

Appendix J

Open Space and Community Facilities Assessment

Showground Station Precinct



Planning &
Environment

Department of Planning &
Environment

Showground Station Precinct

Community Facilities and Open
Space Study

Final Issue | 9 September 2015

This report takes into account the particular
instructions and requirements of our client.

It is not intended for and should not be relied
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Job number 239035

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Contents

Contents	1
1 Introduction	1
1.1 Purpose	1
1.2 Study area	1
1.3 Methodology	2
2 Showground Station Precinct Proposal	3
2.1 Showground Precinct Plan	3
2.1.1 Chapman Avenue Reserve	3
2.1.2 Riparian Corridor	4
2.1.3 Village Plaza	4
2.1.4 Castle Hill Showground	4
3 Social Policy Framework	5
3.1 State Policy Framework	5
3.1.1 NSW 2021: A plan to make NSW number one	5
3.1.2 A Plan for Growing Sydney	5
3.2 Local Policy Framework	6
3.2.1 Adopted Draft Local Strategy	6
3.2.2 Social Infrastructure Discussion Paper	6
3.2.3 Cultural Plan for Baulkham Hills Shire	6
3.2.4 Recreation Strategy	6
3.2.5 Draft Hills Shire Integrated Open Space Plan	7
3.2.6 Tracks and Trails Strategy	7
3.2.7 Bike Plan Review	8
3.3 Relevant Background Documents	8
3.3.1 North West Rail Link Corridor Strategy	8
3.3.2 Green Grid	8
3.3.3 Showground Road Station Structure Plan	11
3.3.4 North West Rail Link Environmental Impact Statement	11
3.4 North West Rail Link Precinct community consultation findings	11
4 Demographic Overview	13
5 Open Space and Community Facilities Audit	15
5.1 Existing open space	15
5.1.1 Existing active open space	20
5.1.2 Castle Hill Showground	20
5.2 Existing community facilities	21

6	Open Space and Community Facilities Needs	24
6.1	Needs Assessment	24
6.2	Open Space Needs	28
6.2.1	Case Studies	28
6.2.2	Active Recreation Needs	30
6.2.3	Implications for Open Space Planning in the Priority Precinct	32
6.2.4	Highest and Best Use of Land	33
6.2.5	Proposed Open Space	34
6.2.6	Conclusion	34
6.3	Community facilities needs	34
6.4	Children's services needs	36
6.5	Education needs	36
7	Recommendations	37
8	References	38

1 Introduction

This report has been prepared by Arup and provides an assessment of community facilities and open space relating to the proposed rezoning of the Showground Station Precinct (the Precinct).

The Precinct was announced by the NSW Government in August 2014. The precinct is one of a number of Priority Precincts which aim to provide for more homes, jobs and improved public spaces close to transport and services. One of the key goals for Priority Precincts is to increase housing choice and affordability by delivering increased housing supply in an environmentally, socially and economically sustainable manner.

The Precinct is located in The Hills Shire Local Government Area and covers approximately 271 hectares. The boundary of the precinct is generally based on the road boundary within a radius of 800 metres from the future Showground Station, which is normally considered to reflect a 10 minute walk. The boundary also takes into account predominant land uses, built form and natural features.

The vision for the Precinct is for a vibrant, mixed use centre comprising a mixture of offices, shops, community facilities, recreational, cultural and leisure activities, education, good public domain and a mix of housing types within walking distance of the new station.

The Precinct is a long term project that will be delivered over the next 25 years.

1.1 Purpose

This report documents a desktop review to identify social infrastructure considerations relevant to the Showground Station Precinct.

The desktop review has been undertaken based upon information publicly available as well as documentation provided by the Department of Planning and Environment (the Department) and the Hills Shire Council (Council).

1.2 Study area

Located in Sydney's North West region, within the Hills Shire Local Government Authority (the Hills LGA), the Precinct covers approximately 271 hectares and is bound by Showground Road and Kathleen Avenue to the north, Windsor Road to the South, Fishburn Crescent and Castle Hill residential area to the east and Windsor Road to the west. A map of the study area is presented in Figure 1.



Figure 1 Showground Road Station Precinct (Source: Six Maps, 2015)

1.3 Methodology

This report provides a broad, high level assessment of the existing and future open space and social infrastructure requirements and entails:

- Review of the existing state and local planning policy context
- Peer review of existing studies of community and recreation facility needs
- Preparation of existing and future demographic profiles using ABS Census data, DP&E Population and Household Projections and local data sources
- Desktop audit of existing and planned social infrastructure within the Priority Precincts
- Review of open space and community facilities within a corridor context focusing on Showgrounds, Bella Vista and Kellyville Priority Precincts.
- High level assessment of the future demand for local and regional open space and social infrastructure, including the types of facilities, potential for enhancement of existing facilities and likely land take for new facilities
- Identification of potential future requirements for regional open space and social infrastructure (distribution, quantum and type) having regard to the planned and projected incoming population.
- Identification of leading practice in the provision of community facilities and open space planning and developing social planning principles to guide the Precinct design with reference to case studies.

2 Showground Station Precinct Proposal

2.1 Showground Precinct Plan

The Showground Precinct Plan (Precinct Plan) proposal sets the vision for future development of the Precinct. It sets out that the Precinct will have an important function and ‘evolve as a vibrant and active Centre comprising offices, retailing, community facilities, recreation, cultural, leisure, education and housing within walking distance of a new station’.¹

The Precinct Plan identifies a potential total capacity for an additional 5,000 dwellings with an additional employment capacity of up to 2,300 jobs by 2036².

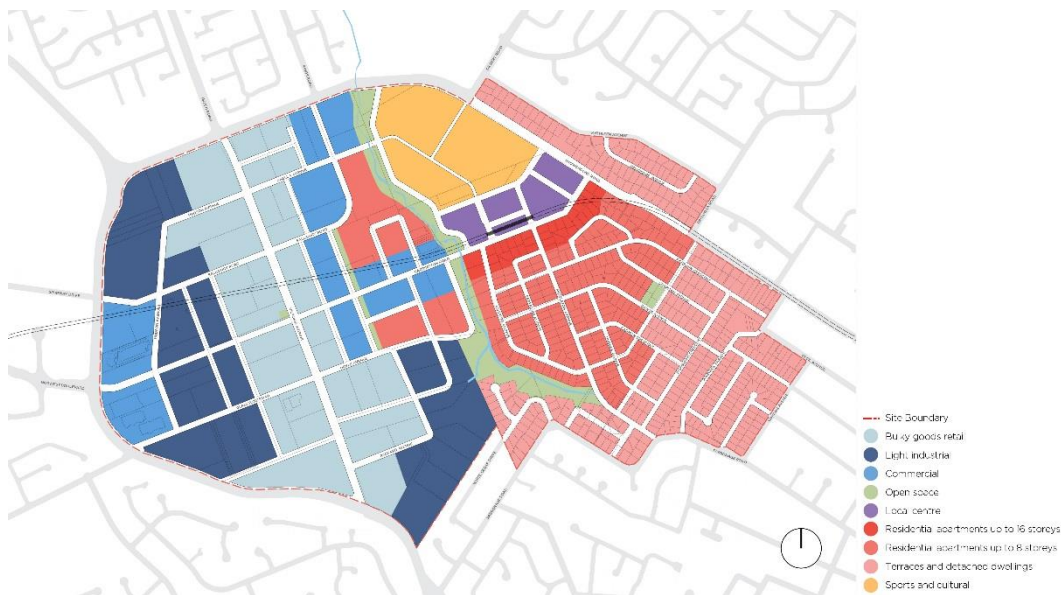


Figure 2 Showground Precinct Land Use Plan (Source: SJB Architects)

The Precinct Plan incorporates key existing open spaces linkages within the Precinct. It includes the Chapman Avenue Reserve (0.41 ha), the riparian corridor (8.01 ha) and Castle Hill Showground (14.67 ha). Additionally, the Village Plaza and Victoria Road employment area present potential public open space areas within the Precinct.

2.1.1 Chapman Avenue Reserve

Chapman Avenue Reserve will be enlarged and embellished to create a central neighbourhood park within the southern part of the residential precinct. The park will accommodate a range of spaces to cater for the recreation needs of a diverse and increased population. This will include children’s play spaces, open lawn areas for informal games and communal barbecue areas with shade structures. The park will provide a place for residents to gather and socialise. A number of existing and proposed trees, both evergreen and deciduous species, will provide year round shade, colour and visual interest. The use of high quality robust

¹ TfNSW & DP&I (2013) Showground Structure Plan

² Jones Lang Lasalle (JLL) Figures (2015) Research Report Economic Feasibility: Retail, Commercial, Residential & Industrial Analysis

materials within the landscaping and a palette of decorative low maintenance planting will ensure the parks longevity.

2.1.2 Riparian Corridor

Revitalisation of Cattai Creek will enhance the existing unique features of this riparian corridor. Significant tracts of the creek corridor are currently held in private ownership. The redevelopment of land adjacent to the corridor provides the opportunity to unlock the full potential of the riparian lands by placing it in public ownership and creating an open space network. It also provides opportunities to increase permeability and linkages across the creek line to the Showground, future station, existing open space at Cockayne Reserve and residential areas to the south. A network of pedestrian and cycle shared paths will connect local residential streets with industrial and commercial employment zones to the west of the creek line. Connections to the north will provide further links to Castle Hills Showgrounds and Fred Caterson Reserve beyond.

2.1.3 Village Plaza

The Village Plaza provides a key north-south pedestrian connection from Showground Station to the Castle Hill Showground. The plaza is activated by commercial / retail development to the east with a linear retail spill-out strip provided along this frontage. A central lawn is an ideal place for workers and visitors to enjoy lunch or engage in informal games. A grove of ornamental trees at the southern edge of the plaza offers shade to public seating at this location. Additional street trees provided at the edges of the square offer additional year round shading.

It is envisaged that additional open space and urban squares will also be provided around the new station and local centres to create a vibrant gathering and meeting places for residents, workers and visitors to the precinct. Opportunities for providing urban public spaces within existing employment areas along Victoria Avenue will also be investigated.

2.1.4 Castle Hill Showground

The existing area of Castle Hill Showground is approximately 14.67 ha, a size comparable to that of Sydney's Hyde Park which covers approximately 16 ha. Currently, Castle Hill Showground is made up of both passive open space and active open space, covering 2.68ha and 2.54 ha respectively. The Castle Hill Showground presents an opportunity to incorporate a higher-order multipurpose area to meet the needs of existing and future residents, visitors and workers. Any future planning of Castle Hill Showground will be subject to a detailed master planning process undertaken by Council and the community.

3 Social Policy Framework

This section outlines the relevant state and local social policy context to determine the directions that influence the social infrastructure planning of the Precinct and outlines consultation findings for the Showgrounds, Bella Vista and Kellyville Priority Precincts.

3.1 State Policy Framework

3.1.1 NSW 2021: A plan to make NSW number one

A 10-year plan based on five strategies to rebuild the economy, return quality services, renovate infrastructure, strengthen local government and communities and restore accountability to government.

The social infrastructure required by the Precinct project can contribute to the majority of the strategies through the following goals identified in NSW 2021:

- Keeping people healthy and out of hospital
- Build liveable centres
- Protect our natural environment
- Make it easier for people to be involved in their communities
- Enhance cultural, creative, sporting and recreation opportunities
- Involve the community in decision making on government policy, services and projects.

3.1.2 A Plan for Growing Sydney

In December 2014 the Department released ‘A Plan for Growing Sydney – the metropolitan plan to guide development over the next 20 years’. The plan envisages the metropolitan population of Sydney will grow by 1.6 million people, 900,000 of these living in Western Sydney and the need to provide an additional 664,000 new homes by 2031.

‘A Plan for Growing Sydney’ identifies the Precinct as a “Priority Precinct – major urban renewal”. Priority Precincts are “important areas that the Minister for Planning considers have a wider social, economic or environmental significance for the community or have redevelopment potential on a scale that is important in implementing the State’s planning objectives. Precincts are envisaged as larger areas, usually made up of multiple land holdings. They will be capable of delivering significant additional growth and require coordination from State and local government to realise their potential.”³

Of particular relevance to this study is Goal 3 of the metropolitan plan which aims to create a great place to live with communities that are strong, healthy and well connected. In order to deliver on this goal, the plan directs the implementation of the Sydney Green Grid project, which provides a metropolitan scale network of cycle ways and connections between regional parks.

³ DP&E (2014) A Plan for Growing Sydney

3.2 Local Policy Framework

3.2.1 Adopted Draft Local Strategy

The 'Adopted Draft Local Strategy' communicates Council's future plan for the Hills LGA. The document aims to provide certainty and direction to the wider community by outlining a number of state planning objectives, as well as providing a plan to respond to local needs.

The strategy recognises the importance of environmental wellbeing, and the essential role that open space, walking trails and sporting fields play in achieving a sustainable future. Council outlines their commitment to improving existing open space and walking and cycle ways, and the importance that such infrastructure plays in meeting the recreational, cultural and entertainment needs of the population. In addition to this, key directions of the strategy are the provision of diverse and high quality open space facilities, the establishment of an accessible network of connected walking and bike paths and improvements to public domain in order to encourage community use. The strategy also identifies the need for community facility locations to be incorporated into the overall neighbourhood design, to ensure community mix and cater to the population.

There are no specific directions for the Precinct.

3.2.2 Social Infrastructure Discussion Paper

Council's 'Social Infrastructure Discussion Paper' outlines potential opportunities for the Precinct as a result of its forecasted population growth. The paper suggests the opportunity for the establishment of a bicycle lane through the Precinct in order to meet recreational demand, and the possibility of a multipurpose facility to be used for conferences, concerts and elite sporting events. Council suggests that a number of 'cultural actions' are to be undertaken in the following years, including the integration of the principles outlined in the Cultural Strategy with any plans for the Castle Hill Showground.

3.2.3 Cultural Plan for Baulkham Hills Shire

The 'Cultural Plan for the Baulkham Hills Shire' contains a number of strategies to further the cultural, social, economic and environmental development of the LGA. A main focus of the document is to interact with the community, and work towards building a strong identity by bringing together people and place. The plan's goals involve the creation of a place that is liveable and inspiring, perfecting a balance between private learning opportunities and public creative expression, and planning for healthy cities. The underlying principles and goals set out by Council through the plan should remain central in current and future strategies for the Precinct.

3.2.4 Recreation Strategy

Introduced in 2007, Council's 'Recreational Strategy' assesses the recreation needs of its community. The study involves an analysis of the area's demographic characteristics, trends found in the level of sport participation, current levels of open space provision, and the supply of recreational facilities. The strategy

identifies and categorises the needs of the community in regards to recreation facilities. These involve issues such as the need for building upgrades and increased community awareness of sport opportunities.

3.2.5 Draft Hills Shire Integrated Open Space Plan

Council's 'Integrated Open Space Plan' provides a framework to guide the planning, development and management of open space within The Hills LGA in line with Council's adopted strategic outcomes.

The Plan identifies the area around the Precinct as lacking facilities where social gathering and family recreation serves as the primary function. The Plan also found that residents would be willing to travel a greater distance to a greater quality park, as opposed to having smaller, low quality parks closer to home. Demand is evident in The Hills LGA to improve the links between the trails networks found throughout the area, and to cater for an increase in the number of people walking and cycling. The plan indicates that existing sports fields are also reaching or have reached capacity, making the establishment of new facilities necessary in the future planning of the LGA.

Other survey findings, from households across The Hills LGA, of particular relevance to the Precinct are:

- Residents would be prepared to walk 500 metres to a higher quality park rather than having smaller and lower quality parks closer to home (77% support)
- Sports facilities, parks and off-road trails will need to be retained or additional ones provided to serve higher density residential areas, shopping precincts and around railway stations to support a larger population (86% support).

3.2.6 Tracks and Trails Strategy

The 'Tracks and Trails Strategy' outlines a number of principals to improve existing pedestrian and cycle networks throughout The Hills LGA. The Strategy provides a brief analysis of the networks already in existence, stating that older suburbs are less likely to have an integrated footpath and cycleway network, and that the opportunity to develop walking trails in order to add to recreational experiences is evident. The current cycleway throughout the Precinct is made up of both on and off-road paths, although continuous interruptions to the cycle network is evident. Similarly, areas within the Precinct are lacking footpath infrastructure.

Through an improved pedestrian and cycle network, Council aims to provide opportunities for the wider community to participate in a healthy and active lifestyle. In order to achieve a successful pedestrian and cycleway network, it will be essential to incorporate a number of principles, including the provision of safe and attractive tracks and trails, the creation of walkable neighbourhoods, the fostering of community spirit, the establishment of accessible walking and cycling networks, and promotional strategies to encourage all members of the community to get active. The Strategy ensures that incorporating these principles into a policy will be essential in achieving the vision of enabling healthy lifestyles.

3.2.7 Bike Plan Review

Council's 'Bike Plan Review' provides an analysis of current and future demands of bicycle riders in The Hills LGA, with the aim of creating an environment in which cycling is made easier and more attractive.

At present, cycle ways run along Carrington Road, Victoria Avenue and Windsor Road. Additionally bicycle pathways, consisting of both unsealed and concrete paved routes, traverse Fred Caterson Reserve,

When looking specifically to the Precinct, there appears to be a lack of cycle ways connecting the surrounding open space areas. The 'Bike Plan Review' identifies areas such as Castle Hill as a prime location for urban renewal strategies to promote cycle ways and greater bicycle accessibility in order to reduce reliance on cars.

Two roads within the Precinct are identified in the review of dangerous cycling locations and environments; Windsor Road and Showground Road. Both are currently considered dangerous due to: speeding cars and trucks; a lack of safe crossing points; poor road surfaces; and dangerous intersections.

3.3 Relevant Background Documents

3.3.1 North West Rail Link Corridor Strategy

The delivery of the Sydney Metro Northwest (previously known as the North West Rail Link (NWRL)) will deliver significant public transport infrastructure and will make the corridor an even more attractive area to live and work with demand in housing and jobs expected to grow. In response, the Department has prepared the North West Rail Link Corridor Strategy and the North West Rail Link Structure Plan in order to understand the potential to deliver housing and jobs to meet the increasing demand. The Corridor Strategy, including Structure Plans for each station and its surrounds, has been prepared to guide development over the next 20-25 years. Existing open space within the cCorridor can be seen in Figure 3.

The NWRL Corridor Strategy and the associated Structure Plans identify an additional capacity for 27,000 dwellings throughout the corridor. It is estimated that the total number of dwellings within the Corridor will increase to 38,750 by 2036. The Corridor Strategy and associated Structure Plans predict an increase of 49,500 jobs within the Corridor, taking the total employment level to 92,000 jobs by 2036.

3.3.2 Green Grid

Within the context of the Corridor, 265.6ha of existing open space has been identified. Undertaken by the NSW Government Architect's Office, the Green Grid analyses the entire open space network of the Sydney Metropolitan Region and promotes urban greening. This urban greening will provide a spatial framework for regional planning in Sydney. The study aims to increase access to open space at a local, district and regional level. It promotes provision for shared pathways, adaptable open space and connections between town centres using existing open space corridors. It also advocates an appreciation for Sydney's

diverse natural and cultural environment, as well promotes the multifunctional nature of the environmental, health, social and economic benefits of open space.

Of relevance to the Precinct's open space planning are the general green grid aims, as well as the promotion of sustainable greenspace design, active living and conservation of the natural environment and heritage landscapes.



Figure 3 Existing open space near the Priority Precincts (Source: Arup adapted from The Hills Local Environmental Plan 2012)

3.3.3 Showground Road Station Structure Plan

The Showground Road Station Structure Plan (the Structure Plan) produced by TfNSW and DP&E in September 2013 provides a vision and framework for Showground Station surrounds to guide the future land use planning and provision of infrastructure. The Structure Plan identifies challenges and opportunities that the area will experience with the introduction of the new station. It carefully considers the wider implications of rail, whilst comprehensively plans for the future of the area with analysis of the Precinct's existing housing and commercial condition, transport and accessibility, open space and conservation, heritage, environmental constraints and existing planning controls.

3.3.4 North West Rail Link Environmental Impact Statement

Chapter 14 of the NWRL Environmental Impact Statement (EIS) includes an assessment of the impact that the NWRL will have on community facilities and existing and future land uses. The assessment looks to ensure that detrimental impacts are minimised through good urban design, accessibility, amenity and safety and security.

The EIS recognises the role of the Castle Hill Showground and Fred Caterson Reserve in providing the precinct with a venue for events throughout the year, and offering residents with a variety of both active and passive recreational facilities respectively.

The assessment outlines the existing character and land use of the Precinct, including its key attractors and educational and recreational facilities.

3.4 North West Rail Link Precinct community consultation findings

Between April and November 2014, consultation with the community was undertaken for the Showgrounds, Bella Vista and Kellyville Priority Precincts. Consultation occurred through a 500 person telephone survey, an online survey with 280 respondents and a range of community events and stakeholder briefing sessions. A number of key issues raised during the consultation that are of particular relevance to social infrastructure are shown in Table 1 below.

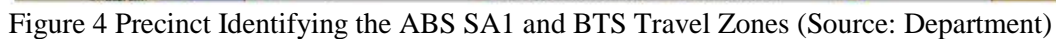
Open space	<ul style="list-style-type: none"> • Provision of adequate and quality open space for the additional population • Importance of well-connected areas of open space for people and native fauna • Treed character of the area should be retained • The most important features influencing where people would live were public transport; proximity to cafes, restaurants and shops; and proximity to parks and open space.
Community facilities	<ul style="list-style-type: none"> • Demand for local schools will increase • Provision of schools and community facilities • Better access to child care facilities, including near the stations for convenience • Aged care facilities and mobility

	<ul style="list-style-type: none"> • The most popular local facilities to support growth in the area were parks and reserves; community facilities such as libraries and community centres; and bicycle and pedestrian paths.
Castle Hill Showgrounds	<ul style="list-style-type: none"> • Future role and use of the Castle Hill Showground • How new development will relate to the Castle Hill Showground (in terms of both built form and land use) • The most popular facilities that could be provided at Castle Hill Showground were a multipurpose venue, car parking facilities and markets.

Table 1 NWRL (now the Sydney Metro Northwest) Station Precinct Community Consultation Findings

Respondents to the on-line survey were asked to nominate the type of local facilities and amenities that should be provided to support growth, and benefit the existing and future communities. Parks and reserves (78%), community facilities e.g. library, community centre (53%) and bicycle paths/walking paths (51%) were the most popular selections. Suggestions for facilities in the “other” category included a performing arts centre, dog parks, and day care facilities.

This section provides an overview of the demographic characteristics of the Precinct using the Showground Demographic Profile provided by the Department. A copy of this analysis is attached as Appendix A.



In 2011, 2,846 people resided in the Precinct, with a large proportion being children and people in their 40s to 60s, signifying a domination of families with school aged children. The average age in the Precinct was 38.5 years, slightly older than The Hills' 37.6 and Sydney's 35.7 years.

A smaller percentage of residents born overseas were found in the Precinct than Sydney's average, with 67.9% being born in Australia, compared to Sydney's 62%. 74.7% of the population spoke English at home, with both Mandarin and Cantonese following as the next top languages spoken at home at 3.1%.

94% of the Precinct's adult population (over 15 years), had at a minimum completed Year 10, with 61% continuing on to complete a post-school qualification. Education levels (those having completed Year 10) of the Precinct's residents were slightly higher than Sydney as whole (88%), as were the percentage of those receiving post-school qualifications (54.9%).

Employment

71% (or 1,542) the Precinct's residents were part of the labour force, with unemployment levels lower than Sydney's 5.7% (4.2%). Education and Training, Health Care and Social Assistance and Retail were the top 3 industries of employment, collectively employing 32.9% of the Precinct's total labour force.

Transport

The most common mode of transport used by the working population within the precinct was car travel (over 80%), followed by bus and train, with a collective share of less than 20%. A majority of dwellings in the Precinct owned a minimum of two vehicles at 74%, significantly higher than Sydney's average being 48%.

Households and Dwellings

Of the 960 dwellings in the Precinct, 92% were freestanding houses, with the remaining 8% being medium density dwellings, significantly lower than Sydney's overall 43%. The average household size in the Precinct was 3.08 people, with nuclear families making up almost half of all households. 86% of dwellings in the Precinct were either owned outright or with a mortgage, significantly higher than Sydney's overall amount of 67%.

Socio-Economic Advantage

Although a higher percentage of dwellings in the Precinct were owned outright when compared to Sydney as a whole, over 51% of households experience housing stress, greater than Sydney's 40.9%. The average weekly household income in the Precinct was notably higher than Sydney's being between \$2,000 and \$2,500, and \$1,250 and \$1,499 respectively.

Projected Population

It is expected that by 2031, the population of The Hills is to increase by 103,900 people, reaching a total of 280,900. This increase is particularly higher than the growth that will be seen by the Sydney region as a whole, at 59% compared to Sydney's growth of 37% with the majority of that growth coming from migration.

Similar to its surrounds, the population of the Precinct is ageing, with the number of those over the age of 65 expected to double by 2031. Despite this however, the Hills LGA within which the Precinct is located, is expected to experience strong growth in the younger age groups, leading to a younger population when compared to Sydney as a whole.

5 Open Space and Community Facilities Audit

This section provides an overview of existing open space and community facilities provision within the Precinct and its surrounds.

5.1 Existing open space

A total of five (5) public open spaces have been identified within 800 metres of the future Showground Station. A further twelve (12) public open spaces have been identified within a 1,600 metre radius, as shown in Table 2. For the purpose of this audit, the area considered extends to 1,600 meters given Council's Integrated Open Space Plan, which identified that residents would be willing to travel a greater distance in order to access a park of superior quality.

Additional areas of open space exist within the Precinct area, namely along Cattai Creek which provides an open space corridor, however these are within private ownership. Currently, there are limited opportunities for active recreation (by way of sporting fields and courts) within 800 metres of the future Showground Station. Within a 1,600 metre catchment an additional 58.67 ha of open space is available with Fred Caterson Reserve providing a range of passive and active recreational activities.

Within the Precinct boundaries, there are currently three (3) open public spaces, Castle Hill Showground, Chapman Avenue Reserve and Cockayne Reserve, shown in Figure 7. The total area of open space within the boundary equates to 21.51 ha.

Open Space	Size (ha within 1,600m radius)	Size (ha within 800m radius)	Hierarchy level	Function
Castle Hill Showground	17.6	17.6	Regional	Multipurpose precinct, consists of an arena, stables, venues for community groups and grassed areas
Chapman Avenue Reserve	0.22	0.22	Neighbourhood	Passive recreation with some play equipment, acts as a pocket park to surrounding residential dwellings
Cockayne Reserve	3.69	3.69	District	Ecological open space, mostly privately owned land adjacent Cattai Creek
Fred Caterson Reserve	58	12.3	Regional	Mostly active recreational with some passive uses. Recreational activities include bushwalking tracks, sporting fields, BMX tracks, cycle ways, tennis and basketball courts. _5 soccer field _3 cricket fields _10 tennis courts _1 baseball field _1 basketball stadium

Bert Parkinson Reserve	0.18	0.18	Local	Pocket park, serving the local low density residential precinct.
Maurice Hughes Reserve	1.46	-	Local	Pocket park, serving the local low density residential precinct and in proximity to the Castle Hill High School.
Coolong Reserve	6.11	-	District	Neighbourhood park, passive and active recreation space. _6 netball courts _large grassed area for social ball games _picnic tables and BBQs _children's play equipment
Anson Place Reserve	1.28	-	Local	Pocket park, serving the local low density residential precinct. _1 children's playground
Lisa Crescent Reserve	0.18	-	Local	Pocket park, serving the local low density residential precinct. _1 children's playground
Rochester Grove Reserve	0.61	-	Local	Pocket park with passive recreation space, serving the local low density residential precinct. _2 children's playground
Sherwin Avenue Reserve	0.34	-	Local	Pocket park, serving the local low density residential precinct. _1 children's playground
Worthing Avenue Reserve	0.17	-	Local	Pocket park, serving the local low density residential precinct.
Larool Crescent Reserve	0.13	-	Local	Pocket park, serving the local low density residential precinct. _1 children's playground
Leone Avenue Reserve	0.3	-	Local	Pocket park, serving the local low density residential precinct.
Coolock Crescent Reserve	1	-	Local	Pocket park, serving the local low density residential precinct.
Arson Place Reserve	1.28	-	Local	Pocket park with passive recreation space, serving the local low density residential precinct. _1 children's playground
Cumberland Avenue Reserve	0.11	-	Local	Pocket park with passive recreation space, serving the local low density residential precinct.
TOTAL	92.66 ha	33.99 ha		

Table 2 Existing open space within an 800m and 1,600m radius of the future Showground Station

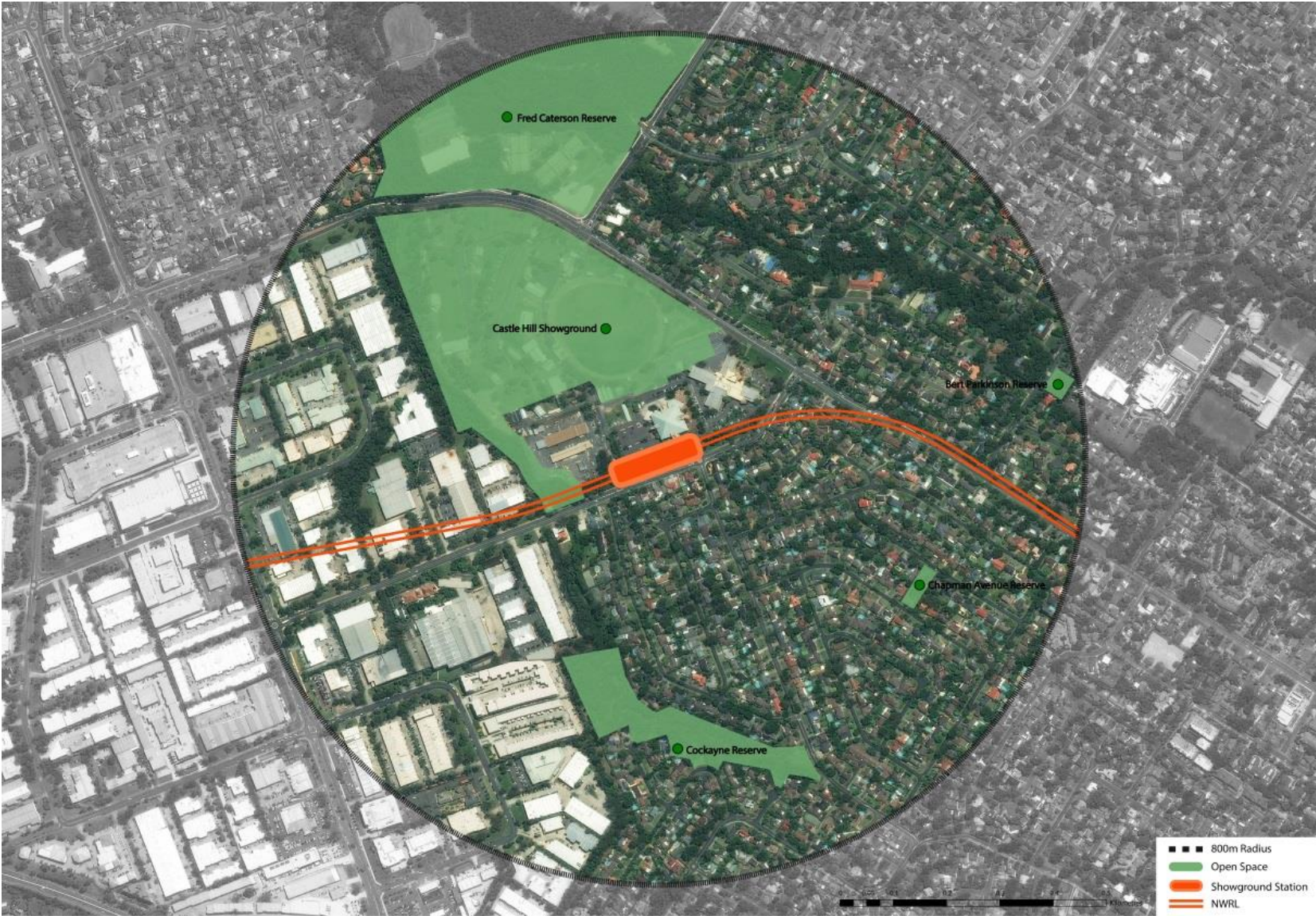


Figure 5 Existing public open space within 800m of the future Showground Station (Source: Arup adapted from The Hills LEP)



Figure 6 Existing public open space within 1,600m of the future Showground Station (Source: Arup adapted from The Hills LEP)

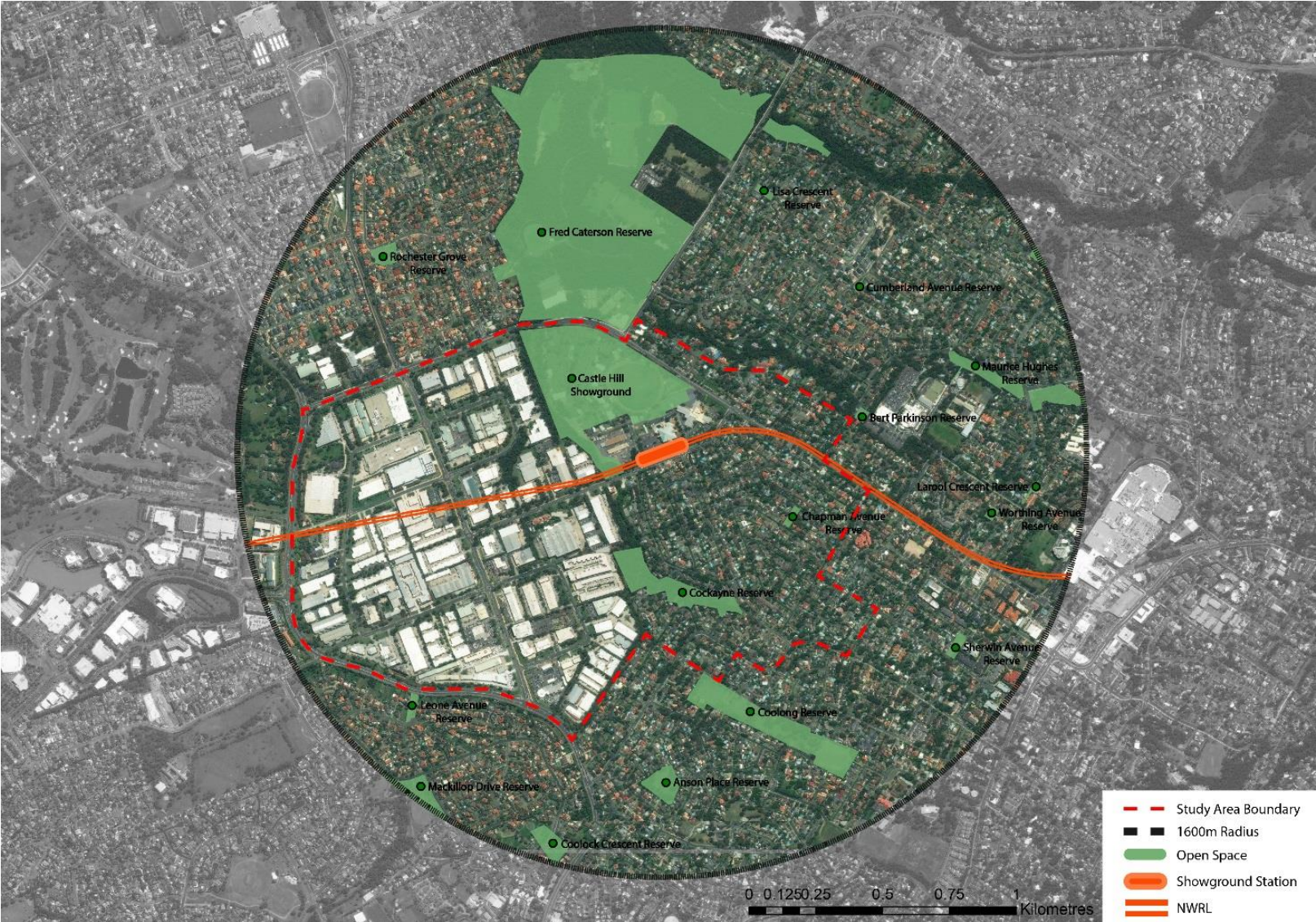


Figure 7 Study area boundary (Source: Arup adapted from NWRL Masterplanning Adjoining Lands to Station Precincts)

5.1.1 Existing active open space

The total area of active open space (by way of sporting fields and courts) categorised within the Precinct, within an 800m radius and within a 1,600m radius is identified in Table 3 below.

Quantity/Type	Location	Approx. area (ha) of active open space	Distribution of open space from Showground Station
Multipurpose venue	Castle Hill Showground	2.54	Within Precinct, 800m
Basketball stadium	Fred Caterson Reserve	0.33	800m, 1600m
10 netball courts	Fred Caterson Reserve	0.57	800m, 1600m
5 Soccer field/3 cricket pitches ⁴	Fred Caterson Reserve	0.68	1600m
Baseball field	Fred Caterson Reserve	0.9	1600m
Hills District Pony Club	Fred Caterson Reserve	1.88	1600m
Cricket cages	Fred Caterson Reserve	0.07	1600m
Lawn Bowls	6-18 Jenner Street	0.37	1600m
Field	Castle Hill High School	0.85	1600m
2 netball courts	Castle Hill High School	0.09	1600m
4 multipurpose courts	Castle Hill High School	0.19	1600m
6 netball courts	Coolong reserve	0.37	1600m
Field	Coolong reserve	0.88	1600m
2 basketball courts	Excelsior Public School ⁵	0.3	>1600m
2 multipurpose courts	Excelsior Public School	0.1	>1600m
Soccer field	Excelsior Public School	0.35	>1600m
Cricket cages	Excelsior Public School	0.02	>1600m
2 Multipurpose courts	Castle Hill Public School	0.1	>1600m
Cricket cages	Castle Hill Public School	0.5	>1600m
Total			
Within Precinct	Within 800m	Within 1600m	
2.54 ha	3.43 ha	11.08	

Table 3 Existing active open space within the Precinct boundary, an 800m and 1,600m radius of the future Showground Station

5.1.2 Castle Hill Showground

The Castle Hill Showground is a multipurpose ground, including a theatre and community meeting space, centrally located in The Hills LGA. The existing entrance to the Showground is off Showground Road, directly opposite the future Showground Station. It includes a main arena (also used as a trotting track), stables, accommodation for community groups, grassed areas and at grade parking. It holds the annual Castle Hill Agricultural Show as well as horse shows, corporate and community events and trade fairs. The Showground is presently an underutilised area, presenting an opportunity to transforming into a higher order sporting facility that meets the future needs of the present and future population.

⁴ The 5 soccer fields and 3 cricket pitches in Fred Caterson Reserve are the same i.e. the space can accommodate either 3 cricket pitches or 5 soccer fields

⁵ The active open spaces located in Excelsior Public School and Castle Hill Public School are located outside the 1600m radius of the planned railway station

Future planning for the Castle Hill Showground will be subject to a separate master planning process undertaken by Council and the community.

5.2 Existing community facilities

Existing community facilities (including community centres, halls, meeting spaces, libraries, child care centres, schools, aged and youth facilities) located within 1,600 metres of the future Showground Station are identified in Figure 8 and Figure 9.

There is one secondary school, one TAFE, one public library and six child care centres within a 1,600 metre radius of the future Showground Station. It should be noted that information provided by the Department of Education and Training indicated that in 2012 the enrolment capacity of Castle Hill High School was at 133%.⁶ The Department are currently in discussion with the Department of Education and Communities regarding education facilities, which will be addressed in the Planning Report.

The approximate distances of these educational and institutional facilities from the future Showground Station is provided below in Table 4. Not mentioned in the table is the former The Hills Entertainment Centre which was located within the Precinct. It had a seating capacity of more than 1,600 people and was demolished to make way for the future Showground Station.

Facility	Approximate distance from future Showground Station (metres)
TAFE Western Sydney Institute	1,050
Castle Hill High School	970
Carrington Preschool Long Day Care Centre	130
Just for Kids Pre School	960
Kings Road Long Day Preschool	800
Kindalin Early Childhood Learning Centres	1,400
Fiona Childcare	840
Uniting Care Wesley Preschool	1,250
Castle Hill library (including meeting rooms)	1,550
Pavilion Theatre	420

Table 4 Existing community facilities in proximity to the Precinct

⁶ Department of Education and Training, Discussions, 2015

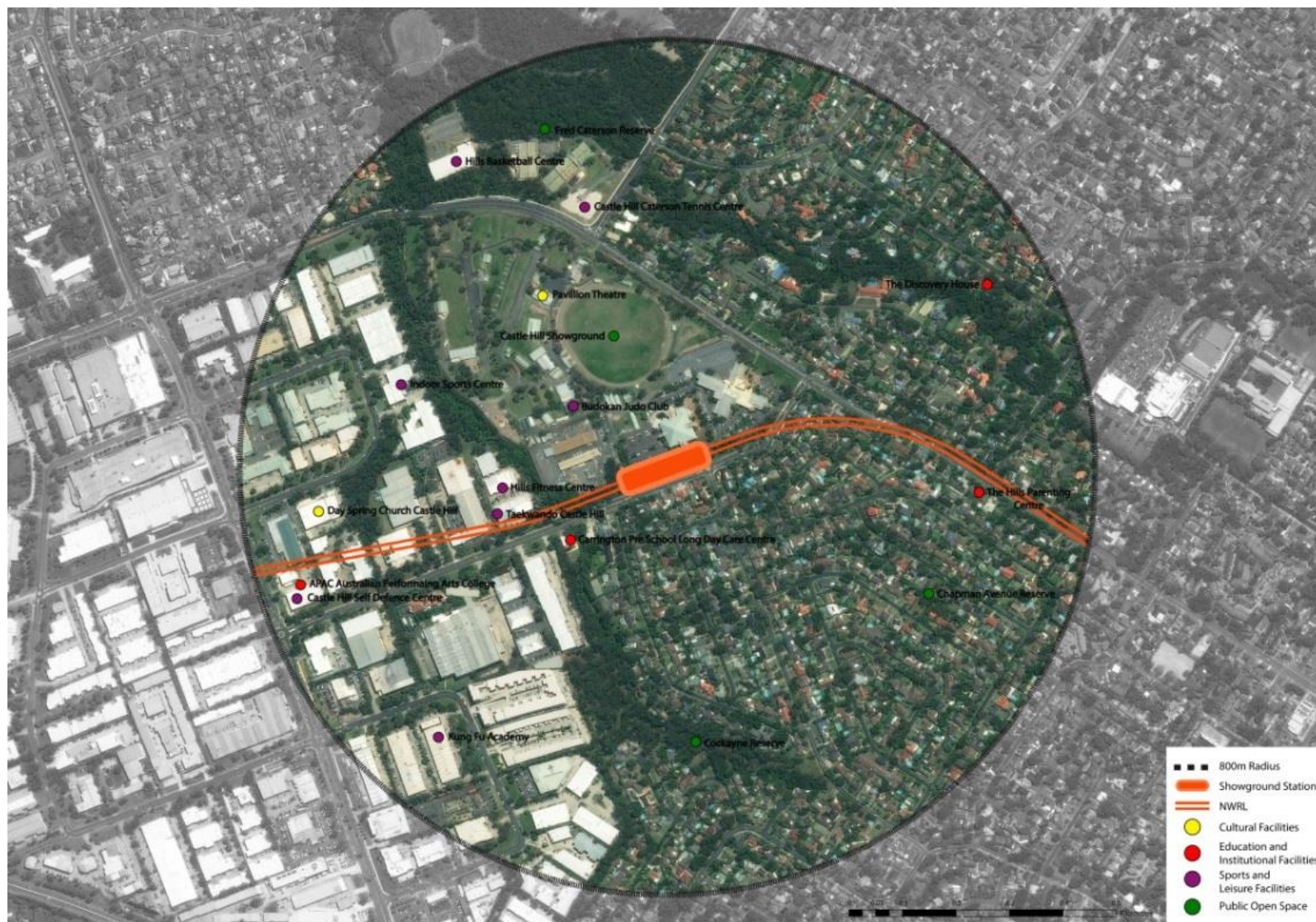


Figure 8 Existing community facilities within 800m of the future Showground Station (Source: Arup adapted from NWRL Masterplanning Adjoining Lands to Station Precincts)



6 Open Space and Community Facilities Needs

The forecasted dwelling and job growth to 2036 within the Precinct are shown below in Table 5 and have been influenced by detailed urban design analysis, economic feasibility modelling and a range of technical studies.

Population (by 2036)	Total
Projected dwellings	5,000
Projected jobs	2,300

Table 5 Projected dwellings, jobs and population by 2036 (Source: Department of Planning and Environment)

The projected open space and community facilities needs have been identified on the basis of total residential population likely to be accommodated within the proposed Precinct area. An occupancy rate of 2.1 persons per dwelling has been applied for the purpose of this study, based on recent research undertaken by the Department that shows falling household sizes with an increase in couple only and lone person households. In Sydney, the rate of 2.1 persons per dwelling is typically applied in higher density, infill / consolidation environments well served by public transport.

Rates of provision for social infrastructure need have been used where relevant to provide an indication of the needs generated by the increased population within the Precinct. It should be noted that the overall increase in population within the Sydney Metro Northwest corridor (i.e. 27,400 homes and 49,500 jobs⁷) will warrant a range of new community facilities and open space across the entire corridor. Some of the needs generated by the Precinct will be met within other Priority Precincts, The Hills LGA and the corridor more broadly.

Council's s.94A Contributions Plan outlines a number of provisions that may be imposed as a condition of development throughout the LGA, however the Plan does not apply to the Precinct. Costings for the facilities have not been provided as part of this study. As well as publicly provided facilities, there will be private sector facilities that will respond to business opportunities within the Precinct.

6.1 Needs Assessment

Assessment of adequacy

Assessment of the adequacy of proposed open space for an incoming population is however a complex process that requires balanced consideration of a range of quantitative and qualitative criteria.

To guide this process and discussed above, the former NSW Department of Planning published the 'Recreation and Open Space Planning Guidelines for Local Government' (the Guidelines). These Guidelines have become the NSW standard for open space planning within communities.

⁷ DP&E (2013) *North West Rail Link Corridor Strategy*

The key directions of these guidelines have been adapted to inform assessment of the proposed open space within the Precinct as addressed above. Key criteria used in this assessment have included:

- Amount
- Type and role
- Distribution
- Quality
- Demographics, in particular trends
- Benchmarking with other similar renewal locations.

Amount

Since the mid-20th century, the provision of open space in most new NSW communities has largely been based on quantifiable numerical benchmarks⁸. These benchmarks often took the form of a rate of open space per head of population or in some cases a percentage of land to be allocated for such purposes as part of subdivision. The current default in many parts of NSW is a rate of 2.83ha per 1000 new residents. This rate features in a number of planning frameworks, including the NSW Governments Growth Centres Code and local government open space strategies and development contribution plans⁹. As an alternative, the Guidelines suggest a default rate of 15% of non-industrial land to be allocated for open space purposes.

Type and role

The Guidelines suggest that a variety of open space types and roles is required within an area. Typical types of open space are:

- Parks
- Linear and linkage
- Outdoor sport.

This categorisation refers to the main function of the open space. Within this main function, a range of other functions can be accommodated. This includes whether the space is catering for active uses, for example ball kick about space, walking and cycling or passive uses such as seating and gathering, or whether it is aligned with a natural feature such as a creek or other water body.

The typical open space roles (being local, district and regional) refer to the catchment sizes for which the open space caters.

Distribution

Distribution is a good measure of accessibility. Locating public open space within a walking distance of homes is likely to increase the patronage of these open spaces, and increase the

⁸ A.J. Veal, University of Technology Sydney 2009, Open Space Planning Standards in Australia: in Search of Origins: U-Plan Project

⁹ Bankstown City Council 2012, Open Space Strategic Plan 2022

City of Canterbury 2010, Strategic Recreation Plan

Marrickville Council 2011, Recreation Needs for Marrickville

Stratcorp 2006, Woolhara Recreational Needs Assessment and Strategy

likelihood of patrons walking or cycling to the open space which has attendant health benefits and extends the length of the recreational activity. It is particularly important where rates of car ownership are low or for older or mobility challenged persons.

The Guidelines identify the distribution criteria as discussed in Section 6.1 and summarised in Table 6.

Type	Role	Distance from most dwellings
Parks	Local	400m
	District	2km
	Regional	5-10km
Linear and Linkage	Local	N/A
	District	N/A
	Regional	5-10km
Outdoor Sport	Regional	1km
	Regional	2km
	Regional	5-10km

Table 6 Distribution criteria (NSW Department of Planning, Recreation and Open Space Guidelines for Local Government, Dec 2010)

Another good measure of accessibility is ensuring that residents are located within a comfortable walking distance, usually up to 10 minutes (800m) of an open space.

Quality

Providing for quality open space is important in areas that are undergoing substantial growth and change such as The Precinct. Quality is affected by a number of factors, including:

- Useability
- Layout and design
- Facilities
- Maintenance.

In particular, open space should not be located on constrained land that is subject to issues such as steep topography, frequent flooding, bushfire risk or contamination.

Demographics

There are a number of broad societal trends, as reflected in ABS data, that have been currently occurring throughout Australia and that have an impact on open space planning¹⁰. These changes include:

- A growing population
- Changing population composition i.e. multiculturalism
- Emergence and increased use of technology
- Longer working hours and consequent reduction in leisure time

¹⁰ Australian Bureau of Statistics 2014, Population by Age and Sex, Australia, States and Territories

- Families with both adults working.

Based on recent research undertaken by the Department of Planning and Research¹¹, the Sydney Metropolitan region is also experiencing a number of key demographic changes. These include:

- Greater proportion of older persons (aged 65+)
- Smaller household size, with an increase in couple only and lone person households
- More people born overseas.

Hill PDA was commissioned by the Department to undertake research into the demographic characteristics of recent, comparable renewal areas in the Sydney metropolitan region¹². Their findings indicated that in such areas, there are:

- More working aged residents
- More professional working couples (15-44) without children
- More people born overseas, in particular from Asian countries
- Less vehicle ownership
- More renters.

Recreation participation and trends

These demographic changes are having an impact on the use of public open space, in particular recreation participation characteristics. The ABS data and the Australian Sports Commission administered the Exercise, Recreation and Sport Survey (ERASS), which ran from 2001 to 2010 and provided an insight into these changes¹³. Essentially, recreation participation patterns have changed significantly in the past 10 years.

In 2010, 82.3% of Australians aged 15 years and over participated in at least one physical activity for exercise, recreation or sport in the previous 12 months. This was a significant increase from the 77.8% recorded in 2001. Walking was the most popular activity for both males and females, with 35.9% of the population participating at least once in walking for exercise, recreation or sport in 2010. Walking was also the most frequently participated activity (averaging 3 times per week) with aerobics/fitness, weight training and running averaging twice per week. Other activities popular with both males and females included aerobic/fitness, swimming, cycling, running, golf, tennis and bushwalking. The recreation survey demonstrated that regular participation was much higher for non-organised activities (38.5%) than it was for organised activities (12%).

One of the most prominent trends has been a high growth in individual fitness activities including walking (for pleasure and fitness), swimming, aerobics/fitness programs, weight training and cycling. There has also been substantial growth in other non-team/non-club activities, such as aerobics/fitness, cycling and running (and parallel declines in more traditional activities such as swimming, tennis and golf).

¹¹ NSW Department of Planning and Environment 2014, NSW Population, Household and Dwelling Projections

¹² Hill PDA 2014, North West Rail Link Market Research Advice

¹³ Australian Sports Commission 2010, Exercise, Recreation and Sport Survey

Overall, the increase in participation in organised physical activity participation in NSW since 2001 (8%) has been slightly lower than the relevant population (15 years +) growth in the same period (10 per cent).

Benchmarking

As can be seen from the case studies reviewed (Table 7 in Section 6.2.1) the rate of open space provision per head of new population is substantially less than that specified in traditional quantitative standards. This is particularly the case in infill locations such as Rhodes Peninsula. This reflects the difficulty in providing new open space, in particular large, land intensive playing fields, in renewal locations due to land fragmentation. Furthermore, the provision of such open spaces would need to occur at the expense of homes and jobs, which is arguably against the primary purpose of creating growth precincts.

Table 7 also shows that in these areas the focus on new open space has been on centrally located urban open spaces such as plazas, linear open space corridors, often including walking and cycling facilities and aligned with waterways, and upgrades to the public domain.

6.2 Open Space Needs

‘Recreation and Open Space Guidelines for Local Government’ (the Department, December 2010) provides default standards for open space planning in NSW. Using catchment based access standards, these guidelines recommend between 0.5 and 2ha of local public open space be provided within 400 metres of most dwellings and between 2 and 5 hectares of district public open space be provided within 2 kilometres of most dwellings. It is however important to recognise the limitations associated with the application of standards and the quantum of social infrastructure provision in retrofitting urban infill areas, especially considering the degree of existing development. More of a qualitative approach is necessary. That is, a more balanced approach between consideration of factors such as distribution, type, quality of open space as well as demographics and sport and recreation trends.

Table 2 (Section 5.1) shows that the existing provision of open space within an 800 metre radius is currently 33.99 ha. Based on the projected population of 10,500 people and a benchmark of 2.83 ha per 1,000 people¹⁴, the Precinct would require a total of 29.71 ha of open space (which is accommodated by the existing provision). This figure has been drawn from the Growth Centres Commission, and is an open space standard typically applied to urban release areas.

6.2.1 Case Studies

A review of other infill renewal locations has been undertaken to demonstrate appropriate standards for open space provision within the other infill environments and Priority Precincts. Table 7 outlines four (4) key case studies.

¹⁴ DP&E (2010) *Recreation and Open Space Guidelines for Local Government*


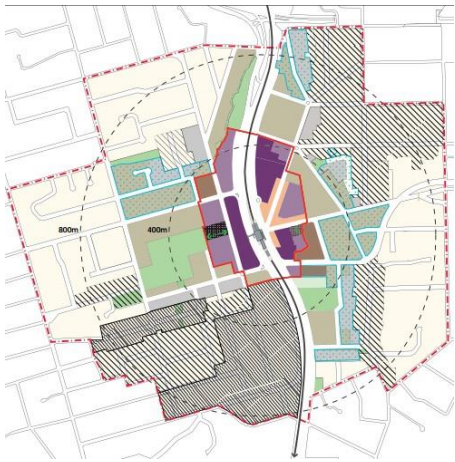

Precinct	Additional Population	Open space 1,000/people	Features	
Rhodes Peninsula	9,000	0.87 ha	<ul style="list-style-type: none"> Cycleways and pedestrian routes through foreshore reserve and public streets Bicycle parking station for 200-300 bicycles Network of open space along foreshore Multi-purpose community centre Town Square 	
Epping Priority Precinct	9,875	0.12 ha	<ul style="list-style-type: none"> Hornsby Shire Council is considering works including an extension and upgrade to West Epping Park Parramatta City Council is considering a range of upgrades to the public domain 	
Harold Park	2,500	1.9 ha	<ul style="list-style-type: none"> Public open space Common open space Landscaped streetscapes Green roofs 	

Table 7 Case studies open space benchmarks (Source: Arup and JBA)

Active recreation needs by way of sporting fields and courts should be tailored to the projected trends and participation rates of the LGA across all three (3) Priority Precincts. This is based on a review of demographics and existing data for the Precinct and taking into account the participation trends indicated in Council's 'Integrated Open Space Plan'. Further, the analysis of existing case studies, trends in social policies reviewed and existing open space provision, it appears the 50:50 split is an appropriate and reasonable rate to apply. Therefore, taking into consideration the above case studies and the approximate standard of 1ha/1000people for open space, broadly a standard of 0.5ha/1000 people can be applied for active open space by way of sporting fields and courts.

As indicated in the ‘Integrated Open Space Plan’ the predicted amount of residents using various open space facilities within The Hills Shire is identified below in Table 8. This has been based on an increase of approximately 70,000 new residents in the Hills area and a total forecasted population of 280,900 in 2031 (see Section 5 above), with over 80% wanting to use open space at least once per year¹⁵.

Outdoor facility type	No. of Hills Shire residents using open space facilities in 2021	No. (and %) of Hills Shire residents using open space facilities in 2031
Off-road trails ¹⁶	112,000	135,600 (48.2%)
Grass sportsgrounds ¹⁷	39,000	47,200 (16.8%)
Swimming pools ¹⁸	29,200	35,400 (12.6%)
Tennis / netball / courts ¹⁹	20,400	24,700 (8.8%)
Skate parks ²⁰	15,300	18,500 (6.6%)
Golf courses ²¹	12,700	15,400 (5.5%)
Bushland recreation area ²²	11,900	14,400 (4.9%)
Waterway / lake ²³	6,100	7,400 (2.6%)

²³ @leisure, 2014, Integrated Open Space Plan for the Hills Shire

Lawn bowls greens ²⁴	3,800	4,600 (1.6%)
Outdoor basketball courts ²⁵	3,200	3,900 (1.4%)
Motorsport ²⁶	2,400	2,900 (1%)
BMX track ²⁷	2,300	2,800 (0.9%)
Hockey facility ²⁸	2,260	2,700 (0.96%)
Target sports facilities ²⁹	1,600	2,000 (0.72%)
Equestrian facilities ³⁰	1,600	2,000 (0.72%)

Table 8 Likely numbers of The Hills Shire residents using open space facilities and active recreation in 2021 and 2031 (Source: @Leisure)

Based on a benchmark of 0.5ha for active open space by way of sporting fields and courts, Table 10 indicates the quantum of active open space required across the three (3) Priority Precincts Showground, Bella Vista and Kellyville whilst considering the trends and participation rates discussed in Council's 'Integrated Open Space Plan' 2014. It has been based on an increase of approximately 20,600 new residents amongst the three (3) Priority Precincts as outlined in Table 9 below.

Precinct	Existing Dwellings	Forecast Dwellings - Areas to be rezoned	Forecast Dwellings (zoning to be remain unchanged but yet to be developed)	Total Dwellings in the Precinct (2036)
Showground	590	5,000	NA	5,000
Bella Vista	2,000	4,200	2100	8,300
Kellyville	2,200	4,300	800	7,300
<i>Blacktown</i>		<i>1,140</i>		
<i>The Hills</i>		<i>3,160</i>		

Table 9 Priority Precinct growth projections (Source: Department of Planning and Environment)

²⁴ @leisure, 2014, Integrated Open Space Plan for the Hills Shire

²⁵ @leisure, 2014, Integrated Open Space Plan for the Hills Shire

²⁶ @leisure, 2014, Integrated Open Space Plan for the Hills Shire

²⁷ @leisure, 2014, Integrated Open Space Plan for the Hills Shire

²⁸ @leisure, 2014, Integrated Open Space Plan for the Hills Shire

²⁹ @leisure, 2014, Integrated Open Space Plan for the Hills Shire

³⁰ @leisure, 2014, Integrated Open Space Plan for the Hills Shire

Outdoor facility type	% of the population wanting to use type of open space	Approx. number of residents wanting to use type of open space	Quantum of open space required (0.5ha/1000person) (5m ² /person)
Off-road trails	48.2%	10,507	5.25ha
Grass sportsgrounds	16.8%	3,662	1.83ha
Swimming pools	12.6%	2,746	1.37ha
Tennis / netball / courts	8.8%	1,918	0.95ha
Skate parks	6.6%	1,438	0.71ha
Golf courses	5.5%	1,199	0.59ha
Bushland recreation area	4.9%	1,068	0.53ha
Waterway / lake	2.6%	566	0.28ha
Lawn bowls greens	1.6%	348	0.17ha
Outdoor basketball courts	1.4%	305	0.15ha
Motorsport	1%	218	0.10ha
BMX track	0.9%	196	0.09ha
Hockey facility	0.96%	209	0.10ha
Target sports facilities	0.72%	156	0.07ha
Equestrian facilities	0.72%	156	0.07ha
TOTAL			12.26ha

Table 10 Quantum of active open space required for the three (3) Priority Precincts (Showground, Bella Vista and Kellyville)

On the basis of a more qualitative based approach and using a representative quantitative figure, the active recreational standards and estimated needs indicated in the 'Integrated Open Space Plan' and the indicative standards for the provision of recreational facilities in the Department's 'Draft Development Contributions Guidelines', are not appropriate for the context of the study areas.

6.2.3 Implications for Open Space Planning in the Priority Precinct

The increased population at the Precinct will create an increased demand for the provision of public open space and recreation facilities.

The proposed open space does not achieve quantifiable standards for open space. Despite, not achieving these standards, the proposed open space network performs well when assessed against other comparable renewal precincts. At approximately 1ha/1,000 population, the Precinct significantly exceeds the average rate of 0.35ha/1,000 population of other renewal precincts.

The application of purely quantifiable standard in the absence of other more qualitative criteria has now largely been discounted for a range of reasons, including:

- Changing demographics and lifestyle preferences

- Limited evidence supporting the specified rates
- Application of a simplistic, one size fits all method that does not account for individual local context and character differences
- The frequent lack of correlation between amount and quality of open space, and
- Failure to account for the challenge of delivering new open space in established communities such as the Priority Plans that are undergoing renewal.

Rather, these quantum standards are a useful starting point. It is only in combination with other factors such as type and role, distribution, quality, responsiveness to forecast future demographics and emerging trends and comparison with other similar locations that a fair assessment of adequacy can be made.

As stated, demographic changes and recreation participation and trends will have an impact on the use and planning of open space. In particular, the increase in working age residents and older persons, and the corresponding decline in the proportional amount of school age children and broad societal trends such as longer working hours, resulting in a more time poor population, will result in a greater demand for open space that caters for informal recreational activities such as walking. Informal activities such as walking can be well accommodated in extensive and connected linear and linkage corridors. Further, the increase in time poor, working age residents will place greater demand on facilities, including fitness centres and gymnasiums. Time poor working age residents may also choose to access open space and recreational facilities closer to their workplaces, which, may be located outside of the Priority Precincts.

The increase in people born overseas, and the consequent increase in multiculturalism, will increase demand for spaces that can accommodate non-traditional recreational activities. These activities often tend to be suited to smaller, indoor spaces rather than large outdoor spaces such as playing fields. Conversely, while still popular, these changes and trends will likely result in less demand for open spaces such as large playing fields that cater for traditional organised sporting activities. Despite this, the Fred Caterson Recreation Reserve active recreational facilities by way of sporting fields and courts are located within a 1600m radius of the future Showground Station. In terms of distribution, the proposed open space network works well. Fred Caterson Recreation Reserve sporting facilities are outside the study boundary, but within an achievable travel distance for residents living in the Precinct. The Precinct Plan identifies a number of key linkage open spaces within the Precinct, which provides green links through to Fred Caterson Recreation Reserve. As well as provision for pocket parks such as the existing pocket park between Chapman and Dawes Avenue. The revitalisation of the Castle Hill Showground will also provide further opportunities for embellished cultural and community facilities.

6.2.4 Highest and Best Use of Land

The main purpose of the Priority Precincts program, which has been reflected in planning for the Precinct, is the creation of more jobs and homes in accessible locations close to public transport, in this case rapid transit. Delivery of this outcome requires careful consideration of the highest and best use of the land, with the most accessible land closest to public transport being allocated for homes and jobs, supplemented by open space and community facilities. The allocation of large areas of land for intensive sporting fields in these locations does not represent the highest and best use of land, particularly where there are suitable alternative locations close by.

On this basis, the proposed Precinct Plan, including the open space network, is considered to represent a fair balance of land use, and highest and best use of land given density, height and other key parameters.

6.2.5 Proposed Open Space

Table 9 below provides a summary of proposed open space throughout the precinct in addition to expanding the walking and cycling network.

Open space	Description summary	Proposed size
Chapman Avenue Reserve	Expanding and embellishing Chapman Avenue Reserve	Currently 1,900m ² and expanding to approximately 4,150m ²
Riparian Corridor	Zoning of certain areas of riparian corridors that are currently in private ownership as public open space	An additional 4.3ha
Village Plaza	A combination of three squares, with one acting as a central lawn for workers and visitors to enjoy lunch and engage in informal games	1,150m ² with an additional 1,950m ² of plazas to be delivered by Sydney Metro Northwest
Castle Hill Showground	Potential for new regional recreation and sporting fields	Existing area of approximately 14.5ha

Table 9 Proposed open space (Source: Department of Planning and Environment)

6.2.6 Conclusion

The Precinct Plan's proposed open space network is considered to adequately cater for the likely recreation needs of the incoming community and recommendations are made in Section 0 of this report. The proposed open space network is also based on a balanced consideration of performance against more traditional evaluation criteria, comprising amount, distribution, societal and demographic changes, difficulties in delivering open space in renewal locations and the primary aim of the Precinct, which is to deliver more homes and jobs close to the station.

6.3 Community facilities needs

On the basis of the standards shown in

Facility	Benchmark	New facilities required
Youth Centre	1 per 10,000 to 30,000 people	40 - 120% of a youth centre
Branch Library	1 per 10,000 to 33,000 people	36 - 120% of a branch library

Local / Small Community Centre	1 per 3,500 to 6,000 people	2 - 3 local / small community centres
Performing arts / cultural centre	1 per 50,000 to 120,000 people	10 – 24% of a performing arts centre

Table 10, the Precinct Plan may require the addition of a youth centre and community centre. Consultation with providers of youth programs and youth centres will be required to determine whether there is sufficient capacity in existing facilities (desktop research shows they appear to be largely undertaken through existing places of worship) and whether there are any planned non-denominational facilities that could accommodate additional demand generated by the future young residents of the Precinct.

Given the proximity of the recently constructed Castle Hills library, which is a higher order facility serving a larger catchment, and is within approximately 1,500 meters of the future Showground Station, it is not expected that a local library be provided or required within the Precinct.

It is recommended that a community centre be provided within the Precinct. Ideally this would be accommodated within a multi-purpose facility and potentially located within the revitalised Castle Hill Showground. The potential provision of such a facility should be considered in all future master planning for the Precinct and the Showground.

Council have identified that a venue for performing arts is required given the recent demolition of The Hills Entertainment Centre and the intent for the Precinct to accommodate cultural facilities, the Precinct could accommodate a multi-purpose performing arts venue.

Facility	Benchmark	New facilities required
Youth Centre	1 per 10,000 to 30,000 people ³¹	40 - 120% of a youth centre
Branch Library	1 per 10,000 to 33,000 people ³²	36 - 120% of a branch library
Local / Small Community Centre	1 per 3,500 to 6,000 people ³³	2 - 3 local / small community centres
Performing arts / cultural centre	1 per 50,000 to 120,000 people ³⁴	10 – 24% of a performing arts centre

Table 10 Community facilities needs estimates

³¹ NSW Department of Planning (2009) Draft Development Contributions Guidelines

³² NSW Department of Planning (2009) Draft Development Contributions Guidelines

³³ NSW Department of Planning (2009) Draft Development Contributions Guidelines

³⁴ NSW Department of Planning (2009) Draft Development Contributions Guidelines

6.4 Children's services needs

Analysis into the demographic trends for the Precinct suggests strong projected growth in the younger age groups³⁵. According to the standard provided by the NSW Department of Planning (2009) this will generate demand for 1 long day care centre, 2-3 preschools, 1 occasional care centre and 1 outside of school hours care centre (Table 11). In terms of the location of the child care facilities, the provision of a facility in close proximity to the future Showground Station would allow for ease of drop-off and pick-up for care givers using the Sydney Metro Northwest.

Facility	Benchmark	New facilities required ³⁶
Long day care centres	1 : 320 children aged 0-5 years ³⁷	1 long day care centre ³⁸
Pre-schools	1 : 4-6,000 people ³⁹	2 – 3 pre-schools
Occasional care centres	1 : 12-15,000 people ⁴⁰	80% - 1 occasional care centre
Outside of school hours care	1 : 10-30,000 people ⁴¹	40% - 1 outside of school hours care

Table 11 Children's needs estimates

6.5 Education needs

Presently, Castle Hill High School and Castle Hill TAFE are located within 1,600m of the future station. As previously mentioned, the Department of Planning and Environment has undertaken discussions with the Department of Education and Communities regarding the provision of primary and secondary schools within the Sydney Metro Northwest corridor. This is addressed in the Planning report prepared by the Department of Planning and Environment.

³⁵ NSW Department of Planning and Environment (2014) Showground Station Precinct Demographic Profile

³⁶ Assuming existing facilities are currently at capacity and they are to solely serve the Showground Station Precinct

³⁷ NSW Department of Planning and Infrastructure (2009) Draft Local Development Contributions

³⁸ Calculated on the basis of approximately 5% of the proposed Precinct population aged between 0 and 5 years

³⁹ NSW Department of Planning and Infrastructure (2009) Draft Local Development Contributions

⁴⁰ NSW Department of Planning and Infrastructure (2009) Draft Local Development Contributions

⁴¹ NSW Department of Planning and Infrastructure (2009) Draft Local Development Contributions

7 Recommendations

The Precinct Plan will generate a future population which triggers the need for a number of additional facilities:

- Public open space to meet the future active and passive needs of residents, workers and visitors
- Multipurpose youth centre accommodating youth and community needs
- Children's services - 1 long day care centre; 2-3 preschools; 1 occasional care centre and 1 outside of school hours care centre

Future key matters to be considered in detailed master planning processes:

- Provide open spaces to provide for a range of informal recreation and programmed activities e.g. weekend markets
- Flexible and adaptable active open space that provides a quality space for new residents as a short-term planning solution (e.g. Plug n Play in Orestad, Copenhagen)
- Provide indoor courts and the co-location of these courts with other community facilities at the Castle Hills Showground for the use of the community and local schools
- Locate childcare in close proximity to the future Showground Station to allow for ease of drop-off and pick-up for care givers using the Sydney Metro Northwest (e.g. Fruitvale, Oakland)
- Enhance green links to sporting fields and courts within the broader region, outside the Precinct such as the Fred Caterson Reserve
- Community facility typologies to include vertical buildings
- The potential upgrades of existing active recreation facilities in order to provide further capacity or increase usability e.g. the use of synthetic grass
- Early engagement with private sector to assess the market readiness to respond to the provision of private sector social infrastructure to promote early activation.

8 References

- Australian Bureau of Statistics 2014, Population by Age and Sex, Australia, States and Territories
- Australian Sports Commission 2010, Exercise, Recreation and Sport Survey
- A.J. Veal, University of Technology Sydney, 2009, Open Space Planning Standards in Australia: in search of origins: U-Plan Project
- Department of Planning 2009, *Draft Local Development Contributions Guidelines*
- Donovan Hill, Urban Growth NSW & Transport for NSW 2013, *NWRL Masterplanning Adjoining Lands to Station Precinct*
- Growth Centres Commission 2006, *Development Code: Precinct Development Parameters*
- Hill PDA & Cox Richardson 2013, *North West Rail Link Corridor Strategy*
- Hill PDA 2014, North West Rail Link Market Research Advice
- Jones Lang Lasalle Figures, 2015
- The Hills Shire Council 2005, *Cultural Plan for Baulkham Hills Shire*
- The Hills Shire Council 2008, *The Hills Shire Council's Adopted Draft Local Strategy*
- The Hills Shire Council 2011, *Tracks and Trails Strategy*
- NSW Department of Planning and Environment 2014, NSW Population, Household and Dwelling Projections
- New South Wales Department of Planning and Environment (2014), *Planning for Sydney's North-West*
- New South Wales Department of Planning and Environment (2014), *Showground Station Precinct Demographic Profile*
- New South Wales Department of Planning and Environment and the Hills Shire Council (2014), *North West Rail Link Station Precinct Community Consultation Report*
- New South Wales Department of Planning and Environment (2010) Recreation and Open Space Planning Guidelines for Local Government
- New South Wales Government, *Green Grid*, Government's Architect Office
- New South Wales Government 2011, *NSW 2021 a plan to make NSW number one*, Department of Premier and Cabinet
- New South Wales Government 2013, *Showground Road Station Structure Plan*
- North West Rail Link Environmental Impact Statement*
- Social Infrastructure Discussion Paper*
- Stratcorp Consulting 2007, *Recreation Strategy*
- Thanh Danh Vo 2009, *Bike Plan Review*
- @Leisure 2014, *Integrated Open Space Plan for the Hills Shire*

Appendix A

Showground Station Precinct Demographic Profile

Bella Vista Station Precinct Demographic Profile

October 2014

Contents

1	Introduction.....	1
2	Age structure	3
3	Culture and Language.....	4
4	Education	5
5	Employment	6
6	Transport	6
7	Households and Dwellings.....	7
8	Socio-Economic Advantage	9
9	Projected Population	9

List of Figures

Figure 1	Location of Bella Vista Precinct and the North West Rail Link Strategy study areas.....	1
Figure 2	Bella Vista Precinct map identifying the Australian Bureau of Statistics' Statistical Area Level 1 (SA1) and Bureau of Transport's Travel Zones	2
Figure 3	Population pyramids, 2011	3
Figure 4	Language spoken at home, 2011	4
Figure 5	Levels of education, 2011	5
Figure 6	Mode of transport to work , 2011	6
Figure 7	Car ownership per dwelling, 2011	7
Figure 8	Types of dwellings, 2011	7
Figure 9	Household types, 2011	8
Figure 10	Average household size, 2011	8
Figure 11	Distribution of dwellings by tenure type, 2011	9
Figure 12	Projected population of The Hills, by age group.....	10

List of Tables

Table 1	Population by age group, 2011	3
Table 2	Median Age (years), 2011	3
Table 3	Population by place of birth, 2011.....	4
Table 4	Population with one or both parents born overseas, 2011.....	4
Table 5	Top 10 Countries of Birth of people who live in Bella Vista Precinct.....	4
Table 6	Top 10 Languages spoken at home in Bella Vista	5
Table 7	Highest post-school qualification attained, 2011	5
Table 8	Share of population attending an education institution, 2011	6
Table 9	Employment status of the population in labour force, 2011.....	6
Table 10	Top 5 industries of employment.....	6
Table 11	Share of families experiencing housing stress, 2011	9

1 Introduction

This profile provides background on population statistics to assist in the planning of the redevelopment of the Bella Vista Urban Activation Precinct as defined by NSW Department of Planning and Environment.

The Bella Vista precinct comprises parts of the suburbs of Bella Vista, Kellyville and Glenwood in Sydney's North West and includes the area surrounding the Bella Vista Station along the North West Rail Line.

The precinct is located within The Hills and Blacktown Local Government Areas.



Figure 1 Location of Bella Vista Precinct and the North West Rail Link Strategy study areas

For the purpose of this profile:

- the Bella Vista precinct (see Figure 2) refers to the following:
 - Australian Bureau of Statistics (ABS) Statistical Areas Level 1 (SA1s): 1129101, 1129126, 1129127, 1129137, 1129138, 1129540, 1130925, 1130926, 1130930, 1130931, 1130932, 1130934, 1130935, 1130936
- Bureau of Transport Statistics (BTS) Travel Zones: 3900, 3902, 4513, 4516, 4521, 4567, 4568, 4571, 4572.
- The Hills refers to The Hills Shire local government area, as defined on 1 July 2011.
- Blacktown refers to the Blacktown local government area, as defined on 1 July 2011.
- Sydney refers to the Sydney Metropolitan planning region.

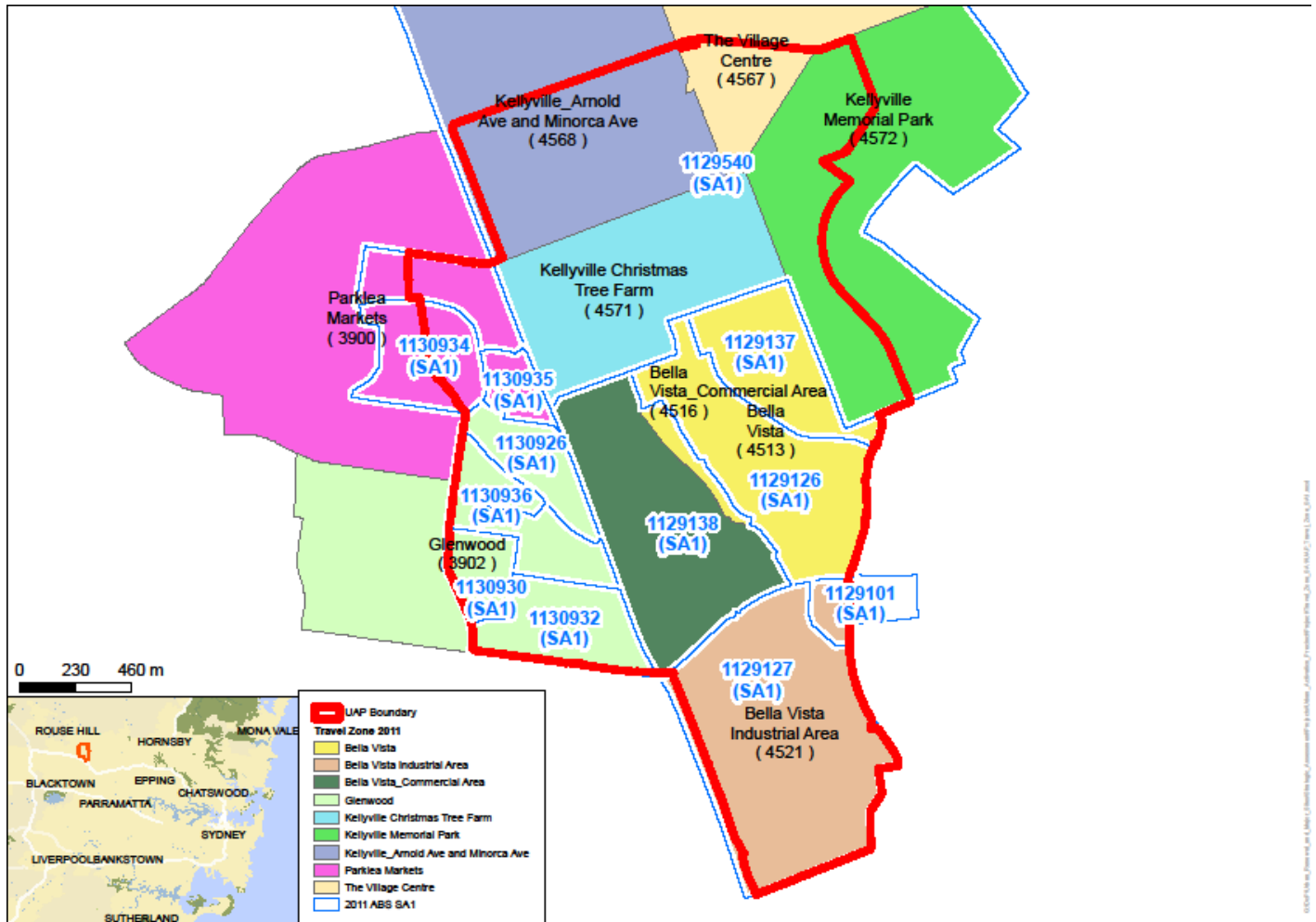


Figure 2 Bella Vista Precinct map identifying the Australian Bureau of Statistics' Statistical Area Level 1 (SA1) and Bureau of Transport's Travel Zones

In 2011, the Bella Vista Precinct was home to 5,541 people. More than half of them (57%) were living in Blacktown and the remainder (43%) lived in The Hills. As this profile will show, Bella Vista's population has a greater resemblance to The Hills population as a whole (please refer to Section 2. Age structure). For this reason, reference will not be made to Blacktown in this profile.

2 Age structure

In 2011, a large proportion of Bella Vista residents were school aged children and people in their late-30s, 40s, and 50s. There were a larger proportion of young children, teenagers and mid-age adults compared to Sydney as a whole. The precinct's age profile mirrored that of The Hills as a whole. Even though a significant proportion of the Bella Vista population lives in Blacktown, there is no similarity to Blacktown's age profile (see Figure 3). This reflects Bella Vista, and The Hills location, as a part of Sydney dominated by families with older children.

There were a smaller proportion of older residents and those in their late-20s and early-30s in Bella Vista. Overall, the 'average' Bella Vista resident was slightly younger compared to The Hills and Sydney as a whole.

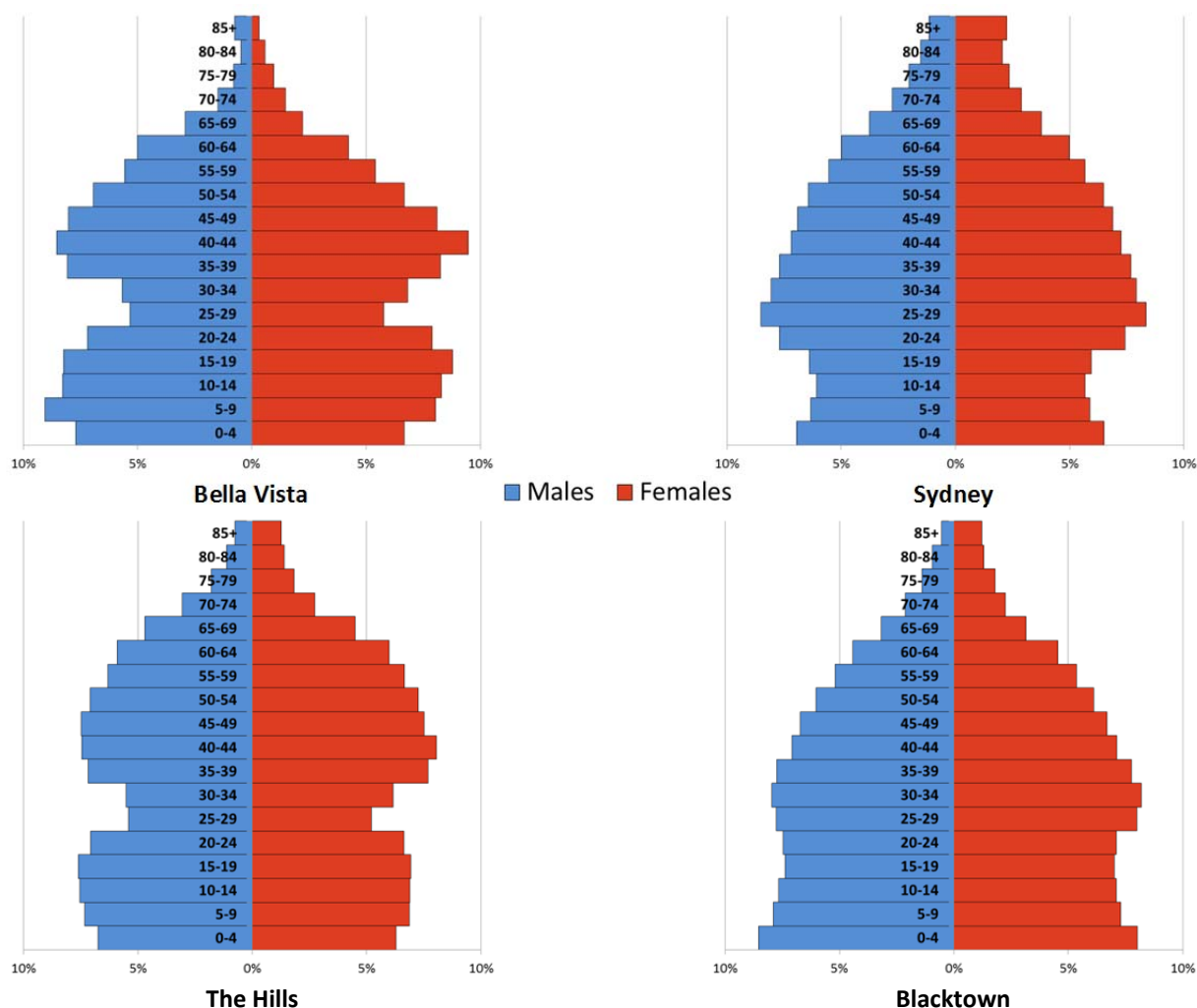
Table 1 Population by age group, 2011

	Number				Age Distribution			
	Bella Vista	The Hills	Blacktown	Sydney	Bella Vista	The Hills	Blacktown	Sydney
Under 15	1,330	36,877	72,630	801,837	24.0%	20.8%	23.3%	18.7%
15-39	1,996	57,887	119,286	1,622,604	36.0%	32.7%	38.2%	37.9%
40-64	1,883	61,745	92,475	1,336,048	34.0%	34.9%	29.6%	31.2%
65 and older	332	20,505	27,955	525,728	6.0%	11.6%	9.0%	12.3%
Total	5,541	177,014	312,346	4,286,217				

Table 2 Median Age (years), 2011

Bella Vista	The Hills	Blacktown	Sydney
33.5	37.6	32.7	35.7

Figure 3 Population pyramids, 2011



3 Culture and Language

In 2011, more than half of Bella Vista residents were born in Australia, slightly lower than The Hills and Sydney as whole. Additionally, Bella Vista had a higher proportion of its residents who were the children of migrants. The overseas-born population (2,234 residents) in Bella Vista was culturally diverse.

Table 3 Population by place of birth, 2011

	Australia	Overseas
Bella Vista	58.7%	41.3%
The Hills	66.4%	33.6%
Sydney	62.0%	38.0%

Table 4 Population with one or both parents born overseas, 2011

	One or more parent born overseas
Bella Vista	69.1%
The Hills	58.6%
Sydney	63.5%

Table 5 Top 10 Countries of Birth of people who live in Bella Vista Precinct

1. Australia (58.7%)
2. India (6.5%)
3. Philippines (4.2%)
4. England (2.7%)
5. Fiji (2.1%)
6. Sri Lanka (2.0 %)
7. China (excludes SARs and Taiwan) (1.8%)
8. New Zealand (1.7%)
9. South Africa (1.5%)
10. Malaysia (1.1%)

A smaller proportion of the residents in Bella Vista spoke English at home compared to The Hills and Sydney. Of the people that spoke a language other than English, a greater share (73%) spoke English very well compared to other parts of Sydney. This is also reflective of the larger share of residents with at least one parent born overseas. Many other languages were spoken by residents of the Bella Vista community, reflecting the cultural diversity of the precinct.

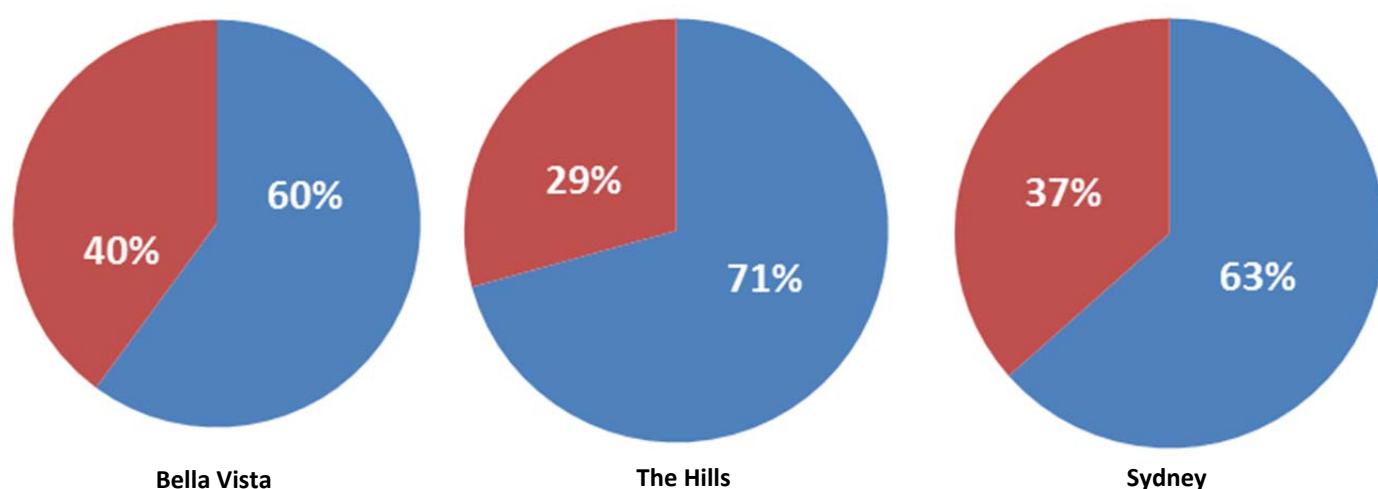


Figure 4 Language spoken at home, 2011

■ Spoke English at home ■ Spoke a language other than English at home

Table 6 Top 10 Languages spoken at home in Bella Vista

1. English (60.0%)
2. Hindi (5.0%)
3. Punjabi (3.2%)
4. Mandarin (3.2%)
5. Arabic (2.5%)
6. Tagalog (2.3%)
7. Cantonese (1.9%)
8. Tamil (1.5%)
9. Filipino (1.3%)
10. Italian (1.3%)

4 Education

Most of the adult population (aged 15 years or older) in Bella Vista had completed at least Year 10 at school (93%) and over 40%, a post school qualification. This revealed residents of Bella Vista experienced slightly lower rates of post-school qualification attainment compared to Sydney as a whole. However, of those with a post-school qualification, the distribution of those who completed tertiary level including TAFE, was similar to other parts of Sydney.

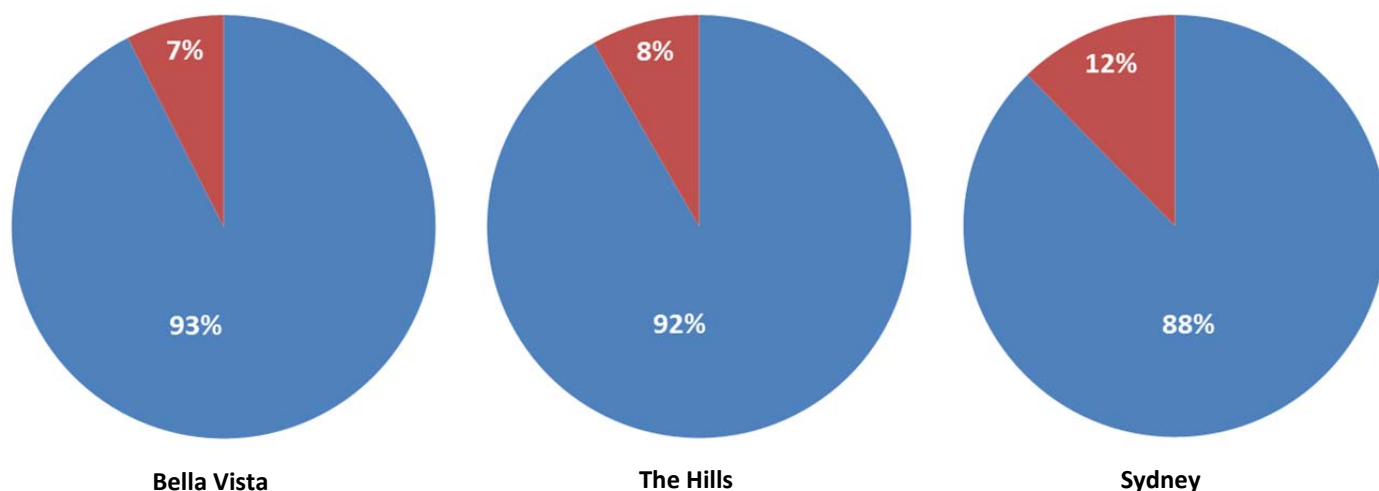


Figure 5 Levels of education, 2011

■ Completed Year 10 or higher

■ Did not go to school or complete at least Year 10

Table 7 Highest post-school qualification attained, 2011

	Postgraduate Degree Level	Graduate Diploma and Graduate Certificate Level	Bachelor Degree Level	Advanced Diploma and Diploma Level	Certificate Level	No Post-school Qualification
Bella Vista	4.8%	1.3%	16.4%	9.2%	11.4%	56.9%
The Hills	6.8%	2.1%	22.1%	12.0%	17.3%	39.7%
Sydney	6.6%	1.8%	19.8%	10.2%	16.4%	45.1%

The number of residents attending an educational institution reflected the age profile of Bella Vista's population. More school aged children, and fewer residents in their 20s meant a greater share of residents attended school where as a smaller share attended a post-secondary institution, including TAFE and university, compared to the Sydney region.

Table 8 Share of population attending an education institution, 2011

	Preschool	Primary school	Secondary school	Technical or further education institution	Tertiary Institution
Bella Vista	7.0%	33.8%	29.7%	8.2%	16.7%
The Hills	7.8%	34.2%	29.0%	7.2%	19.4%
Sydney	7.2%	31.5%	26.0%	9.8%	21.9%

5 Employment

In 2011, 3,059 Bella Vista residents were part of the labour force. They represented 74.5% of the population—revealing a higher labour force participation rate compared to Sydney as a whole (66%). There was also a lower level of unemployment within the precinct.

Table 9 Employment status of the population in labour force, 2011

	Employed	Unemployed
Bella Vista	95.4%	4.6%
The Hills Shire	95.9%	4.1%
Sydney	94.3%	5.7%

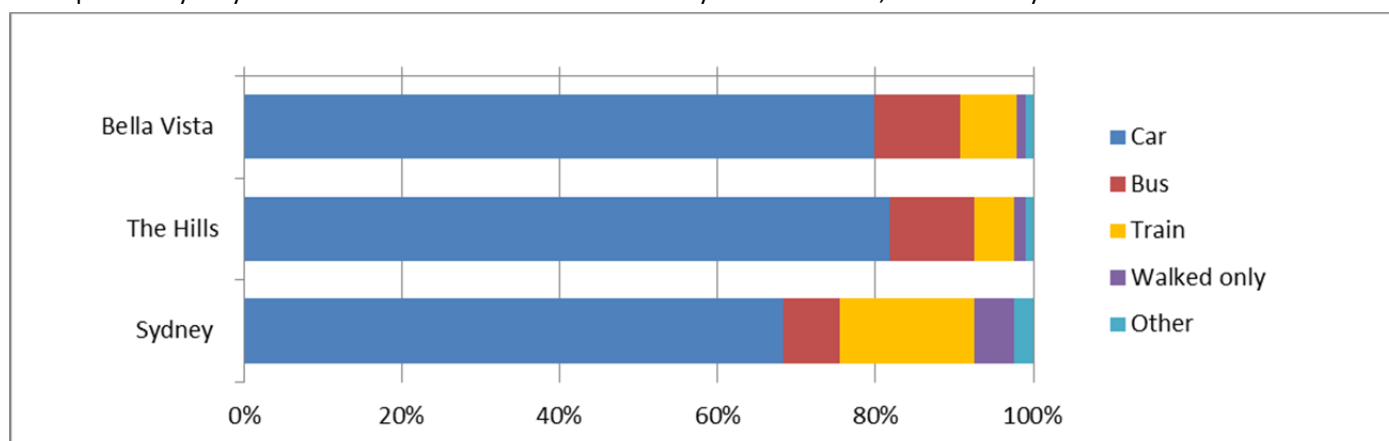
Table 10 Top 5 industries of employment

1. Retail Trade (12.5%)
2. Health Care, and Social Assistance (11.5%)
3. Professional, Scientific and Technical Services (9.2%)
4. Manufacturing (9.0%)
5. Construction (7.8%)

There was a higher concentration of residents in Bella Vista working in Retail Trade, and Health Care and Social Assistance compared to Sydney as a whole.

6 Transport

Car was the most common mode of transport used by the working population in Bella Vista, The Hills and Sydney as a whole to travel to work. However the revealed preference of traveling by car was much higher in Bella Vista and The Hills compared to other parts of Sydney. Bella Vista residents were also more likely to take the bus, and less likely to take the train to work.

**Figure 6 Mode of transport to work , 2011**

Households were more likely to own a motor vehicle in Bella Vista compared to Sydney as a whole. In 2011 most dwellings in the precinct owned two or more vehicles.

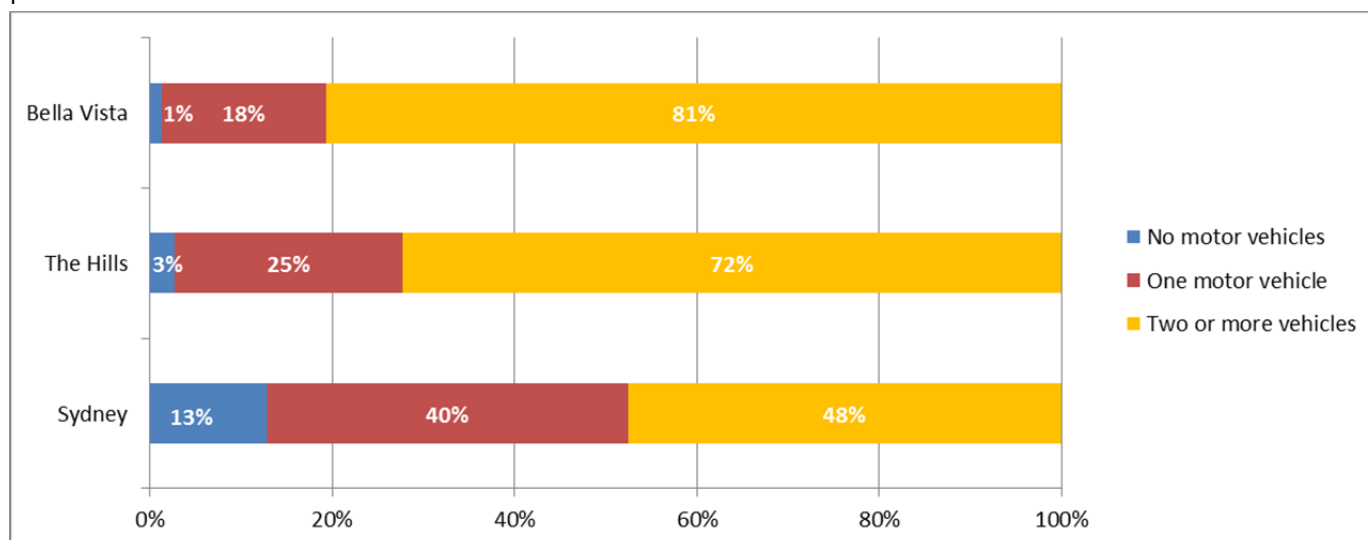


Figure 7 Car ownership per dwelling, 2011

7 Households and Dwellings

There were 1,642 dwellings in Bella Vista in 2011. Most of these (86%) were separate houses, with no flat or apartment blocks within the precinct.

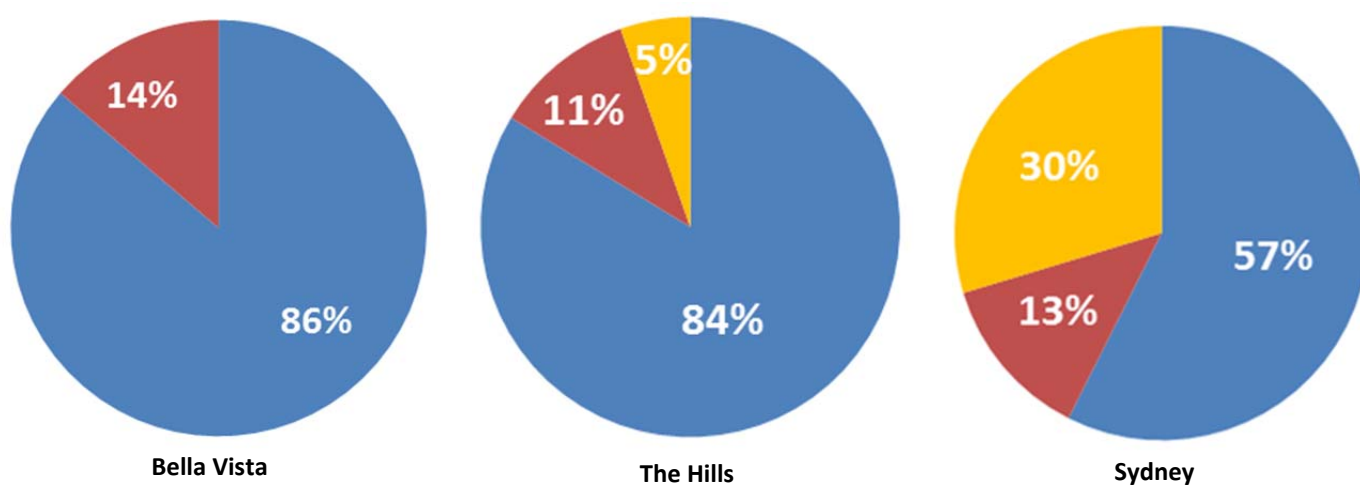


Figure 8 Types of dwellings, 2011

The data reveals a strong relationship between the main household types of an area, the population's age profile and housing stock available. Nuclear families (couple with children) made up more than half of all households in Bella Vista. Only 7.5% of households were made up of people living alone compared to 22% of households in the Sydney region. This is a reflection of more children and people in the 30s, 40s and 50s in Bella Vista. As a result, the average household size (3.5 persons per household) was larger in Bella Vista than in Sydney as a whole.

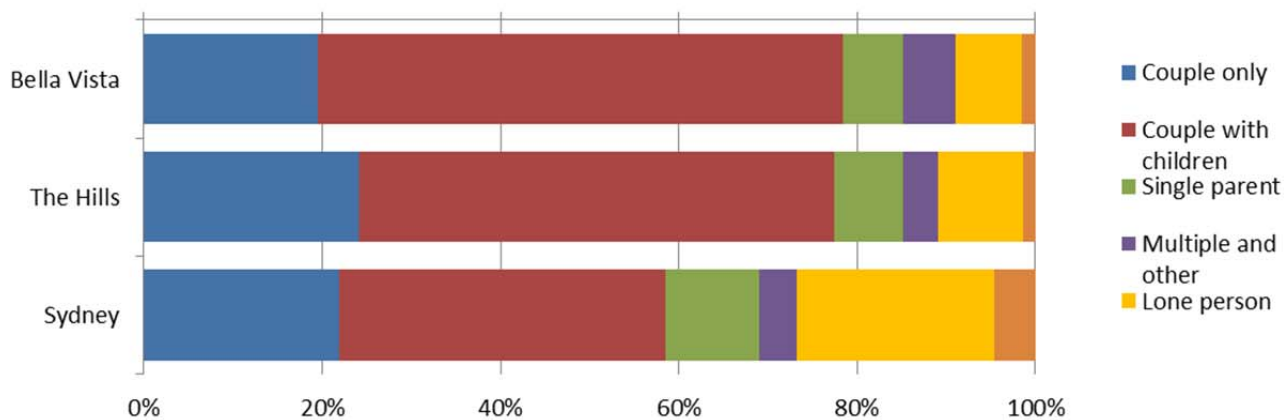


Figure 9 Household types, 2011



Figure 10 Average household size, 2011

Most dwellings in Bella Vista were owned outright or with a mortgage. Far fewer households were renting compared to other parts of Sydney.

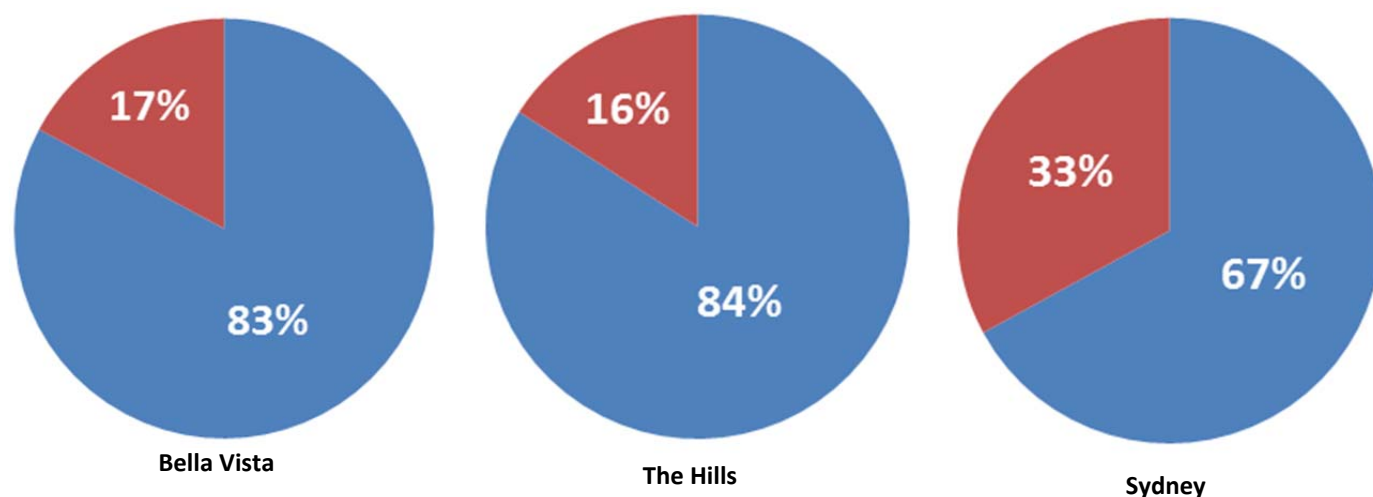


Figure 11 Distribution of dwellings by tenure type, 2011

■ Owned outright or with a mortgage ■ Rented

8 Socio-Economic Advantage

There are slightly fewer families in Bella Vista experiencing housing stress compared to The Hills and Sydney as a whole. This is coupled with families in Bella Vista earning a higher median income range of \$104,000-\$129,999 per year compared to Sydney as a whole earning \$65,000 - \$77,999 per year.

Table 11 Share of families experiencing housing stress, 2011

	Families experiencing housing stress
Bella Vista	36.3%
The Hills	40.9%
Sydney	44.7%

9 Projected Population

The Hills is expected to grow by 103,900 people over the next 20 years, from 177,000 to 280,900 people by 2031. This is a 59% increase, compared to 37% in the Sydney region over the same period. Over 70% of this growth will come from migration, with people moving to The Hills from overseas and other parts of NSW.

Like everywhere else, the population of The Hills is ageing. The population aged 65 years or older is expected to double by 2031; with 45,650 older residents representing 16.2% of The Hills population, up from 11.6% in 2011. Even so, strong projected growth in the younger age groups means The Hills will continue to be a younger population than Sydney as a whole. The current age profile of fewer young adults and large numbers of school aged children and people in their 40s and 50s will be sustained in to the future.

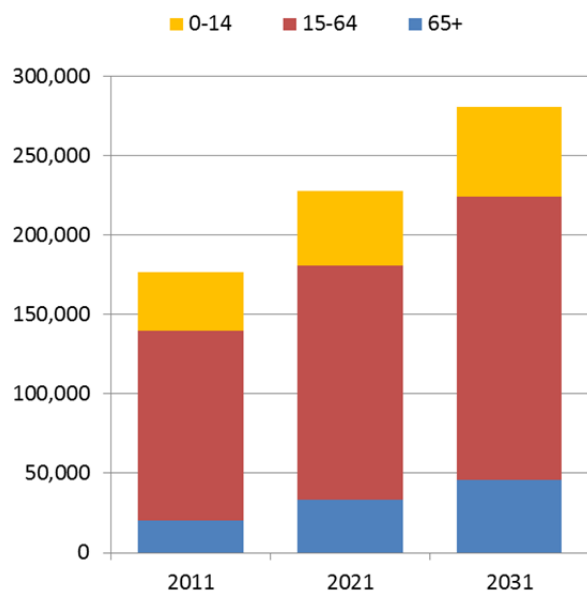


Figure 12 Projected population of The Hills, by age group

Date prepared: October 2014

Sources:

Australian Bureau of Statistics, 2012, *Census of Population and Housing 2011*, customised tables, ABS, Canberra.

<<http://www.abs.gov.au/websitedbs/censushome.nsf/home/Census> >

Bureau of Transport Statistics, 2012, 2011 Journey to Work data, BTS, Sydney,

<<http://www.bts.nsw.gov.au/Statistics/jtw/default.aspx#top>>.

NSW Department of Planning and Environment, 2014, *2014 NSW and local government area population, housing and dwelling projections*, DP&E, Sydney. <<http://www.planning.nsw.gov.au/projections>>