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Leppington Town Centre Precinct

Social Infrastructure and Open Space Assessment

Client: NSW Department of Planning and
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COVER NOTE

Please note that where the draft Indicative Layout Plan (ILP) is illustrated and referenced in this study that the ILP has since been updated. The latest version of the draft ILP can be found in the Draft Schedule 2 Leppington Town Centre Development Control Plan (Figure 3, p.22).

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Executive summary

The NSW Department of Planning and Environment (DPE) has engaged Elton Consulting to prepare a social infrastructure and open space assessment for the Leppington Town Centre Precinct (LTCP).

The LTCP

The LTCP incorporates land within Liverpool City Council to the north of Bringelly Road and land within Camden Council to the south of Bringelly Road. Consequently, DPE is working with both Councils to develop the planning proposal for the LTCP. Camden Council, together with Liverpool City Council, is leading development of the Indicative Layout Plan (ILP) and the planning proposal.

The LTCP draft ILP proposes development of around 10,500 dwellings to 2041 along with significant industrial, commercial and retail floor space.

The planning context

Leppington is earmarked as a strategic centre within the Western Parkland City and is part of Sydney's South West Growth Area (SWGA). The LTCP will play an important role in supporting the Aerotropolis, it will provide housing stock and diversity to the precinct, and will be part of a network of strategic centres which will help to facilitate the 30-minute city.

The SWGA is expected to continue to grow and social infrastructure will struggle to meet current and future demand. A key opportunity and challenge for LTCP is meeting the needs of future residents as well as providing services and facilities which are accessible to the broader region.

The delivery of regional social infrastructure within the LTCP will also be fundamental in activating the precinct as a strategic centre in the SWGA.

Existing social infrastructure and open space

There is little existing social infrastructure within the LTCP and the broader study area generally provides neighbourhood and local level facilities that will not have capacity to meet increased demand from future residents of the LTCP. Existing social infrastructure gaps have been identified for community centres and libraries, cultural facilities, primary and secondary schools, and tertiary and vocational education facilities.

New facilities are proposed to respond to additional demand due to population growth in the LTCP and the surrounding area. These include a new justice precinct in Glenfield, a new health facility in the LTCP, new government schools, and potentially a NSW Police facility. TAFE NSW has decided not to develop a new facility in LTCP, but tertiary and vocational education providers are proposing to expand their facilities in key centres at the Aerotropolis, Campbelltown and Liverpool.

There is no public passive open space within the LTCP currently and the only active open space is one sport field at Scott Memorial Park. Sport fields and sport courts in and surrounding the LTCP are either at or reaching capacity. Proposed regional recreation facilities in The Southern Parklands and in the LTCP will be critical in servicing the growing population within the SWGA, including future residents of LTCP.

Future population and infrastructure needs

The LTCP will have a resident population of around 26,000 people and a workforce of around 17,000 people.

The new resident population is likely to be similar to the existing population in Leppington, but with the potential for greater cultural diversity and possibly a higher proportion of rental households. It will still be a relatively young population but will have more babies and pre-schoolers, and many more young adults particularly given its proximity to the train station and employment opportunities within the LTCP.

We expect the future population of the LTCP to contain a high proportion of young workers living in couple, single person and group households as well as young families with children, but with less school aged children than

households in the area living in separate housing. There will also be a significant group of older workers and retirees living in the LTCP.

Based on this analysis, it will be important to ensure the social infrastructure and open space delivered in the LTCP caters for resident and working populations. It will have to serve a wide range of demographics, from young children and families, through to young workers and older people. This will mean access to education (primary, secondary and tertiary), health, emergency services and community facilities is particularly important. Further, it must respond to existing needs and accommodate family and age distribution changes once the community establishes itself over time. Social infrastructure and open space which is accessible to residents of all ages, multipurpose and flexible will help ensure that spaces and activities can adjust to the needs of residents as they change over time.

The new population at LTCP will contribute to demand for regional infrastructure, but not at a level sufficient to require delivery of regional facilities. Despite this, and given LTCP's role as a strategic centre, the LTCP will deliver significant regional social infrastructure and recreational facilities. Future residents will also need to access regional level social infrastructure and services in the major centres of Liverpool, Campbelltown and the Aerotropolis. Planned enhancements to bus and rail services connecting the LTCP and these centres will be critical.

Social infrastructure and open space requirements

The draft ILP responds to the needs of the future population at the LTCP and within the broader catchment as follows:

- » Cultural and community facilities – it incorporates a new regional cultural and community centre with a library
- » Government schools – it includes the existing primary school site and provides the opportunity to redevelop it to expand services and potentially include a new government secondary school
- » Health facilities – it includes a site for an Integrated Healthcare Hub (IHHub)
- » Open space – it incorporates 70 hectares of active and passive open space including 12 hectares of regional open space and potential for six sports fields
- » Regional sporting facilities – it includes a regional indoor recreation and aquatic facility.

Other local social infrastructure requirements, including those for aged care services, child care and private health services, will be met by the private industry and not for profit providers.

Recommendations

High quality social infrastructure and open space will be catalytic in activating the LTCP and creating a place people want to live, work and visit.

The NSW Government, Liverpool City Council and Camden Council have the opportunity to accelerate development of the LTCP as a strategic centre within the SWGA through early delivery of key infrastructure including:

- » The IHHub to attract other health and social services and potentially facilitate development of the community and cultural facility through a co-location opportunity
- » New government educational infrastructure which may include a new government primary school and the proposed selective secondary school to seed development of an education hub within the LTCP
- » One district park with a regional play space and off-leash dog park to create a recreation destination within the LTCP
- » One double sport field as the first stage of an outdoor fitness hub.

Specifically, we recommend the following social infrastructure provision in the LTCP:

Category	Recommended provision and timing
Regional social infrastructure and open space	
Cultural and community facilities	<p>On-site provision of a regional level facility (or facilities) incorporating a library, community centre, and cultural and performance space. Allowance should be made for 4,000 square metres of floor space for library and community centre functions and a further 1,500 square metres for a cultural facility. If all uses were co-located the facility could be 4,500-5,000 square metres.</p> <p>We recommend:</p> <ul style="list-style-type: none"> » Camden Council continues discussions with Landcom, South Western Sydney Local Health District (SWSLHD) and School Infrastructure NSW (SINSW), about co-location opportunities with the health hub and the educational facility » Council pursues funding options, including through the Western Sydney City Deal Liveability Fund » Delivery of cultural and community facilities is staged to enable early delivery of services and phased expansion as the population grows.
Education – tertiary and vocational	<p>No on-site provision required.</p> <p>We recommend both councils pursue discussions with TAFE NSW and interested universities about the potential to develop an education hub within the LTCP and other opportunities including using office space within the commercial centre for tertiary education facilities or operating TAFE NSW outreach programs from the community facility within the LTCP.</p>
Emergency and justice	<p>No on-site provision required for ambulance, court and fire and rescue services.</p> <p>A police station may be required as the population grows.</p>
Health – hospitals and primary care	<p>No on-site provision required for hospitals.</p> <p>On-site provision of an Integrated Health Care Hub at LTCP. There is the opportunity to co-locate this facility with other state and local government delivered infrastructure.</p> <p>We recommend development of this facility is brought forward to the early stages of the LTCP's development given the need for new infrastructure and as a catalyst for establishing the LTCP.</p> <p>We understand funding for the facility has been identified within the Western Sydney Growth Areas Special Infrastructure Contributions (SIC).</p>
Open space – regional	<p>No on-site provision required.</p> <p>Developers at LTCP will contribute to regional open space through the Western Sydney Growth Areas SIC.</p> <p>We recommend the LTCP incorporates a significant gateway connection to Western Sydney Parklands across Cowpasture Road through to the proposed Upper Canal Linear Park.</p>
Sporting facilities – regional	<p>On-site provision of a regional indoor recreation and aquatic facility at LTCP. The facility would be located on a 5 hectare site, including a 3 hectare facility and outdoor elements and 2 hectares for parking and landscaping. It would incorporate an aquatic centre, indoors sports courts and other facilities with the opportunity to provide other specialist facilities outdoors.</p> <p>We recommend:</p> <ul style="list-style-type: none"> » Liverpool City Council discusses facility sharing opportunities between the IHHub and the regional indoor recreation and aquatic facility with Landcom and the SWSLHD » Council pursues funding options, including through the Western Sydney City Deal Liveability Fund and the NSW Office of Sport.

Category	Recommended provision and timing
Local social infrastructure and open space	
Aged care	No on-site provision required, although we note planning controls would allow the development of aged care facilities within LTCP.
Child care	No on-site provision required, although we note planning controls would allow the development of child care facilities within LTCP.
Community facilities	On-site provision of a regional level facility (see above).
Education – private primary and secondary	No on-site provision required.
Education – government primary schools	<p>Redevelopment of the existing primary school to increase capacity and acquisition of land for one new primary school (1.5 hectares) that is regular in shape, has road frontages on three sides, is in central accessible location, and is close to open space.</p> <p>Additional land may also be required adjacent to the existing primary school site to enable redevelopment of the site into a combined primary and secondary school.</p> <p>Given the low capacity of existing primary schools, we recommend at least one new facility is delivered early in the redevelopment of the LTCP.</p> <p>We recommend the new/upgraded primary schools are provided consistent with the Department of Education's (DoE) recommended timing, which will be further explored during exhibition of the planning proposal. We understand funding for new schools has been identified within the Western Sydney Growth Areas SIC.</p>
Education – government secondary schools	<p>Land for one new secondary school (2.5 hectares) that is regular in shape, has road frontages on three sides, is in central accessible location, and is close to open space.</p> <p>One option for providing a new secondary school is to redevelop the existing primary school into a combined primary and secondary school. Another option is to develop the new secondary school within the town centre close to the Leppington train station.</p> <p>We recommend the new secondary school is provided consistent with the DoE's recommended timing, which will be further explored during exhibition of the planning proposal. We understand funding for new schools has been identified within the Western Sydney Growth Areas SIC.</p>
Health	No on-site provision required, although we note planning controls would allow the development of general practices and medical centres within the LTCP.
Open space – active	<p>Maximise on-site provision of active open space. We estimate the LTCP will generate the need for 12 sport fields, 14 sport courts and around 26 hectares of active open space. However, we note that fragmented land ownership and the high cost of land significantly constrains provision of high quality active open space within the LTCP.</p> <p>We recommend:</p> <ul style="list-style-type: none"> » On-site provision of around 20 hectares of active open space including at least 4 double sport fields and 14 outdoor sport courts (preferably co-located with sport fields) » These facilities are co-located with other open space elements to create an indoor/outdoor recreation hub in the north and an outdoor fitness hub in the south » A further 2 double sport fields are provided off-site and are accessible by a 20 minute public or active transport journey » At least one double sport field is provided on-site as soon as possible to help meet demand in the area.

Category	Recommended provision and timing
Open space – passive	<p data-bbox="376 255 1235 288">On-site provision of around 40 hectares of passive open space including:</p> <ul style="list-style-type: none"> <li data-bbox="376 300 1099 333">» Local parks (min 0.3ha) within 200 metres of all dwellings <li data-bbox="376 340 1353 374">» Two district parks (at least 3 hectares each) within 2 kilometres of all dwellings <li data-bbox="376 380 1417 450">» One regional, two district and up to 5 local high-quality multi-age, all ability play and recreation spaces <li data-bbox="376 456 703 490">» Two off-leash dog parks <li data-bbox="376 497 1437 566">» Shared walking and cycling paths that link residents to open space within the site, and open space and services in surrounding areas <li data-bbox="376 573 1374 674">» Open space that is attractive with quality finishings and landscaping, safe being designed to Crime Prevention Through Environmental Design (CPTED) principles, accessible to multiple users, and interesting with several different activations. <p data-bbox="376 680 1449 779">We recommend: local parks are delivered early in each stage of the project; play spaces are delivered progressively throughout the project; and one district park, the regional play space and one off-leash dog park are delivered early in the project.</p>

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1 Introduction

The NSW Department of Planning and Environment (DPE) has engaged Elton Consulting to prepare a social infrastructure and open space assessment for the Leppington Town Centre Precinct (LTCP).

Leppington is earmarked as a strategic centre within the Western Parkland City in the Greater Sydney Commission's Greater Sydney Region Plan and is part of Sydney's South West Growth Area (SWGA).

DPE has been working with Liverpool City and Camden Councils to plan for new communities in and around Leppington with land rezoned in the Austral, Leppington North, Leppington East and Leppington precincts. However, the SWGA is undergoing rapid change and recent dwelling approvals data in surrounding areas indicate development in these precincts will be much higher density than contemplated in planning undertaken at the rezoning stage.

1.1 Leppington Town Centre Precinct

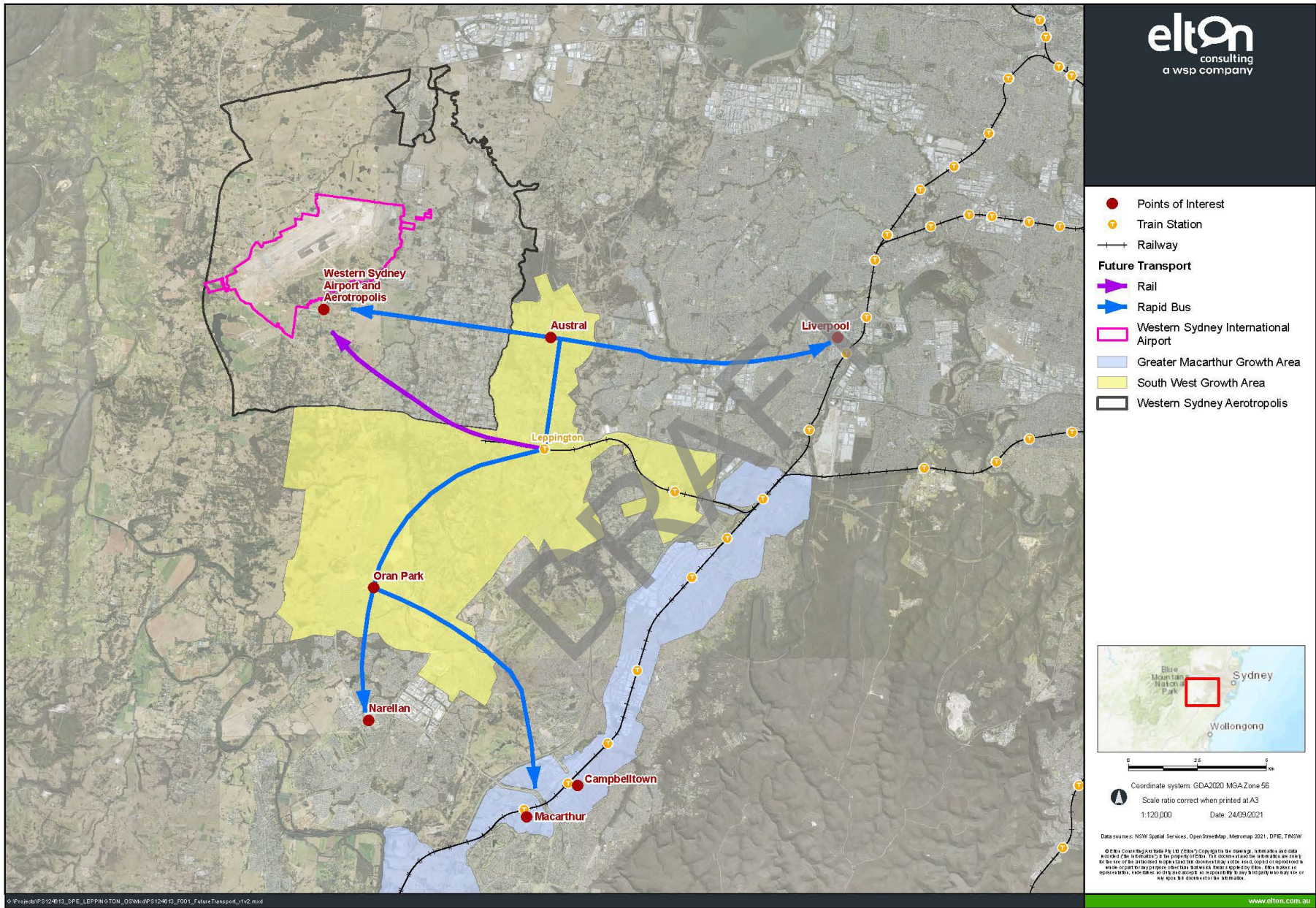
The LTCP is located west of the Liverpool CBD and north of Campbelltown in the SWGA (**Figure 1**). Key geographical features of LTCP include:

- » Its proximity to the Aerotropolis Core
- » Leppington Train Station which is the end of the T2 Inner West and Leppington line
- » Bringelly Road which runs through the precinct
- » The M7 to the east, providing north south connections
- » The Northern Road to the west which will provide north south connections into the Aerotropolis Core.

The proposed South West Rail Link Extension would extend the train line at Leppington to the Aerotropolis. Additionally, LTCP is part of the proposed north-south rapid bus route from Liverpool to Campbelltown via Leppington and Oran Park.

The LTCP incorporates land within Liverpool City Council (land to the north of Bringelly Road) and land within Camden Council (land to the south of Bringelly Road). Consequently, DPE is working with both Councils to develop the planning proposal for the LTCP. Camden Council, together with Liverpool City Council, is leading development of the Indicative Layout Plan (ILP) and the planning proposal.

Figure 1 Study area in proximity to Aerotropolis



Source: Western Sydney Planning Partnership, Western Sydney Aerotropolis Plan, 2020 and Elton Consulting

1.2 This report

This report will explore the implications of development in the LTCP for social infrastructure and open space provision. It includes:

- » An introduction to the report and the LTCP (Chapter 1)
- » A review of relevant NSW State Government, Camden and Liverpool City Council policies and plans as well as a review of previous recommendations for this precinct (Chapter 2)
- » A review of existing social infrastructure in the surrounding areas and analysis of the current population (Chapter 3)
- » A forecast of the size of the future population at LTCP and its likely demographic characteristics (Chapter 4)
- » A high level assessment of required infrastructure based on benchmarks (Chapter 5)
- » Regional social infrastructure and open space recommendations (Chapter 6)
- » Local social infrastructure and open space recommendations for the LTCP (Chapter 7)
- » Our conclusion about the social infrastructure and open space required in the LTCP and the adequacy of the draft ILP (Chapter 8).

This report will support master planning for the LTCP.

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2 Background policies and documents

We have reviewed key documents from NSW Government agencies, Camden Council and Liverpool City Council to provide context to the study and inform our recommendations. These documents include:

- » The Greater Sydney Region Plan – A Metropolis of Three Cities, Greater Sydney Commission, 2017
- » Western City District Plan, Greater Sydney Commission, 2018
- » Draft Greener Places Design Guide, Government Architect's Office NSW, 2020
- » Western Sydney Airport and Aerotropolis Plan, DPE, 2020
- » Western Sydney Growth Areas Special Infrastructure Contribution, 2011
- » Camden Growth Areas Contributions Plan – Amendment 1, Camden Council, undated
- » Camden Local Housing Strategy, Camden Council, 2021
- » Camden 2020-2024 Sportsground Strategy, Camden Council, 2020
- » Camden Spaces and Places Strategy, Camden Council, 2020
- » Liverpool Contributions Plan 2014 – Austral and Leppington North Precincts, Liverpool City Council, 2014
- » Community Facilities Strategy, Liverpool City Council, 2017
- » Recreation, Open Space and Sports Strategy 2018-2028, Liverpool City Council, 2017.

These key documents provide important information about the regional context for this study, social infrastructure planning and planning for the LTCP.

2.1 Regional context

The vision for Greater Sydney to be a metropolis of three cities is based on the founding concept that each city – the Western Parkland City, the Central River City and the Eastern Harbour City – have strategic and place-based assets enabling each to thrive in its own unique way. Central to this concept is the 30-minute city in which most residents will have access to jobs, education, health facilities, services and great places within 30-minutes of their home. The Greater Sydney Commission (GSC) describes this approach as *"a vision [that] seeks to rebalance the economic and social opportunities and deliver a more equitable Greater Sydney"*.

The GSC identifies the following hierarchy of centres in its planning framework:

- » Metropolitan clusters provide access to a large number and range of jobs and services within a 30-minute city. The cluster within the Western Parkland City is polycentric with four centres, including Campbelltown-Macarthur, Liverpool, Greater Penrith and the Western Sydney Aerotropolis. The social infrastructure focus for the Western City metropolitan cluster is health and education.
- » Strategic centres have regional significance. They are major employment centres well connected to town centres by transport infrastructure. Social infrastructure within strategic centres caters to residents (both local and further afield) and workers. Leppington is a strategic centre.
- » Town centre – town centres are the focal point for local communities serving the needs of a whole local government area. They have a high quality public domain, are walkable and include a mix of uses with retail, civic, commercial office and residential. They are the key location for social infrastructure in local communities including: community centres, libraries and neighbourhood hubs; sport fields, clubs and courts, pools and leisure centres; and child care, schools, TAFEs and universities.

The Aerotropolis

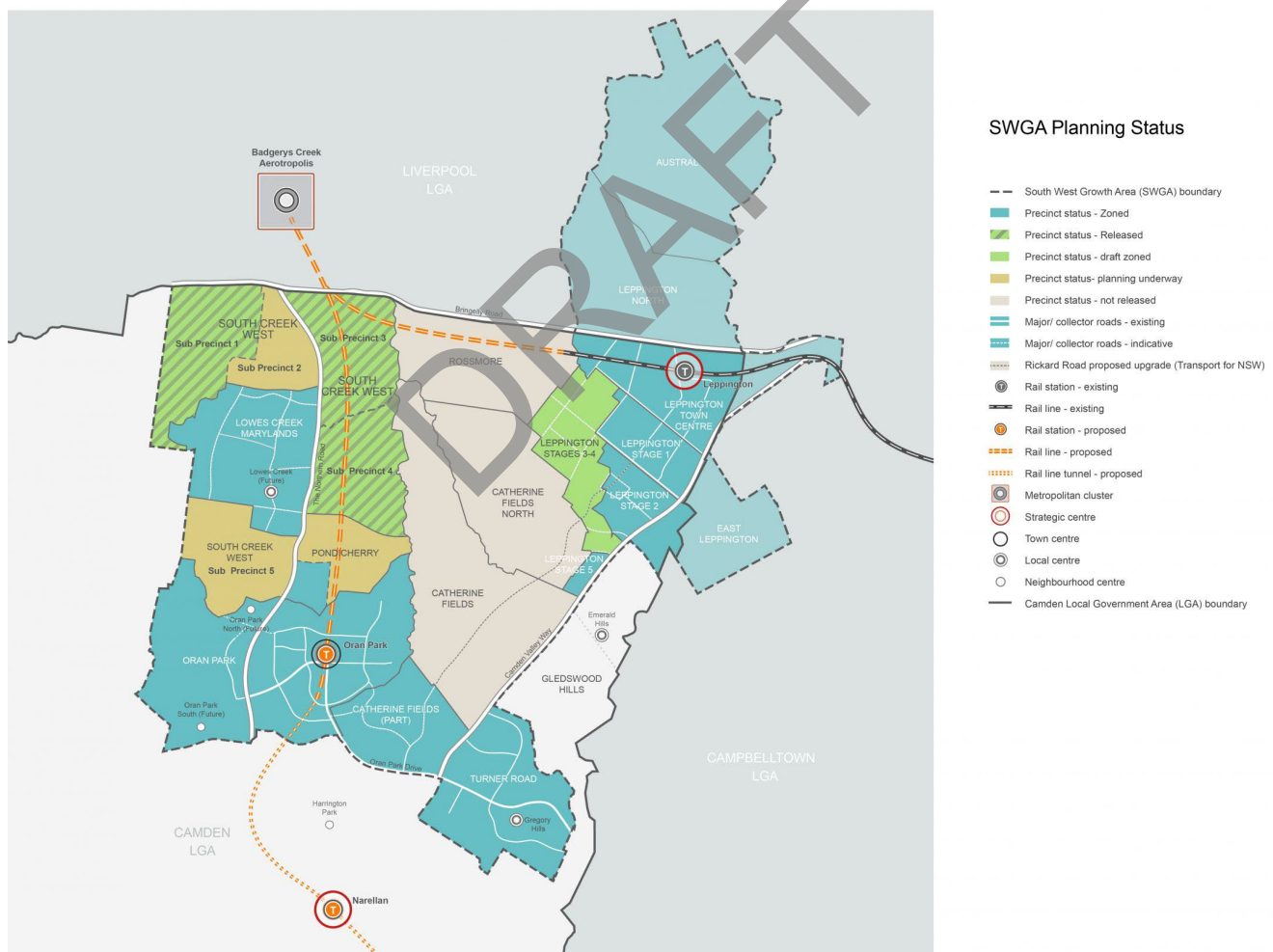
The driver of growth and unique feature for the Western Parkland City will be the Western Sydney Airport and associated Aerotropolis. The Aerotropolis is a catalyst for change and growth across Western Sydney. It will fundamentally redefine the strategic roles of existing suburbs, precincts and local government areas, re-shaping their relationship to Greater Sydney. Investment in infrastructure and land use change will be critical in developing the range of industries and employment opportunities which will support the Western Sydney Airport.

The development of the Aerotropolis is to be guided by four themes – productivity, sustainability, infrastructure and collaboration, and liveability. Key objectives for the Aerotropolis include providing infrastructure that connects and services the Western Parkland City as it grows, and delivering social and cultural infrastructure that strengthens communities.

South West Growth Area

The SWGA will play an important role in supporting the Aerotropolis, providing housing and jobs in areas such as Oran Park and Leppington. The proposed South West Rail Link extension between Leppington and the Aerotropolis will also support access between the SWGA and the Aerotropolis. **Figure 3** shows where the LTCP sits within the SWGA and its proximity to the Aerotropolis.

Figure 2 Leppington Town Centre Precinct within the SWGA



Source: [South West Growth Area > Camden Council \(nsw.gov.au\)](https://www.nsw.gov.au/south-west-growth-area)

It is also important to note planning for the SWGA has shifted considerably since the South West Growth Centre was established in 2004. The key feature of change is the increasing dwelling and population estimates in the area as demand for housing has grown. An indication of this is that the South West Growth Centre Structure Plan

(2006) estimated a future population of 300,000 people once developed. This was increased to 450,000 people in August 2014 based on updated housing market analysis and then in 2017 when the South West Priority Growth Area was established it grew to 600,000 people.

2.2 Social infrastructure planning

The high level of growth within the SWGA has significant implications for social infrastructure planning across the region and within the LTCP.

Regional social infrastructure

Two reports completed by GHD in 2015 and 2017 assessed the current and future provision of social infrastructure and open space across the SWGA¹. Elton Consulting's 2011 social infrastructure assessment for the Austral and Leppington North Precincts also addressed regional social infrastructure provision. Probably the key issue identified in these reports was the undersupply of open space due to population growth and the lack of private open space across the SWGA (i.e. through the shrinking backyard and shift towards medium and higher density development).

The reports provide recommendations to address potential undersupply, including:

- » Embellishment of recreational spaces
- » Connecting district spaces by active transport links and public transport options to increase accessibility
- » Staging the delivery of open space in accordance with development to prevent temporal shortfalls
- » Consulting with government agencies to explore additional opportunities for recreationally zoned land
- » Exploring shared use agreements for the use of formal and passive open space.

Recommendations specifically related to the LTCP include:

- » Investigating opportunities to provide additional areas of recreationally zoned land within medium to high density housing areas within and adjacent to the LTCP
- » Considering shared public use of open space and formal recreation facilities within primary, secondary, tertiary and vocational educational infrastructure
- » Developing a major regional sports stadium within the southern precinct of the Western Sydney Parklands
- » Delivering one multipurpose community centre collocated with a library, and one major arts and cultural centre
- » Providing an ambulance hub, fire station, police station, TAFE college and regional integrated primary healthcare facility, and potentially a court house.

We note shared use of open space is an issue of concern for Camden Council. Council does not have an agreement in place with the NSW Department of Education for shared use of open space with primary and secondary schools. However, Council is aware that under the NSW Productivity Commission recommendations², from 1 July 2022 it will need to demonstrate it is maximising the efficient use of land and has considered sharing of facilities including open space.

Local and district social infrastructure

Camden and Liverpool City Councils face increasing pressure to provide and deliver social infrastructure given the following key challenges:

¹ GHD (2015), South West Growth Centre and Western Sydney Employment Area: Social Infrastructure Assessment; GHD (2017), Priority Growth Areas: Open Space Audit – South West Growth Area 2017

² NSW Productivity Commission (2020), Review of Infrastructure Contributions in New South Wales – Final Report, <https://www.productivity.nsw.gov.au/sites/default/files/2020-12/Final%20Infrastructure%20Contributions%20Review%20Report.pdf>

- » Growing demand due to high population growth and a young age profile
- » The ageing of existing facilities and environmental risks to Council assets
- » The high cost of land acquisition for new facilities. Liverpool Council is currently developing a priority land acquisition program and long term financial plan to support provision of critical social infrastructure
- » The lack of funding for new social infrastructure in land release areas.

Both Councils also face unique challenges. Camden is experiencing rapid land-use change from rural to residential and has limited public transport. Liverpool, on the other hand, has several urban precincts requiring renewal and is experiencing increasing population density leading to increasing pressure on public facilities, particularly open space, as private open spaces shrink.

Both Councils identify particular issues related to social infrastructure in the LTCP and the study area more broadly including:

- » Little capacity within existing infrastructure – existing local and district level facilities have largely been designed to meet the needs of a small population within a semi-rural area, so they have little capacity to meet the needs of the new population
- » Some capacity within regional infrastructure – regional facilities that might have the potential to accommodate the additional population include Liverpool Hospital, Western Sydney University's Campbelltown Campus and Western Sydney Parklands
- » Undersupply of open space – there is a lack of quality/useable open space and sport fields with many parks being less than 0.2-0.3 hectares in size, and many being located in flood prone areas, drainage basins, or land that is too steep. There is also a lack of higher-level sporting facilities and a shortage of large, multi-purpose parks
- » Poor access to recreation facilities – there is no regional playground in a central location and few accessible playgrounds. There is also a gap in the provision of game tables and fitness equipment. Access to BBQs and picnic tables can also be difficult at peak times
- » Need for performance space – there is a need for affordable performance space for dance, Physie and other performance-based community activities to be provided within future community facilities.

Councils' social infrastructure priorities for Leppington include:

- » Delivery of new open space, including 14 new sport fields, 10 courts and 8 tennis courts across Leppington, Leppington East and Leppington North
- » Plans for a new regional library co-located with community centre and performing arts centre in LTCP.

Importantly, though, Liverpool City Council has identified rapid population growth in Leppington and the broader SWGA, as a strategic risk for the equitable distribution of social infrastructure across the LGA, and a substantial financial risk for Council. This underscores challenges in funding new social infrastructure in the LTCP.

Funding social infrastructure

Both Councils identify there is a lack of funding for social infrastructure in new release areas. We note that:

- » Contributions plans are able to collect contributions for land acquisition required for social infrastructure and open space
- » The Independent Pricing and Regulatory Tribunal (IPART) currently restricts contributions plans from collecting contributions to fund the works costs of social infrastructure and the embellishment of open space
- » The contributions plan for Austral Leppington North, which is likely to be the contribution plan for the LTCP, is currently being assessed by IPART
- » The NSW Government is currently reforming the infrastructure contributions system with a view to resolving uncertainty, enabling new housing supply and delivering public infrastructure. Key areas for attention

relevant to the LTCP include enhancing the capacity of councils to support growth and developing a stronger funding base for State and regional infrastructure. The reforms are being implemented from 2022³.

We also note that Camden Council is currently developing an Open Space, Social Infrastructure and Public Domain Strategy that will itemise, map and cost the open space, public domain and social infrastructure required for the LTCP. This will confirm the funding requirements for the LTCP.

Implications for LTCP

LTCP is situated within a local and regional planning context which is preparing for change at a 'once in a generation' scale. LTCP will play an important role in supporting the Aerotropolis, provide housing stock and diversity to the precinct, and be part of a network of strategic centres which will facilitate the 30-minute city.

The SWGA is expected to continue to grow and social infrastructure will struggle to meet current and future demand. A key opportunity and challenge for LTCP is meeting the needs of future residents as well as providing services and facilities which are accessible to the broader region. The delivery of regional social infrastructure will also be fundamental in activating the precinct as a strategic centre in the SWGA.

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³ DPE, Improving the infrastructure contributions system, <https://www.planning.nsw.gov.au/Policy-and-Legislation/Infrastructure/Infrastructure-Funding/Improving-the-infrastructure-contributions-system>

3 Existing context

This chapter provides a snapshot of existing factors to be considered in the planning of social infrastructure for the LTCP. This includes:

- » Existing population characteristics of Leppington suburbs
- » Existing social infrastructure provision within close proximity to the site (see **Figure 6, 7** and **Appendix A**) and with a focus on regional social infrastructure.

The review of existing facility provision and an analysis of the existing population assists in the identification of possible social infrastructure needs and gaps in the area.

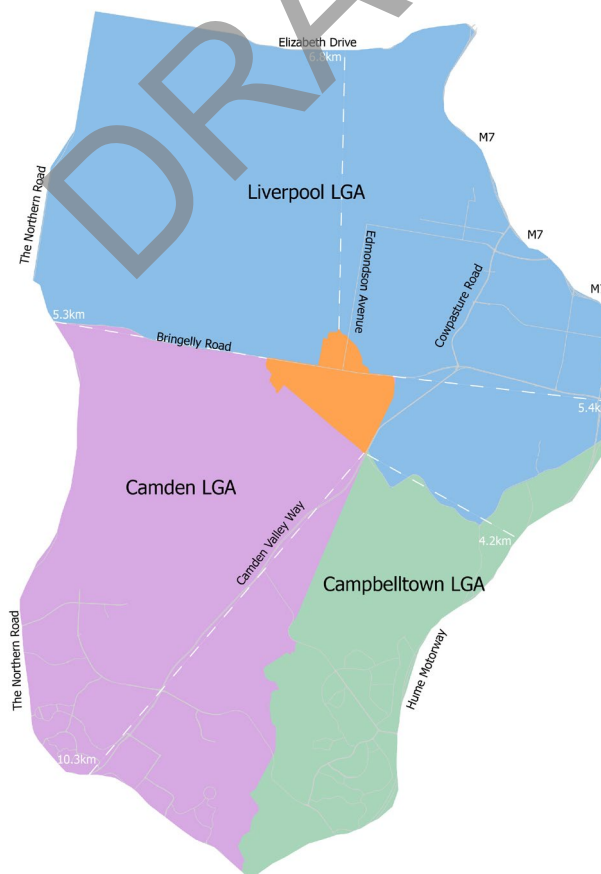
Defining the study area

The study area has been defined by major roads surrounding the sites as they divide local areas by limiting pedestrian access. The study area is bound by:

- » Elizabeth Drive, 6.5km to the north
- » The M7, 5.7km to the east
- » The Hume Motorway, 4.2km to the south-east
- » The Northern Road, 5.2-10.3km to the west and south-west

As **Figure 4** below highlights, the study area includes the LGAs of Liverpool, Camden and Campbelltown, while the project site sits within both Camden and Liverpool LGAs.

Figure 3 The study area by LGA



Source: Elton Consulting

3.1 Existing community

Key demographic characteristics have been summarised for geographic areas utilised in the Profile id collation of Census data for both Camden and Liverpool Councils. The geographic areas used in this analysis are:

- » Leppington Rossmore Catherine Field
- » Camden Growth Areas District
- » Camden Local Government Area
- » Liverpool Local Government Area.

Data shown below is 2021 Australian Bureau of Statistics Census of Population and Housing data. It is noted that some 2021 Census data on occupation, income, method of travel to work, and other Census variables is not yet published.

Some key issues summarised from the 2021 data are:

- » The Leppington Rossmore Catherine Field area has a similar age profile to the Camden Growth Area District, with the exception being higher proportions of 0-11 year olds in Leppington Rossmore Catherine Field
- » The percentage of people born overseas is greater in Leppington Rossmore Catherine Field and Camden Growth Area District compared to Camden LGA but all areas are significantly lower than the more diverse Liverpool LGA
- » India, Iraq and China are the main countries of birth for those people who are born overseas
- » Household structure is similar across all the Camden areas but these areas are distinct from Liverpool which has less couples households and more lone person households
- » Lower levels of English speaking only households in Leppington Rossmore Catherine Field and Camden Growth Area District compared to Camden LGA as a whole
- » Leppington Rossmore Catherine Field has a higher level of fully owned homes than all other areas, as well as lower levels of renting.

Table 1 Existing demographic characteristics

	Leppington Rossmore Catherine Field	Camden Growth Areas District	Camden LGA	Liverpool LGA
2021 population	11,238	42,675	119,951	214,373
Indigenous persons	199 (1.8%)	1,082 (2.6%)	3,875 (3.2%)	3,832 (1.6%)
Age Profile (%)				
Babies & pre-schoolers (0 to 4)	9.9	11.9	7.4	7.1
Primary schoolers (5 to 11)	10.7	12.1	9.4	10.6
Secondary schoolers (12 to 17)	7.3	7.1	7.5	8.5
Tertiary education & independence (18 to 24)	7.7	7.6	10.2	9.8
Young workforce (25 to 34)	18.8	20.5	15.2	14.3
Parents & homebuilders (35 to 49)	21.8	23.2	18.8	21.1
Older workers & pre-retirees (50 to 59)	9.8	7.7	12.8	11.9
Empty nesters & retirees (60 to 69)	7.1	5.7	10.2	8.8
Seniors (70 to 84)	6.1	3.7	8.5	6.5
Elderly aged (85 and over)	0.7	0.5	0.8	1.3
Birthplace				
Overseas Born (%)	35.7	32.0	23.0	43.2
	India (3.2)	India (4.5)	China (4.6)	China (4.6)
	Iraq (2.5)	Iraq (2.0)	India (3.6)	India (3.6)
	China (2.5)	Philippines (1.9)	UK (3.5)	Vietnam (1.8)
Households and Families (%)				
Couples with children	50.5	50.9	47.5	44.2
Couples without children	22.9	21.3	22.3	17.0
One parent families	8.8	10.8	11.7	14.2
Other families	1.2	0.8	0.8	1.2
Group household	1.7	1.7	1.6	1.8
Lone person	11.5	11.1	13.5	16.3
Avg. household size	3.27	3.23	3.09	3.14

	Leppington Rossmore Catherine Field	Camden Growth Areas District	Camden LGA	Liverpool LGA
Proficiency in English (%)				
Speaks English only	52.1	58.8	74.0	39.5
Speaks another language, and English well or very well	38.3	33.0	20.4	44.5
Speaks another language, and English not well or not at all	5.6	4.0	2.3	9.8
Housing (%)				
Fully owned	22.8	12.8	14.5	21.8
Mortgage	47.4	51.4	51.3	36.7
Renting	24.1	30.2	24.3	33.5
Separate house	95.4	91.6	92.0	70.4
Medium density	1.9	7.5	7.3	14.0
High density	-	-	0.1	15.2
Disability (%)				
Need assistance with core activities	4.2	3.6	4.6	6.5

Profile id date obtained from Camden Council and Liverpool City Council community profile web sites. 2021 data used where available.

3.2 Existing social infrastructure

Maps for all social infrastructure within the LTCP and the study area are at **Appendix A**.

3.2.1 Aged care, emergency services and health

Aged care facilities

There are seven retirement villages and four aged care facilities within the study area. They are general co-located in land release areas such as Oran Park and in Leppington (along Camden Valley Way). There is also a cluster of facilities in Austral, north of the site.

The seven retirement villages provide a total of 350 retirement dwellings. As of June 2021, noting there was no data available for one village, there was a vacancy rate of 8% (28 dwellings). The four aged care facilities provide a total of 147 beds. There is not enough data to determine the availability of these services as half of the facilities provided no capacity data at all.

The local area currently has a moderate supply of retirement villages, but many of these facilities are at or close to capacity. The current capacity of aged care facilities in the local area is unknown.

Emergency services

Ambulance

There are two ambulance stations within close proximity to the LTCP, one in Macquarie Fields and one in Leppington. The Leppington Ambulance Station is located along of the eastern boundary of the LTCP while the Macquarie Fields station is outside the study area.

NSW Ambulance is shifting the delivery model of stations across Sydney⁴, focusing on superstations supported by small stations called paramedic response points. The closest superstation to LTCP is Liverpool, which commenced operation in 2017. The Leppington Ambulance Station is a paramedic response point.

Courts

Existing courthouses are in the town centres of Camden, Campbelltown, and Liverpool City Centre.

Consultation with the Department of Communities and Justice has confirmed they propose to develop a new justice precinct in Glenfield rather than LTCP as originally planned. Depending on the proximity of the LTCP to the rail station this may make it difficult for people living within the regional catchment for LTCP, particularly those in the west, to access legal services within 30 minutes.

Fire and rescue

There are nine Fire and Rescue NSW (FRNSW) stations, including NSW Rural Fire Service (RFS) brigades, within close and moderate proximity to the LTCP. The Leppington Rural Fire Brigade is within the LTCP while FRNSW Horningsea Park, Middleton Rural Fire Brigade and Catherine Rural Fire Brigade are located within the study area.

The high proportion of RFS brigades within the local area (total of five out of nine facilities) reflects the previous rural nature of the SWGA.

Consultation with Fire and Rescue NSW (FRNSW) confirms the LTCP is currently part of the NSW RFS district, but it would be expected that post-development LTCP would become a FRNSW district.

The Horningsea Park FRNSW station is a 24 hour staffed station developed to support current and future demand in the area. It currently has capacity to absorb additional demand and is expected to service the LTCP. FRNSW

⁴ See NSW Health Infrastructure (2021), Sydney Ambulance Metropolitan Infrastructure Strategy (SAMIS), <https://www.hinfra.health.nsw.gov.au/our-projects/project-search/sydney-ambulance-metropolitan-infrastructure-strat>

also has plans for a future fire station within the Catherine Fields North precinct, although timing for delivery of this facility has not been determined. It is anticipated this new facility could also service the LTCP if required.

Police

Leppington is part of two Police Area Commands (PAC), Camden and Liverpool. These PACs have offices in:

- » Camden PAC – Narellan, Picton and The Oaks
- » Liverpool PAC – Green Valley and Liverpool.

There are no police stations within the study area, but the closest stations are Green Valley and Macquarie Fields, which is within the Campbelltown City PAC.

Consultation with NSW Police has confirmed a police station may be required as the population develops at LTCP.

Health services

Community health facilities

The nearest community health centre to LTCP is at Hoxton Park with other facilities in Ingleburn, Liverpool, Miller and Oran Park⁵.

Oran Park Family Health is a district to regional level health facility partly funded by the South Western Sydney Local Health District (SWSLHD). It provides a range of services, including general medicine and family health care, women and men's health, pediatrics and childhood immunisations. The facility has 8 general practice consulting rooms, a 3 bed treatment room, 5 allied health consulting rooms, specialist suites and space for medical imaging, pathology collection and physiotherapy.

These facilities currently have some capacity to meet growing needs in the SWGA. However, the SWSLHD and previous social infrastructure studies have identified that as the population grows at LTCP and in the surrounding area there will be a need for a new facility.

SWSLHD is proposing to develop an Integrated Health Care Hub (IHHub) at LTCP. IHHub's are designed to "deliver a new range of clinical services traditionally delivered from hospital facilities ... IHHub's, Community Health Centres and District Hospitals will operate as an integrated system working collaboratively with primary and secondary providers who deliver care outside the public health system"⁶.

Hospitals

There are no hospitals within the study area. However, there are **regional** hospitals in Campbelltown and Liverpool and a smaller hospital in Camden (**Table 2**). All three hospitals are a similar distance from site.

Table 2 List of hospitals relevant to the LTCP

	Number of beds	Emergency capability	Distance from site
Camden Hospital	74 beds	Limited emergency capability – partners with Campbelltown Hospital	18.3km / 24-minute drive without traffic
Campbelltown Hospital	306 beds	Moderate emergency capability	19.2km / 25-minute drive without traffic
Liverpool Hospital	915 beds (855 beds and 60 critical care beds)	Significant emergency capability	15.2km / 20-minute drive without traffic

⁵ South Western Sydney Local Health District, Primary & Community Health – Locations, <https://www.swslhd.health.nsw.gov.au/CommunityHealth/contact.html>

⁶ South Western Sydney Local Health District (2020), SWSLHD Care in the Community Clinical Services Plan Stage Two including land assessment across three sites, <https://www.swslhd.health.nsw.gov.au/planning/content/pdf/Scoping%20Papers/>

Private medical services

There are 24 medical centres within the study area, with two within the LTCP. Medical centres are clustered in Prestons, Carnes Hill and Narellan and then sprinkled across the study area in Austral, Gregory Hills, Raby, Eschol Park and Eagle Vale.

Specialist health services, such as pathology, radiology and dental, are clustered in larger centres such as Narellan, Campbelltown and Liverpool. The presence of regional hospitals at Liverpool and Campbelltown has driven the need and demand for a range of supporting health services in these areas.

Implications for LTCP

There is some existing capacity within the aged care, emergency service and health care systems in and around the LTCP. However, new public facilities are proposed to respond to additional demand due to population growth in the area. These include a new justice precinct in Glenfield, a new fire station at Catherine Field North and a new health facility in the LTCP. NSW Police may also require a facility in the LTCP as the population grows.

3.2.2 Child care and education

Child care

There are 34 centre based child care services and 15 out of school hours' care (OSHC) centres within the study area. Of these, 4 childcare services and 3 OSHC services are within close proximity to the site. Generally, childcare services are clustered to the north east and south west of the LTCP. These clusters are in residential suburbs such as Oran Park, Harrington Park, Hoxton Park, Prestons and Edmondson Park. OSHC services tend to be located with primary schools in residential areas.

Our review of vacancy data found that:

- » One third of childcare centres (32.4%) were advertising vacancies, with the remaining centres having no vacancies (41.2%) or not advertising vacancies (26.5%)
- » Two thirds of OSHC centres (66.7%) were advertising vacancies, with the remaining centres having no vacancies (13.3%) or not advertising vacancies (20.0%).

This suggests there is existing capacity within child care and OSHC centres in the area.

Education

Primary Schools

There are 16 government primary schools and 5 non government primary schools within the study area. A new primary school, Denham Court Public School (south of the LTCP on Commissioners Drive), was opened in 2022. It will accommodate up to 940 students from years K-6. Its catchment area which extends south east of Camden Valley Way does not include the LTCP.

Primary schools closest to the LTCP include Leppington Public School which is within the LTCP, Austral Public School (north of the LTCP along Edmondson Avenue) and Rossmore Public School (west of the LTCP along Bringelly Road). Of the three schools, Austral Public School has the capacity to accommodate an additional (approximately) 84 students, while Leppington Public School is currently overcapacity (**Table 3**).

Table 3 Capacity of local government primary schools

Name	Enrolment capacity	2020 Enrolment	Provision
Austral Public School	370	286	84 student spaces
Leppington Public School	255	279	-24 student spaces
Rossmore Public School	Data not available		

Source: Australian Curriculum Assessment and Reporting Authority, My School, <https://www.myschool.edu.au/>

Enrolment trends for local primary schools (**Table 4**) show increasing demand for most schools (public and private) over the last 5 years:

- » All private schools and Austral Public School have experienced a steady increase in enrolments.
- » Leppington Public School within the LTCP has experienced significant growth
- » Rossmore Public School has declining enrolments.

Table 4 Enrolment trends for local public and private primary schools

Name	2016	2017	2018	2019	2020	Change
Austral Public School	281	272	269	286	294	+4.6%
Leppington Public School	121	136	191	279	333	+175.2%
Rossmore Public School	99	93	88	72	65	-34.3%
St Justin's Catholic Primary School	769	795	808	816	806	+4.8%
St Catherine of Siena Catholic Primary School	591	621	622	614	629	+6.4%
Good Shepherd Catholic Primary School	437	429	449	445	438	+0.2%
Holy Spirit Catholic Primary School	641	645	637	642	654	+2.0%
Mary Immaculate Catholic Primary School	439	439	410	440	460	+4.8%

Source: Australian Curriculum Assessment and Reporting Authority, My School, <https://www.myschool.edu.au/>

Camden Council is working with School Infrastructure NSW (SINSW) to address the need for primary school education within the LTCP and in the broader catchment area, including southern part of Austral. Consultation with SINSW has confirmed there is currently some capacity within the local school system, but that the demand for further educational infrastructure due to population growth in Austral and LTCP is expected to grow strongly. The new primary school in Denham Court will help meet demand to the south of LTCP, but SINSW anticipates two additional or upgraded government primary schools would be needed to accommodate the demand from development to meet expected demand.

SINSW intends to deliver one new government primary school north of LTCP in Austral and potentially upgrade the existing Leppington Public School.

Secondary Schools

There are 8 government and non government secondary schools within the study area (**Table 5**). None are close to the LTCP.

Enrolment trends over the past 5 years show government secondary schools (Eagle Vale High School, John Edmondson High School and Robert Townson High School in Table 5) have experienced a slight decline in enrolments, while non government secondary schools have had reasonably significant increases. Importantly, though, the government secondary school closest to the LTCP, John Edmondson High School, is currently operating over capacity by nearly 200 places⁷ and a new government secondary school has been built in Oran Park to accommodate population growth. This suggests that there is substantial demand for secondary schools in the local area.

Table 5 Enrolment trends for local public and private secondary schools

Name	2016	2017	2018	2019	2020	Change
Clancy Catholic College	1,135	1,140	1,164	1,206	1,220	+7.5%
Eagle Vale High School	521	496	487	491	504	-3.3%
John Edmondson High School	1,177	1,196	1,156	1,174	1,165	-1.0%
Mount Carmel Catholic College	1,042	1,047	1,061	1,082	1,112	+6.7%
Oran Park High School	N/A	N/A	N/A	N/A	279	New School
Robert Townson High School	794	759	727	739	760	-4.3%
St Benedict's Catholic College	665	753	841	911	974	+46.5%
Thomas Hassall Anglican College	1,580	1,626	1,607	1,621	1,673	+6.1%

Source: Australian Curriculum Assessment and Reporting Authority, My School, <https://www.myschool.edu.au/>

Camden Council is working with SINSW to address needs for secondary school education in the LTCP and the broader catchment area, including southern part of Austral. Consultation with SINSW has confirmed a new government high school will be needed in LTCP to meet future demand. Currently, SINSW is exploring two potential options:

- » Delivering a new high school site within the LTCP
- » Redeveloping the existing primary school to incorporate a high school

The NSW Government has also announced it will develop a new selective school in the LTCP⁸. The LTCP has been selected given it is a strategic centre and selective schools service a regional catchment, and as it has strong public transport connections with the train station and rapid bus transit.

Tertiary Education

The only tertiary and vocational educational institutions within a 30 minute journey from LTCP by public transport are those in Liverpool. They include Liverpool TAFE, the University of Western Sydney's Liverpool campus and the University of Wollongong South Western Sydney campus.

Other facilities beyond a 30 minute public transport journey include:

- » TAFE NSW campuses at Campbelltown, Macarthur, Glenfield and Miller

⁷ My School indicates John Edmondson High School has an enrolment capacity of 980 students and that in 2020 there were 1,174 enrolments.

⁸ Baker, J. (2021), Sydney to get its first new selective high school in 25 years, SMH 22 June 2021, <https://www.smh.com.au/politics/nsw/sydney-to-get-its-first-new-selective-high-school-in-25-years-20210622-p5839h.html>

- » The University of Western Sydney campus in Campbelltown.

We understand TAFE NSW had acquisition rights to a site within the LTCP, but has recently relinquished these rights. There is a Land Reservation Acquisition Layer for TAFE identified in the Growth Centres SEPP (Appendix 9) and funding available for a TAFE in the LTCP through the SIC. However, TAFE NSW's strategic direction is focused on upgrading existing assets rather than developing new ones.

Key locations for future tertiary education facilities near the LTCP include:

- » Aerotropolis – the University of Newcastle, University of Wollongong and Western Sydney University plan to develop a multi-versity⁹. The multi-versity has commenced offering courses in Science, Technology, Engineering and Mathematics disciplines. Plans for the establishment of a physical campus in the Aerotropolis by 2026. TAFE NSW will also be developing a Skills Exchange at the Aerotropolis. It will be a collaboration with industry and the local community to provide training and employment opportunities during and beyond the construction phase of the project¹⁰
- » Campbelltown – Western Sydney University and TAFE NSW are involved with NSW Health, Campbelltown Council and the Ingham Institute in developing a masterplan for the Campbelltown Health, Knowledge and Innovation Precinct¹¹
- » Liverpool – the University of NSW, University of Wollongong and Western Sydney University with TAFE NSW have signed a statement of intent to deliver a world class health and education precinct¹².

Implications for LTCP

There is some existing capacity in local primary schools, but overall primary, secondary, tertiary and vocational educational infrastructure in this area is under pressure. Given high rates of population growth, SINSW proposes to develop two new primary schools and one new high school in the area, but TAFE NSW has decided not to develop a new facility in LTCP.

Tertiary and vocational education providers are proposing to expand their facilities in key centres at the Aerotropolis, Campbelltown and Liverpool. This will strengthen educational opportunities in the LTCP, although only Liverpool is currently within a 30 minute public transport journey from the LTCP. The South West Rail Link Extension and the introduction of rapid bus lines linking Leppington to Campbelltown, Liverpool and the Aerotropolis will enable faster access to these areas.

⁹ Western Sydney University (2020), NUW Alliance to deliver a world-class Multiversity in the new Western Sydney Aerotropolis, <https://www.enterprise.unsw.edu.au/news/nuw-alliance-multiversity>

¹⁰ TAFE NSW, Official – Skills Exchange for Western Sydney Airport, <https://www.tafensw.edu.au/wsa#:~:text=A%20Skills%20Exchange%20is%20a,way%20a%20workforce%20receives%20training>, accessed on 18 December 2020

¹¹ GSC (2020), Campbelltown-Macarthur Places Strategy, https://gsc-public-1.s3-ap-southeast-2.amazonaws.com/s3fs-public/campbelltown_-_macarthur_place_strategy_0.pdf

¹² Western Sydney University (2019), Universities unite to deliver a positive prognosis for Liverpool, https://www.westernsydney.edu.au/newscentre/news_centre/story_archive/2019/universities_unite_to_deliver_a_positive_prognosis_for_liverpool

3.2.3 Community facilities

Arts and culture



Network capacity

There is only 1 regional cultural/performance facility across the Camden LGA. As identified in the Spaces and Places Strategy, there is an existing shortfall of 2 cultural/performance spaces across the LGA. This shortfall is anticipated to increase to 6 by 2036. Council notes that the proposed Leppington Community Centre is the only planned cultural facility within the LGA.

Liverpool Council seeks to establish Liverpool as a centre for cultural activity enabling all members of the community to be part of the city's cultural life. Its new community facility strategy seeks to deliver a range of multi-purpose facilities across the LGA which have the ability to support and facilitate art and cultural activities.

The only art and cultural facility within the study area is the Cultural Activity Room and auditorium, part of the new Julia Reserve Community Centre. The auditorium has capacity to seat 190 people. There are no dedicated arts or cultural facilities within the study area. The regional level Leppington Community Centre proposed for the LTCP is to incorporate a cultural facility. Importantly, funding for cultural facilities is identified the Western Sydney SIC and the Leppington North Contributions Plan.

Outside of the study area there are arts and cultural facilities clustered in Camden and Casula including:

- » Camden Civic Centre (Camden LGA): The Camden Civic Centre is the largest performance facility within Camden LGA with a maximum capacity of 600 people, operating at a **regional** scale. Camden Council notes that this facility is well utilised, with usage increasing 34 % over the last 4 years.
- » Alan Baker Art Gallery (Camden LGA): A small, dedicated art space celebrating Australian artist Alan Baker with the potential to support current and future local artists. The Alan Baker Art Gallery is a **local** facility.
- » Camden Museum (Camden LGA): A small museum dedicated to the colonial history of the area. The Camden Museum is a **local** facility.
- » Casula Powerhouse Arts Centre (Liverpool LGA): A joint partnership between Liverpool City Council and the NSW Government (through Create NSW), is a **regional** cultural facility which celebrates local and emerging artists alongside national and international exhibitions. The facility includes 6 galleries, 321 seat theatre, 2 artist studios, climate controlled storage, permanent art installations¹³.
- » Campbelltown Performing Arts Centre (Campbelltown LGA): While not in the Camden LGA, Camden Council notes that the Campbelltown Performing Arts Centre is a state-of-the-art regional facility that services the Camden LGA. The Campbelltown Performing Arts Centre showcases contemporary cultural programs and is a **regional** facility.

The large regional facilities near LTCP (**Table 6**) are at capacity with Casula Powerhouse Art Centre and the Campbelltown Arts Centre having over 100,000 visitors a year each, and demand for the Camden Civic Centre having increased 34% over the last four years.

Table 6 Regional arts and cultural facilities near LTCP

Social infrastructure type	Name	Location
Arts and culture	Camden Civic Centre	Camden LGA
	Casual Powerhouse Arts Centre	Liverpool LGA
	Campbelltown Performance Arts Centre	Campbelltown LGA

¹³ <https://www.casulapowerhouse.com/about>

The lack of cultural infrastructure in this area is confirmed by Create NSW. Its review of cultural infrastructure across Western Sydney¹⁴ found there is limited purpose built cultural infrastructure particularly in southern areas, including Camden and Liverpool. The majority of spaces were multipurpose spaces designed for use as for arts, cultural, sports, functions and other community purposes. These venues are not ideal for “creative participation as (they) lack specialised facilities, equipment and storage spaces”. Particular gaps included:

- » Camden does not have exhibition spaces for digital art and literature, nor does it have making spaces for dance, film, literature, music, theatre and visual arts
- » Liverpool does not have exhibition spaces for digital art and literature, nor does it have making spaces for digital art, film and literature.

The NSW Cultural Infrastructure Plan 2025+¹⁵ identifies needs for affordable and fit for purpose spaces for the small to medium creative sector, and for community learning and arts education. It also notes the opportunity to “embed cultural infrastructure in key growth clusters and projects, including the proposed Western Sydney Aerotropolis and Western Sydney City Deal”.

Community centres and halls



Network capacity

Camden Council notes all community centres across the LGA are local level facilities. There is currently a surplus of 1 neighbourhood facility and a shortfall of 3 regional facilities, but by 2036 there will be a shortfall of 19 neighbourhood and 9 regional facilities. Liverpool Council has also commented that there are no regional level community facilities within the Liverpool LGA.

Liverpool Council identifies a lack of community facilities and the ageing of existing facilities as key issues. It also notes the key challenges in its New Release Districts, which includes the LTCP, are meeting the needs of a growing population with timely delivery of infrastructure.

Importantly both Councils identify the proposed Leppington Community Centre with a library and cultural facility as an important regional facility for the area.

There are 8 community centres and 3 halls within the study area. The majority are neighbourhood or local level facilities¹⁶. This includes:

- » Carnes Hill Community Centre (Liverpool LGA): The community centre includes 3 meeting rooms, 2 large function rooms and library. It is part of Carnes Hill Community and Recreation Precinct which is Liverpool Council’s flagship facility incorporating Carnes Hill Library, community centre and large indoor and outdoor recreation.
- » Catherine Field Community Hall (Camden LGA): A small community hall with a total floor space of approximately 133sqm. The hall has a total capacity for 90 people seated or 120 standing. Camden Council notes that the hall is regularly used by dancer and martial arts groups, hosts small concerts and private hire for celebrations.
- » Currans Hill Community Hall (Camden LGA): A small community facility with a total floor size of approximately 137sqm. The facility has two spaces which can be converted into one larger space, providing flexibility for users.
- » Eagle Vale Community Centre (Campbelltown LGA): A small facility with a maximum capacity of 34 people.

¹⁴ SGS (2018), Mapping Arts and Culture in Western Sydney, <https://create.nsw.gov.au/wp-content/uploads/2018/12/Attachment-A-Mapping-Arts-and-Culture-in-Western-Sydney.pdf>

¹⁵ Create NSW (2019), Cultural Infrastructure Plan 2025+, https://create.nsw.gov.au/wp-content/uploads/2019/02/20190206_CIP2025.pdf

¹⁶ Camden and Liverpool City Councils use different definitions for community infrastructure. Camden’s hierarchy includes neighbourhood, local and regional facilities, while Liverpool’s has neighbourhood and district level facilities.

- » Emerald Hills Community Centre, Emerald Hills (Camden LGA): A new community centre delivered in 2020 as part of the Emerald Hills land release.
- » Greenway Park Community Centre, Carnes Hill (Liverpool LGA): A smaller community facility with a total floor space of 317sqm, which is underutilised with an occupancy rate of 38 %. The facility may be re-purposed in the short term, pending review.
- » Gregory Hills Community Centre (Camden LGA): A relatively new community centre which opened in 2019. The community centre is comprised of two halls with capacity for a total of 130 attendees.
- » Harrington Park Community Centre (Camden LGA): A moderate sized facility with an approximate floor space of 364sqm. The community centre has two halls, a meeting room and a craft room.
- » Kearns Community Hall (Campbelltown LGA): a small community hall with capacity to accommodate 120 attendees.

Given their size, these facilities will not have capacity to meet demand from the new community at LTCP.

The district and regional level facilities within the study area (**Table 7**) are:

- » Julia Reserve Community Centre (Camden LGA): the centre has a total floor space of 1,300sqm incorporating office spaces, meeting rooms and a cultural activity and performance space with a 190 seat auditorium. This is a new facility and Camden Council anticipates that it will deliver youth services and programs for the whole LGA.
- » Green Valley District Centre (Liverpool LGA): the centre has total floor space of 1,910sqm with a community centre and library. The community centre is relatively small, with a maximum capacity of 100 people. The Green Valley District Centre is well utilised with an occupancy rate of 84%.

Given their distance from the LTCP, both are around 8 kilometres away, they are not well placed to service demand from LTCP.



Work touch down space

The changing nature of work provides greater flexibility in where we work and has created demand for 'touchdown spaces' that are close to home for people who are working remotely. These spaces provide "the necessary hardware and software of working life, but without the long commute". Community facilities can play a role in meeting demand for this space by incorporating drop in work spaces and flexible work hubs.

Source: Western Sydney Business Chamber 2021, Closer to Home Report, <https://www.businesswesternsydney.com/western-sydney-policy-and-advocacy/papers>

New community facilities in addition to the proposed Leppington Community Centre are planned for:

- » Edmondson Park Town Centre (Liverpool LGA): the facilities to be provided in this space are yet to be determined. A Voluntary Planning Agreement is currently being developed with Frasers Property Australia. It is likely that a library, community centre and business hub will be developed within the town centre, while childcare will be provided at the nearby Edmondson Park Public School site
- » Austral and Leppington North (Liverpool LGA): there is a total of four new facilities planned for this area. Three of the new facilities will be located in each new town centre. The fourth facility will be a larger district facility with a library.

Table 7 Regional community facilities near LTCP

Social infrastructure type	Name	Location
Community centres and halls	Julia Reserve Community Centre (Youth Service)	Camden LGA

Libraries



Network capacity

There are 3 libraries in Camden LGA and Council estimates it currently has a surplus of 1 library. However, by 2036 the LGA is expected to have a short fall of 2 facilities.

The needs for libraries within Camden's Growth Area district, including LTCP, to 2036 will be met with the provision of the Oran Park Library and the proposed regional level library in LTCP.

There is a total of 6 libraries within close proximity to the LTCP and most are neighbourhood or local level facilities including:

- » Camden Library (Camden LGA): the library runs a range of activities during the week, but these services are currently at capacity. There are no hireable spaces within Camden Library.
- » Carnes Hill Library (Liverpool LGA): Carnes Hill Library was completed in 2016 and is co-located within the Carnes Hill Community and Recreational Precinct. The community facilities have a total floor space of 520sqm. This facility has high levels of visitation and usage, particularly by children and young families and high school students.
- » Casula Library (Liverpool LGA): Casula Library is part of the Casula Community Centre, which is an aging and small facility (20 years old and 282sqm) Liverpool Council has identified as a redevelopment opportunity.
- » Eagle Vale Library (Campbelltown LGA): the Library offers a range of programs, has a separate technology centre with 12 computers and is co-located with the Eagle Vale Centre which includes a swimming pool, gym, meeting rooms, and crèche.

Given their size, these facilities will not have capacity to meet demand from the new community at LTCP.

The district and regional level facilities within the study area (**Table 8**) are:

- » Green Valley Library (Liverpool LGA): the library is part of the Green Valley District Centre which has total floor space of 1,910sqm. This facility is nearing capacity.
- » Narellan Library (Camden LGA): the library includes The Space Digital Studios (provides free sessions on how to use technology, software and social media), a technology hub, study rooms and hireable spaces. This facility is nearing capacity.
- » Oran Park Library (Camden LGA): the library opened in 2018 and is a high-tech facility that includes sessional services office for community support and a community centre to foster art and culture. This facility has capacity to meet growing demand.

The Oran Park Library is the only regional facility that has some capacity to meet new demand. However, the facility is around 8 kilometres from the LTCP and is not well placed to service demand from LTCP.

Table 8 Regional libraries near LTCP

Social infrastructure type	Name	Location
Libraries	Oran Park Library	Camden LGA
	Narellan Library	Camden LGA
	Green Valley Library	Liverpool LGA

Implications for LTCP

There is little existing social infrastructure within the LTCP except an aged care facility, Leppington Primary School, Leppington Rural Fire Brigade, Leppington Ambulance Station and various private medical centres. The broader study area generally provides neighbourhood and local level facilities that will not have capacity to meet increased demand from future residents of the LTCP.

Existing social infrastructure gaps have been identified for:

Community centres and libraries – existing facilities tend to be neighbourhood or local level and will not have capacity to meet demand from the LTCP. The only regional community centres and libraries are more than 5 kilometres away and are not well placed to service demand from the LTCP. Most are also at or nearing capacity

Cultural facilities – there is a lack of purpose built cultural facilities, particularly making spaces, in the Camden and Liverpool LGAs. Existing regional cultural facilities are at capacity

Schools – there is some capacity in primary schools in the area, but it will not be sufficient to meet demand from LTCP and other precincts. There is substantial demand for secondary schools around LTCP and the nearest public secondary school is operating over capacity

Tertiary and vocational education – existing facilities at Liverpool will help meet demand from the LTCP as they are accessible within a 30 minute public transport journey, but facilities in Campbelltown are difficult to access. Additional facilities and/or better public transport access to key centres is required to support future demand at LTCP for these facilities.

3.3 Existing open space

Access to open space for both active and passive leisure and recreation pursuits is regarded as critical to physical and mental wellbeing and is seen as a key component of a healthy and sustainable community. Open space is important for many reasons and is used by different people and different population groups for a wide range of leisure and recreation activities.

For this study, open space is divided into:

- » Passive recreation – facilities are spaces that encourage people to exercise, meet with others, relax or play. It includes unstructured activities such as walking, running, cycling, ballgames, dog walking and climbing. These spaces are generally considered the best way to promote good health in planning new urban development areas
- » Active recreation and organised sport – facilities are spaces that also encourage people to exercise, but typically in a more organised way. It includes sports facilities such as pools, courts, fields and other structured activity areas.

Residents who live in apartments or dwellings on smaller lots where private open space such as backyards is limited, as is expected for most of the dwellings within the LTCP, need access to high quality public open space close to where they live.

3.3.1 Open space in Camden and Liverpool

Camden and Liverpool City Councils have a surplus of open space owned and managed by local, state and federal governments when measured against the benchmark of 2.83 hectares per 1,000 people¹⁷. However, a significant proportion of this land is natural areas, which with current embellishment and access provide limited opportunities

¹⁷ This section draws from Camden Council's Spaces and Places Strategy 2020, <https://www.camden.nsw.gov.au/assets/pdfs/Council/Plans-and-Strategies/66467-Camden-Council-Spaces-and-Places-Strategy-2020-21-12-20-Web.pdf> and Liverpool City Council's Recreation, Open Space and Sports Strategy 2018-2028, <https://www.liverpool.nsw.gov.au/council/corporate-information>

for recreation, and other land is constrained by issues such as drainage and flooding. Additionally, there are some key barriers to the utilisation of open space across the LGA including:

- » Quality, cleanliness, vandalism and safety affecting the level of usage for all types of open space
- » A lack of ancillary facilities such as toilets
- » The cost of maintaining existing facilities.

Both councils predict challenges in meeting demands for open space within parts of the LGAs experiencing rapid residential development. Camden Council projects a shortfall of open space by 2026 in its Growth District and Liverpool City Council notes its New Release District is already under-serviced for sports grounds and facilities.

3.3.2 Participation trends

Camden and Liverpool City Councils both note the decline of organised sport and the rise of unstructured recreation as a key trend across both LGAs. This is a national trend. The exception to this is the popularity of football (i.e. soccer) which has continued to experience growth in demand.

Physical activity - national trends

Sport Australia¹⁸, notes that since 2001 recreation trends have changed notably in Australia. While participation in sport and physical activity has increased overall, participation in sports has remained stable and participation in non-sport related activities has increased substantially. This has been exacerbated by the COVID-19 pandemic which has limited participation in organised sport and group recreation.

The most recent AusPlay survey data shows that:

- » The most popular physical activities nationally in 2020 were walking (47.0%), fitness/gym (37.4%), running (19.8%), swimming (17.1%) and cycling (14.3%)
- » Adults in 2020 (89.4%) had higher rates of participation in physical activity than children (73.1%)
- » The physical activities that have grown in popularity most since 2001 are fitness/gym, walking, running, yoga and cycling.

Participation data from 2015 to 2020 also highlights the different recreational needs of children (0-14 years) and adults. Adults are much less likely to engage in unstructured recreation than children (**Table 9**).

Table 9 Top physical activities in Australia (2015-2020) – adults versus children

Ranking	Adults	Children
1	Walking (recreational) (44.1%)	Swimming (33.3%)
2	Fitness/gym (34.9%)	Football/soccer (14.6%)
3	Running/athletics (16.4%)	Gymnastics (9.4%)

Physical activity – Camden and Liverpool

AusPlay data for the Camden and Liverpool LGAs¹⁹ shows that:

- » There are lower participation rates in the area – physical activity participation rates in Camden and Liverpool are 84.7% for adults and 65.1% for children. Combining the two LGAs masks high participation rates for children in Camden (80.7%) and low rates in Liverpool (56.0%). We note that a lack of access to facilities in some parts of the LGAs may contribute to lower participation rates

¹⁸ SportAus 2021, Ausplay – Focus on State and Territory Participation, <https://www.clearinghouseforsport.gov.au/research/ausplay/results#!>

¹⁹ SportAus 2021, Ausplay – Focus on State and Territory Participation, <https://www.clearinghouseforsport.gov.au/research/ausplay/results#!>

- » Unstructured physical activities are the most popular – similar to national results walking, fitness, running and swimming were among the top 5 physical activities in Camden and Liverpool (**Table 10**)
- » Football is popular – football replaced cycling in the top 5 physical activities in Camden and Liverpool compared to Australia underscoring its popularity in the area. Councils also note basketball and cricket are growing in popularity
- » Children and young people dominate participation in sport – football and to a lesser degree other formal sports like dancing, gymnastics and basketball are particular popular in the 5-14 and 15-24 year groups.

Table 10 Top ten physical activities in Camden, Liverpool and Australia

Ranking	Australia	Camden and Liverpool LGAs
1	Walking (44.1%)	Walking (29.5%)
2	Fitness/gym (34.9%)	Fitness/gym (29.4%)
3	Running/athletics (16.4%)	Swimming (14.5%)
4	Swimming (15.4%)	Football/soccer (10.6%)
5	Cycling (12.0%)	Running/athletics (8.6%)
6	Bush walking (6.4%)	Cycling (3.9%)
7	Football/soccer (5.4%)	Golf (3.5%)
8	Yoga (5.3%)	Bush walking (3.2%)
9	Golf (4.9%)	Netball (3.2%)
10	Tennis (4.6%)	Dancing (recreational) (3.1%)

The top 5 physical activities in Camden and Liverpool LGAs by age are:

- » 0-4 years – swimming (24.6%)
- » 5-14 years – swimming (27.1%), football (25.0%), dancing (13.7%), gymnastics (10.6%), running (7.2%)
- » 15-24 years – fitness/gym (46.6%), walking (19.5%), football (17.4%), running (13.9%), basketball (8.6%)
- » 25-34 years – fitness/gym (50.8%), walking (28.7%), swimming (13.9%), football (12.8%), running (10.9%)
- » 35-44 years – fitness/gym (32.9%), walking (32.8%), swimming (13.0%), cycling (11.5%), running (11.1%)
- » 45+ years – walking (54.2%), fitness/gym (28.1%), swimming (10.4%), golf (8.0%), running (6.7%)

3.3.3 Open space and recreation planning

As noted above both Camden and Liverpool City Councils have developed LGA level strategies for open space and sports ground planning. They are also working with the NSW Office of Sport to develop the Greater Sydney District Sport Infrastructure Plan²⁰.

The participation data in section 3.3.1 above demonstrate the importance of the following open space and recreational infrastructure in Camden and Liverpool LGAs:

- » Walking, running and cycling tracks that are connected as a network
- » Private and public gym and fitness centres, and outdoor fitness equipment

²⁰ NSW Office of Sport (2021), District Sport Facility Plans for Greater Sydney, <https://www.sport.nsw.gov.au/community-sport-infrastructure-resource-library/strategy-and-planning/district-sport-facility-plans>

- » Indoor recreation and aquatic facilities for swimming, basketball, dance, gymnastics and netball
- » Multipurpose sport fields and courts that provide recreation opportunities for males and females, and diverse age groups and interests.

Other important considerations identified by both Councils include the needs to: develop an open space network with shade so it is useable in temperature extremes; reduce participation barriers for older and aging residents; create opportunities for global sports, particularly those popular in Asia to meet the needs of culturally diverse groups; provide female friendly sporting facilities consistent with the NSW Office of Sport's Her Sport Her Way initiative; and deliver a range of sporting opportunities that balance the needs of high and lower demand sports.

3.3.4 Passive recreation

There are 57 passive open spaces across the study area, but none are within the LTCP. These spaces are clustered in urban areas with many capitalising on existing natural features.

Other regional open space in Camden and Liverpool LGAs includes:

- » Cabramatta Creek and Brickmakers Creek open space network (Liverpool LGA)
- » Camden Town Farm (Camden LGA): this Council owned and managed facility includes community gardens, public open space and facility hire within a picturesque rural setting
- » Casula Parklands (Liverpool LGA): co-located with the Casula Powerhouse Arts Centre, the parklands provide a range of passive recreation activities along the riverside

Regional open space



Western Sydney Parklands

The key regional open space for LTCP is the Western Sydney Parklands in Liverpool LGA. The Parklands total 5,280 hectares and stretch a total of 27km. The Southern Parklands (1,500 hectares) are near the LTCP extending from Elizabeth Drive to Bringelly Road in Leppington. They are proposed to deliver a whole range of structured and unstructured recreation opportunities as well as cultural and community infrastructure, but little has been provided near the LTCP to this point.

Western Sydney Parklands have identified the following opportunities that will be within the study area and less than 3 kilometres from the LTCP and will be particularly important for the future community:

- » Three sport and structured recreation facilities – these will incorporate a variety of regional sports fields and courts as well as potential for leisure centres with indoor sport and fitness facilities
 - » The Upper Canal Linear Park – the canal is part of the Upper Nepean Scheme supplying water to the city since 1888 and could be the key feature of a linear park and cycleway extending the length of the Parklands.
- » Chipping Norton Lakes and Georges River Parklands (Liverpool LGA): this is the largest body of water in South Western Sydney with extensive foreshore parks
 - » Edmondson Regional Park, National Park (Liverpool LGA): this national park is 48 hectares of bushland with walking tracks
 - » Kemps Creek Nature Reserve, National Park (Liverpool LGA): this national park is 197 hectares of bushland with walking tracks
 - » Leacock Regional Park, National Park (Liverpool LGA): located in Casula, this national park includes walking tracks and picnic areas

- » Lighthorse Park (Liverpool LGA): this 1.5km long green space stretches along the Georges River. It includes historic buildings and has historical significance
- » The Australian Royal Botanic Gardens (Camden LGA): the gardens cover 416 hectares and include 20km of tracks and sealed roads. The site includes the Connection Garden, a 4.5ha open-air museum demonstrating the way people and the natural world interconnect
- » William Howe Regional Park (Camden LGA): this national park provides unstructured and passive recreation opportunities for residents, and includes walking tracks and picnic areas.

The Southern Parklands, Edmondson Regional Park and Kemps Creek Nature Reserve are the closest regional open space to the LTCP.

The Western Sydney Aerotropolis Precinct Plan (March 2022) identifies Thompsons Creek as a regional park within the Aerotropolis Core Precinct.

3.3.5 Active recreation



Network capacity

While general participation trends highlight the popularity of unstructured activities like walking and cycling, participation in organised sport (particularly among children) is still popular in family dominated areas of South West Sydney. Both Camden and Liverpool City Councils note the high demand for sporting facilities in their growth areas. This is partly due to the younger average age in these areas and to the popularity of football. Across the Camden LGA, 66.6% of sports fields were over capacity during winter in 2018 while 30.3% are over used in summer. Since then there has been an 80% increase in demand for sport field bookings.

Camden Council projects a shortfall of sport fields and sport courts by 2036, while Liverpool City Council already considers its growth areas are under serviced.

There are 25 outdoor active recreation facilities and 4 indoor recreation facilities within the study area. The nearest to the LTCP are:

- » Craik Park (Liverpool LGA) – currently includes one large oval which can support athletics, lighting and amenities block, two tennis courts and small playground
- » Greenway Park (Liverpool LGA) – includes two large ovals both with lighting, shaded play areas, and is co-located with the Greenway Park Community Centre
- » Leppington (Pat Kontista) Reserve (Camden LGA) – currently includes one full size football field and a modified field with one tennis court. Council plans to upgrade it to include at least two full size football fields and multipurpose tennis court facilities by 2025
- » Mick Doohan Reserve (Camden LGA) – includes four sport fields for football and cricket, two multi-purpose sport courts and eight tennis courts
- » Michael Clarke Recreation Centre (Liverpool LGA) – Liverpool's newest sport and leisure centre. It includes a state of the art health club, indoor stadium with three sport courts and skate park.
- » Rossmore Reserve (Camden LGA) – currently includes one sport field used for equestrian activity
- » WV Scott Memorial Park (Liverpool LGA) – currently includes one full size football field. This is the site for the future Leppington indoor sports and aquatic facility.

Four district or regional facilities are proposed within the study area in addition to the sporting facilities proposed in the Southern Parklands (see previous page):

- » Austral district sporting venue (Liverpool LGA) – this facility will include four sports fields and multipurpose sport courts

- » East Leppington (Camden LGA) – preliminary strategic planning is underway for a District Park in East Leppington
- » Edmondson Park sports fields (Liverpool LGA) – this will incorporate football fields, a cricket pitch and 4 multi-purpose sport courts
- » Leppington indoor sports and aquatic facility (Liverpool LGA) – located in the LTCP this facility is proposed to incorporate several pools, including an Olympic sized pool, four sport courts, and a gym and fitness centre
- » Oran Park Leisure Centre (Camden LGA) – this facility will incorporate an indoor aquatic hall with 50 metre competition pool, leisure/learn to swim pool and change rooms; a gym, spin room and two multipurpose rooms; and indoor sporting facilities with four sports courts. It is due for completion in 2024.

Other regional sport facilities which are outside the study area but service the region include:

- » Camden Bicentennial Equestrian Park (Camden LGA)
- » Ernie Smith Reserve (Liverpool LGA) includes 2 sport fields and 3 hockey fields
- » Kirkham Park (Camden LGA) has a range of recreational facilities including 4 full sized fields, 1 cricket oval, cricket nets and a BMX track
- » Narellan Sports Hub (Camden LGA) includes 30 netball courts, a full sized sport field, an international sized field, and 3 water based hockey fields. Council is upgrading it to a total of 44 netball courts and to include athletics facilities and car parking for 100 vehicles. Stage 2 will deliver an additional 1,550 car spaces in seven new carpark areas
- » Onslow Reserve (Camden LGA) has 4 full sized sport fields, cricket nets, a turf athletics track, shot put/discus nets/long jump pits/triple jump pits, and 6 tennis courts
- » Ron Dine Memorial Reserve (Camden LGA) includes 3 full sized sport fields, 4 modified fields and 5 tennis courts
- » Woodward Park (Liverpool LGA) includes Whitlam Leisure Centre, Bulldog Park, Hiller Oval, 2 additional sport fields, 32 netball courts and a skate park.

Implications for LTCP

Participation in non-sporting recreation activity has increased over the last 20 years, and is set to continue to grow. The exception in Camden and Liverpool is football which continues to grow in popularity. The future population in LTCP will need access to walking, running and cycling tracks; private and public gym and fitness centres; indoor recreation and aquatic facilities; sport fields; and local non-structured recreational opportunities.

There is no public passive open space within the LTCP currently and the only active open space is Scott Memorial Park. Sport fields and sport courts in and surrounding the area are either at or reaching capacity.

There are several regional recreation facilities within moderate distance from the site, including proposed facilities in The Southern Parklands and the proposed Leppington indoor sports and aquatic facility. These facilities will be critical in servicing the growing population within the SWGA, including future residents of LTCP.

4 Population forecast

We have considered the likely size of the future population in the LTCP and its broad demographic characteristics. This will be important in determining the type and amount of social infrastructure required in the area.

We also recognise that the LTCP is a strategic centre within the Western Parkland City. Given this, it will need to provide social infrastructure that meets the needs of local residents and those within the district and region. We consider this further in section 6.

4.1 The development proposal

As noted above (section 1.1), the LTCP draft ILP proposes development of around 10,500 dwellings to 2041. Based on this, Hill PDA estimates a resident population of 23,000 to 24,000 for the LTCP area. We have conducted our own analysis based on average occupancy rates for medium and high density housing in Liverpool and arrive at a slightly higher estimate of 25,100 to 26,200 people living in the LTCP area (**Table 11**). We have used the higher figure of 26,000 residents in calculating demand for social infrastructure generated by the LTCP.

Table 11 Dwelling and population forecasts, LTCP 2041

	Low density	Medium density	High density	Total
Number of dwellings	0	500-1,000	10,000	10,500-11,000
Occupancy rates (Liverpool 2016)	0	2.2	2.4	N/A
Population estimate (Elton)	0	1,100-2,200	24,000	25,100-26,200

Source: Hill PDA (2021), Leppington Town Centre Market Demand Analysis; ABS 2016 Census Data)

In addition to this Hill PDA estimates there will be 17,000 people working within the LTCP by 2041.

4.2 Likely characteristics

Residents

The redevelopment of the LTCP into medium and high density dwellings is likely to have a significant impact on its demographics, particularly the age profile and household types. Given this type of development is not characteristic of suburbs surrounding the LTCP, we expect the population to differ significantly from the existing population in the LTCP.

We have sought to understand the likely characteristics of the future LTCP population by examining:

- » recent research on the demographics of people living in apartments
- » the age and household profiles of a selection of high density areas in Sydney including high density dwellings in Liverpool, Macquarie Park and Rhodes West using the 2016 ABS Census of Population and Housing (see **Table 12**).

Recent research evidence

Recent research by the Australian Housing and Urban Research Institute²¹ (AHURI) and the University of NSW²² has identified some key differences between the demographics of people living in apartments compared with those living in other dwelling types. This includes:

- » Household type – in Sydney about 40% of high density households were families with children (compared with 70% in all other dwellings), which is significantly higher than other parts of Australia, and around 10% were group households
- » Age – households in high density housing are on average younger than households living in other dwellings. This is despite there being much higher rates of people under the age of 15 living in other dwelling types. The 15–24 and 25–34 age categories together comprise over 40% of all residents in high density, a pattern that is reflected across all capital cities
- » Ethnicity – across all cities, high-density-dwelling occupants are more ethnically diverse compared with other dwelling categories. In Sydney around 60% of high density households were born outside of Australia
- » Household income – households living in high-density housing generally have lower incomes. Lower-income households are typically younger and more ethnically diverse compared to other high-density households
- » Tenure – around 35% of high density households in Sydney own or are purchasing their dwellings and over 60% of them rent their dwellings.

The AHURI report also investigates the needs of people living in apartments. It highlights “the central importance of public infrastructure, especially open space, libraries and community centres” and furthermore notes that “current public infrastructure funding mechanisms are insufficient and insecure” (AHURI, p.47). The report makes several recommendations to improve outcomes for apartment residents. Those of particular relevance for LTCP include:

- » Services and facilities – residents, particularly lower income residents, need access to free or low-cost services and facilities both in their buildings and within their neighbourhoods
- » The importance of government coordination – the report uses the example of the public spaces in Rhodes to demonstrate the quality outcomes that can be achieved when state and local government work together in a meaningful way
- » Infrastructure funding – LGAs experiencing growing and densification need more public funding to provide social infrastructure. The report notes that it is difficult to achieve positive results with developer contributions and voluntary agreements because they are too uncertain.

High density demographics

Our analysis demonstrates the demographics of high density dwellings in Liverpool are unique. They share some characteristics with other high density locations, namely:

- » A relatively high proportion of 25-34 year olds at 27.0% (30.9% in Macquarie Park and 42.8% in Rhodes West) compared with 15.3% in GWSR
- » A lower proportion of older people (over 50 years old) at 19.3% (16.6% in Macquarie Park and 10.6% in Rhodes West) compared with 29.3% in GWSR.

However, they have more in common with existing demographics in Leppington and the rest of GWSR, including:

- » A high proportion of babies and school aged children at 23.7% (24.9% in GWSR) compared with 11.3% in Macquarie Park and 11.3% in Rhodes West – importantly though there are significantly more babies and pre-schoolers living in high density dwellings in Liverpool than there are school aged children

²¹ Easthope, H., Crommelin, L., Troy, L., Davison, G., Nethercote, M., Foster, S., van den Nouwelant, R., Kleeman, A., Randolph, B., and Horne, R. (2020) Improving outcomes for apartment residents and neighbourhoods, AHURI Final Report 329, Australian Housing and Urban Research Institute Limited, Melbourne, <http://www.ahuri.edu.au/research/finalreports/329>

²² Hazel Easthope, Sian Thompson and Alistair Sisson (2020), Australasian Strata Insights 2020, accessed at <https://cityfutures.be.unsw.edu.au/research/projects/2020-australasian-strata-insights/>

- » Nearly half of all households have children (48.7% in Liverpool and 54.0% in GWSR) compared with 23.6% in Macquarie Park and 24.7% in Rhodes West
- » Around a fifth of households are couples without children (20.8% in Liverpool and 20.3% in GWSR) compared with 27.8% in Macquarie Park and 33.9% in Rhodes West
- » A further fifth are lone persons (21.5% in Liverpool and 17.2% in GWSR) compared with 29.5% in Macquarie Park and 18.5% in Rhodes West.

Table 12 High density locations and GWSR – selected demographics

	Macquarie Park	Liverpool (high density)	Rhodes West	GWSR
2016 population	8,861	7,543	11,073	1,960,881
Age profile				
Babies and pre-schoolers (0 to 4)	5.9%	11.0%	7.5%	7.2%
Primary schoolers (5 to 11)	3.5%	7.9%	2.4%	9.9%
Secondary schoolers (12 to 17)	1.9%	4.8%	1.4%	7.8%
Tertiary education and independence (18 to 24)	23.3%	9.7%	18.9%	9.6%
Young workforce (25 to 34)	30.9%	27.0%	42.8%	15.3%
Parents and homebuilders (35 to 49)	17.9%	20.9%	16.4%	20.9%
Older workers and pre-retirees (50 to 59)	5.6%	9.0%	5.5%	12.2%
Empty nesters and retirees (60 to 69)	5.3%	6.1%	3.8%	9.3%
Seniors (70 to 84)	3.7%	3.6%	1.2%	6.4%
Elderly aged (85 and over)	2.0%	0.4%	0.1%	1.4%
Household composition				
Couple without children	27.8%	20.8%	33.9%	20.3%
Couple with children	18.3%	33.7%	19.9%	41.5%
One parent family	5.3%	15.0%	4.8%	12.5%
Other family	2.6%	1.6%	2.3%	1.3%
Multi family	N/A	2.8%	N/A	4.3%
Lone person	29.5%	21.5%	18.5%	17.2%
Group	9.2%	4.5%	14.2%	2.8%
Dwelling Structure				
Separate house	0.3%	0.0%	0.2%	73.1%
Medium density	23.6%	0.0%	2.0%	21.6%
High density	73.5%	100.0%	97.8%	5.3%

Source: ABS, 2016 Census

Workers

The LTCP is projected to include around 17,000 people working largely in retail and commercial offices, but also in education, health, community services and entertainment. These workers will also need access to social infrastructure including:

- » Spaces to meet socially before and after work and during lunch breaks
- » Places to undertake physical fitness activities (including end of trip facilities)
- » Quiet meditative areas to enjoy during breaks
- » Facilities that provide child care near places of work including before and after school care, and vacation care
- » Areas for meetings, talks and presentations.

Impact on demand for social infrastructure

Importantly for social infrastructure planning, there are different patterns of infrastructure usage between worker and residential populations. While services like child care will be subject to high (and simultaneous) demand from both worker and resident populations, demand for community assets like open space and community centre space may be different. Worker populations will require access to community facilities, open space and recreation facilities during weekdays, particularly lunch times, and possibly immediately prior to and after work. Residential demand, while also occurring pre and post-work on weekdays will also be significantly focused on weekends when worker demand is lower.

We know from our experience across a number of studies that Council community facilities often have lower utilisation during school hours. The needs of the worker population for meeting spaces, hot desks and lounge spaces can help to boost utilisation for these facilities during these times. Therefore, this study does not recommend additional floor space for community facilities to cater for the future working population. Additionally, State Library benchmarks that are adopted for this study already assume 10% usage by non-resident workers when calculating library requirements.

However, demand for open space and recreation facilities prior to and after work hours by both the resident and worker populations means it is likely the worker population will need to be considered when determining the quantum of open space required for the LTCP. The Government Architect NSW's Draft Greener Spaces Design Guide (2020) suggests demand from non-resident populations can be estimated as 10% of the anticipated resident population. Based on this standard we have assumed an additional 2,600 people would require access to open space. The Draft Guide also suggests that the main recreation opportunities desired by the non-resident population are for local recreation space, fitness and exercise space, trail and path-based recreation, and organised sport and recreation.

Similarly, it is likely that both the worker and resident populations will contribute to the demand for childcare. We have adopted the City of Sydney benchmark for working population child care provision, which 1 place per 75 workers.

Implications for LTCP

The LTCP is forecast to have a 2041 resident population of around 26,000 people and a workforce of around 17,000 people.

The new resident population is likely to have a similar household composition to the existing population in Leppington, but will be different in other ways. Key differences will include:

Age – it will still be a relatively young population with more babies and pre-schoolers, and many more young adults particularly given its proximity to the train station and employment opportunities within the LTCP. We estimate that around 30% of the population will be 25-34 years old, 15% will be school age (5-17 years) and a further 10% will be 0-4 years old

Tenure – most households will rent their homes with only about a third being home buyers or owners

Diversity – the new population will be more ethnically diverse.

We expect the future population of the LTCP to contain a high proportion of young workers living in couple, single person and group households as well as young families with children, but with less school aged children than households in the area living in separate housing. There will also be a significant group of older workers and retirees living in the LTCP.

Based on this analysis, it will be important to ensure the social infrastructure and open space delivered in the LTCP caters for resident and working populations. It will also have to serve a wide range of demographics, from young children and families, through to young workers and older people. This will mean access to education (primary, secondary and tertiary), health, emergency and community facilities is particularly important. Further, the provision and design of open space, sports facilities and childcare will need to account for demand from both the working and resident populations.

5 Planning for social infrastructure

Social infrastructure is a combination of community facilities, human services, and community and cultural development. When all these aspects of society are considered simultaneously during the planning process, local communities become stronger and more supportive for their residents.

We approach social infrastructure assessment using a three-tiered planning framework, based on principles for sustainable infrastructure and informed by relevant benchmarks and standards.

5.1 Planning framework

The key to a successful network of facilities is the organisation of facilities within a hierarchy. A facility hierarchy includes both larger facilities serving wider sub-regional or local government area populations and smaller facilities to meet day to day neighbourhood needs.

Liverpool City Council and Camden Council use different facilities hierarchies (**Tables 13 and 14**).

Table 13 Liverpool City Council facilities hierarchy

Type of facility	Details
Neighbourhood	<ul style="list-style-type: none"> » local catchment of 8,000-10,000 residents » minimum 1,000sqm » access to outdoor space
District	<ul style="list-style-type: none"> » district catchment of 20,000-50,000 residents » 1,500-2,500sqm (inc. library)
Specialised	<ul style="list-style-type: none"> » e.g. for environmental education, day respite care, small business incubator, homelessness services » size will vary depending on context and other variables – case by case basis.

Source: Community Facilities Strategy, Liverpool City Council, 2017

Table 14 Camden Council facilities hierarchy

Type of facility	Details
Neighbourhood	<ul style="list-style-type: none"> » Serves a single suburb with a catchment of around 10,000 people » simple buildings, generally not staffed and available for casual hire » co-located with open space, play space, sportsgrounds or schools
Local	<ul style="list-style-type: none"> » serves the Camden LGA or multiple suburbs with a catchment of 20,000 people » multi-purpose facility that provides flexible spaces for activities and programs » part-time staff » co-located with other community services and facilities
Regional	<ul style="list-style-type: none"> » serves the Camden LGA and an extended catchment of around 40,000 people » located in activity centre and accessible through a range of transport modes » permanent staff presence » provide high-level programs, services and events to wider community

Source: Camden Spaces and Places Strategy, Camden Council, 2020

We have adopted a hierarchy based on a review of both of these approaches along with our experience in planning for social infrastructure across numerous Sydney LGAs. This includes:

- » Neighbourhood level services and facilities – generally provided for a population of about 5,000–20,000 people to meet every day needs, and including community centres, childcare centres, primary schools, local parks and doctors' surgeries. Located in local centres.
- » District level services and facilities – more specialised services which operate on a broader district catchment of around 20,000–30,000 people, and up to 50,000 people depending on the needs of the population. They include libraries, sporting facilities, high schools, community health centres, family support services and emergency services. They are most often located in activity centres, ideally linked to public transport and in locations where people have reason to gather and visit. Located in large town centres.
- » Sub-regional and regional level services – major facilities for a population of over about 100,000 people, and including hospitals, tertiary education, major cultural facilities, and major active spaces and sporting facilities. Usually serves an LGA catchment and are located in key urban centres.

5.2 Sustainable social infrastructure principles

We propose the following principles to guide the provision of sustainable social infrastructure in the LTCP based on the objectives contained within the state and local government planning policies, and our research and experience of leading practice across Australia:

- » **Timely and coordinated provision:** providing services, facilities and open spaces in a manner which is timely, efficient, and coordinated with new land release areas. It is also important to ensure new residents in areas which are still being developed are not disadvantaged through a delay in release of services and facilities.
- » **Efficient use of limited resources:** finding the right balance between establishment and maintenance costs and social benefits. This can be achieved by designing spaces to be multiuse, multipurpose, central and co-located thus increasing the utilization and use of each facility and service.
- » **Safe and vibrant facilities:** facilities should reflect the community identity, promote a sense of place, and be places of cultural celebration. These facilities also need to feel safe to be a symbol of community unity.
- » **Accessible services:** the design of facilities, services, and open spaces need to be accessible. This means they need to be well serviced by public transport and be accommodating to all members of the community. They also need to be visually accessible with multiple entry points and clearly identifiable.
- » **Adaptable design:** the design of facilities should allow for flexible use to accommodate the changing needs and interest of the community. Avoid single purpose facilities through the creation of multipurpose and multifunction spaces.
- » **Equitable access:** ensuring all members have the same access to social services and infrastructure. This includes the distribution of services and facilities within the area but also affordable access.
- » **Sustainable buildings:** to building facilities guided by ESD (ecological sustainable development) principals which are environmentally, socially, and economically sustainable in nature.
- » **Viable funding:** considering the cost of services and facilities beyond the initial construction and fit-out stages. Long term cost includes staff wages, maintenance, and designing and running community programs.
- » **Service innovation and co-ordination:** enhance community capacity and resilience through creative and innovative collaboration between agencies and integration of services if appropriate.
- » **Responsible management:** Sustainable ownership, governance, management, and maintenance arrangements for facilities need to be planned from the outset.
- » **Reflect community:** community facilities should harness the geographical characteristics, community identity, energy and vibrancy of a place to promote and perpetuate a sense of community dynamic and belonging.

5.3 Benchmarks and standards

Numerical standards have traditionally been used in social infrastructure planning to provide an initial indication of requirements for a given population. They are usually expressed as the number of facilities, places, floor space or land area required for a population of a given size.

Standards can contribute to an assessment of social infrastructure requirements, but their use is heavily conditioned by the following factors:

- » Standards need to be adapted to reflect the local context, including the composition of the population, travel distances and the availability of existing facilities and services. Future planning also needs to recognise opportunities for embellishment or upgrading of existing facilities to increase their quality and utilisation, and the ways in which staffing and programming might increase capacity, rather than just increasing floorspace or land area, as the standards suggest.
- » Purely mathematical application of standards is undesirable as a primary means of identifying need. Standards focus just on the quantity or size of facilities required and fail to account for the quality of facilities, the programs, activities and services they provide, or more innovative models of delivery. They rely on numbers of people and do not account for more complex indicators of need such as age, socio-economic status, household structure, health and levels of disadvantage. Consequently, they provide a simplistic and rough estimate of need, which should not be relied upon in isolation.

Given this, standards and benchmarks need to be complemented by data on usage trends and preferences, analysis of existing and proposed facility, suitability and capacity, and a performance based approach to social infrastructure planning to develop effective social infrastructure strategies.

We have undertaken preliminary consultation with Camden Council, Liverpool City Council and Government stakeholders, and have reviewed policy and guidance documents to determine the appropriate benchmarks and standards for the LTCP. The benchmarks and standards applied in this report are presented in **Table 15**. Our high-level needs assessment based on these benchmarks and provisions is provided later in this section.

Table 15 Benchmarks and standards – various sources

Facility type	Benchmark	Notes
Aged care		
Aged Care: Residential Care	78 places per 1,000 people aged over 70 years	Aged Care Financing Authority 2020, Eight Report on Funding and Financing the Aged Care Industry
Aged Care: Home Care	45 packages per 1,000 people aged over 70 years	
Aged Care: Restorative Care	2 places per 1,000 people aged over 70 years	
Child care		
Centre-based childcare	36.6% of children aged 0-4 years use long day care facilities	ABS 2016 Census
	1 place per 1.5 children in care	City of Sydney Child Care Needs Analysis 2013 and 2019
	1 place per 75 workers	
	7 sqm unencumbered outdoor space per child	DPE Child Care Planning Guideline 2017
	3.25sqm unencumbered indoor space (i.e. excluding kitchens, staff areas, toilets etc)	

Afterschool Care	14.8% of children aged 5-11 years use out of school hours' care 1 place per 1.5 children in care	ABS 2016 Census City of Sydney Child Care Needs Analysis 2019
Community facilities		
Library	1 library per 40,000 people	Camden Spaces and Places Strategy 2020
Community centre	1 community centre per 20,000 people Size – 42 sqm per 1,000 people (neighbourhood), 13 sqm per 1,000 people (district) 1 neighbourhood centre per 8,000-10,000 people 1 district centre per 20,000-50,000 people Specialised facilities on a case by case basis	Camden Spaces and Places Strategy 2020 Liverpool Community Facilities Strategy 2017
Civic centre	1 civic/cultural centre per 30,000 people	Camden Spaces and Places Strategy 2020
Education		
Public primary schools (town centre)	1 per 1,000 public students (size 1.5 hectares)	School Site Selection and Development 2020 (NSW Department of Education)
Public high school (town centre)	1 per 2,000 public students (size 2.5 hectares)	
Emergency services		
Ambulance	One hub for approximately 250,000 people. Rate of provision based on number of 000 calls	South West Growth Centre and Western Sydney Employment Area Social Infrastructure Assessment 2015
Fire services	Maximum call out time to site should be 10 minutes Site should be 2,000-3,000 sqm	
Police services	1 police station in major centre (size 2,000 sqm) 1 shop front in town centre (size 150 sqm)	
Health care		
Community Health Centre	1 per 20,000 residents 2,000 sqm per 80,000 people	Growth Centres Development Code 2006
General practitioners	1 per 958 people	South West Sydney Strategic and Healthcare Service Plan 2013
Primary care clinic (mostly private GPs)	1 per 15,000-18,000 people	
Regional IPPC centre	1 per 75,000-100,000 people	

Hospital	2 beds per 1,000 people	Growth Centres Development Code 2006
Open space and recreation		
Play spaces	1 playground per 2,000 people	Camden Spaces and Places Strategy 2020
Sports courts	1 court per 2,000 people	
Off-leash dog parks	1 off-leash dog park per 16,000 people 1 dog park per suburb 1 major off-leash dog park within a district	Camden Spaces and Places Strategy 2020 Liverpool Recreation, Open Space and Sports Strategy 2018-2028
Sports fields	1 sports field per 1,850 people 1 double field per 10,000 people and 1 district sports field per 60,000 people (or 1 field per 3,750 people)	Camden Spaces and Places Strategy 2020 Liverpool Contributions Plan 2014, Austral and Leppington North Precincts (Liverpool Council)
Indoor sport and recreation facility	1 per 50,000-100,000 residents	Benchmarks for community infrastructure, Parks and Leisure Australia 2012
Local aquatic facility	25 or 50 m pool for recreational, club and competitive swimming per 75,000 residents	Parks and Leisure Australia (Western Australia)
Regional aquatic facility	50m FINA competition standard per 150,000 residents	
Total open space (active and passive)	2.83 ha per 1,000 people or 15% of total site (9% local and district function, 6% regional)	Camden and Liverpool City Councils Liverpool Recreation, Open Space and Sports Strategy 2018-2028

Source: Elton Consulting

5.4 Benchmark analysis

Our high-level benchmark analysis indicates the new community at LTCP will generate demand for the social infrastructure outlined below.

5.4.1 Aged care, emergency services and health

This analysis (**Table 16**) suggests the following infrastructure will be required:

- » Aged care – given the small proportion of the population expected to be over 70 years old, the new community will generate little demand for aged care. It is expected there will be demand for 87 places in residential aged care facilities, 50 home care packages, and 2 short term restorative care places.
- » Emergency services – the population of the LTCP does not justify the development of new emergency services. However, given it will be a strategic centre servicing up to 350,000 people across the region an ambulance hub and police station will be required. Consultation with Fire and Rescue NSW suggests it will not require a new facility.

- » Health care – the new community will generate demand for private health facilities, including around 27 general practitioners. It will also generate demand for public health services, including community health and hospital services. Consultation with the SWLHD indicates that existing hospitals at Liverpool and Campbelltown will meet needs for hospital services. While the forecast population of the LTCP alone is not sufficient to require a new regional public health facility, NSW Health may still look to this location given it is a strategic centre and has the capacity to serve a broader catchment.

Table 16 High level needs – aged care, emergency services and health care

Facility type	Benchmark	Needs
Aged care		
Aged Care: Residential Care	78 places per 1,000 people aged over 70 years	87 places
Aged Care: Home Care	45 packages per 1,000 people aged over 70 years	50 packages
Aged Care: Restorative Care	2 places per 1,000 people aged over 70 years	2 places
Emergency services		
Ambulance	One hub for approximately 250,000 people. Rate of provision based on number of 000 calls	1 hub as LTCP is a strategic centre
Fire services	Maximum call out time to site should be 10 minutes Site should be 2,000-3,000 sqm	Seek advice from Fire and Rescue NSW
Police services	1 police station in major centre (size 2,000 sqm) 1 shop front in town centre (size 150 sqm)	1 police station as LTCP is a strategic centre
Health care		
Community Health Centre	1 per 20,000 residents 2,000 sqm per 80,000 people	1.3 centres Size = 655 sqm
General practitioners	1 per 958 people	27 general practitioners
Primary care clinic (mostly private GPs)	1 per 15,000-18,000 people	1.5 clinics
Regional IPPC centre	1 per 75,000-100,000 people	0.3 centres
Hospital	2 beds per 1,000 people	52 beds

Source: Elton Consulting

5.4.2 Child care and schools

Our analysis suggests (**Table 17**) the high proportion of young children likely in the LTCP will create significant demand for child care facilities including:

- » Centre-based childcare with demand for around 920 places considering demand from the working population
- » Out of school hours' care with demand for 208 places.

There is also likely to be significant demand for public and private schools. Our estimates are based on the forecast number of children between the ages of 5-11 and 12-17 years in the future community, and current enrolment trends in the Camden and Liverpool LGAs which show around:

- » 65% of primary students and 55% of high school students go to public schools
- » 20% of primary students and 30% of high school students go to Catholic schools
- » 15% of primary students and of 17% of high school students go to other non-government schools.

Given this we estimate the new community will create sufficient demand for a new public primary school (depending on the capacity of other schools nearby) and will contribute demand for public high school education, but not at a level sufficient to require a new public high school.

Population growth in LTCP will also create demand for private school education with over 1,200 primary and high school aged students seeking to enrol in private schools.

Table 17 High level needs – child care and schools

Facility type	Benchmark	Notes
Child care		
Centre-based childcare	36.6% of children aged 0-4 years with 1 place: 1.5 children in care 1 place per 75 workers 7 sqm unencumbered outdoor space per child 3.25sqm unencumbered indoor space	693 places 227 places Total = 920 places 6,438.3 sqm outdoor space 2,989.2 sqm indoor space
Afterschool Care	14.8% of children aged 5-11 years with 1 place: 1.5 children in care	208 places
Schools		
Public primary schools (town centre)	1 per 1,000 public students (size 1.5 hectares)	1,360 public students (and a further 752 private students) 1.4 public primary schools
Public high school (town centre)	1 per 2,000 public students (size 2.5 hectares)	731 public students (and a further 570 private students) 0.4 public high schools

Source: Elton Consulting

5.4.3 Community facilities

The new population at the LTCP will create sufficient demand for a community centre and substantial demand for a library and civic centre or cultural facility (**Table 18**). Given its role as a strategic centre, there is also a strong rationale for incorporating a regional level community facility offering within the LTCP.

Table 18 High level needs – community facilities

Facility type	Benchmark	Notes
Library	1 library per 40,000 people 35 sqm per 1,000 people (plus 20% circulation space)	0.7 libraries 1,100 sqm

Facility type	Benchmark	Notes
Community centre	1 community centre per 20,000 people Size – 42 sqm per 1,000 people (neighbourhood), 13 sqm per 1,000 people (district)	1.3 centres 1,441 sqm
Civic centre	1 civic/cultural centre per 30,000 people	0.9 centres

Source: Elton Consulting

5.4.4 Open space and recreation

This analysis (**Table 19**) indicates demand will be generated for 65.9 to 81.6 hectares of passive and active open space at LTCP, or between 15% and 19% of the site depending on the benchmark used. This includes demand for approximately 13 play spaces, 1 dog park, 14 multi-purpose sport courts and 8 to 16 sports fields.

The new community at LTCP will also generate demand for indoor sport and recreation, and aquatic facilities, but the new population alone will not be sufficient to warrant development of these facilities on site. However, given LTCP is a strategic centre it is appropriate to deliver regional level indoor sport and aquatic facilities.

Table 19 High level needs – open space and recreation

Facility type	Benchmark	Notes
Play spaces	1 playground per 2,000 people	13.1 playgrounds
Off-leash dog parks	1 off-leash dog park per 16,000 people	1.6 dog parks
Sports courts	1 court per 2,000 people	14.4 courts
Sports fields	1 sports field per 1,850 people 1 sports field per 3,750 people	15.6 fields 7.7 fields
Indoor sport and recreation facility	1 per 50,000-100,000 residents	0.6 facilities
Local aquatic facility	25 or 50 m pool for recreational, club and competitive swimming per 75,000 residents	0.4 facilities
Regional aquatic facility	50m FINA competition standard per 150,000 residents	0.2 facilities
Total open space (active and passive)	2.83 ha per 1,000 people or 15% of total site (9% local and district function, 6% regional)	81.6 hectares 65.9 hectares (39.5 hectares local and district, 26.4 hectares regional)

Source: Elton Consulting

Open space provision

There are a range of other benchmarks for open space provision used in other jurisdictions including:

- » Proportion of land based measures – planning provisions in South Australia, Victoria and Western Australia require 10%-12.5% of sites to be provided for open space²³
- » Population based measures – planning provisions in Brisbane²⁴ require 2.8 hectares of open space to be provided per 1,000 people as a mix of local recreation (0.8 hectares), district and metropolitan recreation (0.8 hectares) and local, district and regional outdoor sport (1.2 hectares). Additionally, the World Health Organisation recommends 9 square metres of open space per person in urban environments which equates to 0.9 hectares per 1,000 people.

If applied to this site, they would generally reduce the level of open space required.

We note that on high density sites proportion of land based measures tend to be used to calculate the required quantum of open space. The City of Parramatta has developed a benchmark that allocates the 15% proportion of land measure to different uses²⁵. Applied to this site it would indicate the following amounts of open space:

- » Formal sport (6%) – 26.4 hectares
- » Informal and passive recreation (5%) – 22.0 hectares
- » Natural areas (4%) – 17.5 hectares.

Performance based measurement

The Draft Greener Places Design Guide²⁶ developed by the Government Architect NSW, takes a performance based approach to open space planning. It notes “Planning that relies on a spatial standard such as 2.8ha/1000 people is only effective with high levels of quality control and often works against opportunities for multiple use and innovative solutions. Equally, past approaches such as specifying a percentage of land did not have any direct link to the demand arising from a development, as densities can vary greatly yet the percentage stayed fixed”.

The Design Guide describes the performance criteria used to assess the open space network, including accessibility and connectivity, distribution, size and shape, quantity, quality, and diversity. Each criterion has a set of performance indicators that collectively provide the parameters for the identification of needs. The Design Guide identifies performance indicators specifically relevant for high density areas (**Table 20**).

Table 20 Key open space criteria and performance indicators – high density areas

Criterion	Performance indicator
Access and distribution	All residents are 200m to some form of open space
	All residents are 2 km to any district park ²⁷ and up to 30 minutes to regional open space
	All residents are 20 minutes away via active or public transport to two of the following – field sports, outdoor court sports, indoor sports, aquatic sports
	All residents are 30 minutes to field sports, outdoor court sports, indoor sports, aquatic sports
	Open space located 400m distance from workplaces and schools
Size and shape	Local open space minimum size – generally 0.3ha, but can be as small as 0.15 ha
	District open space minimum size – 2ha (average 5ha)

²³ See South Australia Planning, Development and Infrastructure Act 2016 at <https://www.legislation.sa.gov.au/LZ/C/A/PLANNING%20DEVELOPMENT%20AND%20INFRASTRUCTURE%20ACT%202016/CURRENT/2016.1.4.AUTH.PDF>; WA Department of Planning, Lands and Heritage, Western Australia Development Control Policy 2.3 (2019) at <https://www.dplh.wa.gov.au/policy-and-legislation/state-planning-framework/development-control-and-operational-policies/development-control-policy-2-3-public-open-space-i>; and Victorian Planning Authority, draft Guidelines for Precinct Structure Planning in Melbourne's Greenfields (2020), at <https://vpa.vic.gov.au/project/psp-guidelines/>

²⁴ See Brisbane City Council, Brisbane City Plan 2014 at <https://cityplan.brisbane.qld.gov.au/epln/>

²⁵ City of Parramatta (2020), Community Infrastructure Strategy, <https://www.cityofparramatta.nsw.gov.au/community-infrastructure-strategy>

²⁶ Government Architect NSW (2020), Draft Greener Places Design Guide, <https://www.governmentarchitect.nsw.gov.au/guidance/greener-places-guide>

²⁷ Liverpool City Council prefers district parks are within a 20 minute walk or 10 minute drive from all residents.

Criterion	Performance indicator
	Sporting space minimum size – ideally 10ha, but may be combination of 4ha sports fields + indoor court facilities, etc in high density areas
	Linear paths minimum size – 20m wide
	Regional open space minimum size – 20ha (can be less depending on design and focus)
Quantity	Local parks – 1 per 1,500 people
	District parks – 1 per 20,000 people (2ha park)
	Sporting spaces – 1 per 4,000 people (4ha space)
Quality and diversity	Visual and physical access, landscape setting, number of activations, vegetation and shade, biodiversity outcomes, safety, sustainability
	Diverse range of recreation opportunities reflective of the community

Source: Elton Consulting adapted from Government Architect NSW (2020), Draft Greener Places Design Guide

Implications for LTCP

The projected population at the LTCP will generate demand for social infrastructure, which is not always sufficient to justify development of 'stand-alone' facilities. As the LTCP is also a strategic centre it will also deliver facilities that service a broader regional catchment.

Our high level benchmark analysis indicates the LTCP will generate demand for:

- Aged care – around 90 residential aged care places and 50 home care packages
- Emergency services – the population is not sufficient to require additional services
- Health – a community health centre and private medical facilities
- Childcare – around 900 long day care places and 200 OSHC places
- Schools – a new public primary school, 700 public secondary school enrolments and 1,200-1,300 private school enrolments
- Community facilities – a community centre and a civic/cultural centre (both local level facilities)
- Open space – around 66 hectares of open space including 26 hectares for formal sport.

When the LTCP's role as a strategic centre is considered it may meet regional demand for:

- Emergency services – an ambulance station, fire and rescue station, and police station
- Health – an integrated health care hub
- Schools – another new public primary school, a new public secondary school, and a new private K-12 school
- Community facilities – a regional level community centre, cultural facility and library
- Open space – a regional indoor sport and recreation facility and a regional aquatic facility.

6 Regional social infrastructure

We have assessed social infrastructure and open space requirements for LTCP that:

- » Identifies what social infrastructure and open space will be required by the future community and the region, and how much will be needed
- » Recommends who should deliver the infrastructure and when
- » Proposes funding options for the social infrastructure.

The assessment incorporates the regional and sub-regional levels, and the local and neighbourhood levels. We have designed it to complement existing planning frameworks, particularly as they relate to social infrastructure planning and delivery for LTCP. We have also reviewed the ILP for the LTCP and the social infrastructure proposed within it.

The future population at LTCP will need to access regionally significant social infrastructure such as:

- » Educational institutions like universities and TAFEs
- » Emergency and justice services including ambulance, fire and rescue and police services
- » Health services including hospitals and community care
- » Regional open space
- » Cultural and community facilities
- » Regional sporting facilities like indoor sports centres, aquatic facilities and specialised sporting facilities.

These facilities are generally delivered by state and local governments.

6.1 State government

6.1.1 Education

The future population at LTCP will have access to existing TAFE NSW and university facilities in the metropolitan clusters of Liverpool, Campbelltown and Penrith. Currently, the most accessible facilities by public transport are in Liverpool which is around 30 minutes away with facilities at Campbelltown being 45-60 minutes away.

Both Elton Consulting's and GHD's previous social infrastructure studies for this area²⁸ identified the need for a TAFE NSW facility within the LTCP, but TAFE NSW has indicated that it does not propose to develop a facility here given the organisation's strategy to focus on redeveloping its existing assets. However, we note TAFE NSW outreach courses run from the Smart Work Hub at Oran Park. There may be the opportunity for similar outreach programs to operate from a community facility within the LTCP.

New and/or upgraded TAFE NSW and university facilities in the Aerotropolis, where the multi-iversity is proposed to open in 2026, and in Campbelltown will be particularly important given their accessibility by public transport once the South West Rail Link Extension is operational. We note, though, that timing and phasing of the rail link has not been finalised.

Proposed provision

The draft ILP includes a three hectare site for educational purposes on the corner of Bringelly and Rickard Roads. There is also provision within the SIC for the acquisition and construction of a TAFE campus at the LTCP. Importantly these funds cannot be used for facilities outside of the SIC collection area. Despite this TAFE NSW

²⁸ Elton Consulting (2011), Austral and Leppington North Precincts – Demographic and Social Infrastructure Assessment; GHD (2015), South West Growth Centre and Western Sydney Employment Area: Social Infrastructure Assessment

has indicated it does not plan to develop the site within the LTCP. Additionally, universities operating in Liverpool and Campbelltown have announced plans for expansion that do not include the LTCP.

However, there are other opportunities to provide these services including:

- » Using office space within the commercial centre for tertiary education facilities
- » Operating TAFE NSW outreach programs from a community facility within the LTCP.

It may also be possible to work with a range of education providers including TAFE NSW and interested universities to develop an education hub within the LTCP.

6.1.2 Emergency and justice

Previous social infrastructure studies for this area have identified needs for an ambulance hub, fire station, police station and potentially a court house. However, despite LTCP's role as a strategic centre the area has not featured significantly in regional planning for NSW Government emergency agencies. These agencies have developed, or propose to develop, regional-level facilities outside of the area.

Consequently, the needs of new residents in the LTCP will largely be served by existing emergency and justice infrastructure within the region as follows:

- » Ambulance – the major NSW Ambulance service in the region is the Liverpool superstation. Emergency health services at LTCP will be delivered through this facility and the Paramedic Response Point at Leppington
- » Courts – existing courthouses in Camden, Campbelltown, and Liverpool as well as a new courthouse proposed in Glenfield will service the LTCP area
- » Fire – the existing NSW Fire and Rescue station at Horningsea Park currently services this area, and there is provision for a new station in the Catherine Field North precinct if required due to population growth
- » Police – the LTCP is within the Camden and Liverpool Police Area Commands. It is likely to be serviced initially by the Green Valley and Liverpool Police Stations. As the population in the LTCP grows, NSW Police propose to establish a police station within the LTCP.

Proposed provision

The draft ILP does not identify specific sites for emergency or justice facilities consistent with current government agency planning. However, there is the future opportunity for NSW Police to lease office space within the LTCP for a police station or for back office operations.

6.1.3 Health

The future need for hospital services at the LTCP will be met by existing hospitals in Camden, Campbelltown, and Liverpool. We note capacity upgrades at Campbelltown (due for completion in 2022) and Liverpool Hospitals (due for completion in 2026) have been designed to meet needs resulting from future population growth in the SWGA.

The future need for integrated and primary health care facilities in the area cannot be met by existing community health services at Hoxton Park, Ingleburn and Oran Park. The SWSLHD and previous social infrastructure studies have identified that as the population grows at LTCP and in the surrounding area there will be a need for a new facility.

SWSLHD is proposing to develop an Integrated Health Care Hub (IHHub) at LTCP. IHHubs are designed to “deliver a new range of clinical services traditionally delivered from hospital facilities ... IHHubs, Community

Health Centres and District Hospitals will operate as an integrated system working collaboratively with primary and secondary providers who deliver care outside the public health system”²⁹.

Proposed provision

The draft ILP proposes development of a health hub just to the north of the Leppington train station and close to the commuter car park.

Issues for consideration – design

SWSLHD is currently investigating potential sites for the facility and is undertaking a detailed exercise to determine the kinds of services that will be delivered. This will influence the design and size of the facility.

As part of this exercise it will also be important to consider opportunities for co-locating this facility with other state and local government social infrastructure. This could include:

- » Co-location with the transport hub and commuter car park – for example, the Brookvale Community Health Centre³⁰ which was completed in 2018 is sited on the B-Line bus route and incorporates a multi-storey car park with more than 450 spaces, including 250 parking spaces for commuters using the bus route
- » Co-location with library and/or community centre – for example, the new Glenroy Community Hub in Victoria³¹, which is due for completion later this year, will combine community and maternal health facilities with a community centre, library and childcare centre.

Issues for consideration – funding and delivery

We understand funding is available in the Western Sydney Growth Areas Special Infrastructure Contribution (SIC) to develop this facility. This presents a significant opportunity to bring forward the delivery of social infrastructure at LTCP as a catalyst for establishing the town centre.

6.1.4 Regional open space

Future residents at LTCP will have access to significant areas of regional open space to the north and east in the Western Sydney Parklands and to the north west in the Aerotropolis, although we note much regional open space within the Aerotropolis is in medium to high flood zones. Much of this open space already exists but needs to be embellished to make it accessible for recreation.

The provision and embellishment of this open space is largely funded through:

- » Developer contributions – The Draft Western Sydney Aerotropolis SIC will contribute nearly \$600 million to fund open space provision³². The Western Sydney Growth Areas SIC, under which developers at Leppington will make contributions for the LTCP, will also contribute a substantial amount of funding (estimated at nearly \$600 million in 2011)³³
- » NSW Government agency funding – Greater Sydney Parklands, which is responsible for Western Sydney Parklands, is a self-funded government agency. The NSW Government recently announced that funding for

²⁹ South Western Sydney Local Health District (2020), SWSLHD Care in the Community Clinical Services Plan Stage Two including land assessment across three sites, <https://www.swslhd.health.nsw.gov.au/planning/content/pdf/Scoping%20Papers/>

³⁰ Health Infrastructure (2018), The Northern Beaches Brookvale Community Health Centre is now open, <https://www.hinfra.health.nsw.gov.au/newsroom/latest-news/latest-news/the-northern-beaches-brookvale-community-health-centre>

³¹ Moreland City Council (2021), Glenroy Community Hub design and construction, <https://conversations.moreland.vic.gov.au/wheatsheaf-hub-project>

³² NSW Government (2020), Draft Western Sydney Aerotropolis Special Infrastructure Contribution, <https://www.planning.nsw.gov.au/-/media/Files/DPE/Factsheets-and-faqs/SIC-fact-sheets/fact-sheet-western-sydney-aerotropolis-sic-2020-11.pdf?la=en>

³³ NSW Government (2011), Ministerial Determination SIC – Western Sydney Growth Areas, <https://www.planning.nsw.gov.au/-/media/Files/DPE/Circulars/special-infrastructure-contribution-western-sydney-growth-area-determination-2011-01-14.pdf>

the development and maintenance of Western Sydney Parklands will be underwritten by income from leasing land for the Eastern Creek Light Horse Business Hub³⁴.

Proposed provision

The draft ILP incorporates around 12 hectares of regional open space to the west of the LTCP along Kemps Creek. It also provides the opportunity to make a significant gateway connection to Western Sydney Parklands. This connection would be to the proposed Upper Canal Linear Park which extends from Bringelly Road almost all the way to Elizabeth Drive in Cecil Park.

Issues for consideration – design

We recommend direct active transport connections are established to regional open space both within the LTCP and beyond it. There is the opportunity to link the regional open space near Kemps Creek and the broader open space network in the LTCP and to create a gateway to Western Sydney Parklands at the eastern side of the LTCP near Cowpasture Road.

The link to Western Sydney Parklands is a critical link to regional open space opportunities proposed in the Southern Parklands Plan including a pedestrian and cycling connection along the Upper Canal and an adjacent linear park extending most of the length of the Southern Parklands. This connection could be made by opening up the Upper Canal for recreational use and creating a direct link across Cowpasture Road into the lands next to the Upper Canal. Ideally this would be via an overhead shared pedestrian and bicycle bridge to provide uninterrupted access from the LTCP to Western Sydney Parklands.

6.2 Local government

6.2.1 Cultural and community facilities

The need for both a regional level cultural facility and a regional level library with community centre has been identified in previous social infrastructure assessments for the area. Consultation with Camden and Liverpool Councils confirms that existing regional cultural facilities are at or nearing capacity, and that there is a shortfall in regional libraries and community centres in the area. The lack of cultural facilities is also confirmed by Create NSW's review of cultural infrastructure in Western Sydney³⁵.

Camden Council's Spaces and Places Strategy³⁶ notes "a new regional level library and community centre is proposed for the LTCP. The multipurpose community centre will be co-located with a library and is proposed to provide facilities for a cultural and performing arts centre".

Proposed provision

The draft ILP proposes development of a community centre just to the north of the Leppington train station.

Issues for consideration – design

The proposed location is close to public transport and is a prominent location within the town centre, which will help it become a highly activated community facility. It will be important that it is accessible and inclusive for people with a disability and people with limited mobility.

Two other key issues for consideration are the configuration and size of the facility (or facilities).

³⁴ DPE (2021), Parklands funding secured for generations, <https://www.planning.nsw.gov.au/News/2021/Parklands-funding-secured-for-generations>

³⁵ SGS (2018), Mapping Arts and Culture in Western Sydney, <https://create.nsw.gov.au/wp-content/uploads/2018/12/Attachment-A-Mapping-Arts-and-Culture-in-Western-Sydney.pdf>

³⁶ Camden Council (2020), Spaces and Places Strategy 2020, <https://www.camden.nsw.gov.au/assets/pdfs/Council/Plans-and-Strategies/>

Configuration

The proposed facility (or facilities) will have three separate uses as a library, community centre, and cultural/performance space. One option is to co-locate these uses within the one building, but other options include co-locating the library with an educational facility, or co-locating the community centre and with integrated health facility, or a mix of these options. Importantly co-locating uses will improve activation of the facility (or facilities) and will create opportunities for more efficient use of space.

There are several examples of different types of co-location for community facilities in strategic centres, including the Concourse at Chatswood which incorporates a library and major performing arts facility, Vinegar Hill Memorial Library and Community Centre at Rouse Hill, and the proposed Library and Creative Hub at Macquarie Park.

Size

We have considered the size of the facility (or facilities) in two components – the library and community centre, and the cultural and performance space. In both cases we have assumed a catchment of up to 350,000 people at LTCP by 2041.

Our view is that the library and community centre component would be around 4,000 square metres at LTCP to meet future demand. This is based on an estimate of the total floor space required to service the 350,000 people catchment area (6,500 square metres using the State Library population based calculator) and dividing this across the two facilities that will service the catchment – the Oran Park Library (2,500 square metres) and this proposed facility (leaving 4,000 square metres). We have also considered other comparable facilities in strategic centres including:

- » Chatswood Library at the Concourse³⁷ – 5,000 square metres with a library, creator space for groups running creative and/or learning activities and meeting rooms
- » Vinegar Hill Memorial Library and Community Centre at Rouse Hill³⁸ – 3,300 square metres with a library, community centre and meeting rooms
- » The proposed Library and Creative Hub at Macquarie Park³⁹ – 5,000 square metres with a library, meeting rooms and performance space.

The cultural and performance space component would be around 1,500 square metres of floor space to meet future demand. We have assumed that the major new purpose built cultural space will be developed as part of the Aerotropolis, and that the facility at LTCP will have a focus on making space given that is the most significant gap in this area, but will also include exhibition and performance space. A facility of this size would be comparable to cultural facilities including:

- » 107 Projects on Redfern Street⁴⁰ – 1,700 square metres with a mix of exhibition and performance space; making space including artist studios, a workshop and a rehearsal room; and back of house facilities with an office
- » Rydalmere Artists' Studios – currently the facility has six artist studios, but a recent report⁴¹ has proposed an upgrade with total space of 1,200 square metres including a minimum of 12 studios (approximately 45 square metres each), space for delivering workshops, exhibitions, and communal kitchen and dining facilities.

We note that co-location of these uses will create opportunities for sharing spaces and more efficient use of space. Based on this, it would be possible to deliver these uses within a multipurpose facility of approximately 4,500-5,000 square metres.

³⁷ WSP (2021), The Concourse at Chatswood Civic Place, <https://www.wsp.com/en-AU/projects/the-concourse-at-chatswood-civic-place>

³⁸ Bylett Associates (2021), Rouse Hill Town Centre Library, <https://www.bylettassociates.com.au/portfolio/rouse-hill-town-centre-library/>

³⁹ City of Ryde (2016), Council Meeting Papers 25 October 2016, <https://www.ryde.nsw.gov.au/files/assets/public/development/vpa/council-report-amp-vpa.pdf>

⁴⁰ Design Collaborative (2015), Low Risk Arts and Cultural Venues – A NSW Case Study, <https://livemusicoffice.com.au/wp-content/uploads/2015/11/Low-Risk-Arts-and-Cultural-Venues-NSW-Case-Study-for-National-Application.pdf>

⁴¹ Western Sydney University (2020), Planning Cultural Infrastructure for the City of Parramatta: Phase 2 Precinct Report, https://www.westernsydney.edu.au/_data/assets/pdf_file/0011/1812584/Planning_Cultural_Infrastructure_for_the_City_of_Parramatta-Phase_2_Precinct_Report_June_2020.pdf

Issues for consideration – funding and delivery

There is an opportunity to deliver these facilities, or a component of them, co-located with the Integrated Health Care Hub (IHHub). This would create a centre of activity within the LTCP that could become a critical catalyst in establishing it as a town centre. It would also provide facilities that are already required within the SWGA.

Developer contributions have been collected through the SIC and local contributions plans for the proposed regional level library and community centre at LTCP. However, we understand that given the previous cap on local development contributions these are only sufficient to purchase land for the site. This leaves a significant funding shortfall for the construction and fit out of this facility, which could be around \$40 million based on estimates for similar facilities⁴².

There are limited additional funding options for Council. These include Council funds and/or state and federal government grants. Camden Council could pursue funding opportunities for the project through, for example, the Western Sydney City Deal Liveability Fund. We note Wollondilly Council has recently been awarded \$13 million to deliver the first stage of its Wollondilly Community, Cultural and Civic Precinct⁴³.

Council could also consider jointly developing the site through a partnership arrangement. This could be with the SWSLHD and/or private health providers. If there is potential for a mixed used development Council could also partner with a private developer. Liverpool Council, for example, has partnered with Built Development for its Civic Place Precinct. The \$400 million project will incorporate new Council facilities including offices, a library and community hub, a civic plaza with a mix of other uses including commercial, retail, education and co-living⁴⁴.

Furthermore we note the NSW Government is currently reforming the infrastructure contributions framework and considering options for funding public space and other social infrastructure. Council could make representations to the NSW Government for the funding of this critical social infrastructure.

6.2.2 Regional sporting facilities

There is strong and growing demand for sporting facilities in the Camden and Liverpool LGAs and the region, particularly for football fields and multipurpose sport courts.

The needs of future residents at LTCP for regional sporting facilities will be met through the development of indoor sporting facilities, specialist facilities and regional sport fields.

Indoor facilities

Assuming the LTCP will service a catchment of around 350,000 people across the SWGA, there is a need for at least three indoor recreation facilities and two regional aquatic facilities according to established benchmarks. With an existing indoor recreation facility at Carnes Hill (Michael Clarke Recreation Centre) and a proposed indoor recreation and aquatic facility at Oran Park, this leaves a need for one another indoor recreation and aquatic facility within the LTCP.

Proposed provision

The draft ILP proposes a future recreation facility on the corner of Bringelly Road and Edmondson Avenue.

Issues for consideration – design

The proposed location is close to public transport and the road network, positioning it to become a highly utilised piece of regional social infrastructure. It will be important that it is accessible and inclusive for people with a disability and people with limited mobility.

⁴² For example, the estimated cost of providing the Macquarie Park Library and Creative Hub is \$25 million with a fitout cost of \$16 million. See City of Ryde (2016), Council Meeting Papers 25 October 2016, <https://www.ryde.nsw.gov.au/files/assets/public/development/vpa/council-report-amp-vpa.pdf>

⁴³ Wollondilly Shire Council (2020), Liveability Funding to enhance community infrastructure in Wollondilly, <https://www.yoursay.wollondilly.nsw.gov.au/wollondilly-community-cultural-and-civic-precinct>

⁴⁴ Liverpool Council (2021), Liverpool Civic Place, <https://www.liverpool.nsw.gov.au/development/major-projects/liverpool-civic-place>

Consistent with previous social infrastructure studies, we propose the centre is located on a 5 hectare site, including a 3 hectare facility and outdoor elements and 2 hectares for parking and landscaping. It would incorporate:

- » Aquatic facilities including an indoor 50 metre x 10 lane Olympic pool, a training pool, 25 metre leisure pool, heated teaching pool; and a children's play pool/wave pool/whirl pool/water slides, diving pool
- » Indoor sporting facilities with 4 indoor sports courts each large enough for netball; a fitness centre with weights, aerobics/dance/Yoga/Pilates activity room with wooden floor, spin cycle room
- » Wellness/health services like physiotherapy, nutrition etc. and a spa, sauna and steam room
- » Retractable seating for 1,500 this would increase to 3,500 in stage 2
- » General amenities including a kiosk and café, equipment sales, change rooms, lockers, toilets, crèche facilities for users
- » Outdoor elements which may include a water play park, BMX track, skate park, sports oval and netball, tennis, basketball courts.

Issues for consideration – funding and delivery

Developer contributions have been collected for the proposed regional indoor recreation and aquatic facility at LTCP. However, we understand that given the previous cap on local development contributions these are only sufficient to purchase land for the site. This leaves a significant funding shortfall for the construction and fit out of this facility, which could be around \$60 million based on estimates for similar facilities⁴⁵.

As noted above in section 6.2.1, Liverpool Council could pursue funding opportunities for the project through, for example, the Western Sydney City Deal Liveability Fund and could make representations to the NSW Government for the funding of this critical social infrastructure. There may also be funding opportunities through the NSW Office of Sport which has previously funded the development of significant regional sporting infrastructure.

This facility could be delivered as a complement to the IHHub. That is, the IHHub and the regional indoor recreation and aquatic facility could share facilities. For example, the IHHub may be able to use one of the pools for hydrotherapy. Again, the large indoor facility could be used for mass events such as a vaccine hub or medical disaster response.

Specialist facilities

Camden Council is proposing to deliver two regional specialist sporting facilities using a mix of developer contributions and funding from the NSW Government:

- » Kirkham Park BMX facility – stage 1 is complete and stage 2 to be completed by 2022 will provide high quality specialised recreation opportunities to the region with a BMX track, two new sport fields and one modified sports field for rugby league
- » Narellan Sports Hub – stage 1 is complete and stage 2 to be completed by 2022 will deliver a facility with enough critical mass to support competition at a regional scale with 14 additional netball courts (making a total of 32), conversion of modified field to full sports field, an athletics facility and a multipurpose grassed area.

Liverpool City Council's plan to deliver the indoor recreation and aquatic facility within the LTCP will provide a specialist facility for swimming and basketball.

Proposed provision

The draft ILP incorporates provision for specialist facilities within the regional indoor recreation and aquatic facility. There may also be the opportunity to include additional specialist facilities in the outdoor area of the

⁴⁵ For example, the estimated cost for the Oran Park Leisure Centre is \$63 million. See Camden Council (2021), Oran Park Leisure Centre, <https://www.camden.nsw.gov.au/major-developments/oran-park-leisure-centre/>

facility. Innovative options to maximise recreational space could include providing rooftop sport courts or sport fields on top of underground car parking.

Sport fields

As noted above in section 3.3.3, Western Sydney Parklands provides the major opportunity for regional level sport fields. Western Sydney Parklands have identified the opportunity for three sport and structured recreation facilities within 3 kilometres of the LTCP. These will incorporate a variety of regional sports fields and courts as well as potential for leisure centres with indoor sport and fitness facilities.

Proposed provision

The draft ILP does not incorporate provision for regional sport fields.

The key opportunity for LTCP as discussed above in section 6.1.4 is to create a gateway connection to the regional open space opportunities provided through the Western Sydney Parklands.

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7 Local and neighbourhood social infrastructure

The future population at LTCP will need to access local and neighbourhood level social infrastructure and open space such as:

- » Aged care including residential aged care and home care
- » Child care including long day care and out of school hours' care
- » Community facilities including community centres and libraries
- » Educational institutions like primary and secondary schools
- » Health services including general practice and medical centres
- » Open space including passive recreation and sports fields.

These facilities are generally delivered by state and local governments and the private sector.

7.1 State government

Primary schools

Demand for government and non-government primary schools is growing in the LTCP area and its surrounds. There is limited capacity within existing primary schools and the catchment area for the new school (Denham Court Public School) does not include the LTCP.

Demand is expected to increase substantially due to population growth in Austral and LTCP. We estimate the new population at LTCP will generate demand for around 2,000 new enrolments at primary schools, around two thirds of these enrolments will be for government schools. Given existing facilities are at or nearing capacity, this is sufficient demand to require at least one new government primary school in LTCP and potentially two depending on the capacity of surrounding schools.

Proposed provision

The draft ILP already includes the existing primary school site which is currently around 3.5 hectares and could be extended to around 4.3 hectares through additional land purchases. The draft ILP proposes to develop new sports fields adjacent to the primary school.

Given the high demand for primary school enrolments, we recommend SINSW considers redeveloping this site to increase its capacity and acquiring a new one in the north of the LTCP. One of the options is to develop one of the two sites as a combined primary and secondary school.

The existing primary school site is consistent with the NSW Department of Education's (DoE) guidelines for school sites⁴⁶. It is important that any future site also complies with these guidelines. This includes the following attributes:

- » Size – the standard size for a primary school site with a capacity of up to 1,000 students in a high density or town centre area is 1.5 hectares. The existing site exceeds this and is therefore large enough to provide both open space and educational facility space for 1,000 students
- » Configuration – DoE notes that appropriate school sites are regular in shape, held in one single lot, and have road frontages on three sides. The existing site would meet all these criteria under the draft ILP

⁴⁶ NSW Department of Education SINSW (2020), School Site Selection and Development – A guideline for determining appropriate school sites, https://efsq-dec-prod.s3.amazonaws.com/tab_a_draft_guidelines_for_school_site_selection.pdf

- » Location – appropriate school sites are accessible for students, central to the community and within a structured movement network. The proposed site is in a central location on the southern side of the LTCP and is linked to the rest of LTCP by green space, roads and pathways suitable for walking and cycling.

Issues for consideration – design

The design of the primary school will need to provide a safe and healthy environment, and flexibility for multiple uses⁴⁷. Key issues to consider in creating a safe and healthy school environment are:

- » Connections with open space – we understand the school will be directly connected to active open space across the new road to the east of the school site and to passive open space to the west of the LTCP
- » Walkability – it is critical the school is easily accessible via active transport with direct routes and pedestrian connections across roads and the rail line. The primary school site is within 1 kilometre of all proposed residential development within the LTCP on the southern side of the rail line and we understand it will form part of a well-structured movement network
- » Connections to public transport – the school is within 500 metres of the Leppington train station and bus interchange. It will be important that the school is well connected to the rest of the LTCP via bus routes.

We recommend the school is designed flexibly for multiple uses including, opportunities to share:

- » School facilities – it is important the school design enables safe sharing of school facilities like the hall, library and kitchen facilities with the community, when they are not required by the school
- » Open space – both the school and the community will want to utilise open space within the school and open space directly adjacent to the school, particularly given the short fall of sport courts and sport fields in the LGA.

We recognise that Camden Council does not currently have an agreement with the DoE for shared use of open space with primary and secondary schools (see section 2.2). We recommend Council seeks to establish such an agreement with DoE consistent with best practice planning and the recommendations of the NSW Productivity Commission review into infrastructure contributions. However, if this is not possible, it does not impact our findings related to primary schools given:

- » The existing school site in the LTCP is large enough to provide sufficient open space for up to 1,000 students
- » The proposed new site in the north of the LTCP would be within Liverpool City Council which has a shared use agreement with the DoE.

Issues for consideration – delivery

Given the low capacity of existing primary schools, we recommend that at least one new facility is delivered early in the redevelopment of the LTCP.

We understand SINSW is currently considering its options for addressing demand in this area. This analysis will resolve timing for delivery of the school to meet demand from future residents of the LTCP based on the capacity of existing schools and expected population growth in the area. As the Austral precinct is being developed already, it may be that SINSW decides to develop a new school on a site to the north of the LTCP first closer to the Austral precinct.

We recommend both Councils and DPE continue discussions with DoE to confirm preferred timing for new primary school facilities in the LTCP, and that schools are delivered consistent with these discussions.

Secondary schools

Demand for government and private secondary schools is high and growing in the area surrounding the LTCP. The closest high school, John Edmondson High School, is significantly over capacity. There may also be some

⁴⁷ NSW Department of Planning and Environment (2017), Guide to the SEPP (Educational Establishments and Child Care Facilities) 2017, <https://www.planning.nsw.gov.au/Policy-and-Legislation/Education>

capacity remaining in private secondary schools, although they have experienced significant growth in enrolments over the past five years.

We estimate the LTCP development will create demand for around 1,300 new secondary school enrolments with around 60% for government schools and 40% for private schools. This is not sufficient demand in itself to require a new government secondary school in the area, but SINSW has advised it is considering developing a new high school due to the high demand for public high school enrolments in the wider area.

The NSW Government has also committed to developing a new selective high school in the LTCP.

Proposed provision

The draft ILP does not identify sites for a public secondary school or for a public selective school. One option for the public secondary school is to redevelop the existing Leppington Primary School into a combined primary and secondary school given the size of that site and the potential to extend it. Another option is to identify a separate site within the LTCP. The only feasible option for the selective school is to identify a site within the LTCP.

Any new site(s) must be consistent with the DoE's guidelines for school sites⁴⁸, including:

- » Size – the standard size for a secondary school site with a capacity of up to 2,000 students in a high density or town centre area is 2.5 hectares
- » Configuration – DoE notes that appropriate school sites are regular in shape, held in one single lot, and have road frontages on three sides
- » Location – appropriate school sites are accessible for students, central to the community and within a structured movement network. It is particularly important the selective school is close to the train station as students from across the region will attend it.

As noted above, the existing Leppington Primary School site accords with the DoE guidelines in terms of configuration and location. It is also large enough (given the capacity to extend it to around 4.3 hectares) to incorporate a combined primary and secondary school with up to 3,000 students (2,000 secondary students and 1,000 primary students). However, if there is no capacity for Camden Council and the DoE to share open space this could constrain options for redeveloping the site potentially reducing the number of students a combined primary and high school could support.

We recommend both Councils and DPE continue discussions with SINSW to identify locations for the secondary schools.

Issues for consideration – design

The design of the secondary schools will need to provide a safe and healthy environment, and flexibility for multiple uses⁴⁹. We have discussed key issues for the existing primary school site above. Key issues for the selective school site are:

- » Connections with open space – given its town centre location there will be constraints in providing open space within the site, so it is critical to have direct connections to the future LTCP indoor recreation and aquatic facility, and beyond that to the sport fields to the north of the LTCP
- » Walkability – it is critical the school is easily accessible via active transport with direct routes and pedestrian connections across roads and the rail line. The secondary school site is within 1 kilometre of all proposed residential development within the LTCP on the northern side of the rail line and we understand it will form part of a well-structured movement network

⁴⁸ NSW Department of Education SINSW (2020), School Site Selection and Development – A guideline for determining appropriate school sites, https://efsg-dec-prod.s3.amazonaws.com/tab_a_draft_guidelines_for_school_site_selection.pdf

⁴⁹ NSW Department of Planning and Environment (2017), Guide to the SEPP (Educational Establishments and Child Care Facilities) 2017, <https://www.planning.nsw.gov.au/Policy-and-Legislation/Education>

- » Connections to public transport – the school is within 250 metres of the Leppington train station and bus interchange. It will be important that the school is well connected to the rest of the LTCP and the SWGA via bus routes given it will be a selective school with a broader catchment area than a local school.

We recommend the school is designed flexibly for multiple uses including:

- » Opportunities to share school facilities – it is important the school design enables safe sharing of school facilities like the hall, library and kitchen facilities with the community, when they are not required by the school
- » Shared use of open space – both the school and the community will want to utilise open space within the school particularly given the short fall of sport courts and sport fields in the LGA
- » Co-location of community facilities – there is the opportunity to consider incorporating the regional library or cultural and performance space into the design of the school building.

Issues for consideration – delivery

Given the nearest existing secondary school is already over capacity, we recommend the new (non-selective) secondary school is delivered early in the project.

We understand SINSW is currently considering its options for addressing demand in this area. This analysis will resolve timing for delivery of the school to meet demand from future residents of the LTCP based on the capacity of existing schools and expected population growth in the area.

We recommend both Councils and DPE continue discussions with DoE to confirm preferred timing for new secondary school facilities in the LTCP, and that schools are delivered consistent with these discussions.

7.2 Local government

Community facilities

The new population at LTCP will require additional community facilities as the current network does not have capacity to meet further demand. New residents' needs for community facilities will be met through the regional LTCP community facility (see section 6.2.1 above).

Active open space

There is currently a surplus of sport fields in Camden LGA, but Council reports most are at or over capacity particularly in the winter sporting season. Council predicts a shortfall of sport fields by 2036 if additional fields are not provided consistent with population growth. Liverpool City Council already reports a shortfall of sport fields within the western area of the LGA where the LTCP is located. Demand for fields for football is particularly high and growing, but provision of multipurpose facilities will enable both Councils to respond to demand for field sports where there is a shortfall of facilities including, rugby league/rugby union, AFL and cricket.

The level of sport court provision in Camden is currently adequate, but there is a deficit in Liverpool particularly in the new release areas. Both Councils project a shortfall of sport courts, particularly for basketball and netball, by 2036.

Existing sport fields near the LTCP are nearing capacity or not currently suited for use (Rossmore Reserve). The nearest sport courts are at Carnes Hill. Several new sporting facilities will be delivered over the next four years in the study area, but they are some distance from the LTCP:

- » Leppington (Pat Kontista) Reserve (Camden LGA) – Council plans to upgrade this facility to include at least two full size football fields and multipurpose tennis court facilities
- » Oran Park Leisure Centre (Camden LGA) – this facility with a 50 metre competition pool, gym and four sports courts is due for completion in 2024.

Neither these existing nor new facilities will be able to meet demand for active open space from the new community at LTCP. Other proposed district and regional level facilities at Austral and Western Sydney Parklands

will help meet demand for sporting facilities at LTCP, but the delivery timeframe for these facilities have not been determined.

As well as examining the capacity of existing and proposed facilities, we have considered the following factors in estimating requirements for active open space:

- » Future population – the LTCP will have a young population, but there will be significantly less school aged children than in other new release precincts in Liverpool and Camden LGAs. It will also have a significant working population
- » Participation trends – unstructured physical activities are the most popular form of recreation in this area, but there are high levels of participation in football (especially in the 5-14 and 15-24 year age groups). Given the LTCP is likely to have a lower proportion of these age groups, demand will tend to be lower than other new release precincts
- » Benchmarks – benchmark levels of active open space provision vary widely between population and proportion of land based measures (26 to 40 hectares), as do benchmarks for sport field provision (8-16 fields). However, they generally recommend incorporating additional facilities for worker use. Performance based measures provide guidance on access to active open space
- » The type of development – the LTCP will be a high density precinct and proportion of land based benchmarks are generally applied to these areas.

Given these factors we estimate the LTCP will generate demand for around 26.4 hectares of active open space based on the proportion of land based benchmark and the Government Architect NSW's sporting space performance indicator. This would be sufficient to deliver:

- » 12 sports fields which is the midpoint of the two Council benchmarks when additional demand from workers is included
- » 14 sport courts which is in accordance with the benchmark including additional demand from workers.

The population will also contribute to demand for indoor sporting and aquatic facilities, which is not sufficient to justify development of new facilities.

Proposed provision

The draft ILP incorporates around 15 hectares of active open space including:

- » New turf sport fields – two rectangular sport fields on the southern side of the LTCP and three rectangular sport fields on the northern side. These are designed to be suitable for a range of field sports including football, rugby league/union, Oztag, cricket or AFL
- » The existing single turf sport field at Scott Memorial Park. We note this is the site for the proposed future recreation facility
- » A future recreation facility which is proposed to incorporate aquatic facilities (50 metre pool, training pool and leisure pool), indoor sporting facilities with 4 indoor sports courts, an activity room and a gym.

We note that the draft ILP does not specifically identify outdoor multipurpose sport courts, although we understand it is the intention of both Councils to deliver courts that could be used for tennis, basketball, futsal or netball as part of the proposal. We also note fragmented land ownership and the high cost of land in the area significantly constrains provision of active open space within the LTCP.

We estimate the proposed level of provision:

- » Will not meet local demand for sport fields – a further six sport fields will be required to meet the needs of the LTCP population. The delivery of active open space facilities at Austral and the Western Sydney Parklands will help meet this demand, but at least one additional facility will be required in the area surrounding the LTCP to meet local demand
- » Will not meet local demand for sport courts – a total of 14 sport courts will be required

- » Will more than meet local demand for indoor recreation – the proposed facility will significantly exceed the need for indoor sporting and aquatic facilities created by the new population at LTCP and will make a large contribution to regional demand for such facilities.

We recommend the following changes to the draft ILP:

- » Sport fields – increase the number of sport fields provided within the LTCP to eight fields with the additional four sport fields provided close to the LTCP to support resident access
- » Sport courts – provide 14 multipurpose courts within the LTCP. Most would be co-located with sport fields, but some could be co-located with district passive open space within the LTCP to support its activation
- » An indoor/outdoor recreation hub – create an activity hub in the north by designing the future recreation facility site to include high quality outdoor elements such as a water play park, BMX track, skate park, sports oval and netball, tennis, basketball courts
- » An outdoor fitness hub – develop a physical fitness hub in the south by co-locating four sport fields with up to eight multipurpose sport courts. It could also incorporate passive elements such as a playground space, outdoor exercise equipment, an outdoor gym and a shared pedestrian and cycling track. This would reinforce activation of this area and optimise the use of recreation space by sporting clubs.

This level of provision will ensure residents and workers have ready access to sport fields, outdoor courts, indoor sports and aquatic sports. They will all be less than 20 minutes away from these facilities via active or public transport.

While this does not relate directly to the draft ILP, both Councils could also encourage the provision of private active open space within private residential, commercial and retail development. This could incorporate rooftop recreation areas with sport courts, indoor swimming pools or informal sporting spaces provided within buildings or shared spaces between buildings.

Issues for consideration – design

We note the sport fields are: accessible by active and public transport; distributed within 2 kilometres of all residential dwellings; and regular in shape, generally with a north-south orientation and with at least 50% road frontage. We recommend consideration be given to the following strategies to support the capacity, quality and diversity of open space provided through the sport fields:

- » Capacity – installation of lighting will further boost capacity. Another option is to provide a synthetic field to increase utilisation in wet weather. This will be important given high demand for active open space within in this area
- » Quality – designing with CPTED principles will support development of a safe space; tree planting to create at least 40% perimeter shading for off-field areas will provide areas to cool off; and provision of facilities like a clubhouse and amenities building with toilets, change rooms and storage will support a range of different uses
- » Diversity – inclusion of additional activations will encourage use by people of different ages and abilities. This could include:
 - > Local play and recreation with, for example, one or more play spaces targeting local children, potentially an all abilities play space, and a kickabout space
 - > Multipurpose sport courts for formal or informal use
 - > Fitness and exercise space with equipment and running paths
 - > Connections to path and trail based recreation opportunities throughout the LTCP and beyond it.

It will also be important that the open space network within the LTCP provides residents, workers and visitors easy access to active recreation facilities within the LTCP and outside the LTCP. This includes:

- » The additional sports fields and courts provided off-site, which should be within a 20 minute trip by active or public transport. Ideally one of the sport field facilities provided off-site should incorporate at least two double sport fields to support efficient use by sporting clubs

- » Major regional recreation infrastructure proposed within Western Sydney Parklands.

Issues for consideration – delivery

Given the high demand for active open space in the area, we recommend that at least one of the double sport fields on site is delivered in stage one or two of the LTCP. The remaining sports fields (on and off site) should be provided proportionate to the delivery of residential development in the LTCP.

Additionally, there is a real opportunity for open space to meet local needs, help activate the LTCP and create a destination people want to visit. We recommend that the first set of sport fields is delivered as an outdoor fitness hub that incorporates several activations suited for different age groups, ability levels and genders, such as an outdoor gym, a playground, a walking/running and cycling track, sport courts, informal spaces for gathering or kick about, and connections to green space and to public domain within the LTCP.

Issues for consideration – funding and management

The sports fields and courts are likely to be funded through local developer contributions or a Voluntary Planning Agreement. They will be dedicated to Council for ongoing management as sportsgrounds.

Funding of the regional indoor aquatic and recreation facility is considered in section 6.2.2 above.

Passive open space

Both Camden and Liverpool LGAs currently have a surplus of passive open space, but much of it is constrained by flooding and other issues. This is in the context of increased demand for passive and unstructured recreation spaces across the LGAs. Consequently, there is a lack of quality passive open space and poor access to recreation facilities. This is particularly true in the new release areas of both LGAs.

Camden and Liverpool City Councils note there is poor access to recreation opportunities in growth areas. Key issues include:

- » There is no regional level playground in a central location and few accessible playgrounds
- » There is a shortage of large, multi-purpose parks
- » Many parks are less than 0.2-0.3 hectares in size restricting their utilisation
- » There is a gap in the provision of game tables and fitness equipment
- » Access to BBQs and picnic tables can also be difficult at peak times.

The closest existing passive recreation space to LTCP are in Western Sydney Parklands or 3 kilometres away at Greenway Park and Carnes Hill.

We have considered several factors in estimating requirements for passive open space, including the lack of capacity in existing passive open space, the preference for unstructured physical activities and the fact the LTCP will be a high density precinct. Given these factors, we estimate the LTCP will generate demand for at least 39.5 hectares of passive open space and natural areas based on the proportion of land based benchmark including up to 13 playgrounds, 2 off-leash dog parks, 2 district parks and sufficient local parks to provide all residents access to open space within 200m of their homes (and 400m for workers).

These quantity estimates are a starting point for planning passive open space in the area. Another key issue is the quality of open space in LTCP. As noted above, there is the potential to deliver high quality open spaces that meet local needs, help activate the LTCP and create a destination people want to visit.

Proposed provision

The draft ILP incorporates nearly 55 hectares of passive open space including 12 hectares of regional parkland and two large parks to the south west and east of the LTCP respectively of almost 10 hectares each. Additionally it provides:

- » Over 22 hectares of riparian corridors and water cycle management areas which can be embellished and integrated as natural areas within parks where appropriate and activated by walking and cycling trails

- » Nearly 6 hectares of linear plazas along significant transit ways to connect the open space and public domain network within the LTCP.

We note that the draft ILP does not specifically identify play spaces, off-leash dog parks, local parks, district parks or walking and cycling paths, although we understand it is the intention of both Councils to deliver these facilities as part of the proposal.

We estimate the proposed level of provision:

- » Will meet the overall local demand for passive open space – it exceeds the benchmark level of provision by around 15 hectares and should provide the great majority of residents with access to open space within 200m of their homes, and workers and students within 400m
- » Has the capacity to meet local demand for play spaces – up to 8 play spaces are required to meet local demand and contribute to the regional network
- » Has the capacity to meet local demand for off-leash dog parks, local parks or district parks – two off-leash dog parks and two district parks are required as well as sufficient local parks to provide all residents, workers and students ready access to open space.

We recommend the following changes to the draft ILP:

- » District parks – identify the two large parks to the south west and east of the LTCP as high quality district parks providing destination play and picnic spaces with opportunities for multiple active and passive activities. They could include half courts, exercise stations, informal fields and commons for community gatherings
- » Play spaces – deliver a network of recreational spaces for children and young people which provides high quality and diverse play opportunities for a broad range of age groups and abilities. This will be particularly important given the high proportion of young children expected in the LTCP. The network would include a regional play space, two district play spaces and up to five local play spaces. The regional play space could be co-located with one of the district parks with the two district play spaces integrated into the indoor/outdoor recreation hub and the outdoor fitness hub. They might also include specialised play experiences such as skate parks and adventure play spaces
- » Off-leash dog parks – provide two off-leash dog parks co-located with the district parks
- » Local parks – deliver sufficient local parks of at least 3,000 square metres to provide all residents access to open space within 200m of their homes (and 400m for workers and students)
- » Active transport network – include pedestrian pathways within local roads and open space areas, along with a combination of on-road and off-road shared paths to connect the open space and public domain network within the LTCP and facilitate connections beyond it.

Issues for consideration – design

We recommend consideration be given to the following strategies to support the use of passive open space:

- » Access – distributing the district parks, local parks and play spaces throughout the LTCP and connecting them within the active transport network so residents across the site have access to recreational opportunities. It will be particularly important that higher level spaces such as the district parks and regional play space are accessible by public and active transport. It will also be important that the active transport network connects the LTCP with recreation opportunities to the north in Western Sydney Parklands and to the south at East Leppington
- » Quality –designing with CPTED principles will support development of a safe space; 50% road frontage or combined road and public use area; natural or built shade to create at least 50% shading; integration of passive space with natural areas; and provision of facilities like picnic areas with shelters, tables, water and barbeques, public toilets, exercise equipment, seats will support a range of different uses
- » Diversity – optimise recreational opportunities for people of all ages and abilities through co-location of facilities.

Issues for consideration – delivery

We recommend early delivery of one of the district parks, including the regional play space and an off-leash dog park, to provide a regionally significant recreation space that attracts people to the area.

We also propose that local parks are scheduled for delivery in each stage of the LTCP so residents have access to nearby passive open space when they move into their homes.

Issues for consideration – funding and management

The passive open space and natural areas are likely to be funded through local developer contributions or a Voluntary Planning Agreement. They will be dedicated to Council for ongoing management.

7.3 Non-government

Aged care

There are 7 existing retirement villages and 4 aged care facilities near or within the LTCP. New retirement living and residential aged care facilities are planned for Oran Park although the delivery timeframe for these facilities is not known.

We estimate the future population of the LTCP will generate demand for 87 residential aged care places. This is not sufficient to justify development of a new facility and it is likely that the proposed facilities will have capacity to cater for this demand.

The new community will also generate demand for services to allow older people to age in place, including Home and Community Care. We note these services are likely to be available in coming years as the Federal Government has recently significantly boosted funding for home care services in response to long waiting times⁵⁰.

Child care

There are 34 existing long day care centres and 15 OSHC services within the study area. About two thirds of the child care services are not advertising vacancies indicating high levels of demand, while about two thirds of the OSHC services are advertising vacancies indicating there is capacity within those services. Capacity will tighten in the future with expected population growth.

We estimate the future residential and working population at LTCP will generate demand for 920 long day care places and 208 OSHC places. This is demand sufficient to warrant the development of several new long day care centres and two new OSHC services.

Camden Council does not provide long day or pre-school childcare centres, but it does provide family day care and seeks to ensure spaces are available for playgroups and OSHC in its community centres. Liverpool City Council does deliver and manage long day care centres, but it does not have plans to expand its services into Leppington. This means long day care and OSHC services in LTCP will be provided by private and not for profit providers as demand develops.

Childcare centres are generally a permitted use within residential areas and do not require land to be designated at the master planning stage. We expect space for OSHC will be provided at the proposed primary schools.

Education – private primary and secondary

Our analysis of primary and secondary school demand indicates the future population at LTCP will create demand for 1,200-1,300 private primary and secondary school enrolments. This is almost sufficient demand for a new K-12 private school.

⁵⁰ The number of home care packages available in Australia is set to increase from around 60,000 in June 2013 to 185,000 in June 2021 given the high demand for these services (<https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/budget-2020-21-record-health-and-aged-care-investment-under-australias-covid-19-pandemic-plan>)

Proposed provision

The draft ILP does not identify land for a private school site.

Private school providers undertake detailed demographic and feasibility assessments before committing to new release areas. They acquire sites through market processes taking into consideration the socio-economic, ethnic and religious profile of an area as well as the availability of private schools in the surrounding area.

Health

The nearest community health centre to LTCP is at Hoxton Park and the closest district to regional level health facility is Oran Park Family Health, which combines public and private medical services. These facilities currently have some capacity to meet growing needs in the SWGA, but a new Integrated Health Care Hub (IHHub) is proposed at LTCP as the population grows. This facility will provide an opportunity for co-location of public and private medical and allied health services.

We estimate the new community at LTCP will generate demand for several new general medical practices with around 27 general practitioners.

The South Western Sydney Local Health District has proposed a model for the Growth Centre Precincts that includes:

- » Primary Care Clinics, serving a catchment of about 15,000 – 18,000 people. These are privately operated clinics, with one proposed in each Precinct and located in village or town centres
- » Team General Practices, each serving a catchment of about 4,000 – 5,000 people.

Team GP practices and primary care clinics will be established by the market as the population grows. The proposed town centre will provide commercial space for local medical centres, which are a permitted use within mixed use and residential zones. Commercial space within the town centre will also be suitable for local services such as dentists and allied health practitioners.

8 Conclusion

The new community at LTCP is likely to have around 26,000 people and a workforce of around 17,000 people by 2041. It will be a relatively young community largely made up of young workers (25-34 years), parents and homebuilders (35-40 years) and babies and pre-schoolers (0-4 years). The major household types will be couples with and without children and single person households. The area is likely to be relatively culturally diverse compared to the rest of the LGA and most people will rent their homes.

8.1 Consolidated recommendations

The new community will need access to social infrastructure and open space provided at the neighbourhood and district levels, as well across the region. Importantly, it must respond to existing needs and accommodate family and age distribution changes once the community establishes itself over time. Social infrastructure and open space which is accessible to residents of all ages, multipurpose and flexible will help ensure that spaces and activities can adjust to the needs of residents as they change over time.

Regional planning is still developing in the SWGA with much social infrastructure and open space planning to this point taking place at the precinct level. The new population at LTCP will contribute to demand for regional infrastructure, but not at a level sufficient to require delivery of regional facilities. Despite this, and given LTCP's role as a strategic centre, the LTCP will deliver significant regional social infrastructure and recreational facilities.

We recommend the following level of social infrastructure and open space provision in the LTCP (**Table 21**).

Table 21 Social infrastructure and open space recommendations

Category and need	Recommended provision and timing	Comment
Regional social infrastructure and open space		
Cultural and community facilities <i>Need (LTCP population)</i> Required – district level community and cultural facility based the expected resident population. <i>Need (broader catchment)</i> Required – regional level cultural and community facility due to the existing lack of cultural facilities in the area and significant projected population growth.	On-site provision of a regional level facility (or facilities) incorporating a library, community centre, and cultural and performance space. Allowance should be made for 4,000 square metres of floor space for library and community centre functions and a further 1,500 square metres for a cultural facility. If all uses were co-located the facility could be 4,500-5,000 square metres. We recommend: <ul style="list-style-type: none"> » Camden Council continues discussions with Landcom, SWSLHD and SINSW, about co-location opportunities with the health hub and the educational facility » Council pursues funding options, including through the Western Sydney City Deal Liveability Fund » Delivery of cultural and community facilities are staged 	The draft ILP proposes development of a community centre just to the north of the Leppington train station. There are also opportunities to consider co-location with: <ul style="list-style-type: none"> » The proposed educational facility could be co-located with library or cultural space » The proposed health hub could be co-located with community centre space or a library.

Category and need	Recommended provision and timing	Comment
	to enable early delivery of services and phased expansion as the population grows.	
Education – tertiary and vocational <i>Need (LTCP population)</i> Not required – future residents will have access to existing facilities in Liverpool. <i>Need (broader catchment)</i> Required – additional vocational and tertiary facilities accessible within 30 minute public transport journey given significant projected population growth.	No on-site provision required. We recommend both councils pursue discussions with TAFE NSW and interested universities about the potential to develop an education hub within the LTCP and other opportunities including using office space within the commercial centre for tertiary education facilities or operating TAFE NSW outreach programs from the community facility within the LTCP.	Residents will access vocational and tertiary educational facilities in key centres, including Liverpool and Campbelltown. They will also have access to proposed facilities in the Aerotropolis.
Emergency and justice <i>Need (LTCP population)</i> Not required – future residents will have access to existing facilities. <i>Need (broader catchment)</i> Not required – Ambulance NSW, Fire and Rescue NSW and the Department of Communities and Justice advise needs of the catchment are addressed by existing and proposed facilities. Required – Police NSW advises there may be a need for a station within the LTCP to service the catchment area.	No on-site provision required for ambulance, court and fire and rescue services. A police station may be required as the population grows.	Residents will access existing courts and ambulance, fire and rescue, and police services in areas surrounding LTCP.
Health – hospitals and primary care <i>Need (LTCP population)</i> Not required – future residents will have access to existing hospitals and community health centres. <i>Need (broader catchment)</i> Not required – the catchment will have access to expanded hospitals at Liverpool and Campbelltown. Required – regional level Integrated Health Care Hub.	No on-site provision required for hospitals. On-site provision of an Integrated Health Care Hub at LTCP. There is the opportunity to co-locate this facility with other state and local government delivered infrastructure. We recommend development of this facility is brought forward to the early stages of the LTCP's development given the need for new infrastructure and as a catalyst for establishing the LTCP. We understand funding for the facility has been identified within the Western Sydney Growth Areas SIC.	Residents will access existing hospitals at Camden, Campbelltown and Liverpool. Both Campbelltown and Liverpool Hospitals are currently being upgraded to meet increased demand partly due to population growth in the SWGA. The draft ILP proposes development of a health hub just to the north of the Leppington train station and close to the commuter car park.

Category and need	Recommended provision and timing	Comment
Open space – regional <i>Need (LTCP population)</i> Not required – future residents will have access to Western Sydney Parklands. <i>Need (broader catchment)</i> Not required – the catchment will have access to Western Sydney Parklands and open space within the Aerotropolis.	No on-site provision required. Developers at LTCP will contribute to regional open space through the Western Sydney Growth Areas SIC. We recommend the LTCP incorporates a significant gateway connection to Western Sydney Parklands through the proposed Upper Canal Linear Park.	The draft ILP incorporates around 12 hectares of regional open space to the west of the LTCP along Kemps Creek. Residents will also access regional open space to the north and east in the Western Sydney Parklands and to the north west in the Aerotropolis.
Sporting facilities – regional <i>Need (LTCP population)</i> Not required – future residents will have access to existing facilities. <i>Need (broader catchment)</i> Not required – will have access to proposed regional level sport fields in Western Sydney Parklands. Required – regional indoor recreation and aquatic facilities.	On-site provision of a regional indoor recreation and aquatic facility at LTCP. The facility would be located on a 5 hectare site, including a 3 hectare facility and outdoor elements and 2 hectares for parking and landscaping. It would incorporate an aquatic centre, indoors sports courts and other facilities with the opportunity to provide other specialist facilities outdoors. We recommend: <ul style="list-style-type: none"> » Liverpool City Council discusses facility sharing opportunities between the IHHub and the regional indoor recreation and aquatic facility with Landcom and the SWSLHD » Council pursues funding options, including through the Western Sydney City Deal Liveability Fund and the NSW Office of Sport. 	The draft ILP proposes a future recreation facility on the corner of Bringelly Road and Edmondson Avenue. The Western Sydney Parklands provide the major opportunity for regional level sport fields. They have identified the opportunity for three sport and structured recreation facilities within 3 kilometres of the LTCP.
Local social infrastructure and open space		
Aged care <i>Need (LTCP population)</i> Not required – future residents will have access to existing facilities. <i>Need (broader catchment)</i> Not required – aged care facilities are generally provided at the local level.	No on-site provision required, although we note planning controls would allow the development of aged care facilities within LTCP.	The development is likely to create some demand for residential aged care (87 places) and for home care services. There are 7 existing retirement villages and 4 aged care facilities near or within the LTCP. These facilities are likely to have capacity to absorb this additional demand. We expect private and not for profit aged care providers will continue to respond to any increase in demand as required.
Child care	No on-site provision required, although we note planning controls	There is capacity within existing child care services, but demand is

Category and need	Recommended provision and timing	Comment
<p><i>Need (LTCP population)</i></p> <p>Required – the future resident and working population will generate demand for several new child care facilities.</p> <p><i>Need (broader catchment)</i></p> <p>Not required – child care facilities are generally provided at the local level.</p>	<p>would allow the development of child care facilities within LTCP.</p>	<p>expected to increase significantly into the future. We expect future residents at LTCP will require 920 long day care places and 208 OSHC places. This is sufficient to warrant the development of several new long day care centres and two new OSHC services.</p> <p>We expect private and not for profit child care services, including long day care and OSHC, will respond to any increase in demand as required.</p>
<p>Community facilities</p> <p><i>Need (LTCP population)</i></p> <p>Required – the future resident and working population will generate demand for several new child care facilities.</p> <p><i>Need (broader catchment)</i></p> <p>Not required – child care facilities are generally provided at the local level.</p>	<p>On-site provision of a regional level facility (see above).</p>	<p>Existing community facilities are some distance from the site and are mainly neighbourhood level facilities. Residents will need access to community facilities within the LTCP.</p> <p>The draft ILP incorporates space for a regional community facility within the town centre.</p>
<p>Education – private primary and secondary</p> <p><i>Need (LTCP population)</i></p> <p>Not required – future residents will have access to existing facilities.</p> <p><i>Need (broader catchment)</i></p> <p>Not required – private education facilities are generally provided at the local level.</p>	<p>No on-site provision required.</p>	<p>Demand for private schools is high and growing in the area surrounding the LTCP. We estimate future residents at the LTCP will generate demand for 1,200-1,300 new private primary and secondary school enrolments.</p> <p>We expect private education providers will respond to this increase in demand.</p>
<p>Education – government primary schools</p> <p><i>Need (LTCP population)</i></p> <p>Required – the existing primary school will need to be upgraded to support 1,000 students.</p> <p><i>Need (broader catchment)</i></p> <p>Required – upgrading of the existing primary school and development of a new one due to population growth.</p>	<p>Redevelopment of the existing primary school to increase capacity and acquisition of land for one new primary school (1.5 hectares) that is regular in shape, has road frontages on three sides, is in central accessible location, and is close to open space.</p> <p>Additional land may also be required adjacent to the existing primary school site to enable redevelopment of the site into a combined primary and secondary school.</p> <p>Given the low capacity of existing primary schools, we recommend at least one new facility is delivered</p>	<p>Demand for government primary schools is growing in the area surrounding the LTCP. We estimate future residents at LTCP will generate demand for around 1,300 new public primary school enrolments.</p> <p>The draft ILP incorporates the existing primary school site, but another is required. The existing site is consistent with DoE's guidelines for school sites.</p>

Category and need	Recommended provision and timing	Comment
	<p>early in the redevelopment of the LTCP.</p> <p>We recommend the new/upgraded primary schools are provided consistent with the DoE's recommended timing, which will be further explored during exhibition of the planning proposal.</p> <p>We understand funding for new schools has been identified within the Western Sydney Growth Areas SIC.</p>	
<p>Education – government secondary schools</p> <p><i>Need (LTCP population)</i></p> <p>Not required – future residents will have access to existing facilities.</p> <p><i>Need (broader catchment)</i></p> <p>Required – development of a new secondary school due to population growth.</p>	<p>Land for one new secondary school (2.5 hectares) that is regular in shape, has road frontages on three sides, is in central accessible location, and is close to open space.</p> <p>One option for providing a new secondary school is to redevelop the existing primary school into a combined primary and secondary school. Another option is to develop the new secondary school within the town centre close to the Leppington train station.</p> <p>We recommend the new secondary school is provided consistent with the DoE's recommended timing, which will be further explored during exhibition of the planning proposal.</p> <p>We understand funding for new schools has been identified within the Western Sydney Growth Areas SIC.</p>	<p>Demand for government secondary schools is high and growing in the area surrounding the LTCP. The closest secondary school, John Edmondson High School, is significantly over capacity. We estimate the LTCP development will create demand for around 700 new public secondary school enrolments.</p> <p>The NSW Government has also committed to developing a new selective high school in the LTCP.</p> <p>The draft ILP incorporates a 3 hectare site for educational purposes near the train station. The existing primary school site could be expanded to 4 hectares. Both sites are consistent with DoE's guidelines for school sites, although the existing primary school site may be preferable due to its direct access to open space.</p>
<p>Health</p> <p><i>Need (LTCP population)</i></p> <p>Required – the future resident and working population will generate demand for several new general practice and medical centres.</p> <p><i>Need (broader catchment)</i></p> <p>Required – development of a new regional level private medical and allied health facilities due to population growth.</p>	<p>No on-site provision required, although we note planning controls would allow the development of general practices and medical centres within the LTCP.</p>	<p>The proposed IHHub at LTCP will provide an opportunity for co-location of public and private medical and allied health services.</p> <p>The new population will generate demand for several new medical centres with around 27 general practitioners. We expect private general practices will respond to any increase in demand from future LTCP residents.</p>
<p>Open space – active</p> <p><i>Need (LTCP population)</i></p>	<p>Maximise on-site provision of active open space.</p> <p>We estimate the LTCP will generate the need for 12 sport</p>	<p>Existing sport fields near the LTCP are nearing capacity or not currently suited for use. The nearest sport courts are at Carnes</p>

Category and need	Recommended provision and timing	Comment
<p>Required – 26-40 hectares of active open space, including up to 16 sport fields and 14 sport courts. <i>Need (broader catchment)</i></p> <p>Not required – will have access to proposed regional level sport fields in Western Sydney Parklands.</p>	<p>fields, 14 sport courts and around 26 hectares of active open space. However, we note that fragmented land ownership and the high cost of land significantly constrains provision of high quality active open space within the LTCP.</p> <p>We recommend on-site provision of around 20 hectares of active open space including:</p> <ul style="list-style-type: none"> » At least 4 double sport fields » 14 outdoor sport courts (preferably co-located with sport fields) » At least one double sport field is provided as soon as possible to help meet demand in the area. <p>A further 2 double sport fields would be provided off-site but accessible by a 20 minute public or active transport journey.</p> <p>Further we propose these facilities are co-located with the regional indoor recreation and aquatic facility to create an indoor/outdoor recreation hub in the north, and an outdoor fitness hub in the south.</p>	<p>Hill. Several new sporting facilities will be delivered over the next four years in the study area, but they are some distance from the LTCP.</p> <p>This delivery of active open space facilities at Austral and the Western Sydney Parklands will be critical to meet the needs of the local population.</p> <p>The draft ILP proposes providing 15 hectares of active open space with two double sport fields and a single sport field on top of the existing sport field at Scott Memorial Park, which is the proposed site for the regional indoor recreation and aquatic facility.</p> <p>This will not meet the needs of future residents at LTCP for active open space.</p>
<p>Open space – passive <i>Need (LTCP population)</i></p> <p>Required – approximately 40 hectares of passive open space, including two district parks, up to 13 play spaces and two off-lease dog parks. <i>Need (broader catchment)</i></p> <p>Not required – will have access to proposed regional open space in Western Sydney Parklands and the Aerotropolis.</p>	<p>On-site provision of around 40 hectares of passive open space including:</p> <ul style="list-style-type: none"> » Local parks (min 0.3ha) within 200 metres of all dwellings » Two district parks (at least 3 hectares each) within 2 kilometres of all dwellings » One regional, two district and up to 5 local high-quality multi-age, all ability play and recreation spaces » Two off-leash dog parks » Shared walking and cycling paths that link residents to open space within the site, and open space and services in surrounding areas » Open space that is attractive with quality finishings and landscaping, safe being designed to CPTED principles, accessible to multiple users, 	<p>Both Camden and Liverpool LGAs have significant passive open space but much of it is constrained meaning there is a lack of quality passive open space and poor access to recreation facilities. This is particularly true in the new release areas of both LGAs. Additionally, demand for passive open space is increasing with walking being the most popular form of recreation in both LGAs.</p> <p>The closest existing passive recreation space to LTCP are in Western Sydney Parklands or 3 kilometres away at Greenway Park and Carnes Hill.</p> <p>Future residents at LTCP will increase demand for parks, play spaces and dog parks.</p> <p>The draft ILP incorporates 55 hectares of passive open space. Importantly it also includes over 22 hectares of riparian corridors and water cycle management areas,</p>

Category and need	Recommended provision and timing	Comment
	<p>and interesting with several different activations.</p> <p>Residents will require early access to local parks and play spaces. We recommend local parks are delivered early in each stage, play spaces are delivered progressively throughout the project, and that one district park, the regional play space and one off-leash dog park are delivered early in the project.</p>	<p>and nearly 6 hectares of linear plazas along significant transit ways to connect the open space and public domain network within the LTCP.</p> <p>This level of provision has the capacity to meet the needs of future residents at LTCP for passive open space.</p>

8.2 Draft Indicative Layout Plan

The draft ILP responds to the needs of the future population at the LTCP and within the broader catchment as follows:

- » Cultural and community facilities – it incorporates a new regional cultural and community centre with library. We recommend development of a multi-purpose facility of 4,500-5,000 square metres, and that Camden Council investigates funding and delivery options including a partnership arrangement
- » Government primary schools – it includes the existing primary school site. We recommend Camden Council continues discussions with DoE about redeveloping the existing site to increase its capacity and purchasing a site for a new primary school in the north of the LTCP. We also recommend that at least one new facility is delivered early in the project given the high demand for primary school education
- » Government secondary schools – it provides the opportunity to include a new government secondary school as part of the redeveloped primary school site. We recommend Camden Council continues discussions with DoE about the development of a new government secondary school potentially co-located with one of the primary schools
- » Health facilities – it includes a site for an IHHub. We recommend both councils continue discussions with SWSLHD and other NSW Government agencies about opportunities for co-location of the IHHub with other social infrastructure such as the cultural and community centre or transport infrastructure
- » Open space – it incorporates 70 hectares of active and passive open space including 12 hectares of regional open space and potential for six sport fields. We recommend delivery of 12 sport fields with eight on site, 14 sport courts and an outdoor fitness hub to the south of the LTCP. We also recommend provision of two high quality district parks, a network of recreation spaces, two off-leash dog parks, sufficient local parks to provide open space access within 200 metres of all homes, and a connected active transport network. Further we recommend early delivery of one double sport field and one district park with a regional level play space and an off-leash dog park
- » Regional sporting facilities – it includes an indoor recreation and aquatic facility. We recommend the site is developed as an indoor/outdoor recreation hub with a 3 hectare facility incorporating outdoor elements and 2 hectares for parking and landscaping. We recommend Liverpool City Council investigates funding opportunities for the facility
- » Vocational and tertiary education infrastructure – it provides a 3 hectare site for educational purposes which was previously identified for a TAFE facility. We recommend discussions with TAFE NSW and interested universities to develop an education hub within the LTCP.

Other local social infrastructure requirements, including those for aged care services, child care and private health services, will be met by private and not for profit providers.

Appendices




A Existing infrastructure maps

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A Existing infrastructure maps

A-1 Childcare

Legend

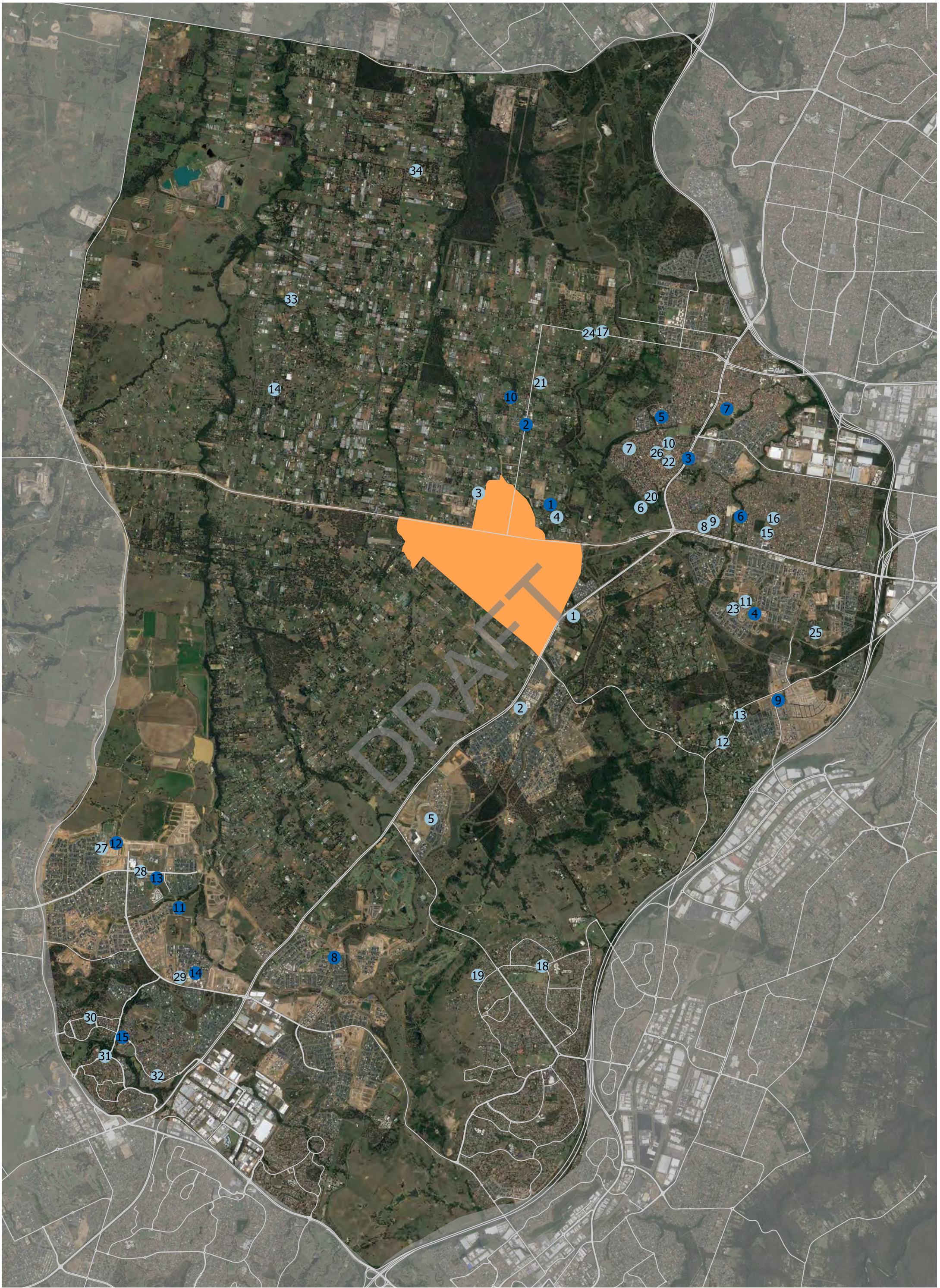
-  Boundary LTC
-  Major roads
-  Study Area

Centre based childcare

- 1 Care for Kindies Kindergarten Leppington
- 2 Goodstart Early Learning Willowdale
- 3 Unity Juniors
- 4 Community Kids Australia Early Education Centre
- 5 Scribbles and Giggles Childcare Centre @ Leppington
- 6 MindChamps Early Learning @ West Hoxton 2
- 7 Community Kids Greenway Park Early Education Centre
- 8 Community Kids Horningsea Park Early Education Centre
- 9 Bambinos Kindergarten Horningsea Park
- 10 Happy Days Kindergarten
- 11 Organic Seedlings Education
- 12 Denham Court World Of Learning
- 13 Explorers Learning Academy Bardia
- 14 Jilly's Early Childhood Development & Educational Centre
- 15 Kookaburra Kids Club
- 16 Wiggles and Giggles Childcare Centre
- 17 MindChamps Early Learning @ West Hoxton
- 18 Milestones Early Learning Raby
- 19 Kearns Early Learning & Childcare
- 20 Clever Cookies Early Learning Centre
- 21 The Frogs Lodge
- 22 MindChamps Early Learning @ West Hoxton 1
- 23 Edmondson Park Education and Care
- 24 Cherry Bridge Station Austral Early Learning and Child Care Centre
- 25 The Grove Academy - Edmondson Park
- 26 First Steps Before After & Vacation Care
- 27 Little Giants Oran Park
- 28 Great Beginnings Oran Park
- 29 Oran Park Montessori Academy
- 30 Bambino's Kindergarten Harrington Park North
- 31 Bambino's Kindergarten - Fairwater
- 32 Bambinos Kindergarten Harrington Park
- 33 Clementson Drive Early Educational Centre
- 34 MindChamps Early Learning @ Kemps Creek




Outside of School Hours Care (OSHC)

- 1 Community Kids Austral Before and After School Care
- 2 Austral OSHClub
- 3 SCECS OSHC Holy Spirit Carnes Hill
- 4 St Francis Out of School Hours Care Edmondson Park
- 5 Milestones Early Learning Greenway
- 6 William Carey Christian School Outside of School Hours Care
- 7 Camp Australia - Hoxton Park Public School OSHC
- 8 Kids United OSHC - Gledswood Hills
- 9 Camp Australia Bardia Public School OSHC
- 10 SCECS OSHC St Anthony of Padua Austral
- 11 Wesley Out of School Hours Care, Barramurra
- 12 Kids United OSHC - Oran Park
- 13 Oran Park Anglican OSHClub
- 14 Ooshzone Australia
- 15 Camp Australia - Harrington Park Public School OSHC



A-2 Community facilities

Legend

-  Boundary LTC
-  Major roads
-  Study area

Community Centre

- 1 Greenway Park Community Centre
- 2 Carnes Hill Community and Recreation Precinct
- 3 Bringelly Community Centre
- 4 Green Valley District Centre
- 5 Camden RSL Youth Centre
- 6 Currans Hill Community Centre
- 7 Emerald Hills Community Centre
- 8 Gregory Hills Community Centre
- 9 Harrington Park Community Centre
- 10 Julia Reserve Community Centre
- 11 Narellan Child Family And Community Centre
- 12 Spring Farm Community Centre
- 13 Senior Citizens Community Centre
- 14 Junction Youth Centre
- 15 Miller PCYC
- 16 Claymore Community Centre
- 17 Eagle Vale Community Centre

Proposed Facilities

- 1 Leppington Community and Cultural Centre
- 2 Casula Community Precinct
- 3 Community Facility - Austral
- 4 Community Facility - Austral
- 5 Community Facility - Miller
- 6 Community Facility - Austral
- 7 Community Facility - Austral
- 8 Community Facility - Edmondson Park

Library

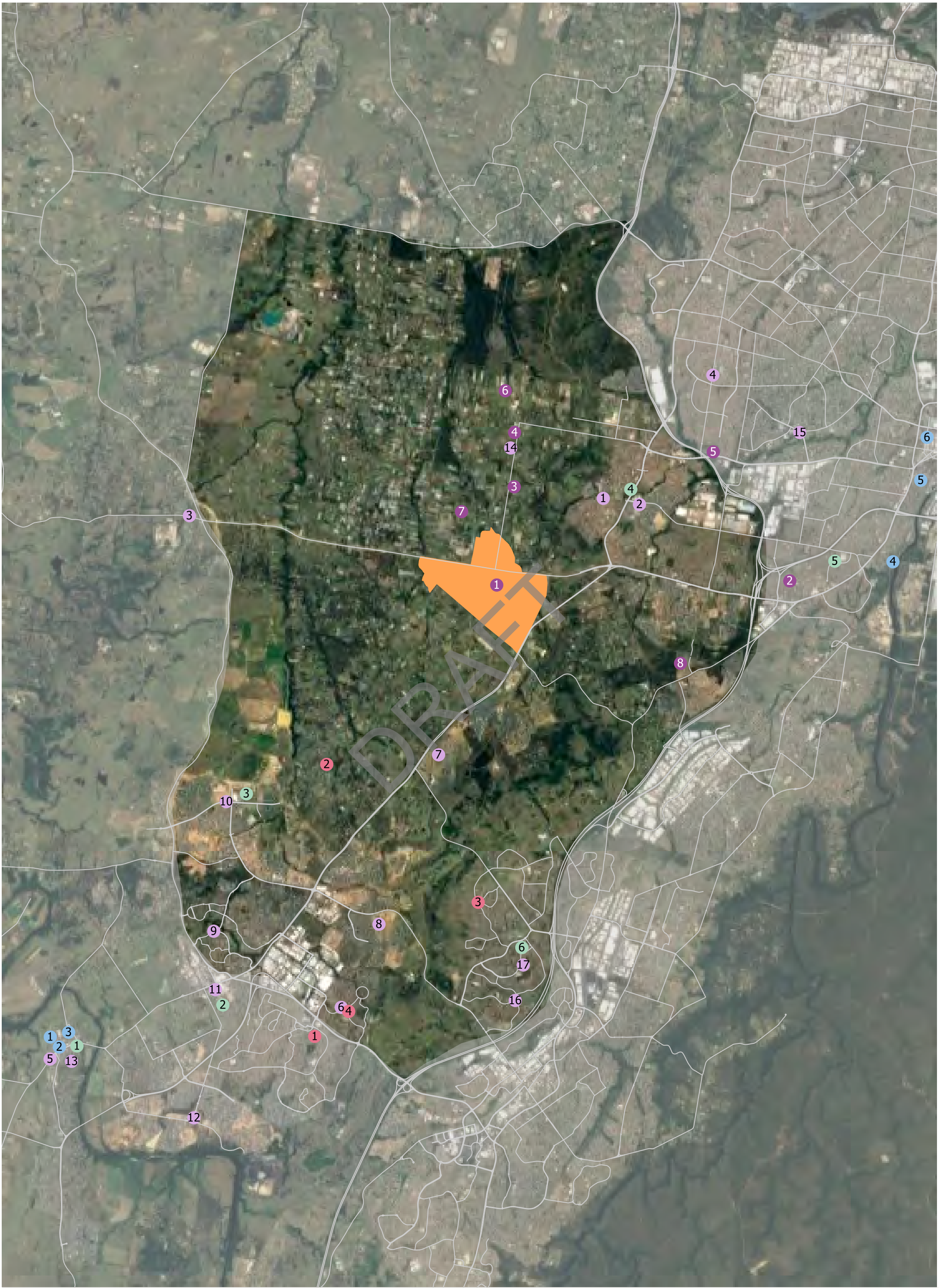
- 1 Camden Library
- 2 Narellan Library
- 3 Oran Park Library
- 4 Carnes Hill Library
- 5 Casula Library
- 6 Eagle Vale Library

Arts and Culture

- 1 Camden Civic Centre
- 2 Alan Baker Art Gallery
- 3 Camden Museum
- 4 Casula Powerhouse Arts Centre
- 5 Collingwood Precinct
- 6 Macquarie Mall




Halls

- 1 Birriwa Reserve Community Hall
- 2 Catherine field Community Hall
- 3 Kearns Community Hall
- 4 Currans Hill Community Hall



A-3 Education

Legend

-  Boundary LTC
-  Major roads
-  Study Area

Government Primary School

- 1 Bringelly Public School
- 2 Leppington Public School
- 3 Oran Park Public School
- 4 Barramurra Public School
- 5 Rossmore Public School
- 6 Harrington Park Public School
- 7 Gledswood Hills Public School
- 8 Austral Public School
- 9 Hoxton Park Public School
- 10 Prestons Public School
- 11 Dalmeny Public School
- 12 Middleton Grange Public School
- 13 Cecil Hills Public School
- 14 Kemps Creek Public School
- 15 Greenway Park Public School
- 16 Claymore Public School
- 17 Eschol Park Public School
- 18 Robert Townson Public School

Non Government Primary School

- 1 St Justin's Catholic Primary School
- 2 St Catherine of Siena Catholic Primary School
- 3 Good Shepherd Catholic Primary School
- 4 Holy Spirit Catholic Primary School
- 5 Mary Immaculate Catholic Primary School

Non Government Combined

- 1 Oran Park Anglican College
- 2 Bellfield College
- 3 St Gregory's College Campbelltown
- 4 St Francis Catholic College
- 5 Al-Faisal College
- 6 Amity College
- 7 William Carey Christian School
- 8 Irfan College
- 9 Christadelphian Heritage College Sydney
- 10 Amity College
- 11 Mount Annan Christian College

Government Secondary School

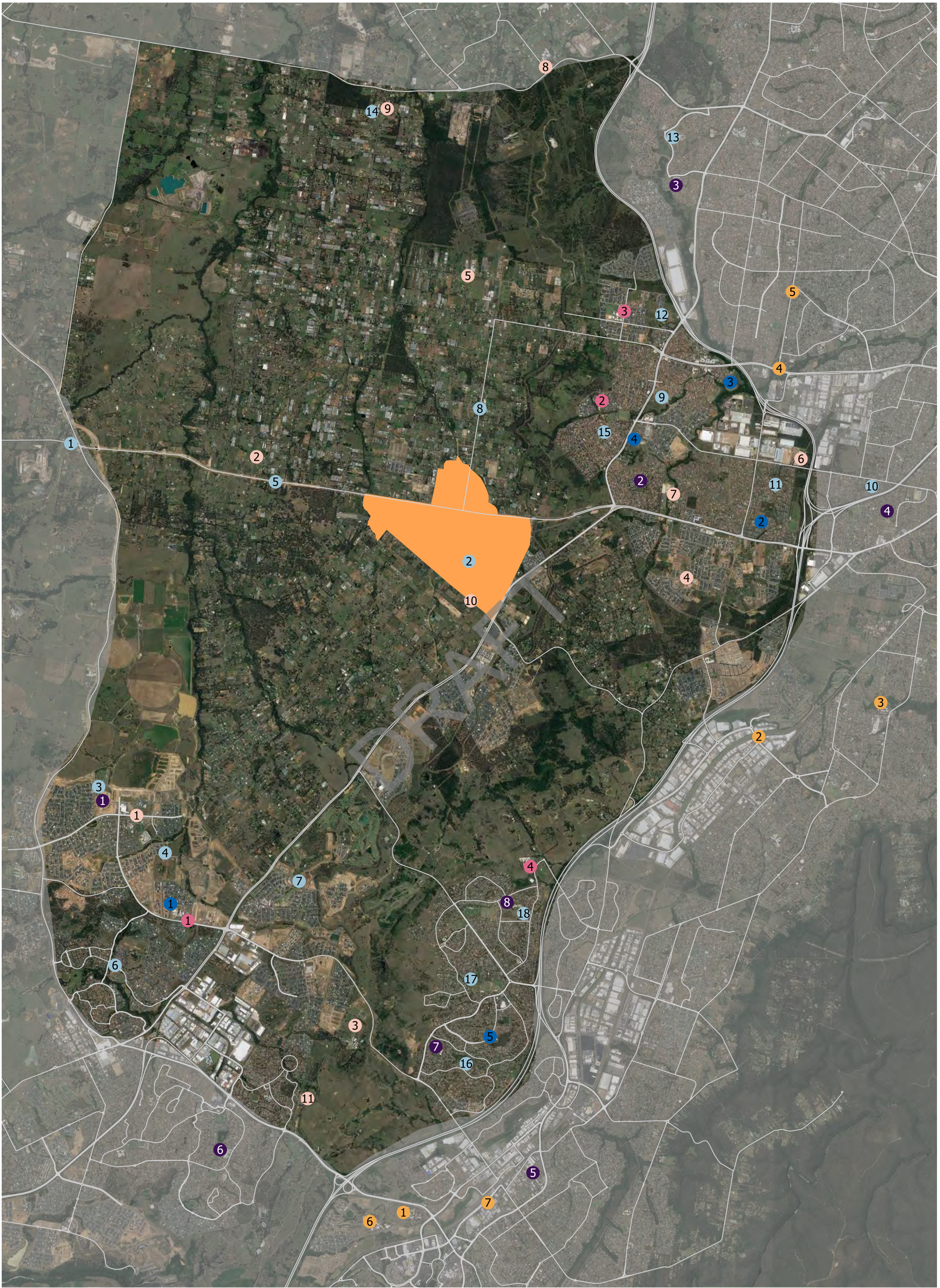
- 1 Oran Park High School
- 2 John Edmondson High School
- 3 Cecil Hills High School
- 4 Casula High School
- 5 Campbelltown Performing Arts High School
- 6 Mount Annan High School
- 7 Eagle Vale High School
- 8 Robert Townson High school

Non Government Secondary School

- 1 St Benedict's Catholic College
- 2 Clancy Catholic College
- 3 Thomas Hassall Anglican College
- 4 Mount Carmel Catholic College




Tertiary Education

- 1 TAFE NSW Campbelltown
- 2 TAFE NSW Macarthur
- 3 TAFE NSW Glenfield
- 4 TAFE NSW Miller
- 5 TAFE NSW Miller Adult Migrant English Centre
- 6 University of Western Sydney
- 7 Australian College of Finance



A-4 Health, emergency services and age care

Legend

-  Boundary LTC
-  Major roads
-  Study Area

Aged Care

- 1 Blue Hills Village
- 2 Scalabrini Austral
- 3 RSL LifeCare - John Edmondson VC Gardens
- 4 Anglicare Barry Marsh House

Retirement Village

- 1 Stockland Willowdale Retirement Village
- 2 Antegra Estate
- 3 Four Lanterns Estate
- 4 Blue Hills Village
- 5 RSL LifeCare - Tobruk Retirement Living
- 6 Anglicare Oran Park Village
- 7 Christian Retirement Village

Ambulance

- 1 Macquarie Fields Ambulance Station
- 2 Leppington Ambulance Station

Police

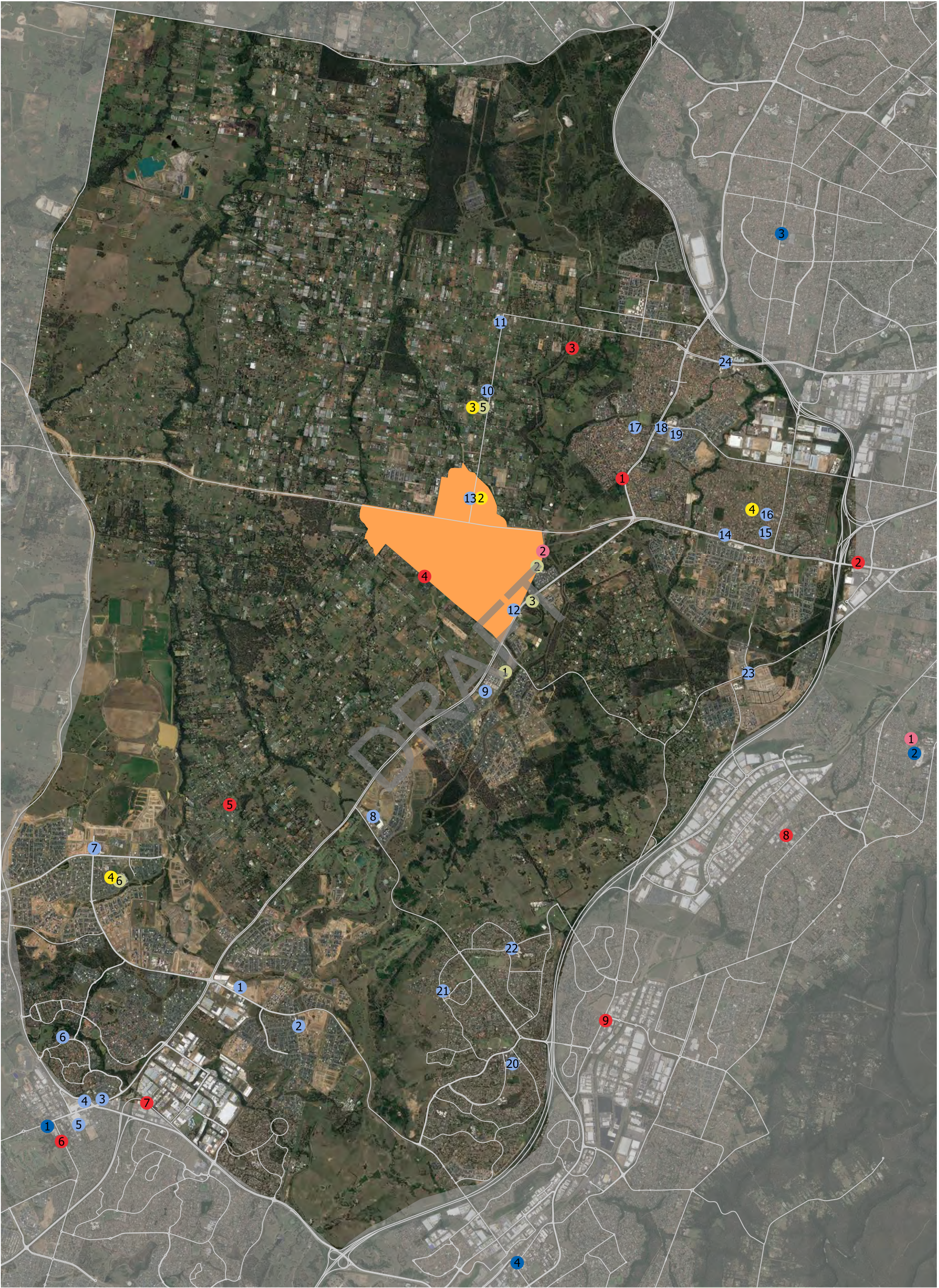
- 1 Narellan Police Station
- 2 Macquarie Fields Police Station
- 3 Green Valley Police Station
- 4 Campbelltown Police Station
- 5 Liverpool Police Station

Fire and Rescue

- 1 Fire and Rescue NSW Horningsea Park
- 2 Casula Rural Fire Brigade
- 3 Middleton Rural Fire Brigade
- 4 Leppington Rural Fire Brigade
- 5 Catherine Rural Fire Brigade
- 6 Fire and Rescue NSW Narellan
- 7 Narellan Rural Fire Brigade
- 8 Fire and Rescue NSW Ingleburn
- 9 Fire and Rescue NSW St Andrews




Fire and Rescue

- 1 Gregory Hills Health and Business Centre
- 2 Our Medical Home Gregory Hills
- 3 Narellan Central Medical Centre
- 4 Narellan Town Medical Centre
- 5 Narellan Health Precinct
- 6 Harrington Park Medical Practice
- 7 Myhealth Oran Park
- 8 Emerald Hills Medical Centre
- 9 Willowdale Medical Centre
- 10 Austral Family Medical Centre
- 11 West Hoxton Medical Centre
- 12 Leppington Medical Centre
- 13 Leppington Allied Health Centre
- 14 Doctors at Prestons
- 15 Prestons Medical Practice
- 16 Prestons Medical Centre
- 17 Carnes Hill Medical Centre
- 18 Marketplace Medi Clinic
- 19 All Care Carnes Hill Medical Centre
- 20 Eagle Vale Medical Centre
- 21 Kearns Medical Centre
- 22 Raby Medical Centre
- 23 Myhealth Edsquare
- 24 Hoxton Park Medical Centre



A-5 Open space

Legend

-  Boundary LTC
-  Major roads
-  Study area

Active Recreation

- 1 Catherine Field Reserve
- 2 Cunningham Park
- 3 Fairfax Reserve
- 4 Harrington Park Reserve
- 5 Jack Brabham Reserve
- 6 Jack Nash Reserve
- 7 Kirkham Park
- 8 Leppington Oval (Pat Kontista Reserve)
- 9 Liquidamber Reserve
- 10 Narellan Sports Hub
- 11 Onslow Park
- 12 Ron Dine Reserve
- 13 Rossmore Reserve
- 14 Mick Doohan Reserve
- 15 Julia Reserve Precinct
- 16 Wayne Gardener Oval
- 17 Greenway Park
- 18 Brownes Farm Reserve
- 19 Craik Park
- 20 WV Scott Memorial Park
- 21 Prestons Playing Fields
- 22 Carnes Hill Skate Park
- 23 Carnes Hill Community and Recreation Precinct
- 24 Woodward Park
- 25 Davis Park
- 26 Fullwood Reserve
- 27 Jackson Park
- 28 Stromeferry Reserve
- 29 Eschol Sport Complex
- 30 Raby Sports Complex
- 31 Clark Reserve
- 32 Koorunga Reserve
- 33 Maxwell Creek Oval

Indoor Recreation

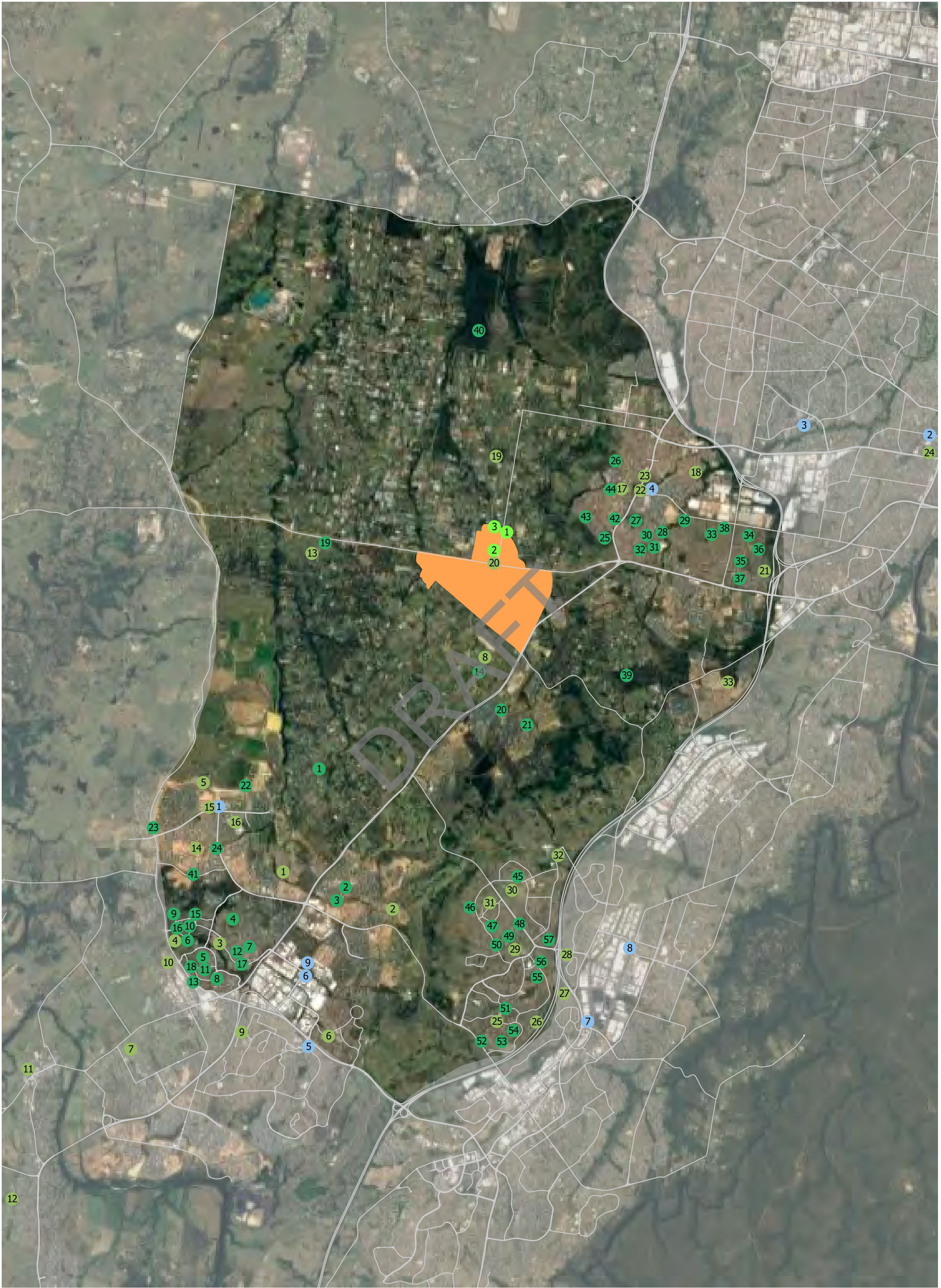
- 1 Oran Park Leisure Centre
- 2 Whitlam Leisure Centre
- 3 Michael Wenden Leisure Centre
- 4 Michael Clarke Recreation Centre
- 5 Mount Annan Leisure Centre
- 6 Maximum Skating
- 7 Campbelltown Indoor Soccer Arena
- 8 Minto Indoor Sports Centre
- 9 Allsports Indoor Smeaton Grange

Proposed Open Space

- 1 Contribution Plan item No. DP 7
- 2 Contribution Plan item No. LP62 AUSTRAL ALC
- 3 Contribution Plan item No. DP 6

Passive Recreation

- 1 Catherine Field Park
- 2 Fairbank Park
- 3 South Creek Reserve
- 4 Campbell Reserve
- 5 Four Seasons Park
- 6 Harrington Park Lake
- 7 Harrisons Reserve
- 8 James Flynn Reserve
- 9 Kensington Green
- 10 Kinnear Park
- 11 George Macleay Reserve
- 12 Oslan Gardens
- 13 William Campbell Reserve
- 14 Leppington Oval (Pat Kontista Reserve)
- 15 Forest Reserve (Harrington Park)
- 16 Foveaux Gardens
- 17 Tredinick Park
- 18 Salter Reserve
- 19 Rossmore Reserve
- 20 Willowdale Park
- 21 Dogwood Crescent Dog Park
- 22 Ron's Creek Splash Park
- 23 Holden Drive Dog Park
- 24 Kolombo Reserve
- 25 Bedwell Park
- 26 Shale Hills Dog Park
- 27 Strzlecki Park
- 28 Heleneus Scott Reserve
- 29 Havard Park
- 30 Percy Rabett Park
- 31 Lyons Park
- 32 Bunya Park
- 33 Macleod Park
- 34 Baptista Park
- 35 Dalmeny Reserve
- 36 Ripley's Park
- 37 Fintray Park
- 38 Morris Park
- 39 Edmondson Regional Park
- 40 Kemps Creek Nature Reserve
- 41 Dog Off Leash Park
- 42 Park
- 43 Breton Park
- 44 Greenway Park
- 45 Manaleuka Park
- 46 Colorado Reserve
- 47 Jemima Jenkins Park
- 48 Flying Pieman Park
- 49 William Fowler Reserve
- 50 Vale Brooke Reserve
- 51 Brady Park
- 52 Badgally Reserve
- 53 Dream Park
- 54 Highfield Park
- 55 Eagle Farm Reserve
- 56 Cornelian Park
- 57 Heathfield Reserve



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