



URBIS

# **SOCIAL INFRASTRUCTURE AND OPEN SPACE ASSESSMENT**

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**APPIN AND NORTH  
PRECINCTS  
AND  
APPIN (PART) PRECINCT**

Prepared for Walker Corporation  
November 2022



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**We acknowledge the Traditional owners and Custodians of the Appin area, the Dharawal people. We acknowledge their continuing connection to the land through culture and community and we pay our respects to Elders past, present and future.**

# INTRODUCTION



# ABOUT THE PROJECT

## Project background

Greater Sydney's population is projected to grow to approximately 6.1 million by 2041, over a million more people than currently live in the region.

The NSW Government has identified Growth Areas as major development areas that will assist in accommodating this growth. The Greater Macarthur Growth Area (GMGA) is one such growth area and is an extension of the urban form of south-west Sydney.

The GMGA is divided into precincts. The Appin Precinct and North Appin Precinct are the southernmost land release precincts of the GMGA. The goal of this precinct is to deliver 21,000+ dwellings. This land is to be rezoned and released for development to achieve this goal.

## The proposal

A submission has been prepared by Walker Corporation Pty Limited and Walker Group Holdings Pty Limited (the Proponent) to rezone 1,378 hectares of land (the site) within the Appin Precinct and North Appin Precinct from RU2 Rural Landscape to the following zones:

### Urban Development Zone

Zone 1 Urban Development (UD)

### Special Purposes Zone


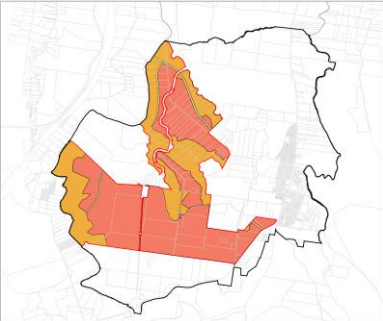

Zone SP2 Infrastructure (SP2)

### Conservation Zone

Zone C2 Environmental Conservation (C2).

The zonings are shown on the Appin (Part) Precinct Plan (the precinct plan) in Table 1. The precinct plan will be incorporated into the State Environmental Planning Policy (Precincts – Western Parkland City) 2021 and contain the provisions (clauses and maps) that will apply to the site. The precinct plan envisages the delivery of 12,000+ new homes. A structure plan has been prepared for the site and is shown on the Appin (Part) Precinct Structure Plan (the structure plan). It identifies staging and the first stage to be developed – Release Area 1. Release Area 1 is anticipated to deliver 3,500+ dwellings. The submission includes a hierarchy of plans as summarised in Table 1.

Table 1 Title and purpose of plans

1. Appin & North Appin Precincts Indicative Plan	2. Appin (Part) Precinct Plan (the precinct plan)	3. Appin (Part) Precinct Structure Plan (the structure plan)
<p>Broader context &amp; for information purposes only. It has no statutory weight. It identifies:</p> <ul style="list-style-type: none"><li>Higher-order transport network</li><li>Centres hierarchy</li><li>School sites</li><li>Conservation areas</li><li>Residential areas</li><li>Cultural sites and connections.</li></ul>	<p>It shows the land proposed to be rezoned (the site) and incorporated into a new schedule in the Western Parkland City SEPP 2021. The precinct plan contains the development provisions (clauses and maps) applicable to the site and is used in assessing development applications.</p>	<p>Structure plan for the site, showing staging of release areas. It illustrates land use components including (but not limited to):</p> <ul style="list-style-type: none"><li>Low and medium-density residential</li><li>Retail and employment centres</li><li>School</li><li>Open space</li><li>Drainage network/basins</li><li>Transport network</li></ul>
 <p>(21,000+ dwellings)</p>	 <p>(12,000+ dwellings)</p>	 <p>(12,000+ dwellings) (including Release Area 1, of 3,500+ dwellings)</p>

# ABOUT THIS ASSESSMENT

## Purpose of this study

This Social Infrastructure and Open Space Assessment has been prepared by Urbis Pty Ltd (Urbis) on behalf of the proponent to accompany the submission of the Appin and North Appin Indicative Plan.

The overall purpose of this study is to:

- Provide guiding directions for the likely provision of social infrastructure and open space required to support the needs of the incoming population within the Appin and North Appin Indicative Plan.
- Develop a plan for the allocation of these facilities within the Appin (Part) Part Precinct Structure Plan to accompany the rezoning of this area.

## Approach to assessment

There are a number of key inputs that are needed to determine the social infrastructure and open space needs of a community. As shown in Figure 1, this study has included:

- Review of relevant strategies, policies and guidelines to understand the strategic directions for facility provision across the area
- Review of documentation, including constraints and opportunity mapping
- Demographic analysis of the current and future population in Appin
- Development of the expected demographic profile of the incoming population
- Audit of existing social infrastructure and open space near the site
- Consultation with key stakeholders including Wollondilly Shire Council, Schools Infrastructure NSW and South Western Sydney Local Health District
- Benchmarking and qualitative assessment to identify the future demand for social infrastructure and open space
- Review of best practice social infrastructure and open space delivery in precincts with a similar context
- Recommendations for preferred social infrastructure and open space provision.

Figure 1: Approach to assessment



# ABOUT THIS REPORT

## Report structure

This report is structured into three parts as follows:

### Part 1: Strategic context and social baseline

Establishes the existing provision principles and emerging community needs for social infrastructure and open space in Appin, as well as an assessment of the likely incoming population size from the proposal. The analysis presented in Part 1 has been used to inform the assessment of likely social infrastructure and open space in Parts 2 and 3.

### Part 2: Social Infrastructure and Open Space Strategy for the Appin and North Appin Precincts

Provides an assessment of the likely social infrastructure and open space required for the Appin and North Appin Precincts (i.e. the Indicative Plan). The assessment provides guiding principles around facility location, form and function to help inform planning for the entire Indicative Plan area.

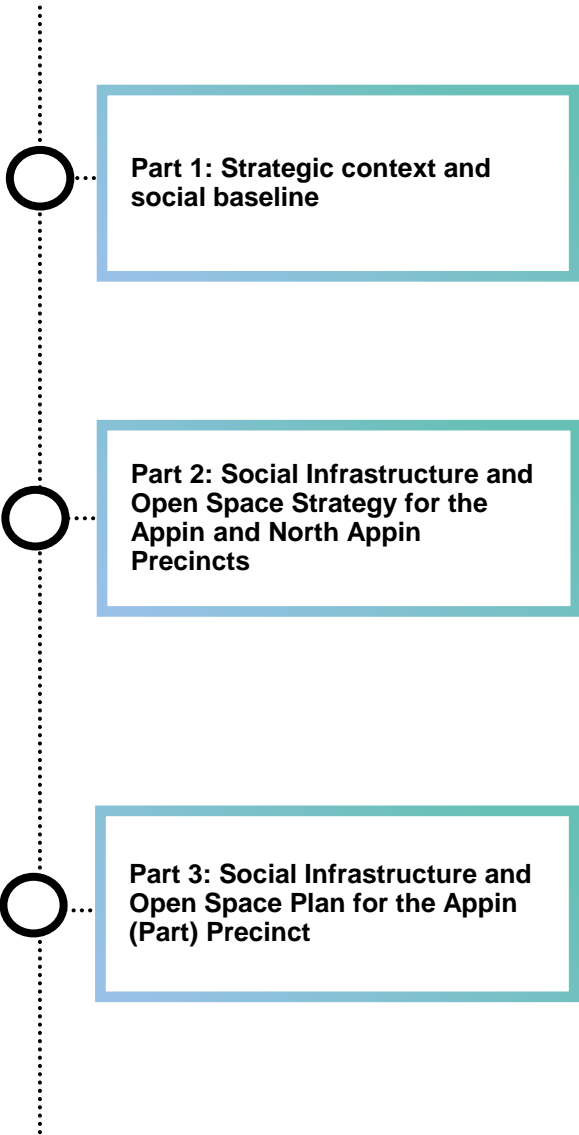
### Part 3: Social Infrastructure and Open Space Plan for the Appin (Part) Precinct

Outlines the type of social infrastructure and open space required within the Structure Plan, within the context established in Part 2 of the report. The plan outlines how the recommended facilities can be accommodated within the Structure Plan to support the needs of the incoming population associated with the proposed rezoning.

## Proposal plans

The Indicative Plan for Appin and North Appin Precinct and the Structure Plan for Appin (Part) Precinct are provided in Figures 3 and 4 overleaf.

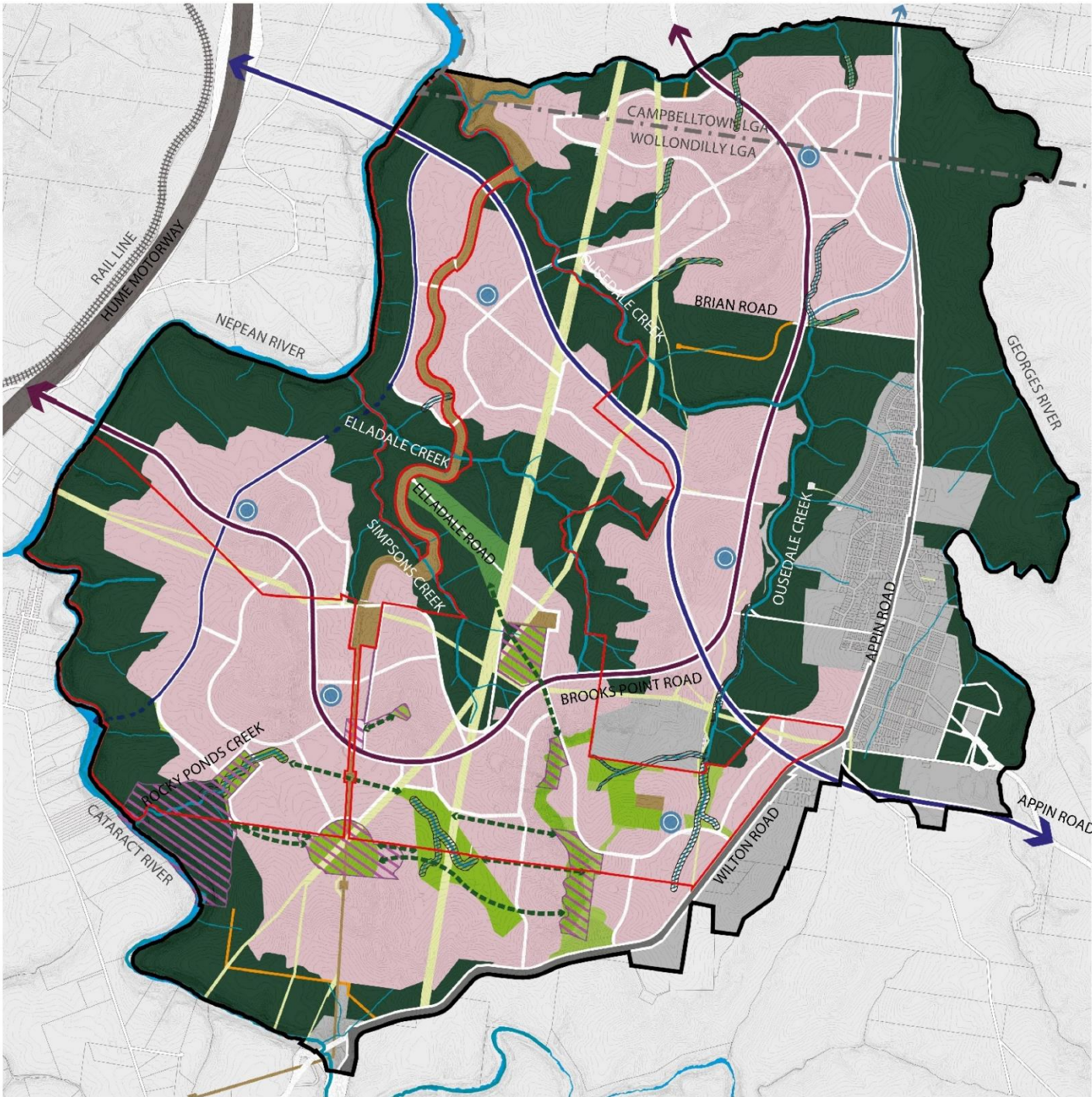
Figure 2: Report structure





# INDICATIVE PLAN

Figure 3 Appin and North Appin Precincts Indicative Plan



## LEGEND:

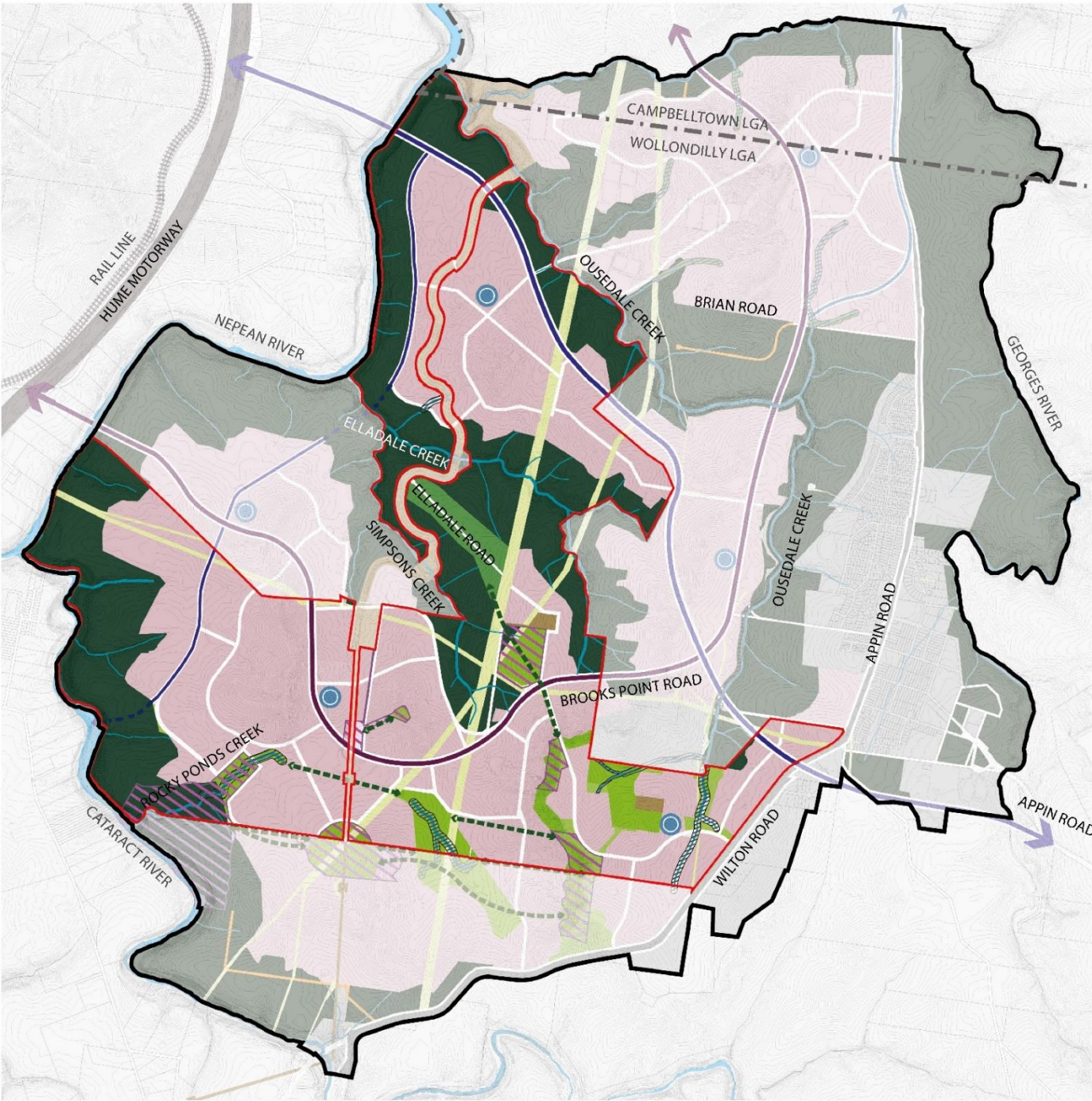
- |   |  |   |
|---|--|---|
| <ul style="list-style-type: none"> <li>Appin &amp; North Appin Precincts Boundary</li> <li>Appin (Part) Precinct Boundary</li> <li>LGA Boundary</li> <li>Waterways</li> <li>C2 Conservation Land*</li> <li>Existing Road within C2 Conservation Land</li> <li>District Open Space</li> <li>Regional Open Space</li> </ul> | <ul style="list-style-type: none"> <li>Easements (Potential for active and passive recreation)</li> <li>Green Links</li> <li>Riparian Corridor</li> <li>Planned State Heritage Listing Sites</li> <li>Heritage Items</li> <li>Residential</li> <li>Excluded Land</li> <li>Mixed Use Centres (including retail/commercial, schools and open space)</li> </ul> | <ul style="list-style-type: none"> <li>East-West Connection Road</li> <li>Public Transport Corridor</li> <li>North-South Connection Road</li> <li>Appin Bypass</li> <li>Road Connection - By Others</li> <li>Collector Roads</li> </ul> |
|---|--|---|

\* Where located outside Appin (Part) Precinct Boundary this represents Strategic Conservation Planning SEPP - Avoided Land (August 2022).



# STRUCTURE PLAN

Figure 4 Appin (Part) Precinct Structure Plan



## LEGEND:

- |   |  |   |
|---|--|---|
| <ul style="list-style-type: none"> <li>Appin &amp; North Appin Precincts Boundary</li> <li>Appin (Part) Precinct Boundary</li> <li>LGA Boundary</li> <li>Waterways</li> <li>C2 Conservation Land*</li> <li>Existing Road within C2 Conservation Land</li> <li>District Open Space</li> <li>Regional Open Space</li> </ul> | <ul style="list-style-type: none"> <li>Easements (Potential for active and passive recreation)</li> <li>Green Links</li> <li>Riparian Corridor</li> <li>Planned State Heritage Listing Sites</li> <li>Heritage Items</li> <li>Residential</li> <li>Excluded Land</li> <li>Mixed Use Centres (including retail/commercial, schools and open space)</li> </ul> | <ul style="list-style-type: none"> <li>East-West Connection Road</li> <li>Public Transport Corridor</li> <li>North-South Connection Road</li> <li>Appin Bypass</li> <li>Road Connection - By Others</li> <li>Collector Roads</li> </ul> |
|---|--|---|

\* Where located outside Appin (Part) Precinct Boundary this represents Strategic Conservation Planning SEPP - Avoided Land (August 2022).

# SCOPE OF ASSESSMENT

## Defining social infrastructure

Social infrastructure is a broad term, with a range of understanding and meanings. The Australian Infrastructure Audit defines social infrastructure as “the facilities, spaces, services and networks that support the quality of life and wellbeing of our communities” (2019: 388). In this sense, social infrastructure can be seen as a combination of ‘hard’ infrastructure (i.e. the buildings and spaces which serve a social need) and ‘soft’ infrastructure (i.e. the programs, classes and networks that run from a building or space).

This assessment examines the likely need for hard infrastructure. The types of social infrastructure assessed in this study are outlined in Table 2.

## Defining open space






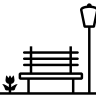
Open space comes in a variety of forms, from structured sportsfields to natural ecosystems. All open space types have a role in supporting the social, environmental and economic needs of communities.

This assessment addresses the provision of public open space which can support outdoor recreation uses. As outlined by the GANSW draft Greener Places Design Guide (2020), outdoor recreation encompasses a range of activities that people undertake for fun, relaxation or fitness. This includes activities such as formal sport, self-directed endurance activities, appreciation of nature, socialising, picnicking, walking and informal group activities. Some of these activities are organised while others are more informal.

The types of open space that can support recreation can therefore be classified into two key categories; open space for structured recreation and open space for unstructured recreation. These are outlined in Table 2. It is important that both structured and unstructured recreation uses are provided when planning for open space. This enables the community to have access to a range of recreational opportunities which are not dominated by one particular setting.

This assessment considers the range of open space areas and settings that can support structured and unstructured recreation.

Table 2 Types of social infrastructure and open space considered in this assessment

	<b>Community facilities</b> <ul style="list-style-type: none"> <li>▪ Multipurpose community centres, halls and meeting rooms</li> <li>▪ Libraries</li> <li>▪ Spaces for young people and older people</li> <li>▪ Community arts, culture and ‘maker’ spaces.</li> </ul>
	<b>Education facilities</b> <ul style="list-style-type: none"> <li>▪ Primary school</li> <li>▪ High school</li> </ul>
	<b>Childcare centres</b> <ul style="list-style-type: none"> <li>▪ Long day care centres</li> <li>▪ Out of hours school centres</li> </ul>
	<b>Health facilities</b> <ul style="list-style-type: none"> <li>▪ Hospitals and medical clinics</li> <li>▪ Community health centres</li> </ul>
	<b>Open space for structured recreation</b> <p>Open space areas that predominately support directed, physical activity such as outdoor sport or formal play. Generally consist of the following open space areas:</p> <ul style="list-style-type: none"> <li>▪ Sportsfields and grounds</li> <li>▪ Playgrounds</li> <li>▪ Outdoor exercise areas</li> </ul>
	<b>Open space for unstructured recreation</b> <p>Open space areas that predominately support casual, physical, social or cultural activities, such as picnicking, walking or group gatherings. Generally consists of the following open space areas:</p> <ul style="list-style-type: none"> <li>▪ Natural areas and bushland</li> <li>▪ Linear trails and accessible riparian areas</li> <li>▪ Gardens and parklands</li> <li>▪ Beaches and foreshores</li> </ul>



# **PART 1**

## **STRATEGIC CONTEXT AND SOCIAL BASELINE**





# 1.1 EXISTING LANDSCAPE

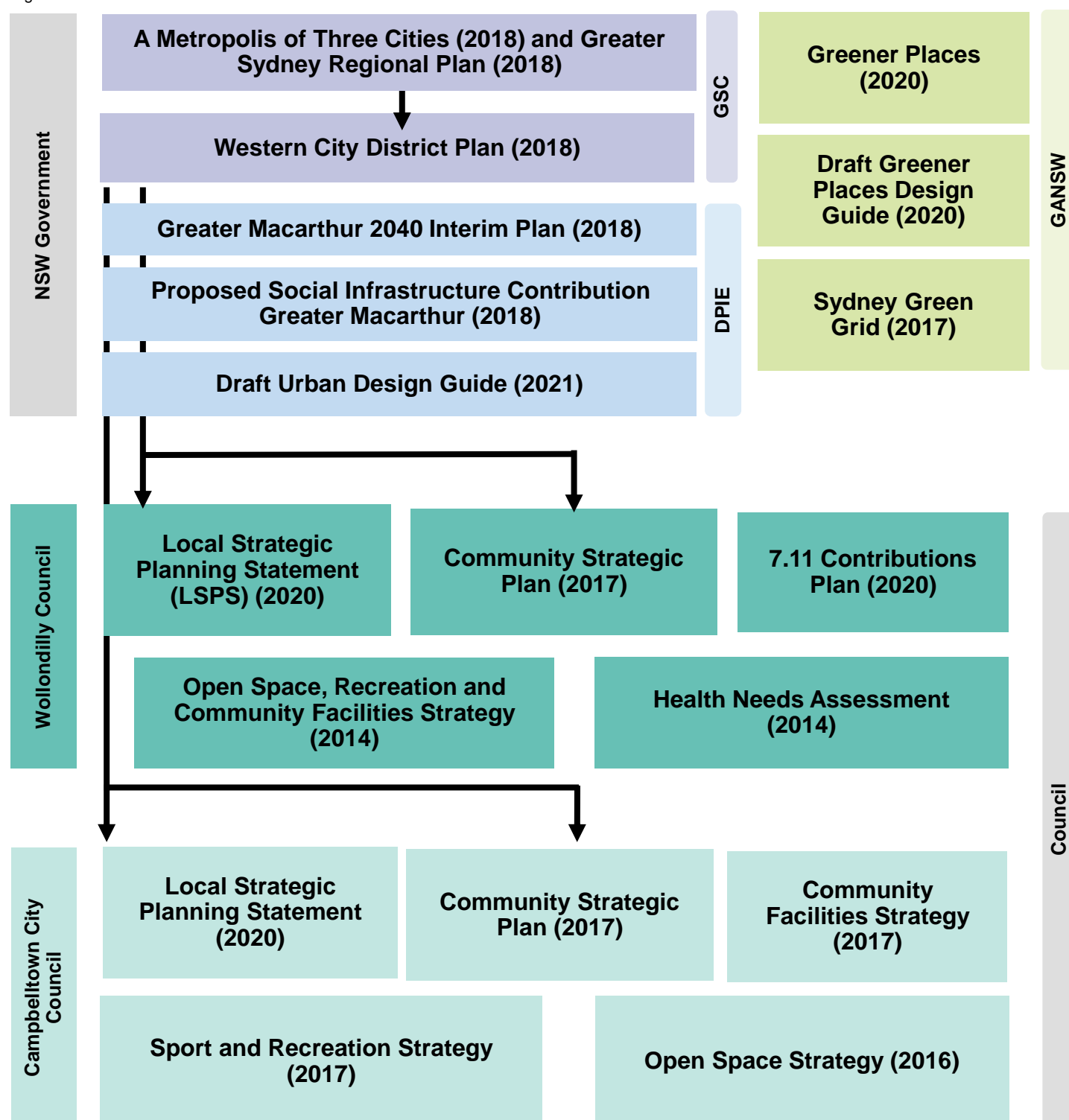


# STRATEGIC FRAMEWORK

A range of state and local strategic planning documents have been developed to guide the provision of social infrastructure and open space in Wollondilly and Campbelltown LGAs. These documents outline desired land use objectives, strategic development priorities and community aspirations for the future of the area. They also outline key community needs and guiding principles around the provision of social infrastructure and open space.

The following diagram outlines the strategic documents which were reviewed as part of this assessment. The directions contained in these documents provide a basis for the approach for social infrastructure and open space provision in the Appin and North Appin Precincts and have informed the approach to benchmarking provided in Parts 2 and 3.

Figure 5 Reviewed documents



# SOCIAL INFRASTRUCTURE AND OPEN SPACE PRINCIPLES

The Appin and North Appin Precincts are situated across the Wollondilly and Campbelltown LGAs and are also within the Greater Macarthur Growth Area. As a result, there are many documents that guide the planning and provision of social infrastructure and open space in the area. Relevant principles and strategic directions from key state and local documents are highlighted on the following pages.

## Western City District Plan (2018)

### Design and delivery principles for social infrastructure and open space

- Social infrastructure should be co-located and accessible, with direct walking and cycling connections that can be used by people of all ages and abilities.
- Multipurpose and intergenerational facilities will be essential in land release areas to enable better use and access to key social infrastructure.
- Opportunities for shared use and joint use partnerships are encouraged in growth areas to support better use of social infrastructure. Such opportunities include shared use of school sites after hours.
- Quality, quantity and distribution are key considerations for open space planning. These considerations should be incorporated in the development of new neighbourhoods.
- Developing innovative ways to optimise open space for recreation, sport and social activities becomes increasingly important as the population grows.

## Greater Macarthur 2020 Interim Plan (2018)

### Social infrastructure and open space planning principles for precincts

- Create places where a diverse local community can come together.
- Locate critical infrastructure such as health facilities, child care centres and schools, outside the probable maximum flood extent.
- Create high quality open space and parklands.
- Consider how areas of existing vegetation can provide open space and amenity.
- Value and preserve the natural environment in new places.
- Incorporate development that protects, maintains or restores waterway health aligned with the community's environmental values and use of waterways.
- Integrate Green Plans that identify how a 40% tree canopy cover, green links, tree-lined streets and shaded environments can be achieved.

## Draft Urban Design Guide (2021)

### Public open space objectives for NSW

- Objective 12: Public open space is high quality, varied and adaptable.
- Objective 13: Streets are safe, active and attractive spaces for people.
- Objective 14: Public facilities are located in key public places, supporting community and place identity.

## Greener Places (2020)

### Open space design principles for NSW

- Integration: combine green infrastructure with urban development and grey infrastructure.
- Connectivity: create an interconnected network of open space.
- Multifunctionality: deliver multiple ecosystem services simultaneously.
- Participation: involve stakeholders in development and implementation.

## Draft Greener Places Design Guide (2020)

### Performance criteria for open space

- Accessibility and connectivity: ease of access is critical for the community to be able to enjoy and use public open space and recreation facilities
- Distribution: the ability of residents to gain access to public open space within an easy walk from home, workplaces, and schools is an important factor for quality of life. The geographic distribution of open space is a key access and equity issue for the community.
- Size and shape: size and shape of open space has a direct bearing on the capacity of that open space to meet and accommodate recreation activities and needs.
- Quantity: in low and high density areas good provision of public open space is essential to compensate for the lack of private open space to support active living and contribute to a more liveable neighbourhood.
- Quality: the quality of design and ongoing maintenance and management is critical to attracting use and activating the open space network.
- Diversity: the range of open space setting types within an urban area will determine the diversity of recreation opportunities for communities.



### Wollondilly 2040 LSPS (2020)

#### Directions for open space and social infrastructure

- Future open space should be provided in accordance to Council's multipurpose facilities model. This model is currently under development but is intended to facilitate adaptable spaces which can accommodate multiple user groups and changing community needs.
- There are nine key principles for open space planning. These are: equity of access, public transport connections, visibility, flexibility, safety, future adaptability, sustainability, sense of place and avoiding land use conflict.
- Urban tree canopies should be protected, retained and increased in growth areas to combat urban heat island effects and diversify tree species.
- Local health services, programs and facilities should be developed early in the planning process and focus on preventative health measures.
- The urban environment should encourage and support people to live healthy lives. Principles around accessibility, equity and social cohesion should therefore be imbedded in any new facilities and places.

### Wollondilly Open Space, Recreation and Community Facilities Strategy (2014)

#### Guiding principles for facility provision

Open space, recreation and community facilities should be:

- Central and accessible to the population they are intended to serve.
- Clustered or colocated with other activity generating uses (e.g. shops, schools, childcare) to promote access, activation and utilisation.
- Flexible and multi use, capable of accommodating a range of uses.
- Contribute to the public domain and sense of place through building design and incorporation of community values.
- Environmentally and financially sustainable.
- Located to promote accessibility and visibility.
- Connected to public transport and pedestrian and cycling networks to minimise car dependency. Ideally, facilities should be within 400m of public transport or have linkages to other pedestrian/cycling networks.
- Of a sufficient size and design to enable expansion and adaption over time.
- Designed in accordance to CPTED principles to enable the safety and security of all users.
- Celebrate culture and heritage, with the design of open spaces to reflect its natural and cultural context.

### Campbelltown 2040 LSPS (2020)

#### Directions for open space and social infrastructure

- Develop a network of high quality local, neighbourhood and district open space to enable most residents to live within 400m of a local park.
- Ensure open space is well connected via pedestrian and cycle links.
- Ensure that sufficient, quality and accessible open space is provided for new urban areas. Open space should be located where it will experience maximum use by residents, with good street frontage and minimum impediments.
- Ensure planning for greenfield and infill development areas explore opportunities for co-location and joint use of social infrastructure.
- Focus on creating multi-purpose facilities and co-locating them with other uses, in line with Council's social infrastructure strategies. The design and location of these facilities should enable them to adapt and meet to changing needs and social diversity over time.
- Encourage arts to be used as a mechanism of linking and integrating new communities and connecting them to the Campbelltown City Centre.

### Guiding principles for facility provision

Community facilities should be:

- Flexible and provide multi-purpose spaces.
- Co-located with services in one facility or as part of a community hub.
- Connected to public space, pedestrian paths, cycleways and public transport.
- Contribute to the community identity and develop a sense of place.
- Economic, social and environmentally sustainable.
- Designed to reflect needs of a growing population

Sport and recreation facilities should be:

- Accessible and sustainable over the long term.
- Developed for shared use and as community hubs where possible.
- Flexible and adaptable to cater for formal and informal recreation opportunities.
- Delivered in easily accessible locations within active transport corridors and future population growth areas.

Open space should be:

- Part of an integrated and connected network.
- Of an appropriate size, shape and slope and adaptable for a range of activities, experiences and settings.
- Accessible, safe and visually appealing.
- Managed sustainably to protect local environment.

### Key implications for this assessment

The strategic document review highlighted a wide range of state and local principles for social infrastructure and open space provision. While the details sometimes differ, the principles are largely consistent across documents and are underpinned by a consistent approach to facility provision and planning.

Based on the review, the following integrated principles have been developed to guide the provision of social infrastructure and open space across the Appin and North Appin Precincts:

1. Maximise opportunities for **shared use and joint use partnerships** to support better use of social infrastructure and open space.
2. **Protect, restore and value** the natural environment and waterways, aligned to community values and use.
3. Provide multipurpose and adaptable social infrastructure and open space facilities to accommodate multiple user groups and changing community needs over time.
4. **Cluster or co-locate** social infrastructure and open space with other activity generating uses to promote access, activation and utilisation.
5. Provide a network of social infrastructure and open space facilities which are central and accessible to the community they intend to serve.
6. Create a **diverse range of high quality** open space and recreation opportunities.
7. Provide an interconnected network of open space, supported by safe, attractive and usable cycling and pedestrian links.
8. Create facilities which **contribute to the public domain and sense of place** by incorporating community values and listening to end users.
9. **Integrate open space** with the drainage and urban development network.
10. Provide an **equitable distribution** of social infrastructure and open space which considers facility hierarchy and accessibility by walking and public transport.



# COMMUNITY NEEDS AND VALUES

As discussed in Wollondilly's Community Strategic Plan, access to and preservation of open space and the natural environment is highly valued by the local community. This is also recognised in Campbelltown's Community Strategic Plan which emphasises the need to enhance the LGA's rich natural amenity including its open spaces, parks and bushland areas. The protection and provision of open space are consistent priorities identified by the Wollondilly and Campbelltown communities, and are embedded in the Councils' LSPS. Key community values and aspirations are outlined below.

## Identified needs

Wollondilly's LSPS notes that significant infrastructure will need to be developed in Appin prior to any future development or further land releases. The LSPS notes that Appin's development will require:

- Major investment in transport and social infrastructure
- Conservation of natural vegetation and protection of koalas
- Integrated water and wastewater management
- Connected, walkable and cycling friendly places
- Public open spaces
- Access to jobs, education, health and services.

More broadly, the LSPS also outlines key social infrastructure and open space needs for the Wollondilly community. Key needs include:

- Identify opportunities to provide more cultural spaces and events in Wollondilly.
- Embed health and wellbeing considerations into land use planning to create healthier places. This includes facilitation of places which encourage physical activity, support social cohesion, integrate the natural environment and provide opportunities for recreation, culture and entertainment.
- Plan for more trees in urban areas to better combat urban heat impacts and to increase the walkability and usability of open space.

## Wollondilly community values and aspirations

Wollondilly's LSPS reflects the community's values, aspirations and priorities for land uses in the LGA over the next 20 years. With a rapidly growing and changing area, it is important that the values of the community are embedded into future infrastructure planning in the area.

The LSPS identifies key aspirations for the future of Wollondilly, including "a community which is connected, local, healthy and better prepared for climate impacts" (Wollondilly LSPS 2020; 5).

As part of the LSPS, Council undertook community consultation to understand **what people value about Wollondilly**. Key feedback of includes:

- People are attracted to Wollondilly's wide open spaces, natural environments and rural landscapes. People want these areas to be protected and more easily accessible.
- People want more services for health care and education within the Shire.
- People want more places to socialise and engage in cultural opportunities, particularly in the evening. This includes places like bars, cinemas, live music venues and function centres.
- People want more opportunities for walking, cycling and access throughout the Shire.
- People cherish the Shire's connections to the past, both Aboriginal and European.

More locally, the LSPS outlines specific **community values and needs for Appin** which should be incorporated into its future planning. These include:

- Protection of Appin's natural surroundings and koala habitats
- Provision of sporting groups and community facilities that bring people together and add to a sense of community
- Development of tourism which will support local businesses and showcase natural and historical assets
- Protection and enhancement of the area's historic and natural assets as part of Appin's continual employment and investment growth.

## Campbelltown community values and aspirations

Campbelltown's LSPS identifies the community's social, environmental and economic land use needs over the next 20 years. It envisions that Campbelltown will be a "green, well-connected, efficient and resilient city" (Campbelltown LSPS 2020;11). This vision was informed by community consultation undertaken as part of the development of the LSPS.

Key feedback received during community consultation includes that residents want:

- Increased availability and offering of tree canopy, green spaces, access to open space and playgrounds
- High quality open spaces
- A greater focus on creating local amenity that is accessible to all.

# EXISTING APPIN COMMUNITY

## Current population

This section provides an overview of the current demographic profile of Appin using data from the 2016 ABS Census from Profile id. and population projections from Forecast id.

While the 2016 Census data dates from five years ago, it remains the most recent population data source until the release of the 2021 Census data in June 2022.

Profile id provides data related to small areas. The Appin Precinct is located across two small areas: Appin – Cataract – Darkes Forest and Douglas Park – Wilton. The small area of Appin – Cataract – Darkes Forest has been used for this assessment as this includes the existing community residing in Appin suburb and is likely to have more informal connections to the incoming Precinct population. For the remainder of this community profile, the Appin – Cataract – Darkes Forest small area (shown below) is referred to as Appin.

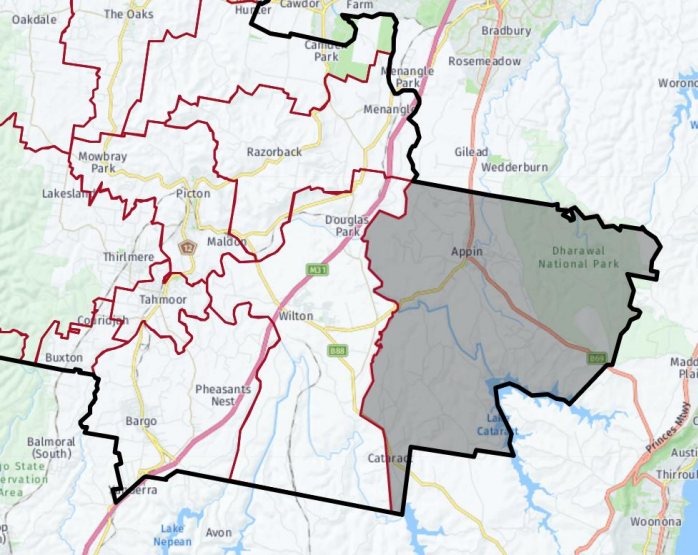
In 2016, Appin was home to **3,118 people**, representing about 6% of the population of Wollondilly LGA. Key characteristics of this community are outlined in Table 3.

## Future population

Based on population projections from Forecast id, the population of Appin is expected to experience minimal growth over the next 20 years, increasing by only 2.2% to 3,944 people in 2041.

This forecast does not consider the release of the Greater Macarthur Growth Area and the population growth it will facilitate. The expected population growth in Appin is therefore likely to be far greater than projected by Forecast id. Based on the forecast, the future population of Appin will have similar characteristics to the existing community. However, given experience in other new growth areas and the likely form of development in the Appin Precinct, it is likely that the future community will be more culturally diverse than the existing community.

Figure 6: Appin – Cataract – Darkes Forest small area



Source: Profile id 2022

Table 3: Existing community profile



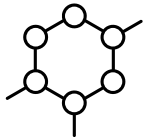
Appin is generally home to a **younger adult population**, with over a fifth (22.7%) of residents aged 20 – 34 years. The area also has a median age of 31 years, which is considerably lower compared to that in the Wollondilly LGA (37 years) and Greater Sydney (36 years).



The area has a **higher proportion of Aboriginal and Torres Strait Islander** people (3.6%) compared to the Wollondilly LGA (3.2%) and Greater Sydney (1.5%).



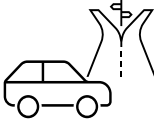
**Family households are predominate**, representing 82.7% of all households. The most prevalent family type is couple families with children (46.4%).



There are **low levels of cultural diversity**, with most residents of the area born in Australia (88%) and speaking only English at home (94%). This is consistent with the Wollondilly LGA averages.



The area is **predominantly low density**, with separate houses representing 94.7% of all dwellings.



There is a **high reliance on private modes of transport**, with 75.3% of the area's workers using cars to travel to work. This is a considerably higher proportion than in Greater Sydney.


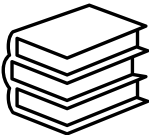



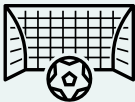


# AUDIT OF EXISTING FACILITIES AND OPEN SPACE

Most of the existing social infrastructure and open space is concentrated in the Appin Town Centre, as shown in Figures 7 and 8 overleaf.

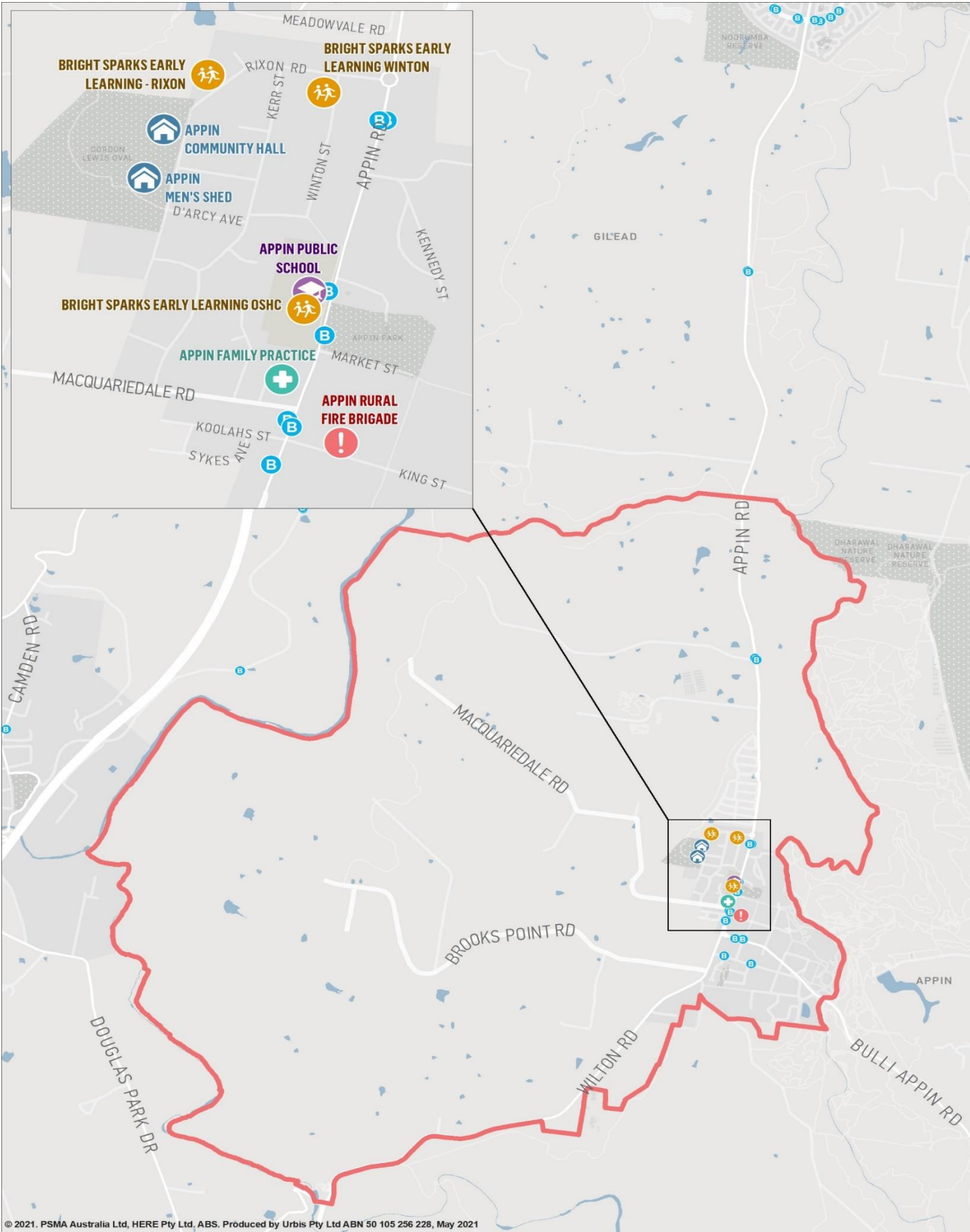
A summary of these facilities are provided below. The existing social infrastructure and open spaces are all local level facilities which predominately serve the existing residential community.

Table 4 Existing facilities and open space

	<p><b>Community facilities</b></p> <p>There are two community facilities currently in Appin; Appin Community Hall and Appin Men's Shed. Both facilities are located on Sportsground Parade, adjacent to Gordon Lewis Oval.</p> <p>Appin Community Hall provides a single space with capacity for up to 269 people. The hall is available for community hire and is supported by amenities including a kitchen and accessible toilets. The Appin Men's Shed is used exclusively by the Men's Shed Community Group and was upgraded in 2018 to increase the floorplate from 15sqm to 500sqm. The Men's Shed is equipped with workbenches as well as a meeting room, kitchen and lounge area.</p>
	<p><b>Education facilities</b></p> <p>There are only two government schools currently in the catchment area for Appin; Appin Public School (316 students) and Ambarvale High School (842 students). Ambarvale High School is located in the Campbelltown LGA, approximately 11km from the Appin Village. For non-government school options, students in Appin would be required to travel further into the Campbelltown or Camden LGA's.</p> <p>Appin is also serviced by two of the main tertiary providers in NSW; Western Sydney University (approximately 17km) and the University of Wollongong (approximately 21km).</p>
	<p><b>Childcare facilities</b></p> <p>There are two Bright Sparks Early Learning facilities in Appin on Rixon Road and Winton Road. Based on a desktop review, these facilities are collectively approved for 129 long day care places and have vacancies during the working week. A Bright Sparks Out of School Hours Care (OSHC) is also co-located with Appin Public School. The OSHC is approved for 50 places and currently has vacancies during the working week.</p>
	<p><b>Health facilities</b></p> <p>Appin Family Practice is a general medical practice and is the only health facility in the suburb. Campbelltown Hospital is currently the closest hospital to Appin. The hospital is a major health facility for the Greater Macarthur Region, providing over 300 general surgery and recovery beds and an 40-bed emergency department. A \$632 million redevelopment of Campbelltown Hospital has recently been completed, significantly increasing its service capabilities and carrying capacity.</p>
<div></div>	<p><b>Open space and recreational facilities</b></p> <p>There are two main recreational facilities in Appin:</p> <ul style="list-style-type: none"><li>▪ Gordon Lewis Oval – a double sports oval primarily used by Appin Football Club and co-located with Appin Community Hall. The oval contains a clubhouse, small playground and single outdoor hardcourt.</li><li>▪ Appin Park Reserve – a large outdoor playing area that supports various activities. The reserve contains an outdoor playing field, two outdoor hardcourts, exercise park, playground, off leash area and skatepark.</li></ul> <p>The remaining open space in the area predominately consists of conservation land or bushland which surrounds the eastern and western boundaries of the suburb. These open spaces have several trails and can generally be accessed for unstructured recreation.</p>

# EXISTING SOCIAL INFRASTRUCTURE

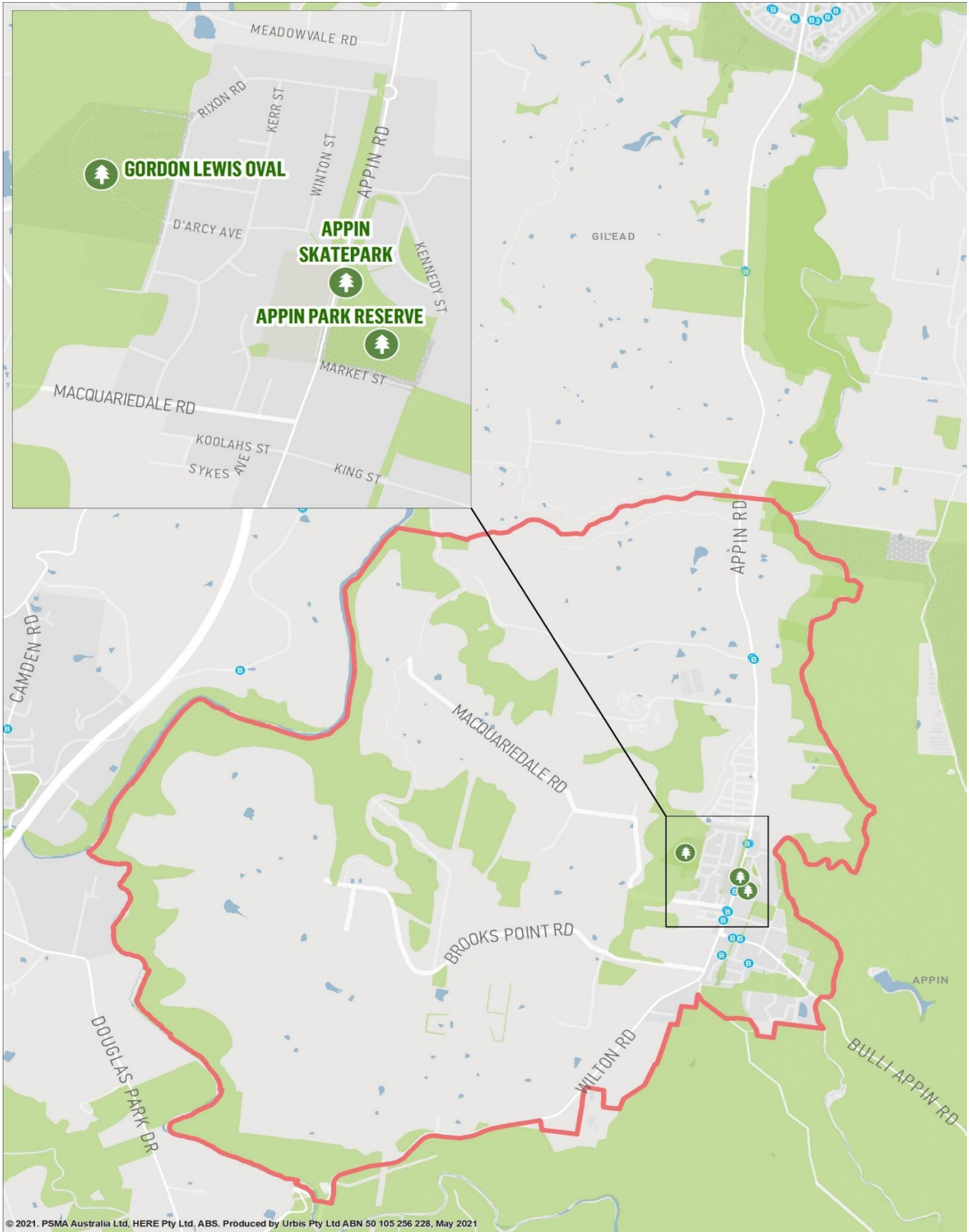
Figure 7: Existing social infrastructure in Appin





# EXISTING OPEN SPACE AND RECREATION FACILITIES

Figure 8: Existing open space and recreation facilities in Appin



## ROLE OF SURROUNDING SERVICES

### Wilton

Wilton is located south west of the Appin and North Appin Precincts and is also part of the Greater Macarthur Growth Area. Like Appin, Wilton has been the subject of large scale planning and is expected to support 15,000 new homes over the next 20 years (DPE, 2018).

While planning is still underway for Wilton, consultation with representatives from Wollondilly Shire Council as part of this assessment indicates that Wilton will become the major strategic centre for the LGA. As part of this role, Wilton is intended to house regional level facilities for the broader growth areas including Appin.

The Wilton 2040 Plan and GHD's Greater Macarthur and Wilton Priority Growth Areas Social Infrastructure Assessment outline the types of regional infrastructure which are expected to be delivered in this area. This includes:

- A 5ha regional open space in North Wilton
- An integrated health facility in Wilton Town Centre
- A 500sqm cultural facility in Wilton Town Centre
- A 2,000sqm fire and rescue station, 2,000sqm police station and an ambulance hub in Wilton Town Centre.

At the time of writing, the delivery details and catchment areas for these facilities have not been finalised.

### Key implications for this assessment

- **Existing facilities in Appin** are local facilities and predominately serve the existing community. These facilities are **unlikely to support the needs of the incoming population**.
- Appin is currently **served by higher-order, regional facilities in Campbelltown**, including Western Sydney University and Campbelltown Hospital. Given the size and intended service catchment of these facilities, it is expected these facilities will also serve the future population of Appin.
- As planning for the **Wilton** continues, the area is likely to become the **major strategic centre for the LGA** and will **accommodate a range of regional facilities**. It is likely the future population of the Appin Precinct will be serviced by some of these regional facilities.
- Appin is surrounded by bushland, with **a network of trails** connecting these areas to the residential area and local streets. There are opportunities to expand the network of trails throughout the Appin Precinct to connect future communities and create high quality recreation experiences in a stunning natural environment.



## **1.2 INCOMING POPULATION FOR APPIN AND NORTH APPIN PRECINCTS**



# INCOMING POPULATION

## Expected dwelling mix and density of the proposal

To assess community needs, it is important to understand the number of people a proposal will introduce into an area and the likely demographic characteristics of the incoming population.

The Appin and North Appin Precincts are expected to support approximately 21,865 dwellings, of which 16,710 dwellings will be low density and 5,155 dwellings as medium density.

## Occupancy rates: existing assumptions

The Wollondilly Contributions Plan provides assumed dwelling occupancy rates for different types of residential development. These rates are used to project the residential population of incoming developments. These rates have been applied to the dwelling mix currently anticipated in the Appin Precinct, as shown below.

Table 5 Expected dwellings and population

Expected dwelling mix	Dwelling yield	Occupancy rate	Expected population
Low density	16,710 dwellings	3.1 persons per dwelling	51,801 people
Medium density	5,155 dwellings	2.6 persons per dwelling	13,403 people
<b>TOTAL</b>	<b>21,865 dwellings</b>	-	<b>65,204 people</b>

These occupancy rates were presented and confirmed during the TAP process.

It is important that the incoming population figures are as accurate as possible to best inform the provision of social infrastructure and open space across the Appin Precinct. A significant undercalculation can lead to infrastructure gaps which can impact on facility access for existing and future communities.

As such, a review of the occupancy rates was undertaken as part of this assessment to confirm their accuracy and provide a robust evidence base for planning. This analysis is provided on the following pages.

# OCCUPANCY RATES REVIEW

## Projected occupancy rates

As a first step in the review of occupancy rates, the average occupancy rate for low density housing was checked against the projected average occupancy rates developed by Forecast id. The low density housing rate was chosen based on the predominance of this housing type in the Wollondilly LGA now and in the future.

As shown below, id projects a maximum occupancy rate of 3.19 people per household in the Appin – Cataract – Darkes Forest area in 2016, reducing to 2.97 people in 2041. Occupancy rates for Douglas Park – Wilton are projected to remain relatively consistent at 3.23 people per household across the period to 2041.

In combination, these occupancy rates are similar to those used in Council's Contributions Plan. This indicates that the 3.1 people per household rate used in the latter is likely to be appropriate for the projecting the population of the Appin and North Appin Precincts.

Table 6 Projected occupancy rates from Forecast.id

Small area	Year					
	2016	2021	2026	2031	2036	2041
Appin – Cataract – Darkes Forest	3.19	3.16	3.11	3.08	3.02	2.97
Douglas Park – Wilton	3.23	3.24	3.25	3.25	3.24	3.23

Source: Forecast id

## Occupancy rates used in similar areas

To further review the occupancy rates used to project the population of the Appin and North Appin Precincts, rates in similar parts of Sydney were analysed. These areas were selected based on their:

- Similar greenfield development location and context within Sydney
- Similar mix of low and medium density
- Being largely developed.

The three areas chosen were Schofields, Harrington Park and Spring Farm. Data from the 2016 ABS Census was used to understand the average occupancy rate and approximately dwelling breakdown.

Table 7 Average occupancy rates for similar areas

Suburb	Low density	Medium density	Occupancy rate
Schofields	80.4%	17.1%	3.1
Harrington Park	79.2%	12.0%	3.5
Spring Farm	90.0%	10.0%	2.9
<b>Average</b>			<b>3.2</b>

Source: 2016 ABS Census

At 3.2 people per household, the average occupancy rate of these areas is very similar to that used in the Contributions Plan.










Given the consistencies between projected occupancy rates and those in similar areas, the 3.1 people per household rate used in the Contributions Plan is considered to provide an accurate indication of future housing and household formation trends in the area and have been used for the remainder of this assessment.

# INDICATIVE AGE PROFILE

For the purposes of benchmarking, a likely age profile has been developed for the projected population (65,204 people). This profile has been determined by applying age profile data from the Appin – Cataract – Darkes Forest small area and two comparable greenfield areas: Schofields and Harrington Park. These greenfield areas were chosen based on their comparable dwelling mix to that proposed in the Appin and North Appin Indicative Plan area.

Given data from the 2016 Census is now dated, 2036 projected age data from Forecast id was used to provide a better indication of the likely future age profile. As Forecast id. uses small area boundaries, data for Schofields – Nirimba Fields and Harrington Park – Kirkham was used. These areas are relatively consistent with ABS suburb boundaries.

Table 8 Projected age profile in 2036 for similar areas, indicating Appin's future age profile

Service age group		Appin – Cataract – Darkes Forest	Schofields – Nirimba Fields	Harrington Park – Kirkham	Indicative	Likely incoming population
	<b>Babies and pre-schoolers (0-4)</b>	6.8%	9.8%	5.8%	7.5%	4,890
	<b>Children (5-11)</b>	10.9%	13.7%	10.0%	11.5%	7,498
	<b>Young people (12-17)</b>	8.9%	9.4%	9.0%	9.1%	5,934
	<b>Young adults (18-24)</b>	9.0%	7.8%	8.2%	8.3%	5,412
	<b>Young workforce (24 – 34)</b>	13.9%	14.9%	9.4%	12.7%	8,281
	<b>Parents and homebuilders (34 – 49)</b>	24.8%	27.0%	19.6%	23.8%	15,519
	<b>Older workers and pre-retirees (50 – 59)</b>	12.4%	9.2%	13.3%	11.6%	7,564
	<b>Empty nesters and retirees (60 – 69)</b>	7.2%	5.0%	11.8%	8.0%	5,216
	<b>Older adults (70+)</b>	6.1%	3.2%	12.9%	7.4%	4,825
<b>Total</b>						<b>65,139</b>

Due to rounding the likely incoming population is projected to be slightly lower than 65,204.





## **PART 2**

# **SOCIAL INFRASTRUCTURE AND OPEN SPACE STRATEGY FOR APPIN AND NORTH APPIN PRECINCTS**

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# INTRODUCTION

## Overview

Part 2 of this report provides an assessment of the type of social infrastructure and open space which will be required within the Appin and Appin North Precincts to support the needs of the incoming population. It also outlines principles and directions for facility provision, creating a strategy to help guide future provision across the Precincts.

This section is structured as follows:

- Section 2.1: Social Infrastructure Assessment
- Section 2.2: Open Space and Recreation Assessment.

## Indicative Plan summary

The Appin and North Appin Precincts cover approximately 3,826ha and are expected to support approximately 21,865 dwellings.

The Indicative Plan for the Precincts is provided on page 8.





## **2.1 SOCIAL INFRASTRUCTURE ASSESSMENT**

### **APPIN AND NORTH APPIN PRECINCTS**



## APPROACH TO BENCHMARKING

### General approach

Planning for social infrastructure, whether in new or established communities, is a complex task. Benchmarks are only one tool that can be used. This study takes a good practice approach to identifying social infrastructure and open space requirements of by:

- Identifying the **demographic characteristics** of the current community and the likely demographic characteristics of the future population to understand future needs and demands for social infrastructure.
- Understanding the **existing provision of social infrastructure** and identifying key gaps in provision
- Understanding the **site and strategic context** of the area that are guiding future planning decisions with consideration for stakeholder consultation undertaken
- Considering **Council and leading practice principles and benchmarks**, and applying these appropriately to the site.

### Rates of provision

There are currently no universal standards or approaches to the planning of social infrastructure in NSW. In the absence of these, most councils have established their own approaches, which has resulted in the adoption of different social infrastructure benchmarks in different places.

As the Appin and North Precincts sit across the Wollondilly and Campbelltown LGAs, there are multiple provision rates that can be used to inform social infrastructure planning in this area. The Greater Macarthur Growth Area has also been the focus of various state-led infrastructure planning, some of which uses still other sets of social infrastructure provision rates.

A review of all relevant local and state strategies (as listed in Part 1) was undertaken to understand the provision rates applicable to the Appin and North Appin Precincts. This review highlighted that most strategies adopted a hierarchy of provision, with different scales of infrastructure servicing varying sized catchments. While there were some differences of approach at the level of planning for individual facility types, the strategies used similar catchment sizes and facility size requirements.

For the purposes of this assessment, the following social infrastructure hierarchy has been used. Where there are differences between benchmarking approaches, preference has been given to Wollondilly Shire Council's benchmarks, as most of the Indicative Plan area is located within this LGA. These benchmarks were also broadly consistent with those applied in the Greater Macarthur and Wilton Priority Growth Areas Social Infrastructure Assessment.

Figure 9: Social infrastructure hierarchy

#### Regional facilities

Serve the whole LGA or large sub regions with populations of over 100,000 people

#### District facilities

Serve the district catchment with populations of 20,000 – 50,000 people

#### Local facilities

Serve the local or neighbourhood level catchment with populations of 2,000 – 20,000 people

Source: Adapted from Wollondilly Shire Council Open Space, Recreation and Community Facilities Strategy (2014)

## SOCIAL INFRASTRUCTURE DELIVERY TRENDS

Over time, the planning and delivery of social infrastructure needs to adapt to changes in the social, economic and environmental context. To meet the challenges associated with delivery of greenfield development, including population growth and increased urban density, governments around the world are reviewing the way they plan and design social infrastructure. Current trends in the planning and design of social infrastructure are outlined below and have been considered as part of the assessment approach to social infrastructure need and delivery.

### Planning trends



**Co-design** of facilities with the end users to encourage community ownership and a fit for purpose design



**Partnerships** which provide alternative approaches to funding and delivery of infrastructure, including share-use arrangement and public-private partnerships



**Integrated delivery** of community services in a single facility to improve service delivery for and create efficiencies through common areas and amenities



**Accessibility** of facilities by public, private and active transport is maximised to support a reduction in car use and convenience for different users



**Co-location** of social infrastructure to provide user convenience and encourage cross utilisation of clustered facilities



**Extension** of the home as backyards' are shrinking and people need open space and social infrastructure as places to connect and gather with others

### Design trends



**Flexible** spaces and fittings that can respond to changing preferences over time and avoid redundancy of facilities and equipment



**Multi-purpose** facilities and open space that are designed to support a range of user groups, including different ages, abilities and activities in one location to support increased utilisation by creating spaces that serve multiple functions



**Compact** designs that enable the delivery of critical social infrastructure in areas that are constrained by spaces or land values



**Technology** enabled facilities, including free wi-fi for users, online booking systems and high-tech maker spaces that may provide 3D printing, computer programming and music and movie production



**Smart buildings** and spaces to help social infrastructure providers minimise the long term maintenance and environmental costs of infrastructure



## ASSESSMENT OVERVIEW

The following pages outline the expected demand and recommended provision for social infrastructure within the Appin and North Appin Precincts. The assessment draws together the findings from Part 1 of this report and also applies benchmarks, as introduced on page 31.

The assessment assumes there will be an incoming population of 65,204 people to the Appin and North Appin Precincts.

The following social infrastructure types are included as part of this assessment:

- Community facilities
- Education facilities
- Childcare facilities
- Health facilities.



**Effective long-term planning acknowledges that each community has its own specific requirements that shape the type and combination of infrastructure required, while allowing flexibility and adaptation as community needs evolve and methods of service delivery change**

Department of State Development, Manufacturing, Infrastructure and Planning Queensland 2019



# COMMUNITY FACILITIES

## Key considerations

Community facilities are critical to supporting the health and wellbeing of communities. They provide spaces to socialise, create and connect with others, and support the provision of community, health and social services. This is particularly important in greenfield communities where most residents are new to the area and unlikely to have local social connections or support.

Wollondilly's LSPS and Open Space, Recreation and Community Facilities Strategy advocate for the provision of community facilities in accordance with a hierarchical, multipurpose facilities model. This model moves away from the provision of smaller, specialist facilities to larger, more adaptable spaces which can accommodate multiple user groups and community needs. This model helps to maximise accessibility and usability as a community's demography changes over time.

Council's Strategy identifies that community facilities should be centrally located and accessible to the population they serve. As identified by the LSPS, access to facilities, including appropriate transport/walking connections, has been a key challenge for the LGA due to the area's size, topography and low population density.

To help address this, consultation with Council indicated that the provision of new community facilities should reflect the semi-rural nature of the LGA, rather than adopting a metropolitan-style provision approach. Council noted community facilities should contribute to vibrant, well-connected and walkable spaces and reflect key community values.

## Summary of provision requirements

This assessment has considered the intended distribution, size and functionality criteria for community facilities, drawing from Council guidelines, consultation outcomes and best practice provision models.

### Scope of facilities

This assessment uses the industry standard provision benchmark of 80sqm multipurpose community space per 1,000 people. This benchmark is intended to encompass a range of functions and spaces including:

- Multipurpose halls
- Meeting rooms and activity spaces
- Spaces for young people and older people
- Community arts, culture and 'maker' spaces
- Community performance and rehearsal spaces.

The demand for library space is assessed separately, using NSW State Library benchmarks.

Based on the benchmark of 80sqm per 1,000 people, the proposal is likely to generate the need for **5,216sqm of multipurpose community space** across the Appin and North Appin Precincts. As discussed below and on the following page, this space should be distributed across a network of regional, district and local facilities, aligned with Council's provision hierarchy.

## Regional facilities

Based on benchmarks, the incoming population will not generate sufficient demand for a standalone regional facility. Currently, there is no regional level community facility which is accessible to the Appin community. Given the size of the incoming population, the population of the Appin Precinct will contribute significant demand for this type of facility within the LGA.

Consultation with Council indicates that the Wilton Town Centre will house regional level community facilities to service the growing populations of the Greater Macarthur Growth Area, including Appin.

To avoid duplication, it is Council's preference for regional facilities to be concentrated in Wilton. It is likely that need for regional multipurpose community and library space created as result of the proposal can be satisfied through developer contributions to facilities in Wilton.

Table 9 Benchmark demand for regional facilities

Facility type	Benchmark	Benchmark application	Recommended provision
<b>Civic or cultural centre</b>	1 for every 100,000 - 150,000 people	The incoming population alone will not generate need for this facility.	Demand met through developer contributions to provision of regional facilities in Wilton.
<b>Central library</b>	42sqm per 1,000 people	2,739sqm	As above.

Benchmark source: Wollondilly Open Space, Recreation and Community Facilities Strategy (2014) and NSW State Library Population Based Calculator.

# COMMUNITY FACILITIES

## Summary of provision requirements (cont.)

### District facilities

Based purely on benchmarks, the incoming population will generate demand for two district community centres and 2,739sqm of branch library space.

However, the Indicative Plan contains one centrally located local centre with five neighbourhood centres. The centres will each serve a surrounding residential catchment defined by the topography, riparian corridors, conservation and bushland areas, and major transport infrastructure. Given this spatial structure, it is recommended that one larger scale, multipurpose district community centre and integrated library be provided, supported by a network of local community centres.

This approach aligns with Council's multipurpose facilities model and accessibility principles. The integration of the community centre and library will provide considerable efficiencies as common spaces, such as toilets, meeting rooms and circulation space, can be shared. The approach also aligns with feedback received from Council, and will help support the social cohesion of these new communities, a critical consideration in the development of greenfield communities.

Table 10 Benchmark demand for district facilities

Facility type	Benchmark	Benchmark application	Recommended provision
<b>Multipurpose community centre</b>	1 for every 20,000 - 30,000 people  Each facility to be 1,200 - 3,000sqm	Two multipurpose community centres	One multipurpose district community centre with an integrated library of approximately 4,420sqm, comprising of approximately: <ul style="list-style-type: none"> <li>2,000sqm multipurpose community space</li> <li>2,000sqm library space</li> <li>420sqm shared meeting spaces, staff spaces and amenities.</li> </ul>
<b>Branch library</b>	42sqm for every 1,000 people	2,739sqm of library space co-located with a district facility	Remaining community facility demand to be distributed throughout the local facility network, to provide greater accessibility to residents and contribute to centre vibrancy.

Benchmark source: Wilton Priority Growth Area Community Needs Assessment (2018) and NSW State Library Population Based Calculator.

### Local facilities

Based on the benchmarks, the incoming population will generate demand for three local multipurpose community centres.

As stated, the Appin and North Appin Precincts will generate a total demand for 5,216sqm of multipurpose community space, 2,420sqm of which is proposed to be provided within a multipurpose district community centre. It is recommended the remaining 2,796sqm of multipurpose floorspace be distributed across three local community centres of approximately 935sqm each. Each facility should include spaces which can be configured flexibly for larger scale events and for smaller meetings and activities, and equipped to support a variety of community activities. Subject to further consultation with Council and relevant stakeholders, there is potential for at least one of the three centres to have a strong community arts focus, with spaces designed to support activities such as ceramics, needlecraft, painting, sculpting and/or woodworking. There is also potential for one of the centres, potentially located near a public high school, to provide spaces for the creation and recording of music and other performing arts. This network of community facilities could be further supplemented through the implementation of joint use arrangements for various school facilities, such as halls or performing arts spaces. Figure 10 overleaf outlines indicative locations where this opportunity could be investigated further to maximise resident access and proximity to community space.

Table 11 Benchmark demand for local facilities

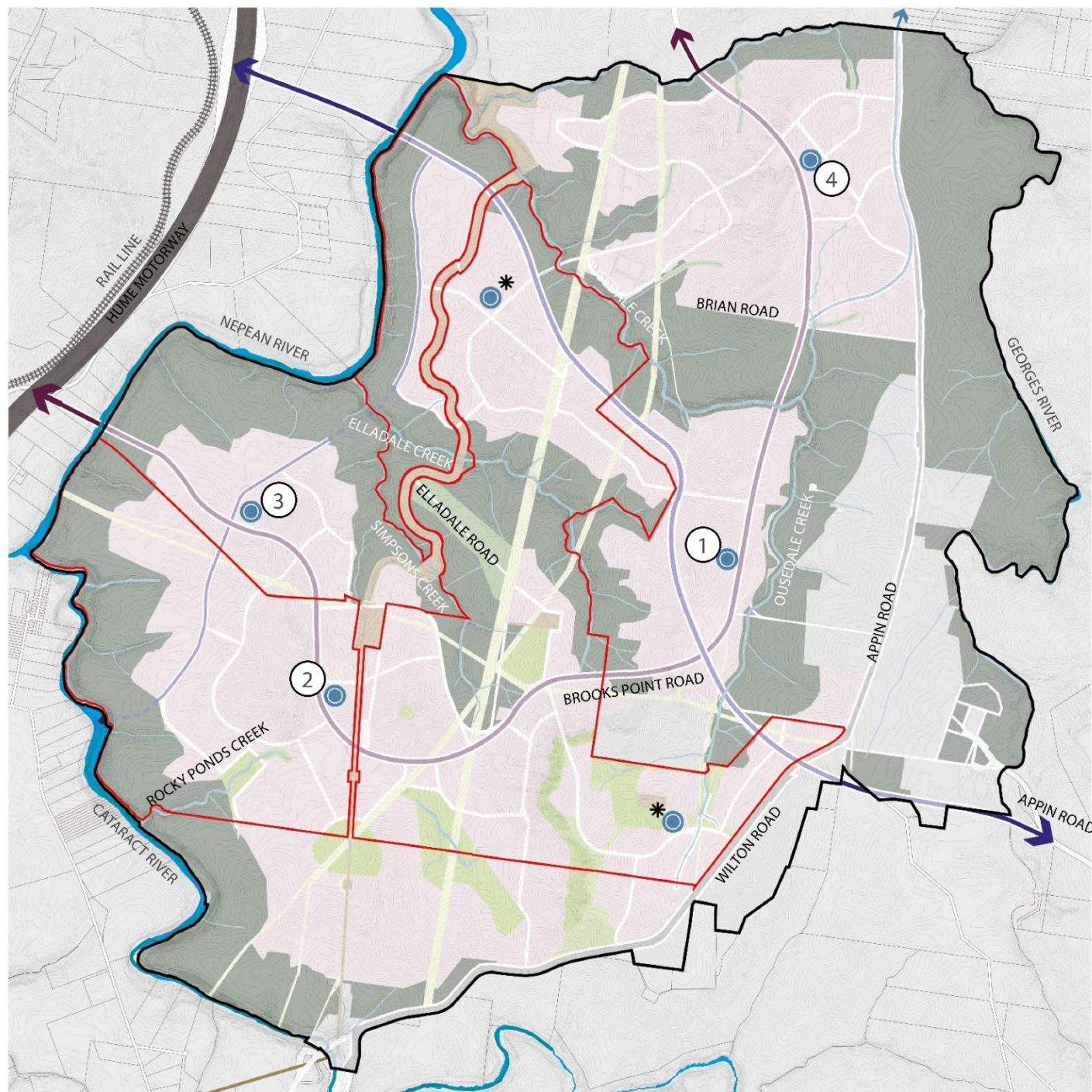
Facility type	Benchmark	Benchmark application	Recommended provision
<b>Local multipurpose community centre</b>	1: 10,000 – 20,000 people  Facility size: 500 – 1,000sqm	Three local multipurpose community centres	Three local multipurpose community centres of approximately 935sqm each

Benchmark source: Adapted from Wilton Priority Growth Area Community Needs Assessment (2018)



# RECOMMENDED PROVISION OF COMMUNITY FACILITIES

Figure 10 Indicative distribution of recommended community facilities



## LEGEND:

— Appin & North Appin Precincts Boundary	— Easements (Potential for active and passive recreation)	— Appin Bypass
— Appin (Part) Precinct Boundary	— Heritage Items	— Road Connection - By Others
--- LGA Boundary	— Residential	— Collector Roads
— Waterways	— Excluded Land	* Potential for joint use arrangements
— C2 Conservation Land*	— Mixed Use Centres (including retail/commercial, schools and open space)	① District multipurpose community centre
— Existing Road within C2 Conservation Land	— East-West Connection Road	②-④ Local multipurpose community centre
— District Open Space	— Public Transport Corridor	
— Regional Open Space	— North-South Connection Road	





## BEST PRACTICE EXAMPLES OF COMMUNITY FACILITY PROVISION

The following pages contain two case studies which highlight best practice delivery and design for the development of district and local level community facilities in the Appin and North Appin Precincts.

### Oran Park Library and Community Hub

Oran Park Library and Community Hub is a contemporary, functional and well-designed facility that provides a range of spaces to suit different needs.

Constructed in 2018, the Oran Park Library and Community Hub has been a key anchor for the growing population. The facility is co-located with the town centre, Council Chambers and open space areas, helping to maximise accessibility and user convenience. A dynamic wayfinding design runs through the facility, with pictograms, signage and directories carefully designed to represent the site's original use as the Oran Park Raceway. In a suburb that has experienced considerable change, this design has helped to reflect the local values of the area as well as contribute to the overall vibrancy of the town centre.

The Oran Park Library and Community Hub provides flexible meeting and activity spaces along traditional library facilities. For example, a mobile library information and checkout desk allows for flexibility to suit the desired room capacity or floor layout on any given day. The facility also incorporates a range of digital services including media rooms, 3D printers and computers, all of which can be easily adapted to meet changing community needs and technological developments over time.

At 2,500sqm, the facility is of a similar size and functionality to the recommended multipurpose district facility in the Appin and North Appin Precincts.

### Key features



**Partnership** delivery model under a voluntary planning agreement with Camden Council and Urban Growth NSW



**Multipurpose and flexible** spaces to allow for changing community preferences over time



**Technology** embedded spaces with specifically designed media rooms and other infrastructure



**Co-location** of the facility within the town centre with other social and retail infrastructure

# BEST PRACTICE EXAMPLES OF COMMUNITY FACILITY PROVISION

## Kingborough Community Hub





The Kingborough Community Hub is a leading example of an adaptable, flexible and agile community facility. Located in one of the fastest growing areas in Tasmania, it was critical for the facility to meet the needs of the current community without compromising the ability to meet potential future demands.

The building's modular design maximises opportunities for the community to use the space in a way that best suits their needs, while still allowing for flexibility into the future. This is demonstrated through key design features including:

- Provision of a 120 seat auditorium which opens to an external terrace, expanding the space to a dual indoor/outdoor venue. This allows the space to host a range of activities for different size groups, such as community markets, ceremonies and film screenings.
- Design of a multipurpose community hall, training spaces and meeting rooms which can be reconfigured to suit small groups or large events as needed.
- Incorporation of an extended roof, creating a large, covered town square. The town square serves a dual function, helping to facilitate casual social interactions as well as being a hireable space for formal community activities.

The Kingborough Community Hub has been the subject of numerous awards for its integrated programme and architectural approach, including the Alan C Walker Award for Public Architecture.

### Key features

	<b>Integrated delivery</b> of services and amenities, with the facility providing community rooms, co-working spaces, catering facilities and a café.		<b>Accessible</b> , with the facility providing immediate street frontage and universal design features
	<b>Multipurpose and flexible</b> spaces to allow for changing community preferences over time		<b>Designed for the community</b> , reflecting their anticipating programming needs and incorporating materials which celebrate the industries of the region



Kingborough Community Hub. Image source: March.Studio



# EDUCATION FACILITIES

## Key considerations

Schools are critical community assets which provide an important role beyond education services.

As outlined by the SINSW School Site Selection and Development Guidelines (2020), school facilities are often used by the wider community to host a range of events and community-building activities. They are also very often the first place where residents meet each other (through school pick ups/drop offs and attending student events) and start forming social connections. In this role, schools provide unique opportunities to support social cohesion and enhance local character.

To support this, the School Site Selection and Development Guidelines highlights that new schools should be located where joint/shared use opportunities are greatest. This may include a range of joint use arrangements such as:

- **Shared use of open space**, whether this be allowing community use of school grounds or entering into an agreement with Council to use adjacent sportsfields in return for community access to school facilities.
- **Shared use of school owned facilities**, such as libraries, halls or performing arts facilities.
- **Upgrades to existing school sites** with another party to account for student growth as a result of development.

With rising land costs, joint use arrangements are becoming increasingly integral to the delivery of new school sites to provide efficiencies in space use and management.

This assessment has considered the intended size, capacity and locational criteria for the selection of new school sites as outlined in the SINSW Guidelines. It has also been supplemented with consultation with SINSW.

## Summary of provision requirements

Based on SINSW benchmarks, as shown below, the incoming population is expected to generate demand for seven primary schools and three high schools. These may be public or private schools. Part 1 outlines the population assumptions used in this assessment.

Appin Public School is the only existing school in the area and is likely to be within the catchment area for part of the incoming population. According to the Australian Curriculum, Assessment and Reporting Authority, enrolments at the school have been increasing since at least 2016, when there were 271 students. There are currently 355 students enrolled at the school.

Appin Public School also has significant potential for upgrading and expansion. It is located on a 2.7ha site and currently has well below 1,000 students, which is typically the maximum size for a public primary school in NSW. The Appin Public School is therefore likely to have capacity for primary school enrolments associated with the early stages of the delivery of the Indicative Plan, as well contributing to long term supply of primary school places.

The remaining demands for schools will likely be met by the six primary schools and three high schools identified in the Indicative Plan. These are sites allocated for three stand alone primary schools and for three co-located primary and high schools. Consultation to date with SINSW indicates that this is likely to be sufficient provision for the area.

It is likely that at least one of the primary schools, and potentially one high school, will be provided by the non-government sector. This will support a range of accessible educational opportunities and family schooling preferences. The allocation, design and operational arrangements for school sites will need to be progressed and confirmed through discussions with relevant stakeholders.

Table 12 Benchmark demand for new schools

Facility type	Benchmark	Benchmark application	Recommended provision
<b>Primary school (5 - 11 years)</b>	1,000 student capacity Indicative site area: 1.5ha	Seven primary schools	Six primary schools, with Appin Public School expected to accommodate additional primary school enrolments.
<b>High school (12 - 17 years)</b>	2,000 student capacity Indicative site area: 2.5ha	Three high schools	Three high schools

Benchmark source: SINSW School Site Selection and Development Guidelines (2020) for suburban/low medium density areas

## Guiding location and design principles

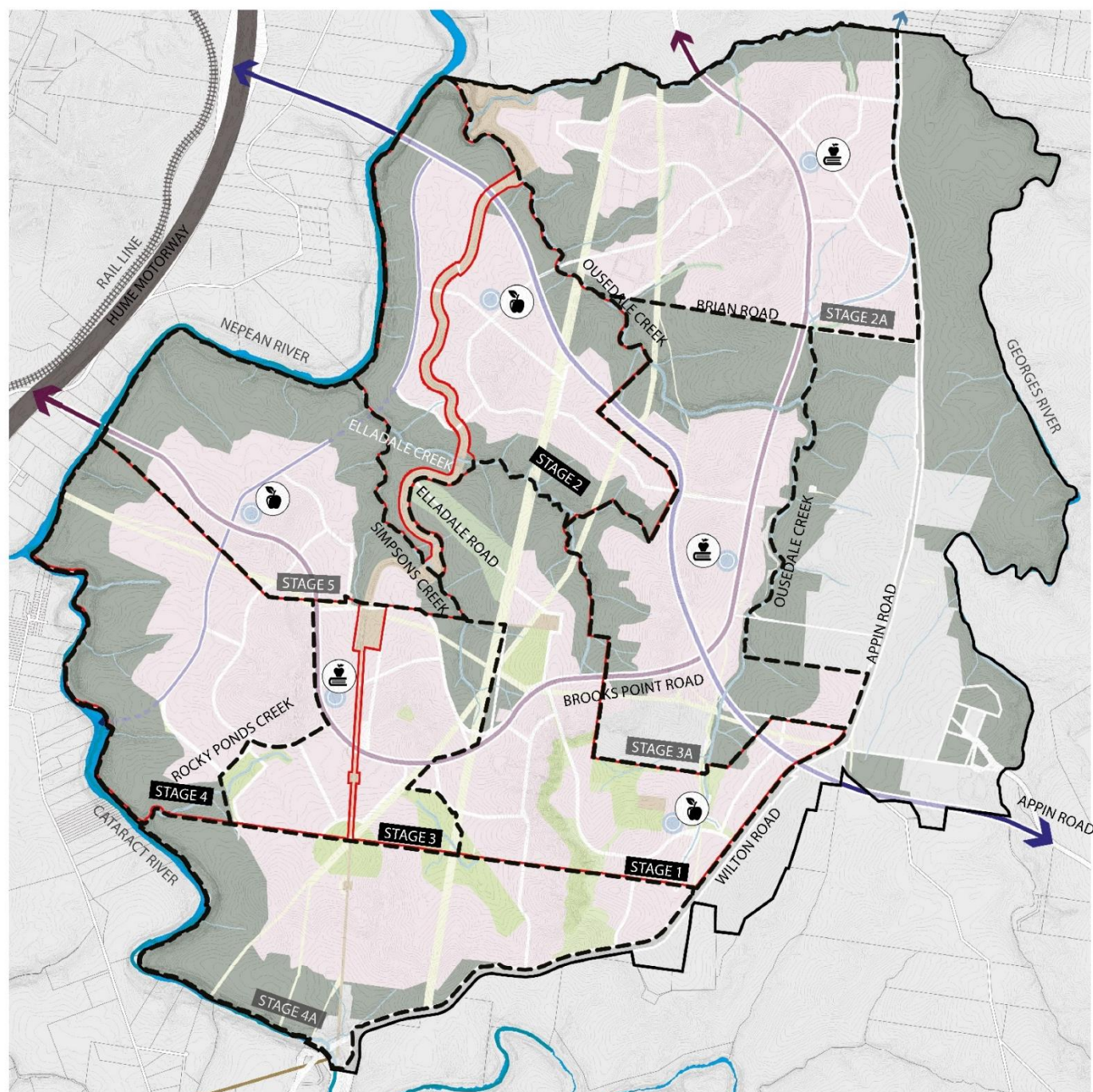
Based on the guidance contained in the SINSW School Site Selection and Development Guidelines, school sites should be:

- Of a **regular size and shape** to provide for flexibility in building layout and open space
- **Accessible for students**, located close to residential areas, town centres and a serviced road and pedestrian network
- Located within **walking distance of public transport** where possible, particularly for secondary schools
- **Free of environmental constraints and easements** to help lower potential risks relating to development approval and student safety
- Consider **opportunities to maximise joint/shared use opportunities** and locate schools where facilities are easily accessed by the community.



# RECOMMENDED PROVISION OF EDUCATION FACILITIES

Figure 11 Indicative distribution of recommended new schools



## LEGEND:

— Appin & North Appin Precincts Boundary	Regional Open Space	— East-West Connection Road
— Appin (Part) Precinct Boundary	Easements (Potential for active and passive recreation)	— Public Transport Corridor
- - - Staging Boundary	Heritage Items	— North-South Connection Road
- - - LGA Boundary	Residential	— Appin Bypass
— Waterways	Excluded Land	- - - Road Connection - By Others
■ C2 Conservation Land*	Mixed Use Centres (including retail/commercial, schools and open space)	— Collector Roads
■ Existing Road within C2 Conservation Land	Primary School	
■ District Open Space	Co-located Primary & Highschool	



## EXAMPLES OF PARTNERSHIP ARRANGEMENTS FOR EDUCATION FACILITIES

There is a significant opportunity to design purpose-built education facilities for the Appin and North Precincts which serve the needs of the school and wider community. This can be achieved through a range of partnership arrangements, including:

- **Regular or casual hire of council-owned facilities:** entered with the Department of Education (DoE), typically for use of Council owned and/or managed sports fields, and occasionally other types of space
- **Joint use arrangements:** entered between the DoE and another partner to share the costs of building or maintaining a school asset that can be shared by the school and wider community.
- **Community use arrangements:** entered between the DoE and other organisation to facilitate access to school facilities outside of hours.

Relevant examples of these arrangements are provided below. There are also new school provision models being developed by School Infrastructure NSW which leverage from private sector land ownership and development capabilities. There may be future opportunities for these emerging models to be used within the area.

### Case studies

Several schools across NSW have implemented shared use arrangements in recent years. The Bella Vista Public School (completed in 2019) includes a synthetic football field and a two-court indoor sports hall, all of which are open to the local community outside school hours. These facilities were delivered under a joint use arrangement between the DoE and the Hills Shire Council. A similar partnership was developed between DoE and Ballina Shire Council to provide a shared indoor sports centre at Ballina Coast High School.

A new primary school at Estella highlights more extensive use of school and council assets under a joint use arrangement. DoE facilitated the delivery of the school hall, community meeting rooms and courtyard for community use, while Wagga Wagga City Council delivered improvements to the adjacent Peter Hastie Oval to include a new sportsfield, amenities building, playground and skate park. All of these recreation facilities will be available to the school for the next 20 years at no cost.

While typically implemented for sportsfields, joint use arrangements can be used for a variety of facility types. For example, the 2022 upgrade to Mona Vale Public School will deliver a new performing arts centre, which will also be made available to the wider community.



Bella Vista Public School. Image source: SINSW



Ballina Coast High School. Image source: SINSW

# CHILDCARE FACILITIES

## Key considerations

International and Australian research over many years has demonstrated the positive social and economic impacts of early education and care. The Australian Institute of Health and Welfare 'Literature review of the impact of early childhood education and care on learning and development (2017)' outlines the benefits of early education and care. It showed that access to high quality children's services helps to reduce the effects of social disadvantage and positively develops children's social competency and emotional health.

For the purposes of this assessment, two children's services have been considered. These are:

- **Long day care:** a centre based form of service which provides all-day or part-time care for children aged birth to six who attend on a regular basis.
- **Outside of school hours care:** a service that provides care for primary school aged children (typically 5 – 11 years) before and after school and can also operate during school holidays.

The provision of childcare is generally provided by the private sector, with some council-owned facilities. The majority of early education and care services in the Wollondilly LGA are provided by the private sector, with Council currently operating one centre. Consultation with Council as part of this assessment indicates this provision split will likely extend to Appin, with most (if not all) childcare facilities expected to be provided by the private or not for profit sectors.

Council currently does not have a local benchmark to guide the provision of early education and care within the LGA. This study therefore uses benchmarks from the City of Parramatta's Community Infrastructure Strategy. The benchmarks used in the strategy are generally considered as industry standards and have been adopted by other councils.

## Summary of provision requirements

Based on the benchmarks shown below, the incoming population is expected to generate demand for 1,972 long day care places and 1,811 out of hours school care places.

The Indicative Plan contains one local centre and five neighbourhood centres. All centres are expected to accommodate a range of retail, commercial and community services to meet the needs of the incoming population. Three of the centres also provide good public transport connections, being located on the proposed transport corridor.

It is recommended that childcare facilities be accommodated within these centres by the private sector, in accordance with market demand. The size, location and nature of the local and neighbourhood centres suggests the demand for childcare facilities can be accommodated within these spaces or within the home care.

Table 13 Benchmark demand for childcare facilities

Facility type	Benchmark	Benchmark application	Recommended provision
<b>Long day care</b>	1 place for every 2.48 children aged 0 – 4 years	1,972 long day care places.  Approximately 25 centres with an average of 80 children	Per benchmark, to be monitored by market demand.
<b>Out of hours school care</b>	1 place for every 2.70 children aged 5 – 11 years	1,811 out of hours school care places.  Approximately 23 centres with an average of 80 children	Per benchmark, to be monitored by market demand.

Benchmark source: City of Parramatta Community Infrastructure Strategy (2019)

## Principles guiding provision

Based on leading social infrastructure provision principles and trends in children services, the provision of childcare facilities should be:

- **Co-located** with other services to maximise user convenience and encourage greater cross utilisation of clustered facilities.
- **Accessible and central** to the population they serve, with consideration to public, active and private transport connections as well as worker movements.
- **Coordinated** with the Department of Education, to consider options to utilise school facilities for the provision of out of hours school care at the start of the design process, rather than retrofitting facilities later on.
- Consider the provision of **larger, multipurpose** childcare facilities to maximise land efficiency.
- **Affordable**, with a network of private and not-for-profit childcare providers to support the incoming population, particularly those experiencing vulnerabilities.



# HEALTH SERVICES

## Key considerations

The concept of 'health' covers a range of physical, mental and social wellbeing outcomes, all of which should be considered in the planning of built environments. This assessment focusses on one core element of health planning: access to health infrastructure and services.

As with all social infrastructure, health infrastructure should be planned as part of a hierarchy of services, ranging from acute care (i.e. hospitals) to more preventive, community based services.

To help inform this assessment, consultation was undertaken with representatives from the South Western Sydney Local Health District (the LHD). The consultation helped identify key needs in the area and potential facility provision within the Appin Precinct.

Consultation with the LHD indicated that the current community health model is in a period of change, reflecting the emerging trends and needs of the community. This is likely to see the emergence of a shared services model, where spaces within community facilities are used for the delivery of some types of community health services. This model could also enable community members who have poor internet connectivity or who do not have private spaces in their home to access telehealth services.

As with other forms of social infrastructure, shared facilities offering community health services will need to be in accessible locations, preferably co-located with other facilities.

## Summary of provision requirements

### Regional services

Contemporary planning for regional and acute planning facilities generally does not rely on population based benchmarks. Planning for these facilities is instead based on a comprehensive understanding of complex community needs, detailed capacity analysis and response times, which is overseen by the local health districts. As a result, this assessment primarily relies on consultation undertaken with a planning representative from the South Western Sydney Local Health District.

Based on consultation with the LHD, the incoming population will not in itself generate demand for a hospital. Consultation also indicated that future development within the Appin and North Appin Precincts is unlikely in itself to generate sufficient demand for other forms of regional health services or provide a suitable location for these services. As noted previously, a significant redevelopment of Campbelltown Hospital has recently been completed to enable it to serve the growing populations of Camden, Campbelltown and Wollondilly LGAs, including the Appin and North Appin Precincts.

Consultation with the LHD outlined that investigations into the provision of an integrated health hub within the south west region are underway. Integrated health hubs may contain a range of specialist outreach or primary care services and will preferably be located within walking distance of a major rail station. Given its lack of a rail line, the Appin and North Appin Precincts are unlikely to be identified as the preferred location for this facility.

Consultation with Council also indicated a preference for locating regional level health facilities within Wilton.

# HEALTH SERVICES

## Summary of provision requirements (continued)

### Community health and services

Based on the benchmarks shown below, the incoming population would likely generate demand for three to four primary health clinics.

However, consultation with the LHD indicates that a shared service model would likely be more suitable for the Appin and North Appin Precincts. While still evolving, this model involves using spaces within community or civic facilities to accommodate health services, rather than constructing standalone community health buildings. Spaces within multipurpose community facilities be used for services such as:

- Children, adolescents and family services
- Community nutrition
- Individual telehealth consultations
- Maternal and child health check ups
- Men's health services
- Mental health services
- Women's health services.

Benchmarking indicates the Indicative Plan area would also require 13 general practice (GP) clinics, provided by the market over time. This is based on an expectation that there will be up to five GPs in each practice. However, contemporary practices often have more than five GPs, particularly where some GPs within a practice specialise in areas such as maternal and child health, men's health or preventative health.

The health needs of the future community may therefore be met through a smaller number of clinics, with a larger number of practitioners working from each. The six centres within the Appin and North Appin Precincts could accommodate medical centres to meet this demand.

Table 14 Benchmark demand for community health and local level health facilities

Facility type	Benchmark	Benchmark application	Recommended provision
<b>Primary health clinic</b>	1 clinic for every 15,000 to 18,000 people	Three to four clinics	Look to provide adaptable spaces within community facilities to accommodate health services.  Larger clinics to be provided by the private market and/or by LHD as required over time.
<b>Private general practice</b>	1 practice for every 4,000 to 5,000 people  (Up to five GPs in each practice, supported by practice nurses)	13 practices	To be provided by the private sector in line with market demand

Benchmark source: Wollondilly Health Needs Assessment (2014)

## EXAMPLES OF SHARED SERVICE HEALTH MODEL

As discussed on page 37, consultation with the LHD indicated community health services could be provided through a shared service health model. This model reflects emerging trends in the health care services and seeks to:

- Support an integrated network of health care facilities, where the community are still serviced by accessible and connected services
- Maximise utilisation and asset efficiency by integrating various services within the one facility, rather than providing separate buildings for each service
- Provide greater adaptability to respond to point-in-time health demands such as tailored vaccine rollouts or preventive health services.

The following highlights key examples of these arrangements to demonstrate potential leading examples for the Appin and North Appin Precincts.

### Key examples

While the shared service health model is still evolving, the concept of its delivery is not new. NSW Health have often utilised civic or community facilities to provide health services or outreach programs to the community. This could range from an ongoing hire model to using the space for select days during the year. These facilities are often co-located with other services and connected by public transport (such as within a town centre) to maximise public use and accessibility. The recent COVID-19 pandemic saw the implementation of shared service models across the state through the delivery of pop up vaccination clinics at various community centres, indoor recreation halls and other infrastructure across the state. An example of this was at the Granville Centre where Cumberland City Council entered into an agreement with the Western Sydney Local Health District to use the facility's auditorium and associated meeting rooms as a dedicated vaccination centre. Due to pandemic restrictions, the Granville Centre had limited use during this time and therefore provided a key lease to Council, as well as an essential service to the community. The Centre was aptly designed for this use, with the auditorium having its own entry and access to cleaning, catering and bathroom amenities. The Centre is also highly accessible, being opposite Granville train station and co-located with the town centre, and could still resume its normal community operations through its other spaces, providing a good example of an adaptable, integrated service delivery model.



The Granville Centre temporary mass vaccination clinic. Image source: Western Sydney Local Health District

### Guiding provision and design principles

There are a range of factors which should be considered when seeking to use or adapt community facilities for health services. Some key design and locational criteria include:

- Ensuring the facility is **accessible and central** to the intended population, with consideration to the public, active and private transport connections as well as worker movements.
- Considering if the facility is **equipped with appropriate amenities** to match the intended service delivery, such as sinks, toilets or Wi-Fi, to enable a functional space.
- Choosing facilities which have spaces that can be **adapted to suit the intended user capacity**, ranging from private meeting rooms to large halls.
- Ensuring the facility is **inclusive** to people from all ages, abilities and cultural backgrounds.

It is recommended that consultation continues to occur with the SWSLHD during the planning and design of potential community facilities to maximise opportunities for shared service delivery and fit-for-purpose spaces.



## SUMMARY OF RECOMMENDED PROVISION


The following outlines the recommended need and provision for social infrastructure within the Appin and North Appin Precincts.

Table 15 Appin and North Appin Precincts social infrastructure recommendations

Facility type	Quantity	Indicative location	Benchmark evidence
<b>District multipurpose community facility and library</b>	One multipurpose district community centre with an integrated library of approximately 4,420sqm, comprising of approximately: <ul style="list-style-type: none"> <li>2,000sqm multipurpose community space</li> <li>2,000sqm library space</li> <li>420sqm shared meeting spaces, staff spaces and amenities.</li> </ul>	Located within the local mixed use centre, with direct access to the public transport corridor	Adapted from the Wilton Priority Growth Area Community Needs Assessment (2018) and NSW State Library Population Based Calculator.
<b>Local multipurpose community facility</b>	Three local level multipurpose facilities of approximately 935sqm.	Locate facilities within the neighbourhood mixed use centres as highlighted in Figure 11. Facilities should be located close to public transport and co-located with other services such as the school sites, recreational facilities or retail services.	Adapted from the Wilton Priority Growth Area Community Needs Assessment (2018)
<b>Schools</b>	Three primary schools and three co-located primary and high schools. School sites will be of the following approximate sizes: <ul style="list-style-type: none"> <li>Stage 1 primary school: 1.5ha</li> <li>Stage 2 primary school: 1.5ha</li> <li>Stage 2a co-located high school and primary school: 4ha</li> <li>Stage 3 co-located high school and primary school: 4ha</li> <li>Stage 3a co-located high school and primary school: 4ha</li> <li>Stage 5 primary school: 1.5ha</li> </ul> <p>Future upgrade to Appin Public School, in consultation with SINSW, during the early stages of the Appin Precinct development.</p>	Co-locate schools with sportsfields within the neighbourhood and local centres as shown in Figure 11.  The co-located high school and primary schools will be located on the public transport corridor to provide maximum connectivity to serve the wider school catchment.	Adapted from the SINSW School Site Selection and Development Guidelines (2020)

## SUMMARY OF RECOMMENDED PROVISION

Facility type	Quantity	Indicative location	Benchmark evidence
<b>Childcare</b>	<p>Approximately 25 long day childcare centres with an average of 80 children to meet expected demand for 1,972 places.</p> <p>Approximately 23 out of hours school care centres with an average of 80 children to meet expected demand for 1,811 long places.</p>	<p>Locate facilities within the neighbourhood and local centres to maximise accessibility and user convenience, in line with market demand.</p> <p>Out of hours school care centres should be accommodated within or co-located with the school sites.</p>	Adapted from the City of Parramatta Community Infrastructure Strategy (2019)
<b>Community health clinics</b>	<p>Look to provide adaptable spaces within community facilities to accommodate health services.</p> <p>Larger clinics to be provided by the private market and/or by LHD as required over time.</p>	<p>Located within facilities which are highly accessible by public transport or co-located with other services.</p>	Consultation with LHD
<b>General practice clinics</b>	Up to 13 General Practice clinics, with five GP's in each. The needs of the community could be met through a smaller number of clinics, with a larger number of practitioners working from each.	Located within the neighbourhood and local centres	Adapted from Wollondilly Health Needs Assessment (2014)

A photograph of a person with a blue backpack walking away from the camera on a curved wooden boardwalk. The boardwalk is made of light-colored wooden planks and has a low wooden railing. To the left of the boardwalk is a grassy area, and to the right is a body of water. In the background, there is a dense forest of green trees on a hillside.

## **2.2 OPEN SPACE AND RECREATION ASSESSMENT**

### **APPIN AND NORTH APPIN PRECINCTS**



# PURPOSE OF THIS ASSESSMENT

Access to open space is vital to the health, wellbeing and vibrancy of a community. They are multi-value spaces, providing places for people to relax, socialise and exercise, while also supporting environmental outcomes. Providing a well planned and integrated network of open space will be critical in supporting positive community outcomes.

## Open space scope

Open space comes in a variety of forms, from natural ecosystems to synthetic sportsfields. All open space types have a role in supporting the social, environmental and economic needs of communities.

**This assessment addresses the provision of public open space which can support outdoor recreation uses.**

As outlined in the draft Greener Places Design Guide, outdoor recreation encompasses a range of activities that people undertake for fun, relaxation or fitness. This includes activities such as structured sport, self-directed endurance activities, appreciation of nature, socialising, picnicking, walking and informal group activities. Some of these activities are organised while others are more informal.

The types of open space that can support recreation can therefore be classified into two key categories: open space for structured recreation and open space for unstructured recreation. These are described in the adjacent table. It is important spaces for structured and unstructured recreation are provided to enable the community to have access to a range of recreational opportunities and are not dominated by one particular setting.

This assessment considers the range of open space areas and settings that can support both structured and unstructured recreation.

Table 16 Types of open space assessed

Open space for structured recreation	Open space for unstructured recreation
<p>Open space areas that predominately support directed, physical activity such as outdoor sport or formal play.</p> <p>Generally consists of:</p> <ul style="list-style-type: none"><li>▪ Sports fields and grounds</li><li>▪ Playgrounds</li><li>▪ Outdoor exercise areas.</li></ul>	<p>Open space areas that predominately support casual, physical, social or cultural activities, such as picnicking, walking or group gatherings.</p> <p>Generally consists of:</p> <ul style="list-style-type: none"><li>▪ Natural areas and bushland</li><li>▪ Linear trails and accessible riparian areas</li><li>▪ Gardens and parklands</li><li>▪ Beaches and foreshores.</li></ul>

## Types of open space areas for recreation



Sportsfields



Parks



Trails and walkways



Playgrounds

## QUANTITY PROVISION APPROACHES IN NSW

### Approach in NSW

There are two main ways of considering the quantity of open space provided in a location: by proportion and by area. Historically, NSW has taken an area-based approach. For example, the superseded Growth Centres Development Code (2006) contained a benchmark of 2.83ha per 1,000 people for 'open space and recreation'. While the benchmark is framed in the Code as a 'guiding threshold', and is caveated with a note stating 'May be refined through specific studies', the 2.83ha per 1,000 people benchmark has been widely used in open space planning in NSW and is currently provided as a benchmark in Wollondilly Council's Contributions Plan. However, the 2.83ha per 1,000 people provision rate is based on patterns of recreation and from the UK over 100 years ago. There is no evidence based for the use of this rate as a default standard in 21st century Australia, despite its frequent use.

The draft Greener Places Design Guide argues for a performance-based approach which moves away from the quantification of space altogether. It states:

Planning that relies on a spatial standard such as 2.8ha/1,000 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 (2020; 11).

In submissions to the draft Greener Places Design Guide, a number of outer metropolitan councils suggested using a balance of performance based and qualitative spatial standards for open space (Greener Places Design Guide Consultation Report 2021; 8).

The development of the draft DPE Urban Design Guideline aimed to find this balance and proposed a proportion based approach, whereby 15% of net developable area was set aside for open space. This was complemented by a range of performance-based criteria. The Guidelines were removed from exhibition in March 2022 alongside the draft SEPP for Design and Place.

At the time of preparing this report, the draft Greener Places Design Guide remains the principle guiding document for open space planning in NSW.

### Significant inconsistencies across NSW councils

In the absence of a universal, endorsed approach to open space provision, most NSW councils have established their own approaches. A review of a sample of councils across NSW shows significant differences in the adoption and application of open space provision benchmarks. An overview of these approaches is shown in Table 17 overleaf.

This review highlighted:

- There is a **considerable range** in the population ratio standard adopted by some councils. This ranges from 0.9ha of open space per 1,000 people to 3ha of open space per 1,000 people (although the latter also includes natural areas in its definition of 'open space').
- Most of the approaches reviewed note that the **merit of using the 2.83ha per 1,000 people benchmark has been questioned**. In their relevant plans, some councils which have adopted the 2.83ha per 1,000 standard state that they have done so for ease of comparison, given the absence of clear industry or government standard. Other councils note that the 2.83ha per 1,000 people benchmark is unrealistic and does not produce quality open space outcomes.
- Some councils use a benchmark of **15% of total land area for open space**. This benchmark is typically derived from the (then) Department of Planning's Recreation and Open Space Guidelines for Local Government (2010), which recommended that **9% of total land area should be for local and district open space** and 6% for regional open space.
- Other councils do not use quantity provision standards and **rely instead on performance based outcomes**, particularly around access and size criteria.
- There are also a number of councils which adopt a **catchment approach** to open space provision. This approach uses a provision ratio per population, based on the type of park (i.e. local, district or regional) and expected population service catchment (i.e. 2,000 people).

## COMPARISON OF PROVISION STANDARDS ACROSS NSW COUNCILS

Table 17 Comparison of quantity provision in a sample of NSW councils

NSW Council	Quantity provision standard	Source
Camden Council	<ul style="list-style-type: none"> <li>2.45ha; 1,000 people</li> <li>2.83ha; 1,000 people</li> </ul>	Contributions Plan (2019) Spaces and Places Strategy (2021)
Cumberland City Council	<ul style="list-style-type: none"> <li>9sqm per person (which equates to 0.9ha per 1,000 people)</li> </ul>	Open Space and Recreation Strategy (2019)
Parramatta City Council	<ul style="list-style-type: none"> <li>15% of land area for open space of which:               <ul style="list-style-type: none"> <li>6% is for formal sport</li> <li>5% for informal and passive and recreation</li> <li>4% for natural areas</li> </ul> </li> <li>3ha per 1,000 people of which:               <ul style="list-style-type: none"> <li>1ha: 1,000 people is for parks</li> <li>1ha: 1,000 people for sporting areas</li> <li>1ha: 1,000 people for natural areas and other open spaces</li> </ul> </li> </ul>	Community Infrastructure Strategy (2020)
City of Ryde	<ul style="list-style-type: none"> <li>Provides a range of performance based benchmarks, specific to different urban areas across the LGA.</li> <li>Stipulates number of parks required per population catchment (i.e. 1 district park: 5,000 people)</li> <li>References 15% of gross land area for open space</li> </ul>	Open Space Future Provision Strategy (2021)
Southerland Shire Council	<ul style="list-style-type: none"> <li>No quantitative provision standard.</li> <li>Provides performance benchmarks around accessibility and walkability</li> </ul>	Open Space Strategy and Implementation Plan (2021)
Hornsby Shire Council	<ul style="list-style-type: none"> <li>References the use of 15% of gross land area in new developments for public open space. Of this, 9% should consist of local and district open space</li> </ul>	Active Living Hornsby Strategy (2015)
Penrith City Council	<p>Provision rates for greenfield areas:</p> <ul style="list-style-type: none"> <li>0.2ha local parks: 1,000 people</li> <li>1ha district parks: 1,000 people</li> <li>1.4ha sporting spaces: 1,000 people</li> <li>1ha linear parks: 1,000 people</li> </ul> <p>Supported by walkability criteria (i.e. 80% of homes within 400m to local space) and size criteria.</p>	Sport and Recreation Strategy (2020)
Liverpool City Council	<p>Does not explicitly state a quantity provision standard for the LGA. Makes reference to:</p> <ul style="list-style-type: none"> <li>15% of gross land area for public open space. Of this, 9% should consist of local and district open space</li> <li>References the use of 2.83ha: 1,000 people as a commonly used standard across NSW.</li> </ul> <p>Defines standards for open space catchment standards including:</p> <ul style="list-style-type: none"> <li>1 local park: serves less than 1,000 dwellings</li> <li>1 neighbourhood park: serves 1,000 dwellings or more</li> <li>1 district park: serves two or more neighbourhoods</li> <li>1 regional park: serves local and neighbouring communities</li> </ul>	Recreation, Open Space and Sports Strategy (2018)



## CURRENT OPEN SPACE DIRECTIONS

Wollondilly Shire Council's Contribution Plan and Open Space and Recreation Strategy provide guidance on the provision of open space across the LGA. The GANSW also provides guidance on planning for open space in the draft Greener Places Design Guide. A comparison of these approaches is shown below.

Table 18 Summary of key directions for open space across strategic documents

Quantity	Hierarchy and sizes	Accessibility
<b>Draft Greener Places Design Guide (2020)</b>		
Does not include a provision rate	<b>Local park</b> Size: 0.5 – 0.7ha	<b>Local</b> 400m walk from dwellings
	<b>District park</b> Size: 2 – 5ha	<b>District</b> 2km walk from dwellings
	<b>Regional</b> Size: Greater than 5ha	<b>Regional</b> 5-10km from most dwellings Up to 30 minutes travel time on public transport or by vehicle
<b>Wollondilly Contributions Plan (2020)</b>		
2.83ha of open space per 1,000 people	<b>Passive local park</b> Minimum size: 0.3ha Average size: >0.5ha	Does not include accessibility benchmarks.
	<b>Passive neighbourhood park</b> Minimum size 1ha Average size: >0.8ha	Notes that due to the area's rural setting, cannot always provide open space within a 400m walk from dwellings.
	<b>Linear parks, other multiple-use open space</b> Minimum 20m wide	
<b>Wollondilly Open Space Recreation and Community Facilities Strategy (2014)</b>		
<p>Need to demonstrate that the needs of future residents and the existing local open space context have been analysed and considered in any planning proposal.</p> <p>The strategy notes that relying principally on default open space areas per head of population (i.e. percentage of developable area or per 1,000 persons) without contextual analysis of the site, locality, accessibility and future resident needs would generally be deemed an inadequate basis for approving a proposal.</p>	<b>Local</b> Serves the immediate locality and meets day to day recreation needs of residents. No size provided.	<b>Local</b> 400 – 500m from residents within towns Up to 1km from residents in villages
	<b>District</b> Draws users from across the LGA and adjoining LGA. Typically 2 – 5ha	<b>District</b> 2 – 5km of user catchment
	<b>Regional</b> Likely to draw users from across and outside the LGA, potentially from metropolitan areas. Typically more than 10ha in size, but is not size dependent.	<b>Regional</b> May be more than 30 minutes from user

## CHANGES TO QUANTITY PROVISION IN NSW

### Challenges with quantity provision standards

There has been a number of criticisms on the use of quantity standards for open space provision. Contemporary research has summarised the key issues levelled at using traditional population-ratio and area-percentage standards (Veal AJ. 2020, Planning for Open Space and Recreation, Australian Planner). This can be summarised as follows:

- Traditional standards lack an origin or rational basis for use in Australia
- Traditional standards generally fail to take account of variations in residential density.

This last point is particularly prevalent with the use of 2.83ha of open space per 1,000 people. As cited by Veal (2020: 38), under the population ratio standard, the amount of land allocated to open space would increase with density. However, the land area/catchment on which the provision is applied does not change. This becomes problematic as the land required for open space could potentially equate to 100% of the total development area, a scenario which is unfeasible.

This sentiment was also highlighted in the **NSW Productivity Commission' Review of Infrastructure Contributions in NSW**. The review was commissioned in April 2020 by the then Minister for Planning and Public Spaces. The final report was released in December 2020, with the NSW Government accepting all 29 recommendations.

The review found that the current infrastructure contributions system is not fully enabling NSW Government and local councils to provide the infrastructure required to support development. This was apparent in planning for and delivering open space, which typically constitutes the majority of land acquisition costs. The review found that challenges in funding infrastructure to support development is heightened by the use and application of old benchmarks to quantify open space provision, noting that:

Open space provision continues to be based on an early 1900's British standard of 2.83 hectares for every 1,000 people. This lacks an evidentiary base and does not differentiate the needs of low-density and high-density development (2020: 118).

Several Sydney councils are currently grappling with the challenge of funding open space embellishment in growth areas due, in part, to the reliance on benchmarks which are not evidence based. For example, Blacktown City Council sought to revise the costs for embellishment of open space in the Marsden Park Precinct in 2017. In its assessment of the proposed amendments to Contributions Plan No 21 – Marsden Park (CP21), IPART found some of the Council's proposed open space embellishment costs to be unreasonable and recommended that Council "review its estimates specific to the relevant sites, where possible, rather than relying on benchmarks" (IPART 2017: 1).

### Emerging directions to support open space quantity provision

In recent years, there has been direction from NSW Government agencies to assist in the provision and assessment of open space, given the recognised challenges in applying traditional population-ratio standards. To overcome these challenges, the NSW Productivity Commission proposed a performance base system, where the focus would be on outcomes rather than a designated land input. This would allow scope 'for more innovative and efficient mechanisms to fulfil open space objectives' (2020: 118). This is aligned to the approach recommended by the GANSW.

The NSW Productivity Commission made the following recommendation to the NSW Government:

#### **Recommendation 6.7: Strategic planning to maximise the efficient use of land**

- Issue a Ministerial Direction to require planning proposals to demonstrate consideration of efficient use of land, including opportunities for dual-use and joint-use
- Develop a practice note to establish performance-based benchmarks for open space planning. (2020: 120).

This recommendation was accepted by NSW Government.

Another recommendation of the Commission was to take a more efficient approach to the use of land to help control open space costs. This could include the dual use of drainage lands for passive open space and applying joint use programs such as the Department of Education's Share our Space and Community Use program. Similar recommendations were made by IPART in advising Blacktown City Council about cost effective options to increase open space provision in Marsden Park.

The NSW Government's acceptance of the Commission's recommendation shows there is an acceptance of using approaches to open space provision based on efficient land use and performance based-outcomes.

# QUANTITY PROVISION IN AUSTRALIA

## Approaches across Australia

When looking across Australia, several states in Australia take a proportion-based approach to open space provision. For example:

- SA's offset scheme under the Planning, Development and Infrastructure Act (2016) requires large subdivisions to set aside 12.5% of land for open space
- Victoria's draft Guidelines for Precinct Structure Planning in Melbourne's Greenfields (2020) proposes that 10% of net developable area be set aside for local parks and sports fields. This is explained further in the box adjacent.
- WA's Development Control Policy 2.3 requires 10% gross subdividable area for open space, which may include regional open space.

Other locations take an area-based approach. For example, in the Brisbane City Plan (2014), Brisbane City Council requires the provision of 0.8ha/1,000 people for local recreation, 0.8ha/1,000 people for district and metropolitan level recreation and 1.2ha/1,000 for local, district and regional outdoor sport.

### Case study: approach in Victoria

In 2017, the Victorian Planning Authority (VPA) released the Metropolitan Open Space Network: Provision and Distribution Report (2017). This report emphasises a performance based approach to open space provision. It also includes extensive mapping and calculations of open space distribution across metropolitan Melbourne, covering 32 municipalities.

From this, the report identifies that there is approximately 57.7sqm of public open space per person across metropolitan Melbourne, including growth areas. While this rate varies considerably across municipalities, as a proportion of land area, it equates to approximately 9.3% of total land area as open space.

By extension, SGS's Open Space Contribution Rate Planning Research (2018) for the City of Monash recommends a requirement of 10% of all developable land as open space. This is based on an average provision rate of 30sqm per person and the associated open space required from the expected population growth. SGS notes that several Victorian councils apply an average per capita provision rate of between 24 – 30.3sqm, based on existing conditions (noting that, without intervention, this rate would decrease with population growth).



# SUMMARY OF APPROACH FOR APPIN AND NORTH APPIN PRECINCTS

The document review on pages 13-17 and 50-54 described relevant state and local directions for open space provision. The review also provided direction on the planning approach to be used in the Appin and North Precincts. These insights include:

- The **2.83ha of open space per 1,000 people benchmark** has been widely used in open space planning in NSW and is currently provided as a benchmark in Wollondilly Shire Council's Contributions Plan. This benchmark stems from patterns of recreation from the UK over 100 years ago and there is **no evidence based for the use of this rate** as a default standard in 21st century Australia, despite its frequent use.
- Current NSW state guidelines are **advocating for a performance-based approach** to open space which moves away from the quantification of space altogether. While there is some support for this model, some outer metropolitan Councils suggest a combination of performance based and quantitative standards for open space is needed. Several states in Australia have already adopted a quantitative, proportion-based approach.
- The NSW Productivity Commission review found **that challenges in funding infrastructure to support development in NSW are heightened by the use and applications of old benchmarks** to quantify open space provision. The Commission recommended that performance-based benchmarks for open space planning be developed, with this recommendation being accepted by the NSW Government.
- Council's Open Space Recreation and Community Facilities Strategy takes a combined approach and recognises that an analysis of open space provision **cannot rely solely on quantitative metrics**. Rather, provision should reflect a multi-criteria approach which also considers the local context, accessibility, quality and usability of open space provided.
- All council and state guidelines use a **hierarchy of provision** for open space planning. Alongside quantitative measures for each level in the hierarchy, guidance around open space function, size and accessibility is provided to enable a well balanced network of open space and recreation opportunities.

## Approach in Appin

This assessment uses a multi-criteria analysis to identify the open space needs of the future Appin and North Appin Precincts communities . This includes:

- Adopting a hierarchy of provision for open space across the Precinct, based on state and local standards.
- Considering both performance based and quantitative spatial standards for open space. Performance based criteria has been adopted from the draft Greener Places Design Guide. Quantitative spatial standards have been sourced from best practice approaches around Australia.

The following pages further outline this approach and the open space needs for the Precinct.

Table 19 Open space performance based criteria

Criteria	Description
Quantity	In low-and high-density areas, good provision of public open space is essential to compensate for the lack of private open space to support active living and contribute to a more liveable neighbourhood.
Accessibility and connectivity	Ease of access is critical for the community to be able to enjoy and use public open space and recreation facilities.
Size and shape	Size and shape of open space has a direct bearing on the capacity of that open space to meet and accommodate recreation activities and needs.
Quality	The quality of design and ongoing maintenance and management is critical to attracting use and activating the open space network.
Distribution	The ability of residents to gain access to public open space within an easy walk from home, workplaces, and schools is an important factor for quality of life. The geographic distribution of open space is a key access and equity issue for the community.
Diversity	The range of open space setting types within an urban area will determine the diversity of recreation opportunity for communities.

# OPEN SPACE HIERARCHY

The following hierarchy has been used in this open space assessment. This hierarchy is largely based on the draft Greener Places Design Guide.

An additional open space classifications (linear open space) has been developed to reflect the significant natural assets which must be retained as part of planning for the Appin and North Appin Precincts and which have an ability to support unstructured recreation uses.

Figure 12 Open space hierarchy

Regional	
<p>Key destination open space areas that typically serve one or more LGAs or districts. Users to regional open spaces are generally prepared to travel significant distances to access the space.</p> <p>Regional parks typically contain drawcard recreational facilities that can support multiple groups at once and are unlikely to be found in other parks in the local area (e.g. multiple sports ovals, large playspaces, BMX tracks). Regional parks contain a range of supporting amenities (e.g. toilets, BBQ facilities, carparking, kiosks) to enable people to stay all day.</p>	<p><b>Size:</b> Greater than 5ha</p> <p><b>Catchment:</b> Up to 30 minutes travel time on public transport or by vehicle to regional open space</p>
District	
<p>Serve a catchment of multiple suburbs and communities. District parks serve a diverse user group and can support different recreation uses, from structured play to larger community gatherings. Sportsfields are generally classified as district facilities.</p> <p>District parks typically integrate two or more key recreational facilities (e.g. sportsfields with trails) and supporting amenities (e.g. toilets, carparking) to support group play or large gatherings.</p>	<p><b>Size:</b> 2 – 5ha</p> <p><b>Catchment:</b> Approximately 2km from most houses</p>
Local	
<p>Serve the local community and located in residential areas. Local parks typically support small group or individual recreation needs, and provide respite from the urban environment.</p> <p>Local parks typically integrate one to two small scale recreational facilities such as seating, playspaces, gardens or outdoor exercise equipment.</p>	<p><b>Size:</b> 0.5 – 2ha</p> <p><b>Catchment:</b> 400 – 500m walking distance from most houses</p>
Linear parks	
<p>Areas of open space which typically act as a connection between parks or natural systems, such as along riparian corridors or bushland conservation. Linear parks are suitable for recreation activities such as walking, outdoor exercise and play.</p> <p>In greenfield areas, the GANSW suggests linear parks provide multiple entry points and minimum 50% road frontage or public space access.</p>	

# OPEN SPACE REQUIREMENTS – QUANTITATIVE STANDARDS

## Quantity considerations

Council's Contributions Plan includes a quantity standard of 2.83ha of open space per 1,000 people. As previously discussed, this rate is based on a UK standard from the early 1900s. It is therefore derived from patterns of recreation and development from a very different urban context.

Council's Open Space Recreation and Community Facilities Strategy does not stipulate a quantitative provision rate for open space. However, the strategy does make reference to a proportion based approach (per percentage of developable area or per head of population) as part of one consideration in open space planning. In submissions to the draft Greener Places Design Guide, a number of outer metropolitan councils suggested using a combination of performance based and quantitative standards for open space.

As discussed previously, in many parts of Australia quantitative open space provision is measured as a proportion of land or developable area. The most robust, contemporary and relevant approach is that used in the draft Guidelines for Precinct Structure Planning in Melbourne's Greenfields, which proposes 10% of net developable area (NDA) be set aside for local and district parks and sports fields. This excludes land set aside for roads. It is also consistent with the previous Recreation and Open Space Planning Guidelines for Local Government (2010) cited by some NSW councils today, whereby 15% of the total area is set aside for open space, of which 9% is for local and district open space. The now revoked draft Urban Design Guide (2021) proposed a similar approach. In the absence of an endorsed, evidence based standard in NSW, this study references both proportion-based and population-based approaches.

## Quantity assessment

The net developable area of the Appin and North Appin Precincts is 1,693.4ha. If a benchmark of 10% of NDA were used, there should be 169.3ha of local and district open space provided within the Indicative Plan.

The Indicative Plan contains 134.9ha district open space and 48.6ha local open space, totalling 183.5ha. Using a 10% NDA benchmark, the proposal is therefore expected to provide a sufficient quantity of open space to meet the needs of the incoming population.

The Indicative Plan also includes an additional 21ha of regional open space, located at the centre of the Appin and North Appin Precincts. A large proportion of this space is planned to be used for regional level sports fields.

As shown below, based on a projected population of 65,204 people, the Indicative Plan provides 3.15ha of local, district and regional open space per 1,000 people. The proposed open space proposed in the Indicative Plan therefore also exceeds the benchmark contained in Wollondilly Shire Council's Contributions Plan.

Table 20 Quantitative demand for open space

Example benchmark	Quantity of open space required	Quantity of open space provided
10% of NDA as local and district open space  (does not include regional space)	169.3ha	<b>183.5ha</b>
2.83ha per 1,000 people  (includes regional space)	184.5ha	<b>205.5ha</b>  <b>3.15ha per 1,000 people</b>

### Net developable area (NDA) assumptions

The Victorian Planning Authority (VPA) defines NDA as all land excluding encumbered land, arterial roads, railways corridors, significant heritage, schools, community facilities and public open space. It includes lots, local streets and connector streets.

The draft Urban Design Guideline (2021) (revoked) broadly aligned with this definition of NDA. The main differences were the inclusion of open space and schools as part of the NDA calculation.

Based on these two definitions, the following land types have been included as part of the NDA for open space provision:

- Residential land
- Commercial and local centres
- Local roads and streets
- Schools
- Publicly accessible local and district open space.



# OPEN SPACE REQUIREMENTS – PERFORMANCE BASED STANDARDS

## Quality considerations

The draft Greener Places Design Guide contains six criteria to guide the provision of open space:

- Quantity
- Distribution
- Size and shape
- Accessibility and connectivity
- Quality
- Diversity.

Open space quantity has been assessed on the previous page. The following pages assess the proposed open space provision in the Structure Plan against the remaining five criteria.

This approach is underpinned by planning for open space as an interconnected network, with diverse spaces enabling a range of community activities, experiences and benefits.

Council’s Open Space Recreation and Community Facility Strategy speaks to this, identifying a need to “provide parks that have appeal to more than one sector of the community” (2014; 129). The LSPS also identifies that as part of the broader open space network, residents want the LGA’s natural environments and rural landscapes to be protected and accessible.

## Quality assessment

### Distribution

The proposal will provide 206ha of open space for recreation in the Appin and North Appin Precincts. This will be distributed within a network of regional, district and local spaces. The open space areas are generally equitably distributed, with a good coverage of district parks and more accessible, local spaces.

Table 21 Open space by hierarchy

Type of open space	Area	Proportion of open space	Proportion of open space excluding regional
Regional	21ha	10%	-
District	135ha	66%	73%
Local	49ha	34%	27%
<b>TOTAL</b>	<b>205ha</b>		

### Size and shape

The proposed Indicative Plan provides a good mix of open space areas across the Precinct. All regional and district open space areas meet the minimum size requirements in the draft Greener Places Design Guide. District open spaces range between 2ha and 34ha in size, while the regional park is 21ha in size. The proposal also includes allowance for approximately 49ha of local parks, which will be distributed throughout the residential areas. The final locations and configurations of the local parks will be finalised during subsequent planning and detailed design stages. To help enable an equitable distribution, it is recommended that all local parks be between 0.5ha and 2.0ha in size, in line with the GANSW guidance. Local open spaces should also be of a regular size and shape and relatively even topography. This will support a mix of structured and unstructured recreation activities such as playspaces, community gardens and parklands.

Table 22 Size performance standards

Performance standard	Allocation within Appin Precinct
<b>Regional park</b> > 5ha	The regional park meets the performance standard, having an area of approximately 21ha
<b>District park</b> 2 – 5ha	All district parks meet the performance standard, being 2ha to 34ha in size
<b>Local park</b> 0.5 – 2ha	Recommended all parks to be 0.5ha to 2ha in size when finalised during subsequent planning stages.

Source: Performance standards adopted from the NSW Government Architect (2020) Draft Greener Places Design Guide

# OPEN SPACE REQUIREMENTS – PERFORMANCE BASED STANDARDS

## Quality assessment

### Accessibility and connectivity

Open space areas have been distributed throughout the Appin and North Appin Precincts to provide a connected and accessible recreation network. All residents will be within 2km of a district space and 10km of the regional space. All district sportsfields have been co-located with the neighbourhood or local centre and school sites to maximise accessibility and encourage greater utilisation. Most district sportsfields are also located on the public transport corridor to further enhance accessibility.

Table 23 Accessibility performance standards

Accessibility and connectivity performance standards	Allocation within Appin Precinct
Residents within 5 – 10km of a regional level space	Meets the performance standard
Residents within 2km to a district level space	Meets the performance standard
Residents within 400m to a local level space	Likely to meet the performance standard, subject to finalisation during subsequent planning stages

### Diversity

As shown in Table 23, the Indicative Plan contains a range of open space areas which are capable of supporting a diversity of structured and unstructured recreation opportunities. This includes the provision of:

- A **regional park** which is capable of supporting numerous playing fields and/or specialised outdoor recreation activities, such as adventure play and off road cycling
- **District parks** which are capable of supporting outdoor play, large gatherings, reflective spaces and linear connections. This also includes the provision of five playing fields that could be co-located with schools.
- **Local parks** distributed close to residential areas which are likely to support play and urban respite opportunities for the community.

It also includes:

- **Linear parks** which provide opportunities for networks of trails and small play spaces, as well as opportunities for environmental education and cultural expression through nature walks and sculpture walks.

This open space will also be supplemented by an extensive network of walkways and active trails through bushland areas, all of which will provide considerable amenity, biodiversity and cooling benefits to the community.

Table 24 Ability of proposed open spaces to support recreation opportunities

Recreation diversity considerations	Allocation within Appin and North Appin Precincts				
	Structured recreation		Unstructured recreation		Total
Regional	13.6ha approx.	65%	7.4ha approx.	35%	21.0ha
District	53.4ha approx.	39%	82.5ha approx.	61%	134.9ha
Local	46.2ha approx.	Assume 95%	2.4ha approx.	Assume 5%	48.6ha
<b>Total</b>	<b>113.2ha approx.</b>	<b>55%</b>	<b>92.3 approx.</b>	<b>45%</b>	<b>205.5ha</b>

# RECREATION REQUIREMENTS

## Summary of provision requirements

The provision requirements for recreation facilities have been sourced from the Wilton Priority Growth Area Community Needs Assessment. Based on the application of benchmarks in Table 24, the incoming population is likely to generate demand for an indoor aquatic centre, six double playing fields, 14 outdoor courts, 22 playspaces and four outdoor fitness stations.

Outdoor courts, playspaces and fitness stations should be distributed within the district and local open spaces. These facilities should be accessible from homes, schools and workplaces, and be visible from and oriented to the street. A large proportion of these facilities should be co-located with local centres and community facilities to maximise accessibility and use.

According to benchmarks, the incoming population will generate demand for an aquatic centre. The Greater Macarthur and Wilton Priority Growth Area Social Infrastructure Assessment recommends the provision of indoor aquatic centres at Menangle Park and Wilton. Given the role of Wilton as a regional centre, and the planned facilities for the Macarthur region, it is not recommended that an additional aquatic centre be provided in the Appin Precinct. The demand for aquatic facilities by the incoming population is likely to be accommodated through the facilities at Wilton and the development of a private learn to swim facility in the Appin Precinct.

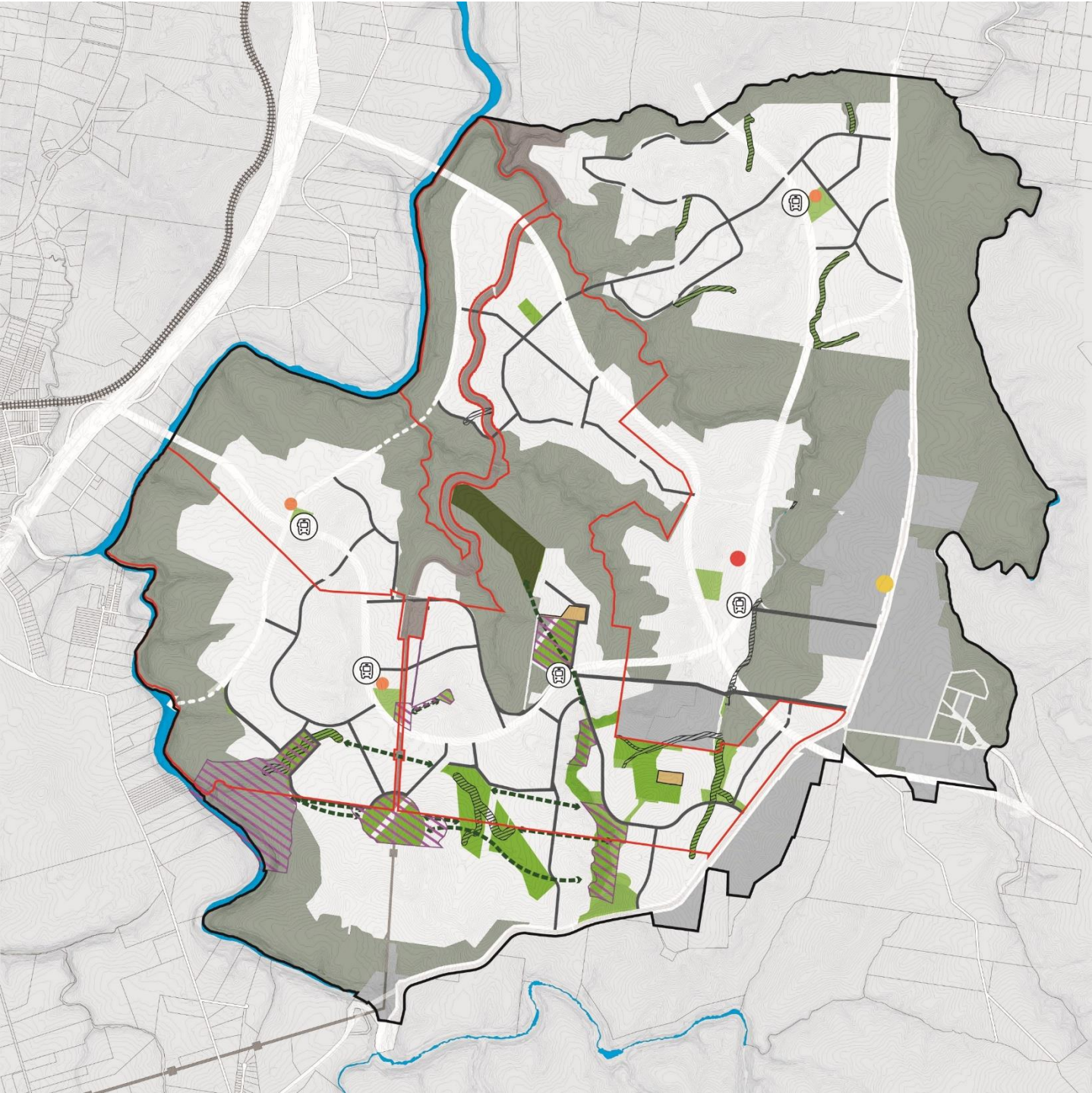
Table 25 Recreation benchmarks

Facility type	Benchmark	Benchmark application	Recommended provision
<b>Aquatic centres</b>	One centre for every 30,000 – 60,000 people	One centre	Demand for a public facility will be met through the development of a planned indoor aquatic centre at Wilton. It is recommended a private learn to swim facility is provided within the Appin and North Appin Precincts to supplement this provision and accommodate some localised needs of the incoming population.
<b>Indoor recreation facilities</b>	One facility for every 50,000 – 100,000 people	0.7 centres	The incoming population will not generate the need for a standalone facility. Demand will likely to be met through planned facilities at Menangle Park and Wilton.
<b>District sportsgrounds</b>	Two double playing fields and amenities for every 10,000 people	Six double playing fields	To be located adjacent to schools and within the regional park.
<b>Multipurpose outdoor courts</b>	One court for every 4,200 people 0.05ha per court plus runoff space and amenities	15 outdoor courts	To be distributed among district and some well located local spaces. Some of the latter may be half court facilities for informal local games. Consideration should also be given to potential joint use arrangements with schools.
<b>Playspaces</b>	One playground for every 500 children aged 0 – 4 years Each playground to be a minimum of 50sqm and located within a park within a park  One playspace for every 500 children aged 5 – 11 years Each play space to be a minimum of 100sqm and located within a park	Up to 25 playgrounds and playspaces	Rather than 25 small local playspaces, it is strongly recommended there be a range of play spaces distributed across the Appin and North Appin Precincts. There is potential for: <ul style="list-style-type: none"> <li>▪ A large regional space with a wide range of play opportunities, located within the regional park and including all abilities play</li> <li>▪ Nature based play spaces, incorporated within linear parks</li> <li>▪ District play spaces located within larger district parks, preferably co-located with outdoor courts or half courts to provide for a range of age groups and preferences</li> <li>▪ Local play spaces within walking distance of homes and key destinations.</li> </ul>
<b>Outdoor fitness stations</b>	1 station per 15,000 people	4 outdoor fitness stations	At least four outdoor fitness stations, to be distributed among district spaces, and potentially the linear parks where free of environmental and topographical constraints.



# RECOMMENDED PROVISION OF OPEN SPACE

Figure 13 Indicative distribution of open space



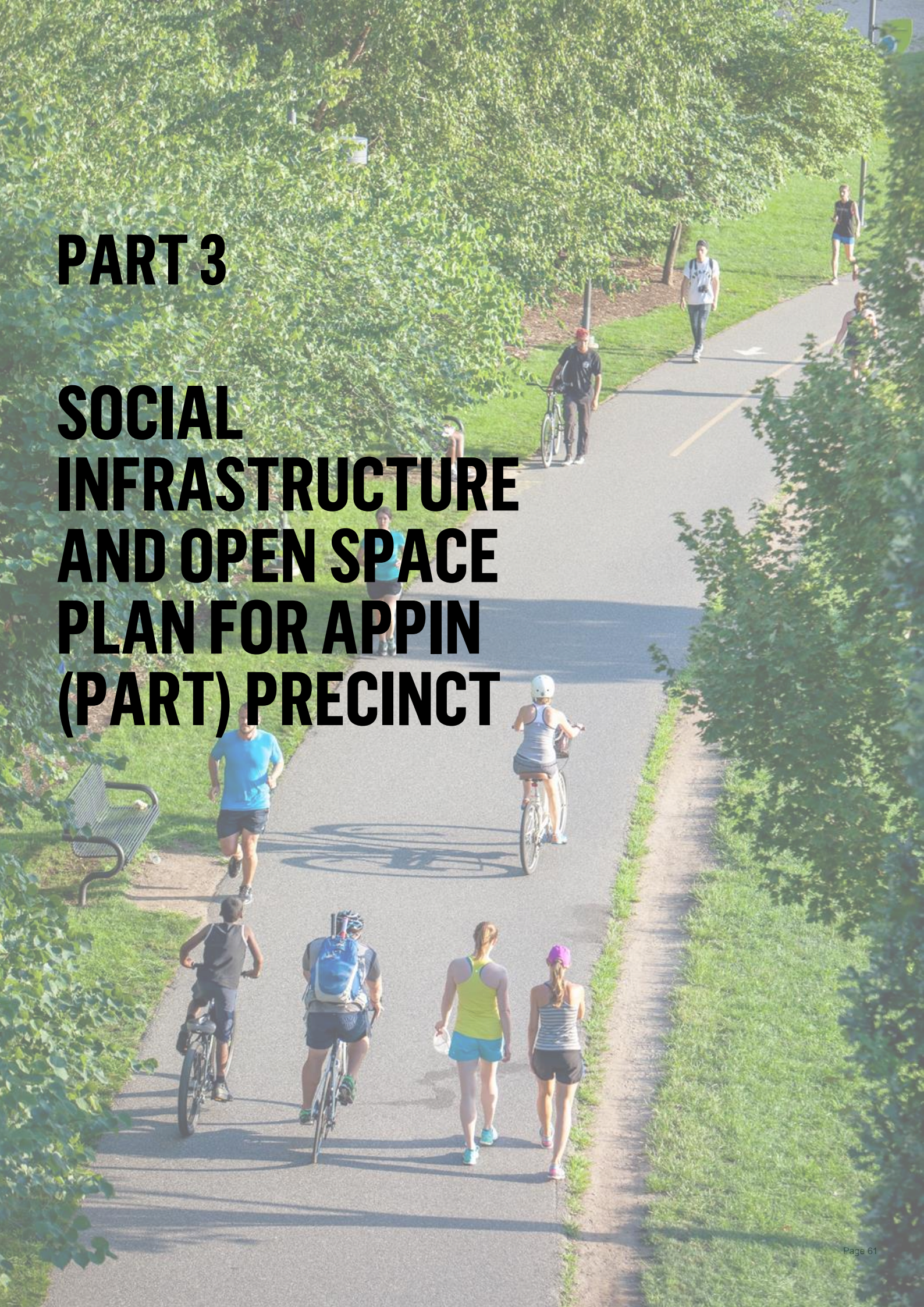
## LEGEND

- |                               |  |                               |
|-------------------------------|--|-------------------------------|
| Appin & North Appin Precincts | Riparian Corridor                        | Heritage Items                |
| Appin (Part) Precinct         | Identified First Nations Cultural Site   | District Community Facilities |
| Waterways                     | Place with First Nations Cultural Values | Local Community Facilities    |
| Collector Road                | Walkable Green Links                     | Existing Appin School         |
| Regional Open Space           | Residential Neighbourhoods               |                               |
| District Open Space           |  |                               |



# **PART 3**

## **SOCIAL INFRASTRUCTURE AND OPEN SPACE PLAN FOR APPIN (PART) PRECINCT**





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# INTRODUCTION

## Overview

Part 3 of this report provides a plan to guide the type of social infrastructure and open space which will be required within the Appin (Part) Precinct to support the needs of the incoming population. The findings and assessment outlined in this plan draws from the benchmarking approach adopted in Part 2.

This section is structured as follows:

- Analysis of the likely incoming population to the Appin (Part) Precinct
- Summary of the recommended social infrastructure provision for the Appin (Part) Precinct
- Summary of the recommended open space provision for the Appin (Part) Precinct.

## Appin (Part) Precinct Structure Plan summary

The Appin (Part) Precinct covers approximately 1,378ha of the Appin and Appin North Precincts and is the subject of the rezoning proposal. It is expected to support approximately 13,022 dwellings.

The Structure Plan for the Appin (Part) Precinct is shown on page 9.



# INCOMING POPULATION

## Expected dwelling mix and density

The Appin (Part) Precinct is expected to support approximately 13,022 dwellings, of which 9,140 dwellings will be low density and 3,882 dwellings will be medium density. These occupancy rates used below are the same as those used in Table 5 for the Appin and North Appin Precincts

Table 26 Expected dwellings and population

Expected dwelling mix	Dwelling yield	Occupancy rate	Expected population
Low density	9,140 dwellings	3.1 persons per dwelling	28,334 people
Medium density	3,882 dwellings	2.6 persons per dwelling	10,093 people
<b>TOTAL</b>	<b>13,022 dwellings</b>	<b>-</b>	<b>38,427 people</b>

## Expected age profile

For the purposes of benchmarking, a likely age profile has been developed for the projected population of the Appin (Part) Precinct. This uses the same assumptions as the age profile developed for the Appin and North Appin Precincts Indicative Plan in Table 8.

Table 27 Projected age profile for the Appin (Part) Precinct in 2036

Service age group	Indicative proportion	Likely incoming population
<b>Babies and pre-schoolers (0-4)</b>	7.5%	2,882
<b>Children (5-11)</b>	11.5%	4,419
<b>Young people (12-17)</b>	9.1%	3,497
<b>Young adults (18-24)</b>	8.3%	3,189
<b>Young workforce (24 – 34)</b>	12.7%	4,880
<b>Parents and homebuilders (34 – 49)</b>	23.8%	9,146
<b>Older workers and pre-retirees (50 – 59)</b>	11.6%	4,458
<b>Empty nesters and retirees (60 – 69)</b>	8.0%	3,074
<b>Older adults (70+)</b>	7.4%	2,844

Due to rounding the likely incoming population is projected to be slightly lower than 38,427

## RECOMMENDED SOCIAL INFRASTRUCTURE PROVISION FOR APPIN (PART) PRECINCT

The following outlines the recommended need and provision for social infrastructure within the Appin (Part) Precinct.

Table 28 Appin (Part) Precinct social infrastructure recommendations

Facility type	Quantity	Indicative location	Benchmark evidence
<b>District multipurpose community facility and library</b>	<p>None recommended within the Appin (Part) Precinct.</p> <p>As identified in the Social Infrastructure and Open Space Strategy for the Appin and North Appin Precincts (Part 2 of this report), one multipurpose district community centre is recommended within the mixed use centre, immediately north of the Appin (Part) Precinct boundary. The district centre is recommended to be integrated with a library of approximately 4,420sqm, comprising of approximately:</p> <ul style="list-style-type: none"> <li>▪ 2,000sqm multipurpose community space</li> <li>▪ 2,000sqm library space</li> <li>▪ 420sqm shared meeting spaces, staff spaces and amenities.</li> </ul> <p>This is expected to be sufficient to serve the incoming population to the Appin (Part) Precinct and the Appin and North Appin Precincts.</p>	<p>Located within the local mixed use centre within the Appin and North Appin Precincts, with direct access to the public transport corridor</p>	<p>Adapted from the Wilton Priority Growth Area Community Needs Assessment (2018) and NSW State Library Population Based Calculator.</p>
<b>Local multipurpose community facility</b>	<p>One local level multipurpose facility of approximately 935sqm.</p> <p>It's recommended that this provision is further supplemented by the implementation of joint use arrangements at the two schools recommended to be located within the Appin (Part) Precinct. These arrangements could support the community use of various school facilities, such as halls and performing art spaces.</p>	<p>Locate facilities within the mixed use centres as highlighted in Figure 14. Facilities should be located close to public transport and co-located with other services such as the school sites, recreational facilities or retail services.</p>	<p>Adapted from the Wilton Priority Growth Area Community Needs Assessment (2018)</p>
<b>Schools</b>	<p>Two primary schools and one co-located primary and high school. School sites will be of the following approximate sizes:</p> <ul style="list-style-type: none"> <li>▪ Stage 1 primary school: 1.5ha</li> <li>▪ Stage 2 primary school: 1.5ha</li> <li>▪ Stage 3 co-located primary and high school: 4ha</li> </ul>	<p>Co-locate schools with the mixed centres as shown in Figure 15.</p> <p>The co-located primary and high schools will be located on the public transport corridor to maximum connectivity to serve the wider school catchment.</p>	<p>Adapted from the SINSW School Site Selection and Development Guidelines (2020)</p>

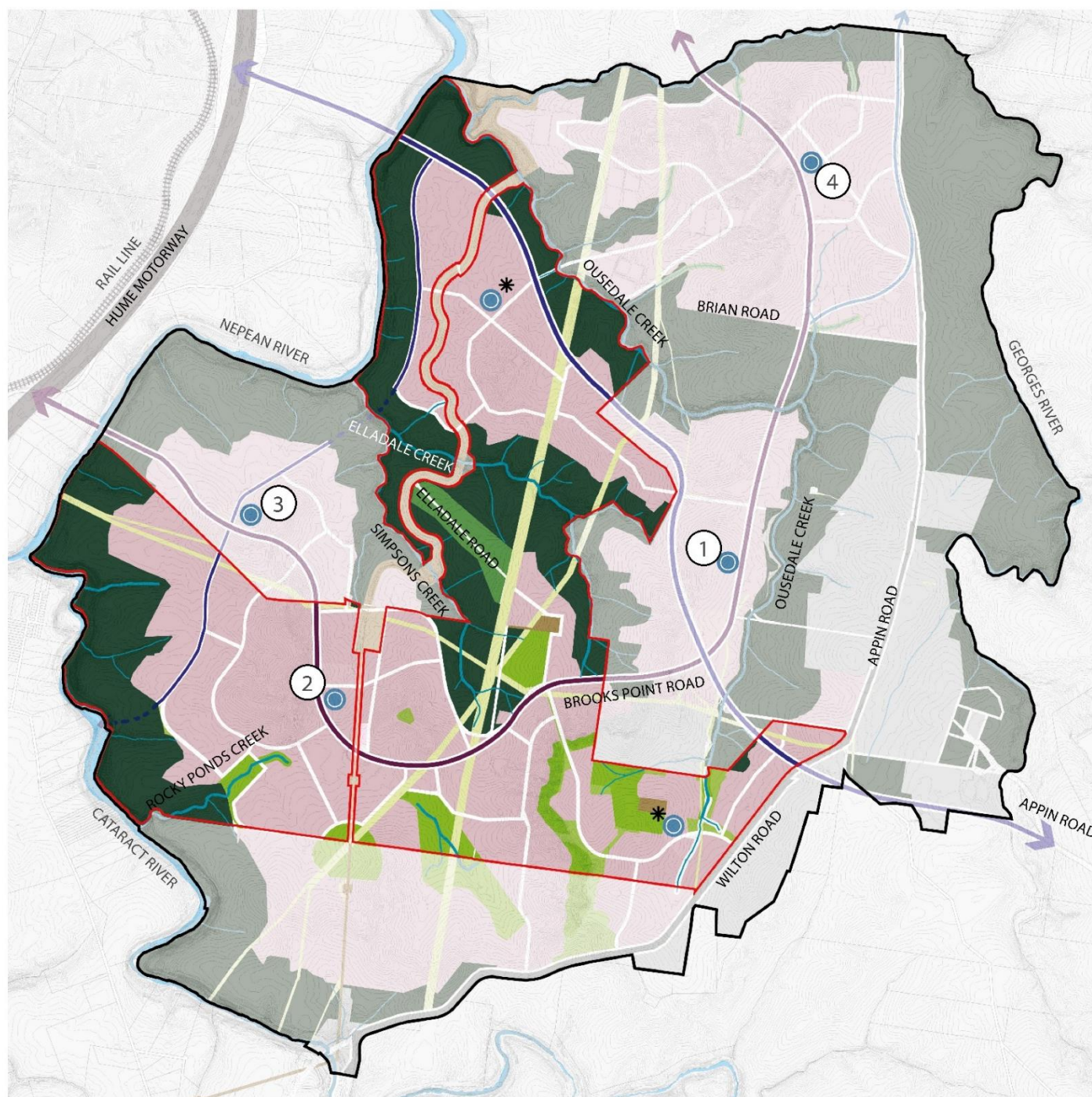
## RECOMMENDED SOCIAL INFRASTRUCTURE PROVISION FOR APPIN (PART) PRECINCT

Facility type	Quantity	Indicative location	Benchmark evidence
<b>Childcare</b>	<p>Approximately 15 long day childcare centres with an average of 80 children to meet expected demand for 1,162 places.</p> <p>Approximately 13 out of hours school care centres with an average of 80 children to meet expected demand for 1,067 long places.</p>	<p>Locate facilities within the mixed use centres to maximise accessibility and user convenience, in line with market demand.</p> <p>Out of hours school care centres should be accommodated within or co-located with the school sites.</p>	Adapted from the City of Parramatta Community Infrastructure Strategy (2019)
<b>Community health clinics</b>	<p>Look to provide adaptable spaces within community facilities to accommodate health services.</p> <p>Larger clinics to be provided by the private market and/or by LHD as required over time.</p>	<p>Located within facilities which are highly accessible by public transport or co-located with other services.</p>	Consultation with LHD
<b>General practice clinics</b>	<p>Provision of one to two medical centres within the mixed use centres, provided by the private market.</p>	<p>Located within the mixed use centres</p>	Adapted from Wollondilly Health Needs Assessment (2014)



# RECOMMENDED PROVISION OF COMMUNITY FACILITIES

Figure 14 Indicative distribution of recommended community facilities in the Structure Plan



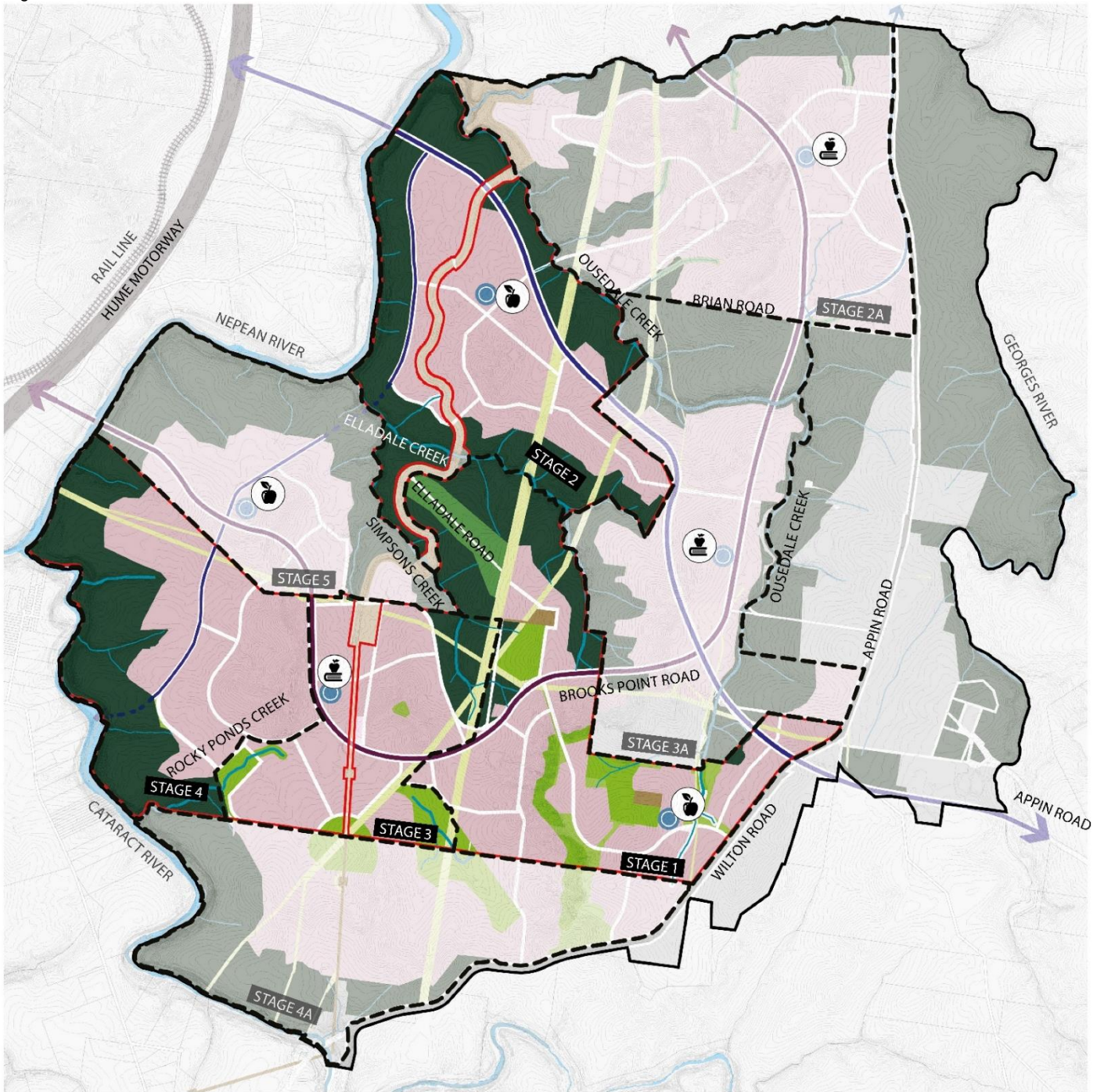
## LEGEND:

- |  |   |  |
|--|---|--|
| Appin & North Appin Precincts Boundary | Easements (Potential for active and passive recreation)                 | Appin Bypass                           |
| Appin (Part) Precinct Boundary         | Heritage Items  | Road Connection - By Others            |
| LGA Boundary                           | Residential   | Collector Roads                        |
| Waterways                              | Excluded Land   | Potential for joint use arrangements   |
| C2 Conservation Land*                  | Mixed Use Centres (including retail/commercial, schools and open space) | District multipurpose community centre |
| Existing Road within C2                | East-West Connection Road   | Local multipurpose community centre    |
| Conservation Land                      | Public Transport Corridor   |  |
| District Open Space                    | North-South Connection Road   |  |
| Regional Open Space                    |   |  |



# RECOMMENDED PROVISION OF EDUCATION FACILITIES

Figure 15 Indicative distribution of recommended new schools



## LEGEND:

- |   |   |                             |
|---|---|-----------------------------|
| Appin & North Appin Precincts Boundary    | Regional Open Space   | East-West Connection Road   |
| Appin (Part) Precinct Boundary            | Easements (Potential for active and passive recreation)                 | Public Transport Corridor   |
| Staging Boundary                          | Heritage Items  | North-South Connection Road |
| LGA Boundary                              | Residential   | Appin Bypass                |
| Waterways                                 | Excluded Land   | Road Connection - By Others |
| C2 Conservation Land*                     | Mixed Use Centres (including retail/commercial, schools and open space) | Collector Roads             |
| Existing Road within C2 Conservation Land | Primary School  |                             |
| District Open Space                       | Co-located Primary & Highschool   |                             |

# RECOMMENDED RECREATION PROVISION FOR APPIN (PART) PRECINCT

## Summary of provision requirements

The provision requirements for recreation facilities have been sourced from the Wilton Priority Growth Area Community Needs Assessment. Based on the application of benchmarks in Table 28, the incoming population is likely to generate demand for an indoor aquatic centre, four double playing fields, nine outdoor courts, 15 playspaces and two outdoor fitness stations.

Outdoor courts, playspaces and fitness stations should be distributed within the district and local open spaces. These facilities should be accessible from homes, schools and workplaces, and be visible from and oriented to the street. A large proportion of these facilities should be co-located with the mixed use centres and community facilities to maximise accessibility and use.

According to benchmarks, the incoming population meets the lower end of the benchmark threshold for provision of an aquatic centre. The Greater Macarthur and Wilton Priority Growth Area Social Infrastructure Assessment recommends the provision of indoor aquatic centres at Menangle Park and Wilton. Given the role of Wilton as a regional centre, and the planned facilities for the Macarthur region, it is not recommended that an additional aquatic centre be provided in the Appin (Part) Precinct. The demand for aquatic facilities by the incoming population is likely to be accommodated through the facilities at Wilton and the development of a private learn to swim facility in the Appin and North Appin Precincts.

Table 29 Recreation benchmarks

Facility type	Benchmark	Benchmark application	Recommended provision
<b>Aquatic centres</b>	One centre for every 30,000 – 60,000 people	One centre	Demand for a public facility will be met through the development of a planned indoor aquatic centre at Wilton. It is recommended that provision of a private learn to swim facility be considered for the Appin (Part) Precinct to accommodate some localised needs of the incoming population.
<b>Indoor recreation facilities</b>	One facility for every 50,000 – 100,000 people	No centres	The incoming population of the Appin (Part) Precinct will not generate the need for a standalone recreation facility. Demand will likely to be met through planned facilities at Menangle Park and Wilton.
<b>District sportsgrounds</b>	Two double playing fields and amenities for every 10,000 people	Three to four double playing fields	To be located adjacent to schools and within the regional park.
<b>Multipurpose outdoor courts</b>	One court for every 4,200 people 0.05ha per court plus runoff space and amenities	9 outdoor courts	To be distributed among district and some well located local spaces. Some of the latter may be half court facilities for informal local games. Consideration should also be given to potential joint use arrangements with schools.
<b>Playspaces</b>	One playground for every 500 children aged 0 – 4 years Each playground to be a minimum of 50sqm and located within a park within a park  One playspace for every 500 children aged 5 – 11 years Each play space to be a minimum of 100sqm and located within a park	Up to 15 playgrounds and playspaces	Rather than 15 small local playspaces, it is strongly recommended there be a range of play spaces distributed across the Appin (Part) Precinct.
<b>Outdoor fitness stations</b>	1 station per 15,000 people	2 outdoor fitness stations	To be distributed among district spaces, and potentially the linear parks where free of environmental and topographical constraints.

Benchmark source: Wilton Priority Growth Area Community Needs Assessment (2018)



# RECOMMENDED OPEN SPACE PROVISION FOR APPIN (PART) PRECINCT

## Summary of provision requirements

As outlined in Part 2 of this report, the provision requirements for open space has been adopted from the draft Greener Places Design Guide, with quantitative spatial standards sourced from best practice approaches around Australia.

## Quantitative assessment summary

The net developable area of the Appin (Part) Precinct is 781ha. If a benchmark of 10% of NDA were used, there should be 78.1ha of local and district open space provided within the Appin (Part) Precinct.

The (Part) Precinct Structure Plan contains 76.1ha of district open space and 21.7ha of local open space, totalling 118.8ha. Using the NDA benchmark, the proposal is therefore expected to provide a sufficient quality of open space to meet the needs of the incoming population.

The Appin (Part) Precinct Structure Plan also includes an additional 21ha of regional open space, located at the centre of the Appin and North Appin Precincts. Over a third of this space is planned to be used for regional level sports fields. As shown below, based on a projected population of 38,427 people, the Structure Plan provides 3.1ha of local, district and regional open space per 1,000 people. The open space proposed in the Structure Plan therefore also exceeds the benchmark contained in the Wollondilly Contributions Plan.

Table 30 Quantitative demand for open space

Example benchmark	Quantity of open space required	Quantity of open space provided
10% of NDA as local and district open space (does not include regional space)	78.1ha	97.8ha
2.83ha open space per 1,000 people (includes regional space)	109ha	118.8ha
		3.1ha per 1,000 people

## Qualitative assessment summary

As outlined in Part 2, all regional and district open spaces meet the minimum size requirements in the draft Greener Places Design Guide, with recommendations provided for local spaces to guide planning during subsequent detailed design stages. All residents will also be within 2km of a district space and 10km of the regional space.

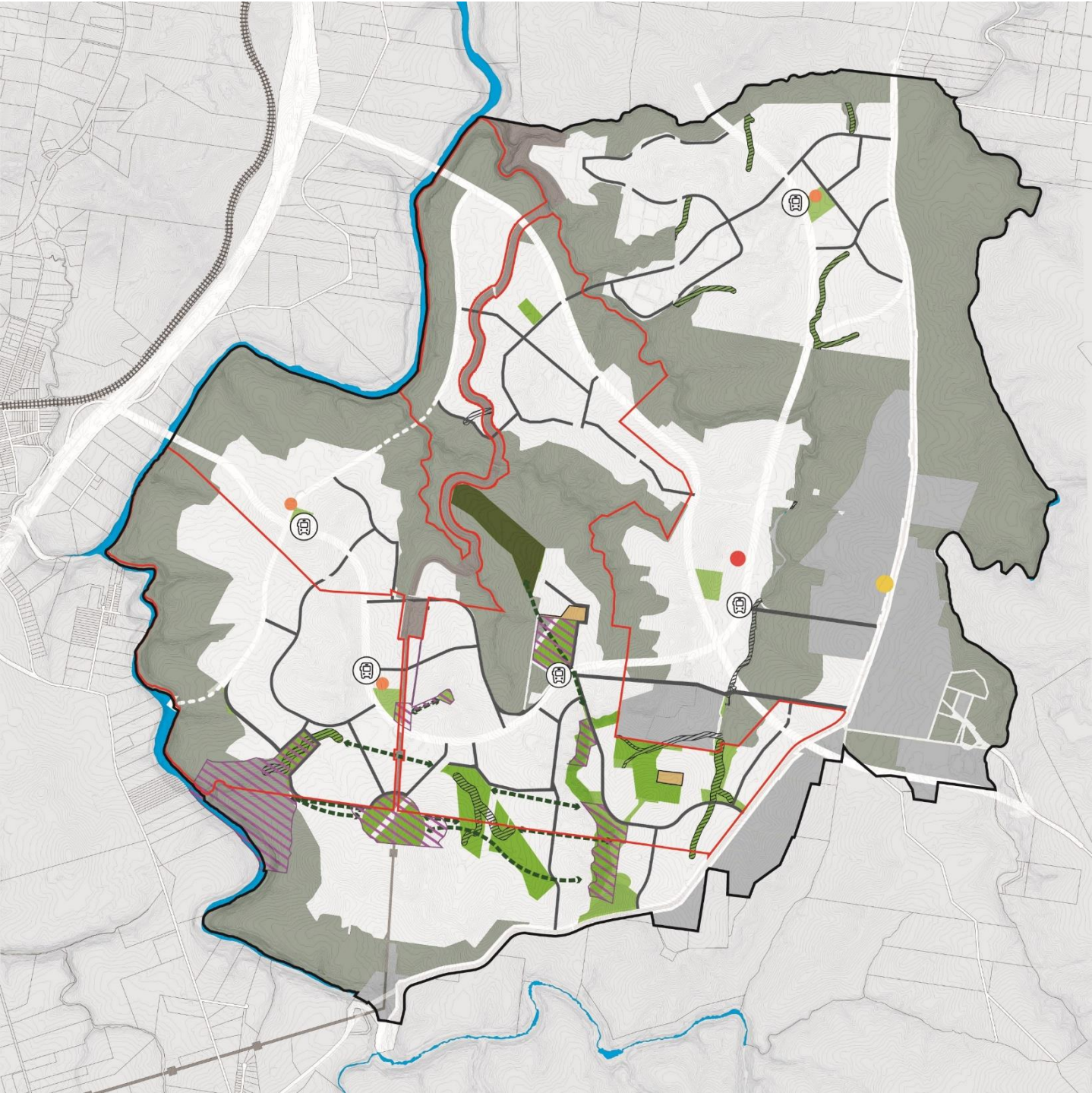
Like the Indicative Plan, the Structure Plan contains a range of open space areas which are capable of supporting a diversity of structured and unstructured recreation opportunities. This includes a hierarchy of open space areas, as outlined in Table 30 below.

Table 31 Ability of proposed open spaces to support recreation opportunities

Recreation diversity considerations	Allocation within Appin (Part) Precinct				
	Structured recreation		Unstructured recreation		Total
Regional	13.6ha approx.	65%	7.4ha approx.	35%	21.0ha
District	18.6ha approx.	24%	57.5ha approx.	76%	76.1ha
Local	20.6ha	Assume 95%	1.1ha approx.	Assume 5%	21.7ha
<b>Total</b>	<b>52.8ha approx.</b>	<b>44%</b>	<b>66.0ha approx.</b>	<b>56%</b>	<b>118.8ha</b>

# RECOMMENDED PROVISION OF OPEN SPACE

Figure 16 Indicative distribution of open space



## LEGEND

- |   |   |  |
|---|---|--|
| <ul style="list-style-type: none"> <li>Appin &amp; North Appin Precincts</li> <li>Appin (Part) Precinct</li> <li>Waterways</li> <li>Collector Road</li> <li>Regional Open Space</li> <li>District Open Space</li> </ul> | <ul style="list-style-type: none"> <li>Riparian Corridor</li> <li>Identified First Nations Cultural Site</li> <li>Place with First Nations Cultural Values</li> <li>Walkable Green Links</li> <li>Residential Neighbourhoods</li> </ul> | <ul style="list-style-type: none"> <li>Heritage Items</li> <li>District Community Facilities</li> <li>Local Community Facilities</li> <li>Existing Appin School</li> </ul> |
|---|---|--|



# CONCLUSIONS





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## CONCLUSION

This report has been prepared to understand the likely social infrastructure and open space needs of the future community of the Appin and North Appin Precincts, including those within the Appin (Part) Precinct Structure Plan.

Based on the assessment and recommendations in this report, the Appin (Part) Precinct Structure Plan is capable of supporting the social infrastructure and open space needs of the proposed incoming population. This will be achieved through the provision of new facilities, and an integrated network of local, district and regional open space. A complete list of recommended facility provision and guiding directions is contained at the conclusion of Parts 2 and 3 of this report and should be referred to for future planning.