

Social Planning Analysis for South Dural Precinct

Final report

Client:

APP, on behalf of Statewide Property Ventures

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Executive Summary

This report provides an assessment of the social infrastructure that will be required to support proposed residential development within a development area known as the South Dural Precinct, within Hornsby Shire. The report has been prepared for APP, who is working with the land owners to rezone the site for urban purposes.

The South Dural site is bounded by Old Northern Road, Hastings Road and New Line Road. While located wholly within the Hornsby Shire, the site abuts The Hills Shire, on the western side of Old Northern Road.

The social infrastructure considered in this study includes local government community, cultural and recreation facilities and open space, and the services and facilities provided by state government human service agencies, non-government and private sector providers. The study identifies the likely future needs of the South Dural population for these types of facilities and services, and outlines how those needs will be met.

In addition to an Introduction, the report contains six sections.

Section 2 sets out the policy context for the study, providing a summary of relevant directions from key Hornsby Council policies. These include the Community Strategic Plan, Housing Strategy, Section 94 Development Contributions Plan, Community and Cultural Facilities Strategic Plan and Active Living Hornsby Strategy. These provide guidance in planning community, cultural and recreational facilities and open space for South Dural.

Section 3 presents an overview of the social context for development within South Dural. It considers issues of growth and change in this part of the Shire, the characteristics of the population currently living within the development area and wider Hornsby area, and the availability of existing social infrastructure in the surrounding area which could address the needs of the future South Dural population.

Although social infrastructure within the site currently is very limited, the site has good access to a range of existing facilities and services in the surrounding area, with those likely to be available to meet some of the needs of the South Dural population including schools, childcare centres, residential aged care facilities, emergency services and medical services.

Shortfalls in current provision relate primarily to facilities, services and open space provided by local government. Access to community centre space, including library space, and access to recreational open space and sports fields in the Hornsby Shire is limited. Facilities located in the surrounding area are currently at capacity, and any spare capacity that does exist is likely to be taken by future population growth associated with the Metro Northwest station precincts. The proposed development will therefore need to augment the supply of these types of facilities if the needs of the South Dural population are to be met.

Section 4 presents population forecasts for the proposed development. Based upon a yield of up to 2,900 dwellings and a mix of separate dwellings and apartments, development of the site is likely to generate a population of around 7,700 people. Reflecting the diversity of dwelling types proposed, this population is likely to include a range of household types, with a predominance of families with children in the detached dwellings and predominance of 1-2 person households in the apartments.

Section 5 considers how the needs of the South Dural population for community facilities and human services will be addressed.

Overall, a forecast of population of around 7,700 people is considered to provide a small catchment that will create only modest demands for community facilities and human services. It is proposed that demand for local government community and library facilities will be met by augmenting existing facilities in Galston and Cherrybrook, in line with Council's *Community and Cultural Facilities Strategic Plan* and Section 94 development contributions requirements. Existing public primary and high schools to the north of the site will be able to accommodate forecast population growth. No new Council or State Government facilities are proposed to be located within the site.

Needs for commercial and non-government facilities such as childcare and medical centres can only be established later in response to market demand, and are permissible uses within residential zonings.

The development will not be large enough to warrant the provision of higher order district and regional level facilities and services, and will instead rely on those provided in the wider area, particularly in Castle Hill Town Centre and Cherrybrook.

Accordingly, the Indicative Structure Plan for South Dural has not identified any sites for community facilities.

Section 6 considers needs for open space, sporting and recreation facilities, and the ways in which those needs will be met. The extensive bushland and riparian corridors that bisect the site present opportunities to create a network of adjoining open space that will include parks and linear connections suitable for walking, cycling and a range of informal recreation activities, in line with the likely needs of the future population.

At this stage in the planning process, indicative locations only for public open space have been identified. The detailed design and quantification of public open space will be undertaken in subsequent stages of the planning process. Commitments at this stage include:

- » All dwellings will meet minimum requirements of being within five minutes walking distance from open space.
- » Each village will contain a park of minimum 0.5 ha.

Based upon existing levels of provision in Hornsby Shire, the future population will also generate a need for two playing fields. There are challenges in addressing this need within the precinct, associated with its steep topography and fragmented pattern of land ownership. A potential site for one playing field has been identified in the North West Village, and there may be opportunities to create a second playing field as the detailed design of open space in the other villages is undertaken. Alternatively, a suitable location off-site may be sought for a further playing field or the upgrading of an existing playing field.

Again the population will not be large enough to support its own district and sub-regional sport and recreation facilities, and will instead rely on those in the surrounding area, especially with regard to sports courts, indoor recreation centres and aquatic facilities.

Section 7 provides a brief conclusion which sums up the findings outlined above.

1 Introduction

1.1 Background and context

The South Dural site is a large parcel of land located wholly within Hornsby Shire, bounded by Old Northern Road, Hastings Road and New Line Road. The site is in private ownership, with multiple owners, and comprises predominantly low density, large lot residential uses at present, together with a variety of other facilities including a function centre, tourist accommodation, horticultural uses and some other commercial development. A large retirement village, Glenhaven Green Retirement Village, adjoins the south-west corner, and does not form part of the South Dual Precinct. Georges Creek flows through the site towards Berowra, creating an extensive riparian and bushland corridor through the middle of the site. While located wholly within the Hornsby Shire, the site abuts The Hills Shire, on the western side of Old Northern Road.

APP is working with the land owners to rezone this land for urban uses. Conditions to the Gateway determination for the planning proposal require that a master plan for the proposed development be provided and infrastructure requirements be identified, along with an infrastructure delivery strategy. This includes requirements for social infrastructure.

1.2 Outline of project

The Indicative Structure Plan for the South Dural Precinct (Map 1 overleaf) anticipates a yield of up to 2,900 dwellings, with a mix of dwelling types and sizes, ranging from detached houses to apartments. The dwellings are arranged in five 'villages', separated by riparian corridors and areas of bushland. The Indicative Structure Plan proposes an extensive network of open space, primarily around the fringes of the conservation areas. No retail centres are proposed and the development will rely on existing retail and commercial services along New Line Road and at Round Corner.

The planning process envisages that the villages, or precincts, will be subject to further detailed design following the rezoning process.

1.3 Study purpose and scope

APP has engaged Elton Consulting to prepare a social planning report to inform and support the rezoning application for the South Dural site. This report identifies the social infrastructure required to support the future population resulting from the proposed development and assists in incorporating social infrastructure into planning outcomes for the precinct.

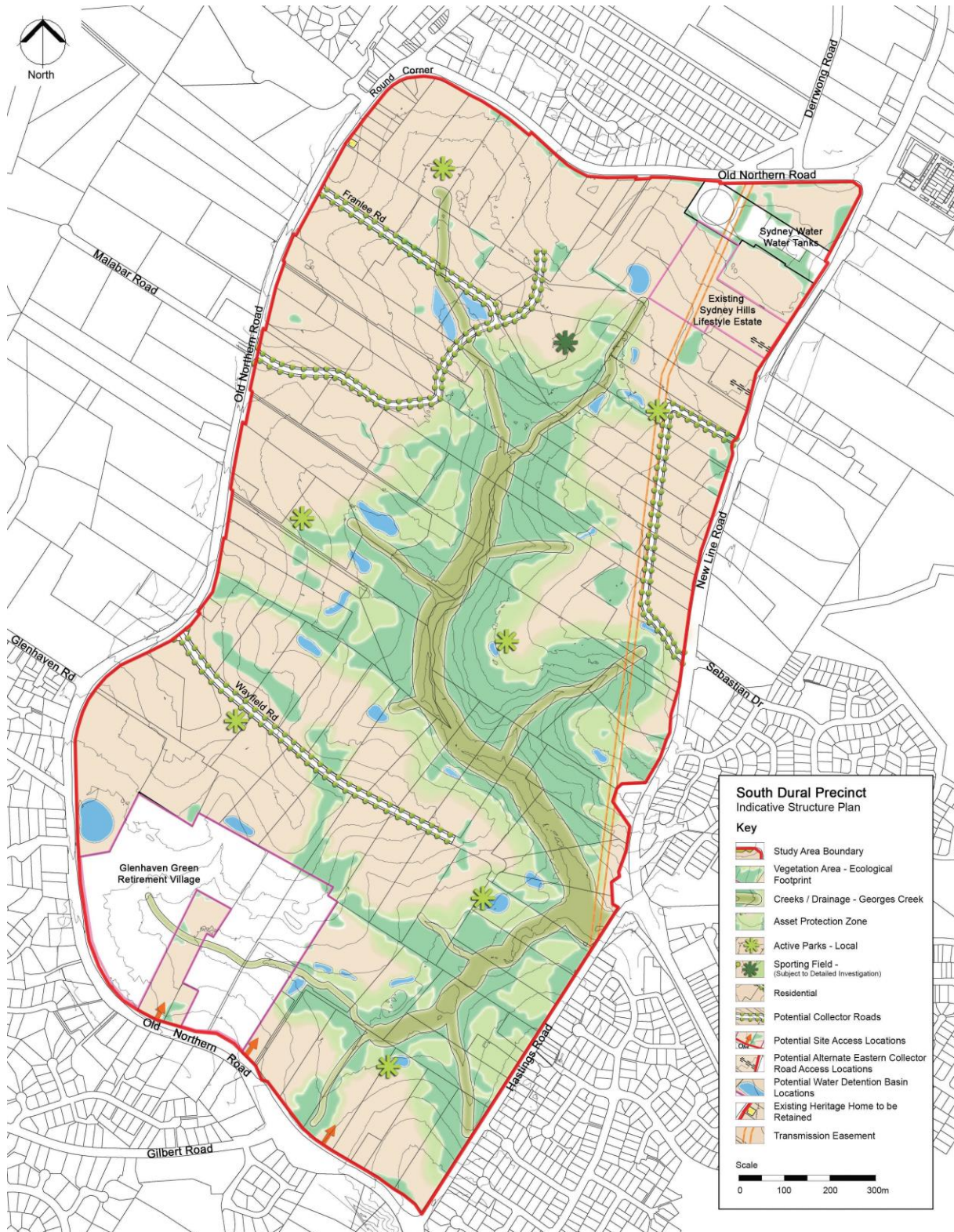
The social infrastructure considered in this study includes local government community, cultural and recreation facilities and open space, and the services and facilities provided by state government human service agencies, non-government and private sector providers. The study identifies the likely future needs of the South Dural population for these types of facilities and services, and outlines how those needs will be met.

1.4 Study process

Preparation of this study has involved:

- » Discussions and meetings with our client and other consultants and consideration of the draft Indicative Structure Plan for South Dural;
- » A review of relevant plans, policies and background studies from Hornsby Shire Council;
- » Analysis of the social context of South Dural, including demographic characteristics and development forecasts for adjacent areas;
- » An assessment of the existing community facilities and open space in the areas around South Dural and identification of current gaps and spare capacity;
- » A project meeting with staff from Hornsby Shire Council about existing services, social planning approaches and future requirements of the forecast population; and
- » Discussions with representatives from the Department of Education regarding school planning for the South Dural area.

Map 1 Indicative structure plan for South Dural



2 Policy context

Hornsby Shire Council has a number of plans and policies that provide guidance in planning community and cultural facilities and open space for South Dural. These are summarised below, focusing on relevant key directions.

2.1 Your Community Plan 2013-2023

The *Your Community Plan 2013-2023* provides a 10 year vision and strategy for the Shire. It is the highest order document in the Integrated Planning and Reporting suite of documents and is a long term concept which is used to guide shorter term planning.

It contains five themes: My Environment, My Community, My Lifestyle, My Property and My Council. Each theme has an outcome with indicators assigned to measure progress. Each outcome also includes a list of Council services which contribute to achieving the five outcomes. Council's planning processes are informed by the outcomes when coordinating service delivery and resource allocation.

Relevant outcomes are listed below:

- » Theme: My Community
 - > Outcome: Our communities are healthy and interactive
- » Theme: My Lifestyle
 - > Outcome: Our living centres are vibrant and viable.

2.2 Hornsby Housing Strategy, 2011

This Strategy provides planning guidelines for development within nominated precincts and contains descriptions and controls for desired future character for:

- » five storey residential development;
- » mixed-use development;
- » heritage precinct development;
- » town centre linkages.

This Strategy recommends changes to zonings to allow increased residential development in Asquith, Beecroft, Berowra, Carlingford, Hornsby, Mount Colah, Pennant Hills, Thornleigh and Waitara. The Housing Strategy also provides the community and development industry with a clear framework for how the future housing needs of Hornsby Shire will be accommodated over the next decade. It identifies 25 precincts and contains key principles diagrams to guide future development of the precincts. Future residential and non-residential development is expected to occur primarily in close proximity to existing centres and in the identified housing precincts, although it is also recognised that there is considerable scope for infill development throughout the remainder of the LGA.

2.3 Section 94 Development Contributions Plan 2014-2021

This Plan enables contributions to be levied from development for the provision of community infrastructure required to meet the demands created by that development.

The Plan contains Hornsby's existing centres hierarchy as well as projected population and dwelling growth, based upon the Housing Strategy. It also defines three district catchments: Northern, Central and Southern. The South Dural site is located within the Southern District.

Under this Plan, Council requires development contributions for the following community infrastructure:

- » Local open space and recreation facilities including:
 - > New and embellished public open space and associated landscaping;
 - > New and embellished recreation facilities including children's play equipment, pedestrian and bicycle facilities.
- » Local community facilities including:
 - > Libraries and resource materials;
 - > Community centres and halls.
- » District infrastructure of a kind referred to in the above bullet points where there is a direct connection with the development to which the contribution relates:
 - > Preparation of this Plan and supporting studies; and
 - > Administration and management activities associated with this Plan.

The Plan also provides standards for the future provision of open space. These are discussed further in Section 6.4.

The Plan notes that the increased usage of and demand for new public facilities as a consequence of future development is likely to exceed the capacity of existing public facilities in the LGA. Accordingly, it will be necessary for new and embellished public facilities to be provided to cater for the anticipated demand of that development. The Plan identifies a program of specific works required to meet the additional demand consistent with Council's Housing Strategy forecasts, including additional library floorspace, new and upgraded community centres and new and upgraded parks and sportsgrounds.

It is noted that the South Dural site has not been included in the development forecasts which underpin the Plan. The Plan also pre-dates both the Hornsby Community and Cultural Facilities Strategic Plan and the Active Living Hornsby Strategy.

2.4 Community and Cultural Facilities Strategic Plan, 2015

This Plan provides strategic direction for the future planning and management of Hornsby Shire Council's community and cultural facilities over a 10+ year timeframe. The Plan builds on the previous Community and Cultural Facilities Strategic Plan, which was prepared in 2009, as well as Council's broader planning and policy framework.

The facility types considered in the plan include libraries, community and cultural centres, scout and guide halls, childhood education and care, baby health centres, historical society buildings and other facilities providing social or cultural services.

The Plan contains a set of principles to guide the planning of community and cultural facilities in the Shire. It uses a benchmark rate of 80sqm per 1,000 people as the standard for the future provision of multipurpose community space. This is divided into:

- » 15sqm/1,000 people of Sub-Regional level community space;
- » 45sqm/1,000 people of District level community space;
- » 20sqm/1,000 people of Village level community space;

The Plan includes ten high level, long term directions for community and cultural facilities in the Hornsby Shire. Directions relevant to this study include:

- » Locate sub-regional community and cultural facilities in Hornsby;
- » Develop multipurpose district hubs at Epping, Pennant Hills, Cherrybrook, Berowra and Galston;
- » Increase use of and access to village level facilities operated by other organisations and maintain village level facilities where the market is thin;
- » In accordance with the principles of making the best use of existing facilities, improving financial sustainability and providing facilities that are multipurpose and flexible, do not create or provide land for new single purpose, stand-alone facilities.

The Plan also identifies six districts in the Hornsby Shire and provides detailed strategies for each of the districts. The subject site is located in the North Western District and in close proximity to the South Western District. Relevant directions for these districts include:

- » Create a multipurpose community hub at Galston with the possibility of library space in the order of 250 sqm and multipurpose community space of 500-600 sqm;
- » In consultation with the Hills Shire Council, consider an additional multipurpose community space in the south of the district in the Cherrybrook Urban Activation Precinct (UAP). Assuming that the UAP will result in some 4,000 additional people in the Hornsby Shire, this facility should be in the order of 320 sqm gross floor area.

Again, it is noted that the recommendations for these districts were formulated prior to the potential rezoning for South Dural and so do not take account of the development proposals for this area.

2.5 Active Living Hornsby 2015

The Active Living Hornsby Strategy identifies the recreation and open space needs of the Hornsby community and provides a strategic framework from which to guide and manage future open space and recreation planning for the Hornsby Shire.

The Strategy identifies six objectives. These include:

- » Establish a policy framework for the open space and recreation facility network throughout the Shire;
- » Understand the values, needs and aspirations of the Hornsby Shire community with regard to open space and recreation provision;
- » Ensure the policy framework enhances opportunities for Active Living;
- » Improve linkages within and between open space networks;
- » Establish priorities, recommendations and an implementation plan to address the outcomes of the open space and recreation needs assessment;
- » Provide a clear framework for investment priorities and actions to improve open space and recreation facilities.

The Strategy analyses the quantum, size, distribution, diversity and accessibility of open space in the Shire, along with population forecasts. These findings are then summarised by Planning Districts and provided with conclusions and implications for the development of the Active Living Hornsby Strategy.

The Strategy notes that the long-standing use of standards in open space planning has been progressively superseded by policies, guidelines and performance criteria that focus on accessibility, diversity of recreation experience and quality of experience and qualities of place. The only standards contained in the Strategy are:

- » Local parks should be a minimum of 0.3 ha to permit a variety of recreational uses;
- » 400m (10 minute walk) walking distance should be the maximum distance / time between all residences and some form of public open space in urban areas

The Strategy foreshadows the further development of specific action plans with regard to a walking and cycling plan, a sports plan and play plan. These additional plans have not yet been completed.

The subject site is within Planning District 6 and borders Planning District 7. The findings for these Districts, along with their corresponding conclusions and implications, are provided in the following table.

Table 1 Summary of Open Space Provision Status by Planning District

PLANNING DISTRICT	QUANTUM AND SIZE	DISTRIBUTION AND DIVERSITY	RATIO TO POPULATION	ACCESSIBILITY AND CONNECTIVITY	CONCLUSIONS AND IMPLICATIONS
Planning District 6: Glenhaven Dural Arcadia Galston Mid-Dural Berrilee Maroota Wisemans Ferry Glenorie Forest Glen Fiddletown Canoelands Singleton's Hills Laughtondale	<ul style="list-style-type: none"> » Total of 46 open spaces across Planning District. » 20 open spaces greater than 10Ha in size » Total of five Level 1 open spaces 	<ul style="list-style-type: none"> » Distribution of open space is very widespread and localised in the many small townships 	<ul style="list-style-type: none"> » Current population is 7%of the Shire » Largest amount of total Ha/1000 persons in the Shire (72.9Ha) – this includes bushland 	<ul style="list-style-type: none"> » Many streets connecting parks have no dedicated footpaths or safe cycle routes suitable for children » Steep topography in the north of the District further limiting walking catchments 	<ul style="list-style-type: none"> » Need for better on street footpaths and cycle paths especially close to township centres » There are opportunities for liaison with schools on joint use of open space to optimise both structured and unstructured recreation opportunities
Planning District 7: Cherrybrook Castle Hill	<ul style="list-style-type: none"> » Total of 38 open spaces across the Planning District » Only 5 in Castle Hill and 33 in Cherrybrook » 22 open spaces across the District are less than 0.5 Ha » 30 Level 3 open spaces and no Level 1 	<ul style="list-style-type: none"> » Distribution is evenly dispersed with most residents within 400m of open space » Diversity is limited with 79% of open space in Level 3 	<ul style="list-style-type: none"> » Current population is 16% of the Shire » On average, total of 9.09 Ha of open spaces per 1000 persons – this includes bushland 	<ul style="list-style-type: none"> » Steep topography in northern parts of Cherrybrook considerably reduces walking environments in this area » Open space forms a very important link as a natural corridor along Pyes Creek and Berowra Valley Regional Park 	<ul style="list-style-type: none"> » Improved recreational links from the town centres would improve access to Berowra Valley Regional Park and beyond » A major destination parkland (Level 1) would be beneficial to serve the south western districts of the Shire

3 Social context

This chapter presents an overview of the social context for development within the South Dural site. It considers issues of growth and change in this part of the Hornsby Shire, the characteristics of the population currently living within the development area and the availability of existing social infrastructure in the surrounding area which could address some of the needs of the future South Dural population.

3.1 Development context

The South Dural site is located on the northern metropolitan fringe of Sydney, with established residential suburbs of Cherrybrook, West Pennant Hills, Castle Hill and Glenhaven to the south-east and south-west, and the more sparsely developed rural residential areas of Dural and Kenthurst to the north-east and north-west. The established suburbs comprise predominantly low density detached dwellings, while the rural residential areas comprise detached, and often large, dwellings on large lots.

The site itself comprises predominantly large lot residential uses, along with mixed uses including childcare, tourist accommodation and horticultural uses. A large retirement village, Glenhaven Green Retirement Village, on Old Northern Road, has been excised from the site. Round Corner, adjoining the site to the north-west, provides a district level shopping centre, and there is also some commercial development, including a Bunnings Warehouse, on the opposite eastern side of New Line Road.

The closest major retail centre is at Castle Hill, about three kilometres from the south of the site along Old Northern Road.

On-going residential development within Hornsby Shire occurs as both greenfield and infill development. Between 2011 and 2015, the population of Hornsby Shire grew from 156,842 people to 170,563.

Major residential growth is set to occur in the area as the Sydney Metro North West Priority Urban Renewal Corridor Strategy is implemented. This strategy will see higher density mixed use precincts created around each of the railway stations that make up the Metro Northwest (formerly called North West Rail Link), increasing the population within the eight station precincts by around 66,000 people by 2036.

Of particular relevance for this study are precinct plans for the Cherrybrook, Castle Hill and Showground Precincts, which are all within about four kilometres of the site's southern perimeter. Projections for these precincts are as follows:

Table 2: Forecasts for North West Rail Link station precincts

Precinct	Additional dwellings to 2036	Additional population to 2036
Cherrybrook	3,200	6,332
Castle Hill	4,400	8,833
Showground	3,600	7,422
Total	11,200	22,587

Department of Planning: North West Rail Link Corridor Strategy 2013

The significant population growth forecast for the surrounding area has important implications for social infrastructure planning for South Dural:

- » Any spare capacity in existing facilities, services and open space within or close to the station precincts that exists now will be taken up by projected Corridor development, and cannot be assumed to be available for the South Dural development.
- » Growth within the station precincts will generate requirements for some new or upgraded social infrastructure, providing opportunities to meet demand from South Dural by further augmenting these proposals.
- » It will be important to consider cumulative population growth across the district and extent to which developments will contribute to demand for higher order district facilities, even though they might not meet required thresholds for district level facilities by themselves.

3.2 Demographic context

The profile of the existing population of the South Dural site has been analysed, based upon comparison with the profile of Hornsby Shire and Greater Sydney using data from the 2011 ABS Census of Population and Housing. The South Dural site comprises the census small areas SA 1129723 and SA 1129403 (which also includes the Glenhaven Green Retirement Village, which skews the resulting demographic profile somewhat). The results of this analysis are presented in Appendix A.

Summarising from the table in Appendix A, the development site is characterised by the following features:

- » Around **540 residents**;
- » A primarily **older population** profile with a median age of 47 for SA 1129723 (northern portion of site) and a median age of 71 for SA 1129403 (southern portion of site which contains the retirement village). Across the site, there are relatively high proportions of people in all cohorts aged 60+ years, and relatively low proportions in all cohorts under 25 years;
- » A higher proportion (39.8%) of **single/lone person households** compared with Hornsby LGA (17.7%) and Greater Sydney (22.6%), again reflecting the older population;
- » Over 55% of families comprise **couples without children** compared with 31.3% for Hornsby LGA and 33.5% for Greater Sydney;
- » **Lower weekly median household income** (\$890) compared to Hornsby LGA (\$1,824) and Greater Sydney (\$1,447);
- » All dwellings are **low or medium density**;
- » A relatively lower proportion of **residents born overseas**;
- » A significant proportion of **other housing types** (23.7%, again influenced by the presence of the retirement village).

Comparing the Hornsby LGA profile with that of Greater Sydney, it can be seen from the table in Appendix A that the wider Hornsby population is characterised by:

- » A relatively high proportion of family households comprising couples with children, particularly older children and adolescents;
- » A relatively high proportion of older people aged 60+ and an average age of 39 years, compared with 36 years for Sydney as a whole;
- » Relatively high proportions of residents born in Asian countries – China, India, Korea, Hong Kong;

- » A median weekly household income higher than the Sydney average and a relatively low level of social disadvantage;
- » A predominance of low density development and high rates of home ownership.

3.3 Existing and proposed social infrastructure

Existing and proposed human services, community facilities and open space in the surrounding area which could be accessed by the future South Dural population have been identified and examined to determine their availability and capacity to absorb demand generated by the proposed development.

Maps 2, 3 and 4 at the end of this section show existing community facilities and open space in the vicinity of the study area.

Facilities and open space within the site

Consistent with its current zoning and very low density development, social infrastructure within the site currently is very limited. Existing facilities include:

- » Springfield House, a privately operated function centre which is available to hire for weddings and other functions,
- » Dural Village Caravan Park,
- » Fit Kidz Dural South childcare centre,
- » First Friends Preschool,
- » A Salvation Army store.

The Anglican Retirement Village, Glenhaven Green Retirement Village, is located just outside the site boundary.

Shopping centres

Castle Towers Shopping Centre at Castle Hill provides the major shopping centre for the district and also includes restaurants, cafes and a cinema. Local village shops are available at Round Corner Shopping Centre and Dural Village Shops on Old Northern Road.

Schools

As indicated in Map 3, the site has good access to a variety of public and private schools. The closest government primary schools to the site are Dural Public School, Oak Hill Drive Public School, Castle Hill Public School, Cherrybrook Public School and John Purchase Public School. All are located within 5km of the South Dural site. The closest government high schools are Cherrybrook Technology High School and Castle Hill High School, both located approximately 2km from the site. Galston High School is also located approximately 5km from the site.

A review of the Myschool website (www.myschool.edu.au) illustrates enrolment patterns for these schools. The table below shows a list of Government primary and high schools in the area and the number of enrolments for years 2008, 2011 and 2014. All of the enrolments for these schools have been increasing since 2008 apart from Galston High school, which has declined, and Cherrybrook Technology High School, which is at capacity.

Table 3 Government schools near South Dural and historic enrolment levels

School	2008 enrolments	2012 enrolments	2015 enrolments	Comments
Government primary schools				
Dural Public School	395	441	428	Stable enrolments
Cherrybrook Public School	684	714	771	Increasing enrolments
John Purchase Public School	557	682	686	Increasing enrolments
Galston Public School	166	229	252	Increasing enrolments
Oakhill Drive Public School	621	553	657	Increasing enrolments
Castle Hill Public School	748	762	880	Increasing enrolments
Kenthurst Public School	175	198	198	Stable enrolments
Government high schools				
Cherrybrook Technology High School	1882	2045	2012	At capacity
Castle Hill High School	1136	1335	1485	Increasing enrolments
Galston High School	811	751	733	Declining enrolments

The Department of Education has advised that all the primary and high schools to the south of the site are already at or over their available capacity. The only schools potentially able to accommodate large numbers of new students are those to the north, in the rural residential areas.

The site is well served by a large number of private schools within two km of the site perimeter - including Pacific Hills Christian School (kindergarten – Year 12), Oakhill College (yrs 7-12), Redfield College (yrs 2-12), The Hills Grammar School (k-12) and Lorien Novalis School for Rudolf Steiner Education (k-12). Warrah Village Rudolf Steiner School for Curative Education is also located within 2km of the site. In the wider district there are a number of other private schools that would be accessible from the site, including Tangara School for Girls (K-12), Marian Catholic College Kenthurst (7-12) and St Madeleine's Primary School Kenthurst (K-6).

Community facilities

The closest community facilities to the site are located within The Hills Shire and include Glenhaven Community Centre and the Castle Grand Community Centre at Castle Hill. The closest libraries are also located within The Hills Shire and include Dural Library and Castle Hill Library.

Equivalent facilities within Hornsby Shire are located much further from the site. Libraries are provided at Galston, Epping, Pennant Hills and Hornsby. The closest community centres provided by Hornsby Shire are located in Cherrybrook - the Cherrybrook Community and Cultural Centre and Gumnut Place Cherrybrook. Cherrybrook Community and Cultural Centre comprises two halls (with playgrounds attached) as well as three meeting rooms and a commercial style kitchen. Gumnut Place Cherrybrook is available for hire evenings and weekends only. Cherrybrook Technology High School also has a multipurpose hall for hire, which was constructed with a significant Council contribution.

The community facilities located in Cherrybrook are currently operating at capacity. As noted in Section 3.1, Cherrybrook is set to undergo significant residential development as an urban renewal precinct. Any current spare capacity and potential for enhancement to these facilities will be taken up by anticipated population growth in Cherrybrook itself.

Further to the north, the small Galston Community Centre includes hall facilities, a meeting room and commercial kitchen facilities. The existing facility does not have capacity to meet the additional

demand likely to be generated by the South Dural development. However, as noted in Section 2, the *Hornsby Community and Cultural Facilities Strategy* has identified a need to upgrade this facility to create a district level community hub.

There are also Council community centres at Pennant Hills, Thornleigh and Beecroft. However, these facilities are designed to meet local community needs and would not have capacity to absorb demand from areas further afield, such as South Dural.

Childcare and early learning facilities

There is a variety of child care facilities in close proximity to the South Dural site, with five in Dural and five in Cherrybrook. As noted above, two facilities are located within the site. A review of the Mychild website (www.mychild.com.au) highlights the following services are available:

Table 4: Existing childcare and early learning facilities

Facility and service offered	Location	Vacancies
Fit Kidz Learning Centre - Dural Long Day Care	265 New Line Rd, DURAL NSW 2158	Limited vacancies for different age groups on different days
First Friends Preschool Long Day Care - 25 months to school age	1 Franlee Road, DURAL NSW 2158	Vacancies all ages Monday to Friday
Endeavour Early Education Long Day Care – 0 months to school age	2 Derriwong Road, DURAL NSW 2158	Vacancies all ages Monday to Friday
Fit Kidz Learning Centre Dural North Long Day Care	831 Old Northern Road, DURAL NSW 2158	*Not displaying vacancies
Wakefield Childrens Early Learning Centre Long Day Care – 0 months to school age	276-278 New Line Rd, DURAL NSW 2158	Vacancies all ages Monday to Friday
Caring 4 Kids Cherrybrook Long Day Care	31 Shepherds Lane Shepherds Drive Lane, CHERRYBROOK NSW 2126	*Not displaying vacancies
Cherrybrook Preschool Kindergarten Long Day Care	81-83 New Line Rd, CHERRYBROOK NSW 2126	Limited vacancies for different age groups on different days
Heritage House Cherrybrook Childcare and early Learning Centre Long Day Care - Vacancies	1A Greenoaks Ave, CHERRYBROOK NSW 2126	Vacancies: All ages Monday to Friday
Kindalin Child Care Centre Long Day Care - 25 months to school age	2 Roslyn Pl, CHERRYBROOK NSW 2126	No vacancies for infants 25-35 months Vacancies for 36 Months - School age children all days except Wednesday
Kindalin Long Day Care Centre Long Day Care – 0 months to school age	Cherrybrook Village Centre Suite 1&2 Shepherd Dr, CHERRYBROOK NSW 2126	No vacancies except Mondays and Fridays for 36 Months - School age

While information is not always current for all facilities, the summary table shows that there appears to be vacancies within the majority of local centres. The extent to which this spare capacity will be available to the future South Dural population will depend upon the timing of development and corresponding timing of new development within the Cherrybrook Urban Activation Precinct.

There is also a number of out of school hours care services for primary school aged children in the local area, as outlined below. Again, all these services appear to have a significant level of vacancies at present.

Table 5: Existing out of school hours care services

Facility and service offered	Location	Vacancies
Jigsaw OOSH Dural Pty Ltd Before and After School Care	622 Old Northern Road, DURAL NSW 2158	Vacancies Monday to Friday
Tangara School For Girls OSHC - Extend Before and After School Care		Vacancies: Monday to Friday
John Purchase OSHC Centre Before and After School Care - Vacancies	John Purchase Public School 58 Purchase Road, CHERRYBROOK NSW 2126	Vacancies: Monday to Friday
Cherrybrook OOSH Care Incorporated. Before and After School Care -	Cherrybrook Public School 131 New Line Road, CHERRYBROOK NSW 2126	Vacancies Monday to Friday

Health services

The closest GP medical centres are located near the Round Corner Shopping Centre and Dural Village Shops on Old Northern Road.

For community health, the area is served by Galston Community Health Centre, which includes an early childhood health centre, physiotherapy, podiatry, psychologist, and aged care services.

The nearest hospital to the site is The Hills Private Hospital approximately five km to the south-west of the site. The area is also served by the private Sydney Adventist Hospital and public Hornsby Kuring-gai Hospital. Other public hospitals in the wider area include Blacktown, Ryde and Westmead Hospitals, all located approximately ten km from the site.

Welfare and support services

Individual and family support services, including services for people with a disability and older people, are district level services serving large catchment areas. The closest services covering the South Dural site are located in the larger centres of Hornsby, Epping and Castle Hill. These types of services generally operate at full capacity, and their ability to meet the needs of the expanding population of the district will be dependent upon increases in operation funding to expand staffing and programs, rather than capital facilities.

Emergency services

The closest ambulance station to the site is located in Wahroonga. For Police, the site falls under the Kuring-gai Local Area Command, with its police station located in Hornsby. However, the nearest police station is located at Castle Hill, under The Hills Local Area Command. The Castle Hill Fire Station is located just beyond the southern boundary of the site. A Rural Fire Service station is located on Glenhaven Rd to the west of the site.

Aged Care

The district contains a number of retirement villages and residential aged care facilities. Immediately adjacent to the site on Old Northern Road is the Glenhaven Green Anglican Retirement Village. In the wider area is the large Anglican Retirement Village complex at West Pennant Hills, the Wirreanda Retirement Village at Castle Hill, the Mountainview Retreat Retirement Village and Bupa Aged Care facility at Round Corner and the Glenhaven Estate Retirement Village at Glenhaven.

Open space, sport and recreation facilities

There are currently no areas of public open space within the South Dural site. However, within a five km radius of the site there are a number of public and private sporting and recreation facilities that could be accessed by the future population. These are identified in Map 4, with the more significant facilities listed in the table below.

Table 6: Existing open space and sporting facilities

Facility	Features
Within Hornsby Shire	
James Henty Drive Oval	one sports field (junior cricket pitch, two junior soccer fields)
Greenway Park	athletics track; one sports field (senior cricket, AFL and rugby league) synthetic practice nets; baseball pitch (two senior diamonds, seven junior diamonds); skate park; one tennis court; four basketball/netball courts
Thomas Thompson Park	one sports field (soccer and junior cricket synthetic pitch); four tennis courts
Galston Recreation Reserve	Hayes oval, indoor aquatic centre, playground, picnic facilities
Dural Park	seven tennis courts; one senior cricket field; two rugby senior fields
Edward Bennett Oval	sports field, playground; picnic tables; BBQ
Erlestoke Park	multi-purpose court; playground; picnic tables; BBQ; toilets
Hastings Park	playground; picnic tables; BBQ; bushland
Dural Nature Reserve	26 hectares of nature reserve
Tahlee Park	playground; picnic tables
The Lakes of Cherrybrook	playground; picnic tables; BBQ; bushland
Dural Golf Driving Range	Driving range and putt putt
Within The Hills Shire	
'The Centre' Dural Sport and Leisure Centre	five courts (netball / futsal)
Glenhaven Oval	single sports field with synthetic cricket pitch (soccer and cricket)
Kenthurst Tennis Centre	two plexipave hardcourts with lights and four synthetic grass courts with lights
Eric Mobbs Reserve	four sports fields each with a synthetic cricket pitch (soccer and cricket)
Green Up Park	single sports field with synthetic cricket pitch
George Thornton Reserve	two soccer fields; cricket pitch; basketball half court, BBQ, playground
Castlewood Reserve	sports field with cricket pitch (Junior Rugby League and Cricket); Basketball half-court; BBQ,
Holland Road Reserve	single sports field with a synthetic cricket pitch
Castle Glen Reserve	four baseball diamonds
Dural Recreation Centre	centre is currently closed for refurbishment and future uses are still to be determined.
Castle Hill Heritage Park	20 hectares parkland with walking tracks, picnic areas and playground
Ellerman Park	picnic and playground facilities
Fred Caterson Reserve	multiple sports fields, walking and cycling tracks, pavilion, playground
Castle Hill Showground	showground, picnic facilities
Hills Swimming Centre	indoor, purpose built heated pool

Aquatic facilities within Hornsby Shire are located at Epping, Galston, Cherrybrook and Hornsby. Hornsby Shire provides one indoor recreation facility, The Brickpit, which provides four courts for basketball, netball, volleyball and badminton, together with change and training rooms.

The *Active Living Hornsby Strategy* provides detailed information about the current supply of and demand for open space, sport and recreation facilities across the Shire. Key issues include the following:

- » In terms of total area of open space, the Shire is well served by comparison with many LGAs; however this open space is dominated by large areas of bushland, much of which is not readily accessible for local unstructured recreation such as kickabout or free play.
- » There are large numbers of very small parks in the Shire (25% of the open spaces are 0.2 Ha or less), which are not of sufficient size to meet a wide range of day-to-day recreational opportunities and needs. Larger well developed parks are popular destinations but are unevenly distributed across the Shire.
- » Distribution of open space is very uneven and does not necessarily relate closely to population centres. There is a particular deficit of locally accessible open space in the rural areas of Dural, Galston and Arcadia.
- » Open space to population ratio: there is a significant disparity between the amounts of and accessibility to open space in the Shire. Based on the 2011 population figures, the level of provision of developed open space across the Shire was 1.91 ha per 1000 people. For the South and Central Suburbs district which includes the South Dural site, the level of provision of developed open space was only 1.12 ha/1000 people (comprising 0.34 ha/1000 for parkland and 0.78 ha/1000 for sportsgrounds).
- » The projected growth in population across the Shire to 2021 highlights significant further shortfalls if no further open space is acquired, particularly in high population areas.
- » A variety of sports are catered for across the 54 sportsgrounds within the Shire, including the traditional winter and summer field and court sports. In some cases the sportsgrounds also provide for unstructured recreation activities such as circuit walking paths, exercise equipment, dog off leash areas and playgrounds.
- » Sports fields receive greater demand for use than the available resources can match. The overall supply of sports specific open space is low compared with industry standards and Council is facing a significant challenge in trying to meet the demand for sporting fields and courts to match the growing population. Many of the sports fields are being used beyond their carrying capacity, especially those used for winter sports. There is evident demand to both supply new sports facilities and upgrade existing fields to improve the resilience of existing outdoor surfaces and increase their capacity for more intensive utilisation.
- » There is a need to provide children's playgrounds which are more visible and accessible, more equitably distributed, and offer a more diverse range of play experiences for a variety of age groups.
- » Opportunities to increase the quantum of open space to meet growing demand are limited by geography and steep topography, so increasing existing capacity will necessarily rely heavily on extending the capacity and recreation opportunity within existing reserves and sporting fields.

Across the Shire, the priority needs identified in the *Active Living Hornsby Strategy* are for:

- » Improved accessibility to high quality local open space to meet day-to-day needs, entailing acquisition, consolidation and rationalisation of open space;
- » Enlarging other parkland areas to make them function better for recreation purposes;

- » Development of a network of local paths as circuits based on streets and creeks/bushland to promote local walking and connections into bushland and day-to-day destinations (school, work, shops and transport);
- » Distribution and accessibility to several major destination parks offering different experiences across the Shire (e.g. family, adventure, nature, heritage);
- » More sports facilities to create centralised district hubs and to preclude duplication among venues.

The Active Living Hornsby Strategy makes the following particular recommendations for Planning Districts 6 and 7 (which include Dural and Cherrybrook):

- » There is a need for better on street footpaths and cycle paths especially close to township centres
- » There are opportunities for liaison with schools on joint use of open space to optimise both structured and unstructured recreation opportunities
- » Improved recreational links from the town centres would improve access to Berowra Valley Regional Park and beyond
- » A major destination parkland (Level 1) would be beneficial to serve the south western districts of the Shire.

3.4 Summing up

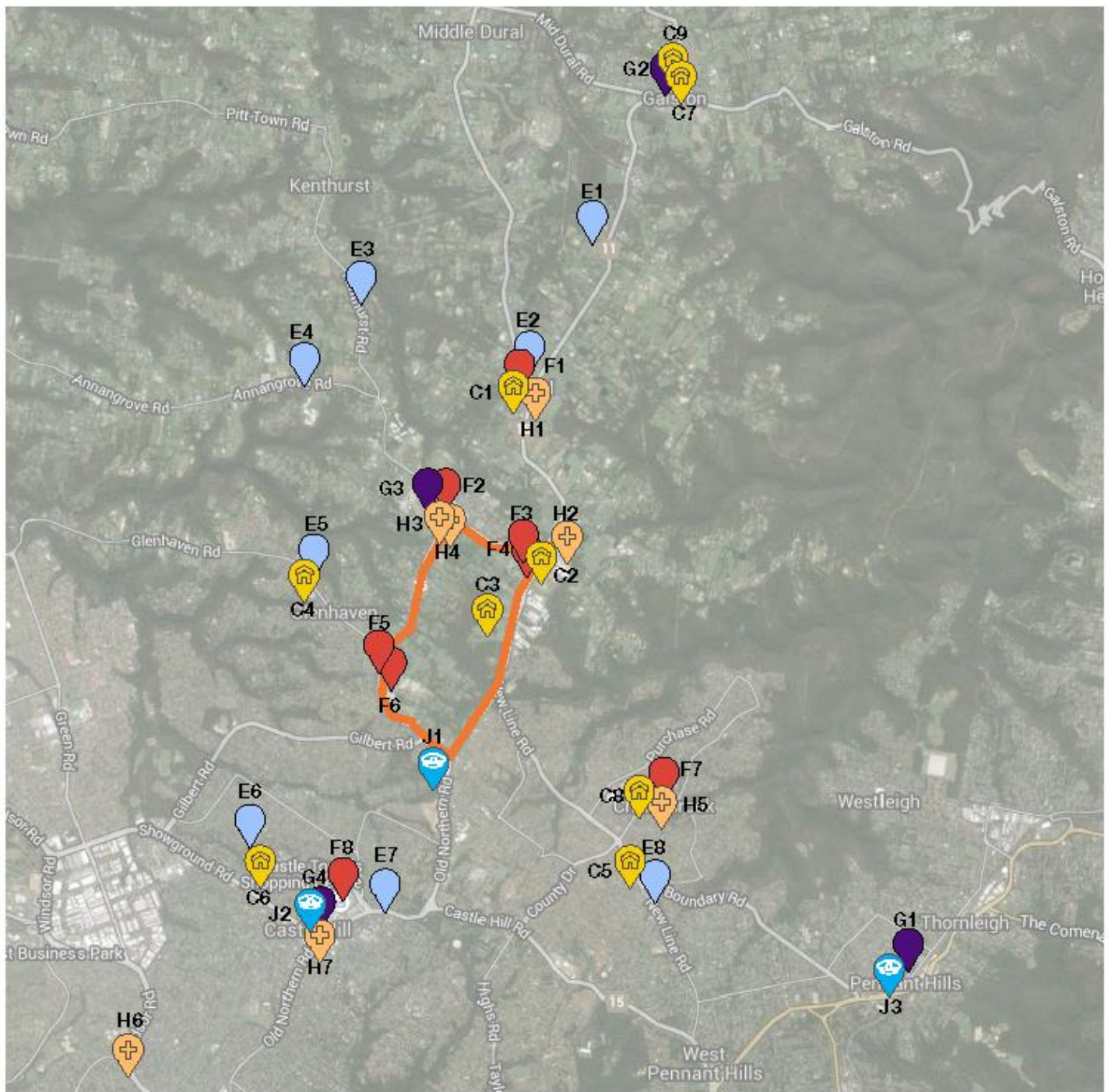
Although social infrastructure within the site currently is very limited, the site has good access to a range of existing facilities and services, with those likely to be available to meet some of the needs of the South Dural population including:

- » A variety of private schools and some of the public schools to the north of the site
- » Childcare and early learning centres, with advertised vacancies at a number of local centres
- » A number of retirement villages and residential aged care facilities
- » Welfare and support services located in Hornsby, Epping and Castle Hill, (subject to increases in their operational funding to expand services in proportion to population growth)
- » Emergency services
- » Medical and other health services.

However, the assessment of existing social infrastructure has identified several shortfalls in current provision, relating primarily to facilities, services and open space provided by local government. Access to community centre space, including library space, and access to sports fields in the Hornsby Shire is limited. The community facilities located in Cherrybrook are currently at capacity and will also need to accommodate any future population growth associated with the plans for the Cherrybrook station precinct as part of the Metro Northwest project. In addition, the closest library provided by Hornsby Shire is the Galston branch library, which has a floor area significantly below State Library of NSW standards, according to the *Community and Cultural Facilities Strategic Plan*.

There is also a shortage of sports fields in the surrounding Hornsby Shire area. According to the *Active Living Strategy*, many of the sports fields in the area are being used beyond their carrying capacity. The Strategy highlights a demand to both supply new sports facilities and upgrade existing fields to improve the resilience of existing outdoor surfaces and increase their capacity for more intensive utilisation. In addition, the open space within the site and in the surrounding areas is largely dominated by large areas of bushland, much of which is not readily accessible for local unstructured recreation such as kick-about or free play.

Map 2 Social Infrastructure





Community facilities

- C1** Salvation Army
- C2** Salvation Army
- C3** Springfield House Function Centre
- C4** Glenhaven Community Centre
- C5** Gumnut Community Centre
- C6** Castle Hill RSL Club
- C7** Galston Community Health Centre
- C8** Cherrybrook Community and Cultural Centre
- C9** Galston Community Centre



Churches

- E1** Coptic Orthodox Church of St Mary & St Sidhom Bishay
- E2** St. Jude's Anglican Church Dural
- E3** Church of the Nazarene Kenthurst
- E4** St Madeleine's Sophie Barat Parish
- E5** Emmanuel Anglican Church, Glenhaven
- E6** Restore Church
- E7** St. Bernadette's Catholic Church
- E8** Cherrybrook Uniting Church



Retail / Accommodation

- F1** Dural Village Shops
- F2** Round Corner Shopping Centre
- F3** Dural Hotel/Motel
- F4** Dural Caravan Pk New Line Rd
- F5** Anglican Retirement Villages
- F6** ARV Glenhaven Green
- F7** Cherrybrook Village Shopping Centre
- F8** Castle Towers Shopping Centre



Libraries

- G1** Pennant Hills Branch Library
- G2** Hornsby Shire Council – Galston Library
- G3** Dural Library
- G4** Castle Hill Library



Medical

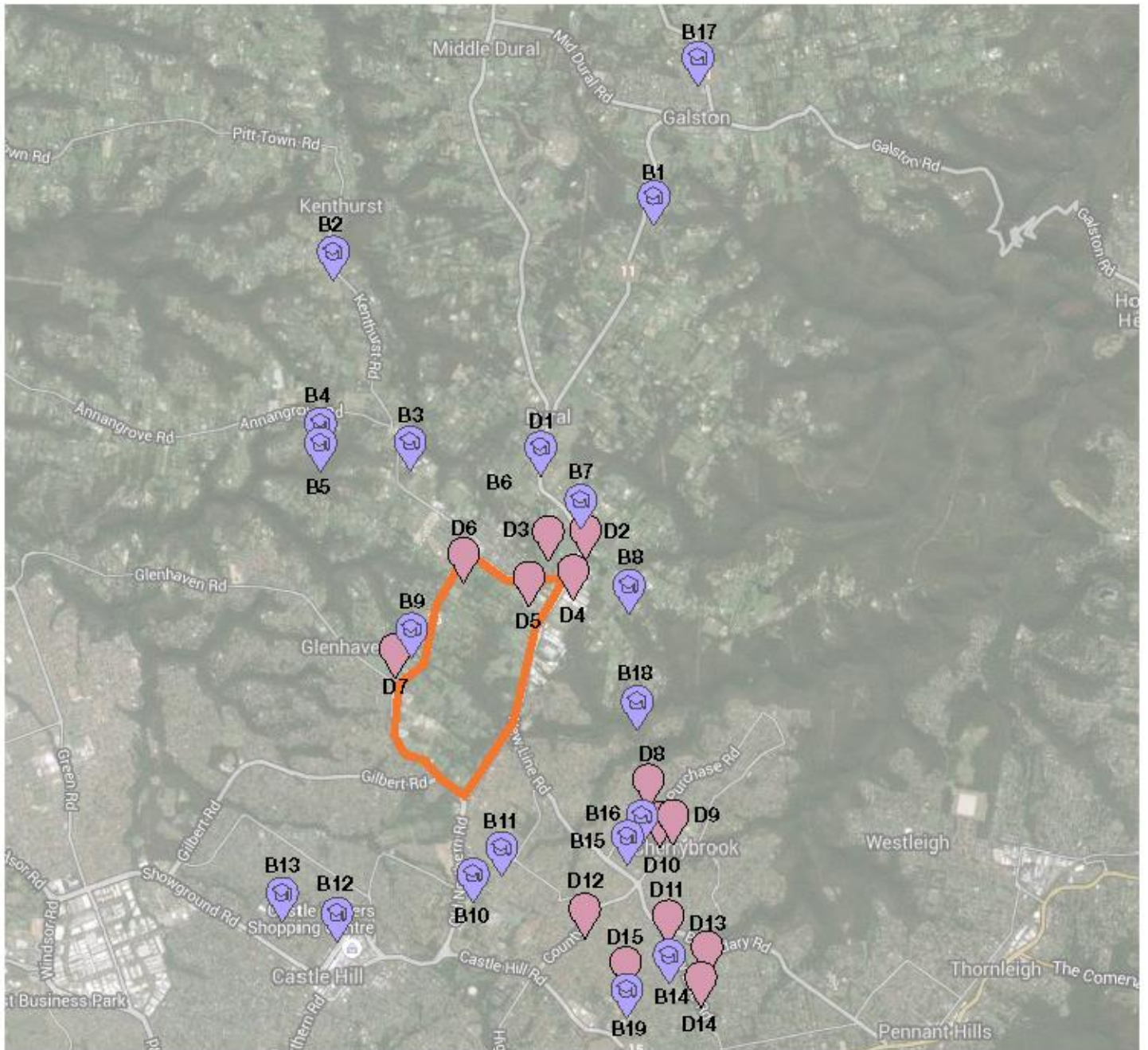
- H1** Dural Medical Centre
- H2** Dural Family Medical Practice
- H3** Dural Medical & Skin Cancer Clinic
- H4** Round Corner Medical Practice
- H5** Cherrybrook Medical Centre
- H6** The Hills Private Hospital
- H7** Castle Hill Medical Centre




Emergency services

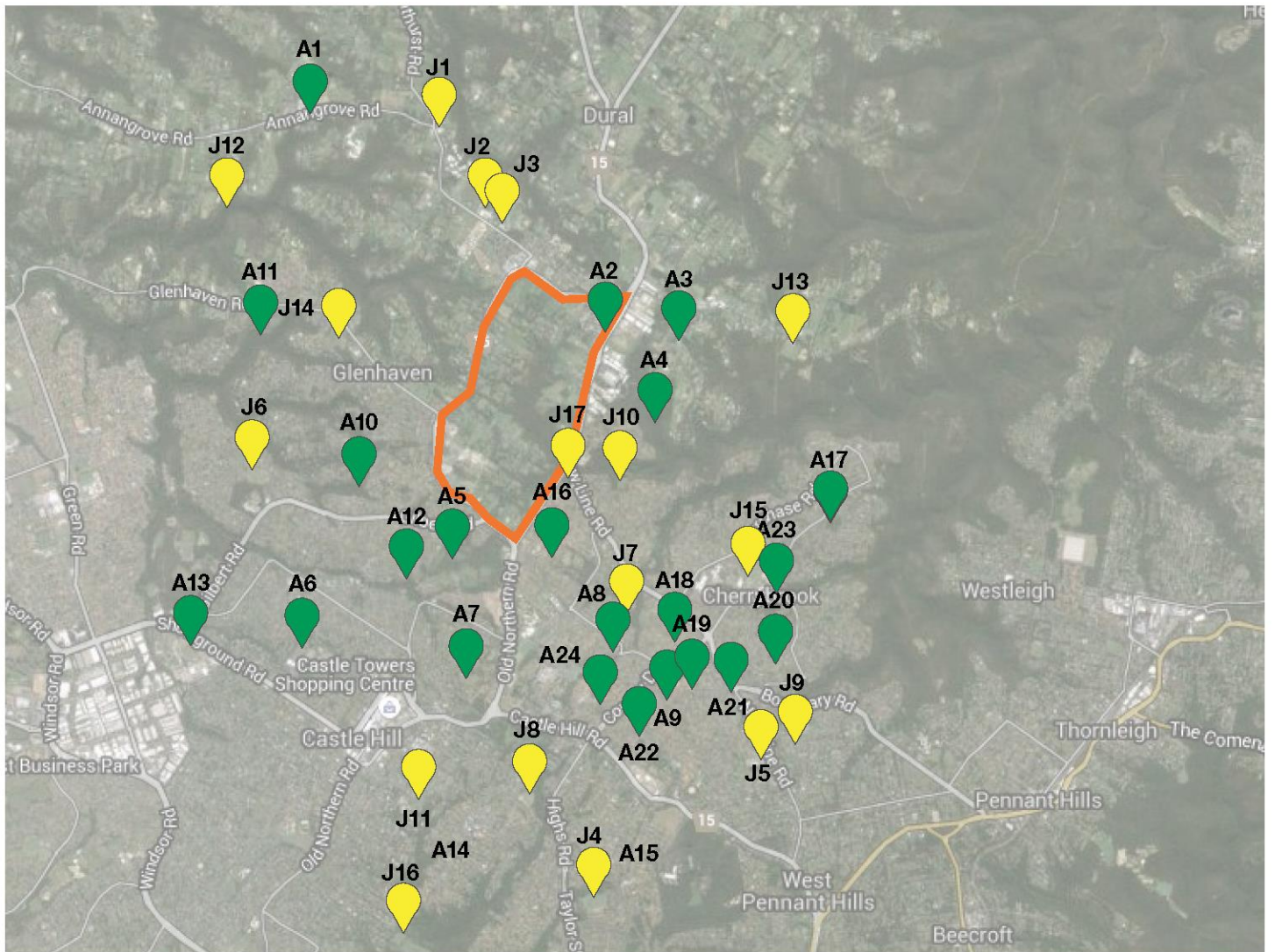
- J1** Castle Hill Fire Station
- J2** Castle Hill Police Station
- J3** Pennant Hills Police station

Map 3 Schools and Childcare



- | | | | | | |
|--|--------------------------------|------------|---|------------------|--|
|  | Schools | |  | Childcare | |
| B1 | Galston High School | B11 | Oakhill Drive Public School | D1 | Jigsaw OOSH |
| B2 | Kenthurst Public School | B12 | Castle Hill Public School | D2 | Fit Kidz Dural North |
| B3 | Hills Grammer School | B13 | Castle Hill High School | D3 | Endeavour Early Education |
| B4 | St Madeleines Primary School | B14 | Cherrybrook Public School | D4 | Wakefield Childrens Early Learning Centre |
| B5 | Marian Catholic College | B15 | Cherrybrook Technology High School | D5 | Fit Kidz Dural South |
| B6 | Dural Public School | B16 | John Purchase Public School | D6 | First Friends Preschool |
| B7 | Redfield College | B17 | Galston Public School | D7 | Kindalin Early Childhood Learning Centre Glenhaven |
| B8 | Pacific Hills Christian School | B18 | Warrah | D8 | John Purchase OSHC Centre |
| B9 | Lorien Novalis School | B19 | Tangara School for Girls | D9 | Kindalin Early Childhood Learning Centre Cherrybrook Village |
| B10 | Oakhill College | | | D10 | Caring 4 Kids Cherrybrook |
| | | | | D11 | Cherrybrook OOSH Care Incorporated |
| | | | | D12 | Kindalin Early Childhood Learning |
| | | | | D13 | Heritage House Childcare and Early Learning Centre |
| | | | | D14 | Cherrybrook Preschool Kindergarten |
| | | | | D15 | Tangara School For Girls OSHC |

Map 4 Open Space and Sports Fields



Open space and recreation

- | | |
|-------------------------------------|--|
| A1 Hills Swimming | A13 Castle Hill Showground |
| A2 Dural Golf Driving Range | A14 Excelsior Reserve |
| A3 Sydney Equestrian Centre | A15 Moore Reserve |
| A4 Dural Nature Reserve | A16 Tahlee Park |
| A5 Castle Hill Heritage Park | A17 Appletree Park |
| A6 Castle Hill Bowling Club | A18 Darlington Drive Playground |
| A7 Pioneer Place Reserve | A19 Edna Seehusen Reserve |
| A8 Westminster Park | A20 Gumnut and Holly Playground |
| A9 Roslyn Park | A21 Myson Drive Park |
| A10 Linksley Reserve | A22 Robert Road Park |
| A11 Hyde Avenue Reserve | A23 The Lakes of Cherrybrook |
| A12 Spain Reserve | A24 Treetops Reserve |

Sports fields

- | |
|---|
| J1 Kenthurst Tennis Centre |
| J2 Dural Sport and Leisure Centre |
| J3 Dural Recreation Centre |
| J4 George Thornton Reserve |
| J5 Edward Bennet Oval |
| J6 Castle Glen Reserve |
| J7 Erlestoke Park |
| J8 Castlewood
Community Reserve |
| J9 Thomas Thompson Park |
| J10 James Henty Drive Oval |
| J11 Greenup Park |
| J12 Holland Road Reserve |
| J13 Dural Park |
| J14 Glenhaven Oval |
| J15 Greenway Park |
| J16 Eric Mobbs
Recreational Reserve |
| J17 Hastings Park |

4 Population forecasts

This section considers the future population of the South Dural site, in terms of its likely size and broad demographic characteristics.

4.1 The development scenario

The draft Indicative Structure Plan for the site makes provision for a yield of up to 2,900 dwellings. The dwellings will be clustered in a number of discrete villages, separated by creek lines and areas of ecological significance which traverse the site. The bulk of the residential development will be located along the western and northern (Old Northern Road) sides of the site. The draft Indicative Structure Plan is provided in Section 1 as Map 1.

The dwellings will comprise a mix of apartments and detached houses on allotments of a mix of sizes and averaging 350m², as outlined in the table below.

Table 7 Proposed dwelling yield

Dwelling type	Proposed number of dwellings	% of all dwellings
Houses	1,800	62
Apartments	1,100	38
Total	2,900	100.0

The focus on providing smaller dwellings reflects current demand trends across Sydney to provide housing which is more affordable to households on moderate incomes, particularly young people. The proposed mix will contribute to greater housing diversity and choice in this area, which to date has been dominated by a single type of dwellings – low density houses on relatively large blocks.

4.2 Population numbers

To determine the likely size of the future population, the average number of residents per household for different dwelling types derived from the 2011 Census (Australian Bureau of Statistics) for Hornsby Shire has been applied to the dwelling yield outlined above.

Table 8 Future population numbers

Dwelling type	No. dwellings	Av. household size (persons)	Number of people
Houses	1,800	3.0	5,400
Medium density dwellings	-	2.4	-
Apartments	1,100	2.1	2,310
Total	2,900	2.7	7,710

This table shows that the proposed yield is likely to create a population of around 7,700 people on the site, at full development.

4.3 Likely characteristics

Forecasting age and household characteristics of a future population requires consideration of factors such as dwelling size and mix, market price and segment, experience in similar nearby areas and the influence of other factors particular to the site.

Understanding where the Hornsby Shire's current residents have moved from helps in predicting future mobility patterns and demographic change. Most people generally move into an area from within a 5-10 km radius of their previous home. Census analysis of Hornsby Shire residents who had moved house between 2006 and 2011 shows:

- » The highest number had moved from within the Hornsby Shire.
- » The local government areas with the highest numbers of people moving into Hornsby Shire were nearby: The Hills, Kuring-gai, Ryde, Parramatta, Blacktown and Willoughby.
- » Nearly 11,000 people arrived in Hornsby Shire directly from overseas countries, indicating that overseas migration is a key factor in Hornsby's growing population. The highest growth in numbers is from China, India, South Korea, Hong Kong and Malaysia.
- » In 2011, the age group with the highest net migration to the Hornsby Shire was persons aged 35 to 44 years, followed by those aged 12-17. This indicates that Hornsby is primarily an attractor of family households with children.

The incoming profile will reflect the mix of dwellings proposed. The detached dwellings are likely to attract a population similar to that in the adjoining suburbs of Hornsby and The Hills, where low density suburban development predominates. This population is characterised by high proportions of family households with children, particularly primary and high school aged children.

The apartment dwellings are more difficult to predict, as this form of housing is less characteristic for this part of the metropolitan area. Hornsby Shire has a reasonable proportion of apartments (over 16.5% of all dwellings), but to date these have been concentrated around the main centres along the railway lines, where they have attracted large numbers of older people, and young working people renting. Similarly, apartments in The Hills Shire are concentrated in the main centres and transport corridors.

Analysis from the 2011 Census of Population and Housing of the characteristics of people living in multi-unit residential development across Greater Sydney, compared with all residents of Greater Sydney, undertaken by the City Futures Research Centre, suggests the following profile is likely in the apartments:

- » A high proportion (over 50%) of the apartments will be purchased by investors and made available as private rental dwellings and there will be a lower proportion that is owner occupied;
- » A high proportion of young adults aged 25-34 years, both as renters and first home buyers;
- » A reasonably high proportion of older people aged 65+;
- » Higher proportions of lone person and couple only households;
- » A correspondingly much smaller proportion of households comprising families with children and an under-representation of children and young people under 19;
- » Further analysis shows that proportions of pre-school children (0-4 years) living in apartments are broadly consistent with or only slightly below the metropolitan average for all dwellings. However proportions of school aged children and adolescents aged 5-19 years are significantly below the

average for Greater Sydney. This suggests that people tend to stay in apartments while their children are young, or until the second child is born, and then move to larger dwelling types;

- » A higher proportion of residents born overseas, with a particularly high proportion born on the Asian continent;
- » High rates of labour force participation and high proportions of the workforce engaged in professional or managerial roles.

This profile is reinforced by a recent survey of people living in apartments in Sydney undertaken by the Urban Taskforce Australia, which found:

- » About half of apartments are occupied by owner occupiers and half occupied by renters;
- » Renters are predominantly younger adults (under 45 years), while the majority of owner occupiers are over 45 years;
- » For both renters and owner occupiers, about two thirds of households are either single persons or couples without children. Families with young children make up around 10-15% of households, but mature families with older children comprise a very small proportion of households (4-7%);
- » 32% of apartments have only one person living in them, with over half of these in a two or three bedroom apartment.

The mix of separate houses and apartments proposed for the South Dural site is therefore likely to attract a wide range of households, with family with children households predominating in the separate houses and couple and single person households comprising both younger and older people, predominating in the apartments. Families with children will also be attracted by the good access to schools in the area. The smaller dwellings will provide downsizing opportunities for the ageing population in the area, particularly people living on the larger rural residential lots to the north who are seeking a more compact home closer to facilities and services.

5 Addressing needs for community facilities and human services

This section considers how the needs of the South Dural population for community facilities and human services will be addressed. The following chapter considers open space, sporting and recreation facilities.

The social infrastructure required to support a socially sustainable community in South Dural includes facilities and services that could be owned and managed by Hornsby Shire Council, by State Government agencies and by the private and non-government sectors. Social infrastructure requirements have also been considered in terms of the facilities and services that will be provided within the development, and those which will be relied upon in the surrounding area and broader district.

Overall, a forecast of population of around 7,700 people is considered to provide a small catchment able to support only a limited range of local level facilities and services within the development. It will not be large enough to warrant the provision of higher order district and regional level facilities and services, and will instead rely on those provided in the wider area, particularly in Castle Hill Town Centre and Cherrybrook.

5.1 Local government social infrastructure

5.1.1 Community facilities

The new population will need access to spaces for meeting and gathering, for local social, leisure and learning activities and programs and for community and cultural events and celebrations. These needs are typically met in community centres.

As noted in Section 3, Hornsby Shire's *Community and Cultural Facilities Strategic Plan* proposes that in future the Shire should contain fewer, larger community facilities to create multi-purpose hubs serving district catchments, replacing the previous practice of providing multiple small facilities to serve local catchments.

The Strategy proposes the following augmentation of community facility floorspace in the areas closest to the South Dural site:

- » Creation of a multi-purpose community hub at Galston with the possibility of library space in the order of 250sqm and multipurpose community space of 500-600sqm;
- » Provision of an additional multipurpose community space in the Cherrybrook Urban Activation Precinct area, in the order of 320sqm.

These recommendations were formulated prior to the proposed rezoning of the South Dural site and do not take account of the forecast population growth at South Dural.

Nevertheless, under the facility hierarchy proposed in the *Community and Cultural Facilities Strategic Plan*, the threshold that would trigger a requirement for a stand-alone village level facility is around 10,000 people. South Dural, at around 7,700 people, will be below this threshold, and accordingly it is not proposed that the development will contain its own local community centre.

Instead, the development will contribute to the provision of off-site facilities, as proposed in Galston and Cherrybrook in the *Community and Cultural Facilities Strategic Plan*. Based on the floorspace benchmark adopted in that Plan of 80sqm/1000 people, Council is likely to require contributions equivalent to 616 sqm. It will be up to Council to determine precisely how such contributions to off-site facilities might be applied.

5.1.2 Library

As noted previously the closest library provided by Hornsby Shire is the Galston branch library. This is a small, outdated facility that will not be suitable in its present form to meet the needs of the incoming population.

As outlined in Hornsby's *Community and Cultural Facilities Strategic Plan*, a multipurpose community hub is proposed for Galston with the possibility of library space in the order of 250sqm. The development will strengthen the need for an upgrade and expansion of the existing library. The development will need to contribute to the provision of this facility in line with Council's requirements.

Based on the State Library of NSW floorspace benchmark for new libraries of 39 sqm per 1,000 people plus 20% circulation space, a population of 7,700 people would generate a requirement for about 360 sqm of additional library floorspace.

5.1.3 Facilities for older people

Leading practice now steers away from providing age-specific facilities, such as senior citizens centres, which can only be used by specific sections of the population and which thereby run the risk of being under-utilised for much of the week or as the population changes. Instead, the usual practice now is to provide multi-purpose facilities which have flexibility to incorporate activities for different target groups as required.

The social, leisure and recreational needs of older people may be met through programs and activities for older people and the mainstream community delivered within Council's community facilities located in Cherrybrook and Galston and its existing civic and cultural facilities at the district level.

5.1.4 Facilities for young people

As for facilities for older people, leading practice now steers away from providing separate facilities just for young people, on the grounds of their under-utilisation for much of the time while young people are at school or work.

At the neighbourhood level, the needs of young people for space for social and leisure activities may be met through the proposed multi-purpose community centre spaces in Cherrybrook and Galston, a well-designed public domain, and the open space, sporting and recreation facilities described in the following chapter.

5.2 State Government social infrastructure

5.2.1 Schools and further education

The Department of Education's guidelines for planning schools in greenfield areas are:

- > One primary school per 2,000-2,500 new dwellings;
- > One high school per 6000-7,500 new dwellings;

- > One School for Specific Purposes per 17,000 new dwellings.

These guidelines suggest that, with around 2,900 dwellings proposed, South Dural might need to provide a site for a primary school. However, this is not a standard greenfield site, but is surrounded on three sides by existing residential development that contains a number of established schools, as identified in Section 3.

In this situation, the Department's policy is to optimise use of its existing assets, as its first preference, through solutions such as:

- » increasing the size, amenity and functionality of existing schools to manage growth;
- » renewing existing assets to provide contemporary teaching spaces for students;
- » realigning school catchment boundaries to appropriately manage growth where possible;
- » managing enrolments to provide priority to 'in catchment area' students;
- » using temporary classrooms to manage short term fluctuations in enrolment levels.

New schools will only be established where there are no other options available to use existing sites.

In this context, the Department of Education has advised the following:

- » The site is zoned within the catchments for Dural Public School and Galston High School.
- » Both of these schools will be able to accommodate proposed student growth. While the existing teaching spaces at Dural Public School are currently fully utilised, the site has capacity to accommodate additional teaching spaces. Galston High School is likely to be able to accommodate students from the development within its existing facilities.
- » None of the primary or high schools to the south of the development will have capacity to accommodate students from the development. These schools are already very full and will be expected to accommodate student growth arising from the North West Rail Line Corridor Strategy.

Based upon this advice, no provision for a primary school or high school has been made within the site.

The population of South Dural will not be large enough to warrant the provision of tertiary or technical and further education facilities, and will instead rely on those in the wider region.

5.2.2 Public health services

The population will not be large enough to justify the provision of any community health or hospital facilities within the precinct, but will instead rely on those in the wider region. However the population increase from the South Dural development will need to be taken into account in the future planning of health services, specifically the Northern Sydney Local Health District (NSLHD) Strategic Plan which is scheduled to be updated in 2017. This plan will need to respond to cumulative population growth and forecasts across the whole Northern Sydney Local Health District.

5.2.3 Emergency Services

The population increase created by the development will not require the provision of additional emergency services. Existing emergency services located in the surrounding areas, as described in Section 3.3, are well placed to service the new community.

5.3 Private / non-government sector facilities

5.3.1 Neighbourhood shopping

For local everyday shopping needs, residents will have close access to Round Corner Shopping Centre and Dural Village Shops on Old Northern Road. For higher order needs, residents will have good access to Castle Towers Shopping Centre at Castle Hill, which includes a major regional shopping centre as well as restaurants, cafes and a cinema.

5.3.2 Childcare and early learning facilities

A number of different forms of childcare and activities for young children are generally provided in a community, including long daycare, family daycare, pre-school, occasional care and playgroups. Additionally, services to support families with young children may be provided. It is not appropriate at this stage of the planning process to try to anticipate the need for the various specific types of services.

The site itself already contains a childcare centre and a pre-school. There is currently a significant level of vacancies for childcare facilities in the surrounding areas, across all age groups. It is difficult to predict whether those vacancies will still be available and adequate once the development is complete. Given the size of the forecast population, it is likely that some additional childcare and pre-school places may also be required, depending on the profile of the future population.

The provision of childcare has changed substantially in recent years, associated with shifts in government regulation and funding policy, such that the private sector is now the provider of the majority of childcare centres in Australia. As such, the provision of childcare in most new developments is commonly now largely left to market forces, once need can be demonstrated. In common with the provision of childcare in most new developments, childcare in South Dural will be provided by private sector providers, as demand develops.

It is not necessary that precise requirements for childcare are identified at this rezoning stage. Childcare centres are a permitted use within residential areas and do not require land to be designated at the master planning stage. Accordingly, the Structure Plan has not identified specific sites for any childcare centres or pre-schools.

Planning for childcare will also need to address the need for out of school hours care for primary school aged children. Such need is usually met through multi-purpose childcare centres, through before and after school programs co-located with schools or through out of school care programs in community centres. This planning can only occur as the population moves in and demand can be assessed.

5.3.3 Private schools

Demand for private schools reflects the socio-economic and religious profile of an area as well as the availability of private schools in the surrounding area. As noted in Section 3.3, there is already a large number of private schools in the surrounding district, and no particular needs for any additional sites at South Dural have been identified to date.

Providers of independent schools undertake detailed demographic and feasibility assessments before committing to new development areas. They also tend to acquire their sites through market processes, rather than necessarily acquiring sites designated in master plans.

Accordingly, the Structure Plan has not identified specific sites for any non-government schools.

5.3.4 Medical services

A population of around 7,700 people will generate a need for about 8 local general practitioners, based on the Sydney benchmark of one GP per 950 people. Some of this need may be absorbed by existing GP practices, but there is also likely to be demand for additional medical services.

The provision of medical services in most new developments is largely left to market forces, once need can be demonstrated. Medical services in South Dural will be provided by private sector providers, as demand develops.

5.3.5 Welfare and support services

Demand for welfare and support services, including family support, disability and aged care and migrant support services, will reflect the composition of the population and is difficult to predict at this early planning stage.

These kinds of services are generally provided as district and regional services serving large population catchments and are ideally located in centres with good access to public transport. For these reasons, South Dural is not considered to provide an appropriate location for welfare and support services. Nevertheless, the future population will contribute to the cumulative demand for these types of services. Meeting this demand will require an increase in recurrent funding to the existing services which cover this area, to enable them to increase their staffing and programs in line with population growth. Such funding typically comes through State and Commonwealth Government funding programs.

5.3.6 Residential aged care

The area is well serviced with retirement villages and aged care accommodation and there is no identified need at this stage of the planning process to specifically include more of this type of development.

Residential aged care facilities are permitted uses within residential neighbourhoods and so may be provided within the proposed residential areas, without the need to identify sites at this stage. Sites for these facilities are purchased through market processes and do not need to be identified at the rezoning stage. Site criteria include proximity to shops, services, community facilities and public transport, and so such facilities should be located close to district and neighbourhood activity centres.

5.3.7 Places of worship

There are a number of existing places of worship in the surrounding areas which will be able to cater to future needs of the incoming population.

At this stage, it is difficult to predict the needs of the population for any additional places of worship. The acquisition of sites for places of worship is generally left to market forces, according to their ability to purchase sites.

5.3.8 Leisure and entertainment opportunities

Entertainment and leisure facilities such as restaurants, cinemas, clubs and pubs are provided on a commercial basis according to market demand.

It is anticipated that residents will rely on the commercial centres at Castle Hill and Cherrybrook for a range of leisure and entertainment opportunities, consistent with their status as town centres. The new population of South Dural will contribute to demand for these types and facilities and help enhance their viability.

Cultural facilities such as spaces for performing and visual arts are provided on a regional basis for large population catchments. Existing facilities will have capacity to absorb the modest demand likely to be generated by the South Dural Precinct.

5.4 Summing up

The South Dural development will create only modest demands for community facilities and human services. It is proposed that demand for local government community and library facilities will be met by augmenting existing facilities, in line with Council's *Community and Cultural Facilities Strategic Plan*. Existing public primary and high schools to the north of the site will be able to accommodate forecast population growth. No new Council or State Government facilities are proposed to be located within the site.

Needs for commercial and non-government facilities such as childcare and medical centres can only be established later in response to market demand, and are permissible uses within residential zonings.

Accordingly, the Indicative Structure Plan for South Dural has not identified any sites for community facilities.

The development will, however, contribute to demand for the provision of offsite facilities, particularly the proposed multipurpose community hub and library at Galston and additional multipurpose community space in Cherrybrook. The development will need to contribute to the provision of these facilities in accordance with Council's Section 94 development contributions requirements.

6 Addressing needs for open space and recreation facilities

This section outlines the likely needs of the South Dural population for open space, sporting and recreation facilities and the ways in which those needs will be met.

6.1 Open space and recreation needs

The likely needs of the future South Dural population will reflect general demand trends in recreation preferences and participation across Australia. These are outlined below.

6.1.1 Broad trends in demand

National trends in recreation participation and facility use across Australia include the following:

- » A movement from organised, team sports to a focus on individual fitness and social sport;
- » Substantial growth in indoor sport and recreation, and greater demand for indoor facilities that are available all day, every day of the year;
- » Flexibility in the times that people enjoy their recreation, as demands on time increase and work practices change;
- » Increase in the proportion of families with two parents working full time (with probable reduced time for leisure);
- » Apparent decline in the physical activity levels of children causing concerns about obesity;
- » Growth in year-round swimming;
- » Increasing participation by women and girls in traditional male sports such as AFL, soccer, rugby union and rugby league;
- » Changes in participation in competitive sport (greater diversity of codes, reduced younger participation, greater participation in seniors and masters sports) and more participation in informal recreation activities;
- » Continuing emergence of new activities as a result of overseas trends, cultural diversity, etc (eg. cultural events, dancing, outdoor table tennis);
- » Changing recreation preferences amongst older groups, as the population ages and "baby boomers" enter retirement;
- » Increasing impact of design technology on leisure choices, such as computer games and new recreational equipment. Associated with this a decreasing involvement by young people in active recreation activities, and an increase in indoor 'passive' activities such as computer use and watching television, videos and DVDs;
- » Loss of private open space associated with higher and medium density living is placing greater pressure on public open space.

The relevance of these trends to the South Dural development lies in the need to ensure that the quality and design of open space reflects these lifestyle trends.

6.1.2 Participation rates

The most recent sports participation data is contained in the results of the Australian Bureau of Statistics 2013–14 Multipurpose Household Survey (ABS 2015). For people 15 years and over in NSW, the sport and recreation activities with the highest participation rates in NSW are shown in the following table.

Table 9 Most popular physical recreation activities in NSW by participation rate, over time

Activity/sport	Participation rate 2005-06 (%)	Participation rate 2009-10 (%)	Participation rate 2011-12 (%)
Walking	22.5	21.2	23.6
Fitness/gym	12.3	13.2	16.6
Swimming/diving	5.8	4.1	8.6
Jogging/running	4.6	6.8	8.1
Cycling/BMXing	5.6	5.3	6.1
Golf	5.2	4.2	5.3
Tennis	5.8	4.1	4.7
Soccer (outdoor)	4.1	3.4	3.5
Bushwalking	3.6	2.7	2.8
Football sports	N/A	N/A	2.7
Yoga	2.1	2.1	2.2
Surf sports	2.4	1.5	2.1

Source: ABS Multipurpose Household Survey

This table shows that individual, non-organised physical activities are significantly more popular than organised, team sporting activities. Increased participation in non-organised activities was responsible for the overall increases in regular physical activity between 2001 and 2010.

The table shows that the most participated in activities are the more informal and unstructured activities (walking, fitness/gym, swimming, cycling). These activities not only have higher participation rates in the most recent data, but the general trend from 2005-2006 shows them all increasing in participation levels. Conversely, some of the more organised activities such as soccer and football sports, as well as tennis, experience much lower levels of participation and are generally experiencing decreasing participation trends over time.

The Australian Sports Commission's report *The Future of Australian Sport* also notes:

People are fitting sport into their increasingly busy and time-fragmented lifestyles to achieve personal health objectives. Participation rates in aerobics – running and walking as well as gym memberships – have all risen sharply over the past decade, while participation rates for many organised and team sports, with the exception of soccer, have held constant or declined.

While participation rates in organised physical activities have remained level over the past decade, participation rates for non-organised physical activities have grown ... Non-organised physical activity has a much higher participation rate. (Standing Committee on Recreation and Sport, 2010, quoted by Australian Sports Commission).

Participation rates and trends based upon older data sources were reviewed in the *Active Living Hornsby Strategy* and reinforce the key findings outlined above:

- » Declining rates overall for participation in sport and physical recreation amongst adults;
- » A preference for recreation that is less structured, home based and affordable;
- » Walking for exercise continuing to be the most popular physical activity, followed by aerobics, fitness and gym, swimming, cycling and jogging;
- » Among structured team sports, basketball, netball and soccer are the stand-out activities in terms of participation.

6.1.3 Children's participation

The ABS *Survey of Children's Participation in Culture and Leisure Activities, Australia, 2012* provides data in relation to the participation of children in sport and recreation across Australia. This data also indicates trends that may inform the planning of sport and recreation infrastructure for South Dural. Key findings from this survey are outlined below.

Amongst Australian children (5-14 years) in 2012:

- » Of boys participating in organised sport, the most popular sports were outdoor soccer (22%), swimming/diving (16%), Australian Rules football (15%) and basketball (9.2%);
- » Of girls participating in organised sport, the most popular sports were dancing (27%) swimming/diving (19%), netball (16%) and gymnastics (8%);
- » 60.2% of all children participated in organised sport. Participation decreased from 63% in 2009.

The survey also examined participation in the informal/non-organised activities of bike riding, skateboarding, rollerblading and scooter riding and identified an increase in participation in these activities by both boys and girls.

6.1.4 Likely needs

The popularity of different sport and recreation activities waxes and wanes over time, and it is not appropriate at this early stage of planning to try to forecast precise numbers of people who might engage in different sport and recreation activities, and associated precise needs for facilities for different sporting codes or age groups. However, based on the findings of the studies outlined above and the likely characteristics of the future population outlined in Section 4, it is likely that the broad needs of the South Dural population will include the following:

- » The large proportion of adults suggests likely high demand for lower impact and flexible physical activity opportunities such as walking and bike riding. Linear connections and a network of walking and cycling tracks should be provided to support the potential high participation in walking and provide links to key destinations and recreation nodes.
- » The large proportion of families suggests the need for a variety of parks for informal play and passive recreation that support family and community activities. There will be demand for larger recreation parks that provide a focus for family activities including play, bike riding, picnics, barbecues and social gathering opportunities. These should provide a diversity of recreation settings and opportunities for all age groups and all abilities. People should have the potential to walk to open space for activities, which will generally require residents to be within 400-500m of usable open space.
- » Particularly given the proportion of smaller dwellings proposed, there will be demand for outdoor areas for celebrations and larger gatherings e.g. extended family and group picnics, kids birthday parties.

- » A significant proportion of children highlights the need for playgrounds and other outdoor activity opportunities such as bike tracks and skateboarding. Playgrounds should offer a range of play experiences for different age groups and include paths, play equipment, seating, fencing, landscaping and shelter from sun, wind and rain.
- » A significant proportion of young people highlights the need for parks and public spaces that are designed to be friendly to young people, providing meeting places that are safe and welcoming and allow for social interaction and informal games eg half basketball courts, rebound walls.
- » There may also be demand for adventure based activities, such as mountain biking, trail bikes, horse riding, rock climbing. Opportunities for adventure play for primary school aged children as well as young people should be considered – for instance informal tracks and mounds for BMX and active games, observation places and structures, flying fox.
- » To meet the demand for organised sport, multi-purpose playing fields that are suitable for a variety of field sports, and able to accommodate both junior and adult sporting activities for males and females, will be required.
- » There will also be demand for access to aquatic facilities, both outdoor and indoor courts for court sports, and indoor spaces for activities such as dance, martial arts, yoga, fitness, gym.
- » Opportunities that increase incidental physical activity, through design of footpaths, road networks and accessible, safe and well-lit walking and cycling tracks should be provided. Bike tracks that provide safe and appealing activity and transport opportunities, particularly for children and young people, will be essential.
- » The open space network should also include areas to walk dogs, and off leash exercise areas for dogs.
- » Options to enhance individual fitness in parks and trails will also be important.
- » Opportunities to enjoy bushland, water and other natural settings, for picnics, bushwalking and as spaces for reflection, rest and relaxation will be valuable to broaden recreation opportunities.

Some of these needs will be satisfied by local open space and facilities to be provided within the South Dural site, while others will be addressed by accessing facilities in the wider district and more broadly in the region.

6.2 Planning and design principles

The *Active Living Hornsby Strategy* has adopted the following guiding principles. Open spaces should:

- » Be meaningful to place and community. They should integrate the geographic and heritage features of the precinct, reflect and complement the natural and visual character of the local topography and vegetation, and capitalise on features unique to the area, such as views from elevated areas.
- » Be multi-functional and adaptable to changing needs to allow a range of users to enjoy them. Open spaces should maximise joint use and co-location with other uses to minimise duplication, and maximise use of sporting facilities outside of training and competition periods.
- » Provide diverse recreational opportunities to meet a wide range of needs. They should cater for all age groups, both genders, different cultural backgrounds, physical abilities and levels of socio-economic status. This means incorporating universal access principles and incorporating features such as shade and shelter, BBQs, seating, lighting and pathways.
- » Encourage social interaction, recognising that the public domain provides a focal point for meeting and gathering. Design features should encourage both incidental and planned social interaction and cultural activity.

- » Promote health and well-being, through encouraging physical activity, providing spaces for rest and relaxation and enhancing a sense of safety and personal security through the application of Crime Prevention through Environmental Design (CPTED) principles. Chief among these is the principle of promoting natural surveillance of open space areas, with parks having a frontage to a road where possible.
- » Provide equity and accessibility. Open space should be largely publicly provided to ensure public access, and it should provide recreation opportunities that are inclusive of all members of the community. It is important to ensure that all public spaces are visibly and evidently public in nature to encourage use by all members of the community. To provide convenient and equitable access, international best practice suggests that a maximum walking distance of 400-500 metres (or a 10 minute walk) from any residential property to a park as optimum in urban or semi urban areas. To make access to public open space convenient, easy and safe, open space areas should also be linked and connected physically to provide an open space network. Links should include a network of off-road paths, shared paths, cycle ways and bush paths that connects major activities and open spaces to encourage walking and cycling.
- » Embody environmental sustainability. This includes protecting and conserving watercourses, water bodies and wetlands and incorporating natural areas and riparian corridors into the open space corridors where possible. It also includes integrating the network of open space with stormwater management and water-sensitive urban design.
- » Ensure financial sustainability, including management and maintenance arrangements.

6.3 Site opportunities and constraints

Opportunities and constraints of the site can impact significantly on the open space plan. In the South Dural Precinct, these include the following:

Opportunities

- » The extensive system of creeks and riparian corridors, and especially the Georges Creek corridor, allows for a network of significant pedestrian and cycle tracks and some areas of informal open space. In particular, the Asset Protection Zones around the bushland present opportunities for walking and cycling trails;
- » The area's natural vegetation and topography can provide a distinctive character to the development;
- » Topography - Elevated sites are favoured for informal open space because of views and interest;
- » Existing rural dams – these provide opportunities to incorporate water bodies into the open space network

Constraints

- » Topography – much of the area contains significant slopes. There is very little flat land suitable for sporting fields that would not require extensive earthworks;
- » Fragmented land ownership - this creates challenges in both planning and delivering public open space;
- » Environmental constraints associated with existing riparian corridors and requirements for bushfire Asset Protection Zones, which occupy a large proportion of the site;
- » The Georges Creek corridor may act as a barrier to easy access throughout the precinct, effectively cutting it in half. It will be important to provide walking and cycling crossings at numerous points across the corridor to enhance access throughout the precinct.

6.4 Council policy and standards

As noted in Section 2, the *Active Living Hornsby Strategy* notes that the long-standing use of standards in open space planning has been progressively superseded by policies, guidelines and performance criteria that focus on accessibility, diversity and quality of recreation experience, and qualities of place. The only firm standards contained in the Strategy are:

- » Local parks should be a minimum of 0.3 ha to permit a variety of recreational uses
- » 400m (10 minute walk) walking distance should be maximum distance / time between all residences and some form of public open space in urban areas.

At the same time, the Strategy notes the *Recreation and Open Space Planning Guidelines for Local Government* recommendation that a default standard of 9% of non-industrial land in new developments should be allocated for local and district open space, with a rough 50:50 split between sporting and recreational uses

The *Hornsby Section 94 Development Contributions Plan 2014-2021* supplements these standards with a further provision standard based on current levels of provision, on the basis that further development should not erode the level of provision currently available to the Hornsby population. By dividing the amount of categorised open space by the 2011 population of the Shire, a standard of 19 sqm of open space per person (1.9ha/1000 people) is derived.

Application of this standard indicates that a population of about 7,700 people will generate a requirement for about 14.6 ha of public open space.

The Plan also includes a standard of 0.90 lineal metres per person of bushland walking tracks. This equates to nearly 7 km of walking tracks.

In discussions, Council staff have also advised of a position that new development should not erode the level of provision of sports fields currently available to the Hornsby population. With 54 sports grounds and a population estimated at about 170,000 people in 2015, this equates to a current level of provision of one field per 3,150 people. This is a relatively low level of provision when compared with:

- » The level of provision required by Blacktown Council and Camden Council in Growth Centre precincts of 1 field per 1,850 people;
- » The level of provision being provided in the North Kellyville Precinct within the Hills Shire that equates to 1 field per 1,800 people, or 1.17ha/1000 people for active open space;
- » The national participation rates in organised sporting codes, which translate into an average need for 1.2 – 1.5ha / 1000 people of land for sportsfields.

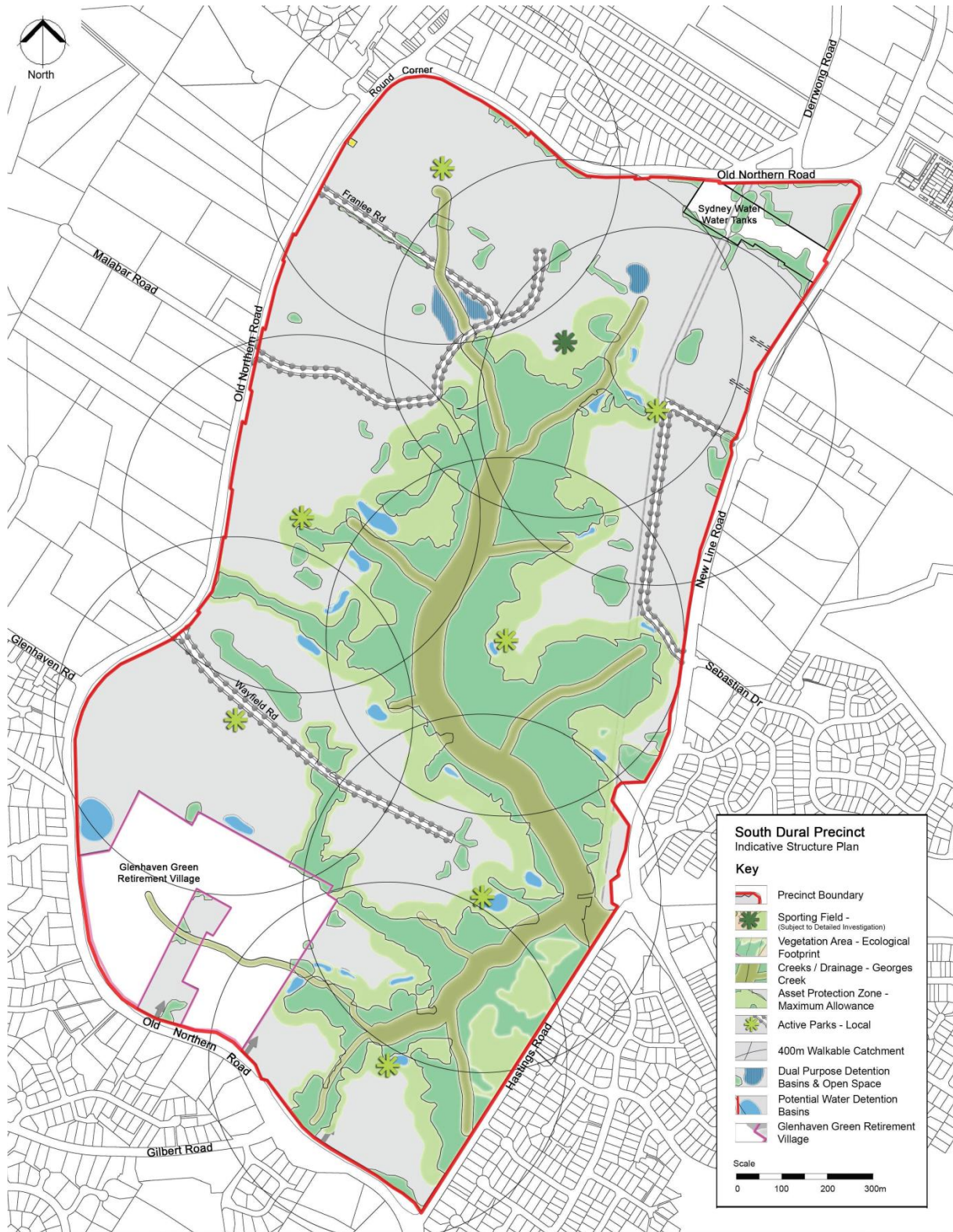
6.5 The Indicative Structure Plan

As noted previously, for planning purposes, the South Dural site has been divided into five precincts or villages. While more detailed planning has been undertaken for one of the villages, the North West Village, the planning for the other four villages is at a broader, more indicative level, as our client does not have control over these lands.

The open space planning for the site as a whole is therefore at an indicative level only, and has not identified specific areas and boundaries for public open space that would enable exact sites to be planned and quantified. It is intended that precincts will be subject to further detailed design processes following the initial rezoning, where they will be required to meet minimum requirements for open space provision and where the location and specifications of parks will need to be designed.

Each precinct will be required to provide at least one neighbourhood/local park of at least 0.5ha.

Map 5 Open Space Plan



SOUTH DURAL NSW
Open Space

SHEET 1 | VERSION 2 | JULY 2016 | DESIGNIQ@OPTUSNET.COM.AU

In addition, the North West Village has the potential to deliver:

- » A neighbourhood park of approx. 4ha. This has the potential to include one full size soccer field and additional active open space.
- » A local park approx. 0.6ha in size.
- » 2.1ha of dual use water management (dry detention basin) and open space.

In total, the North West Village may deliver up to 6.7ha (including one full size playing field) and the remaining villages together will deliver a minimum of 2ha of open space. This minimum level of provision (8.7ha) will need to be exceeded if the precinct is to satisfy the Council requirement for at least 14.6 ha of public open space. Ways of addressing this requirement will be identified in detailed precinct plans.

The open space proposed in the Indicative Structure Plan is shown in Map 5. Details are discussed in the following sections.

6.6 Meeting needs for sporting facilities

6.6.1 Playing fields

As discussed in Section 3.3, existing sports fields in Hornsby Shire are already being used to capacity and have limited ability to absorb the additional demand likely to be generated by the South Dural development. Council staff have advised that this development will need to meet its own needs for active open space, rather than rely on facilities in the surrounding area. Preferably these needs should be met within the development in order to satisfy accessibility principles and provide opportunities for local community interaction, rather than off-site in the surrounding area.

Based on existing levels of provision in Hornsby Shire outlined above, the forecast population of 7,700 people will generate a need for two (soccer sized) sports fields.

Ideally, the two fields should be co-located to create a cricket wicket between them and allow for overlay of cricket oval or other large format sporting codes. Co-location of the two fields promotes economies of scale for amenities, and is better able to support sporting competitions, multiple teams and training arrangements. The size and layout should be adequate to accommodate use by various codes and seasonal variations, requiring a site of around 4ha minimum to allow for setbacks, parking, amenities and some passive open space.

The urban designers have sought to identify a site within the Precinct which is capable of satisfying these requirements, but have been unable to do so, because of the steep sloping topography of the site and fragmented land ownership. However, a site capable of accommodating a single playing field (120m x 80m) has been identified in the North West village, adjoining the vegetation and APZ area between the two branches of the riparian corridor. This is subject to detailed design due to terrain and surrounding vegetation. There is also potential to create another large kick-about area as an informal active recreation area in the part of the North West Village closest to Round Corner. There may be other opportunities to create additional areas for active recreation in the other precincts as they undergo detailed planning and design.

In addition to the above, a suitable location off site may be sought for a further full size playing field, or contributions made towards the further embellishment of an existing playing field to enable it to provide for more intensive use (for example, through the use of synthetic surfaces).

6.6.2 Outdoor court sports

Courts for court sports such as tennis and netball are usually provided in clusters to meet district competition needs, rather than as single courts scattered throughout a development.

The proposed population will not be large enough to warrant enough courts to create a district cluster within the site. Instead the population will rely on existing facilities in the surrounding areas.

Consideration should be given to providing some facilities for informal games (eg half basketball court) in the embellishment of local parks, to provide some active recreation opportunities for young people.

6.6.3 Aquatic and indoor sports

These facilities will not be required to be provided within the South Dural site, as the population will not be large enough to support them, and instead the population will rely on existing facilities in the surrounding areas.

6.7 Meeting needs for recreational open space

Indicative locations for local parks are shown in the open space plan at Map 5. Key features of the open space plan include:

- » Locations for parks have been selected to so that residents can have access to a park via a connected, walkable catchment area.
- » The parks have been equitably distributed to ensure that all residents will be within 4-500 m walking distance from an area of open to support accessible participation in recreation. This distance is indicated by the circles on the map.
- » Open space is located at the edge of and integrated with the vegetation/APZ line to promote opportunities for walking/running/cycling.
- » The open space has been designed to enhance the local topography and site features.
- » Council's requirement for parks with minimum size of 0.3 ha is recognised. Each village will contain a park with minimum size of 0.5ha.

It is too early in the planning process to identify the particular facilities to be included in each of the various parks. In addition to the design requirements of Hornsby Shire Council, parks within the Precinct should reflect the range of needs and principles identified previously in this chapter. This includes providing for a diversity of recreation experiences which complement each other and provide opportunities for a variety of age and ability groups. It also means providing equitable and safe access and linking areas of open space through a network of walking and cycling tracks. The major parks should include seating, shelters, picnic and barbecue facilities, water and toilets in line with Council requirements.

Playgrounds

Playgrounds encourage children to engage in non-organised physical activity and provide important community meeting places that encourage social interaction and assist social cohesion. Based upon a common standard of around 1 playground per 1,300 residents, South Dural is likely to require about six playgrounds. These should be provided across the precinct, with at least one in each village, according to Council's preferred hierarchy, to include:

- » Larger playgrounds catering to both young and older children within the larger parks, along with picnic and barbecue facilities to meet the need for "something for everyone" family activities;

» Local playgrounds with more limited facilities in local parks.

These playgrounds should collectively provide a range of play environments for children of various ages and a range of play experiences, including challenging play opportunities for older children. Each play area should offer a different experience, and provide fencing if adjacent to water, road, or steep slope, seating, shade, and drinking water.

6.8 Linear open space

As noted above, the site provides opportunities for an extensive network of paths and trails, utilising linear open space in the APZs adjacent to bushland and riparian corridors. This will provide safe and effective linkages to local facilities in the neighbourhood and facilitate walking and cycling, in line with the likely activity preferences of the population.

The dimensions of the linear open space will be dependent on opportunities associated with vegetation and topography, and subject to detailed design in subsequent stages of the planning process.

Ideally, the linear open space should provide:

- > Walking and cycle tracks / paths,
- > Disabled access where possible,
- > Shade shelters and water bubblers at key locations and gathering points,
- > Multigenerational play / exercise equipment and play environments, including adventure play, linked along pathways,
- > Directional maps along the pathway network,
- > Minor bridge crossings where required.

7 Conclusions

This study has considered the social infrastructure needs likely to be generated by proposed development of the South Dural Precinct, and the ways in which those needs will be addressed.

Overall, a forecast of population of around 7,700 people is considered to provide a small catchment that will create only modest demands for community facilities and human services. It is proposed that demand for local government community and library facilities will be met by augmenting existing facilities in Galston and Cherrybrook, in line with Council's *Community and Cultural Facilities Strategic Plan* and Section 94 development contributions requirements. Existing public primary and high schools to the north of the site will be able to accommodate forecast population growth. No new Council or State Government facilities are proposed to be located within the site.

Needs for commercial and non-government facilities such as childcare and medical centres can only be established later in response to market demand, and are permissible uses within residential zonings.

The development will not be large enough to warrant the provision of higher order district and regional level facilities and services, and will instead rely on those provided in the wider area, particularly in Castle Hill Town Centre and Cherrybrook.

Accordingly, the Indicative Structure Plan for South Dural has not identified any sites for community facilities.

In terms of open space, sport and recreation facilities, the extensive bushland and riparian corridors that bisect the site present opportunities to create a network of adjoining open space that will include parks and linear connections suitable for walking, cycling and a range of informal recreation activities, in line with the likely needs of the future population.

At this stage in the planning process, indicative locations only for public open space have been identified. The detailed design and quantification of public open space will be undertaken in subsequent stages of the planning process. Commitments at this stage include:

- » All dwellings will meet minimum requirements of being within five minutes walking distance from open space.
- » Each village will contain a park of minimum 0.5 ha.

Based upon existing levels of provision in Hornsby Shire, the future population will also generate a need for two playing fields. There are challenges in addressing this need within the precinct, associated with its steep topography and fragmented pattern of land ownership. A potential site for one playing field has been identified in the North West Village, and there may be opportunities to create a second playing field as the detailed design of open space in the other villages is undertaken. Alternatively, a suitable location off-site may be sought for a further playing field or the upgrading of an existing playing field.

Again the population will not be large enough to support its own district and sub-regional sport and recreation facilities, and will instead rely on those in the surrounding area, especially with regard to sports courts, indoor recreation centres and aquatic facilities.

Appendices

A Demographic analysis

A Demographic analysis

	SA 1129723 and SA 1129403	Hornsby(LGA) 2011	Greater Sydney 2011
Population 2011	540	156,847	4,391,674
Age groups	%	%	%
0-4 years	1.7	6.1	6.8
5-14 years	9.3	13.3	12.4
15-19 years	5.0	7.2	6.3
20-24 years	5.0	6.4	7.0
25-59 years	29.3	47.0	49.6
60-74 years	28.9	12.8	11.8
75+ years	21.3	7.1	6.0
Median Age (years)	47 / 71*	39	36
Household structure	%	%	%
Families	59.0	80.1	73.1
Single / lone person	39.8	17.7	22.6
Group	1.2	2.2	4.3
Average household size	2.3 / 2**	2.9	2.7
Family Households	%	%	%
Couple with children	29.8	55.7	48.9
Couples without children	55.6	31.3	33.5
Single Parent families	14.6	11.8	15.7
Cultural background	%	%	%
Indigenous	0.7	0.3	1.2
Overseas born	20.6	38.5	40.1
Country of birth (5 most common)	England 3.3 Lebanon 2.0 Italy 2.0 Philippines 1.5 New Zealand 1.3	China 4.7 England 4.4 India 3.2 Korea, Republic of (South) 2.3 Hong Kong 2.3	England 3.5 China 3.4 India 2.0 New Zealand 1.9 Vietnam 1.6
Speak a language other than English at home	5.9	31.6	37.5
Income and employment			
Unemployed	1.6	4.8	5.7%

	SA 1129723 and SA 1129403	Hornsby(LGA) 2011	Greater Sydney 2011
Median household income (weekly)	\$890	\$1,824	\$1,447
Housing type and tenure	%	%	%
Low density	60.6	75.5	60.9
Medium density	4.7	7.6	12.8
Higher density	0.0	16.5	25.8
Other type	23.7	0.3	0.5
Home ownership (owned outright and with mortgage)	47.8	76.7	65.2
Rented, includes:	20.2	20.3	31.6
» Rental Private (a)	9.7	17.3	25.1
» Social housing (b)	2.8	2.0	5.2
» Other (c)	6.5	0.5	0.8
Other tenure type (d)	28.3	1.4	0.8
Same address 5 years ago	50.2	58.7	56.7
Car ownership and internet access	%	%	%
Do not own a car	3.1	2.4	12.1
Level of disadvantage			
SEIFA Index of Disadvantage (2011)		1,085.2	1011.3

Source: ABS 2011

*median age for SA 1129723 is 47 / median age for SA 1129403 is 71

**average household size for SA 1129723 is 2.3 / average household size for SA 1129403 is 2

- a) Comprises properties rented through Real Estate Agencies and dwellings being rented from a parent/other relative or other person
- b) Comprises properties rented through State housing authorities and housing co-operatives/community/church groups
- c) Comprises dwellings being rented through a 'Residential park (includes caravan parks and marinas)', 'Employer - Government (includes Defence Housing Authority)' and 'Employer - other employer'.
- d) Includes dwellings being occupied under a life tenure scheme



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