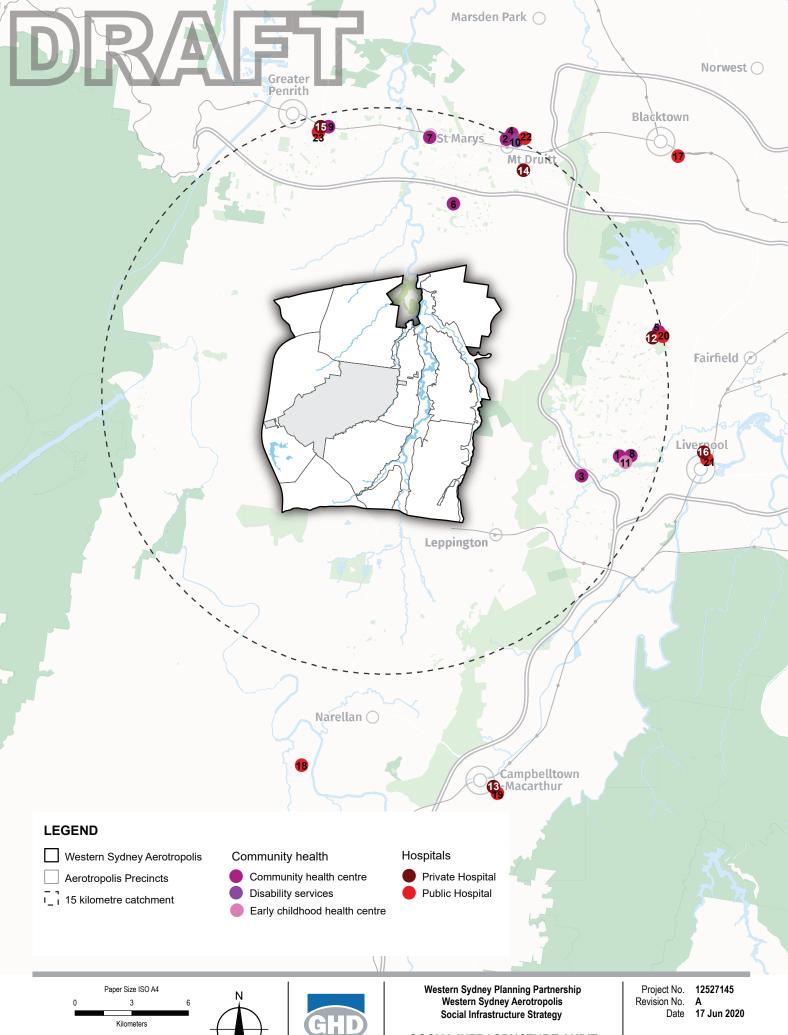
There are two public hospitals and three private hospitals located within a 15 kilometre catchment of the Aerotropolis which are outlined in Table 7-4. Additionally there are other key public hospitals for the LHDs located beyond the 15 kilometre catchment which play a vital role in servicing the populations in within the relevant local health districts, including:

- Liverpool Hospital
- Mount Druitt Hospital
- Blacktown Hospital
- Camden Hospital
- Campbelltown Hospital

Table 7-4 Hospitals located within 15km of the Aerotropolis

ID	Facility Name	Capacity (beds)	Description
Publ	ic hospitals		
20	Fairfield Hospital	200	The Fairfield Hospital is a district hospital located in Prairiewood, it provides general medical, general surgical, obstetric, paediatric, emergency, ambulatory care, and drug health services.
23	Nepean Hospital	520	Nepean Hospital is a teaching hospital of the University of Sydney for medical students and also provides nursing and allied health training for many other universities. Services include maternity, gynaecology, neonatal intensive care, emergency, diagnostics, paediatric, surgical, intensive care, coronary care, rehabilitation and mental health. Also on the Nepean Hospital campus are a Tresillian Family Care Centre, Menopause Service, Nepean Cancer Care Centre, Diabetes Service and the Wentworth Centre for Drug and Alcohol Medicine.
Priva	ate hospitals		
12	Braeside Hospital	72	Specialise in offering inpatient, Day Hospital and outpatient Rehabilitation services; inpatient, outpatient, Day Hospital and community Palliative Care services, Specialist Mental Health Services for Older People, inpatient and community services. Adult services for Rehabilitation and Palliative Care, over 65 for Specialist Mental Health Services for Older People.
14	Minchinbury Community Hospital	57	Private hospital providing a range of medical, surgical and rehabilitation services.
15	Nepean Private Hospital	109	Provides a full range of surgical and medical services including an orthopaedics, urology, ear, nose and throat, paediatrics, gastroenterology and endoscopy, general, bariatric, gynaecology, plastic and reconstructive surgeries as well as neurosurgery dental. With a dedicated women's health unit and a new Cardiac Cath Lab.

Figure 7-4 indicates the location of all health facilities within a 15 kilometre catchment of the Aerotropolis and key public hospitals within the relevant local health districts. A full audit of health facilities is provided in Appendix B.









SOCIAL INFRASRUCTURE AUDIT **HEALTH FACILITIES**

FIGURE 7-4

7.2.3 Emergency services

There are currently four police stations, three ambulance stations, seven fire and rescue stations, 15 rural fire services and one state of emergency services (SES) located within a 15 kilometre catchment of the Aerotropolis. Of these facilities only three rural fire service facilities are located within the Aerotropolis as outlined in Table 7-5.

Table 7-5 Existing emergency services within the Aerotropolis

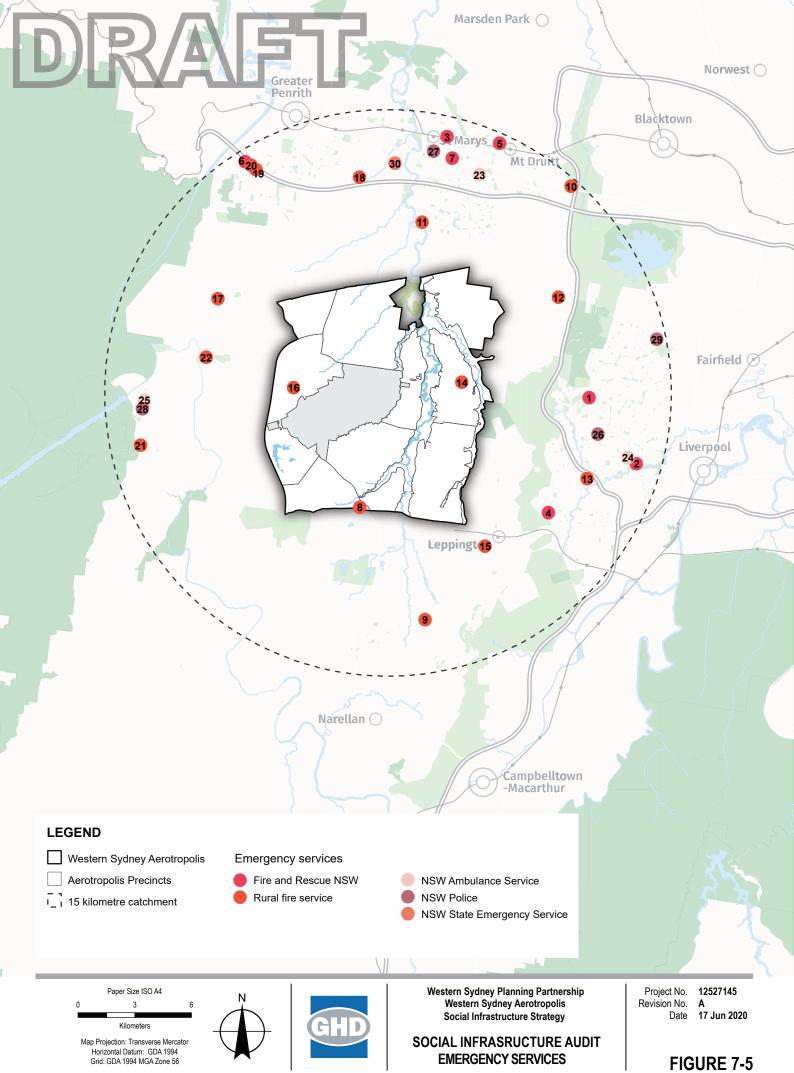
ID	Facility Name	Precinct
8	Bringelly RFB	Dwyer Road Precinct
14	Rural Fire Service Training Area	Kemps Creek Precinct
16	Luddenham RFB	Agribusiness Precinct

Table 7-6 outlines those police, ambulance and fire and rescue stations that are closest to the Aerotropolis.

Table 7-6 Existing emergency services within the Aerotropolis

ID	Facility Name	Proximity to Aerotropolis			
Fire ar	Fire and rescue				
1	Bonnyrigg Heights Fire Station	About 6km east of Kemps Creek Precinct			
4	Horningsea Park Fire Station	About 5km east of Rossmore Precinct			
7	St Marys Fire Station	About 7km north of Mamre Road Precinct			
Police					
26	Green Valley Police Station	About 7km east of Kemps Creek Precinct			
27	St Marys Police Station	About 7km north of Mamre Road Precinct			
28	Warragamba Police Station	About 7km west of Agribusiness Precinct			
Ambul	ance				
23	Colyton Ambulance Station	About 8km east of Rossmore Precinct			
24	Green Valley Ambulance Station	About 5km north of Mamre Road Precinct			
25	Warragamba Ambulance Station	About 7km west of Agribusiness Precinct			
SES					
30	Penrith SES	About 5km north of Northern Gateway Precinct			

Figure 7-5 indicates the location of all emergency services within a 15 kilometre catchment of the Aerotropolis and a full audit of health facilities is provided in Appendix B.



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7.2.4 Community facilities

Generally local government is responsible for the provision and management of community facilities including community/neighbourhood centres, senior citizens centres, youth centres, community halls and libraries however, the private sector does play a role. The Aerotropolis intersects two local government areas (LGAs) being Liverpool LGA and Penrith LGA. Other LGAs within a 15 kilometre catchment of the Aerotropolis include Blacktown, Camden, Campbelltown and Wollondilly.

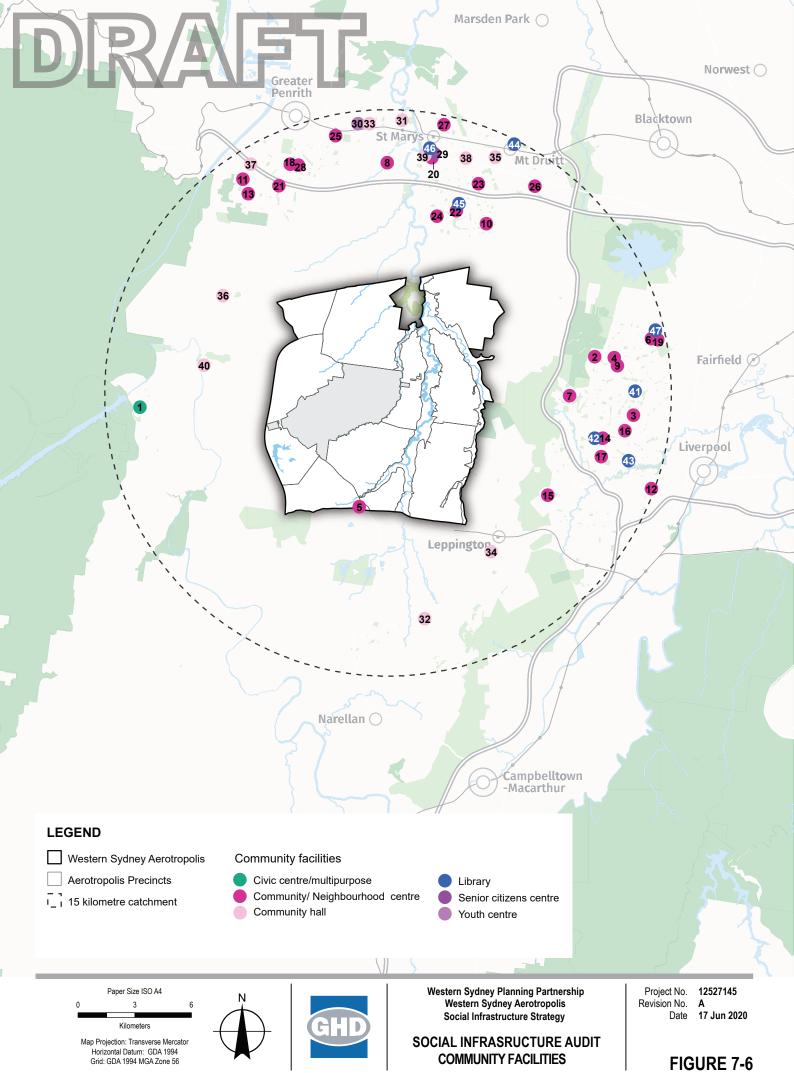
Community facilities play a key role in supporting disadvantaged priority groups in our community which traditionally experience barriers to accessing mainstream services and facilities. These groups include identified Aboriginal or Torres Strait Islanders, children, young people, women, people with disabilities, people from CALD backgrounds and older people. Community facilities also play a key role in breaking down social isolation, particularly for older people, people from CALD backgrounds, and women. Social isolation can be a major factor that impacts on the health and wellbeing of individuals and families (Liverpool City Council, 2018^a).

Currently there is only one community facility located within the Aerotropolis which is Bringelly community centre located in the Dwyer Road Precinct. Other key community facilities that are likely to be servicing the existing population within Aerotropolis are outlined in Table 7-7.

Table 7-7 Existing community facilities currently servicing Aerotropolis

ID	Facility Name	Proximity to Aerotropolis			
Comm	Community/neighbourhood centre				
5	Bringelly Community Centre	Located in Dwyer Road Precinct			
7	Cecil Hills Community Centre	About 4km east of Kemps Creek Precinct			
10	Erskine Park Community Centre	About 2km north of Mamre Road Precinct			
13	Glenmore Park Youth & Community Centre	About 7km north west of Luddenham Precinct			
21	Surveyors Creek Community Centre	About 7km north west of Luddenham Precinct			
24	Cook Parade Neighbourhood Centre	About 2km north of Mamre Road Precinct			
Senior	Senior citizens centre				
29	St Marys Senior Citizens centre	About 7km north west of Mamre Road Precinct			
Youth	centre				
30	Werrington youth centre	About 8km north of Northern Gateway Precinct			
Comm	unity hall				
34	Leppington Progress Hall	About 1.5km south east of Rossmore Precinct			
36	Mulgoa Hall	About 2km west of Luddenham Precinct			
40	Wallacia Progress Association	About 3km west of Agribusiness Precinct			
38	Ridge Park Hall	About 7km north of Mamre Road Precinct			
Library	1				
42	Green Valley Library	About 5km east of Kemps Creek Precinct			
45	St Clair Branch Public Library	About 3km north of Mamre Road Precinct			

Figure 7-6 indicates the location of all community facilities within a 15 kilometre catchment of the Aerotropolis and a full audit of community facilities is provided in Appendix B.



7.2.5 Child care facilities

Child care including long day care centres and pre-schools is provided by both local government and private sectors. The *Occupancy and Performance Appraisal: Early Childhood Education and Care Sector* (Urban economics, 2018) found that centres are increasingly integrated within mixed use developments with movements to also integrate with other forms of development; commercial office buildings, not only in CBDs but also in business parks; and as early education "hubs" with other facilities such as swim schools. Childcare facilities close to a parents place of work, along with other 'lifestyle' facilities including end-of-trip facilities and co-working spaces are increasing in demand by workers and business across CBD's and employment hubs.

The Australian Bureau of Statistics (ABS) estimated that the number of children who use long day care services increased by some 106,000 between 2011 to 2017, representing 15% of all children aged 0-12 years nationally. Significantly, 33.7% of children aged 0-4 years usually attended a long day care centre in NSW in 2017, indicative of growing demand and participation in long day care by young children.

Across NSW there was 508,725 children aged 0-4 and 164,578 approved long day care places in 2017, which is equivalent to 3.09 children per child care place. NSW had the highest occupancy rate of child care places nationally at 80.7 per cent with over 50 per cent of the centres participating in the survey indicating waiting lists for children aged 0-3 years (urabn economics, 2018). Interestingly, Western Parkland City had higher proportions of people aged 15 years and over providing unpaid child care to their own child/ children (21.9 per cent) and people aged 15 years and over providing unpaid child care to other child/ children (6.8 per cent) compared to Greater Sydney (20.3 per cent and 6.4 per cent respectively) (ABS, 2016).

Out of School Hours Care (OSHC) can be provided by parents and citizens run services incorporated into schools, not-for-profit operators incorporated into schools or the private sector. The NSW Department of Education does not provide funding to public schools to provide OSHC services, the provision of OSHC services has to be supported by the school community and the school Director (NSW Department of Education, 2019). OSHC services offer an alternative to child care providing the opportunity for primary school students to engage in further development, play and leisure opportunities outside of school.

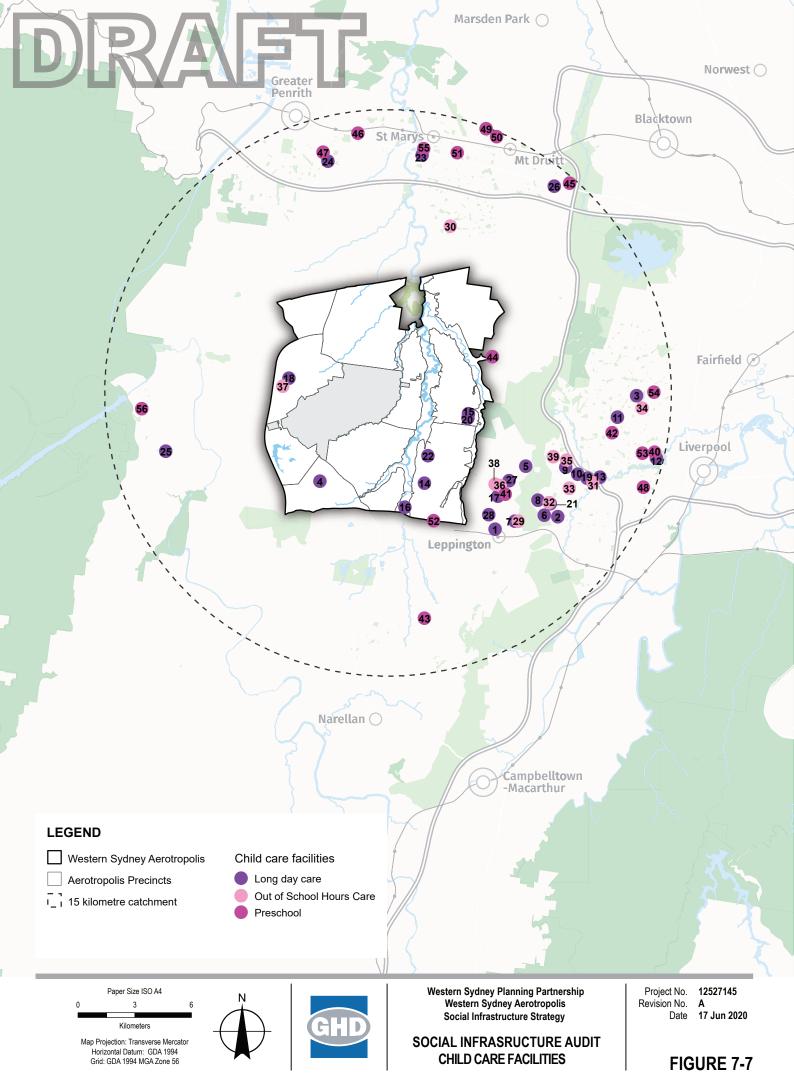
A review of supply and demand in for OSHC services in NSW (Deloitte, 2017) found after school care providers in key metropolitan areas (including Liverpool) reported having greater than 85% utilisation. In the majority of these areas, the proportion of families with working parents and carers is above the NSW average and notably, where the rate of population growth is projected to be above the NSW average. The Western Parkland City and Aerotropolis currently has a higher proportion of families (80.9 % and 77.4% respectively) compared to NSW (73.6%) and are projected to have the highest population growth over the next few years with the Aerotropolis being a major driver for that growth.

Currently there are a number of existing child care facilities within the Aerotropolis including one pre-school, seven long day care centres and one out of school hours care (OOSHC) outlined in Table 7-8. Additionally, there are 16 pre-schools, 21 long day care centres and 10 OOSHC with a 15 kilometre catchment of the Aerotropolis.

Table 7-8 Existing childcare facilities within Aerotropolis

ID	Facility Name	Service	Capacity	
Preschool				
48	Do Re Mi Pre-School	6 weeks - pre-school age	66	
Long da	y care			
5	Bringelly Child Care Centre	6 weeks - pre-school age	39	
15	Jilly's Early Childhood Developmental and Educational Centre Pty Ltd	6 weeks - primary school age	60	
16	Kemps Creek Childrens Cottage	6 weeks - pre-school age	76	
17	Kiddo Care Fdc Pty Ltd	6 weeks - pre-school age	60	
19	Luddenham Child Care Centre	6 weeks - 5 years	39	
21	MindChamps Early Learning @ Kemps Creek	6 weeks - pre-school age	76	
24	MNJ Early Learning Pty Ltd	Birth to 6 years	39	
		Total	389	
OOSHC				
41	Schoolies at Luddenham	Primary school age	45	

Figure 7-7 indicates the location of all child care facilities within a 15 kilometre catchment of the Aerotropolis and a full audit of child care facilities is provided in Appendix B.



7.2.6 Aged care facilities

The aged care system in Australia comprises a spectrum of services ranging from basic supports to enable people to remain independent at home, through to full-time care in a residential aged care facility (also called 'nursing home') (AIHW, 2019). Although the age of 65 is often considered a threshold to be an 'older person', nearly 19,000 people under the age of 65 used an aged care service in 2017-18 in Australia, of which around 34 per cent were in permanent residential aged care. For planning and reporting purposes, the concept of 'older' is extended to Aboriginal and Torres Strait Islander residents aged 50–64, reflecting their generally higher care needs at younger ages relative to other Australians (AIHW, 2019).

Through the use of a 'target provision ratio' (a policy that sets the overall number of funded places per 1,000 target population), the aged care sector is set to expand to match the growing older Australian population. This means providing 125 places or packages (in residential care, home care and restorative care) per 1,000 people aged 70 or older in 2021–22 (AIHW, 2019). For Western Parkland City this would imply there should be at least

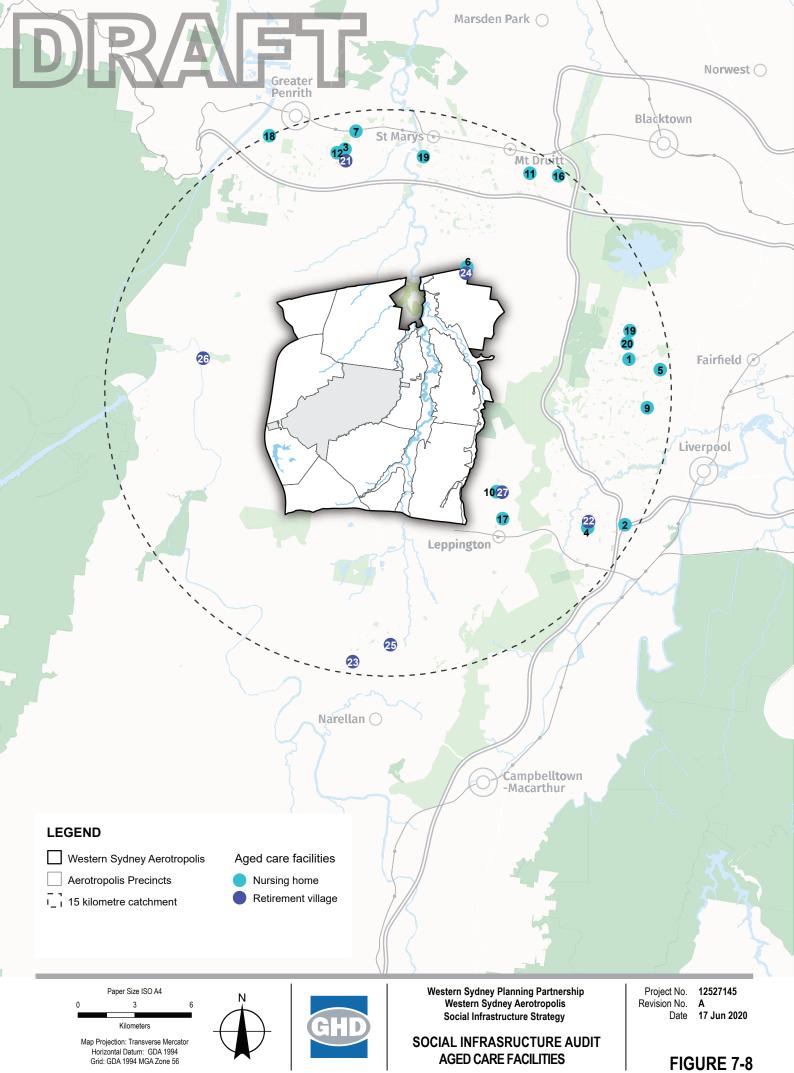
Aged care services in Australia are funded and delivered in regions called Aged Care Planning Regions (ACPRs). The Aerotropolis intersects two ACPRs being Nepean and South Western Sydney. In 2018-2019 there were 8,375 people in the Nepean and Western Sydney ACPRs in residential care with the highest proportion being aged 85-89 (24 per cent). Of those people in residential aged care 0.6 per cent identified as Aboriginal or Torres Strait Islander and 21.7 per cent spoke another language (GEN, 2020).

Currently there are only two aged care facilities within the Aerotropolis located in the Mamre Road Precinct, which are Catholic Healthcare Emmaus Nursing Home and Retirement Village. Other aged care facilities located closest to the Aerotropolis include two other nursing homes and two other retirement villages outlined in Table 7-9. Additionally, there are 15 nursing homes and four retirement villages within a 15 kilometre catchment of the Aerotropolis.

Table 7-9 Existing aged care facilities within close proximity to Aerotropolis

ID	Facility Name	Service	Capacity
Nursir	ng home		
9	Catholic Healthcare Emmaus	Dementia specific care, Short-term respite care	64 beds
14	Indochinese Aged Care Services	Residential Aged Care, Palliative Care, Non-dedicated respite, secure dementia beds	88 beds
20	Our Lady Of Consolation Nursing Home	Residential aged care, non-dedicated respite, secure dementia beds, booked respite beds, palliative care	303 beds
		Total	425 beds
Retire	ment village		
31	Emmaus Retirement Village	Independent Living	23 units
33	Regal Oaks Village	Independent Living	52 units
34	Tobruk Village	Independent Living	40 units
		Total	115 units

Figure 7-8 indicates the location of all aged care facilities within a 15 kilometre catchment of the Aerotropolis and a full audit of aged care facilities is provided in Appendix B.



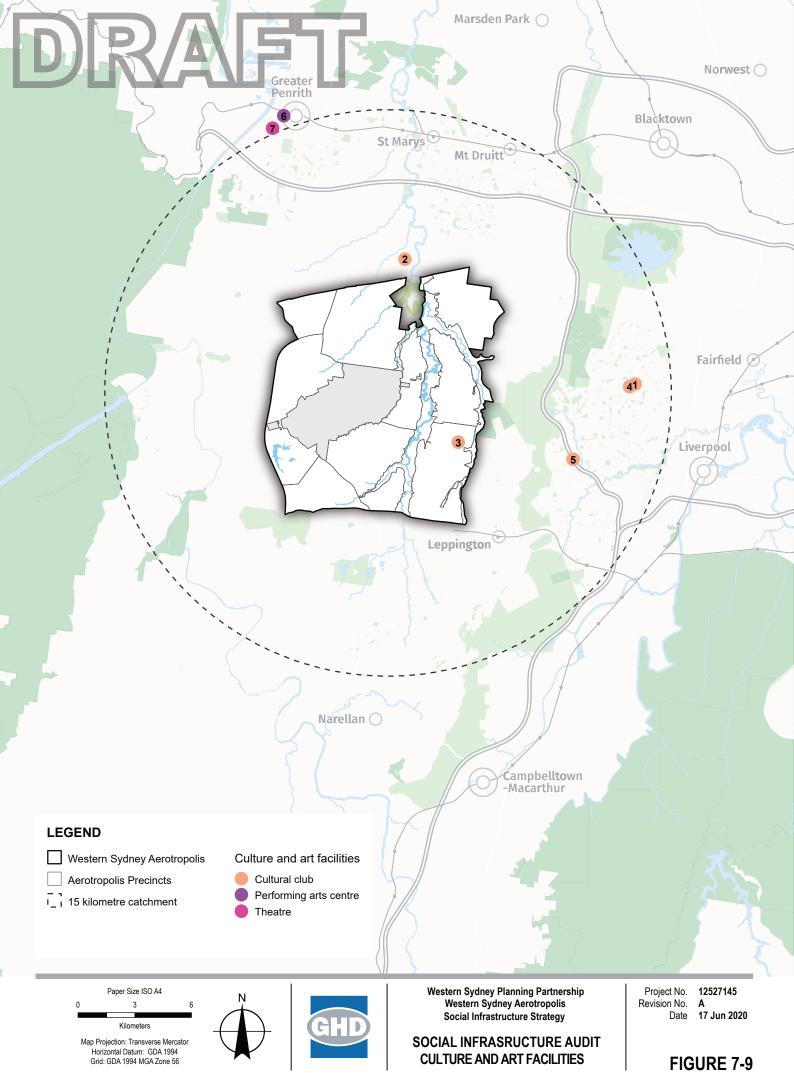
7.2.1 Cultural and art facilities

Local governments have a particularly important role in facilitating opportunities for their local communities to participate in arts and cultural activities as a means to contributing to community cohesion, social well-being and economic growth in the area (Liverpool City Council, 2017^b). Culture and arts facilities including performing arts centres, museums theatres and galleries is provided and managed by both local governments and the private sector. The Aerotropolis intersects two local government areas (LGAs) being Liverpool LGA and Penrith LGA. Other LGAs within a 15 kilometre catchment of the Aerotropolis include Blacktown, Camden, Campbelltown and Wollondilly.

There are no local and district public arts facilities within a 15 kilometre catchment of the Aerotropolis. However, there are a number of cultural clubs including the Czechoslovakian Country Club located in the Rossmore Precinct. These cultural clubs are generally privately owned and managed and are associated with a particular cultural group. However, they usually host a range of cultural events and have a range of facilities that are open to the wider public including restaurants, sports fields and halls that are available for hire. These cultural clubs enable people of particular cultures to feel 'at home' as well as provide an opportunity for the wider community to experience and learn about other cultures within their local area.

The closest arts facilities to the Aerotropolis are Joan Sutherland Performing Arts Centre and EVAN Theatre which are both located just beyond a 15 kilometre catchment in Penrith. There are also a number of regional cultural and arts facilities located within the Western Parkland City which are discussed further in section 7.3.

Figure 7-9 indicates the location of all culture and arts facilities within a 15 kilometre catchment of the Aerotropolis and a full audit of culture and arts facilities is provided in Appendix B.



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7.2.1 Cemeteries and place of worship

Cemeteries are critical community infrastructure and provide essential services to local and regional communities which are owned and managed by a mix of Crown, local government and private cemetery sectors. They are vital places for remembrance and reflection, a rich source of cultural and environmental heritage and provide valuable open spaces (CCNSW, 2017). The cultural diversity of Western Sydney means there are a wide range of needs and expectations for burial and cremation services with many religious and cultural communities sustaining a strong orientation toward burial of mortal remains. As discussed in section 6.1.3 Western Parkland City is one of the most culturally diverse areas within Greater Sydney with a high proportion of people who speak a language other than English at home (37.0%).

The number of persons who die in metropolitan Sydney each year is projected to increase from around 24,330 in 2011 to 37,700 per annum by 2041. The Sydney cremation rate was 65.4 per cent in 2015-16 and the rate of second or subsequent interment is 27.7% of all burials, suggesting a 'current' grave occupancy rate of 1.38. The capacity analysis finds that if there is no change to existing cremation and grave occupancy rates, cemetery capacity in metropolitan Sydney would be exhausted by 2051 if not before, with available graves in the Eastern City regions projected to be exhausted by 2021, inevitably requiring Western Sydney to support the growing burial needs of the Greater Sydney area (CCNSW, 2017).

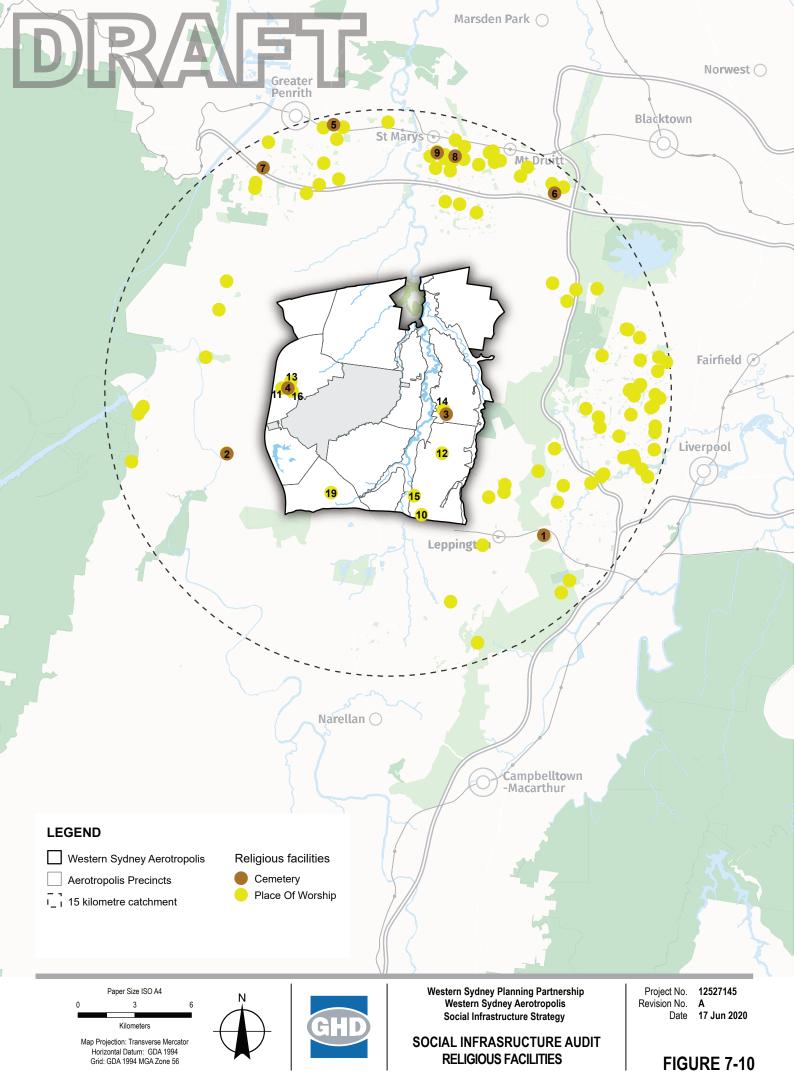
There are nine cemeteries within a 15 kilometre catchment of the Aerotropolis, seven of which are operational including two cemeteries located within the Aerotropolis being Kemps Creek Cemetery and Crematorium and Luddenham Uniting Church Cemetery. Additionally, there are eight places of worship located within the Aerotropolis and a further 93 located within a 15 kilometre catchment. Cemeteries and places of worship located within the Aerotropolis are outlined in Table 7-10.

Table 7-10 Existing cemeteries and places of worship within the Aerotropolis

ID	Facility Name	Precinct
Cemet	eries	
4	Kemps Creek Cemetery and Crematorium	Kemps Creek Precinct
5	Luddenham Uniting Church Cemetery	Agribusiness Precinct
Places	of worship	
12	Crossroads Baptist Church	Rossmore Precinct
13	Holy Family Church	Agribusiness Precinct
14	Lin Yim Buddhist Institute Sydney Inc.	Rossmore Precinct
15	Luddenham Uniting Church	Agribusiness Precinct
16	Our Lady Queen Of Peace	Kemps Creek Precinct
17	Rossmore Khmer Buddist Temple	Rossmore Precinct
18	St. James Anglican Church	Agribusiness Precinct
19	The Vietnamese Pilgimage Centre	Dwyer Road Precinct

Places of worship are owned and managed by the private sector and generally not included in provisioning of critical social infrastructure however, it is recognised that many community and religious groups play an important role in providing social support for the community. Therefore places of worship, particularly existing ones, are an important consideration for the planning of the Aerotropolis.

Figure 7-10 indicates the location of all religious facilities within a 15 kilometre catchment of the Aerotropolis and a full audit of religious facilities is provided in Appendix B.



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7.2.1 Sport and recreation facilities

Local governments have a particularly important role in facilitating opportunities for their local communities to participate in sport and recreational activities as a means to contributing to community cohesion, social health and well-being and economic growth. Sport and recreation facilities including multi-purpose sports centres, aquatic centres, leisure centres, sporting clubs, showgrounds, sports courts and playing fields is provided and managed by both local governments and the private sector. The Aerotropolis intersects two local government areas (LGAs) being Liverpool LGA and Penrith LGA. Other LGAs within a 15 kilometre catchment of the Aerotropolis including Blacktown, Camden, Campbelltown and Wollondilly falling.

Opportunities for recreational activities and sport play a vital role in the advancement of the social and economic life of a city. Creating welcoming and attractive spaces that are conducive to a range of recreational activities will assist in promoting physical activity and other health-affirming behaviours, improving the overall health and well-being of the future residents in the Aerotropolis.

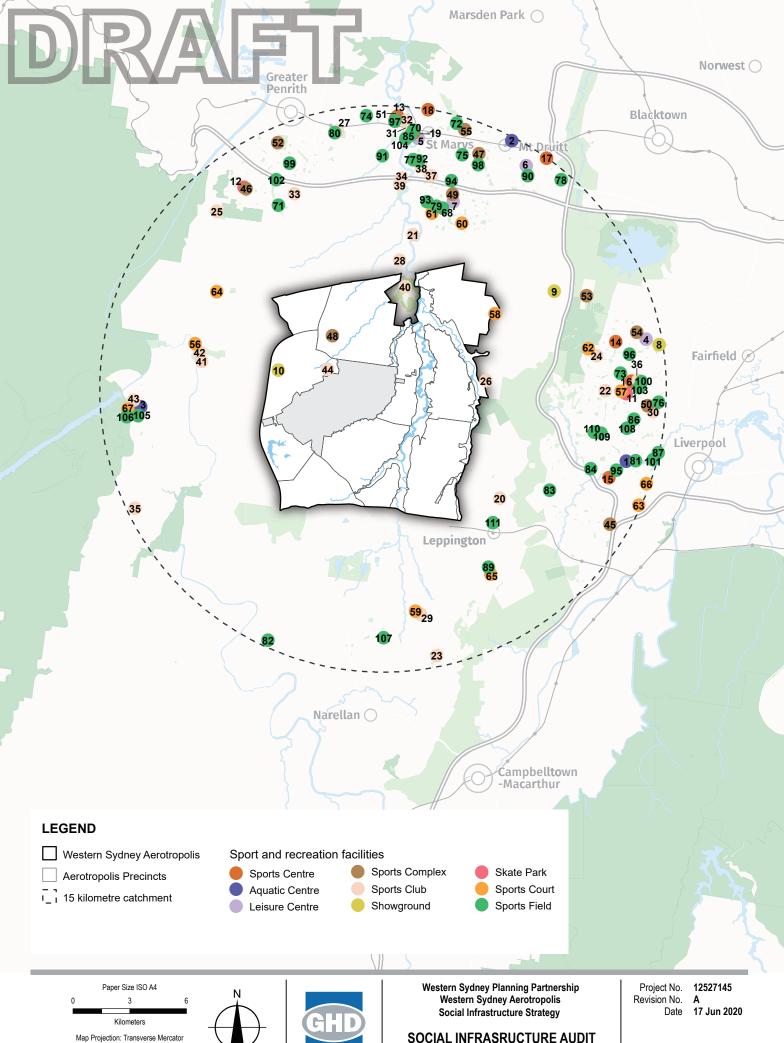
There are currently three local and district sport and recreational facilities located within the Aerotropolis as outlined in Table 7-11.

Table 7-11 Existing sport and recreation facilities within the Aerotropolis

ID	Facility Name	Precinct			
Sports	Sports complex				
48	Luddenham Raceway	Northern Gateway Precinct			
Sports club					
44	Workers Hubertus Country Club	Agribusiness Precinct			
Showgrounds					
10	Luddenham showgrounds	Agribusiness Precinct			

Additionally, there are three aquatic centres, three leisure centres, two showgrounds, two skate parks, seven sports centres, 10 sports complexes, 24 sports clubs, 12 sports courts and 50 sports fields located within a 15 kilometre catchment of the Aerotropolis. There are also a number of regional sport and recreation facilities located within the Western Parkland City which are discussed further in section 7.3.

Figure 7-11 indicates the location of all sport and recreation facilities within a 15 kilometre catchment of the Aerotropolis and a full audit of sport and recreation facilities is provided in Appendix B.



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Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 56

SOCIAL INFRASRUCTURE AUDIT SPORT AND RECREATION FACILITIES

7.2.1 Parks and open space

Parks and open space help to mitigate the impact of climate change, play a vital role in reducing urban storm water runoff, and provide a broad range of environmental and ecological benefits (Liverpool City Council, 2018^b). Generally local government is responsible for the provision and management of local, district and regional public parks and open spaces. Creating welcoming and attractive spaces that contribute to greening the Aerotropolis through improved landscaping and increased tree canopy will continue to strengthen the liveability of the future community.

Where possible, every household in urban and suburban areas should be within close walking distance (400m) to at least one parcel of high quality open space. Higher order passive spaces should be central to the communities they are intended to serve (Liverpool City Council, 2018^b).

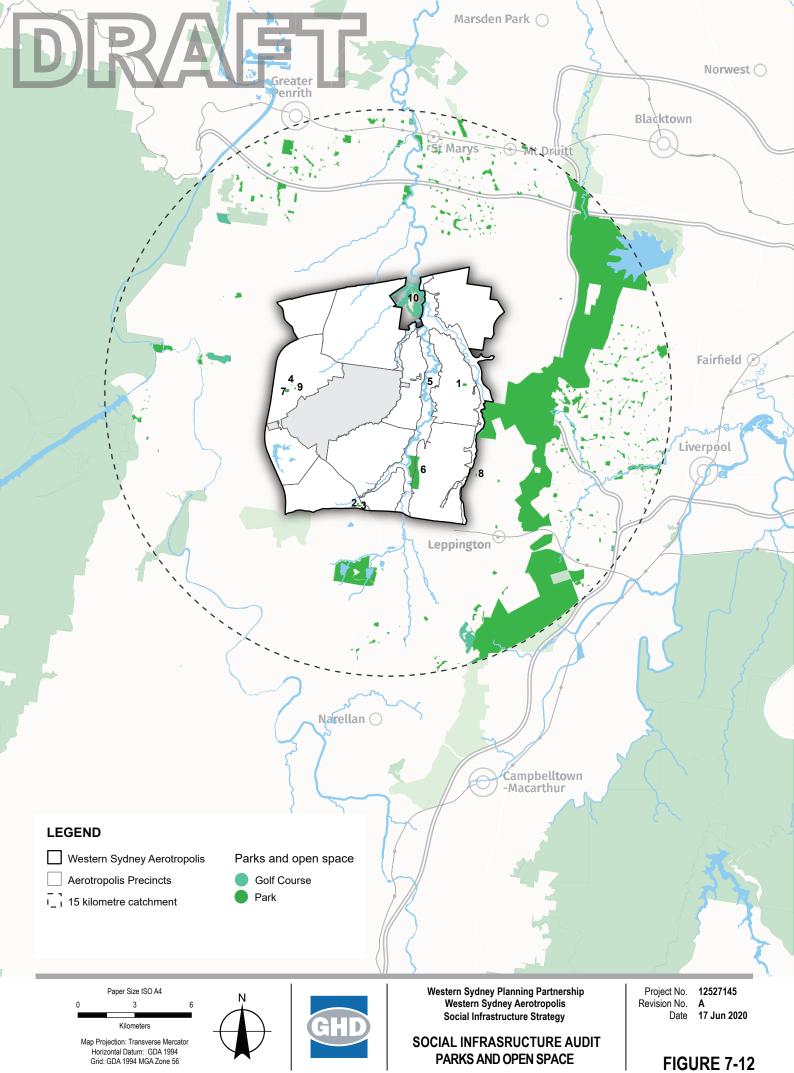
There are currently 12 parks and open spaces located within the Aerotropolis as outline in Table 7-12. There are also a number of regional parks and open spaces located within the Western Parkland City which are discussed further in section 7.3.

Table 7-12 Existing parks and open spaces within the Aerotropolis

ID	Facility Name	Type*	Size (sqm)	Precinct
1	Bill Anderson Park	26,449.2	Neighbourhood	Kemps Creek Precinct
2	Bringelly Park	13,334.2	Local Community	Agribusiness Precinct
3	Bringelly Recreation Reserve	14,174.2	Neighbourhood	Agribusiness Precinct
4	Freeburn Park	3,928.7	Neighbourhood	Agribusiness Precinct
5	Overett Park	15,453.9	Local Community	Wianamatta-South Creek Precinct
6	Rossmore Grange	7,95,956	Local Community	Wianamatta-South Creek Precinct
7	Sales Park	33,132.3	Neighbourhood	Agribusiness Precinct
8	Starr Park	12,152.6	Local Community	Wianamatta-South Creek Precinct
9	Willmington Reserve	8,029.9	Neighbourhood	Agribusiness Precinct

^{*}Park types have been determined according to the definitions of open space outlined in the Liverpool City Council Recreation, Open Space and Sports Strategy (Liverpool City Council, 2018b).

Figure 7-12 indicates the location of all parks and open space within a 15 kilometre catchment of the Aerotropolis and a full audit of parks and open space is provided in Appendix B.



7.3 Regional infrastructure

Regional facilities by nature service a larger section of the population (50,000 to 150,000 depending on facility type), as discussed in section 1.6. These facilities are often provisioned and managed through shared resources including state government agencies, local governments and the private sector. It is important for the planning and development of the Aerotropolis to understand the wider regional context of social infrastructure provision in order to identify any gaps or areas of opportunity.

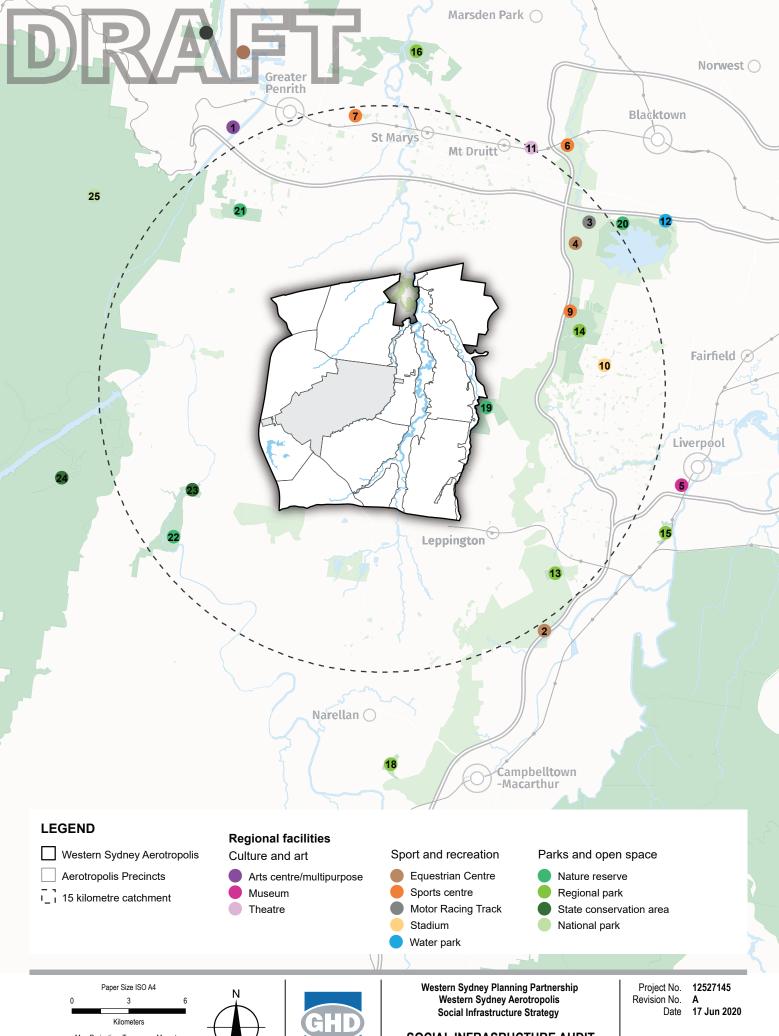
There are a number of regional facilities in the surrounding strategic and metropolitan centres within the Western Parkland City that cater to the wider Greater Sydney population and in some instances international events. Table 7-13 provides a summary of the regional facilities surrounding the Aerotropolis. Figure 7-13 indicates the location of all regional facilities within the Western Parkland City and a full audit of regional facilities is provided in Appendix B.

Table 7-13 Regional facilities

ID	Facility Name	Proximity to the Aerotropolis	Description
Regio	onal culture and arts f	acilities	
1	Penrith Regional Gallery	About 8km north west of North Luddenham Precinct	The Gallery site was gifted to the people of Penrith in 1980 by the family of artists Margo and Gerald Lewers. As a Gallery which welcomes 100,000 visitors a year it provides exhibitions and events, education programs, gardens and cafe.
5	Liverpool Regional Museum	About 7km north east of Mamre Road Precinct	The museum is heritage listed and presents and collects items reflecting environmental, heritage and social themes within south-west Sydney. Whilst preserving and promoting Liverpool's cultural heritage, history and stories through collections, exhibitions and public programs.
11	Sydney Coliseum Theatre	About 7km north east of Mamre Road Precinct	West HQ is the leading Entertainment, Fitness, Lifestyle and Accommodation destination in the heart of Western Sydney. West HQ currently welcomes 4 million visitors annually and has around 60,000 members.
Regio	onal sports and recrea	ation facilities	
2	Scenic NSW Horse Riding and Equine Centre	About 8km south east of Rossmore Precinct	Scenic NSW Horse Riding and Equine Centre is a large horse riding facility that offers a range of horse riding experiences for beginners through to advanced riders, including the facilitation of school trips.
4	Sydney International Equestrian Centre	About 7km north east of Mamre Road Precinct	The Sydney International Equestrian Centre is a world-class event venue set on 96 hectares of rural parkland. Purpose-built for the Sydney 2000 Olympic and Paralympic Games, the Sydney International Equestrian Centre continues to offer some of the finest equestrian facilities in the world. The venue is capable of delivering international, national, state and club equestrian events, community events, festivals, corporate and social events, sporting events and much more.
3	Sydney Motor Sport Park (SMP) Raceway	About 7km north east of Mamre Road Precinct	SMSP is home to the Australian Racing Drivers' Club (ARDC), a non-profit motorsport car club established in 1952 with a pedigree in cars and bikes that includes events such as the Bathurst 1000 and the Castrol 6-Hour. The ARDC is based at and runs Sydney Motorsport Park with over 3000 memberships.

ID	Facility Name	Proximity to the Aerotropolis	Description
6	Blacktown International Sportspark	About 8km north east of Mamre Road Precinct	The Blacktown International Sportspark Sydney hosts the International Centre of Training Excellence (ICTE) with facilities including:
			 Motion capture and gait analysis as part of a 60m indoor running track and Biomechanics suite Outdoor turf and synthetic pitches Athlete dining areas and facilities Sports science facilities including a clinical physiology laboratory and environmental chamber Auditorium and breakout spaces for conferencing
			 and seminars Strength and Conditioning facility equipped for specialised training and strength diagnostics Hydrotherapy area equipped with plunge pools
7	Penrith Valley Regional Sports Centre (PVRSC)	About 7km north east of Mamre Road Precinct	The Penrith Valley Regional Sports Centre (formerly known as Penrith Sports Stadium) is a multipurpose venue designed to host an extensive range of events. The Centre has the ability to host local, national and international standard events.
8	Sydney International Regatta Centre	About 7km north of Northern Gateway Precinct	An event venue for either 10 or 30,000 people, the Sydney International Regatta Centre is one of the region's premier outdoor sport and entertainment venues for both on and off the water.
9	Sydney International Shooting Centre	About 5km east of Mamre Road Precinct	The Sydney International Shooting Centre offers superior event facilities set on 80 hectares of semirural bushland in the heart of Western Sydney. Purpose-built for the Sydney 2000 Olympic and Paralympic Games, the Sydney International Shooting Centre is one of the best shooting venues in the world and is capable of delivering international, national, state or club shooting events. With multi-purpose facilities the venue also lends itself to corporate and social events, conference and trade shows, community and sporting events.
10	Sydney United Sports Centre	About 6km east of the Kemps Creek Precinct	Home of the Sydney United Football club in the National Premier League (NPL); which is the highest level state competition in New South Wales and second only to the National A-League competition. The stadium is available for hire.
12	Raging Waters Sydney	About 9km north east of Mamre Road Precinct	Raging Waters Sydney is Sydney's biggest waterpark and a key tourist attraction with over 30 rides, slides and attractions.
Regio	nal parks and open s	space	
13	Edmondson Regional Park	About 7km south east of Rossmore Precinct	48 hectares of open space, bushland, walking trails, playgrounds and outdoor fitness equipment.
14	Western Sydney Regional Parklands	About 5km east of Mamre Road Precinct	5,280 hectares and stretching over 27km with bushlands, playgrounds, amphitheatre, urban farms and more than 60 kilometres of walking tracks.
15	Leacock Regional Park	About 9km east of Rossmore Precinct	39 hectares of bushland and walking trails, this regional park is part of the Cumberland Plain woodland. It is a dog-friendly park.
16	Wianamatta Regional Park	About 9km north of Northern Gateway Precinct	927 hectares of the former Australian Defence Industries site, with bushland, walking tracks and picnic facilities.
17	Yellomundee Regional Park	About 10km north west of North Luddenham Precinct	441 hectares of protected regional park, with tracks and trails for walking, mountain biking and horse riding.
18	William Howe Regional Park	About 11km south of Aerotropolis Core Precinct	43 hectares of bushland and walking tracks with picnic facilities.

ID	Facility Name	Proximity to the Aerotropolis	Description
19	Kemps Creek Nature Reserve	Adjacent to Wianamatta-South Creek Precinct east of Kemps Creek Precinct	198 hectares of nature reserve which is part of the Western Sydney Parklands open space corridor. Over 85 per cent of the vegetation in the Nature Reserve has been identified as a component of either an endangered or critically endangered ecological community
20	Prospect Nature Reserve	About 7km north east of Mamre Road Precinct	326 hectares of a Special Water catchment area with sections closed to the public. There are sections open to the public with picnic facilities.
21	Mulgoa Nature Reserve	About 5km north west of North Luddenham Precinct	213 hectares of bushland that protects an important remnant sections of the Cumberland Plain vegetation
22	Gulguer Nature Reserve	About 6km south west of Dwyer Road Precinct	357 hectares of bushland and walking trails on the Nepean River.
23	Bents Basin State Conservation Area	About 3km west of Dwyer Road Precinct	3 hectares of protected nature reserve and state park. It includes a camp ground managed by NSW National Parks.
24	Burragorang State Conservation Area	About 7km west of Agribusiness Precinct	17,735 hectares of bushland and water catchment area. It has walking tails, scenic lookouts and picnic facilities.
24	Blue Mountains National Park	Abouth 7km west of North Luddenham Precinct	804 hectares of World Heritage-listed bushland. The park is home to the famous Three Sisters in Katoomba and offers scenic lookouts, waterfalls, walking trails, and camp grounds.



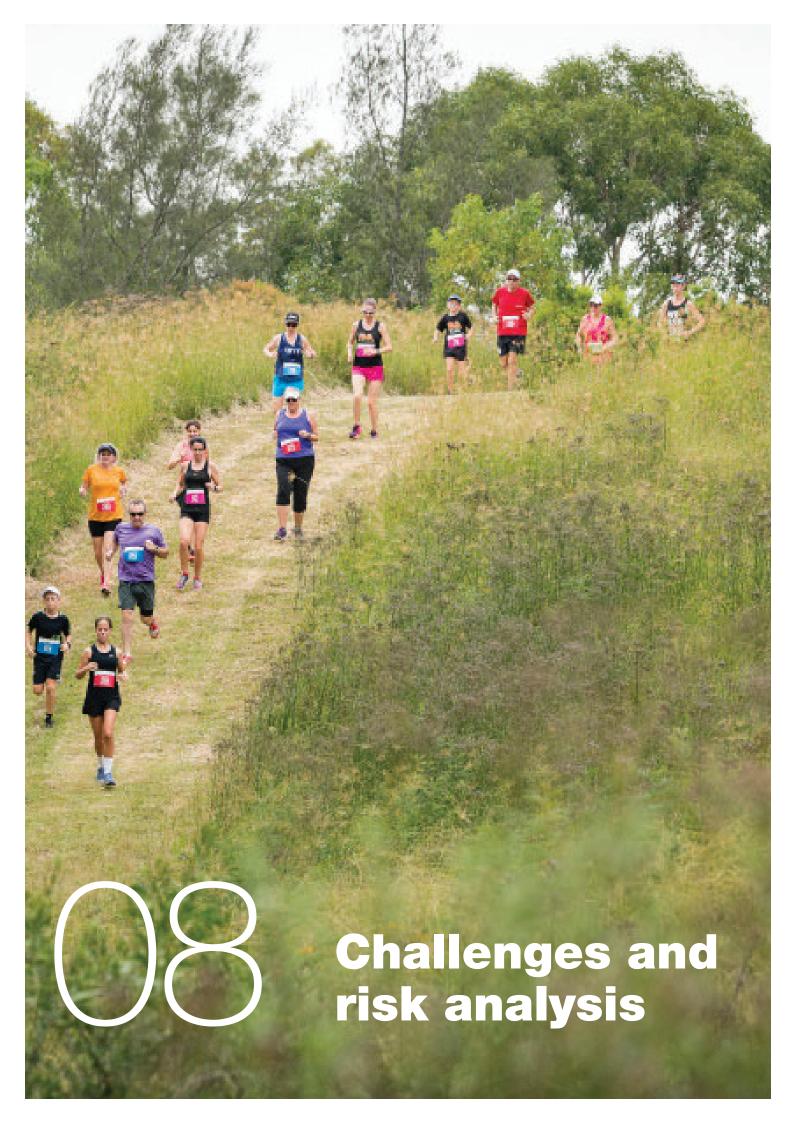






SOCIAL INFRASRUCTURE AUDIT REGIONAL FACILITIES

FIGURE 7-13



Western Sydney overall is facing a number of macro and micro challenges across social, cultural, environmental and economic areas that present a number of risks which will be important to consider in the planning and development of the Aerotropolis.

Table 8-1 outlines some of the key challenges and risks identified throughout the report that will be faced with the development of the Aerotropolis. These challenges and risks have been aligned with the *Liveability Framework for Sydney* (GSC and DPIE, 2017), discussed in section 9, and will be explored further in the Social Infrastructure Needs Assessment report.

Table 8-1 Overview of challenges and risks to liveability outcomes

Liveability outcome	Challenge	Risk	Area for further investigation/ consultation
Sense of belonging and local identity People in Sydney have a sense of belonging and local identity. This creates great places that are socially inclusive to promote respect and feelings of belonging.	Rapid population growth: Western Sydney is growing faster than the rest of Greater Sydney with the highest amount of population growth highly influenced by internal migration (See section 6.1). This growth is occurring in places with the fewest social connectors such as new development areas that were previously rural, industrial or agricultural (Cred Consulting, 2017). The Aerotropolis will drive a large proportion of population growth in Western Sydney with the largest increases in this region expected in Liverpool, Camden and later in the forecast period, Wollondilly as the Aerotropolis evolves from a rural to an urban setting.	Demographic shifts that will change the characteristics of the area, and may impact existing residents sense of place and identity	 Review population projections for precincts Review of precinct plans to understand areas of high density residential Consultation with Greater Sydney Commission Consultation with local governments
	Increasing cultural diversity and intolerance: As discussed in sections 6.1.3 and 6.1.4, Western Sydney is one of the most culturally diverse regions in all of Australia with the largest Aboriginal population and a high proportion of the population that speak a non-English language at home. Increased density can increase the likelihood of community tension with cultural and language differences potentially exacerbating these conflicts (Edgar Lu, Christina Ho and Hazel Easthope, 2017). The recent Challenging Racism Project: 2015-16 National Survey (Blair, K., Dunn, K. M., Kamp, A., & Alam, O., 2017) a significant proportion of the respondents indicated they had experienced discrimination with the highest settings of occurrence being public transport/on street, the workplace, educational institutions and at shops/restaurants. The survey also found that Aboriginal and Torres Strait Islander and those respondents who spoke a language other than English were more likely to experience discrimination. Additionally, the ABS General Social Survey	 Increased community tensions and intolerance Diminished sense of identity and belonging for culturally diverse groups Diminished feelings of safety for individuals, impacting their overall health and wellbeing Diminished capacity for civic engagement, cultural cohesion and economic prosperity 	 Review population projections for precincts Consultation with Greater Sydney Commission Consultation with local governments

Liveability outcome	Challenge	Risk	Area for further investigation/ consultation
	Western Parkland City indicated they had experienced discrimination or had been treated unfairly by others in the past 12 months, compared to 19.4 people out of 100 in Greater Sydney. The development of the Aerotropolis will need to consider and balance the cultural sensitivities and needs of both the existing and future populations to ensure it fosters harmonious relationships and a sense of belonging.		
Connected communities Communities in Sydney are well connected. This supports walking, wheeling, cycling and public transport movement between destinations	Access to public and active transport networks: The Western Sydney District has the poorest options for transport, with the highest use of private cars and the highest commuter costs in Greater Sydney (Cred Consulting, 2017). The average Walk Score across the Strategic and Local Centres in the Western City District is 49, making this district the least walkable district in Greater Sydney, which is reflected in the existing Aerotropolis community (see sections 3.3.2 and 7.1). Appropriate staging of critical infrastructure such as public and active transport connections will be essential in ensuring social equity for residents and workers in the Aerotropolis as it develops.	A lack of active and public transports connections that will isolate vulnerable groups in the community such as the elderly, the young and those who experience a disability.	 Review of staging plans for precinct development Consultation with urban design team and transport planners
Urban Design Excellence Great places with urban design excellence. This delivers high quality design that supports community safety, health and wellbeing, and enhances community assets and character	Place activation: The Western Parkland City has a vision as a 'next generation city' with established 18/7 precinct including the Aerotropolis (see section 1.3). It will be essential for the Aerotropolis to ensure its precincts have a unique character so that they become a destination in and of themselves. The appropriate provision of social and cultural infrastructure, as well as services, amenities and job opportunities will assist the Aerotropolis in becoming activated 18 hours a day, 7 days a week, making it a desirable place for people to live, work and visit.	In-active precincts outside of usual working hours (i.e. 9am-5pm)	 Review of staging plans for precinct development Consultation with urban design team Review of night time economy literature

Liveability outcome Challenge Risk Area for further investigation/ consultation **Supportive social** Health inequality: The Western Sydney Regional Organisation of · Diminished individual · Consultation with the infrastructure Councils identified that Western Sydney has almost 10% fewer hospital health and wellbeing **NSW** Department of Communities in Sydney beds per 100,000 residents than all the other parts of Sydney combined, Health Social inequity have excellent social and fewer health staff proportionally. Additionaly, there is a higher Social Infrastructure infrastructure. This demand, and higher rates of admissions in Western Sydney (Cred Needs Assessment promotes an integrated Consulting, 2017). The ABS General Social Survey (2014) found 2.9 out approach to social of 100 people aged over 18 in the Western Parkland City, compared to 2.5 infrastructure that in Greater Sydney, experienced a barrier to accessing healthcare when includes healthcare. needed it in the last 12 months, with main reason being cost of service. education, supermarkets, There are currently limited opportunities for the existing community within public open spaces and the Aerotropolis to easily access community health care as identified in other community/cultural section 7.2.2. It will be essential for the Aerotropolis to provide appropriate facilities and easily accessible health care facilities to improve the overall health and wellbeing of residents and workers. Education attainment: Western Sydney has lower completion rates for · Increased proportions Consultation with the year 12 compared to Greater Sydney (see section 6.1.6). Additionally, the of children in the **NSW** Department of ABS General Social Survey (2014) found 11% of children entering primary developmentally Education school where developmentally vulnerable in two or more domains (i.e. vulnerable categories Consultation with physical health and wellbeing, social competence, emotional maturity, Reduced opportunity Universities and tertiary language and cognitive skills (schools-based), communication skills and for residents and education providers general knowledge). These domains have been shown to predict later workers to access Social Infrastructure health, wellbeing and academic success. Furthermore, the Aerotropolis tertiary education Needs Assessment currently has limited access to university and tertiary education facilities · Social inequity within easy access (see section 7.2.1). It will be essential for the Aerotropolis to provide appropriate and easily accessible educational facilities to ensure equitable access and opportunities for further education for residents and workers.

Liveability outcome	Challenge	Risk	Area for further investigation/ consultation
	Increased demand on social infrastructure: Realising the vision for the Aerotropolis and each of the ten precincts will be dependent on a range of factors including the provision of social infrastructure that is correctly aligned to future population and economic growth. It will be essential for the Aerotropolis to ensure staging the provision of social infrastructure aligns to the projected growth so it is in place as soon as communities come into the area.	A disconnect between demand and supplySocial inequity	 Review population for precincts Review of staging plans for precinct development Social Infrastructure Needs Assessment
Diversity of job opportunities People in Sydney have a diversity of job opportunities. This provides access to a range of jobs and learning / skills development opportunities.	A balance of white and blue collar jobs: In Greater Sydney 37% of all employment is located in the CBD with few opportunities for well-paid jobs in the Western Sydney District. 180,000 people leave western Sydney each day to access jobs in the east (Cred Consulting, 2017). The Aerotropolis will be critical to Western Parkland City achieving the vision of a 30-minute city (see section 1.1) where people live within 30 minutes of their place of employment. However, it is important for the Aerotropolis to ensure the creation of a large variety of job opportunities in diverse industries in order to attract and retain workers and their families.	 Continued trend of commuting to Sydney CBD for employment opportunities An non-stable resident population 	 Review population projections for precincts Investigation regarding a night-time economy

Liveability outcome	Challenge	Risk	Area for further investigation/ consultation
	The recent Covid-19 global pandemic and economic downturn: Due to the recent economic crisis as a result of the global COVID-19 pandemic it is anticipated that unemployment rates across greater Sydney will have increased. The Australian Bureau of Statistics (2020) has indicated about 43,900 people have lost their jobs in NSW with the unemployment rate rising to 6.4% from 6.3% in 2016. Unemployment (particularly long-term unemployment) can have negative effects on health and wellbeing, especially on the emotional and mental health of those who are unemployed and their families (PHIDU, 2020). Extreme events which have the potential to impact employment are increasing worldwide (i.e. bushfires, floods, and health pandemics). It is more important now than ever for the Aerotropolis to ensure a diverse economy base and range of job opportunities to increase community resilience in a time of crisis.	Communities with less resilience	 Further literature review Consultation with Resilient Sydney Consultation with Greater Sydney Commission Consultation with Government Agencies including, Services NSW, DPIE, LAHC and NSW Health
Housing Choice People in Sydney have a choice of housing that meets their needs. This supports affordable and appropriate housing.	Housing affordability: The median house price in Sydney is 12.2 times median household income (Cred Consulting, 2017). While the Western Parkland City is the most affordable area in Greater Sydney, there are higher proportions of the population living with rental and mortgage stress (see section 6.1.8), as well as those living in social housing and receiving rent assistance (6.1.2) compared to Greater Sydney. The development of the Aerotropolis precincts into an employment hub will increase demand for housing and inevitably increase housing costs.	 Displacement of the existing population due to increasing housing costs A lack of appropriate and affordable housing Homelessness (including overcrowded dwellings and youth homelessness) 	 Consultation with urban design team Consultation with Greater Sydney Commission Consultation with LAHC

Liveability outcome Challenge Risk Area for further investigation/ consultation **Culture and Innovation** Foster cultural inclusivity and expression: The Western Parkland City A lack of opportunity for Review population Across Sydney cultural has outlined a strategic focus to integrate cultural infrastructure as part of cultural expression projections for precincts and creative arts are the Aerotropolis and co-locate culture within emerging centres of creative Challenges in achieving Review of staging plans supported and innovation industries, technology and innovation in order to helps drive new locations after hours activation for precinct is encouraged in business for jobs and investment (see section 5.1.2). As discussed previously, and urban solutions. This development · Loss of sense of place supports cultural appropriate provision of cultural infrastructure is what makes a place and an identity that is Social Infrastructure expression, the desirable to live, work and visit. It will be important for the Aerotropolis uniquely Western integration of digital Needs Assessment precinct staging to consider the staging plans for the provision of cultural technology and the Sydney. Consultation with infrastructure to align with projected growth so it is in place as monetisation of great Create NSW communities come into the area. ideas. · Review of Night Time economy literature **Environmental Quality** Social Infrastructure Provision of quality open space: As discussed in section 1.2 the · Inequitable access to Needs Assessment People in Sydney enjoy Wianamatta-South Creek Precinct will be positioned and developed to open space across the high levels of air, water, Consultation with urban provide an open space network that will form part of the broader Western ten precincts light and noise quality, design team Sydney Parkland's connected green and blue infrastructure. Surrounding diminished Aboriginal and benefit from improved precincts will orient towards the green spine to assist in improving the Consultation with access to and cultural significance Aboriginal engagement conservation of green and amenity and wellbeing for residents and workers in the Aerotropolis. The and sense of place blue open spaces and Wianamatta-South Creek precinct holds significant Aboriginal cultural team places of cultural significance which will be important to preserve and celebrate. It will be Consultation with significance. essential for the Aerotropolis to consider and implement the principles Government Architect outlined in the Draft Greener Places Design Guide (NSW Government Office to discuss Architect, 2020) to ensure open space social infrastructure responds to **Greener Places** the needs of the workers, visitors and residents and provides equitable

access for all community members across the ten precincts.

9. References

Australian Institute of Health and Welfare (AIHW) (2019). *Aged care*. Retrieved from https://www.aihw.gov.au/reports/australias-welfare/aged-care

Australian Bureau of Statistics (2013). *Economic Security Glossary*. Retrived from https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4125.0Glossary1Jan%202013

Australian Bureau of Statistics (2016). Statistical Area Level 2 (SA2) Community Profiles. Retrieved from

https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/communityprofile/036?opendocument

Australian Bureau of Statistics (2016). Statistical Area Level 1 (SA1) Data. Retrieved from https://www.abs.gov.au/websitedbs/censushome.nsf/home/tablebuilder

Australian Bureau of Statistics (2020). *Labour Force, Australia, May 2020*. Retrieved from https://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/6202.0Main%20Features2May%202020?opendocument&tabname=Summary&prodno=6202.0&issue=May%202020&num=&view=

Australian Curriculum Assessment and Reporting Authority (acara) (2019). School enrolment information. Retrieved from https://www.myschool.edu.au/

Blair, K., Dunn, K. M., Kamp, A., & Alam, O. (2017). *Challenging Racism Project 2015-16 National Survey Report*. Retrieved from https://doi.org/10.4225/35/58cb62d270392

The Australian Child Care Index (2020). Child care facility capacity information. Retrieved from https://www.echildcare.com.au/

Aged care online (2020). Aged care facility capacity information. Retrieved from https://www.agedcareonline.com.au/

Cemeteries and Crematoria NSW (CCNSW) (2017). Cemeteries and Crematoria NSW Metropolitan Sydney Cemetery Capacity Report. Retrieved from https://www.industry.nsw.gov.au/__data/assets/pdf_file/0014/143402/CCNSW-Metropolitan-Sydney-Cemetery-Capacity-Report.pdf

Commonwealth of Australia (2018). *Implementation Western Sydney City Deal*. Retrieved from: https://www.infrastructure.gov.au/cities/city-deals/western-sydney/files/western-sydney-city-deal-implementation-plan.pdf

Create NSW (2019). *Cultural Infrastructure Plan 2025+*. Retrieved from: https://create.nsw.gov.au/wp-content/uploads/2019/02/20190206_CIP2025.pdf

Create NSW (2015). *NSW Arts and Cultural Policy Framework*. Retrieved from: https://www.create.nsw.gov.au/wp-content/uploads/2015/02/CreateInNSW_NSWArtsAndCulturalPolicyFramework.pdf

Cred Consulting (2017). *Greater Sydney's Social Capital: Its Nature and Value*. Greater Sydney Commission. Retrieved from https://www.greater.sydney/background-material

Deloitte (2017). *Out of School Hours Care: A review of supply and demand in New South Wales*. Retrieved from https://education.nsw.gov.au/content/dam/main-education/about-us/using-school-facilities/media/documents/Deloitte-Access-Economics-OSHC-A-review-of-supply-and-demand-in-NSW.pdf

Department of Infrastructure, Transport, Regional Development and Communications (2019). Western Sydney City Deal. Retrieved from: https://www.infrastructure.gov.au/cities/city-deals/western-sydney/ Edgar Lu, Christina Ho and Hazel Easthope (2017) Contested Spaces: Living Next Door to Alice (and Anh and Abdullah). The Conversation. Retrieved from

https://theconversation.com/contested-spaces-living-next-door-to-alice-and-anh-and-abdullah-74172

GEN (2020). *GEN data: People using aged care*. Retrieved from https://gen-agedcaredata.gov.au/Resources/Access-data/2020/March/GEN-data-People-using-aged-care

Greater Sydney Commission (2016). *Social Panel Advisory Paper*. Retrieved from https://gsc-public-1.s3.amazonaws.com/s3fs-public/social_panel_advisory_paper.pdf

Greater Sydney Commission (2018a). *Greater Sydney Regional Plan – A Metropolis of Three Cities*. Retrieved from: https://gsc-public-1.s3-ap-southeast-2.amazonaws.com/greater-sydney-region-plan-0618.pdf

Greater Sydney Commissions (2018b). *Our Greater Sydney 2056 – Western City District Plan.* Retrieved from: https://gsc-public-1.s3-ap-southeast-2.amazonaws.com/western-district-plan-0618.pdf

Greater Sydney Commission and Department of Planning Industry and Environment (GSC and DPIE) (2017). *A Liveability Framework for Sydney*. Retrieved from:

https://projectsportal.ghd.com/sites/pp15_04/wsasocialinfrastruct/Lists/Documents/30-03-2017_LiveabilityFramework_Final.pdf

The Heart Foundation (2009). "Connectivity and Permeability". Retrieved from https://www.healthyplaces.org.au/userfiles/file/Connectivity%20June09.pdf

Infrastructure NSW (2018). South Creek Corridor Social Infrastructure and Public Open Space Study. Retrieved from:

https://projectsportal.ghd.com/sites/pp15_04/wsasocialinfrastruct/Lists/Documents/Attachment% 20K%20-

%20South%20Creek%20Corridor%20Social%20Infrastructure%20and%20Public%20Open%20Space%20Study.PDF

Infrastructure NSW (2018). *State Infrastructure Strategy 2018 – 2038.* Retrieved from: https://insw-sis.visualise.today/documents/INSW_2018SIS_BuildingMomentum.pdf

Independent Schools Council of Australia (ISCA) (2019). *Independent Schools Overview*. Retrieved from: https://isca.edu.au/about-independent-schools/about-independent-schools/independent-schools-overview/

Liverpool City Council (2019). *Liverpool Population and Social Infrastructure Study*. Retrieved from:

https://projectsportal.ghd.com/sites/pp15_04/wsasocialinfrastruct/Lists/Documents/Attachment% 20H%20-%20Liverpool%20Population%20and%20Social%20Infrastructure%20Study%20.PDF

Liverpool City Council (2017^a). *Community Strategic Plan, Our Home, Liverpool 2027.* Retrieved from: https://www.liverpool.nsw.gov.au/council/corporate-information

Liverpool City Council (2017^b). *Cultural Strategy: Creative, Innovative and Culturally Distinct* 2017 – 2021. Retrived from https://www.liverpool.nsw.gov.au/council/corporate-information

Liverpool City Council (2018^a). Community Facilities Strategy - A Blueprint for a Modern Network of Community Facilities. Retrieved from

https://www.liverpool.nsw.gov.au/council/corporate-information

Liverpool City Council (2018^b). *Recreation, Open Space and Sports Strategy.* Retrieved from: https://www.liverpool.nsw.gov.au/council/corporate-information

NSW Department of Education (2019). *Out of school hours care*. Retrieved from https://education.nsw.gov.au/about-us/using-school-facilities/out-of-school-hours-care

NSW Department of Planning, Industry and Environment (2020a). Cemeteries & Crematoria NSW Locations. Retrieved from https://www.industry.nsw.gov.au/cemeteries-crematoria/locations

NSW Department of Planning Industry and Environment (2020b). State Environmental Planning Policy (Western Sydney Aerotropolis). Retrieved from: https://shared-drupal-s3fs.s3-ap-southeast-2.amazonaws.com/master-test/fapub_pdf/00-Western+Sydney+Aerotropolis/000-Final+Planning+Package/Final+Documents/Western+Sydney+Aerotropolis+State+Environment al+Planning+Policy+2020.pdf

NSW Department of Planning, Industry and Environment (2020c). *Western Sydney Aerotropolis Development Control Plan – Phase 1.* Retrieved from:

https://www.planningportal.nsw.gov.au/draftplans/made-and-finalised/western-sydney-aerotropolis-planning-package

NSW Department of Planning, Industry and Environment (2020e). Western Sydney Aerotropolis, Land Use and Infrastructure Implementation Plan, Stage 1: Initial Precincts. Retrieved from: https://www.planningportal.nsw.gov.au/draftplans/made-and-finalised/westernsydney-aerotropolis-planning-package

NSW Department of Planning, Industry and Environment (2020e). Western Sydney Aerotropolis Plan. Retrieved from: https://www.planningportal.nsw.gov.au/draftplans/made-and-finalised/western-sydney-aerotropolis-planning-package

NSW Department of Planning, Industry and Environment (2017). *Draft Western Sydney Airport Growth Area Social Infrastructure and Open Space Study*. Retrieved from:

https://projectsportal.ghd.com/sites/pp15_04/wsasocialinfrastruct/Lists/Documents/Attachment% 20I%20-

%20Western%20Sydney%20Airport%20Growth%20Area%20Social%20Infrastructure%20and%20Open%20Space%20Study%20.pdf

NSW Department of Planning, Industry and Environment (2015). South West Growth Centre and Western Sydney Employment Area Social Infrastructure Assessment. Retrieved from: https://projectsportal.ghd.com/sites/pp15_04/wsasocialinfrastruct/Lists/Documents/Attachment% 20J%20-

%20South%20West%20Growth%20Centre%20and%20Western%20Sydney%20Employment%20Area%20Social%20Infrastructure%20Assessment%20.pdf

NSW Government Architect's Office (2020a). *Draft Greener Places Design Guide*. Retrieved from: https://www.governmentarchitect.nsw.gov.au/policies/greener-places

NSW Government Architect's Office (2020b). *Greener Places*. Retrieved from: https://www.governmentarchitect.nsw.gov.au/policies/greener-places

NSW Department of Planning, Industry and Environment (2019). *Greater Sydney Outdoors Study*. Retrieved from: https://www.planning.nsw.gov.au/-/media/Files/DPE/Reports/report-findings-greater-sydney-outdoors-study-2019-06-06.pdf

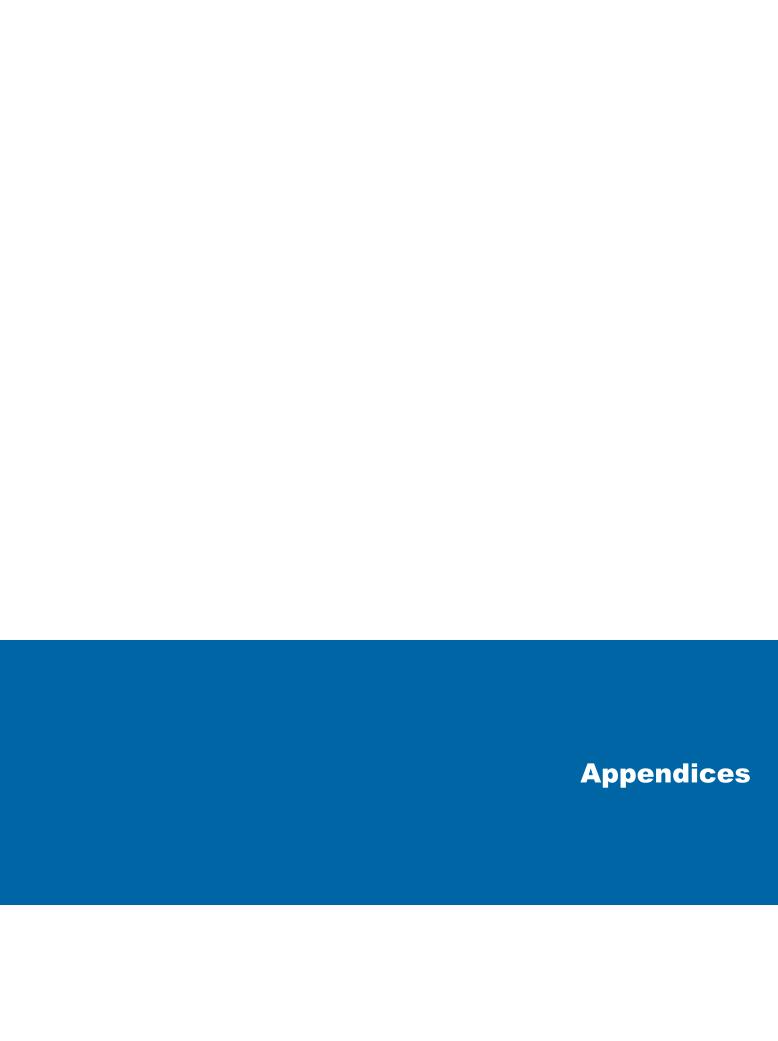
Penrith City Council (2019). *Sport and Recreation Strategy.* Retrieved from: https://www.penrithcity.nsw.gov.au/facilities-recreation/outdoor-recreation/sport-and-recreation-strategy#:~:text=The%20Sport%20and%20Recreation%20Strategy,in%20the%20first%205%20 years.

Penrith City Council (2008). *Penrith Regional City Infrastructure Strategy*. Retrieved from: https://www.penrithcity.nsw.gov.au/resources-documents/documents/strategic-planning

Public Health Information Development Unit (PHIDU) (2020). Social Health Atlases of Australia: Local Government Areas. Retrieved from http://www.phidu.torrens.edu.au/social-health-atlases/data

Reihaneh. R, Maryam. I.E, Aida. J.K, (2017). *City sustainability: the influence of walkability on built environment*. Retrieved from https://pdf.sciencedirectassets.com/308315

Urban Economics (2018). *Occupancy and Performance Appraisal: Early Childhood Education and Care Sector.* Retrieved from https://childcarealliance.org.au/media-publications/aca-media-releases/112-occupancy-and-performance-report-early-childhood-education-and-care-sector-10-12-2018/file



Appendix A – Demographics summary

Social Indicator	Aerotropolis Local <i>Study Area</i> (SA1)	Western Parkland City District Study Area (SA2)	Greater Sydney Regional Study Area
Population:			
Total Persons	8,443	1,194,606	4,823,991
Service age groups (persons) - place of usual residence			
Babies and pre-schoolers (0-4)	5.9%	7.3%	6.4%
Primary schoolers (5 to 11)	10.5%	10.1%	8.8%
Secondary schoolers (12 to 17)	9.8%	8.3%	6.9%
Tertiary education and young workforce (18 to 24)	9.9%	9.9%	9.6%
Young workforce (25 to 34)	11.3%	14.6%	16.1%
Career and home building (35 to 49)	20.3%	20.4%	21.1%
Senior workforce (50 to 64)	18.4%	17.5%	17.2%
Retirees (65 to 74)	9.3%	7.2%	7.7%
Seniors (75 to 84)	3.6%	3.4%	4.2%
Elderly (85+)	1.0%	1.3%	2.0%
Age-related summary stats			
Under 18 years	26.2%	25.7%	22.2%
15 years and over	78.8%	78.5%	81.3%
Under 15 years	21.2%	21.5%	18.7%
Over 65 years	14.0%	11.9%	13.9%
Dependency ratio	51.66	50.19	48.38
Median Age (years)	37	NA	36
Service age groups (males) - place of usual residence			
Babies and pre-schoolers (0-4)	5.7%	7.6%	6.7%
Primary schoolers (5 to 11)	10.2%	10.6%	9.2%
Secondary schoolers (12 to 17)	9.9%	8.6%	7.2%
Tertiary education and young workforce (18 to 24)	11.2%	10.2%	9.8%
Young workforce (25 to 34)	11.0%	14.3%	16.1%
Career and home building (35 to 49)	20.2%	20.2%	21.1%
Senior workforce (50 to 64)	19.7%	17.3%	17.0%
Retirees (65 to 74)	9.1%	7.1%	7.5%
Seniors (75 to 84)	2.4%	3.1%	3.9%
Elderly (85+)	0.7%	0.9%	1.5%
Total males	47.3%	49.3%	49.3%
Service age groups (females) - place of usual residence			
Babies and pre-schoolers (0-4)	6.2%	7.0%	6.2%
Primary schoolers (5 to 11)	11.0%	9.8%	8.4%
Secondary schoolers (12 to 17)	10.4%	7.9%	6.6%
Tertiary education and young workforce (18 to 24)	9.2%	9.6%	9.3%
Young workforce (25 to 34)	11.2%	14.9%	16.0%
Career and home building (35 to 49)	19.8%	20.6%	21.1%
Senior workforce (50 to 64)	20.0%	17.7%	17.4%
Retirees (65 to 74)	8.2%	7.2%	7.9%
Seniors (75 to 84)	3.2%	3.7%	4.6%

Social Indicator	Aerotropolis Local <i>Study Area</i> (SA1)	Western Parkland City District Study Area (SA2)	Greater Sydney Regional Study Area
Elderly (85+)	0.8%	1.7%	2.5%
Total females	45.8%	50.7%	50.7%
Cultural Diversity:			
Indigenous persons	1.6%	2.7%	1.5%
Persons born in Non Main English Speaking countries	22.2%	29.4%	30.4%
Language spoken at home other than English	30.0%	37.0%	35.8%
Dwelling Characteristics			
Family households	77.4%	80.9%	73.6%
Lone person household	11.4%	16.9%	21.6%
Group household	1.4%	2.2%	4.7%
Family Characteristics:			
Total families	0.404	040.000	4.047.047
Couple family with children	2,101 54.0%	313,629 52.0%	1,247,047 49.5%
Couple family without children	30.9%	27.0%	33.4%
One parent family	14.2%	19.4%	15.2%
Other family	0.8%	1.6%	1.8%
Other characteristics:			
Need for assistance	5.4%	6.0%	4.9%
Dwellings - occupancy			
Total occupied dwellings	92.7%	94.7%	92.3%
Unoccupied private dwellings	7.3%	5.3%	7.7%
Separate House	105.8%	79.0%	56.9%
Semi-detached, terrace house, townhouse	0.2%	12.7%	14.0%
Flat, unit or apartment	0.0%	7.4%	28.1%
Other dwellings	0.2%	0.4%	0.6%
Tenure Type			
Fully owned	34.8%	26.2%	29.1%
Owned with a mortgage	26.2%	39.4%	33.2%
Owned (fully or with a mortgage)	61.0%	65.6%	62.4%
Rented (Total):	20.0%	30.8%	34.1%
Real estate agent	51.0%	59.4%	67.2%
State or territory housing authority	0.6%	20.8%	12.3%
Person not in same household	37.2%	13.7%	15.3%
Housing co-operative/community/church group	0.0%	1.8%	1.9%
Other landlord type	6.5%	2.8%	2.2%
Landlord type not stated	4.8%	1.3%	1.3%
Other Tenure Type	0.3%	2.4%	2.6%
Individual Income:			
Negative/Nil Income	11.5%	11.5%	11.3%
\$1-\$149	4.0%	4.2%	4.0%
\$150-\$299	7.4%	7.6%	6.3%
\$300-\$399	8.2%	9.0%	7.4%
\$400-\$499	7.2%	7.8%	7.1%
\$500-\$649	7.9%	7.1%	6.6%

Social Indicator	Aerotropolis Local <i>Study Area</i> (SA1)	Western Parkland City District Study Area (SA2)	Greater Sydney Regional Study Area
\$650-\$799	7.6%	8.0%	6.9%
\$800-\$999	9.0%	9.2%	8.0%
\$1,000-\$1,249	8.5%	9.2%	8.5%
\$1,250-\$1,499	5.6%	6.0%	6.1%
\$1,500-\$1,749	4.6%	4.6%	5.3%
\$1,750-\$1,999	2.7%	3.1%	3.8%
\$2,000-\$2,999	3.7%	3.6%	6.1%
\$3,000 or more	1.6%	1.2%	4.5%
Household Income:			
Negative/Nil income	2.4%	1.4%	1.9%
\$1-\$149	0.3%	0.6%	0.7%
\$150-\$299	0.7%	1.8%	1.8%
\$300-\$399	0.5%	2.5%	2.4%
\$400-\$499	4.4%	5.4%	4.9%
\$500-\$649	2.9%	3.6%	3.4%
\$650-\$799	7.7%	6.6%	5.5%
\$800-\$999	6.1%	6.2%	5.4%
\$1,000-\$1,249	10.8%	7.9%	6.9%
\$1,250-\$1,499	8.8%	7.4%	6.5%
\$1,500-\$1,749	6.1%	6.4%	5.7%
\$1,750-\$1,999	7.5%	6.2%	5.5%
\$2,000-\$2,499	12.9%	11.8%	11.1%
\$2,500-\$2,999	8.8%	7.8%	7.1%
\$3,000-\$3,499	7.0%	5.0%	5.1%
\$3,500-\$3,999	5.6%	3.5%	5.3%
\$4,000 or more	2.7%	5.8%	10.9%
Labour Force:			
Total labour force			
Total employed	4,072 95.1%	563,980 92.9%	2,418,899 94.0%
Employed full-time	60.2%	61.5%	61.2%
Employed part-time	29.4%	26.5%	28.2%
Unemployed persons	4.8%	7.1%	6.0%
Labour force participation	63.2%	60.2%	61.6%
Occupation:	33.27	00.270	01.070
Managers	18.5%	9.7%	13.7%
Professionals	11.0%	16.2%	26.3%
Technicians and trades	17.7%	14.6%	11.7%
Community and personal service	7.0%	10.4%	9.6%
Clerical and administrative	15.4%	16.0%	14.6%
Sales	8.0%	9.4%	9.0%
Machinery operators and drivers	11.3%	10.9%	5.6%
Labourers	10.0%	10.7%	7.5%
Key Industry	10.070	10.770	1.570
Agriculture, Forestry and Fishing	9.7%	0.8%	0.4%
Agriculture, i oresity allu Fishiliy	9.1%	0.0%	0.4%

Social Indicator	Aerotropolis Local <i>Study Area</i> (SA1)	Western Parkland City District Study Area (SA2)	Greater Sydney Regional Study Area
Mining	0.3%	0.3%	0.2%
Manufacturing	7.7%	8.9%	5.8%
Electricity, Gas, Water and Waste Services	0.8%	1.1%	0.8%
Construction	18.3%	10.3%	8.2%
Wholesale Trade	2.7%	3.8%	3.6%
Retail Trade	11.1%	10.4%	9.3%
Accommodation and Food Services	4.3%	5.8%	6.7%
Transport, Postal and Warehousing	8.5%	7.2%	5.0%
Information Media and Telecommunications	0.4%	1.5%	2.8%
Financial and Insurance Services	1.8%	4.3%	6.4%
Rental, Hiring and Real Estate Services	2.3%	1.4%	1.9%
Professional, Scientific and Technical Services	4.6%	4.8%	9.8%
Administrative and Support Services	2.6%	3.4%	3.6%
Public Administration and Safety	4.6%	6.2%	5.5%
Education and Training	6.4%	7.2%	8.0%
Health Care and Social Assistance	7.2%	11.3%	11.6%
Arts and Recreation Services	1.1%	1.2%	1.7%
Other Services	5.7%	4.0%	3.6%
Highest level of secondary schooling completed			
Completion of Year 12 (or equivalent)	35.4%	50.2%	62.1%
Year 11 or equivalent	5.6%	5.2%	4.0%
Year 10 or equivalent	29.9%	23.1%	16.6%
Year 9 or equivalent	8.5%	5.9%	4.0%
Year 8 or below	8.6%	5.8%	4.0%
Did not go to school	1.7%	2.2%	1.4%
Educational institution attending:			
Pre-school attending:			
Pre-school	5.2%	5.7%	5.5%
Infants/Primary education attending:			
Government	47.3%	69.0%	68.0%
Catholic	30.7%	20.0%	19.8%
Other Non Government	21.9%	11.0%	12.2%
Total	26.9%	28.9%	8.1%
Secondary education attending:			
Government	41.4%	60.2%	54.5%
Catholic	39.0%	27.2%	26.4%
Other Non Government	19.6%	12.6%	19.1%
Total	25.7%	22.7%	19.9%
Technical or Further Educational Institution(a):			
Full-time student:			
Aged 15-24 years	13.5%	17.5%	16.9%
Aged 25 years and over	16.2%	18.7%	21.3%
Part-time student:			
Aged 15-24 years	37.8%	28.4%	22.9%

	(SA1)	City District Study Area (SA2)	Regional Study Area
Aged 25 years and over	32.4%	34.1%	37.9%
Total	4.1%	6.5%	6.1%
University or other Tertiary Institution attending:			
Full-time student:			
Aged 15-24 years	72.4%	56.5%	55.3%
Aged 25 years and over	8.0%	15.7%	19.2%
Part-time student:			
Aged 15-24 years	5.5%	8.8%	6.5%
Aged 25 years and over	14.2%	18.5%	18.6%
Total	10.2%	13.2%	19.2%
Other type of educational institution attending:			
Full-time student	24.1%	41.1%	40.8%
Part-time student	58.6%	56.7%	57.8%
Total	1.1%	2.8%	3.3%
Mobility:			
Lived at same address 1 year ago	9.5%	80.1%	77.6%
Lived at same address 5 years ago	28.6%	57.8%	53.2%
Volunteering:			
Volunteered	8.4%	13.0%	16.7%
Transport:			
Households without a motor vehicle	2.1%	7.0%	11.1%
One motor vehicle	15.7%	31.0%	37.1%
Two motor vehicles	26.7%	36.2%	32.8%
Three motor vehicles	17.7%	13.8%	10.2%
Four or more motor vehicles	21.3%	8.4%	5.5%
Journey to work - All methods (one method, two method, a	and three methods)		
Train	2.0%	12.6%	16.2%
Bus	0.2%	1.4%	6.1%
Ferry	0.0%	0.0%	0.5%
Tram (includes light rail)	0.0%	0.0%	0.2%
Taxi	0.0%	0.1%	0.2%
Car, as driver	28.1%	66.7%	54.3%
Car, as passenger	1.9%	5.8%	4.5%
Truck	2.9%	1.5%	0.9%
Motorbike/scooter	0.0%	0.4%	0.7%
Bicycle	0.0%	0.2%	0.7%
Other	0.3%	0.4%	0.5%
Walked only	1.5%	1.5%	4.0%
Worked at home	5.0%	3.0%	4.4%
Did not go to work	3.2%	7.6%	7.8%
Active and public transport			
Used public transport	2.2%	14.1%	23.0%
Active transport	1.5%	1.7%	4.8%

Appendix B – Social Infrastructure audit

Education facilities audit

ID	Facility Name	Address	Enrolments (2019)			Level
			Boys	Girls	Total	
Govern	nment High School					
1	Ashcroft High School	Maxwells Ave, Ashcroft	284	242	526	7-12
2	Bonnyrigg High School	430 Elizabeth Dr, Bonnyrigg	813	845	1658	7-12
3	Bossley Park High School	36-44 Prairie Vale Rd, Bossley Park	715	691	1406	7-12
4	Cecil Hills High School	Spencer Rd, Cecil Hills	712	688	1400	7-12
5	Chifley College Senior Campus	67 N Parade, Mount Druitt	234	244	478	11- 12
6	Colyton High School	37-53 Carpenter St, Colyton	386	344	730	7-12
7	Erskine Park High School	Swallow Drive, Erskine Park	520	489	1009	7-12
8	Glenmore Park High School	Glenmore Parkway, Glenmore Park	474	435	909	7-12
9	Hoxton Park High School	40 Wilson Rd, Hinchinbrook	399	333	732	7-12
10	James Busby High School	Brolga Cres, Green Valley	387	297	648	7-12
11	Jamison High School	222 Evan St, South Penrith	445	497	942	7-12
12	John Edmondson High School	64 Horningsea Park Drive, Horningsea Park	587	587	1174	7-12
13	Kingswood High School	131 Bringelly Rd, Kingswood	440	338	778	7-12
14	Miller Technology High School	60 Cabramatta Ave, Miller	351	330	681	7-12
15	Oran Park High School	1 Podium Way, Oran Park	Not available	Not available	3000 capacity	7-12
16	Prairiewood High School	203-215 Restwell Road, Prairiewood	622	572	1192	7-12
17	St Clair High School	6 Endeavour Avenue, St Clair	340	335	675	7-12
18	St Marys Senior High School	6-48 Kalang Ave, St Marys	331	571	902	11- 12
Govern	nment Primary School					12
19	Ashcroft Public School	22 Sheriff St, Ashcroft	129	127	256	P-6
20	Austral Public School	219 Edmondson Avenue, Austral	124	162	286	K-6
21	Banks Public School	182-194 Banks Dr, St Clair	192	188	380	K-6
22	Bardia Public School	MacDonald Rd, Bardia	272	238	510	K-6
23	Bennett Road Public School	100-114 Bennett Rd, Colyton	315	279	594	K-6
24	Blackwell Public School	Blackwell Ave, St Clair	336	329	665	K-6
25	Bonnyrigg Heights Public School	Cnr Lewis St &, Wilson Rd, Bonnyrigg Heights	568	550	1118	K-6
26	Bonnyrigg Public School	59 Tarlington Parade, Bonnyrigg	140	143	283	P-6
27	Bossley Park Public School	Marconi Rd, Bossley Park	205	209	414	K-6
28	Bringelly Public School	1205 The Northern Road, Bringelly	61	47	108	K-6
29	Busby Public School	S Liverpool Rd, Busby	144	123	267	K-6
30	Busby West Public School	Starling St, Green Valley	198	157	355	P-6
31	Cartwright Public School	157 Willan Dr, Cartwright	119	115	234	K-6
32	Cecil Hills Public School	Leopold PI, Cecil Hills	400	395	795	K-6
33	Clairgate Public School	41-43 Colorado Dr, St Clair	225	203	428	K-6
34	Claremont Meadows Public School	124/164 Sunflower Dr, Claremont	284	280	564	K-6
36	Dalmeny Public School	Meadows Dalmeny Dr, Prestons	577	476	1053	K-6
37	Eastern Creek Public School	200 Rooty Hill Rd S, Eastern Creek	140	159	299	P-6
38	Edensor Park Public School	Swan Rd, Edensor Park	145	134	279	K-6

ID	Facility Name Address	Address	Enrolments (2019)			Level
			Boys	Girls	Total	_
39	Gledswood Hills Public School	78 The Hermitage Way, Gledswood Hills	0	0	600	K-6
40	Glenmore Park Public School	33-41 The Lakes Dr, Glenmore Park	319	354	673	K-6
41	Governor Philip King Public School	61 Allambie Rd, Edensor Park	311	302	613	K-6
42	Green Valley Public School	173/183 Green Valley Rd, Green Valley	226	213	439	K-6
43	Greenway Park Public School	Wyattville Dr, Carnes Hill	408	349	757	K-6
44	Heckenberg Public School	1 Jindabyne St, Heckenberg	94	113	207	K-6
46	Horsley Park Public School	1759 The Horsley Dr, Horsley Park	58	37	95	K-6
47	Hoxton Park Public School	99 Pacific Palms Cct, Hoxton Park	361	310	671	K-6
48	James Erskine Public School	53 Peppertree Dr, Erskine Park	313	274	587	K-6
49	Jamisontown Public School	Jamisontown School, 1A Thurwood Ave, Jamisontown	203	159	362	K-6
51	Kingswood Public School	46-54 Second Ave, Kingswood	256	243	499	K-6
52	Kingswood South Public School	60-68 Smith St, Kingswood	174	150	324	P-6
53	Leppington Public School	144 Rickard Rd, Leppington	129	150	279	K-6
54	Luddenham Public School	24 Jamison Street, Luddenham	42	39	81	K-6
55	Lurnea Public School	Reilly &, West St, Lurnea	240	203	443	P-6
56	Madang Avenue Public School	18 Mimika Ave, Whalan	146	158	304	P-6
57	Middleton Grange Public School	50 Hall Cct, Middleton Grange	246	203	449	K-6
58	Miller Public School	3 Shropshire St, Miller	121	90	211	K-6
59	Minchinbury Public School	202 McFarlane Dr, Minchinbury	260	259	519	K-6
60	Mount Druitt Public School	51 Belmore Ave, Mount Druitt	280	277	557	P-6
61	Mount Pritchard Public School	104 Meadows Rd, Mount Pritchard	191	170	361	K-6
62	Mulgoa Public School	1189-1193 Mulgoa Road, Mulgoa	41	37	78	K-6
63	Oran Park Public School	390 South Cct, Oran Park	800	712	1512	K-6
64	Orchard Hills Public School	79-101 Kingswood Rd, Orchard Hills	73	61	134	K-6
65	Oxley Park Public School	114-130 Adelaide St, St Mary	279	286	565	P-6
66	Penrith South Public School	172-190 Jamison Rd, Penrith	272	251	523	K-6
67	Prairievale Public School	211 Prairie Vale Rd, Bossley Park	239	202	441	K-6
68	Prestons Public School	Kurrajong &, Box Rd, Prestons	358	344	702	K-6
69	Regentville Public School	28-34 School House Rd, Regentville	336	314	650	K-6
70	Rossmore Public School	Bringelly Rd, Rossmore	52	20	72	K-6
71	Sadleir Public School	27 Insignia St, Sadleir	187	151	338	P-6
72	St Clair Public School	4 Timesweep Dr, St Clair	153	118	271	K-6
73	St Johns Park High School	Mimosa Rd, Greenfield Park	470	427	897	7-12
74	St Johns Park Public School	Sandringham St, St Johns Park	444	353	797	P-6
75	St Marys North Public School	24-40 Willow Rd, St Marys	194	185	379	K-6
76	St Marys Public School	Princess Mary St, St Marys	148	137	285	P-6
77	St Marys South Public School	96 Monfarville St, St Marys	154	172	326	K-6
78	Surveyors Creek Public School	St Andrews Dr, Glenmore Park	303	260	563	K-6
79	Wallacia Public School	1573-1585 Mulgoa Rd, Wallacia	37	30	67	K-6
80	Warragamba Public School	Fourth St, Warragamba	194	170	364	K-6
81	Werrington Public School	Armstein Cres, Werrington	221	223	444	K-6
82	York Public School	224 Evan St, South Penrith	273	281	554	K-6

ID	Facility Name	Address	E	Enrolments (201	19)	Level
			Boys	Girls	Total	
Govern	ment Special School					
83	Fernhill School	12-40 Ridgetop Drive, Glenmore Park	61	34	95	K-2
84	Halinda School	12 Hereward Hwy, Blacktown	83	29	112	K-12
85	Kurrambee School	11 Werrington Rd, Werrington	74	30	104	K-12
86	Penrith Valley learning centre	3 Werrington Rd, Werrington	40	3	43	4-12
87	Putland School	Cobham Juvenile Justice Centre	104	0	104	9-12
Non-Go	overnment Combined School					
88	Amity College	163 Kurrajong Rd, Prestons	943	1064	2007	K-12
89	Bethel Christian School	106-114 Mount Druitt Rd, Mount Druitt	131	129	260	K-12
90	Caroline Chisholm College	90-98 The Lakes Dr, Glenmore Park	0	984	984	7-12
91	Christadelphian Heritage College	110 Cross St, Kemps Creek	122	123	245	K-12
92	Green Valley Islamic College	264 Wilson Rd, Green Valley	439	474	913	K-12
93	Irfan College	2089-2109 Elizabeth Dr, Cecil Park	145	111	256	K-10
94	Macarthur Anglican School	Cobbitty Rd, Cobbitty	410	438	848	K-12
95	Malek Fahd Islamic School	Pacific Palms Circuit, Hoxton Park	1349	1381	2730	K-12
96	Mamre Anglican School	45 Bakers Ln, Kemps Creek	341	298	639	K-12
97	Montgrove College	140 Bringelly Rd, Orchard Hills	235	436	671	K-12
98	Nepean Christian School	836 Mulgoa Rd, Mulgoa	244	217	461	K-12
99	Oran Park Anglican College	Cnr Peter Brock Dr & Central	337	343	680	K-12
100	Penrith Anglican College	Avenue, Oran Park 338-356 Wentworth Rd, Orchard Hills	514	457	971	K-12
101	Penrith Christian School	1 Simeon Rd, Orchard Hills	375	370	745	K-12
102	Thomas Hassall Anglican College	125 Kingsford Smith Ave, Middleton Grange	847	774	1621	K-12
103	Unity Grammar College	70 Fourth Ave, Austral	462	500	962	K-12
104	William Carey Christian School	Bumbera St, Prestons	586	553	1139	K-12
Non-Go	overnment High School					
105	Clancy Catholic College	201 Carmichael Dr, West Hoxton	557	629	1206	7-12
106	Emmaus Catholic College	87-109 Bakers Ln, Kemps Creek	401	433	834	7-12
107	Freeman Catholic College	Mount St, Bonnyrigg Heights	685	676	1361	7-12
108	St Agnes Catholic High School	24 Evans Rd, Rooty Hill	360	402	762	7-11
109	St Benedict's Catholic College	70 Oran Park Dr, Oran Park	435	467	911	7-12
110	St Dominic's College	54/94 Gascoigne St, Kingswood	975	0	975	7-12
111	St Francis Catholic College	130-150 Jardine Dr, Edmondson	324	343	667	K-9
112	St Narsai Assyrian Christian College	Park 217-241 Horsley Rd, Horsley Park	298	357	655	7-12
113	Wollemi College	4 Gipps St, Werrington	183	0	183	7-12
Non-Go	overnment Primary School					
114	Bellfield College - Junior Campus	29/31 Rossmore Ave West, Rossmore	308	318	626	K-10
115	Bethany Catholic Primary School	34-38 William Howell Dr, Glenmore Park	275	320	595	K-6
116	Good Samaritan Catholic College	401 Hoxton Park Rd, Hinchinbrook	646	691	1337	K-6
117	Good Shepherd Catholic Primary School	21 Twentieth Ave, Hoxton Park	209	236	445	K-6
118	Holy Family Primary School	Lot 32 Willowdene Ave, Luddenham	126	120	246	K-6
119	Holy Spirit Primary School	7-17 Todd Row, St Clair	160	196	365	K-6
120	John The Baptist Catholic Primary School	Mount Street, Bonnyrigg Heights	431	412	843	K-6

ID	Facility Name	Address	E	Enrolments (2019)		
			Boys	Girls	Total	
121	Marion Catholic Primary School	1788 The Horsley Dr, Horsley Park	103	100	203	K-6
122	Our Lady of Mt Carmel Catholic Primary School Mount Pritchard	230 Humphries Rd, Bonnyrigg	402	378	780	K-6
123	Our Lady Of The Rosary Primary School	32B Saddington St, St Marys	335	325	660	K-6
124	Sacred Heart Primary School	25 Nelson St, Mount Druitt	158	165	323	K-6
125	St Anthony Of Padua Catholic College	140 Eleventh Ave, Austral	84	115	199	K-6
126	St Catherine Of Siena Catholic Primary School	58 Dalmeny Dr, Prestons	306	308	614	K-6
127	St Hurmizd Assyrian Primary School	7-9 Greenfield Rd, Greenfield Park	388	356	774	K-6
128	St Joseph'S Primary School	90-94 Joseph St, Kingswood	127	111	238	K-6
129	St Justin'S Catholic Primary School	94 Oran Park Dr, Oran Park	400	416	816	K-6
130	St Mary Mackillop Primary School	150 Fragar Rd, South Penrith	213	202	415	K-6
131	St Therese Catholic Primary School	96 Cartwright Ave, Sadleir	145	111	265	K-6
132	Trinity Catholic Primary School	61/83 Bakers Ln, Kemps Creek	118	120	238	K-6
133	St Marys Flexible Learning Centre	63 Forrester Rd, St Marys	40	41	81	7-10

Further education facilities audit

ID	Facility Name	Address
Tertiar	y education	
134	Mount Druitt Tafe College	N Parade &, Mount St, Mount Druitt
135	Nepean Tafe College Kingswood Campus	12-44 O'Connell St, Kingswood
136	TAFE NSW Miller College	2168/152 Banks Rd, Miller
137	University Of Sydney Coates Park Farm	Coates Park Farm
Univer	sity	
138	University Of Sydney John Bruce Pye Farm	John Bruce Pye Farm
139	University Of Sydney Wolverton Farm	Wolverton Farm
140	University Of Western Sydney Penrith Campus	Second Ave, Kingswood
141	University Of Western Sydney Werrington North Campus	Great Western Hwy, Werrington
142	University Of Western Sydney Werrington South Campus	Great Western Hwy, Werrington

Health facilities audit

ID	Facility Name	Address	District
Comi	nunity health centre		
1	Budyari Aboriginal Community Health Centre	18 Woodward Crescent, Miller	South Western Sydney LDH
2	Greater West Medical Centre	Westfield Mount Druitt, Carlisle Ave, Mount Druitt	Western Sydney LDH
3	Hoxton Park Community Health Centre	596 Hoxton Park Rd, Hoxton Park	South Western Sydney LDH
4	Mount Druitt Community Health Centre	Cnr Buran and, Kelly Cl, Mount Druitt	Western Sydney LDH
5	Prairiewood Community Health Centre	Corner Polding St & Prairievale Rd	Western Sydney LDH
6	St Clair Community Health Centre	Botany Lane, St Clair	Nepean Blue Mountains LDH
7	St Marys Community Health Centre and Mental health clinic	26 Gidley Street, St Marys	Nepean Blue Mountains LDH
8	The Hub	16 Woodward Cr, Miller	South Western Sydney LDH
9	Tresillian Family Care Centre Kingswood	Nepean Hospital 1B Barber Ave, Kingswood	Nepean Blue Mountains LDH
Disab	oility services		
10	Mount Druitt Headspace Community Centre	55 North Parade, Mount Druitt	Not-for profit organisation operated by Parramatta Mission. All headspace services are funded by the Australian Government Department of Health.
Early	childhood health centre		
11	Miller Early Childhood Health Centre	18 Woodward Crescent, Miller	South Western Sydney LDH
Priva	te Hospital		
12	Braeside Hospital	340 Prairievale Rd, Prairiewood	South Western Sydney LDH
13	Campbelltown Private Hospital	42 Parkside Cres, Campbelltown	South Western Sydney LDH
14	Minchinbury Community Hospital	cnr Great Western Hwy and Rupertswood Rd, Rooty Hill	Western Sydney LDH
15	Nepean Private Hospital	1-9 Barber Ave, Kingswood	Nepean Blue Mountains LDH
16	Sydney Southwest Private Hospital	40 Bigge St, Liverpool	South Western Sydney LDH
Publi	c Hospital		
17	Blacktown Hospital	18 Blacktown Rd, Blacktown	Western Sydney LDH
18	Camden Hospital	Menangle Road, Camden	South Western Sydney LDH
19	Campbelltown Hospital	Therry Road, Campbelltown	South Western Sydney LDH
20	Fairfield Hospital	Polding St & Prairie Vale Road, Prairiewood	South Western Sydney LDH
21	Liverpool Hospital	Cnr Elizabeth & Goulburn St, Liverpool	South Western Sydney LDH
22	Mount Druitt Hospital	75 Railway St, Mount Druitt	Western Sydney LDH
23	Nepean Hospital	Derby St, Kingswood	Nepean Blue Mountains LDH

Emergency services audit

ID	Facility Name	Address
Fire an	d Rescue NSW	
1	Bonnyrigg Heights Fire Station	70 Gloucester St, Bonnyrigg Heights
2	Busby Fire Station	2 Cartwright Ave, Busby
3	Dunheved Fire Station	50 Christie St, Dunheved
4	Horningsea Park Fire Station	162 Greenway Dr, Horningsea Park
5	Mount Druitt Fire Station	8 Brooks St, Macquarie Fields
6	Regentville Fire Station	2-6 Jeanette St, Regentville
7	St Marys Fire Station	1 Marsden Rd, St Marys
Rural f	ire service	
8	Bringelly RFB	Greendale Road, Bringelly
9	Catherine Field RFB	Catherine Fields Rd, Catherine Field
10	Eastern Creek RFB	204 Rooty Hill Rd S, Eastern Creek
11	Erskine Park RFB	204 Rooty Hill Rd S, Eastern Creek
12	Horsley Park RFB	Arundle Rd &, The Horsley Dr, Horsley Park
13	Hoxton Park RFB	First Avenue Hoxton Park
14	Rural Fire Service Training Area	245 Devonshire Rd, Kemps Creek
15	Leppington RFB	169 Ingleburn Rd, Leppington
16	Luddenham RFB	11 Jamison St, Luddenham
17	Mulgoa RFB	Mulgoa Rd
18	Orchard Hills RFB	58 Castle Rd, Orchard Hills
19	Penrith Fire Control Centre	8-12 Jeanette Street, Regentville
20	Regentville RFB	20 Jeanette St, Regentville
21	Silverdale RFB	85 Marsh Road, Silverdale
22	Wallacia RFB	27 Park Road, Wallacia
NSW A	mbulance Service	
23	Colyton Ambulance Station	16 Hewitt St, Colyton
24	Green Valley Ambulance Station	99 Cartwright Ave, Busby
25	Warragamba Ambulance Station	20-22 Weir Road (cnr of Fifth Street)
NSW P	Police	
26	Green Valley Police Station	195 Wilson Rd, Green Valley
27	St Marys Police Station	38-42 King St, St Marys
28	Warragamba Police Station	4 Third St, Warragamba
29	Wetherill Park Police Station	332 Prairie Vale Rd, Wetherill Park
26	Green Valley Police Station	195 Wilson Rd, Green Valley
NSW S	tate Emergency Service	
30	Penrith SES	27 Fowler St, Claremont Meadows

Community facilities audit

ID	Facility Name	Address	Floor space (sqm)	Capacity
Civic c	entre/multipurpose			
1	Warragamba Civic Centre	Civic Centre Cir, Warragamba	NA	NA
Commi	unity/ Neighbourhood centre			
2	Abbotsbury Community Centre	Stockdale Crescent	No information	110
3	Bonnyrigg South Community Centre	Abbotsbury	No information	80
4	Bossley Park Community Centre	27 Belfield Road Bossley Park	No information	80
5	Bringelly Community Centre	5 Greendale Rd, Bringelly	310	120
6	Calabria Community Club	184-192 Restwell Rd, Prairiewood	No information	No information
7	Cecil Hills Community Centre	5 Sandringham Drive, Cecil Hills	388	100
8	Claremont Meadows Community Centre	172-180 Sunflower Drive, Claremont Meadows	143	110
9	Edensor Park Community Centre	45/59 Allambie Rd, Edensor Park	No information	No
10	Erskine Park Community Centre	57 Peppertree Drive, Erskine Park	93	information 90
11	Floribunda Community Centre	3-4 Floribunda Avenue, Glenmore Park	170	140
12	George Bates Community Centre	66 Hill Rd, Lurnea	258	No
13	Glenmore Park Youth & Community Centre	Luttrell Street (off Town Terrace), Glenmore	488	information 255
	·	Park		
14	Green Valley District Centre	171-183 Wilson Road, Green Valley	1910	100
15	Greenway Park Community Centre	Greenway Drive, Greenway Park	317	100
16	Heckenberg Community Centre	22-30 Green Valley Road, Busby	570	170
17	Hinchinbrook Community Centre	Cnr Whitford Road and Partridge Avenue, Hinchinbrook	376	140
18	Penrith South Community Centre	Cnr Trent St & Birmingham Rd, South Penrith	110	100
19	Prairiewood Youth And Community Centre	194-222 Restwell Road Prairiewood	No information	240
20	St Marys Community Centre	29 Swanston Street, St Marys	305	265
21	Surveyors Creek Community Centre	Ballybunnion Terrace, Glenmore Park	200	165
22	Autumnleaf Neighbourhood Centre	Cnr Autumnleaf Parade & Timesweep Drive, St Clair	195	70
23	Colyton Neighbourhood Centre	Cnr Jensen & Willoughby Streets, Colyton	95	50
24	Cook Parade Neighbourhood Centre	offers 2 small halls, a sweeping veranda and secure outdoor area with a shade structure.	164	115
26	Minchinbury Neighborhood Centre	46 Minchin Drive, Minchinbury	No information	150
27	North St Marys Neighbourhood Centre	Cnr Great Western Hwy & Mamre Road, St	305	365
28	South Penrith Neighbourhood Centre	Marys Cnr Trent St & Birmingham Rd, South Penrith	110	100
Senior	citizens centre	remui		
29	St Marys Senior Citizens Centre	Cnr Great Western Highway & Mamre Road, St Marys	454	130
Youth	centre	ot marys		
30	Werrington youth centre	13-19 Cottage St, Werrington	144	40
Commi	unity hall			
31	Arthur Neave Memorial Hall	43 Parkes Avenue, Werrington	175	110
32	Catherine Field Community Hall	170 Catherine Fields Road, Catherine Field	133	120
33	Harold Corr Community Hall	13-19 Cottage Street, Werrington	281	200
34	Leppington Progress Hall	123 Ingleburn Rd, Leppington	No information	No
35	Mount Druitt Community Hall	87 Mt Druitt road, Mt Druitt	No information	information 150
36	Mulgoa Hall	349 Littlefields Road, Mulgoa	148	110
37	Regentville Hall	16 Jeanette Street, Regentville	186	120

ID	Facility Name	Address	Floor space (sgm)	Capacity
38	Ridge Park Hall	Woodland Avenue, Oxley Park	140	110
39	St Marys Memorial Hall	Cnr Great Western Hwy & Mamre Road, St Marys	470	435
40	Wallacia Progress Association	40 Greendale Rd, Wallacia	No information	No information
Librar	у			
41	Bonnyrigg Library	100 Bonnyrigg Ave, Bonnyrigg	No information	No information
42	Green Valley Library	179 - 183 Wilson Road, Green Valley	No information	No information
43	Miller Library	Miller Shopping Centre, Shop 18A, 90 Cartwright Avenue, Miller	No information	No information
44	Mount Druitt Library	Ayres Grove, Mount Druitt	No information	No information
45	St Clair Branch Public Library	St Clair Shopping Centre, 12 Bennett Rd & Endeavour Ave, St Clair	No information	No information
46	St Marys Library	207-209 Queen St, St Marys	No information	No information
47	Wetherill Park Library	561-583 Polding St, Wetherill Park	No information	No information

Child care facilities audit

ID	Facility Name	Address	Capacity	Age groups
Long o	lay care			
1	Annabelle Child Care Centre Pty Ltd	297 Bringelly Rd, Leppington	134	6 weeks - primary school age
2	Bambino's Kindergarten Horningsea Park	John Edmondson High School, Horningsea Park Drive, Horningsea Park	90	birth - pre-school age
3	Bonnyrigg Early Learning Centre	28 Bonnyrigg Ave, Bonnyrigg	40	0 - 5 years
4	Bringelly Child Care Centre	18 Francis St, Bringelly	39	6 weeks - pre-school age
5	Cherry Bridge Station Austral Early Learning and Childcare Centre	280 Fifteenth Ave, Austral	90	6 weeks - primary school age
6	Clever Cookies Early Learning Centre	6 Stuart Rd, West Hoxton	29	2 years - pre-school age
7	Community Kids Austral Early Education Centre	55 Browns Rd, Austral	80	6 weeks - pre-school age
8	Community Kids Greenway Park Early Education Centre	38 - 40 Wainewright Avenue, West Hoxton	46	6 weeks - pre-school age
9	Community Kids Middleton Grange Early Education Centre	10 - 12 Broadbent Ave, Hoxton Park	50	6 weeks - pre-school age
10	Goodstart Early Learning Hoxton Park	13 Tenterfield Ave, Hoxton Park	73	6 weeks - 6 years
11	Happy Poppets Child Care Centre	21 Diamond Crescent, Bonnyrigg	38	6 weeks - primary school age
12	Icu Early Learning Childcare Centre	62 Harrison St, Ashcroft	29	6 weeks - primary school age
13	Inspire Child Care	1A Spire Court, Hoxton Park	83	6 weeks - pre-school age
14	Jilly's Early Childhood Developmental and Educational Centre Pty Ltd	30 Whitaker Rd, Rossmore	60	6 weeks - primary school age
15	Kemps Creek Childrens Cottage	35 Floribunda Rd, Kemps Creek	76	6 weeks - pre-school age
16	Kiddo Care Fdc Pty Ltd	25 May Avenue, Rossmore	60	6 weeks - pre-school age
17	Kids' Kinder Childcare Centre - Austral	105a Ninth Avenue, Austral	51	6 weeks - pre-school age
18	Luddenham Child Care Centre	2206 The Northern Rd, Luddenham	39	6 weeks - 5 years
19	Milestones Early Learning Hoxton Park	1 Bangalow Place, Hoxton Park	46	6 weeks - pre-school age
20	MindChamps Early Learning @ Kemps Creek	35 Floribunda Rd, Kemps Creek	76	6 weeks - pre-school age
21	MindChamps Early Learning @ West Hoxton	16 - 22 Chapman St, West Hoxton	56	6 weeks - pre-school age
22	MNJ Early Learning Pty Ltd	182 Clementson Dr, Rossmore	39	Birth to 6 years
23	My First School Childcare Centre	36 Putland St, St Marys	39	0 - primary school age
24	Orchard Hills Pre-School	122 Bringelly Rd, Orchard Hills	33	6 weeks - pre-school age

ID	Facility Name	Address	Capacity	Age groups
25	Silverdale Child Care Centre	131 Taylors Road, Silverdale	39	6 weeks - 5 years
26	St Anthony's Early Learning Centre Minchinbury	46-48 Eskdale St, Minchinbury	75	6 weeks - pre-school age
27	The Frogs Lodge Pty Ltd	180 Twelfth Ave, Austral	29	6 weeks - pre-school age
28	Unity Juniors Pty Ltd	Unity College, 70A Fourth Ave, Austral	59	2 - 5 years
Out of	School Hours Care			
29	Community Kids Austral Early Education Centre	56 Browns Rd, Austral	42	5-12 years
30	Coowarra Cottage	1 Coowarra Drive, St Clair	45	Primary school age
31	Good Shepherd Catholic Primary School OSHC	Good Shepherd Catholic Primary School, 21 Twentieth Avenue, Hoxton Park	35	Primary school age
32	Greenway Park Public School OSHC	Greenway Park Public School, Wyattville Dr, Hoxton Park	75	Primary school age
33	Hoxton Park Public School OSHC	Hoxton Park Public School, 99 Pacific Palms Cir, Hoxton Park	75	Primary school age
34	Inspire Bonnyrigg	Bonnyrigg High School, 431 Elizabeth Drive, Bonnyrigg	80	School age
35	Middleton Grange Primary School OSHC	Middleton Grange Primary School, 50 Hall Cir, Middleton Grange	75	Primary school age
36	SCECS OSHC Austral	St Anthony of Padua Catholic School, 140 Eleventh Ave, Austral	47	Primary school age
37	Schoolies at Luddenham	57 Campbell St, Luddenham	45	Primary school age
38	St Anthony of Padua Catholic School OSHC	St Anthony of Padua Catholic School, 140 Eleventh Avenue, Austral	47	School age
39	Thomas Hassall Anglican College OSHClub	Thomas Hassall Anglican College, 125 Kingsford Smith Ave, Middleton Grange	100	School age
Presch	nool			
44	Ashcroft Public School Preschool	Ashcroft Public School, 22 Sheriff St, Ashcroft	20	4 - 5 years
40	Ashcroft Public School Preschool	Ashcroft Public School, 22 Sheriff St, Ashcroft	20	4 - 5 years
41	Austral Community Pre-School Inc	Austral Public School, 219 Edmondson Ave, Austral	30	3 - 4 years
42	Busby West Public School Preschool	Busby West Public School, Starling St, Green Valley	40	4 - 5 years
43	Catherine Field Pre-School Kindergarten Inc	170 Catherine Fields Rd, Catherine Field	29	3 - 6 years
44	Do Re Mi Pre-School	162 Kerrs rd, Mount Vernon	66	6 weeks - pre-school age
45	Eastern Creek Public School Preschool	Eastern Creek Public School, 200 Rooty Hill Rd S, Eastern Creek	40	4 - 5 years
46	Kingswood Park Public School Preschool	Caloola Avenue, Penrith	20	3 - 5 years
47	Kingswood South Public School Preschool	60-68 Smith Street, Kingswood	20	4 - 5 years
48	Lurnea Public School Preschool	1-13 West Street, Lurnea	20	3 - 5 years
49	Madang Avenue Public School Preschool	Mimika Avenue, Whalan	40	3 - 5 years
50	Mount Druitt Public School Preschool	Belmore Avenue, Mount Druitt	40	3 - 5 years
51	Oxley Park Public School Preschool	Adelaide Street, St Marys	20	3 - 5 years
52	Rossmore Community Preschool	Rossmore Public School, 631 Bringelly Rd, Rossmore	40	3 years - pre-school age
53	Sadleir Public School Preschool	27 Insignia Street, Sadleir	20	4 - 6 years
54	St Johns Park Public School Preschool	Sandringham Street, St Johns Park	20	3 - 5 years
55	St Marys Public School Preschool	Princess Mary Street, St Marys	20	3 - 5 years
56	Warragamba Pre-School	6 Weir Road, Warragamba	60	2 - 6 years

Aged care facilities audit

ID	Facility Name	Address	Beds	Units	Care type
Nursin	g home				
1	Advantaged Care at Edensor Gardens	39 Sweethaven Road, Edensor Park	140	NA	High care, low care, dementia care, respite care
2	Advantaged Care At Prestons Lodge	18 Melaleuca Place, Prestons	132	NA	High care, low care, dementia care, respite care
3	Anglicare - Newmarch House	50-52 Manning St, Kingswood	102	NA	Residential aged care, non- dedicated respite, palliative care, secure dementia beds
4	Blue Hills Manor	25- 27 Tulich Ave, Prestons	67	NA	Residential aged care, palliative care
5	Cardinal Stepinac Village	24-32 Runcorn St, St Johns Park	144	NA	Residential aged care, palliative care, booked respite beds
6	Catholic Healthcare Emmaus	85 Bakers Lane, Kemps Creek	64	NA	Dementia specific care, Short-term respite care
7	Heritage Kingswood	29 George St, Kingswood	77	NA	Residential aged care, palliative care, non-dedicated respite
9	Indochinese Aged Care Services	680 Cabramatta Rd West, Bonnyrigg	88	NA	Residential Aged Care, Palliative Care, Non-dedicated respite, secure dementia beds
10	John Edmondson Vc Gardens	130 Tenth Ave, Austral	64	NA	Residential aged care, palliative care, booked respite beds, secure dementia beds
11	Minchinbury Manor	Cnr John St & Rupertswood Rd, Rooty Hill	144	NA	Residential Aged care, palliative care, non-dedicated respite, secure dementia beds
12	Newmarch House	50-52 Manning St, Kingswood	102	NA	Residential aged care, palliative care, non-dedicated respite, secure dementia beds
19	Opal Bossley Park	56 Quarry Road, Bossley Park	96	NA	Permanent, Respite
16	Our Lady Of Consolation Nursing Home	32 Evans Rd, Rooty Hill	303	NA	Residential aged care, non- dedicated respite, secure dementia beds, booked respite beds, palliative care
17	Scalabrini Village Austral	65 Edmondson Ave, Austral	182	NA	Residential aged care, palliative care, non-dedicated respite, transitional care beds
18	Summitcare Penrith	366 Jamison Rd, Penrith	105	NA	Residential aged care, palliative care, non-dedicated respite, transitional care beds
19	Summitcare St Marys	57 Saddington Street, St Marys	120	NA	Palliative Care, Dementia, High Care Respite, NDIS
20	Swiaa Village Marconi Villas	84-88 Restwell Road, Bossley Park	113	41	Residential aged care, palliative care, secure dementia care (12 beds), adult wellness centre day care, Independent Living Units
Retirer	ment village				
21	Anglicare Caddens	21 Braeburn St, Caddens	49	NA	Independent Living Units
22	Blue Hills Village	25- 27 Tulich Ave, Prestons	NA	152	Independent Living Units
23	Cobbitty Park Christian Lifestyle Retirement Villa	645-665 Cobbitty Rd, Cobbitty	NA	65	Independent Living Units
24	Emmaus Retirement Village	85 Bakers Lane, Kemps Creek	NA	23	Independent Living Units
25	Oran Park Retirement Village	2 Grice St, Oran Park	NA	87	Independent Living Units
26	Regal Oaks Village	Cnr Greendale & Park Roads, Wallacia	NA	52	Independent Living Units
27	Tobruk Village	120 Tenth Ave, Austral	NA	40	Independent Living Units

Culture and arts facilities audit

ID	Facility_Name	Address
Cultu	ral club	
1	Assyrian Australian Association Nineveh Club	7 The Crescent, Fairfield NSW 2165
2	Bosna Croatian Club	229 Luddenham Rd, Orchard Hills
3	Czecho Slovakian Country Club	320 Devonshire Rd, Kemps Creek
4	Hungarian (Magyar) Social Club	706/708 Smithfield Rd, Edensor Park
5	Serbian Cultural Club	Stante CI, Middleton Grange
Perfo	orming arts centre	
6	Joan Sutherland Performing Arts Centre	597 High St, Penrith
Thea	tre	
7	EVAN Theatre	Panthers Precinct, 123 Mulgoa Rd, Penrith

Religious facilities

2 G 3 K C 4 L C 5 P	Forest Lawn Memorial Park	4500, 4000 Consider Valley Way		
2 G 3 K C 4 L C 5 P	Forest Lawn Memorial Park	4500 4600 Camalan Valla 114-11		
3 K C 4 L C 5 P		1500 - 1600 Camden Valley Way, Leppington	Operational	InvoCare Australia Pty Ltd
4 L C C 5 P	Greendale Catholic Cemetery	1500 - 1600 Camden Valley Way, Leppington	Operational	InvoCare Australia Pty Ltd
5 P	Kemps Creek Cemetery & Crematorium	946 - 984 Greendale Road, Greendale	Operational	Catholic Cemeteries Board
6 P	Luddenham Uniting Church Cemetery	Roots Ave, Luddenham	Operational	The Uniting Church in Australia Property Trust (NSW)
	Penrith General Cemetery	Short Street, Emu Plains	Operational	Penrith City Council
7 S	Pinegrove Memorial Park	Ponds Road, Prospect	Operational	Blacktown City Council
С	Sir John Jamison's Catholic Cemetery	14B Lilac Place, Jamisontown	Closed	St Nicholas of Myra Catholic Church
8 S	St Marys General Cemetery	175 - 191 Great Western Highway, St Marys	Operational	Penrith City Council
	St. Mary Magdalene's Anglican Church Cemetery	299 - 311 Great Western Highway, St Marys	Closed	Anglican Parish of St Marys
Place of	worship			
10 C	Crossroads Baptist Church	1 Church St, Rossmore		
11 H	Holy Family Church	32 Willowdene Ave, Luddenham NSV	V 2745	
	in Yim Buddhist Institute Sydney nc.	12 Clementson Dr, Rossmore		
13 L	uddenham Uniting Church	Roots Ave, Luddenham		
14 C	Our Lady Queen Of Peace	215 Western Rd, Kemps Creek		
15 R	Rossmore Khmer Buddist Temple	42 Wynyard Ave, Rossmore		
16 S				

NOTE: There are about an additional 92 places of worship located within a 15 kilometre catchment of the Western Sydney Aerotropolis.

Sport and recreation facilities audit

	Facility Name	Address
quatic (Centre	
1	Michael Wenden Aquatic Leisure Centre	62 Cabramatta Ave, Miller
2	Mount Druitt Swimming Centre	7 Mount St, Mount Druitt
3	Warragamba Pool	Farnsworth Ave &, Warradale Rd, Warragamba
eisure C	Centre	
4	Prairiewood Leisure Centre	Prairie Vale Rd &, Moonlight Rd, Prairiewood
5	Ripples St Marys Leisure Centre	Charles Hackett Dr, St Marys
6	Rooty Hill Leisure Centre	100 John St, Rooty Hill
7	St Clair Leisure Centre	6 Botany Ln, St Clair NSW 2759
howgro	ound	
8	Fairfield Showground	Avoca Rd, Silverdale
9	Horsley Park Showground	1803-1807 The Horsley Dr, Horsley Park
10	Luddenham Showground	Campbell St, Luddenham
kate Pa	rk	
11	Bonnyrigg Skate Park	Elizabeth Dr & Smithfield Road, Edensor Park
12	Glenmore Park skate park	1 Town Terrace, Glenmore Park
ports C	entre	
13	Arthur Neave Memorial Tennis Centre	Parks Ave, Werrington
14	Club Marconi	121-133 Prairie Vale Rd, Bossley Park
15	Liverpool Catholic Club	424/458 Hoxton Park Rd, Prestons
16	Nineveh Stadium	673 Smithfield Rd, Edensor Park
17	Rooty Hill Tennis & Squash Centre	13-15 Learmonth St, Rooty Hill
18	St Marys Indoor Shooting Centre	30 Power St, St Marys
19	St Marys Tennis Centre	St Mary's Tennis Courts, Creek Rd, St Marys
ports C	lub	
20	Austral Bowling Club	Edmondson Ave, Austral
21	Bill Spilstead Complex Dog training and show centre	44 Luddenham Rd, Orchard Hills
22	Bonnyrigg Sports Club	610/618 Elizabeth Dr, Bonnyrigg
23	Country Club Gledswood Hills	91 The Hermitage Way, Gledswood Hills
24	Freeman Sports Club	Stockdale Cres, Abbotsbury
25	Glenmore Heritage Valley Golf Club	690 Mulgoa Rd, Mulgoa
26	Kemps Creek Sporting And Bowling Club	1490 Elizabeth Dr, Cecil Park
27	Kingswood Sports Club	2 Santley Cres, Kingswood
28	Luddenham United Soccer Club	229 Luddenham Rd, Orchard Hills
29	Mets Baseball Club	170 Catherine Fields Rd, Catherine Field
30	Mounties RSL Club	101 Meadows Rd, Mount Pritchard
31	Penrith BMX Club	Creek Rd, Penrith
32	Penrith City Archers	Werrington Rd, Werrington
33	Penrith Golf And Recreation Club	1939 The Northern Rd, Penrith
34	Riding for the Disabled Association (NSW) - Nepean Centre	18 Samuel Marsden Rd, Orchard Hills NSW 2748
J-1	Silverdale Rifle Range	Rifle Range, 395 Avoca Rd, Silverdale
35	Silvordalo Millo Marigo	Tano Tango, 000 / 1700a Ita, Olivoradio
35	St. Johns Park Bowling Club	93 Edensor Rd. St. Johns Park
35 36 37	St Johns Park Bowling Club St Marys Baseball Club	93 Edensor Rd, St Johns Park 109 Monfarville St, St Marys

ID	Facility Name	Address
39	The Colyton St Clair Chiefs Baseball Club	Samuel Marsden Reserve, Orchard Hills
40	Twin Creeks Golf And Country Culb	2/8 Twin Creeks Dr, Luddenham
41	Wallacia Bowling And Recreation Club	1 Roma Ave, Wallacia
42	Wallacia Panthers Golf And Country Club	13 Park Rd, Wallacia
43	Warragamba Workers And Sporting Club	9/11 Eighteenth St, Warragamba
44	Workers Hubertus Country Club	205 Adams Rd, Luddenham
Sports C	omplex	
45	Ash Road Sporting Complex	Ash Rd, Prestons
46	Ched Towns Reserve	Town Terrace, Glenmore Park
47	Federation Forest Football Fields	Simpson Hill Rd, Mount Druitt
48	Luddenham Raceway	821-849 Luddenham Rd, Luddenham
49	Mark Leece Sporting Complex	161A Bennett Rd, St Clair
50	Mount Pritchard Oval Cricket grounds and nets, netball court and half basketball court	Cabramatta Rd W, Bonnyrigg
51	Parkes Avenue Sporting Complex	Parkes Ave,Werrington
52	Penrith District Netball Association	Jamison Park Netball Complex, York Rd
53	Sharks Golf Driving Range	1647 The Horsley Dr, Horsley Park
54	Terone Park Cricket nets and netball courts	Restwell Rd, Bossley Park
55	Whalan Reserve	Ellsworth Dr, Whalan
Sport Co	ourt	
56	Blaxland Crossing Reserve Tennis Courts	Silverdale Rd, Wallacia
57	Bonnyrigg Town Centre Park Basketball Court	743 Smithfield Rd, Edensor Park
58	Bowood Park Tennis Courts	Bowood Rd, Mount Vernon
59	Catherine Field Oval Tennis Courts	Chisholm Rd, Catherine Fields
60	Chameleon Reserve Netball Courts	Chameleon Dr, Erskine Park
61	Cook Parade Neighbourhood Centre Tennis Courts	41 Cook Parade, St Clair
62	Heysen Park half basketball court	16C Roony Ave, Abbotsbury
63	Meere Park Basketball Courts	Paterson Ave, Lurnea
64	Mulgoa Tennis Courts	Mulgoa Rd, Mulgoa
65	Pat Kontista Reserve Tennis Courts	66 Heath Rd, Leppington
66	Phillips Park Tennis Courts	66 Hill Rd, Lurnea
Sport Fie	eld	
67	Warragamba Recreation Reserve Tennis Courts	Warradale Rd, Warragamba
68	Athliteics track and field	Banks Dr, St Clair
70	Blair Oval	Kungala St, St Marys
71	Blue Hills Oval	Westerly Way, Glenmore Park
72	Boronia Park Sports Field	Boronia Rd, North St Marys
73	Bosnjak Park Rugby Fields and athletics track	200-206 Edensor Rd, Edensor Park
74	Burton Street Oval	Werrington Lakes, New South
75	Cec Blinkhorn Oval	Woodland Ave, Oxley Park
76	Cook Park	569 Cabramatta Rd W, Cabramatta West
77	Cook Park	Wilson St, St Marys
78	Cor Brouwer Reserve	Cawarra St, Eastern Creek
79	Cricket Ground	Banks Dr, St Clair
80	Doug Rennie Field	Paskin St, Kingswood
81	Edwin Wheeler Oval	Maxwells Ave, Sadleir

ID	Facility Name	Address
82	Fred Small Oval Cricket grounds	100 Cut Hill Rd, Cobbitty
83	Greenway Park	Greenway Dr, West Hoxton
84	Hoxton Park Recreation Reserve	Wilson Rd, Hinchinbrook
85	Kingsway Touch Fields	The Kingsway, Werrington
86	Lalich Avenue Reserve Oval	Lalich Ave, Bonnyrigg
87	Larry Grant Memorial Oval	68 Stanwell Cres, Ashcroft
89	Leppington Oval	Heath Rd & Byron Rd, Leppington
90	Minchinbury Oval	22 Minchin Dr, Minchinbury
91	Myrtle Road Fields	277 Caddens Rd, Claremont Meadows
92	Nepean District, Main Soccer Field	Wilson St, St Marys
93	Peter Kearns Memorial Oval	Banks Dr, St Clair
94	Potter Field	146 Shepherd St, Colyton
95	Powel Park Bmx Track	317 Hoxton Park Rd, Cartwright
96	Powhatan Street Reserve	Mimosa Rd, Greenfield Park
97	Range Oval	66 Albert St, Werrington
98	Roper Road Soccer Fields	130 Roper Rd, Colyton
99	Southlands Oval	368 Evan St, South Penrith
100	St Johns Park	Edensor Rd, Johns Park
101	Stanwell Oval	Stanwell Cres, Ashcroft
102	Surveyors Creek Softball Fields	Ballybunnion Terrace, Glenmore Park
103	Tarlington Reserve Soccer Fields	Tarlington Parade, Bonnyrigg
104	The Kingsway Rugby Fields	7A The Kingsway, Werrington
105	Warragamba Sportsground	69 Warradale Rd, Warragamba
106	Waterboard Oval	104 Production Ave, Warragamba
107	Wayne Gardner Oval	Central Ave, Oran Park
108	Whitlam Park Oval	Eucumbene Cres, Heckenberg
109	Winnal Reserve	196 Whitford Rd, Green Valley
110	Winnal Reserve Football Fields	196 Whitford Rd, Green Valley
111	WV Scott Memorial Park Oval	380/390 Bringelly Rd, Austral

Parks and open space

ID	Name	Address	Size (sqm)	Туре
Park	s in Western Sydney Aerotropolis			
1	Bill Anderson Park	Bill Anderson Reserve, Kemps Creek	26,449.2	Neighbourhood
2	Bringelly Park	Bringelly Reserve, Bringelly	13,334.2	Local Community
3	Bringelly Recreation Reserve	5 Greendale Rd, Bringelly	14,174.2	Neighbourhood
4	Freeburn Park	Blaxland Ave, Lauddenham	3,928.7	Neighbourhood
5	Overett Reserve	Kemps Creek	15,453.9	Local Community
6	Rossmore Grange	Ramsay Road, Rossmore	795,956.06	Local Community
7	Sales Park	76 Campbell St, Luddenham	33,132.3	Neighbourhood
8	Starr Park	Twelth Avenue. Austral	12,152.6	Local Community
9	Willmington Reserve	14-19 Jamison St, Luddenham	8,029.9	Neighbourhood
Golf	course			
10	Camden Lakeside Golf Course	50 Raby Rd, Gledswood Hills	NA	NA
11	Colonial Golf Course	1 Werrington Rd, Werrington	NA	NA
12	Glenmore Heritage Valley Golf Course	690 Mulgoa Rd, Mulgoa	NA	NA
13	Penrith Golf Course	1939 The Northern Rd, Penrith	NA	NA
14	Tree Valley Golf Course	Ardennes Ave, Edmondson Park	NA	NA
15	Twin Creeks Golf Course	2/8 Twin Creeks Dr, Luddenham	NA	NA
16	Wallacia Panthers Golf Course	13 Park Rd, Wallacia	NA	NA

NOTE: There are about an additional 505 local and districts parks, reserves and open spaces located within a 15 kilometre catchment of the Western Sydney Aerotropolis.

^{*}Park types have been determined according to the definitions of open space outlined in the Liverpool City Council *Recreation, Open Space and Sports Strategy* (Liverpool City Council, 2018^b).

Regional facilities

ID	Facility Name	Address
Regio	nal culture and arts facilities	
1	Penrith Regional Gallery	86 River Rd, Emu Plains
5	Liverpool Regional Museum	Cnr Congressional Drive and Hume Highway, Liverpool
11	Sydney Coliseum Theatre	33 Railway St, Rooty Hill
Regio	nal sports and recreation facilities	
2	Scenic NSW Horse Riding and Equine Centre	205 Campbelltown Rd, Denham Court
4	Sydney International Equestrian Centre	Saxony Rd, Horsley Park
3	Sydney Motor Sport Park (SMP) Raceway	Ferrers Rd, Eastern Creek
6	Blacktown International Sportspark	Eastern Rd, Rooty Hill
7	Penrith Valley Regional Sports Centre (PVRSC)	30 Herbert St, Cambridge Park
8	Sydney International Regatta Centre	Gate A, Old Castlereagh Rd, Castlereagh
9	Sydney International Shooting Centre	Range Rd, Cecil Park
10	Sydney United Sports Centre	223 Edensor Rd, Edensor Park
12	Raging Waters Sydney	Raging Waters Sydney
Regio	nal parks and open space	
13	Edmondson Regional Park	Denham Court
14	Western Sydney Regional Parklands	Eastern Creek
15	Leacock Regional Park	Casula
16	Wianamatta Regional Park	Ropes Crossing
17	Yellomundee Regional Park	Hawkesbury Heights
18	William Howe Regional Park	Mount Annan
19	Kemps Creek Nature Reserve	Cecil Park
20	Prospect Nature Reserve	Pemulwuy
21	Mulgoa Nature Reserve	Mulgoa
22	Gulguer Nature Reserve	Greendale
23	Bents Basin State Conservation Area	Greendale
24	Burragorang State Conservation Area	Burragorang
24	Blue Mountains National Park	Blue Mountains



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